

COMMUNITY VISION PLAN

FOR THE HIGH LINE CANAL



HIGH LINE CANAL
CONSERVANCY

Charting Our Course for the Next Century

April 2017

Dear Friends of the High Line Canal,

As passionate stewards leading the protection and future planning for the High Line Canal, it is with great enthusiasm that we present this Community Vision Plan for the High Line Canal. This document is the embodiment of hours of strategic thinking and great commitment from many stakeholders and citizens. It is **the critical first step toward protection and enhancement of the Canal as a regional greenway that will endure for generations to come.**

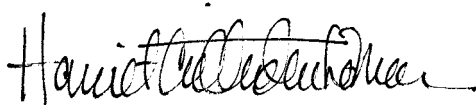
Over six months during our public outreach and vision planning initiative, we spoke with thousands of people who are passionate about preserving the historic 71-mile High Line Canal. It's been gratifying to hear the chorus of voices, representing all 71 miles of the Canal, uniformly say they want the Canal preserved and enhanced as a natural refuge. The Canal's ribbon touches multiple diverse communities and it is their common passion and commitment that built this powerful Vision Plan.

The Community Vision Plan for the High Line Canal represents a model of regional cooperation—led by an effective partnership between the High Line Canal Conservancy, Denver Water, and representatives from every jurisdiction along the Canal's reach, all actively and eagerly at the table. We want to applaud our terrific partners, without whom this plan would not have been possible. The leadership at Denver Water has not only financially supported this public outreach process, but their dedication and critical guidance is what has made it a success. Arapahoe County's commitment to multijurisdictional leadership set the stage for this effort through the early formation of the High Line Canal Working Group, and their vision and willingness to leverage their open space funds has made this Vision Plan possible.

We loudly applaud the hours and funds dedicated by each of the governmental jurisdictions that border the Canal. In addition, the Conservancy Board and Council of Advisors have provided the critical citizen leadership they originally envisioned and then guided the entire process, all with a passion and commitment to the Canal we love. We also thank Great Outdoors Colorado (GOCO) and the Gates Family Foundation, along with our private Founding Partners, who helped fund the effort, and additionally, the consultants who brought their expertise and creativity to the process. Finally, we thank all the citizens of the metro area who participated in the writing of this Vision Plan.

It is only through these varied voices and efforts that we have been able to produce this transformational regional vision for the future of our historic and beloved High Line Canal.

We hope this Vision Plan will serve as a tool for the next century, guiding all decisions, improvements, maintenance, and projects related to the High Line Canal. We hope you are inspired as you read this Vision Plan and will continue to work with all of us to see this vision become reality. Stay tuned!



Harriet Crittenden LaMair
Executive Director
High Line Canal Conservancy



Nina Beardsley Itin
Board Chair
High Line Canal Conservancy

February 21, 2017

Dear Friends of the High Line Canal,

I'm writing to outline Denver Water's active role in and support for preserving the High Line Canal as one of the crown jewels of the metro region for its environmental and recreational values.

As the owner of the High Line Canal corridor property and related water rights, Denver Water delivers water to irrigation customers and undertakes general maintenance of the corridor. However, the primary function of the canal has evolved over the years. The Canal has a junior water right, and so we can't deliver water in dry years. The Canal also loses most of its water to seepage, which is not the most effective way to deliver water. Finally, the number of customers on the Canal has gradually declined over the years. At the same time, the Canal corridor property has become a much more heavily used and valued recreational and environmental resource.

Over the past year, Denver Water has actively partnered with the High Line Canal Conservancy, and a number of governmental organizations along the Canal to develop the *High Line Canal Vision Plan*. With unprecedented community engagement, the Conservancy brought together thousands of residents from all over the region and inspired them to "think big" about their vision for the Canal's future. This open, broad, and inclusive process is the foundation of the *Vision Plan* for the High Line Canal. The *Vision Plan* identifies potential alternative concepts for the Canal's future.

Developing a master plan is the next step in providing necessary form to those concepts. In addition to articulating more specific implementation of the *Vision Plan* including common priorities for the Canal as a whole, the master plan will explore potential funding and management options. Denver Water will remain an active partner in refining these options.

In parallel, we remain committed to working with existing customers to convey water for irrigation, and to explore their long-term needs. Additionally, we are partnering with local governments and jurisdictions – including Urban Drainage and Flood Control District – to evaluate, test and potentially implement storm water management utilizing the High Line Canal. This could be an innovative way to develop "green infrastructure" for the metro region consistent with the Canal's values and uses.

We look forward to continuing to work with the Conservancy and each of you as we explore these multiple beneficial uses of the High Line Canal.

Sincerely,

James S. Lochhead
CEO/Manager



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Executive Summary

“It is through close and intimate contact with a particular patch of ground that we learn to respond to the earth, to see that it really matters. We need to recognize the humble places where this alchemy occurs, and treat them as well as we treat our parks and preserves—or better, with less interference...

Everybody has a ditch, or ought to. For only the ditches—and the fields, the woods, the ravines—can teach us to care enough for all the land.”

- Robert Michael Pyle, Prologue to *Thunder Tree*



The Community's Vision for the High Line Canal

The High Line Canal Conservancy and Denver Water, in close collaboration with a host of regional partners, facilitated unprecedented community engagement throughout the course of 2016 to develop this Vision Plan. Dubbed “Adventure on the Canal: Charting our course for the next century,” the process asked the public and governmental partners to consider how they view the long-term purpose of the Canal and its environmental and recreational resources. Bringing together thousands of residents from all over the region, this initiative inspired participants to think big about their vision for the Canal’s future.





VISION STATEMENT

The High Line Canal's 71 meandering miles will be preserved and enhanced as a cherished greenway that connects people to nature and binds varied communities together from the foothills to the plains.

As is the case with the more worthwhile journeys in life, "Adventure on the High Line Canal" began with establishing the context of the scene (the Canal) and featured characters (its wildlife and communities). Along the way, it offered various choices, bends, and forks. Ultimately, it concluded with a satisfying resolution—a vision that captures the community's hopes and dreams for the future. This vision is embedded in the vision statement and guiding principles.

GUIDING PRINCIPLES



NATURAL

To preserve the natural character of the Canal, ensuring it continues to be a natural refuge for the region's population and wildlife. The Canal's natural, scenic beauty is integral to its identity.



CONNECTED AND CONTINUOUS

To maintain and increase the connectivity of the Canal along all 71 miles, preserving and enhancing the Canal's use as an important continuous resource and part of the regional environmental and trail network.



VARIED

To respect the variety of communities and experiences along the Canal and to preserve its various physical characteristics of the different character zones through the course of its 71 miles.



MANAGED

To work together in order to preserve and support a long-term, sustainable future for generations to come. Our Canal is a critical, cherished asset for the region.



ENHANCED

To enhance the enjoyment and use of the Canal in keeping with its natural and varied character.

A Varied Experience: The Canal's Five Character Zones

The Canal crosses many different communities and ecosystems, each offering a different experience. Celebrating this diversity, the character zones recognize the distinct sections along the Canal.

Mile 0
Diversion
Structure

Canal Trail starts here

Wild Canyon



Rolling Foothills



Wooded Village



Urban Refuge

CITY AND COUNTY
OF DENVER

DENVER

AURORA

CHERRY
HILLS
VILLAGE

CHERRY CREEK
STATE PARK

GREENWOOD
VILLAGE

LITTLETON

South Suburban
Parks &
Recreation
District

CENTENNIAL

Highlands Ranch
Metro District

CHATFIELD
STATE PARK

In this section, you will pass through rural landscapes and established and growing neighborhoods. Spectacular views await around almost every corner!

The Canal's beginning in the foothills of the Rockies is its most rugged, wild section—a place to explore and look for wildlife including bears and bighorn sheep.



Prairie Retreat



The northern stretch features prairie landscapes with spaces along the Canal to connect with others, play, and learn.

In this section, the Canal is a natural refuge—but never far away from urban amenities. Here you'll pass schools, intersect with other trails and parks, and see a variety of housing.



This zone is a shady, peaceful retreat for neighborhoods with well-maintained trees and other vegetation, and proximity to preserved conservation land.

High Line Canal Quick Facts

Date of origination: 1880s

Length: 71 miles

Total area: 860 acres, slightly larger than New York's Central Park

Owner: Denver Water owns and operates the High Line Canal

Jurisdictions: The course of the Canal touches Adams, Arapahoe, Denver, and Douglas counties, passing through Aurora, Centennial, Cherry Hills Village, Denver, Greenwood Village, Highlands Ranch Metro District, Littleton, and South Suburban Parks and Recreation District.

Number of street intersections: 98

Residents within one mile: well over 350,000 residents

Annual number of people who use the Canal recreationally: more than 500,000

Adjacent to 72 different green spaces ranging from pocket parks to state parks with a total sum of 8,226 acres

Home to 199 species of birds, 28 species of mammals, and 15 species of reptiles

23,677 trees (including some with trunks less than six inches in diameter*)

* Source: Tree Inventory (preliminary data)

BIG Reasons to Support the High Line Canal Vision

The Canal was originally constructed as an irrigation ditch used by surrounding farmlands. Over time, the farmland has given way to residential subdivisions, and water conservation has also grown more important in an era of increasing scarcity and demand for water supplies. The historic Canal has always faced challenges as an irrigation delivery system due in part to its water right's junior priority date and high rate of seepage and evaporation. Yet, as the Vision Plan's guiding principles articulate, the Canal's natural beauty, environmental benefits, and recreational value make it a treasured resource. Today, as the Denver region experiences unprecedented growth in numbers and in diversity, and as water is a limited precious resource, the High Line Canal is a prime example of how we, as responsible stewards, must look at the future differently than the past.

Just as every great story is a journey that sparks imagination and excites the mind, the Community Vision Plan for the High Line Canal illuminates a series of powerful ideas about the future of this great resource that directly address some opportunities and challenges the region is experiencing. Here are BIG reasons to support this Vision Plan.



An Experience Like No Other

The High Line Canal extends from the foothills of the great Rocky Mountains to the expansive prairie stretching to the distant horizon. Along the way, this connective thread weaves through different ecosystems and communities. Now, and in the future, the Canal offers residents and visitors the unique experience of exploring the incredible mosaic of people, places, and wildlife of the region.

An Impressive Reach ... #71 Miles

The High Line Canal was designed to stretch 71 miles, all the way from Waterton Canyon to just shy of Denver International Airport. Comprising nearly 860 acres of land area (larger than Central Park in New York City), the Canal system connects 8,226 acres of other open spaces and passes through 11 different jurisdictions including cities, counties, and special districts, touching many parts of the metro area.

A New Life for a Regional Legacy

Communities across the country and around the world are creatively repurposing obsolete and abandoned infrastructure for broader benefits. The High Line Canal's diverse attributes—its rich history, cultural significance, unique ecology, and recreational potential—make it an unprecedented and multi-beneficial opportunity for the metro region.



Communities Working Together

Tackling the challenges of a growing region requires different ways of thinking, increased collaboration, and new types of partnerships. The Community Vision Plan for the High Line Canal represents a model of regional cooperation—led by an effective partnership between the High Line Canal Conservancy and Denver Water, and supported with representatives from every jurisdiction actively and eagerly at the table.

An Inclusive and Passionate Conversation

Thousands of community members, including representatives from the local jurisdictions, actively participated in the writing of the Vision Plan. They came to open houses, filled in online surveys, participated in community events, engaged along the Canal itself, and welcomed focused discussions in their meeting rooms and neighborhoods. The process promoted awareness of the Canal as a resource and created a shared understanding of its future.

The Community's Voice in Shaping the Vision

To establish a vision for the Canal's next one hundred years, this process engaged a broad range of Canal users—walkers, equestrians, families, nature-lovers, bicyclists, and others who use the Canal every day—and explored a wide array of opportunities.

Adventure on the High Line Canal—branded to express a spirit of journey and an ambition to write a powerful forward-looking story—was a diverse, fun series of forums for public engagement and meaningful input. The planning team structured a community outreach process that involved multiple tactics: Community Open Houses, online surveys, Strategic Input Sessions with key stakeholders, City as Play events,¹ and attending existing community events. Thousands of community members and stakeholders participated.

In addition to gathering and synthesizing community feedback into a compelling vision, the process also served to increase awareness of the Canal and share more about the Canal's special story. This range of outreach opportunities was developed to reach the broadest possible range of community members, including both current trail users and others who were previously unaware of the Canal.

¹ The City as Play events offered an entirely different method of engagement: using the act of play as a method to explore potential futures for the Canal, focusing on underrepresented populations. City as Play is a civic engagement technique developed by James Rojas, an urban planner who lives in Los Angeles. It involves art supplies and objects found around the home and invites people to build something in response to a prompt and then describe it to others.





A Summer of Outreach along the Entire Reach of the Canal

Participation in more than 70 community events to share news and generate excitement about the process, engaging more than 3,500 people

“‘One big resource’ for the metro area”— a front-page article in Denver Post, with a weekly readership of more than a million¹

Walking movement leaders who walked the Canal—55 community members walked multiple sections, 7 of whom walked all 71 miles

12 Community Open Houses, totaling more than 1,200 attendees

2 Online surveys with nearly 500 responses

8 Strategic Input Sessions reaching more than 40 leaders

2 City as Play events with 125 children



¹ The Denver Post has 1,016,547 weekly print and online readers. Source: <http://www.dpmedia.co/>

VISION

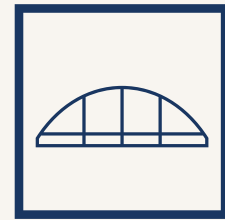
The High Line Canal's 71 meandering miles will be preserved and enhanced as a cherished greenway that connects people to nature and binds varied communities together from the foothills to the plains.

GUIDING PRINCIPLES



Natural

To preserve the natural character of the Canal, ensuring it continues to be a natural refuge for the region's population and wildlife. The Canal's natural, scenic beauty is integral to its identity.



Connected and Continuous

To maintain and increase the connectivity of the Canal along all 71 miles, preserving and enhancing the Canal's use as an important continuous resource and part of the regional environmental and trail network.

OBJECTIVES

Maintain the peaceful character of the Canal, so it continues to be a place for the region to connect with nature, from the foothills to the plains

Identify sustainable, responsible water sources for the continued nourishment of the Canal's trees and vegetation, and transition to tree species that require less water to thrive

Protect and enhance wildlife habitat and environmental health of the Canal

Preserve and enhance open space along the Canal, including identifying opportunities to protect adjacent open spaces to create larger habitat areas

Employ environmentally sustainable practices in landscape management and Canal maintenance to assure overall health and public safety

Protect important viewsheds to landmarks and natural landscapes

Enhance connectivity along the Canal by closing gaps and upgrading crossings

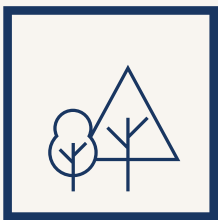
Enhance connections from the Canal to other trail networks, further strengthening the regional trail network

Provide safe connectivity for all types of users: walkers, bikers, equestrians, joggers, dog-walkers, and more

Strengthen safe access to and from local neighborhoods, schools, parks, and other amenities

Minimize future interruptions of the Canal experience such as new vehicular crossings

Maintain a continuous wildlife and ecological corridor



Varied

To respect the variety of communities and experiences along the Canal and to preserve its various physical characteristics of the different character zones through the course of its 71 miles.

Acknowledge that there exists diverse communities,¹ trail character zones, and ecosystems along the Canal:

- The wild canyon (Waterton Canyon)
- The rolling foothills (Douglas County and Highlands Ranch Metro District)
- A wooded village (Cherry Hills Village, Greenwood Village, Littleton, Centennial)
- An urban refuge (Denver and unincorporated Arapahoe County)
- A natural retreat in the prairie (Aurora and Denver's Green Valley Ranch)

As change happens, support enhancement and protection of unique characteristics of each character zone to best suit each zone's needs

Provide equity of experience and opportunities along the length of the Canal for the varied communities

Promote appropriate habitat caretaking in the Canal's different ecosystems

Encourage and promote continued public engagement and local leadership involvement throughout the many Canal-adjacent jurisdictions



Managed

To work together in order to preserve and support a long-term, sustainable future for generations to come. Our Canal is a critical, cherished asset for the region.

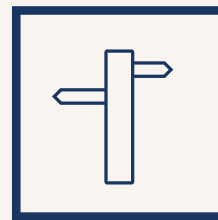
"MANAGEMENT" IS BOTH OPERATIONAL AND PHYSICAL

Operational

- Establish a clear model for long-term management with a sustainable funding source (both monetary and in-kind)
- Strengthen regional, county, municipal, and community partnerships to advance the vision
- Provide a role for citizen input and stewardship
- Increase use, safety, and awareness of the Canal in underused areas, including coordination with law enforcement
- Promote a unified brand with common themes and approaches to management along the Canal (e.g., mile markers, maps, signage, etc.)

Physical

- Model responsible water management practices and consider the Canal for stormwater management where feasible
- Plant drought-tolerant species that require less water and explore alternative irrigation methods
- Provide appropriate maintenance of the Canal's vegetation for safety and beauty while exploring options for fewer or different trees
- Provide ongoing maintenance for physical improvements such as trailheads, signs, and furnishings
- Provide an overall wildlife management plan consistent with regional and state authority plans



Enhanced

To enhance the enjoyment and use of the Canal in keeping with its natural and varied character.

Provide enhancements that are consistent with the Canal's vision

Increase awareness about the Canal and its story

Acknowledge and enhance views, landmarks, and special moments

Celebrate the Canal's history through education, historic preservation, and documentation

Enhance connections and awareness where appropriate from the Canal to nearby amenities like cafes, bicycle repair shops, and restrooms, while protecting the Canal from commercialization

Coordinate with new development to encourage design that supports the Vision Plan.

Provide basic infrastructure and facilities along the Canal where appropriate (e.g., trash cans)

¹The Vision Plan recognizes each of the jurisdictions along the Canal previously adopted local management and planning strategies that address uses and activities of the Canal within their jurisdictions, and the Vision Plan acknowledges and respects these differences.

Advancing the Vision

The Vision Plan is a community-driven, forward-looking story of what the Canal can be in the future when defined by a set of guiding principles and objectives. A series of strategies are outlined in “Chapter 4: The Way Forward” as a recommended path for implementing the Vision Plan. Importantly, “The Way Forward” considers many opportunities for continuing to preserve, protect, and enhance the Canal in

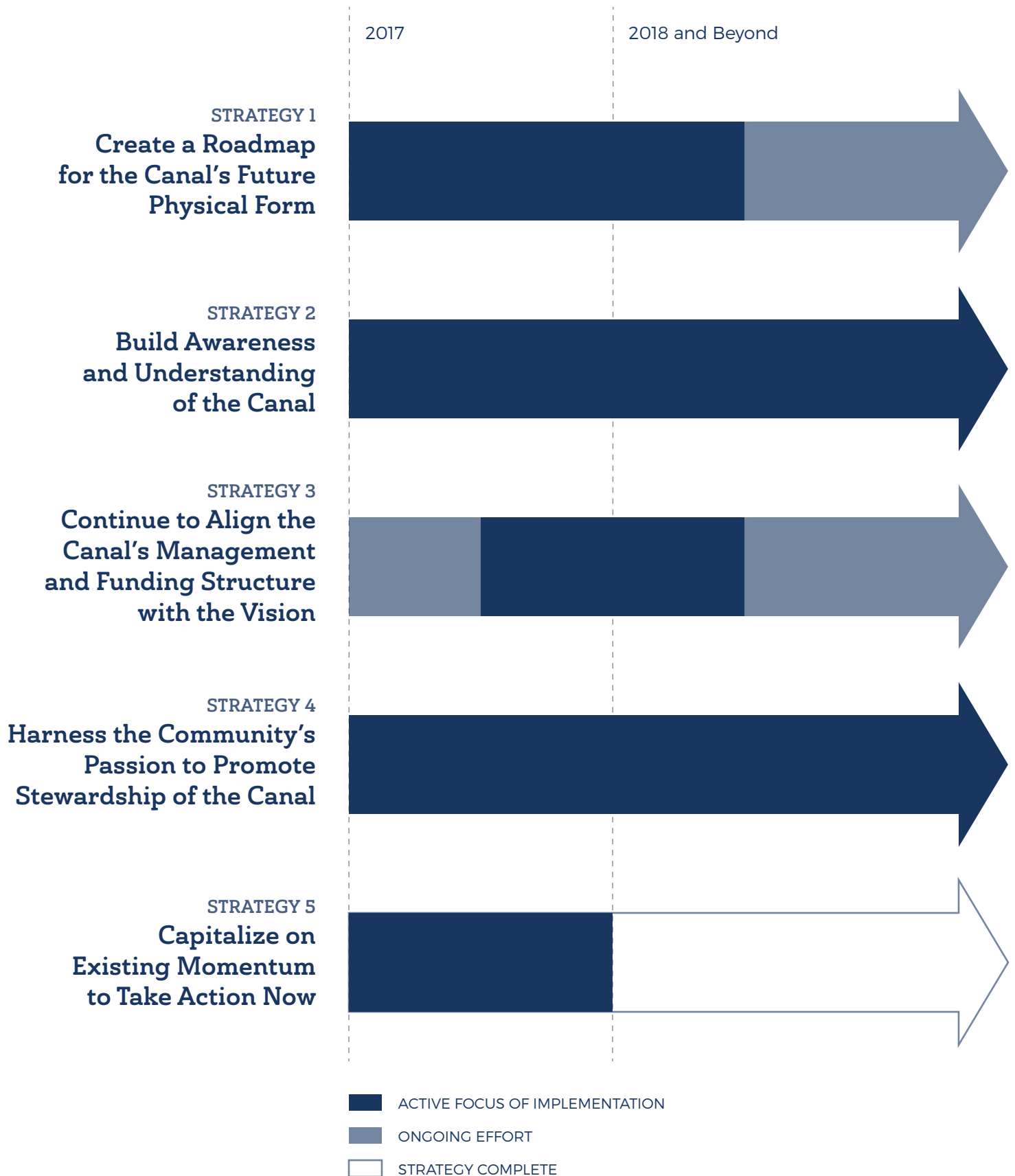
support of the vision—and recommends both short- and long-term actions to help guide prioritization of implementation. “The Way Forward” outlines a list of needs for the Canal that should be vetted by all stakeholders, recognizing the authority of the jurisdictions along the Canal, as well as the need for additional planning studies and practical on-the-ground projects.

What to Expect Next

The Community Vision Plan for the High Line Canal is now written and a collection of strategic actions have been recommended to move the Canal into an exciting new future. The following planning and implementation timeline shows the recommended next steps. These include additional planning efforts and technical studies, processes related to clarifying future management, coordination and funding opportunities, a series of quick-wins (or short-term implementation potentials), and other ongoing efforts.

Central to all of these initiatives moving forward is jurisdictional collaboration and the sense that the community and its voice will continue to be welcomed and heard. To achieve the incredible vision established by the community will take many years of hard work, cooperation, and creativity. It is a journey that will shape an incredible new legacy for the region—one that will inspire, connect, and nurture generations to come.

Recommended Implementation Framework





A large, leafy tree with a thick trunk, casting shadows on a path and grass. The tree's branches spread out, filling much of the upper half of the frame. The leaves are a vibrant green, and the trunk is a dark, textured brown. Below the tree, a dirt path leads into the distance, flanked by lush green grass. The overall scene is bright and sunny, with dappled light filtering through the leaves.

Vision Plan

Why plan now?

For more than a century, the High Line Canal has served a number of roles—a water delivery infrastructure, a unique ecosystem, and more recently, a recreational asset. The future of the Canal is in transition and depends on leadership, cooperation, and planning to preserve, protect, and enhance this resource for future generations.

The High Line Canal is at an important turning point in its history. Dug by hand in the late 1800s, the Canal was originally constructed as an irrigation ditch to bring South Platte River water to surrounding farmlands. Over time, the farmland has given way to residential subdivisions and the use of the Canal as an important recreational amenity has steadily increased. Water conservation has also grown more important in an era of increasing scarcity and demand for water supplies. At times, and in some areas, more than 70 percent of the irrigation water seeps out or evaporates before reaching a Denver Water customer. The irony is that the Canal’s “natural” character, which walkers, equestrians, runners, bicyclists, and others enjoy, benefits from the Canal’s high rate of seepage, which at the same time makes it inefficient for water delivery. Water seeping from the Canal has created its own ecosystem, and now, preserving this environment relies

upon understanding existing and potential new sources of water. This Vision Plan process began with an open view of the future of the Canal, and feedback from residents quickly showed that preserving the Canal’s natural character was the number one issue. As one resident put it, “We just want water in the Canal for the trees, flora, and fauna!” How can we be responsible stewards while also preserving the special character of the Canal?

The Canal continues to serve as a water delivery method for a fraction of its original water users. However, the recreational and municipal desires for use of the Canal have been growing since its maintenance path opened as a recreational trail for the region in the 1970s and adjacent residential developments began concentrating stormwater runoff. The primary uses of the Canal are clearly shifting away from irrigation water delivery and toward municipal stormwater and recreational use, requiring careful consideration of what actions are needed to ensure the Canal fully supports these uses and what characteristics of the Canal are important to preserve. This Vision Plan is the beginning of that process.

The VISION describes our desired future

1 Vision Statement

The overall aspiration for the future of our Canal; what we are working towards

5 Guiding Principles

Broad statements describing how we desire the Canal to be

Many Objectives

More specific, measurable targets in support of the principles

THE WAY FORWARD is the roadmap to bring that vision to life

5 Strategies

Recommended key actions to implement the vision and preserve, protect, and enhance the Canal

Many Supporting Actions

The individual action steps of each strategy

What is the Vision Plan?

The Vision Plan is a community-driven, forward-looking story of what the Canal can be in the future. It focuses on exploring all opportunities that will help to preserve and enhance the well-loved qualities of this wonderful environmental and recreational asset. The intent of the Vision Plan is to ensure the Canal reaches its greatest potential as an environmental, recreational, social, historic, and economic asset along all of its 71 miles. The Vision Plan includes opportunities for preserving and enhancing the Canal's character and identity, strategies for celebrating the different communities and landscapes along the Canal, and ideas for future actions and processes to engage communities, partner organizations, and governmental agencies. It also has revealed great interest in exploring the opportunities of stormwater as a benefit for the surrounding areas, preserving the Canal's natural character for future generations to enjoy.



A winter landscape with snow-covered ground and bare trees under a cloudy sky. The scene is dimly lit, suggesting an overcast day. The snow is unevenly distributed, with some areas appearing more covered than others. The trees are mostly without leaves, showing their intricate branch structures against the sky.

CHAPTER 1

The Canal Today

The High Line Canal was designed to stretch 71 miles, all the way from Waterton Canyon in Douglas County to far northeast Aurora near the Denver International Airport. The Canal includes an approximate 100-foot right-of-way—and this right-of-way stretching for 71 miles adds up to 860 acres, which is slightly larger than Central Park in New York City. The Canal connects 8,226 acres of other open spaces and passes through 11 different jurisdictions including cities, counties, and special districts. The Canal corridor has 5 major trail interruptions, 13 existing underpasses, 85 at-grade crossings, and 13 regional trail connections. This chapter examines the different challenges facing the Canal today.



High Line Canal and South Platte River leaving Waterton Canyon, 1912. Source: Denver Water (album 28_Page 80_#1109)

The Canal's Historic Legacy

From Origins of Irrigation, Evolved to Recreation

The Canal's historic legacy is one of the most unique and endearing features of this regional resource. The Canal was built as an irrigation ditch that follows the curves of the landscape's contours, extending along a high line, allowing it to stretch as far as possible to reach the greatest extent of irrigable land.

A gold rush in 1859 originally brought settlers and farmers to the Denver region. In 1870, Scotsman James Duff conceived the idea for the High Line Canal as an irrigation ditch to support farms east of Denver on the plains. Construction began in 1881; it was an engineering feat for its day, as it drops only 2 feet every mile (for a total of only approximately 140 feet dropped in 71 miles). The 71-mile Canal was completed in 1883, and crosses over and under streams as it winds through the Denver metro region. In these early days, the Canal irrigated 20,000 acres of land through 165 headgates. In 1924, Denver Water acquired the Canal from the Antero and Lost Park Reservoir Company.

Today it serves approximately 70 customers for landscape irrigation. Beginning in 1970, Denver Water opened the Canal to the public, allowing the public to use the existing maintenance road adjacent to the Canal for recreation.

The High Line Canal was originally created to support economic development through agriculture and farms, but because of its seepage and junior water rights, the Canal never reached its full potential as a reliable water supply system. Today, the Canal has evolved to have high value as a recreational trail.

Recently completed by Square Moon Consultants, the *Reconnaissance Survey and Prioritized Survey Plan: High Line Canal Corridor* begins to document the complex, varied, and rich history of the Canal. This document also includes recommendations for next steps for research, documentation, interpretation, and preservation.



Today, the Canal provides a recreational amenity and natural retreat for the region (Bible Park shown)

Historic Snapshot

1881: Canal construction starts

1883: Canal construction completed

1970: Sections of the Canal service road open to the public for recreational use

2002: Severe drought and Rocky Mountain Arsenal ponds no longer being served from the Canal result in a significant reduction in annual irrigation flows in the Canal

2010: High Line Canal Working Group forms

2012: Core Team forms

2014: High Line Canal Conservancy forms

An Engineering Feat:

The Canal drops approximately 140 feet in 71 miles.
(about two feet per mile)

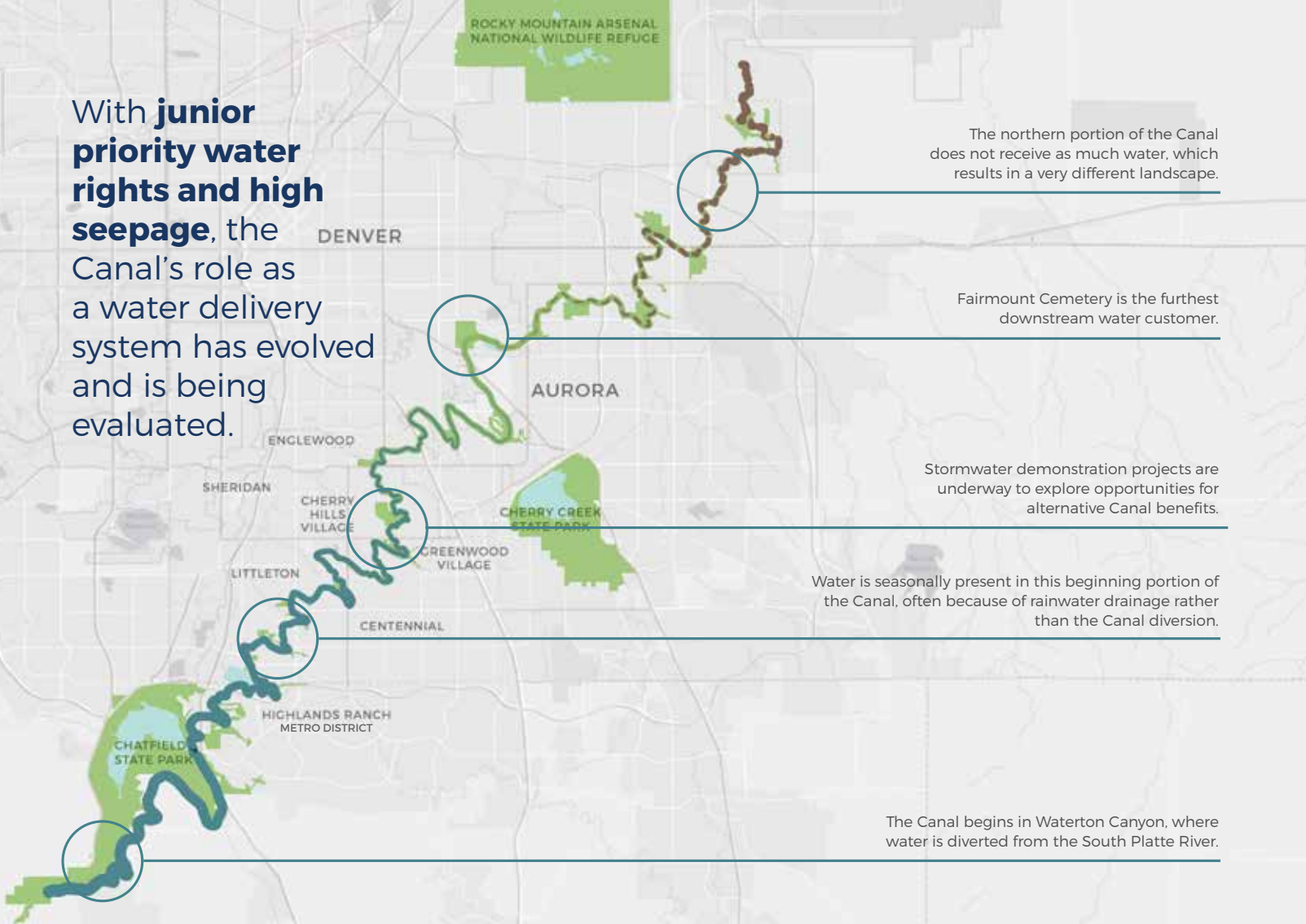
In comparison, the South Platte drops 600 feet in the 22 miles from Waterton Canyon to downtown Denver ¹

¹ DW Trail Guide



July 24, 1935,
High Line Canal
at Big Dry
Creek. Source:
Denver Water
(Album 42 Page
65 #4793)

With **junior priority water rights and high seepage**, the Canal's role as a water delivery system has evolved and is being evaluated.



The northern portion of the Canal does not receive as much water, which results in a very different landscape.

Fairmount Cemetery is the furthest downstream water customer.

Stormwater demonstration projects are underway to explore opportunities for alternative Canal benefits.

Water is seasonally present in this beginning portion of the Canal, often because of rainwater drainage rather than the Canal diversion.

The Canal begins in Waterton Canyon, where water is diverted from the South Platte River.

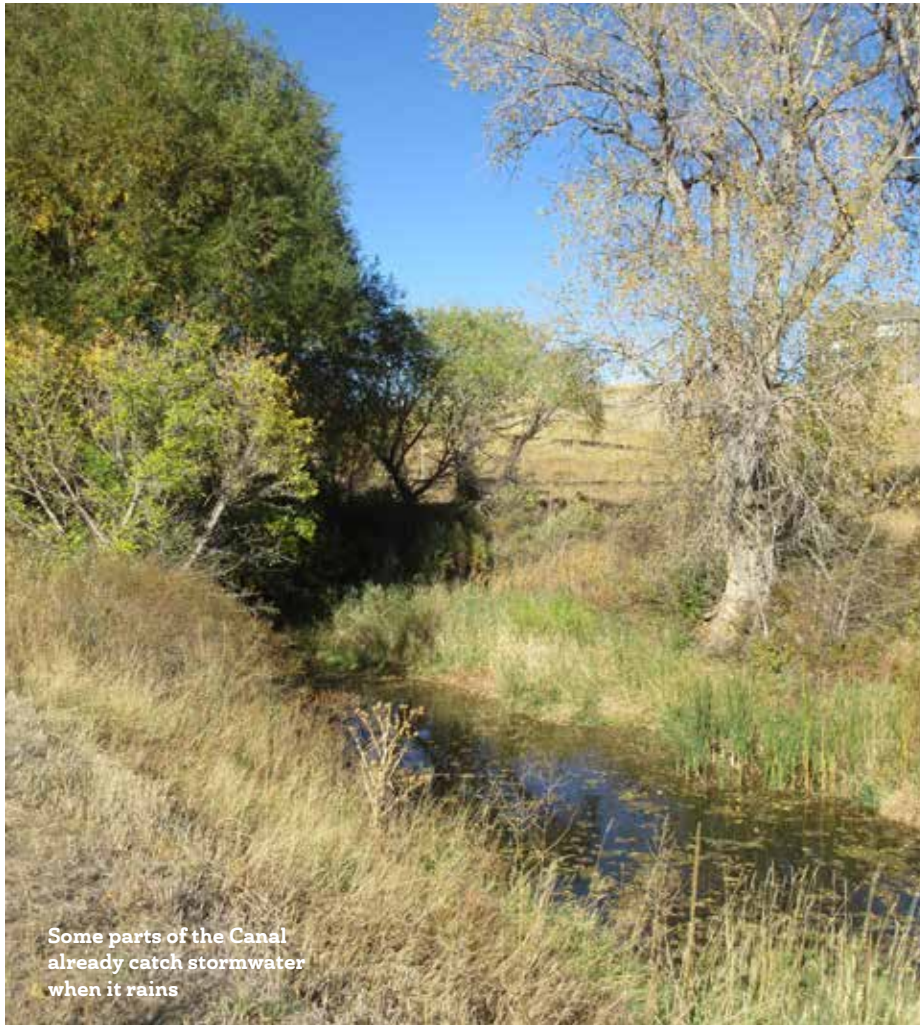
Water Context

The Canal's Biggest Challenge

The Canal exists in a regional semi-arid climate, with only 15 inches of average annual rainfall. The average regional high temperature is 64 degrees, and the average regional low temperature is 36 degrees; it is a high mountain desert region. The Canal begins in Waterton Canyon, where water is diverted from the South Platte River. With a junior priority water right and high seepage, the Canal's original role as a water delivery method for irrigators has been increasingly challenging as focus on increasing water demands and the critical need for water conservation has increased. Water rights in Colorado are prioritized based on date established. The Office of the State Engineer administers water rights to ensure water right priorities are protected. The older the right, the more senior it is. The Canal's water rights are considered to be junior rights, falling further down this statewide priority list. That is why the Canal receives little or no water during dry years. In drier years, more junior water right holders may be unable to take water from the South Platte.

Historically, the Canal has held water for an average of 132 days a year. However, the severe drought of 2002 pointed to the need for Denver Water to modify Canal operations in order to conserve supply. The Canal was originally constructed to deliver irrigation water to farms. It is used now primarily to deliver water to customers for lawn irrigation, and there are much more efficient ways to deliver that supply. Since the 2002 drought, the Canal has only held water for an average of 50 days a year, and may be operated even less frequently in the future as Colorado water resources become more limited.

Infrastructure challenges have also been an issue. For two years, dating from spring 2015, water was not released into the Canal because the diversion structure that directs water from the South Platte into the beginning of the Canal was severely damaged. Denver Water was able to repair the diversion structure in October 2016.



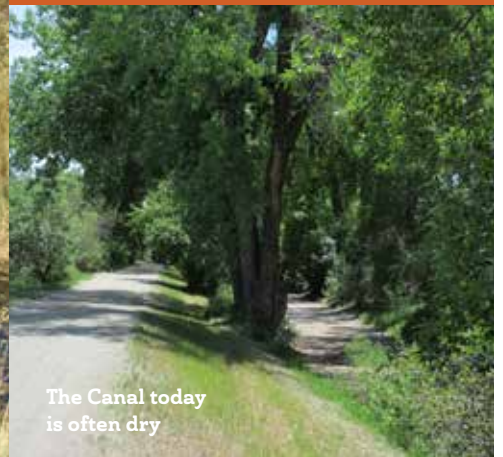
Some parts of the Canal already catch stormwater when it rains

Water Context by the Numbers

70% water loss before reaching customers (estimated)

70 remaining water customers with irrigation-only service contracts with Denver Water

15 inches average rainfall in the region



The Canal today is often dry

When the Canal is running, roughly 70 percent of the water evaporates or seeps out by the time it reaches Denver Water customers who use the water for irrigation. About 70 water users remain on the Canal; Fairmount Cemetery is the furthest water customer downstream.¹

Stormwater

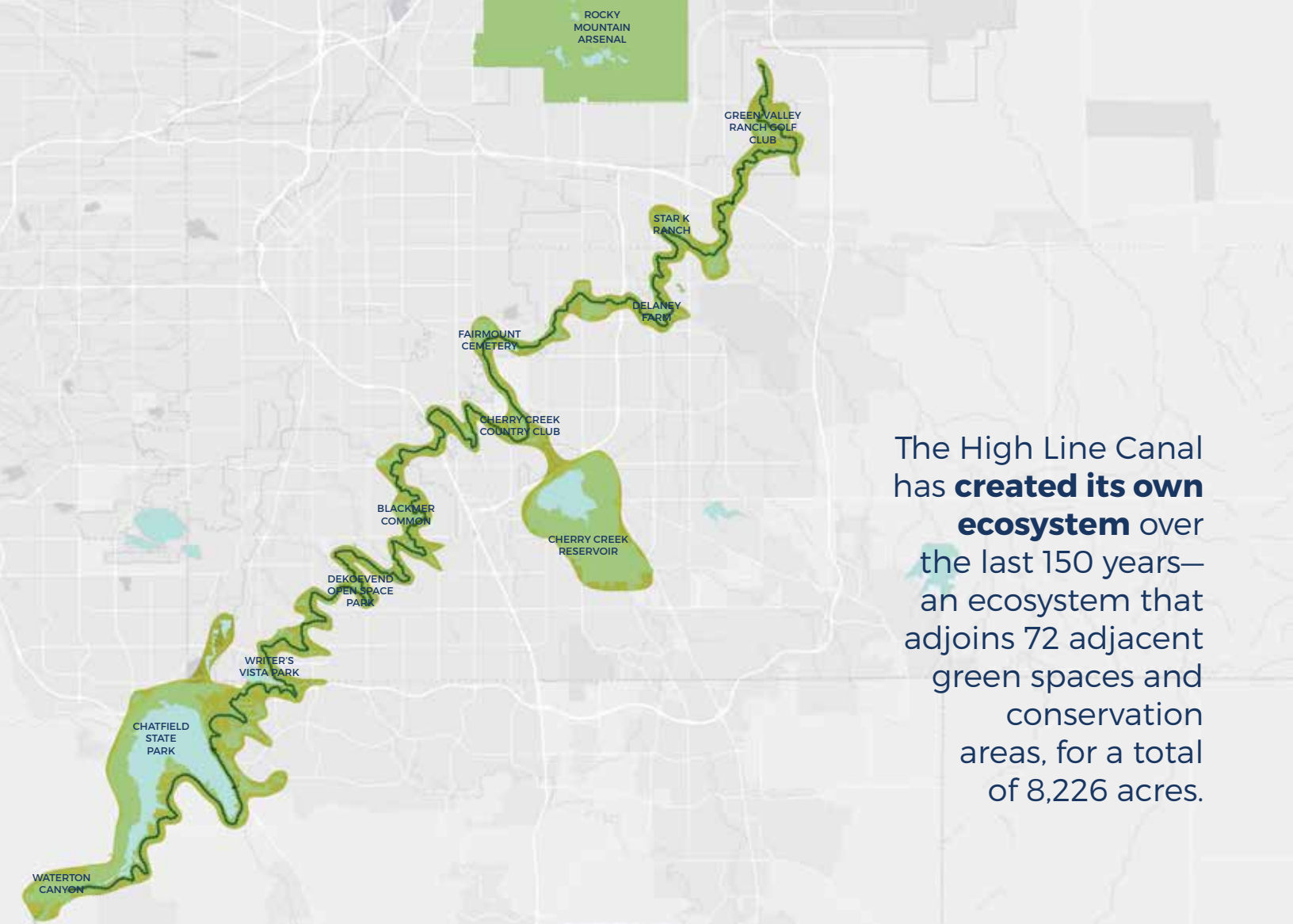
When the Canal was originally constructed in 1883 across mostly undeveloped land, stormwater entered the Canal from natural drainages and overland flow. The Canal has always carried this natural flow. Denver Water's current policy does not allow for stormwater flow modified from the 1883 baseline to enter the Canal. However, as development has occurred over the years, this flow has been modified, creating management challenges to operate the Canal and maintain its integrity.

Denver Water is considering whether the Canal could embrace additional use for stormwater management based on the potential benefits it might provide to municipalities and users of the Canal.

Stormwater demonstration projects are being considered to explore opportunities to improve conveyance and/or water quality to receiving streams. These projects were driven by a 2014 stormwater feasibility study. In addition to improving water quality, this study found that diverting stormwater into the Canal could result in 100 more wet days each year for the Canal.² Stormwater is technically possible in all reaches of the Canal; multiple demonstration projects are currently under consideration. One stormwater demonstration project is planned near Eisenhower Park. Here the Canal would serve as a bio-retention stormwater facility through the installation of a series of control structures that will detain stormwater, allowing for greater infiltration. Another potential stormwater demonstration project is located in Greenwood Village, ending in Centennial, an area well-suited for stormwater conveyance because stormwater is already entering the Canal and has an outlet nearby into Little Dry Creek.

¹ HLCC Tour Series 2 and 3

² 2014 HLC Stormwater Feasibility Study



The High Line Canal has **created its own ecosystem** over the last 150 years—an ecosystem that adjoins 72 adjacent green spaces and conservation areas, for a total of 8,226 acres.

The Canal's Unique and Varied Ecosystem

A Man-made Ecological Zone in the Plains

The High Line Canal has created its own ecosystem over the last 134 years, driven by the availability of water within the Canal itself. Seepage from the Canal and adjacent runoff into the Canal has provided water along the corridor, nourishing an ecosystem that would otherwise not exist. The Canal's beloved cottonwood trees found along the banks of the channel are not native to the region but commonly found along natural stream corridors. Looking ahead, cultivating native trees that are more drought-tolerant will preserve the natural character of the Canal, while also requiring less water.

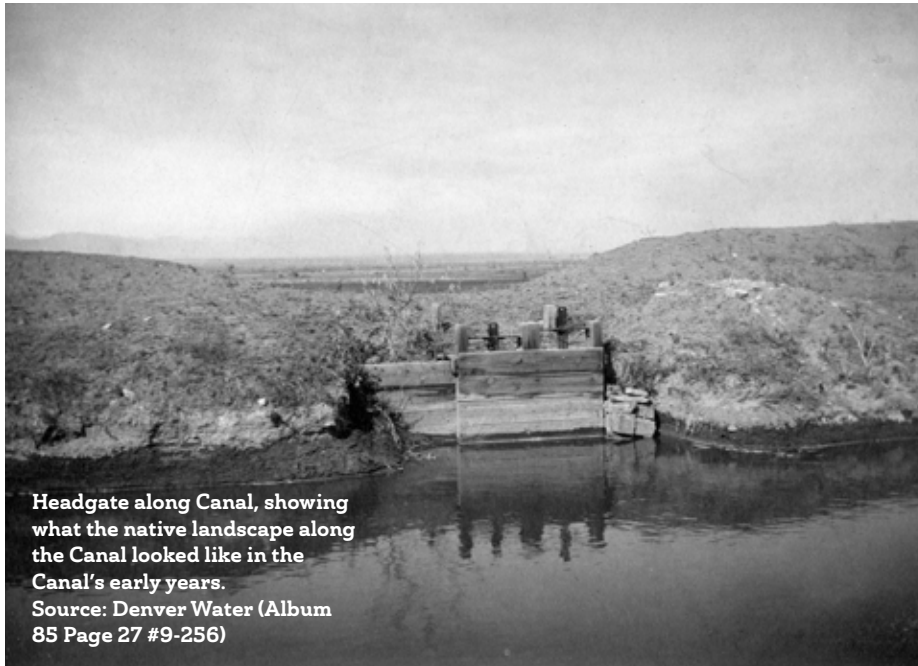
The Canal runs past 72 adjacent parks, open spaces, and conservation areas; in total, these areas and the Canal greenway add up to 8,226 connected acres. The Canal provides a home to 15 species of reptiles, 199 species

of birds, and 28 species of mammals—including foxes, coyotes, bears, deer, bighorn sheep, and prairie dogs.

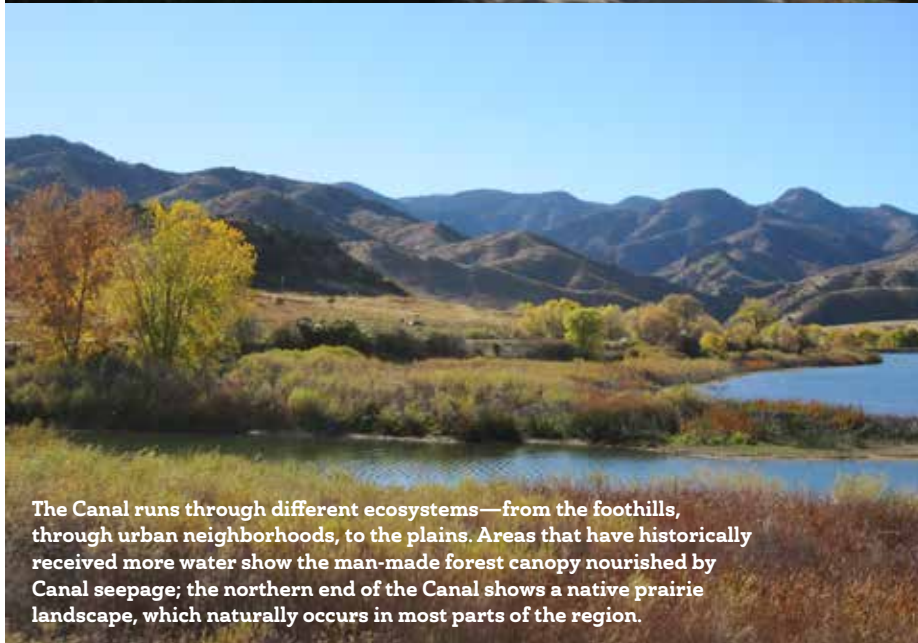
The region surrounding the Canal has a variety of land uses and conditions, including high, medium, and low levels of development, forest, shrub/scrub areas, grasslands, pasture, cultivated crops, and woody wetlands. The Canal lies near six different ecoregions (flat to rolling plains, moderate relief plains, foothill grasslands, pine oak woodlands, front range fans, and foothill shrublands)¹ and crosses more than a dozen watersheds.²

¹ EPA Eco-regions: <https://www.epa.gov/eco-research/ecoregion-download-files-state-region-8>

² USGS National Hydrology Dataset, Level 6 Watershed Designations. The Canal crosses watersheds including the South Platte Canyon, Chatfield Reservoir, Plum Creek, Dutch Creek – South Platte River, Big Dry Creek, Little Dry Creek, Cherry Creek-South Platte River, Sand Creek, Toll Gate Creek, First Creek, and Second Creek.



Headgate along Canal, showing what the native landscape along the Canal looked like in the Canal's early years.
Source: Denver Water (Album 85 Page 27 #9-256)



The Canal runs through different ecosystems—from the foothills, through urban neighborhoods, to the plains. Areas that have historically received more water show the man-made forest canopy nourished by Canal seepage; the northern end of the Canal shows a native prairie landscape, which naturally occurs in most parts of the region.

Environment by the Numbers

100-foot typical right-of-way, a total of about 860 acres overall (in comparison, New York's Central Park is 843 acres)

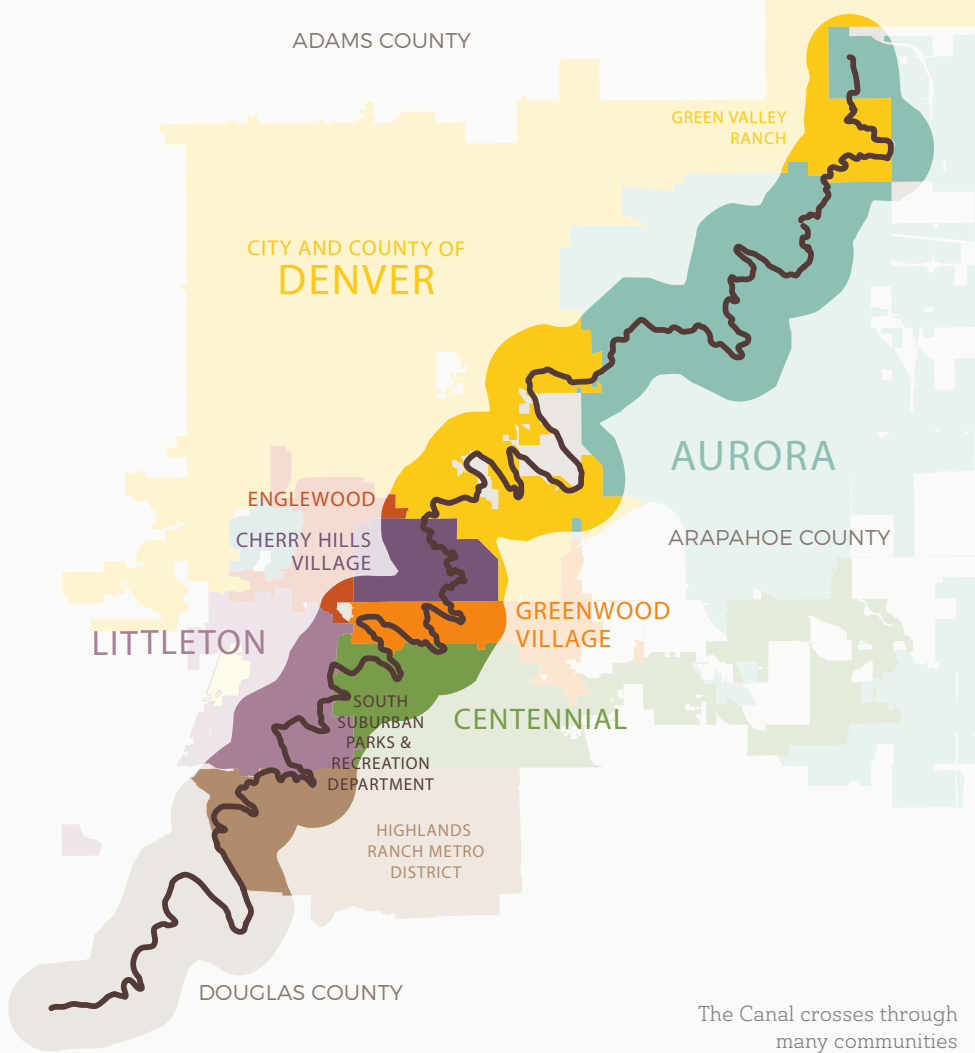
Adjacent to 72 different green spaces ranging from pocket parks to state parks, with a total sum of 8,226 acres

Home to 199 species of birds, 28 species of mammals, and 15 species of reptiles

23,677 trees

Data sources:
Denver Water Trail Guide, High Line Canal Conservancy; tree counts are preliminary numbers from the tree inventory undertaken in 2016.





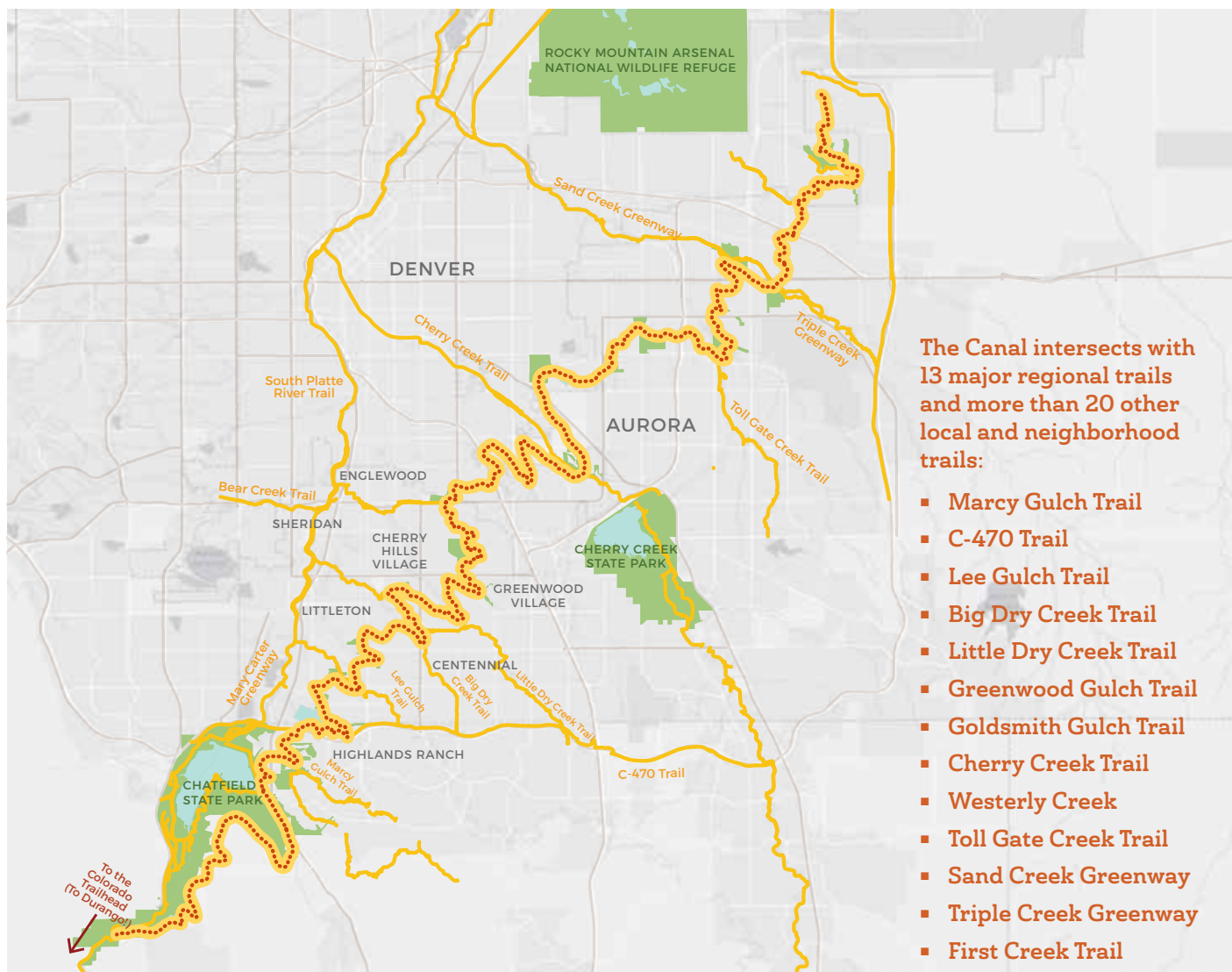
Regional Connector and Recreational Amenity

Connecting a Region through Recreation, Ecology, and Nature

The High Line Canal passes through 11 governmental jurisdictions, including four counties. Denver Water has recreation leases with 7 jurisdictions, including Aurora (11.2 miles), Cherry Hills Village (3.9 miles), Denver (17.6 miles), Douglas County (7.5 miles), Greenwood Village (5.6 miles), Highlands Ranch Metro District (7.2 miles), and South Suburban (9.7 miles). Denver Water maintains the 1.4-mile trail which doubles as a road in Waterton Canyon.

The Canal connects with 13 regional trails and more than 20 other local and neighborhood trails to create connections across the region, such as the Big Dry Creek Trail, Cherry Creek Trail, and others. The Canal corridor has 5 major trail interruptions, 13 existing underpasses, and 85 at-grade crossings. Enabling adjacent neighborhoods to access the trail are 68 pedestrian bridges.

The Canal faces two explicit challenges today related to connectivity, which the Vision Plan seeks to overcome: the challenge of providing access to the Canal for all neighborhoods, and the challenge of holistically connecting the Canal from start to finish. The Canal currently has several trail gaps and features many dangerous at-grade street crossings. Additionally, the trail is a converted maintenance road on one side of the waterway, which means any neighborhoods on the other side require a bridge to access the trail. Signage along the trail (and throughout the neighborhoods) is not adequate to alert residents to the Canal's presence nearby.



The Canal intersects with 13 major regional trails and more than 20 other local and neighborhood trails:

- Marcy Gulch Trail
- C-470 Trail
- Lee Gulch Trail
- Big Dry Creek Trail
- Little Dry Creek Trail
- Greenwood Gulch Trail
- Goldsmith Gulch Trail
- Cherry Creek Trail
- Westerly Creek
- Toll Gate Creek Trail
- Sand Creek Greenway
- Triple Creek Greenway
- First Creek Trail

Connectivity by the Numbers

Passes through 11 governmental jurisdictions

Within 0.25 miles of 28 public and private schools

64 Miles of trail with 1.75 miles of disruptions and 4.7 miles of proposed trail

- Hard surface (concrete, asphalt): 30.4 miles (43%)
- Hard proposed: 4.7 miles (7%)
- Soft surface (rough dirt, crusher fine): 33.5 miles (48%)

Data sources:
High Line Canal Conservancy
calculations and data

Major trail interruptions:

- Plum Creek: Mile 8.85¹
- Railroad crossing: Mile 10.19¹
- Santa Fe: Mile 12.5²
- Wellshire Golf Course: Mile 36.0
- Colfax to 40th Avenue (including I-70 and Smith Road/Union Pacific Railroad Tracks): Mile 61–64³

¹ The canal runs through private property from mile 8.9 to 9.3, and there is no maintained trail access between there and the bridge at mile 9.9. Douglas County has other trails in the area including trail connections in the state park nearby.

² Proposed underpass planned for 2019

³ The 3-mile section of the High Line Canal north of Colfax in Aurora and south of 40th

85 at-grade street crossings; some with no enhancements for bicyclists and pedestrians

13 existing underpasses (with 4 more planned or under development)

Avenue in Green Valley Ranch lacks a defined trail and is considered a gap in the Canal trail corridor. This section of Canal currently does not receive maintenance from the City of Aurora and contains multiple barriers including three at-grade crossings at Tower Road, an at-grade railroad crossing at Smith Road, no access across I-70, and fencing north of 38th Avenue. The City of Aurora has future plans to develop the High Line Canal Trail in this area and build an underpass under I-70 which would close this 3 mile gap.



Economic Driver

Prompting Economic Growth as a Regional Asset

While the High Line Canal was originally conceived as an economic development investment to support settlers and agriculture, it now serves another economic function: as a regional green space and recreational amenity. Research has shown that positive economic impacts due to greenways and park systems can be measured in a variety of ways, including tourism business, sales tax revenues, property values, and greenway-branded development. For example, visitors of the Little Miami Scenic Trail in southwestern Ohio spend an average of \$13.54 per visit to the trail, which generates more than \$2 million per year for communities adjacent to the trail.¹ The Trust for Public Land asserts that on average, parks add a five percent increase in property value to properties located within 500 feet of a park or greenway.²

While the potential economic value of the High Line Canal specifically has not yet been quantified, several developments are already planned adjacent to the Canal, particularly in the southern and northern ends. Near Waterton Canyon and adjacent to the High Line Canal and Chatfield State Park, Solstice and Sterling Ranch Village are planned to include more than 13,000 homes, retail, open space, and trails. They are also being

contemplated for stormwater demonstration projects. In Aurora, several developments are proposed north of I-70 as well, adjacent to areas of the High Line Canal that do not yet have a maintained trail, but where trail is proposed.

Today a variety of adjacent zoning and current land uses exist along the Canal, ranging from industrial to residential to retail. A recent study examined parcels within a quarter-mile of the High Line Canal using zoning, land-to-improvement ratios, and land use to identify at least 13 specific parcels prime for development.³ In communities along the Canal, median home values range from \$173,300 to over \$1 million, and median household income ranges from \$50,000 to more than \$200,000.⁴ The most development opportunity has been identified in areas of low to moderate income communities (Denver, Unincorporated Arapahoe County, and Aurora), meaning they are most at risk for displacement and gentrification as the value of the Canal is enhanced.⁵

¹ *Searns, Flink, Olka 2001 (see Redenze report)*

² *Measuring the Economic Value of a City Park System, Trust for Public Land, 2009.*

³ *A Redevelopment Analysis and Assessment along the High Line Canal Greenway, Alison Redenz, 2016.*

⁴ *A Redevelopment Analysis and Assessment along the High Line Canal Greenway, Alison Redenz, 2016.*

⁵ *A Redevelopment Analysis and Assessment along the High Line Canal Greenway, Alison Redenz, 2016.*



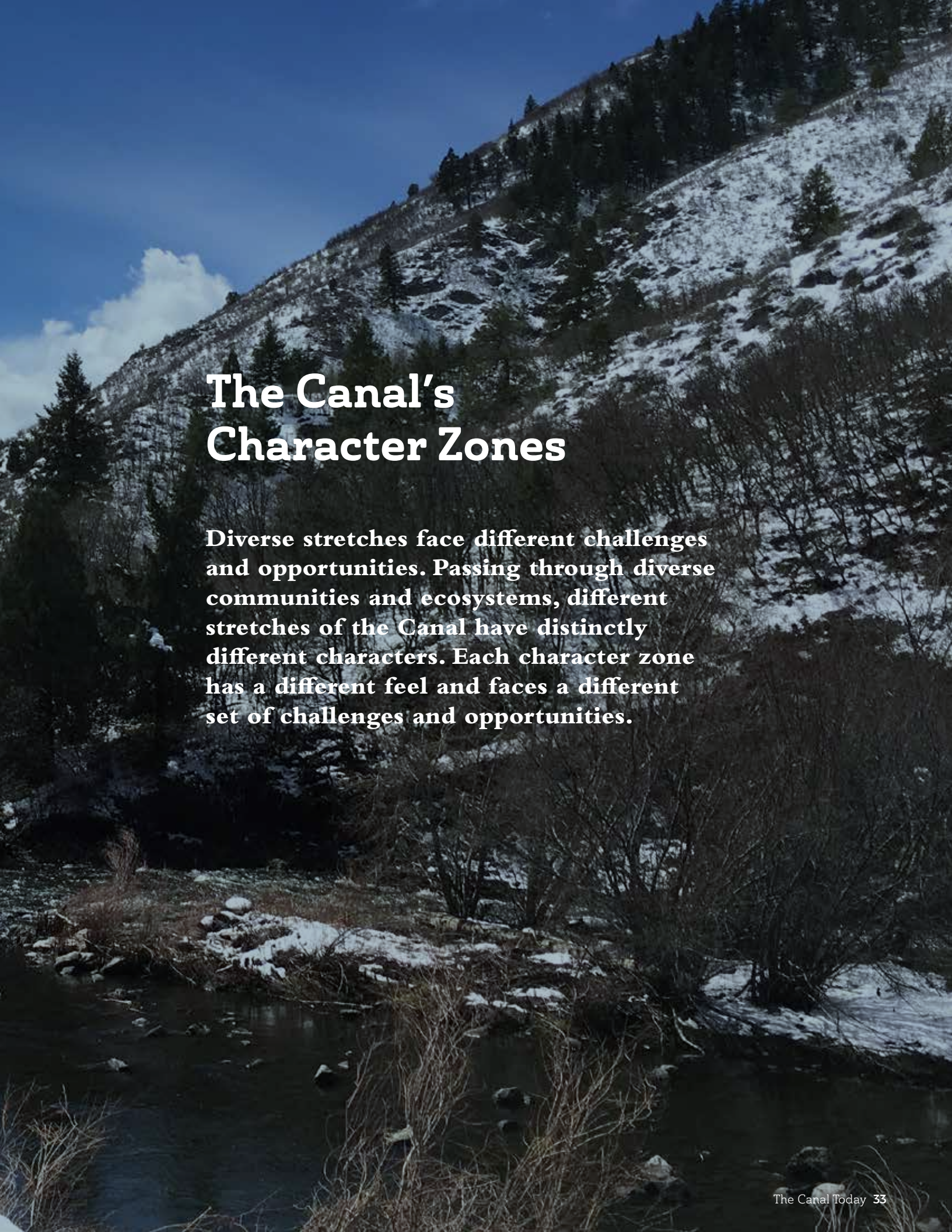
Economic Impact by the Numbers

- More than 500,000 people annually visit the High Line Canal trail
- More than 350,000 residents live within one mile of the High Line Canal
- Parks add an estimated 5% increase in property values for parcels within 500 feet of park or greenway¹

¹ Measuring the Economic Value of a City Park System, *Trust for Public Land*, 2009.





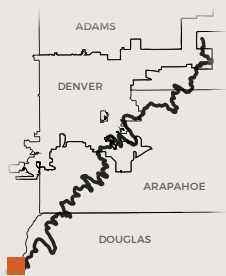


The Canal's Character Zones

Diverse stretches face different challenges and opportunities. Passing through diverse communities and ecosystems, different stretches of the Canal have distinctly different characters. Each character zone has a different feel and faces a different set of challenges and opportunities.

WILD CANYON

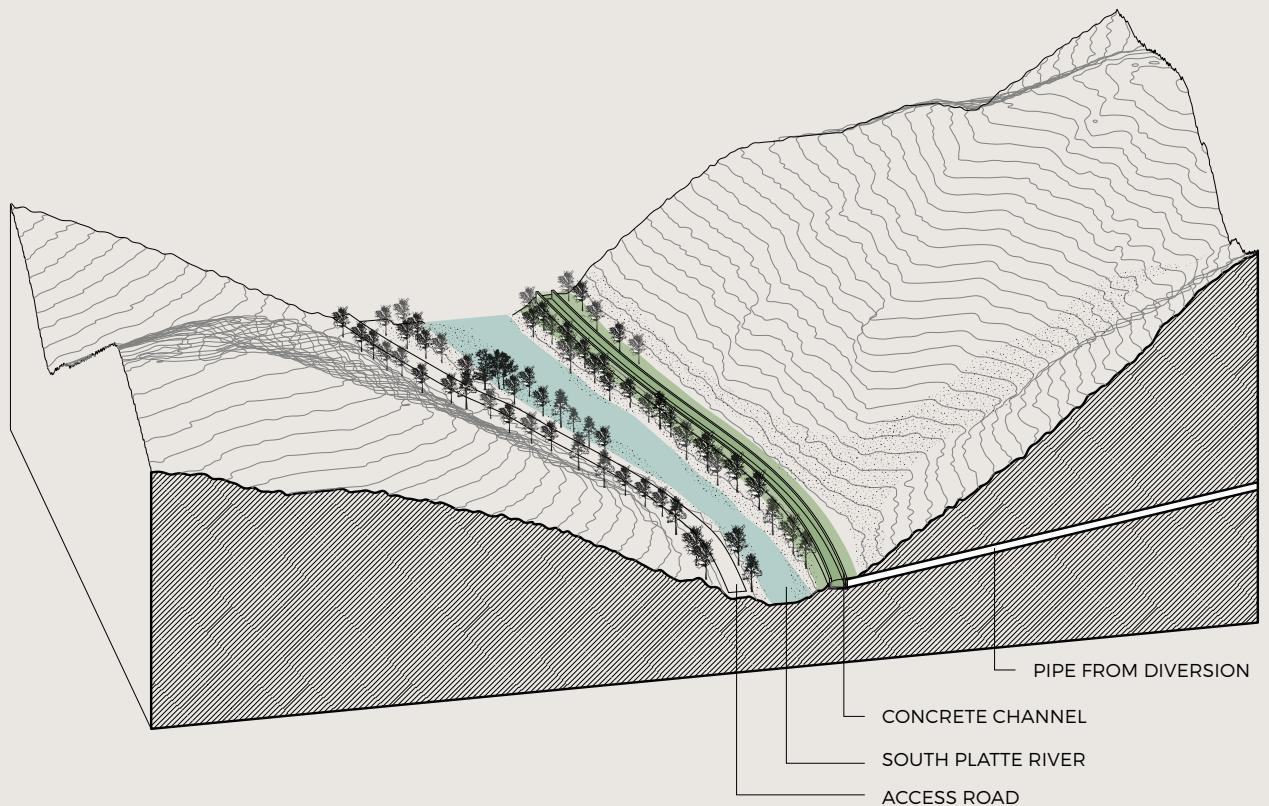
**Adventurous
and wild,
with rocky
hillsides and
visible water
infrastructure**



Waterton Canyon

Waterton Canyon is the beginning of the High Line Canal. A gravel maintenance road winds alongside the South Platte River, eventually connecting to the Canal trail that begins in the foothills.¹ The walls of the canyon tower overhead. Looking up and across the river, visitors can see the concrete channel that diverts the Canal's water. The river flows past a grove of cottonwoods, which could be the ancestors of the Canal's cottonwoods. The Canal passes through the sandstone hogback ridges and emerges from Waterton Canyon into the Rolling Foothills. Visitors to Waterton Canyon might see wildlife such as bighorn sheep, deer, brown and rainbow trout, and many species of birds. Recreational uses in Waterton Canyon include fishing, hiking, walking, running, and mountain biking; no dogs are allowed.

¹ Public access on the Canal trail ends at Platte Canyon Reservoir, though trail access continues via public access road into Waterton Canyon. Because this property contains core water delivery system elements for Denver Water, public Canal access in this area will likely remain limited and not expand beyond what currently exists.





TYPICAL WILDLIFE

Bears
Bighorn sheep
Rattlesnakes
Mule deer
Brown and
rainbow trout
More than 40
species of birds

TRAIL USES

Fishing
(in the South
Platte River)
Hiking, walking,
and running
Mountain biking
No dogs allowed
(to protect the
bighorn sheep)

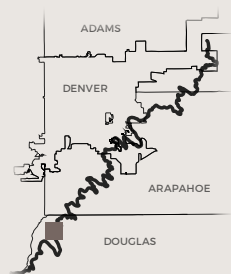
TRAIL SURFACE

Gravel



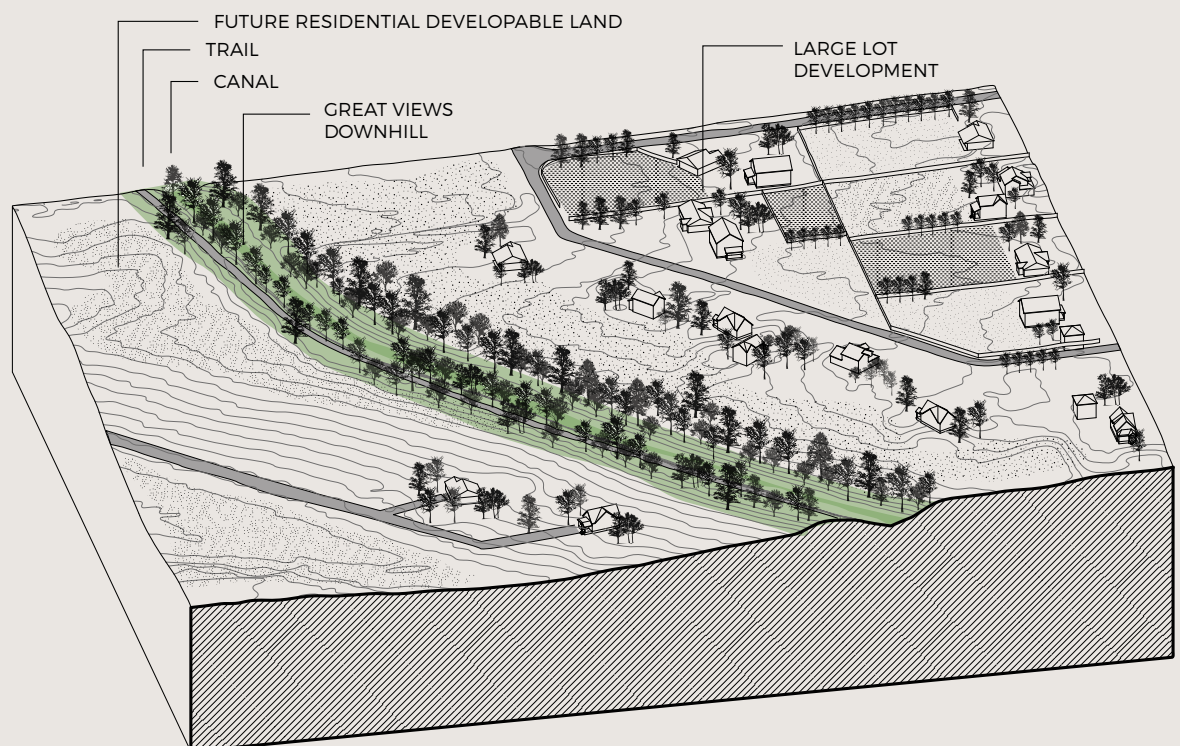
ROLLING FOOTHILLS

Long dramatic views of the mountains and the Denver skyline, with a rural or suburban character



Douglas County, Highlands Ranch Metro District, Littleton

The Rolling Foothills feature dramatic views as the Canal threads along ridgelines and around open spaces like McLellan Reservoir and Chatfield State Park. Over this stretch, rural and future residential developable land transitions to newer communities like Highlands Ranch Metro District. Around Plum Creek, the trail disappears for almost a mile, and then reemerges in an industrial area. In this character zone, wildlife sightings include ducks, owls, deer, mountain lions, and eagles. Horseback riding, hiking, walking, and running are popular in this zone. The trail surface is unpaved, with a dirt and sand surface. Sections of the trail in this zone reflect the original look of the ditchriders' road.





TYPICAL WILDLIFE

Ducks
Great horned owls
White-tailed deer
Mountain lions
Golden eagles

TRAIL USES

Horseback riding
Hiking, walking, and running
Mountain biking

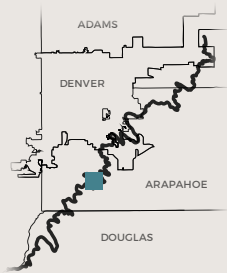
TRAIL SURFACE

Unpaved (dirt and sandy surface) except when overlapping with C-470 Trail, which is concrete



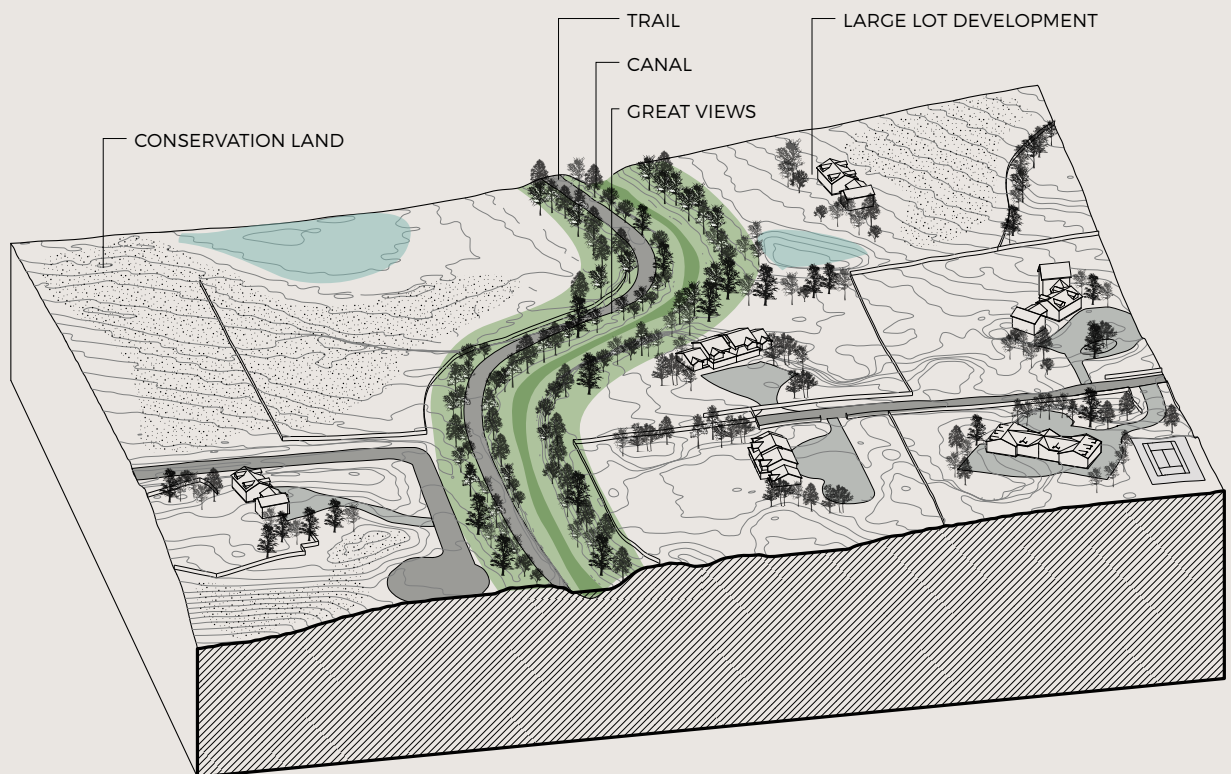
WOODED VILLAGE

Intimate and
quiet, shady
and green, with
a natural trail
surface



Littleton, Centennial, Greenwood Village, Cherry Hills Village

The Wooded Village stretch of the Canal winds between large-lot homes, conservation land, and parks. Some of the open spaces along the way are Horseshoe Park, DeKoevend Park, and Marjorie Perry Nature Preserve. The quiet, secluded feel of the Canal is interrupted as it crosses several busy streets. For example, one segment is nicknamed the Broadway Triple-Threat because the Canal crosses this five-lane road three times in less than one-half mile. The unpaved trail surface continues through the Wooded Village section, and the area boasts wildlife such as ducks, blackbirds, foxes, coyotes, hawks, bats, and the occasional deer. Horseback riding, walking, running, and biking are also popular activities in this zone.





TYPICAL WILDLIFE

Wood and Mallard ducks
Red-winged blackbirds
Foxes
Bats
Coyotes
Hawks

TRAIL USES

Horseback riding
Walking and running
Mountain biking

TRAIL SURFACE

Unpaved
(crushed granite base)

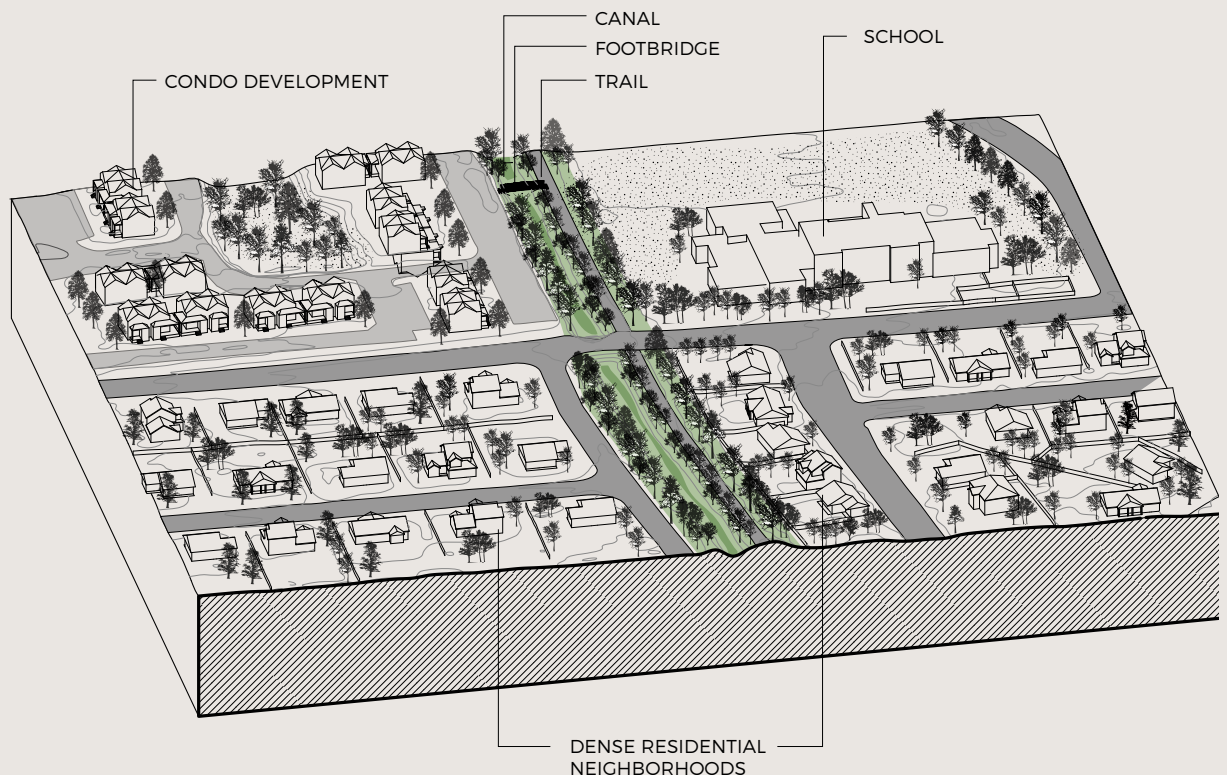
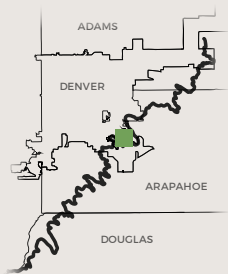


URBAN REFUGE

Integrated
with transit
and adjacent
development,
paved, and more
active

City of Denver, Unincorporated Arapahoe County, Aurora

The Urban Refuge section passes through denser neighborhoods, apartment complexes, schools, and parks. After Wellshire Golf Course, the surface shifts to pavement, reflecting the more urban character of this stretch. Bridge connections along the Canal connect to apartments, schools, and neighborhoods on the other side. The Canal passes Fairmount Cemetery and continues past Windsor Lake. No current water customers lie beyond this point. In this section, wildlife includes a variety of birds, squirrels, deer, and foxes. Currently Denver does not allow horses in this section of the Canal, but walking, running, and biking are popular uses.





TYPICAL WILDLIFE

Magpies
Squirrels
Deer
Foxes

TRAIL USES

Walking and running
Biking
In-line skating
No horses (except between Cherry Creek and Mississippi Avenue)

TRAIL SURFACE

Paved and parallel unpaved path



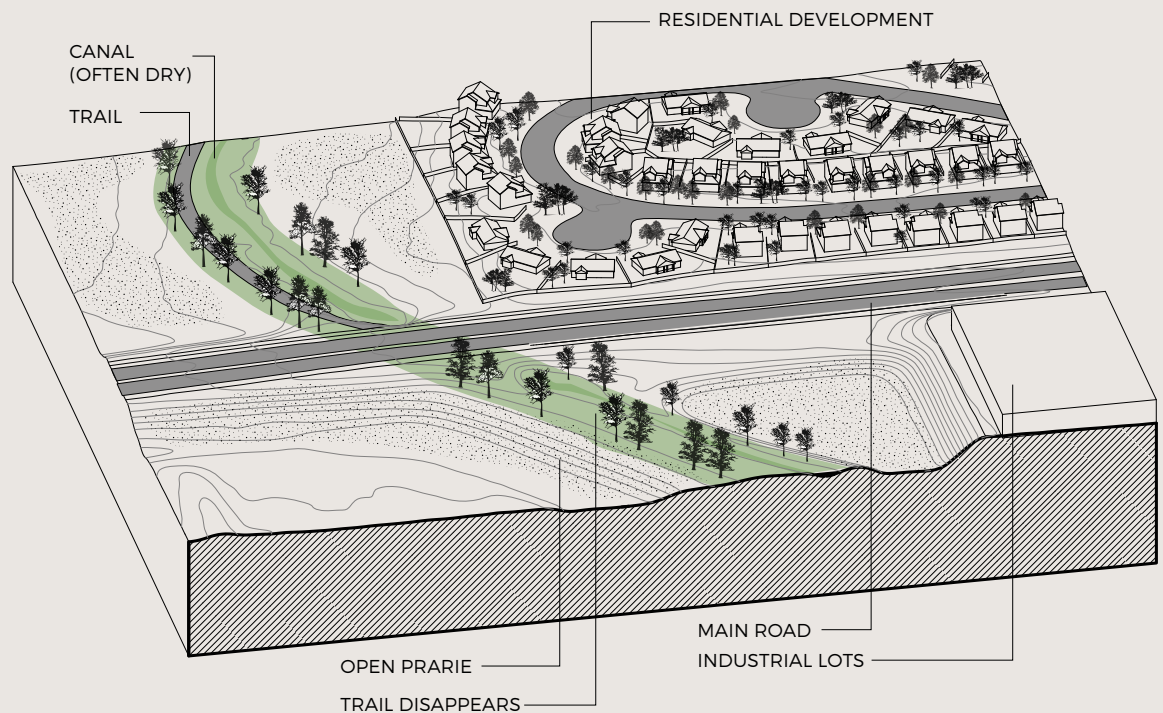
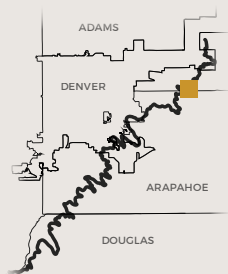
PRAIRIE RETREAT

Suburban neighborhoods, industrial zones, developing areas, and stretches of missing trail

Aurora, Green Valley Ranch

The Prairie Retreat features a more open landscape. Trees are fewer and farther between. This type of landscape would be found naturally along other parts of the Canal, too, but in those areas the Canal's water has created a new ecosystem. The Canal winds through open fields, beside industrial uses, and through residential areas. Passing through Green Valley Ranch, the trail's scored concrete surface feels like a sidewalk. Beyond Green Valley Ranch, more future development is anticipated, along with a few new miles of trail to the north. Wildlife in this zone includes animals more often found in the prairie: prairie dogs, blackbirds, and butterflies. The trail surface is paved in some areas, but unpaved, unimproved, or missing in others. A variety of popular uses for the Canal in this zone include in-line skating, walking, running, biking, hiking, and horseback riding.

The northern end is less used and less connected to the rest of the Canal; it includes several major trail gaps and places where the trail does not exist. A Canal visit to the northern portion of the Canal is very different than a visit to the central or south portions, which feature more vegetation and are better integrated into neighborhoods. Some users in the northern end have also expressed concerns about safety.





TYPICAL WILDLIFE

Hawks
Prairie dogs
Blackbirds
Butterflies
Deer

TRAIL USES

In-line skating
Walking and running
Biking
Hiking
Horseback riding

TRAIL SURFACE

Paved in some areas, unpaved or missing in others





A group of people, mostly older adults, are gathered in a room with large windows. They are looking at several large informational displays or maps mounted on the wall. The people are dressed in casual to semi-formal attire. The scene is dimly lit, with light coming from the windows.

CHAPTER 2

The Planning Process

“This was a great experience that opened my mind to the total of the High Line Canal.”

“It was very interesting to learn how each section is unique and what each section has to offer.”

“Absolutely fabulous! Entertaining and educational. Thanks much!”

Outreach and Engagement

Led by the High Line Canal Conservancy, this visioning and outreach process involved deep engagement of all communities along the Canal, stakeholders, and other organizations, as well as input from Denver Water, the High Line Canal Working Group,¹ and the High Line Canal Core Team.²

This plan was created with a goal of first developing a community-driven vision, shaped by the many walkers, equestrians, families, nature-lovers, bicyclists, and others

¹ The High Line Canal Working Group (HLCWG) consists of elected officials, jurisdictions and other public organizations, and Denver Water working cooperatively to build consensus, leverage funding, and advance projects to enhance the recreational experience along the Canal. The HLCWG was formed in 2010.

² Established in 2012, the High Line Canal Core Team includes Denver Water, Arapahoe County, Aurora, Denver, and Douglas County. As explained in the Core Team Memorandum of Understanding (finalized in 2015), the Core Team’s “focus will be to coordinate and be a catalyst for the many different process streams that will need to take place for an eventual decision by Denver Water on the disposition of the High Line Canal Greenway. The top line objective of the Core Team is to achieve maximum possible beneficial public uses for the High Line Canal.”

who use the Canal every day. A second goal was to increase awareness of the Canal and to share more about the Canal's special story. The idea was to develop a diverse, fun process with meaningful input opportunities. To that end, the planning team structured a community outreach series that involved multiple tactics: Community Open Houses, online surveys, Strategic Input Sessions with key stakeholders, City as Play events, and attendance of existing community events. This range of outreach opportunities was developed to engage the broadest possible range of community members, including both current trail users and others who were previously unaware of the Canal.

The planning process's name, Adventure on the High Line Canal, reflected the spirit of the initiative, and it was structured as a story to emphasize that the Vision Plan is truly a community-driven story for the Canal's future, written in partnership between the public, leadership groups, local jurisdictions, and other stakeholders.

Summary of Public Feedback: What Do You Want to See the Canal Become?





The Conservancy and consultant team attended many existing events to share information about the Canal and the Vision Plan process. Pictured here: Aurora Kidspre (left) and University Hills Picnic (right)



A Summer of Outreach along the Entire Reach of the Canal

Launched the High Line Canal Conservancy's Learn + Connect campaign to introduce the Conservancy, a program that reached more than 500 people

Developed a network of more than 900 community leaders ranging from elected officials, issue groups, and neighborhood organizations to help distribute Conservancy news

Established an e-newsletter list with nearly 2,400 recipients

Participated in more than 70 community events to share news and generate excitement about the process, engaging more than 3,500 people

Partnered with Denver Water to send an informational flyer about upcoming Community Open Houses to more than 250,000 accounts.

Sent direct mailings to more than 10,000 households

"'One big resource' for the metro area"—a front-page article in the *Denver Post*, with a weekly readership of more than a million

Walk2Connect—walking leaders led 55 community members along the Canal, seven of whom walked all 71 miles

12 Community Open Houses, Totalling More Than 1,200 attendees

Chapter 1: Open Houses

- 32 feedback forms completed
- 1,810 stickers placed
- 275+ open-ended comments

Chapter 2 Open Houses

- 348 feedback forms completed
- 565 stickers placed

Chapter 3 Open Houses

- 47 feedback forms completed
- 525+ open-ended comments

Chapter 4 Open Houses

- 350+ open-ended comments
- 2 online surveys
- Nearly 600 responses

OurHighLineCanal Online Survey

464 responses

CrowdGauge Online Survey

163 responses

2 City as Play Events

Over 50 children

Aurora Global Fest Booth and Friendly Village Event

8 Strategic Input Sessions

More than 40 leaders

Engaged local leaders and experts in fields including education; health and wellness; economic development; environment and wildlife; developers near the Canal; water; recreation; and youth engagement

Open Houses

The Community Open Houses were scheduled at key phases of the plan's development to capture comprehensive public input. There were four rounds of open houses, each held at three different locations throughout the region, for a total of twelve events. Each open house session was identical at the three locations, enabling community members to choose the day, time, or location that best suited their needs. Each open house was designed to not only share information about the Canal and the Vision Plan's development, but more importantly to gather feedback from the public that helped the planning team better understand the community's priorities and values for the Canal. The open houses also served an educational function for the community, helping attendees better understand the complexity, history, and scope of the Canal.

The open houses were structured like a story, with each meeting series representing a new chapter in the development of the Vision Plan. Open house topics included the following:

- **Chapter 1—Our Journey Begins**
An introduction to the different sections of the Canal, its history, and the challenges and opportunities it faces today
- **Chapter 2—Options**
Exploring opportunities to preserve, protect, and enhance the Canal
- **Chapter 3—Draft Vision Plan**
Sharing the draft Vision Plan collected through feedback
- **Chapter 4—Draft Way Forward**
Presenting a draft roadmap for the future, including potential strategies to support the Vision

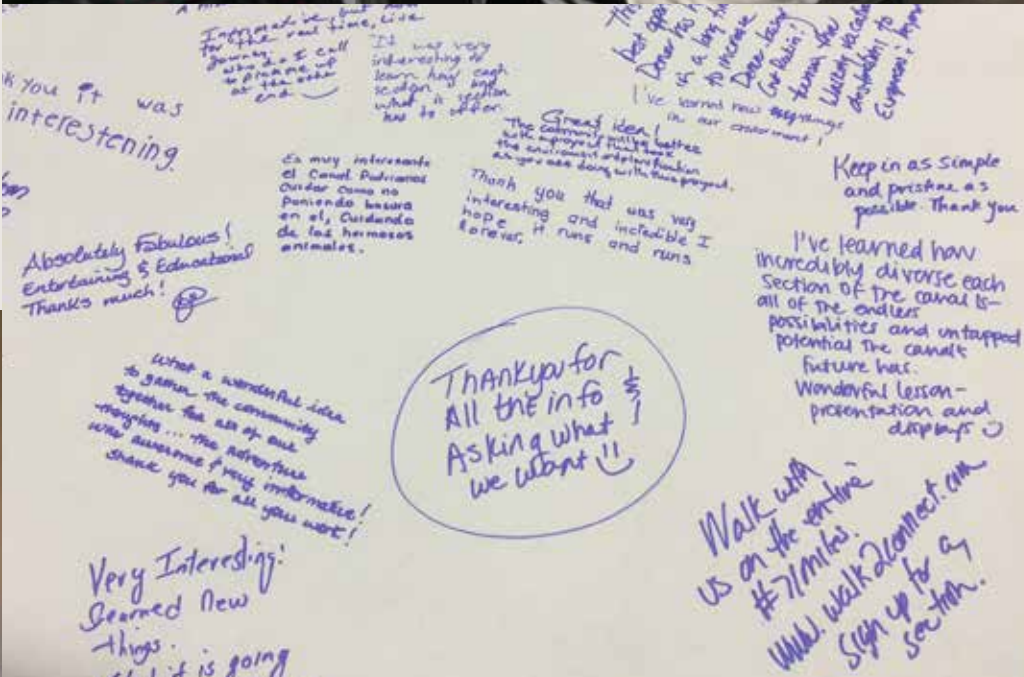


Strategic Input Sessions

More than 40 community leaders attended at least one of the Strategic Input Sessions scheduled throughout the planning process. Each input session was structured around a particular theme related to the Canal. Community leaders operating within each of these themes were asked to attend and discuss the future of the Canal. In this way, broad public engagement was captured through the open houses and online surveys, while more targeted theme-based engagement was captured through these input sessions. Input from these meetings was particularly helpful in identifying potential strategies and supporting actions for the Canal's future.

STRATEGIC INPUT SESSION THEMES

- Education
- Environment, Nature, and Wildlife
- Health and Wellness
- Real Estate Development
- Recreation
- Water
- Economic Development
- GOCO's Inspire Initiative¹



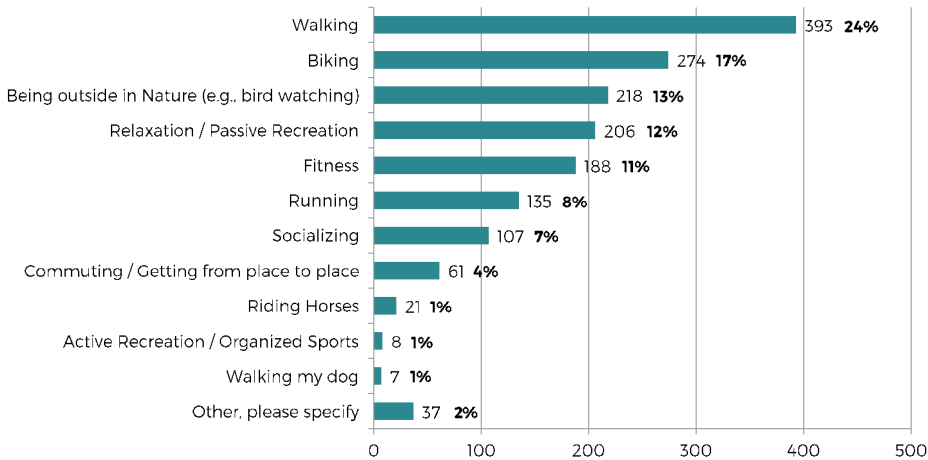
¹ Great Outdoors Colorado's Inspire Initiative is a grant program that aims to connect youth and their families with the outdoors.

Online Surveys

While OurHighLineCanal helped the planning team understand features of the Canal itself and patterns of use, CrowdGauge helped reveal the most pressing priorities for the community based on where they would actually choose to spend dollars.

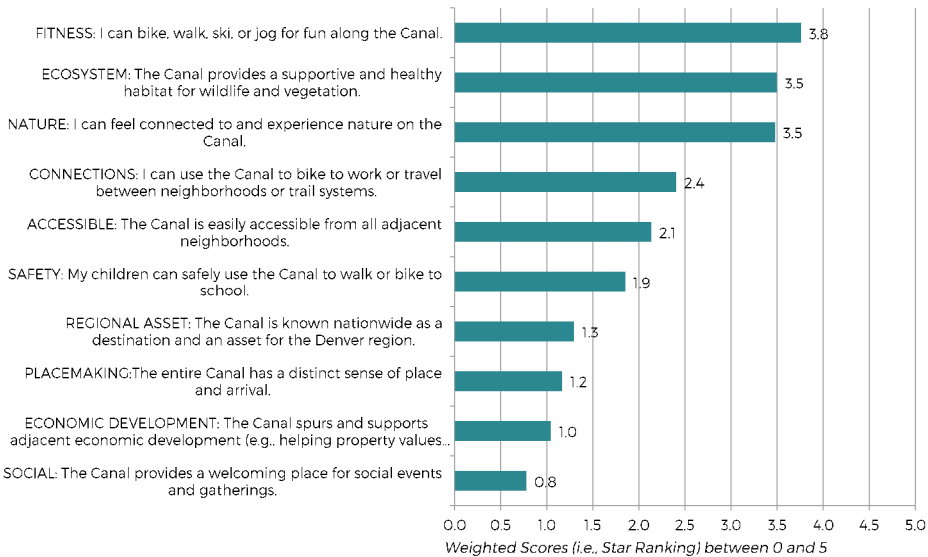
In addition to the open houses, public input was solicited through two online surveys. The first survey, called **OurHighLineCanal**, asked respondents about their values for the Canal and asked respondents to identify on a map certain areas of interest on the Canal itself. From this survey, it became clear that respondents highly value the Canal for its recreational use and its natural setting. The map-based results also revealed higher usage in the southern portion of the Canal.

How Do You Use The Canal Today?



The second survey, called **CrowdGauge**, enabled respondents to select priorities and allot a budget to those priorities, quickly revealing tradeoffs. Most respondents were interested in quick-win, easy-to-implement ideas (such as trail improvements, building bridges to connect neighborhoods to the Canal, or planting trees appropriate for the various areas along the Canal). Overall, respondents highly prioritized fitness, nature and ecosystem, and Canal connectivity.

CrowdGauge Results: Priorities for the Canal



USING THE CANAL



Active Recreation

1170 icons placed

Throughout the whole Canal, and representing 85% of respondents

I connect with the trail from my neighborhood.

I walk and run on the HLC multiple times per week.

I walk on different segments of the HLC trail.

Comments shown were selected because they were representative, echoing similarities in other comments. Where no comments are shown, they were either not representative or there were no comments left for that particular theme.

ASPECTS TO CELEBRATE



Beautiful Views

279 icons placed

Primarily in the southern half of the Canal

Panoramas to the north and west

Mountains and horse farms

Mountain views looking west

Comments shown were selected because they were representative, echoing similarities in other comments. Where no comments are shown, they were either not representative or there were no comments left for that particular theme.

City as Play

The City as Play events offered an entirely different method of engagement: using the act of play as a method to explore potential futures for the Canal, focusing on underrepresented populations. City as Play is a civic engagement technique developed by James Rojas, an urban planner who lives in Los Angeles. It involves art supplies and objects found around the home, and invites people to build something in response to a prompt and then to describe it to others.

Two sessions were held, the first at a Friendly Village neighborhood event in Aurora and the second at a booth during Aurora’s Global Fest. Participants were invited to use the City as Play approach to communicate what they love about the High Line Canal or to describe something that would make it even better.



City as Play at Aurora Global Fest





CITY AS PLAY: KEY THEMES

Nature: A common theme was nature and wildlife. Kids who live close to the Canal or had visited it often described the trees, wildlife, and natural beauty of the Canal. Many of their models included ponds with ducks and fish and things to play on next to the water.

Entertainment: A few of the models focused on entertainment and engagement. One girl talked about the importance of being outdoors in nature away from electronics so that people could talk and interact more. If there were events with live music, that would be a draw for family and friends. Another girl built an outdoor stage for music and plays.

Play: Not surprisingly, many of the kids built models with things to play on. Kids were inspired by the picture of outdoor exercise equipment next to a trail and built playgrounds, sculptures, and forts. One boy described building fake rocks with fossils in them that would be safe to play on. Another girl described having farm equipment to climb on. Several of the imagined playgrounds included slides and/or water features.

WHAT IS YOUR VISION FOR THE CANAL'S FUTURE?

COMMUNITY FEEDBACK

When asked, "What words describe the Canal as you'd like to see it become?" these were the top responses:

PEACEFUL, NATURAL, BEAUTIFUL

Most important role of the Canal

#1 ANSWER:

"A PEACEFUL NATURE RETREAT"

Most important to focus on outside of the Canal

#1 ANSWER:

"PROTECTING OPEN SPACE NEAR AND ALONG THE CANAL"

When asked, "What words describe the Canal as you'd like to see it become?" these were the top responses:

CONNECTED, ACCESSIBLE, SAFE

Most important role of the Canal

#2 ANSWER:

"ACCESS TO JOGGING OR BIKING"

Most important to focus on outside of the Canal

#2 ANSWER:

"IMPROVING CROSSINGS TO MAKE THEM SAFER"

COMMON THEME
at Chapter Two
Open House

Respect and celebrate the diversity of the communities along the Canal, allowing each its own piece of the overall experience.

WHILE **EXERCISE** WAS THE **#1 MOST DESIRED** EXPERIENCE ACROSS ALL AREAS, THE **#2 ANSWER WAS...**

GATHER

Green Valley Ranch, Aurora, and the northern end of the Canal

MEDITATE

Denver, Unincorporated Arapahoe County, Cherry Hills Village, Greenwood Village, Littleton, and Centennial

EXPLORE

Highlands Ranch Metro District and Douglas County and Waterton Canyon

When asked, "What words describe the Canal as you'd like to see it become?" these were among the top responses:

TREES, MAINTAINED, WATER

COMMON THEME
at Chapter One Open House

THANK YOU for undertaking this process; the Canal is a beloved treasure worthy of thoughtful caretaking.

COMMON THEME
at Chapter Two Open House

Stormwater management is an opportunity to become more sustainable and the Canal should take advantage of it.

COMMON THEME
at Chapter One Open House
Enhance with basic trail infrastructure, signage, bathrooms, benches, trash cans, and trail heads

500+ Locations identified as "Aspects to Celebrate" including:

LANDMARKS, BEAUTIFUL VIEWS, FAVORITE PLACES

I wish the Canal would connect me to...

#1 ANSWER:

"PLACES NEAR THE CANAL FOR PEOPLE TO EAT, SHOP, RELAX"

RESULTING GUIDING PRINCIPLES

PROTECTING THE CANAL'S HABITAT
SCORED 4.3 OUT OF 5.0



NATURAL

"PROTECTING THE CANAL'S MOBILITY CONNECTIONS"
SCORED 4.1 OUT OF 5.0



CONNECTED AND
CONTINUOUS

DIVERSE DISTRICTS
2 TO 2.5x
MORE SUPPORT THAN
CONSISTENT OR
PATCHWORK CHARACTER



VARIED

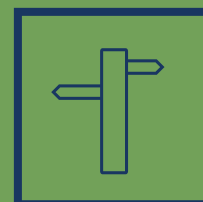
MANAGED LANDSCAPE
2 TO 2.5x MORE SUPPORT
THAN MANMADE OR NATURAL
ECOSYSTEM



MANAGED

COMMON THEME
in MyHighLineCanal
online survey

*Basic infrastructure, vegetation,
planting and maintenance, and
crossing safety*



ENHANCED





CHAPTER 3

Our Vision for the Canal's Future

The vision statement of this plan encapsulates the major themes heard for the Canal throughout the visioning process. It is supported by a set of five guiding principles, each with corresponding objectives. This vision statement, the guiding principles, and objectives combine to form the Community Vision Plan for the High Line Canal.

VISION STATEMENT

The High Line Canal's 71 meandering miles will be preserved and enhanced as a cherished greenway that connects people to nature and binds varied communities together from the foothills to the plains.

FIVE GUIDING PRINCIPLES

VARIED



NATURAL



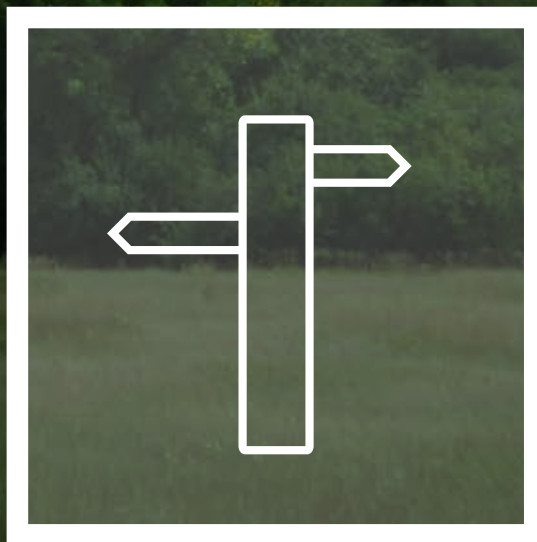
CONNECTED AND CONTINUOUS



MANAGED



ENHANCED



NATURAL

GUIDING PRINCIPLE:

To preserve the natural character of the Canal, ensuring it continues to be a natural refuge for the region's population and wildlife. The Canal's natural, scenic beauty is integral to its identity.





For many residents, the Canal offers a feeling of being in nature, a place to enjoy a quiet moment removed from the hustle-and-bustle of everyday life. In a growing region, preserving the Canal as a place to connect with nature is critical. Just as the Canal passes through different ecosystems, the character zones of the Canal provide different ways to enjoy natural settings. Ranging from areas of forest in some areas to expanses of prairie in others, each character zone offers a new way to experience the natural beauty of the region. Together, these ecosystems create a connected regional environmental resource, linking creek corridors, conservation land, state parks, and other open spaces.

Supporting these different environments are stewardship and conservation. In the prairie, restoration with native grasses and wildflowers provides home to butterflies, birds, and other wildlife. Natural experiences here include appreciation of the plains and long distance views. In areas of forest, planting drought-tolerant trees and possibly using drip irrigation would help cultivate the next generation of tree canopy for the Canal, providing a shady, sheltered setting for wildlife and residents alike. Stormwater is envisioned as a new, sustainable community benefit in the Canal. Sustainable maintenance practices and habitat enhancement support the health of these diverse ecosystems and local wildlife.

Objectives

- Maintain the peaceful character of the Canal, so it continues to be a place for the region to connect with nature, from the foothills to the plains
- Identify sustainable, responsible water sources for the continued nourishment of the Canal's trees and vegetation, and transition to native tree species that require less water to thrive
- Protect and enhance wildlife habitat and environmental health of the Canal
- Preserve and enhance open space along the Canal, including identifying opportunities to protect adjacent open spaces to create larger habitat areas
- Employ environmentally sustainable practices in landscape management and Canal maintenance to assure overall health and public safety
- Protect important viewsheds to landmarks and natural landscapes

CONNECTED AND CONTINUOUS

GUIDING PRINCIPLE:

To maintain and increase the connectivity of the Canal along all 71 miles, preserving and enhancing the Canal's use as an important continuous resource and part of the regional environmental and trail network.





As a 71-mile greenway crossing the region, the Canal serves an important role as a connector for the communities and neighborhoods throughout the Denver metro area. Because the Canal traces a high topography line (from southwest to northeast), it crosses many of the streams and corresponding trails that follow the region's natural topography sloping from southeast to northwest. In this way, the Canal acts as a natural bridge between these streams and trail systems, while also knitting the region's natural systems and communities together. For some users, it serves the role of an active transportation network, enabling commuters to get to work and kids to get to school through the linkages with other trails.

Connectivity is also about creating a safe, fully connected 71-mile corridor, used by multiple types of visitors: walkers, bikers, joggers, dog-walkers, equestrians, and more. The Canal should provide a safe setting for all of these visitors to interact with each other seamlessly and to avoid conflicts on the trail.

Objectives

- Enhance connectivity along the Canal by closing gaps and upgrading crossings
- Enhance connections from the Canal to other trail networks, further strengthening the regional trail network
- Provide safe connectivity for all types of users: walkers, bikers, equestrians, joggers, dog-walkers, and more
- Strengthen safe access to and from local neighborhoods, schools, parks, and other amenities
- Minimize future interruptions of the Canal experience such as new vehicular crossings
- Maintain a continuous wildlife and ecological corridor

VARIED

GUIDING PRINCIPLE:

To respect the variety of communities and experiences along the Canal and to preserve its various physical characteristics of the different character zones through the course of its 71 miles.



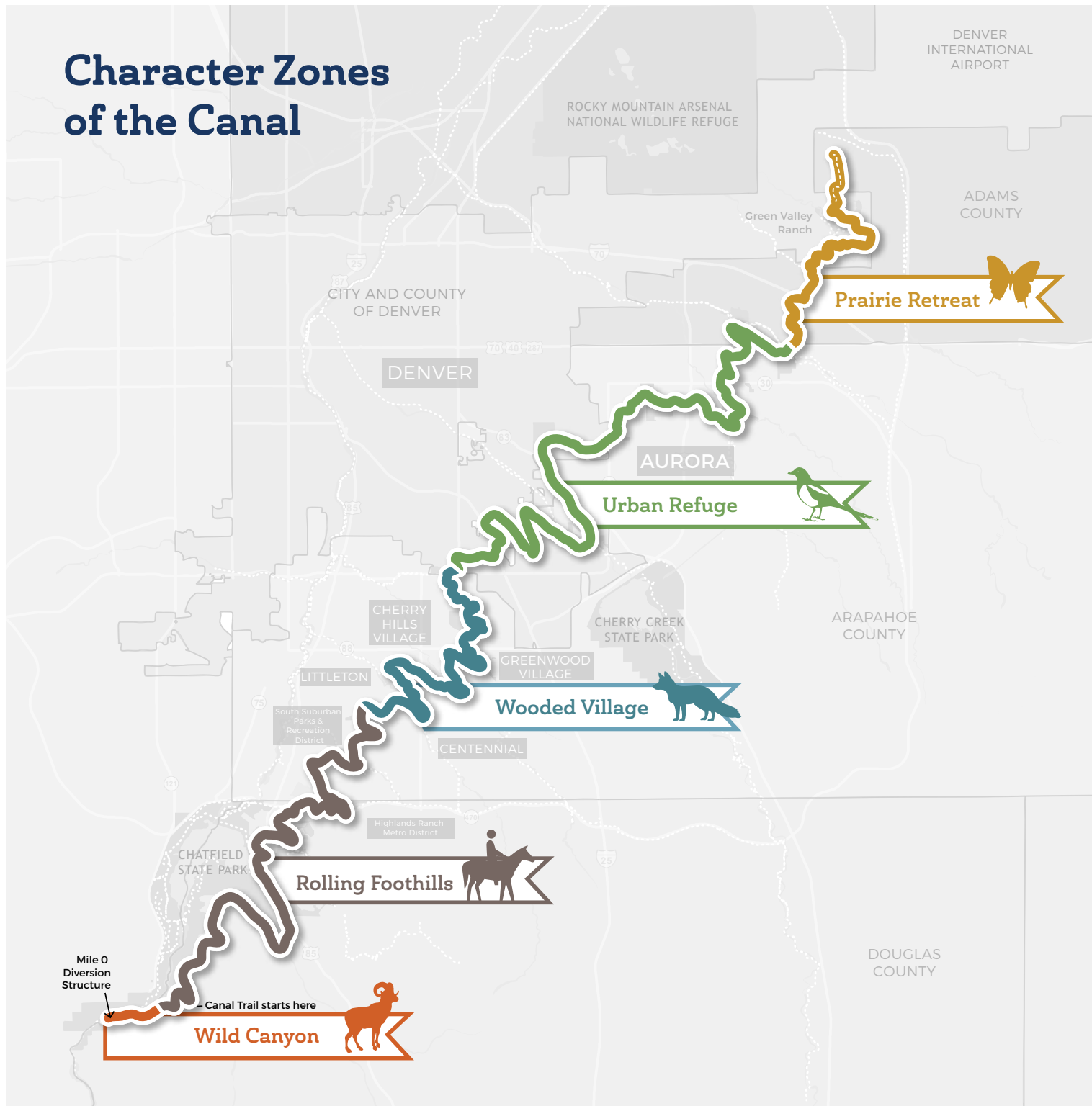


The 71 miles of the Canal pass through many different communities and ecosystems. The environment of the Canal changes from heavily shaded or tree-filled areas, to open prairie grasses, to long views of the Rocky Mountains. Development near the Canal shifts, from the Canal being embedded within open ranchlands, to single-family home subdivisions, to more urban areas with mixed-use areas and multi-family housing. The Canal changes with the seasons, and offers different recreation uses throughout: for walkers, cyclists, runners, equestrians, and more. The trail itself also changes in physical form from wide in places to narrower in others, and differs in trail surface, vegetation, and views.

Objectives

- Acknowledge that there exist diverse communities, trail character zones, and ecosystems along the Canal:
 - The wild canyon (Waterton Canyon)
 - The rolling foothills (Douglas County and Highlands Ranch Metro District)
 - A wooded village (Cherry Hills Village, Greenwood Village, Littleton, Centennial)
 - An urban refuge (Denver and unincorporated Arapahoe County)
 - A natural retreat in the prairie (Aurora and Denver's Green Valley Ranch)
- As change happens, support enhancement and protection of unique characteristics of each character zone to best suit each zone's needs
- Provide equity of experience and opportunities along the length of the Canal for the varied communities
- Promote appropriate habitat caretaking in the Canal's different ecosystems
- Encourage and promote continued public engagement and local leadership involvement throughout the many Canal-adjacent jurisdictions

Character Zones of the Canal



The character zones acknowledge and celebrate the varying character of the Canal. The Vision Plan sets up the basic structure of these five different character zones; the framework plan and character zone plans will be opportunities to further define the desired vision and exact boundaries for each zone.



The varied Canal celebrates these differences; each character zone offers a distinct identity and enjoyable experience.

- **Wild Canyon:** The Canal's beginning in the foothills of the Rockies is its most rugged, wild section—look for wildlife including bears and bighorn sheep.
- **Rolling Foothills:** In this section, you will pass through rural landscapes and established and growing neighborhoods. Spectacular views await around almost every corner!
- **Wooded Village:** This zone is a shady, peaceful retreat for neighborhoods with well-maintained trees and other vegetation and proximity to preserved conservation land.
- **Urban Refuge:** In this section, the Canal is a natural refuge—but never far away from urban amenities. Here you'll pass schools, intersect with other trails and parks, and see a variety of housing.
- **Prairie Retreat:** The northern stretch features prairie landscapes with spaces along the Canal to connect with others, to play, and to learn.

MANAGED

GUIDING PRINCIPLE:

To work together in order to preserve and support a long-term, sustainable future for generations to come. Our Canal is a critical, cherished asset for the region.





Management, stewardship, and collaboration are integral to protecting and supporting the natural, connected, and varied character of the Canal. The managed Canal ensures the preservation of a cherished and cared-for greenway that celebrates the unique history and character of our Denver region. It is a focal point for the community, robustly supported by committed local citizens and local partners, and elevated by a strategic management structure. Management is also about physical maintenance and adaptations. It includes careful adaptations like alternative irrigation, new drought-tolerant tree species, and stormwater to nourish the Canal's ecosystem, providing new models of responsible water management and stewardship.

Objectives

Management includes both operational and physical considerations:

- Operational
 - Establish a clear model for long-term management with a sustainable funding source (both monetary and in-kind)
 - Strengthen regional, county, municipal, and community partnerships to advance the vision
 - Provide a role for citizen input and stewardship
 - Increase use, safety, and awareness of the Canal in underused areas, including coordination with law enforcement
 - Promote a unified brand with common themes and approaches to management along the Canal (e.g., mile markers, maps, signage, etc.)
- Physical
 - Model responsible water management practices and consider the Canal for stormwater management where feasible
 - Plant drought-tolerant species that require less water and explore alternative irrigation methods
 - Provide appropriate maintenance of the Canal's vegetation for safety and beauty while exploring options for fewer or different trees
 - Provide ongoing maintenance for physical improvements such as trailheads, signs, and furnishings
 - Provide an overall wildlife management plan consistent with local, regional, and state authority plans

ENHANCED

GUIDING PRINCIPLE:

**To enhance the enjoyment
and use of the Canal in
keeping with its natural
and varied character.**





Much of the vision is about protecting and preserving this special place; this guiding principle acknowledges that some change is needed to further improve the Canal experience. Enhancement is not a one-size-fit-all concept for the Canal; different kinds of improvements may be appropriate in the different character zones. For some areas, enhancements will be small-scale changes—an additional bench, canopy management to frame a special view, historic preservation to restore a cherished landmark, for example. In areas that are currently less used or where the trail is missing, like parts of the northern reaches of the Canal, enhancements may include more programming and gathering spaces to help the Canal feel welcoming and safe for residents. Enhancements may also include improved signage and consistent mile markers to make it easier to navigate the twists and turns of the Canal.

Importantly, enhancements are not about transforming the Canal into a different kind of setting, but rather to make improvements, as needed, to ensure the Canal is living up to this vision of a natural, connected, and varied community resource. Opportunities to suggest new improvements for the Canal or a particular zone will be generated from the framework plan and character zone plans during the next stage of planning.

Objectives

- Provide enhancements that are consistent with the Canal's vision
- Increase awareness about the Canal and its story
- Acknowledge and enhance views, landmarks, and special moments
- Celebrate the Canal's history through education, historic preservation, and documentation
- Enhance connections and awareness where appropriate from the Canal to nearby amenities like cafes, bicycle repair shops, and restrooms, while protecting the Canal from commercialization
- Coordinate with new development to encourage design that supports the character of the Canal
- Provide basic infrastructure and facilities along the Canal where appropriate (trash cans)





CHAPTER 4

The Way Forward: Charting a Course for Our Canal's Next Century

The Way Forward considers many opportunities for continuing to preserve, protect, and enhance the Canal in support of the vision. These strategies recognize the authority of the local jurisdictions along the Canal, and are a balance of additional planning studies and practical on-the-ground projects.

THE WAY FORWARD:
CHARTING A COURSE FOR OUR CANAL'S NEXT CENTURY

This chapter highlights a series of recommended strategies, each providing a set of supporting actions for the future implementation of the Community Vision Plan for the High Line Canal.

Douglas County: recognizes that the vision for the High Line Canal will evolve over time based on continued planning processes and public input, especially through the local planning authorities; recognizes that there are many possible paths to achieving the vision with “The Way Forward” presenting a number of possibilities; intends to remain actively engaged in the continuing process of evaluating future opportunities for use and management of the High Line Canal; encourages additional engagement with the community and local officials to enhance the planning process.

STRATEGY 1

Create a Roadmap for the
Canal's Future Physical Form

STRATEGY 2

Build Awareness and
Understanding of the Canal

STRATEGY 3

Continue to Align the Canal's
Management and Funding
Structure with the Vision

STRATEGY 4

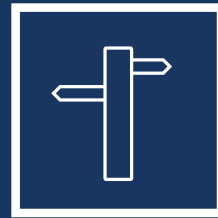
Harness the Community's
Passion to Promote Stewardship
of the Canal

STRATEGY 5

Capitalize on Existing
Momentum to Take Action Now

Create a Roadmap for the Canal's Future Physical Form

GUIDING PRINCIPLES SUPPORTED



This Vision Plan sets the overall direction for the future of the Canal, while the next stage of planning will continue to develop opportunities to preserve, protect, and enhance the Canal. Canal-wide planning is proposed as well as the development of plans for its five character zones. Planning will touch on all aspects of the Canal—preserving its history, exploring stormwater benefits and opportunities, improving safe access and crossings, protecting ecosystems and natural character, improving maintenance, and improving overall experience while enhancing the distinct character of each of its five character zones.

Framework Plan, including Character Zone Plans, Landscape Design Guidelines, and Trail and Maintenance Standards

PUBLIC FEEDBACK

The framework plan follows this Vision Plan and considers Canal-wide issues at a greater level of detail. The Vision Plan focuses on describing the community's vision for the Canal, and the framework plan will develop detailed projects and physical design opportunities to implement the vision. The framework plan takes the next steps for considering issues of connectivity, environment, recreation, and other planning and design considerations. The framework plan will act as an overarching structure for three additional types of planning, described in more detail below:

- Character Zone Plans
- Landscape Design Guidelines
- Trail and Maintenance Standards

Framework Plan

The framework plan develops an overall approach to the full Canal corridor supported by the additional details of the character zone plans. The planning process should integrate information from other studies including the completed tree inventory and *Reconnaissance Survey and Prioritized Survey Plan: High Line Canal Corridor* (Square Moon Consultants, 2016), as well as analysis and recommendations from other technical studies described below.

The stormwater program will inform the development of the framework plan. The framework plan will incorporate opportunities for stormwater benefits identified in stormwater program, while the framework plan can help ensure all opportunities for stormwater are considered to fully maximize natural and economic benefits to the Canal.

The framework plan is about physical and design opportunities, as well as program and educational potentials. Connectivity should be considered at multiple scales—locally along the Canal and within the context of the region-wide trail system. The framework plan should incorporate conclusions of future management and funding discussions, which should be considered in parallel with this planning process. The framework plan should identify opportunities to strengthen the Canal's role as a regional economic resource in ways that are consistent with the community vision. It would also be an

Strategy 1 at a Glance

Collaborators

- √ High Line Canal Conservancy/Public
- √ Denver Water
- √ Jurisdictions and Districts

OTHER

Urban Drainage and Flood Control District

Public works sections of each jurisdiction along the Canal

Supporting Actions Overview

- Framework plan, including Character Zone Plans, Landscape Design Guidelines, and Trail and Maintenance Standards
- Stormwater Program
- Branding and Wayfinding Plan
- Interpretive and Educational Signage

Recommended Strategy Legend

PUBLIC FEEDBACK

Public feedback is needed for a study. It should be collected through framework plan meetings, providing one integrated process for collecting public input.

QUICK-WIN OPPORTUNITY

These are great opportunities for a near-term project that would bring significant benefits to the Canal and Canal users.

Historic Resources Research and Planning: Integrated with Framework and Character Zone Plans

Preserving and sharing the Canal's historic significance and historic resources begins with additional research and planning. The recently completed *Reconnaissance Survey and Prioritized Survey Plan: High Line Canal Corridor* (Square Moon Consultants, 2016) began the process of documenting historic resources along the Canal and sources related to its history and evolution. Its "Recommendations" chapter outlines next steps for historic research, survey, and documentation, along with designation and preservation, education, and interpretation. As an integrated part of the framework and character zone plans, historic resources considerations should include the following items recommended in previous study:

- **Research and Cataloguing:** Filling in documentation gaps by organizing existing Denver Water records, coordinating with Denver Water to obtain additional records, and completing primary research
- **Documentation:** Recording the full story of the Canal
- **Survey:** Finishing the Canal survey, including coordinating with History Colorado Center

Sharing the history of the Canal is an integral part of the Canal's story. Historic resources information would contribute to the signage package for interpretive signage about historic resources and to the development of a Canal history intended for a public audience (see Strategy 2).

opportunity to provide a listing of potential zoning tools to support the community vision. Each jurisdiction would consider which tools, if any, might be appropriate for their community and consistent with their local long-range plan (*see also* "Continue to coordinate with local jurisdictions and districts" in Strategy 3).

The first stage of the framework plan should include confirming boundaries to be used in the character zone plans.

Public Input: One, Integrated Process for All Strategy 1 Planning

Continued public involvement in Strategy 1 planning is critical. Although many of the following proposed plans need public input, public meetings should be completed as a single, integrated process. This way, community members can attend a single meeting to provide input on any High Line Canal planning efforts underway.

The Framework Plan Could Address Issues Like the Following:

- Connectivity along the Canal
- Regional connectivity
- Maximizing stormwater benefits
- Historic resources
- Recreational infrastructure needs
- Physical enhancements
- Cultural and community assets
- Additional adjacent open space and land conservation opportunities
- Wildlife habitat and open space connections
- Education opportunities
- Health and wellness
- Gateways and wayfinding
- Economic development
- Overall approach to programming and destinations

Meetings should occur throughout the region in each of the character zones. Each meeting should be structured with two distinct parts:

1. Canal-wide Feedback: Provide materials and feedback opportunities for topics related to the whole Canal (same materials at all meetings)
2. Character Zone Feedback: In support of each area's character zone plan, provide materials and feedback specific to the character zone (different materials by character zone)

Broad, diverse input is critical to ensure the framework plan, character zone plans, and other studies reflect perspectives of the Canal's diverse residents. A variety of tactics will be needed, along with a special focus on hard-to-reach populations, who are less likely to attend traditional public meetings. Youth engagement opportunities should be considered as well, including opportunities to provide feedback at public meetings plus separate kid-focused outreach opportunities.

Character Zone Plans

Character zone plans each focus on a specific area of the Canal, addressing more detailed considerations as well as issues specific to each character zone. For example, character zone plans should define recreation, physical enhancements, and other projects and associated cost estimates. Character zone plans should be structured in a different manner as determined within the framework plan; this structure should further define and delineate these sub-areas.

Like the framework plan, these local plans should incorporate recommendations from previous planning, the Vision Plan, local agency zoning and land planning, and technical studies. Character zone plans should be completed in parallel with the framework plan, with their final recommendations integrated into the final framework plan.

Landscape Design Guidelines

Part of the framework plan, landscape design guidelines provide direction to achieve a comprehensive environment along the Canal greenway that is memorable, unique, and enjoyable; economical and practical to maintain; responsible to functional and

environmental constraints; and in which all parts of the Canal relate to each other to establish an integrated whole consistent with this community vision. Developed in parallel with branding and signage design, the landscape design guidelines should draw upon the branding to provide recommendations for physical elements and design consistent with this identity. The signage design should feel consistent with the elements recommended through landscape design guidelines.

The purpose of landscape design guidelines is to encourage visual unity and functional consistency in the overall preservation and enhancement of the Canal environment, while at the same time creating a distinctive and pervasive sense of place appropriate for the Canal's five character zones. The guidelines do not prescribe specific designs for the Canal, but rather establish a design direction and series of performance objectives for landscape character.

Landscape design guidelines typically include the following:

- Principles and goals for landscape types (for the Canal, this would include principles for preserving/enhancing the identity of each character zone)
- Kit of parts: recommendations for planting, furnishings, and other elements; some elements will be consistent along the Canal, and others will support the preservation of different identities of each character zone
- Principles for placement of the elements

Landscape Types

The Canal should be understood as a composition of several related landscape types, each of which has a desired set of qualities that contribute to the Canal as a whole. Landscape design guidelines prescribe a set of principles and goals for each type, and offer examples of how the landscape should be preserved for all future implementation. For the High Line Canal, this should include the following:

- Design principles by character zone, addressing trail surface, width, and overall character
- Canal trailheads and gateways
- Pause places along trail
- Parking

Character Zone Plans Could Address Issues Like the Following:

All Character Zone Plans Would Address	Examples of Character-Zone-Specific Issues	
<ul style="list-style-type: none"> Physical enhancements: visitor experience and special character of zone Trailheads Parking Connections to adjacent open spaces and other uses Wildlife habitat enhancement Open space preservation and prioritizing land acquisition Viewshed protection Historic resources, building on findings of Historic Resources Study Integrating findings from second crossing study Local connectivity (pedestrian bridges over Canal) Integrate findings from stormwater program, identifying opportunities for stormwater benefits Demographic trends and needs by zone, including equity needs Off-Canal connectivity opportunities: for example, connections to nearby amenities, alternate on-street routes for more direct travel connections (shortcuts), and neighborhood loop trails Opportunities for local quick-win projects: for example, tree planting, prairie restoration, and other native plantings 	Wild Canyon	<ul style="list-style-type: none"> Visitor experience, including parking and wayfinding at trail beginning Historic interpretive signage Wildlife viewing and education
	Rolling Foothills	<ul style="list-style-type: none"> Development View corridor preservation Closing of Plum Creek gap Maintenance of tree canopy and vegetation Continued focus on serving diverse users
	Wooded Village	<ul style="list-style-type: none"> Tree planting and preservation Vegetation maintenance Open space preservation Crossing improvements
	Urban Refuge	<ul style="list-style-type: none"> Trail spurs connecting to shops and restaurants Connections to schools and parks Commuting route connections Connections to regional employment centers Closing of Wellshire Golf Course gap Programmed areas (group gathering spaces, integration with nearby active recreation areas, etc.)
	Prairie Retreat	<ul style="list-style-type: none"> Program and activation of underused areas (public art, group gathering spaces, integration with nearby active recreation areas, etc.) Increased awareness and use by residents with improved visitor experience and historic education Native prairie plantings and wildlife habitat Completion of gaps in the trail (including I-70 underpass connection) and connection to the Rocky Mountain Arsenal and other trails Economic development and property values that are Canal-friendly Connections to regional employment centers, shopping, restaurants, schools, parks, and Denver International Airport

- Relationships to adjacent land uses—both positive and ones that need screening
- Relationship to important cultural and historic landmarks

Landscape Elements

The Canal's landscape also contains a whole host of objects, materials, and elements that contribute to the character and quality of the experience along the Canal. Landscape design guidelines can help provide a framework for the unification of these elements across the Canal as well as recommendations to establish identities appropriate for each character zone. Guidelines prescribe both the composition quality standard for the element itself, as well as principles for the arrangement and siting of elements. For the Canal, the elements should include the following:

- Planting: drought-tolerant species, composition, and character; with maintenance considerations incorporated here or addressed separately in trail and landscape maintenance standards described below.
- Furnishings: seating, trash receptacles, bicycle facilities, lighting if appropriate
- Materials: trail surface materials, fencing, and walls
- Signage developed in parallel through branding, wayfinding, and signage design should be consistent with the character of these elements

Most importantly, the guidelines should grow out of a robust engagement process of meetings and workshops between the consultant team, the High Line Canal Conservancy, Denver Water, the HLCWG, the High Line Canal Core Team, maintenance staff from all entities that maintain the Canal and greenway, and the community. These conversations will help establish which elements are consistent along the Canal, and which elements vary by character zone. Including maintenance staff in the process ensures selected elements will be durable and easy to maintain.

Trail and Landscape Maintenance Standards

Maintenance of the Canal and greenway should support the character defined in this Vision Plan, contribute to the desired identity of each character zone, and create a safe, beautiful, and healthy environment. Trail and landscape maintenance standards result in Canal-wide and character-zone-specific best practices for tree, trail, and vegetation maintenance.

Crossings Improvements—Integrated with Character Zone Plans

Crossing improvements should be an integrated consideration of the character zone plans. Improving crossings along the Canal is a significant need to ensure safer, more convenient access to all of the Canal's users—walkers, bicyclists, equestrians, and others. Each character zone plan should evaluate and provide recommendations for safety improvements for intersections along the Canal.

This analysis should follow the model of the previous crossing study completed for Arapahoe County (*Feasibility Study for High Line Canal Crossings*, Felsburg Holt and Ullevig, 2014), extending this methodology to evaluate high-priority intersections outside of the original study area. Like the original study, the HLCWG would identify intersections to study within each character zone. The final character zone plans should include analysis of each crossing, recommendations for the best alternative, and next steps. HLCWG's Crossing and Safety Task Group would again provide oversight and technical input. Next steps would include prioritizing improvements and securing funding to implement recommendations.

STRATEGY 1

Also an integrated part of the framework plan, maintenance standards will follow the development of the landscape design guidelines. The difference between design guidelines and maintenance standards is that landscape design guidelines provide principles for selecting and locating elements, while trail and landscape maintenance standards provide detailed recommendations for long-term maintenance and care of the Canal's landscape, trail, and vegetation, in addition to other maintenance needs like trail surface maintenance, safety patrols, and snow removal (in some areas).

The development of maintenance standards should draw from information collected in the recent tree inventory, *High Line Canal Preservation and Enhancement Study* (Mike Holweger, Applied Design Services, 2012), and other previous studies relating to tree health and management.

The maintenance study would address the following topics, Canal-wide and/or by character zone as relevant:

- Trees, shrubs, and turf/groundcover maintenance
- Canopy management
- Noxious weed management
- Best management practices for irrigation of new trees
- Trail maintenance, including snow removal if relevant
- Inspection and litter removal
- Sustainable landscape maintenance strategies including integrated pest management and low-mow areas
- Metrics for tracking performance (including costs) and measuring progress
- Technologies for asset management
- Guidelines for volunteer management

Development of the maintenance standards should include focus groups with maintenance staff at Denver Water and managing jurisdictions/districts. Input from existing maintenance staff is critical to gain an understanding of existing practices, challenges, and goals, and later to provide feedback about recommendations.

The public should also have an opportunity to provide feedback about proposed maintenance standards as they relate to Canal character in each character zone.



Stormwater Program

The public outreach sessions confirm a great interest by the public to maintain vegetation along the Canal corridor. Stormwater is a potential green infrastructure concept that improves water quality to receiving streams and possibly supports area drainage planning that also introduces more water into the Canal. This concept should continue to advance.

Denver Water will continue to lead coordination with Urban Drainage and Flood Control District and the public works/water departments of each jurisdiction along the Canal to work toward a long-term future for the Canal from a stormwater perspective. Urban Drainage and Flood Control District will lead development of a stormwater operational model of the Canal in 2017 and begin a broader master plan to evaluate regional stormwater management adjacent to the Canal.

2017 may include implementing multiple demonstration projects along the Canal such as Wellshire, Greenwood Village, and Shea Homes within Douglas County, with the potential for others, to test assumptions from the previous feasibility study. The demonstration projects will also be utilized to resolve potential permitting, legal, and management challenges associated with utilizing the Canal for stormwater benefit.



Denver Water currently serves approximately 70 customers with the High Line Canal. Denver Water is committed to meeting the contractual obligations to these customers in order to provide them service. However, there are likely more efficient and sustainable ways to provide service and Denver Water will need to explore these with the High Line Canal customers. If stormwater demonstration projects are implemented while customers are still being served with the High Line Canal, there will be a transitional period where the Canal must serve both functions. This must be managed in a collaborative way by Denver Water, the customers, Urban Drainage and Flood Control District, and the municipal stormwater jurisdictions along the Canal. A plan to manage this transition will be developed along with implementation of the demonstration projects.

Branding and Wayfinding Plan

PUBLIC FEEDBACK | QUICK-WIN OPPORTUNITY

Improving wayfinding signage is a quick-win opportunity to significantly improve the Canal experience along its full length. Today, signage varies significantly along the Canal, and in some areas it can be difficult for walkers, runners, equestrians, and cyclists to find their way. The first step of improving signage is this two-phase branding and signage package.

Emerging Technologies For Wayfinding

Bluetooth beacons¹ enable a more engaged interaction between people and the spaces they move through. In these wayfinding systems, the signs are equipped to emit a signal for a certain range surrounding the sign. When a park visitor (who has location services enabled on their phone) walks by the sign, the sign pushes an alert to the person about a nearby destination based on the sign's content. LinkNYC is a great example of how Bluetooth beacons can be incorporated into a larger sign pylon.² However, one of the distinct advantages is the relatively small size of the beacons, so they can be incorporated in very small enclosures. Although there are different manufacturers, all are about the same size.³ Apps like Beacondo can be utilized to link users with the markers as they journey throughout a space.⁴

¹ <https://www.tnooz.com/article/sita-beacons-americanairlines/>;
<https://segd.org/wayfinding-and-internet-place>

² <http://www.theverge.com/2015/12/28/10674634/linknyc-new-york-public-wifi-installation-photos-gigabit>

³ <http://www.metmuseum.org/blogs/digital-underground/2015/beacons>

⁴ <http://www.beacondo.com/>

This plan should include developing a consistent brand for the Canal and designing wayfinding signage and maps. The **brand** should provide a visual translation of the community-driven vision described in this document. The brand design should include an overall brand for the Canal, as well as sub-brands, including taglines, for each character zone. The Canal brand development should include the opportunity for public feedback, which should be integrated with framework plan meetings.

Signage should have a consistent, recognizable look throughout the Canal, but would include elements that vary by character zone. The wayfinding signage package should include design of an integrated family of signage supporting basic navigation along the Canal. This would include the design of the following types of signage:

STRATEGY 1

- Gateway signage at the beginning and end of the Canal, and potentially smaller gateway signage marking transition between character zones
- Trailhead markers
- Trailhead kiosk with map
- Free-standing map
- Directional signs—indicating for example, distance and direction to nearby landmarks/destinations, restrooms, parking, and transit stops
- A standard set of mileage markers
- Identification markers: for example, cross-street names or adjacent park or landmark names
- Rules and Regulations signs
- Ground-plane markers for orientation: for example, towards the mountains or towards the airport
- Other basic information: for example, information about accessibility including trail surface

Signage design should consider ADA and accessibility needs, as well as non-English speakers. Standard icons¹ should be used to increase understanding, and translation functionality should also be considered as part of the wayfinding app. Wayfinding signage design should also look ahead to the next phase of interpretive signage design. Sign posts should be considered to allow for the later addition of panels of interpretive content or regulatory information.

The branding and wayfinding plan should also include developing a **series of maps for wayfinding**. This should include an overall map which can be used on the **map signs** on the Canal, and also adapted into a **printable version** and **interactive online map**. Supplementing these tools, a **wayfinding app** could be considered as part of this scope, or developed as a separate tool. The idea is to create a supplemental tool for improving navigation along the Canal.

¹ For example, National Park Service's UniGuide Standards

Interpretive and Educational Signage

PUBLIC FEEDBACK | QUICK-WIN OPPORTUNITY

Interpretive signage would include the development and design of interpretive signage and related content along the Canal and could be completed later. Signage will help share the story of the Canal's history, water context, wildlife, and beyond. Additional details about historic interpretation opportunities are available in the *Reconnaissance Survey and Prioritized Survey Plan: High Line Canal Corridor* (See Chapter 5, pages 112-113).

This signage package should consider **physical signage** as well as opportunities to integrate **digital content**, **geocaching**, and **other interactive elements**.





Signage at
Longwood
Gardens



Marjorie Perry
Nature Preserve



Existing mileage
markers along some
parts of the Canal

Build Awareness and Understanding of the Canal

GUIDING PRINCIPLES SUPPORTED



Strategy 2 focuses on building awareness and understanding of the Canal. While the Canal is beloved by many in the region, many others are not aware of the Canal's trail and impressive length. Developing a communications strategy, sharing this Vision Plan, and reporting on progress will help increase awareness. This strategy also includes quick-win opportunities for wayfinding and signage improvements and developing materials like trail maps, guides, and digital tools to make it easier to explore the Canal. Expanding education programs and sharing the Canal's historic story are additional supporting actions of Strategy 2.

Celebrate and Share this Vision Plan and Report on Progress

QUICK-WIN OPPORTUNITY

This Vision Plan process has helped increase awareness of the Canal and the need for action. This trend can continue as the plan is released and implementation begins, and greater awareness will increase support for action.

Sharing the plan: The Conservancy website can act as a digital source for the full Vision Plan as well as summary handouts. Jurisdictions and districts should also consider placing printed copies of the summary handouts at community centers, city halls, libraries, or other public buildings.

Monthly/Quarterly Progress Updates: Following the release of the Vision Plan, the Conservancy should work with jurisdictions, districts, and Denver Water to share implementation progress. Each month or quarter, the Conservancy could draft a brief update on progress, and provide this to jurisdictions, districts, and Denver Water to add any additional local updates and then share via newsletters or websites. This way, the community can stay up-to-date about progress through regular updates.

Develop a Communications Strategy

QUICK-WIN OPPORTUNITY

With the Canal's long length and diverse users, communications must be a multi-part strategy. The Conservancy has already been growing their communication base, and this action recommends building on this success by developing a communications strategy—an overall plan for communications and reaching different audiences.

Communications includes in-person, digital, and print media, and this plan should draw upon opportunities for developing content internally as well as working with jurisdictions, districts, community partners, media, and local bloggers, and seeking user-contributed content from Canal enthusiasts to further spread the message. Continuing to attend relevant local events is also important, and the development of a mobile marketing display about the Canal and the Vision Plan would support this. Translation should be a consideration of the communications strategy, ensuring news and information about the Canal is accessible to a wide variety of audiences. Increasing awareness among underserved, low-income, minority, and immigrant communities should be a special focus of the communications strategy.

Strategy 2 at a Glance

Collaborators

- √ High Line Canal Conservancy/Public
- √ Denver Water
- √ Jurisdictions and Districts

Supporting Actions Overview

- Celebrate and share this Vision Plan and report on progress
- Develop a communications strategy
- Implement signage and wayfinding improvements along the Canal (*See also "Branding and Wayfinding Plan" and "Interpretive and Educational Signage"*)
- Create supportive materials to make exploring the Canal easier
- Expand educational programs
- Tell the story of the Canal's history

Implement Signage and Wayfinding Improvements Along the Canal

QUICK-WIN OPPORTUNITY

See “Branding and Wayfinding Plan” and “Interpretive and Educational Signage” for more information.

Implementing signage and wayfinding improvements is a quick-win opportunity for improving user experience along the Canal. Following signage design, implementation would proceed in two phases:

- Phase 1: Wayfinding and directional signage, including mile markers
- Phase 2: Interpretive signage (history, story of water in the West, wildlife and the environment, and more)

Create Supportive Materials to Make Exploring the Canal Easier

QUICK-WIN OPPORTUNITY

In addition to physical signage, maps and digital tools can also help runners, walkers, and equestrians explore the Canal more easily. Materials may include the following.

Detailed Guide: The existing *Guide to the High Line Canal Trail* (2011) created by Denver Water is a detailed resource for users, and Denver Water is currently beginning an update process for this document. The Conservancy should work with Denver Water on this update process. The new guide should reflect the Canal’s brand. The printed version of this guide should be available in many locations and purchasable online. It should also be made available for checkout at libraries across the region. Denver Water and the Conservancy should consider whether it could be downloadable for free online.

Free Map/Brochure: Developing a free, abridged version of the detailed guide would further increase access to easier ways to explore the Canal. The map included in this brochure will be developed as part of the branding and wayfinding plan. This brochure could be designed to include an overall trail map, or it could be designed as a series of five brochures, one for each character zone. If designed as a series, each brochure would include brief information about the overall Canal, with a more detailed map of one character zone. These guides could be made

available at recreation centers, community meetings, city hall and community centers, libraries, schools, regional visitor centers, and shops near the Canal.

Self-Guided Tour Guides: In addition, building on the Walk2Connect series, development of a series of walking guides is also underway. These guides should also expand to include self-guided tours for runners, equestrians, and bicyclists. Some tours may have a historic theme, as suggested in *Reconnaissance Survey and Prioritized Survey Plan: High Line Canal Corridor* (Square Moon Consultants, 2016; page 113).

Interactive Online Map and Wayfinding/Map App: These tools should be developed as part of the branding, wayfinding, and signage design to ensure visual consistency and integrated functionality between Canal signage and digital content.

Other tools to encourage exploration: Other ways to promote exploration should also be considered, which may include a badge program or walk-the-Canal app to track sections completed.

For all supportive materials, translation needs should be considered. The communications plan (see Strategy 2) should provide guidance on this topic. Together, improved signage, maps, and self-guided tour guides will make exploring the Canal easier and more accessible.

Expand Educational Programming

For cultivating stewardship for the next Generation, see “Develop the Next Generation of High Line Canal Stewards.”

This topic focuses on sharing information about the Canal to a wide variety of ages, particularly in the under-utilized areas and under-served populations. Educational opportunities are quite broad and would focus on many different aspects of the Canal. Topics may include wildlife and the environment, trees and other plants, the Canal’s history and evolution, historic resources, health and wellness benefits, cultural significance, water in the West including conservation and stormwater, active recreation and bicycle programming, and local communities.

Developing an **education strategy** for working with schools, Environmental Learning for Kids (ELK), and

other educational partners would provide a roadmap for reaching youth along the Canal. The Canal is within 0.25 miles of 28 public and private schools, and it offers a great opportunity for outdoor learning about the natural world, water cycles, and local history and geography. After-school programs and field trips would also engage local children in learning about and exploring the Canal.

Beyond schools, **educational programs, signage, and digital tools** would offer learning opportunities for all ages. **Guided walks or tours** could focus on a particular theme and be led by a local expert or volunteer. Geocaching would provide other learning moments.

Partnership opportunities for education include the Denver Museum of Nature and Science, History Colorado Center, and Colorado Association of Science Teachers (CAST). Maintaining high stream standards in urban areas requires changing behaviors by the public as it pertains to stormwater quality. This will require education, which can be built into the overall education program. Additional stormwater education would be helpful in adding to the existing Municipal Separate Storm Sewer System (MS4) permit education goal, and entities like Denver Water, Urban Drainage and Flood Control District, and local public works departments may be partners for sharing the stormwater and other water stories.

Expanding education should also be coordinated with Interpretive Signage development (*see* “Interpretive and Educational Signage”).

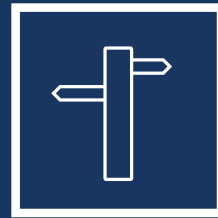
Tell the Story of the Canal’s History

Sharing the story of the Canal’s rich history would include many aspects. **Interpretive signage and trail guides** can highlight historical elements and events. In addition, developing a **history of the Canal for a public audience** would be another tool for sharing the Canal’s story. This document would be based on research compiled in the historic resources research outlined in Strategy 1 and integrated with the framework and character zone plans. Collecting **oral histories** would supplement the research of the historic resources study, providing firsthand memories of the Canal’s significance and evolution.



Continue to Align the Canal's Management and Funding Structure with the Vision

GUIDING PRINCIPLES SUPPORTED



Strategy 3 focuses on organizational planning for the long-term future of the Canal's management and identifying funding sources. Key to this future will be continuing the successful collaboration among the Canal's many jurisdictions, districts, and agencies.

Study and Develop a Long-term Coordinated Management and Funding Model for the Canal

What management and funding model will best ensure the future sustainability of the Canal as a cherished and cared-for regional resource? This question will be the focus of next steps of planning. During the Strategy 1 planning, Denver Water, along with the Conservancy and jurisdictions, will need to better understand the needs and funding and then evaluate future management options for the Canal. The goal is to ensure the long-term management is best aligned to support the community's vision for the future of the High Line Canal articulated in this document, preserving and protecting the Canal's natural, connected, and varied character.

Denver Water, the Conservancy, and the partnership jurisdictions all share a common vision to secure the Canal as an asset for the future. As the framework plan, stormwater program, and other planning is underway, the best long-term management structure can be studied and considered. This management model should address maintenance and operations for stormwater and recreation, regulations, planning, communications/marketing, stewardship, and partnerships. It should identify best practices from around the country that would be models for the Canal.

Strategy 3 at a Glance

Collaborators

- ✓ High Line Canal Conservancy/Public
- ✓ Denver Water
- ✓ Jurisdictions and Districts

OTHER

Urban Drainage and Flood Control District

Supporting Actions Overview

- Study and develop a long-term coordinated management and funding model for the Canal
- Continue to coordinate with local jurisdictions, districts, and other governing entities
- Evaluate existing expenditures on the High Line Canal
- Explore and identify funding sources (funding strategy)
- Continue to coordinate with developers near the Canal



Continue to Coordinate with Local Jurisdictions, Districts, and Other Governing Entities

As planning and implementation proceeds, continued coordination with local jurisdictions, districts, and other entities will be critical. The HLCWG has been a tremendous asset to the Canal and a great channel for communication and coordination among the Canal’s many governmental jurisdictions. As planning from Strategy 1 proceeds, continued **input from the HLCWG about the framework plan, character zone plans, and other studies** will continue to be critical.

As the framework plan and character zone plans proceed, **planning and zoning tools** for protecting the Canal should be considered. These strategies would typically need to be implemented by each jurisdiction, so each jurisdiction could consider tactics that make sense for

their area with input from residents and users of the Canal. Possible zoning tools may include overlay districts, viewshed ordinances, setbacks, height restrictions, adjacent development guidelines, and adjusting regulations. In addition, **local planning efforts** would be opportunities to preserve the character of the Canal and make local connections safer.

Evaluate Existing Expenditures on the High Line Canal

This supporting action focuses on developing an understanding of existing expenditures on the High Line Canal; the next step will be identifying funding sources (see below). Today, Denver Water, the High Line Canal Conservancy, and local jurisdictions and districts (including the seven recreational lease holders), work together for Canal maintenance, funding studies

Canal Management Today: Current Management Model



Ownership	Denver Water	Denver Water
Management / Operations	Denver Water	Denver Water Lease Agreement For Recreational Use of the High Line Canal <i>(Leaseholders—Douglas County Parks, Trails and Building Grounds Division; Highlands Ranch Metro District; South Suburban Parks and Recreation District; Greenwood Village Parks, Trails and Recreation Department; Cherry Hills Village Parks, Trails and Recreation Division; Denver Parks and Recreation Department; and Aurora Parks, Recreation and Open Space Department)</i>

and future planning, sharing communications, and coordinating with volunteers.

The Conservancy has begun to collect data about existing maintenance costs; preliminary data suggests existing expenditures are at least \$12,800–\$18,600 per mile.¹ Additional data collection can help confirm these numbers and evaluate additional expenditures that are currently supporting the Canal.

¹ Data from 2014-2015, including Denver Water and Recreational Lease Holders. Maintenance costs include trail surface care, tree and foliage care, mowing, snow removal (where applicable), signage upkeep and replacement, patrol, inventorying and maintaining facilities including trash receptacles and graffiti removal, and noxious weed and pest control. Draft costs were gathered per jurisdiction and varied widely; a range is shown here to reflect that data is preliminary.

Explore and Identify Funding Sources (Funding Strategy)

This task would occur in parallel with long-term management model development.

Identifying sustainable funding sources is critical for the long-term preservation of the Canal. The **funding strategy** should evaluate possible funding sources and identify suitable funding streams for anticipated capital projects (identified, for example, in the framework plan, character zone plans, or stormwater program) as well as operations and maintenance. It should include a **fundraising strategy** for maximizing private support. These funding sources play a critical role, especially for supporting operations and maintenance needs, which

Current Division of High Line Canal Responsibilities

Denver Water (Canal Side)	Counties, Municipalities, and Special Districts (Trail Side)
<ul style="list-style-type: none"> Ownership Herbicide treatment for weed control Vegetation maintenance (cooperatively with local entity) Removal of vegetation from Canal’s cross section and flow line Tree removal, safety tree trimming on the side of the Canal opposite from the trail Approval of location and number of signs Approval of any development and improvement plans, such as license agreements or easement agreements for permanent installations (i.e., bridges) Approval of all events on the Canal Maintaining of easements Establishment of rules for use of the Canal Canal clearance of trash, vegetation, and other obstructions Maintenance of free flow to headgate users Mowing and weed control of areas not covered by the recreation districts Any other work that needs to be done for water conveyance Maintenance of Canal course (preventing meandering) 	<ul style="list-style-type: none"> Fire suppression (coordinating with local fire departments) Maintenance of all recreation amenities Maintenance of sanitary facilities Trailside mowing Watering of trees planted by the local entity Insect and disease monitoring and control for new trees planted by local entity Vegetation maintenance (cooperatively with Denver Water) Provision and maintenance of benches, rest areas, and picnic areas Trail maintenance Trash maintenance Posting of information and regulatory signs Safety tree trimming trailside and at intersections Enforcement of rules, regulations, and local ordinances Grading of maintenance roadways Application of herbicides (if approved by Denver Water, local, state, and federal regulations) around obstructions (e.g., signs, fence lines, etc.)

are typically harder to fund through grants. A quick-win opportunity is initiating a membership campaign to grow a network of support for the Canal (*see also* “Provide Exciting Donation Opportunities”).

Aligning Funding Opportunities and Projects

For complex multijurisdictional projects like the High Line Canal, diverse funding sources are common. Funding sources are often relevant to a particular type of improvement, so potential funding should be considered for alignment with the Vision Plan. For example, underpasses and safety improvements at crossings would be candidates for federal transportation funding, while historic preservation efforts may be more likely to secure grants from agencies like History Colorado Center. Different approaches will also be relevant in different character zones and jurisdictions of the Canal.

Potential Funding Sources

Arapahoe County Open Space sales and use tax funds (for projects in Arapahoe County) as well as GOCO funding will continue to be important sources for supporting the Canal. Additional financial support from **grants and local, regional, state, and federal funding** will be needed. All potential funding sources should be evaluated, including a **special district,² planning and zoning incentives, and opportunities to work with developers near the Canal** where relevant. The Colorado Office of Economic Development and International Trade (OEDIT) has been developing its **Regional Tourism Act (RTA) grant program**, which may be relevant for the northeast end of the Canal if a project was shown to increase state sales tax revenue from out-of-state visitors. A new variation of a traditional business improvement district (BID), an area of residents and/or local businesses could choose to form a **Canal improvement district**, a self-created entity to raise revenue for local support of the Canal. Like a BID, these CIDs would support maintenance and cleanup, safety, programming, and other improvements.

Volunteers, Friends groups, and community service projects can help with some aspects of maintenance and small-scale projects, helping maintenance funding go farther. Volunteer coordinator(s) will be needed to ensure

volunteers are effectively and efficiently contributing to the Canal and to further promote volunteering. **Crowd-source funding** like Kickstarter campaigns should be explored for local improvements.

As part of this process, three other park systems were studied for comparison to the High Line Canal: Buffalo Bayou Park, the Erie Canalway Trail, and the Minuteman Bikeway. These comparisons examined revenue, expenditures, volunteer activities, management responsibility models, and more. See Appendix B for more details.

Continue to Coordinate with Developers Near the Canal

QUICK-WIN OPPORTUNITY

Development is occurring near the Canal in some areas, and continued coordination by local jurisdictions, Denver Water,³ and the Conservancy with private developers near the Canal can help encourage development that supports the character of the Canal. For example, the history of the Canal is planned to be featured as a park amenity in the Painted Prairie development at the far northeast end of the Canal, near the last headgate.

The Canal acts as a local amenity with many benefits to new development, and new development can be planned to offer opportunities to the Canal. Importantly, development is an opportunity for supporting stormwater retrofits for the Canal. Coordination with local jurisdictions would provide zoning incentives for public benefits to the Canal, including trail improvements, long-term maintenance or funding support, historic preservation, or other enhancements. Coordinating with local developers near the Canal can help ensure development is consistent with this community vision of a natural, connected and continuous, and varied Canal.

² For example, Science Cultural Facilities District (SCFD)

³ Denver Water serves as a development review referral agency to the local land use jurisdiction and receives notifications of proposed development as an adjacent owner.

Potential Funding Opportunities for Capital Projects and Operations/Management

Capital Projects									
	Arapahoe County Open Space sales and use tax funds	Great Outdoors Colorado (GOCO) Funding	Other local, regional, or state funding	Federal funding	Other grants	Denver Water / Urban Drainage	Stormwater use fees ¹	Development	Private
Stormwater projects			●	US-EPA		●	●	●	
Connectivity improvements	Projects in Arapahoe County	●	●	US-DOT					●
Habitat enhancements and tree planting	Projects in Arapahoe County	●	●		●			●	●
Open space preservation/conservation easements	Projects in Arapahoe County	●			●				●
Other enhancements	Projects in Arapahoe County	●	●		●			●	●
Historic preservation			●		●				●
Operations and Management									
Maintenance			●			●	●	●	Monetary support, Friends groups, and Volunteers
Education and programming		Inspire Initiative			●	●			Monetary support and in-kind donations
Planning	●	●	●		●	●			●

¹ Stormwater use fees are not available in all the local jurisdictions and private land adjacent to the Canal (e.g., Douglas County).

Harness the Community's Passion to Promote Stewardship of the Canal

GUIDING PRINCIPLES SUPPORTED



The Canal is a cherished resource, and Strategy 4 focuses on providing opportunities for the community to support the Canal. This includes growing volunteer opportunities and providing exciting donation opportunities, while also providing other chances for community members to get involved. Strategic partnerships with cultural and community organizations will further promote collaborations to protect and enhance the Canal. Finally, youth engagement will help cultivate the next generation of Canal stewards.

Grow Volunteer Opportunities

QUICK-WIN OPPORTUNITY

See “Develop the Next Generation of High Line Canal Stewards” for more details about growing youth and family volunteer opportunities.

Through the Vision Plan planning process, many community members have shared ideas and expressed a strong desire for volunteering. The Conservancy has begun to develop a network of volunteers and should work with Denver Water, local jurisdictions, and other partners to grow volunteering opportunities. Volunteers can help with tasks like maintenance; weed removal; planting programs for trees, wildflowers, and other native plants; Canal clean-up; safety and security; and collecting data. Volunteers can also help lead tours and walking groups to help others learn about and enjoy the Canal.

Example volunteer ideas from community members and strategic input session attendees

Different levels of giving/recognition with incentives for giving

Tree and wildflower planting program

Weed removal and maintenance crews

Boy Scouts/Girl Scouts with an annual commitment to the Canal

Adoption of portions of the trail for maintenance

Kits that provide guidance for neighborhood-based groups helping take care of the Canal, supporting these common themes along the Canal

Volunteer tour guides or nature course leaders

Strategy 4 at a Glance

Collaborators

- √ High Line Canal Conservancy/Public
- Denver Water
- Jurisdictions and Districts

OTHER

Community and cultural organizations and local champions

Schools, HOAs, senior centers, scout troops, and other groups

GOCO Inspire Initiative

Environmental Learning for Kids

Supporting Actions Overview

- Grow volunteer opportunities
- Provide exciting donation opportunities
- Continue to develop strategic partnerships with other cultural and community organizations
- Continue to encourage community involvement and grow a network of local champions
- Develop the next generation of High Line Canal stewards

Provide Exciting Donation Opportunities

QUICK-WIN OPPORTUNITY

Private support of all amounts is critical to the long-term sustainability of the Canal. Developing different levels of giving and providing incentives for giving can encourage financial support. Launching a membership campaign is another early step of increasing support. Swag items like tote bags, T-shirts, socks, mugs, notebooks, and scarves could be available for purchase, with proceeds supporting the Canal.

Continue to Develop Strategic Partnerships with Other Cultural and Community Organizations

Collaborating with other cultural and community organizations can help increase programming opportunities and other resources for the Canal.

Partnerships can also help increase awareness, connecting new users to the Canal. Potential partnerships may include groups like the following:

- Denver Museum of Nature and Science
- History Colorado Center
- Denver Botanic Gardens
- Trust for Public Land Partners for Places
- Denver Urban Gardens
- Environmental Learning for Kids (ELK)
- Metro Denver Nature Alliance (mDNA)
- Audubon Society of Greater Denver
- Rocky Mountain Arsenal National Wildlife Refuge
- Sand Creek Regional Greenway Partnership
- Star K Ranch in Aurora
- Libraries, schools, and churches along the Canal and other community organizations

Continue to Encourage Community Involvement and Grow a Network of Local Champions

Throughout this visioning process, the great passion of community members for the Canal has been clear. The Canal is a cherished resource for many, and residents want to help contribute to it. In turn, this support is

a tremendous resource for the Canal. Continuing to provide opportunities for input and involvement will be critical. Ensure all voices, including minority populations, are engaged.

These sorts of opportunities would take many forms.

Input into Strategy 1 planning should be coordinated through framework-plan community meetings, and this effort should continue the effort to reach residents and further grow diverse community involvement (*see also* “Framework Plan”). **Events and gatherings** are also occasions to celebrate community involvement and reach new audiences. Running groups, bike-to-school days, a family BioBlitz¹ with Metro Denver Nature Alliance, and other Canal events would promote active living, learning, and Canal use. Providing **structured programming**, particularly in underserved communities, would encourage Canal familiarity. This could include family events, urban rangers programs, badge programs, and summer internship opportunities.

Continuing to **grow a contact list** of interested residents, businesses, and local organizations will help ensure news about events, input opportunities, and other updates is widely shared. This includes identifying contacts at local homeowners’ associations, senior centers, community centers, and homeowners along the Canal. Building on the Conservancy’s success to date, **growing community through social media** can also help increase input, collect stories and photos, and share updates.

Growing a network of local champions includes continuing to identify individuals and groups already invested in the Canal and its future, and finding ways to engage them in bigger picture advocacy, planning, fundraising, and stewardship.

¹ “National Geographic describes BioBlitz as ‘a 24-hour event in which teams of volunteer scientists, families, students, teachers, and other community members work together to find and identify as many species of plants, animals, microbes, fungi, and other organisms as possible. A BioBlitz gives adults, kids, and teens the opportunity to join biologists in the field and participate in bona fide research expeditions. It’s a fun and exciting way to learn about the biological diversity of local parks and to better understand how to protect them.’” Colorado Geographic Alliance News, Spring 2012, http://www.uccs.edu/Documents/coga/2012/Newsletter_Spring2012_Final.pdf.

Develop the Next Generation of High Line Canal Stewards

Inspiring and engaging youth can help cultivate the next generation of High Line Canal champions. This effort should focus on getting more youth out on the Canal and also providing opportunities for them to contribute to the Canal's stewardship.

Potential partners for growing youth stewardship include the following:

- GOCO Inspire Initiative for Northeast Metro Denver—northeast Park Hill, Denver; Montbello, Denver; northeast Aurora; and Commerce City (northward to 96th Avenue)
- Colorado Youth Corps Association (CYCA), represented locally in the High Line Canal area by the Mile High Youth Corps (MHYC)
- Volunteers for Outdoor Colorado (VOC), including VOC's Outdoor Stewardship Institute for leadership training
- Environmental Learning for Kids (ELK)
- Aurora Parks "GoWild" program (in four neighborhoods participating in GOCO Inspire Initiative)
- Groundwork Denver
- Denver Museum of Nature and Science

- Boys and Girls Clubs
- Boy Scouts and Girl Scouts

Community service projects can be good ways to build stewardship for the Canal. Community service project collaborations are sought under the GOCO grant, and shared projects with the High Line Canal would be great opportunities. Local neighborhood projects are better for younger children, and should include family service projects. Older youth can participate in service projects along the entire length of the Canal through the Colorado Youth Corps Association (CYCA) or Volunteers for Outdoor Colorado (VOC).

The CYCA is represented locally in the High Line Canal corridor area by the Mile High Youth Corps (MHYC). In MHYC's Land Conservation Program for young adults ages 18 to 24, participants work as part of a crew on projects like environmental restoration and trail building and maintenance. Young adults who are interested in land conservation activities can also participate in the AmeriCorps scholarship program.

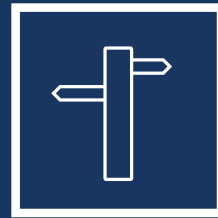
VOC's Outdoor Stewardship Institute provides volunteer training for community service projects. Courses cover topics like conservation leadership, volunteer project management, working with youth, ecological restoration, and trail building and maintenance.



The Vision and Outreach Process provided opportunities for all ages to provide input.

Capitalize on Existing Momentum to Take Action Now

GUIDING PRINCIPLES SUPPORTED



While additional planning is underway, implementation of quick-win projects can begin. Strategy 5 includes projects that can be realized in the next six to eighteen months, bringing near-term improvements to the Canal. Crossing improvements, stormwater demonstration projects, pedestrian bridge upgrades, and additional tours and programming are all opportunities to make visiting the Canal safer, more accessible, and enjoyable for residents along its full length.

For example, building on the momentum of the exceptional public engagement, the Conservancy is partnering with other local organizations to initiate on-the-ground programs along the Canal. These programs will focus on stewardship, activation, and education. They will take place in various locations along all 71 miles and touch each of the varied user groups of the trail. The Conservancy is also developing best practices for program initiatives and exploring management and operational costs, while also assessing the value of such potential initiatives related to the Community Vision Plan for the High Line Canal.

Pursue Grant Funding that Aligns with Quick-Win Projects

QUICK-WIN OPPORTUNITY

Grant funding should be available for the High Line Canal through organizations that seek to support specific causes. Depending on the topic area for each quick-win project, different organizations could be pursued to find funding that aligns with the interest of the organization and the intent of the quick-win project.

Provide Tours and Programming to Increase Familiarity with the Canal

QUICK-WIN OPPORTUNITY

Offering tours and programming along the Canal would be a simple way to promote awareness of the Canal while educating people about the Canal. As more residents in the region become familiar with the Canal through these activities with a low barrier to entry, they may be more likely to then use the Canal on their own, or support the Canal through volunteerism. Examples of these programmed activities include historic tours, ecological tours, a bikeshare program with bike tours, partnering with Walk2Connect or South Suburban tours, or hosting tours through the High Line Canal Conservancy.

Evaluate Multiple Areas for Potential Stormwater Demonstration Projects

QUICK-WIN OPPORTUNITY

Three stormwater demonstration projects are being considered, with other areas identified as potential good cases for additional demonstrations. Specific locations planned or under consideration include demonstrations projects in Littleton, Wellshire, Greenwood Village, and Shea Homes within Douglas County. Continuing to invest in these stormwater demonstration projects will allow for testing assumptions from the previous feasibility study. The demonstration projects will also be utilized to resolve potential permitting, legal, and management challenges associated with utilizing the Canal for stormwater benefit.

Strategy 5 at a Glance

Collaborators

- ✓ High Line Canal Conservancy/Public
- ✓ Denver Water
- ✓ Jurisdictions and Districts

OTHER

Urban Drainage and Flood Control District

Public works sections of each jurisdiction along the Canal

Supporting Actions Overview

- Pursue grant funding that aligns with quick-win projects
- Provide tours and programming to increase familiarity with the Canal
- Evaluate multiple areas for potential stormwater demonstration projects
- Continue to improve crossings
- Continue to complete connections to other trail systems
- Continue upgrading and replacing pedestrian bridges

Also see these supporting actions for quick-wins in other strategies:

Wayfinding and signage for the Canal (Strategies 1 and 2)

Communications strategy (Strategy 2)

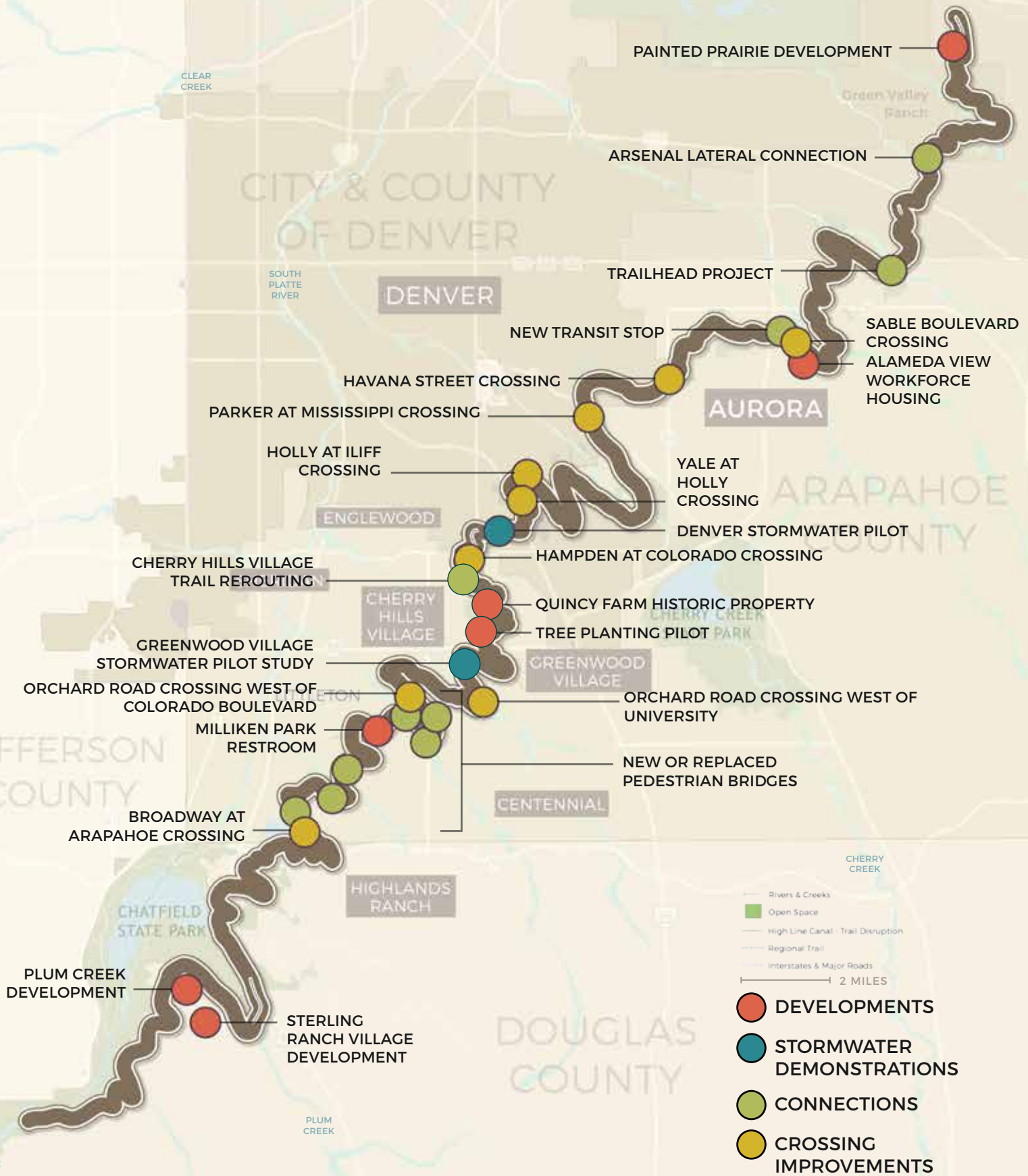
Share Vision Plan and report on progress (Strategy 2)

Map and trail guide (Strategy 2)

Coordinate with developers near the Canal (Strategy 3)

Volunteer and donation opportunities (see Strategy 4)

Projects Currently Underway



Continue to Improve Crossings

QUICK-WIN OPPORTUNITY

Many crossings have already been studied at length by the governing bodies of the Canal, with the results of these studies identifying several high-traffic and highly-unsafe Canal crossings at street level. These studies have called for at-grade crossing improvements, and in some places underpasses or bridges to provide a fully safe Canal experience. These crossing improvements should be implemented, and other problematic crossings identified, in order to achieve safety along all 71 miles. The I-70 underpass and Santa Fe underpass are two specific locations that have been identified as potential quick-win improvement opportunities. Littleton has been attempting to mitigate the cost of addressing the Broadway Triple Threat crossings by creating a sidewalk trail along the West side of Broadway from Ridge Road to Arapahoe Road, which leads Canal visitors off the High Line Canal for 3 blocks, but provides a safer and more cost-effective alternative than over/under passes on Broadway between Littleton and Centennial.

Continue to Complete Connections to Other Trail Systems

QUICK-WIN OPPORTUNITY

The Canal serves as an important regional connector, connecting other stream and trail systems. These trail systems adjacent to the Canal should be proactively embraced and celebrated by the Canal, with the aim of operating as a regional greenway network rather than independent trail paths. Wayfinding and trailheads would help to make these connections and crossing points clear, while proactive partnerships with the other trail governing bodies would help to create a regional system.

Continue Upgrading and Replacing Pedestrian Bridges

QUICK-WIN OPPORTUNITY

The Canal is currently undergoing replacement of several unsafe and outdated pedestrian bridges with a new standard model. These new bridges will reflect a cohesive design for the Canal and a fully upgraded safe, ADA accessible experience.

See These Quick-Win Opportunities in Other Strategies

- Wayfinding and signage for the Canal (Strategies 1 and 2)
- Share Vision Plan and report on progress (Strategy 2)
- Map and trail guide (Strategy 2)
- Coordinate with developers near the Canal (Strategy 3)
- Volunteer and donation opportunities (Strategy 4)

TIMELINE

What to Expect Next

The Community Vision Plan for the High Line Canal is now written and a collection of strategic actions have been recommended to move the Canal into an exciting new future. The following planning and implementation timeline shows the recommended immediate action steps. These include additional planning efforts and technical studies needed, processes related to clarifying future management, coordination and funding opportunities, a series of quick-wins (or short-term implementation potentials), and other ongoing efforts to integrate.

Central to all of these initiatives moving forward is the sense that the community and its voice will continue to be welcomed and heard. To achieve the incredible vision established by the community will take many years of hard work, cooperation, and creativity. It is a journey that will shape an incredible new legacy for the region—one that will inspire, connect, and nurture generations to come.

Recommended Implementation Framework

STRATEGY 1

**Create a Roadmap
for the Canal's Future
Physical Form**

STRATEGY 2

**Build Awareness and
Understanding of the Canal**

STRATEGY 3

**Continue to Align the Canal's
Management and Funding
Structure with the Vision**

STRATEGY 4

**Harness the Community's
Passion to Promote
Stewardship of the Canal**

STRATEGY 5

**Capitalize on Existing
Momentum to Take Action Now**

2017

2018 and Beyond



Acknowledgements

Thank you to all community members, stakeholders, officials, and passionate Canal users for your support and engagement in planning for the future of the High Line Canal. Over the course of six months, during our public outreach and vision planning, we engaged with thousands of people through open houses, community events, online surveys, and focus groups who have contributed to writing the Community Vision Plan for the High

Line Canal. The dedication we've witnessed to preserve, protect, and enhance our historic High Line Canal is what is necessary to ensure our Canal endures and thrives for future generations.

The following teams have been invaluable partners to the Conservancy throughout this planning process.

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Glossary of Terms

Canal: Canal is used in this document to refer to the Canal itself as well as the 100–150-foot right-of-way and trail beside it.

Character Zone: Character zones are different stretches of the Canal with distinctly different characters. The five character zones are Wild Canyon, Rolling Foothills, Wooded Village, Urban Refuge, and Prairie Retreat. Character zones include different trail surfaces, uses, adjacent land uses, and pass through different communities and ecosystems. A character zone is a stretch of the Canal with a similar feel.

Guiding Principle: Guiding principles are broad statements describing the community desires for the Canal.

High Line Canal Conservancy (the Conservancy or HLCC):

The Conservancy is a nonprofit organization formed in 2014 by a passionate coalition of private citizens to provide leadership and harness the region’s commitment to protecting the future of the High Line Canal. With support from each jurisdiction and in partnership with Denver Water, the Conservancy is connecting stakeholders in support of comprehensive planning to ensure the Canal is protected and enhanced for future generations. The mission of the Conservancy is, in partnership with the public, to preserve, protect and enhance the 71-mile legacy Canal.

High Line Canal Core Team:

Finalized in 2015, the Core Team includes Denver Water, Arapahoe County, Aurora, the City and County of Denver, Douglas County, and High Line Canal Conservancy (ex-officio member). As explained in the Core Team Memorandum of Understanding, the Core Team’s “focus will be to coordinate and be a catalyst for the many different process streams that will need to take place for an eventual decision by Denver Water on the disposition of the High Line Canal Greenway. The top line objective of the Core Team is to achieve maximum possible beneficial public use/s for the High Line Canal.”

High Line Canal Working Group (HLCWG):

Formed in 2010, the HLCWG consists of elected officials, jurisdictions and other public organizations, and Denver Water working cooperatively to build consensus, leverage funding, and advance projects to enhance the recreational experience along the Canal.

Objective: Objectives are more specific, measurable intentions in support of the principles.

Strategy: Strategies are key actions to implement the Vision Plan and preserve, protect, and enhance the Canal.

Supporting Action:

Supporting actions are the individual action steps of each strategy.

Vision: The vision is a high-level, community-driven articulation of the communities' hopes for the Canal's future.

Vision Plan: The Vision Plan is a comprehensive document describing the communities' priorities for achieving the vision.

Vision Statement: The vision statement is the overall aspiration for the future of our Canal—what we are all working towards.





Appendices

Community Input Summary

Maintenance and Operations Comparison

Chapter 1 Open Houses—Feedback Summary

Chapter 2 Open Houses—Feedback Summary

Chapter 3 Open Houses—Feedback Summary

Chapter 4 Open Houses—Feedback Summary

City as Play: Aurora Global Fest Summary and Friendly Village
Summary

OurHighLineCanal Online Survey—Feedback Summary

CrowdGauge Online Survey—Feedback Summary

Appendix A

Community Input Summary

The Vision Plan is an expression of the community's ambitions for the Canal's future. As such, the Vision Plan's guiding principles directly grew from the input from the community throughout the process. Several general themes emerged and were repeated often, with some differentiation by Canal zone (north, central, or south areas).

Towards a Shared Vision for the Canal: The Journey of this Feedback Process

In the early engagement efforts, the planning team sought input from the public on how the Canal is used today and began the initial promptings for the community to imagine what could make the Canal better in the future. Themes from these early meetings were tentative and smaller-scale, including ideas like adding some basic trail furniture and features to the Canal (benches, trash cans, bathrooms), providing more education and awareness about the Canal itself, and addressing conflicts on the trail between different types of users (high speed bikers, pedestrians, dog-walkers). Concerns about development directly on or too close to the Canal were also expressed, with a strong desire asserted for the Canal to remain as a natural retreat.

As the Vision Plan process continued, these themes were expanded upon as the community started to think about the big picture for the Canal. The number one theme heard throughout each open house and survey was the desire for the Canal to be preserved as natural-feeling, with much discussion about water, improving vegetation, tree planting, acquiring adjacent open spaces, and protecting wildlife habitat. Community members were concerned about providing a healthy ecosystem for animals as well. The public asked for volunteers to help communities stay involved and take on a stewardship role for this treasured natural asset; some attendees were interested in making donations to further support the Canal. Community members also acknowledged that supportive amenities like bike repair shops or cafes located nearby would be beneficial and provide a richer experience of the Canal, as long as these facilities did not infringe on the Canal's natural and peaceful character.

The Vision Plan process served an educative purpose as well, allowing the public to better understand the Canal's complexity, size, and challenges. As the public learned more about the different conditions all along the Canal, they voiced that this variety should be celebrated as distinct

districts; the Canal's breadth of experiences through seasons, environments, and trail types is one of its major assets. The public also learned about the Canal's size and length, and voiced that connectivity was important for the Canal as well. Connectivity included aspects of safe access to and along the Canal, as well as the Canal as a connector of communities, other trails, and different ecosystems. The Canal serves as a unifying thread for trail systems throughout the region. An important need expressed was improving street crossings for a continuously safe experience, making the Canal more accessible to communities by providing more access points, and closing trail gaps to connect all 71 miles. Learning about the Canal's rank in the water rights system of Colorado, water scarcity in the region's climate, the need for conservation, the Canal's seepage, a need to look at more efficient delivery methods, and the current unsustainable nature of the Canal's status quo transformed into a high interest in adapting the Canal for stormwater use. As the Canal's history was shared with communities, they responded with a desire to celebrate this history and preserve its story.

Toward the end of the Vision Plan process, many of these themes were repeated, but the community also began to focus on how to bring this vision to life. Quick-wins like improved crossings and basic signage were suggested. The conversation shifted toward providing a framework of support for the Canal for this vision to be accomplished: by perhaps creating a special district for the Canal or creating a sole governing body. Regardless of the specific framework decided upon, the community voiced that in order for the effort to succeed in caring for the Canal, it would need to be cross-jurisdictional and highly collaborative.

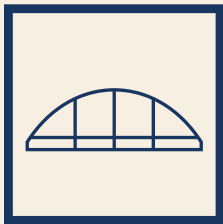
Throughout the entire process, community members continually voiced gratitude to the planning team for undertaking this process. The High Line Canal is cherished by the metro region, a love that showed through the excitement and positivity heard at all stages of this process.

GUIDING PRINCIPLES KEY THEMES



NATURAL

vegetation, habitat, land acquisition for preservation, provide nature in urban setting



CONNECTED AND CONTINUOUS

crossing improvements, trail gaps, access points, connections to amenities



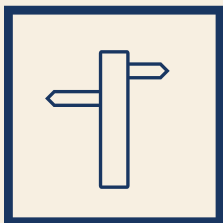
VARIED

varied trail type, seasonal changes, varied environments, Canal-friendly development



MANAGED

increased community involvement, well-maintained, clear management structure



ENHANCED

stormwater adaptation (high interest), multi-use paths, wayfinding, infrastructure

Different Communities, Varied Input

While the Vision Plan is intended to capture the future for the Canal as a whole, it also celebrates the different communities along the 71-mile corridor. Public feedback reinforced that the different parts of the Canal each have a distinct character that should be preserved and different issues and opportunities for the future.

The central areas of the Canal (Cherry Hills Village, Greenwood Village, City of Denver) were more vocal about keeping water in the Canal, sharing their fears of overdevelopment and of the Canal losing its natural character. Community members from these areas strongly voiced the desire for the Canal to be naturally preserved as-is, and enriched with tree planting and adjacent open space preservation. According to the OurHighLineCanal survey, these central areas of the Canal are used most often (more so than the north or south ends of the Canal), and the primary uses in these areas are for fitness activities or quiet, meditative activities like bird watching and being in nature.

In contrast, community members from the northern areas of the Canal expressed more interest in activating the Canal with programmed areas including play spaces, outdoor classrooms, and public art. The public in these areas was more concerned about safety on the Canal, primarily because it is not used as much as in the southern portions. By increasing usage of the Canal, the safety perception of the Canal would also improve. While the public in these areas definitely still desires for the Canal to be a natural retreat, they were more open to the Canal serving as a social gathering space or as an outdoor classroom for education purposes. Community members from these parts of the Canal also spoke about habitat and ecological restoration, including opportunities to restore and enhance the prairie character.

In the southern areas of the Canal, the public expressed that they currently use these areas for more active uses such as hiking or riding horses, taking advantage of the rolling foothills and the canyon at the Canal's beginning. Several community members expressed concern about the need to continue accommodating equestrian riders on the Canal. For a full summary of community open house feedback by meeting and by survey, see the following.

Appendix B

Maintenance and Operations Comparison

	Buffalo Bayou Park	Erie Canalway Trail	Minuteman Bikeway	High Line Canal
Description	53 miles of trail: <ul style="list-style-type: none"> ■ Mason Creek Hike and Bike Trail ■ George Bush Hike and Bike Trail ■ Buffalo Bayou Bike Trail ■ Terry Hershey Park Hike and Bike Trail ■ Private property Naturally-occurring Bayou Waterfront parks	300 mile pathway, 75% is trails Canal waterway (man-made) Wayfinding (some historic)	Asphalt trail Benches–sporadic Lighting–sporadic Trash receptacles Each town is responsible for maintenance/improvements in respective jurisdiction	Miles of trail Canal waterway (man made)
Managing Entity	Buffalo Bayou Partnership manages the 10-mile stretch in Houston, including the waterfront parks	The Canal Corporation (subsidiary of New York State Thruway Authority)	Town of Arlington–DPW Town of Cambridge–DPW Town of Lexington–DPW Town of Bedford	Denver Water, with trailside recreational lease use maintenance from: Douglas County Highlands Ranch Metro District South Suburban Parks and Recreation District Greenwood Village Cherry Hills Village Denver Aurora
Other Involved Entities	Harris County Houston First (local government corporation) Harris County Flood Control District City of Houston	Erie Canalway National Heritage Corridor Parks and Trails New York		High Line Canal Conservancy Other jurisdictions/districts
Roles and Responsibilities	Fundraising (TIGER Grants, Texas Parks and Wildlife Department, private foundation donations, individual donations) Trail construction Park construction Park buildings construction Water channel maintenance Organization of volunteers	Fundraising Trail construction Sign installation Snow removal Trail repair Signage repair Organization of volunteers	Snow removal Leaf litter removal Debris clearing (such as after a storm) Capital improvements Trail surface improvements	Trail surface care Tree and foliage care Mowing Snow removal Signage upkeep and replacement Patrol Trash cans Graffiti removal Outreach and planning (HLCC)

	Buffalo Bayou Park	Erie Canalway Trail	Minuteman Bikeway	High Line Canal
Annual Revenue	<p>2014: \$3,370,241</p> <p>2013: \$34,585,848**</p> <p>2012: \$11,833,704</p> <p>**unprecedented gift from private donor</p> <p>Receives annual \$2M from city for parks/trail maintenance</p> <p>ONLY COVERS 10-MILE STRETCH (INCLUDING WATERFRONT PARK)</p>	<p>2016: \$2,867,567</p> <p>2015: \$2,374,760</p> <p>2014: \$2,439,523</p> <p>Sources: Canal land leases, lock/bridge tolls, hydroelectric easement payments, permits for use of water/land. EXCLUDES grants, loans, and inter-corporate transfers</p>	Unknown	
Annual Expenditures	<p>2014: \$2,649,541 (\$275,878 for fundraising)</p> <p>2013: \$2,124,836 (\$235,836 for fundraising)</p> <p>2012: \$1,542,994 (\$258,460 for fundraising)</p> <p>Average: \$2,105,790</p> <p>ONLY COVERS 10-MILE STRETCH (INCLUDING WATERFRONT PARK)</p>	<p>2016: \$2,952,704</p> <p>2015: \$5,477,369**</p> <p>2014: \$2,332,329</p> <p>Expenses include maintenance, construction, reconstruction, development, or promotion of the Canal system, interpretive signage, historic markers (does not include maintenance of the Canal itself)</p> <p>**Covered storm damage repair from Tropical Storm Lee, Hurricane Irene, etc.</p> <p>Average of 2014 and 2016: \$2,642,516</p> <p>Average \$/Mile: \$8,808</p>	<p>Unknown</p> <p>(Not itemized in individual town DPW budgets)</p>	<p>2014/2015: \$939,709</p> <p>Average \$/Mile: \$12,800-\$18,600</p> <p>Includes trail surface care, tree and foliage care, mowing, snow removal (where applicable), signage upkeep and replacement, patrol, inventory and maintenance facilities including trash receptacles and graffiti removal, noxious weed and pest control</p>
Volunteer Activities	<p>Invasive species removal, trash and debris pickup, mulch spreading, trail cleanup, trail resurfacing, trail repair, office assistance, event support</p> <p>Group volunteering (10+) for a day in a specific area</p> <p>Monthly volunteer day for individual volunteers</p> <p>Dog park maintenance</p> <p>Trash pickup—informal trash collection</p> <p>Special events</p> <p>Special Friends groups/conservancies for specific segments</p>	<p>Grass mowing, brush cutting, litter/weed removal, graffiti cleaning, painting/repair of trail facilities</p> <p>Adopt-a-Trail</p> <p>Annual Canal Clean Sweep—local events during the same weekend</p>	Special projects, such as bike counts	

Sources:

2016 Budget New York State Thruway Authority and Canal Corporation (p. 40)

Buffalo Bayou Partnership 2014 Annual Report https://issuu.com/buffalobayou/docs/2014_report_final_draft

High Line Canal data is drawn from preliminary data collected by the Conservancy

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Denver Water

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Matrix

page 110-111

High Line Canal Conservancy

Back inside cover

Seth McConnell Photography

Preserve some of the
natural beauty before it's gone.
yes!
yes!!

Integrated
the metro-a
Wider bike

Close
the
existing
gaps

MORE BENCHES ALL ALONG CANAL.

REPLACE DYING TREES
IN BIBLE PARK

yes!!

KEEP UP THE
GOOD WORK!

MORE TRAIL HEADS
WITH PARKING

more
Order + Cleanup
for the trail

CONNECT
GREEN
VALLEY
RANCH
- FILL IN THE
TRAIL GAPS!
yes!

more lighting

Safety

Community

Use
bio-pest
control - we'll
treat the goats-heads

Rest
Quartz
GOOD
IDEA

More hikers

healthy
hunters

Wishes for Our Canal

into
area's
network

Keep it "natural"!

more water
in the canal!

Keep the CANAL
as rural as possible to
allow people to im-
merse themselves in
away fr

CO
a con

Happy



Connect First
Creek at DEW with

Better cross
(Santa Fe)

Repair mile

separations

ON CONCRETE OR ASPHALT @ AREAS OF INTEREST

