



# Natural Resources Management Plan: A Regional Collaboration

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Diverse Stakeholder Engagement  
Rivers Edge West 2026



Douglas County

**71 MILES**  
**860 ACRES**  
**14 JURISDICTIONS**





## Objectives of the NRMP:

- Support Canal resource managers with a cohesive guide across widely varying conditions
- Maximize habitat & recreation potential while meeting stormwater mandate

## Plan development:

15 months

April 2024-July 2025

Background: History of the High Line Canal



TRADITIONAL TERRITORY OF THE UTE, CHEYENNE, & ARAPAHO



HIGH LINE CANAL CONSTRUCTED



CANAL OPENED FOR RECREATION

1883

1924

1970



FORMATION OF HIGH LINE CANAL WORKING GROUP

2011



CANAL COMMUNITY VISION PLAN ADOPTION

2017



CANAL FRAMEWORK PLAN ADOPTION

2019

Water draws end ~2021

LAND TRANSFER CONSERVATION EASEMENT

2024

CONSERVANCY FORMATION

2014



Riparian / Wooded  
Novel, subsidized



Prairie  
Native, historic



# 5 Character Zones or SUBAREAS

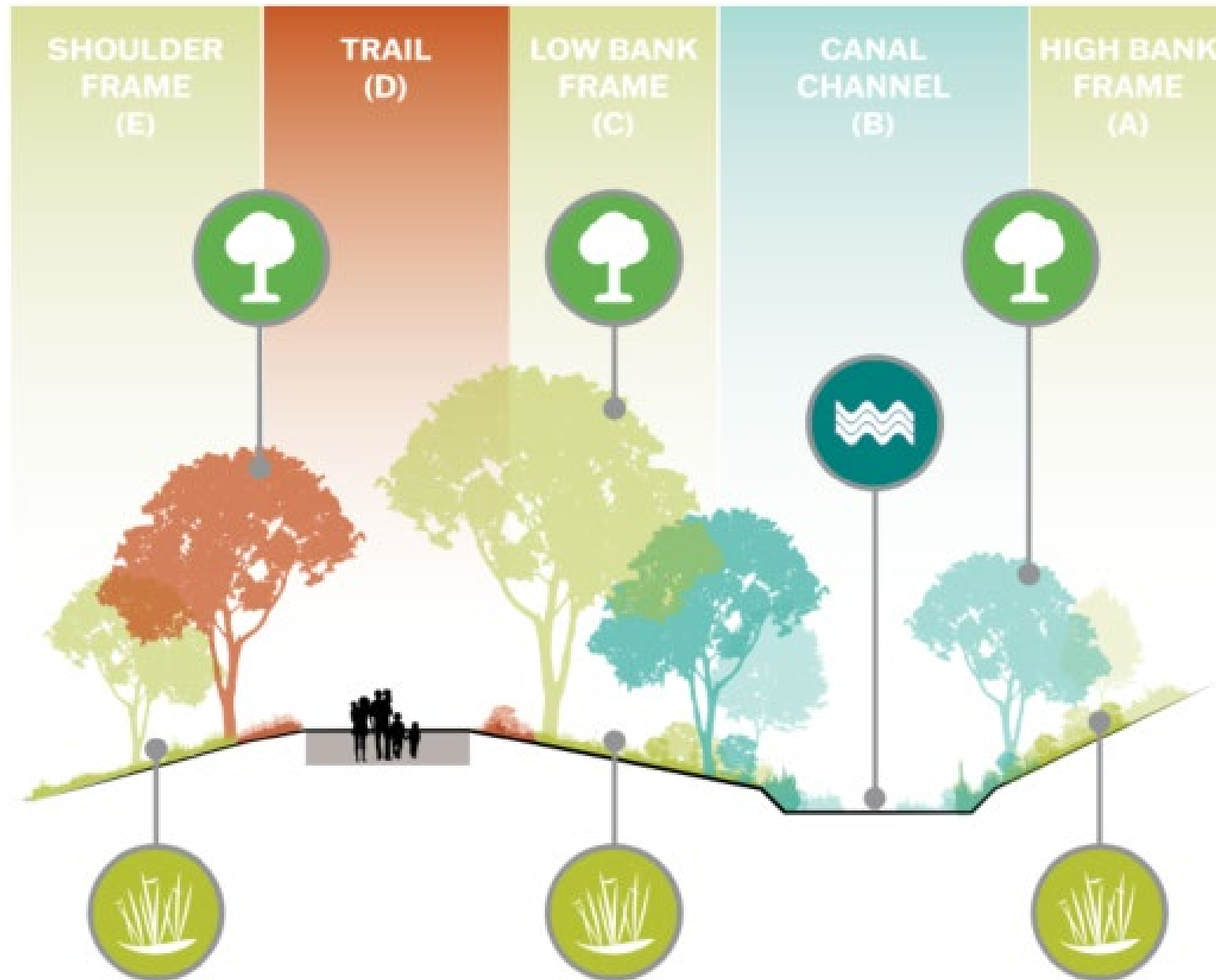
Based on differences in

- *Hydrology*
- *Ecological character*
- *Economic base*
- *Management approach*





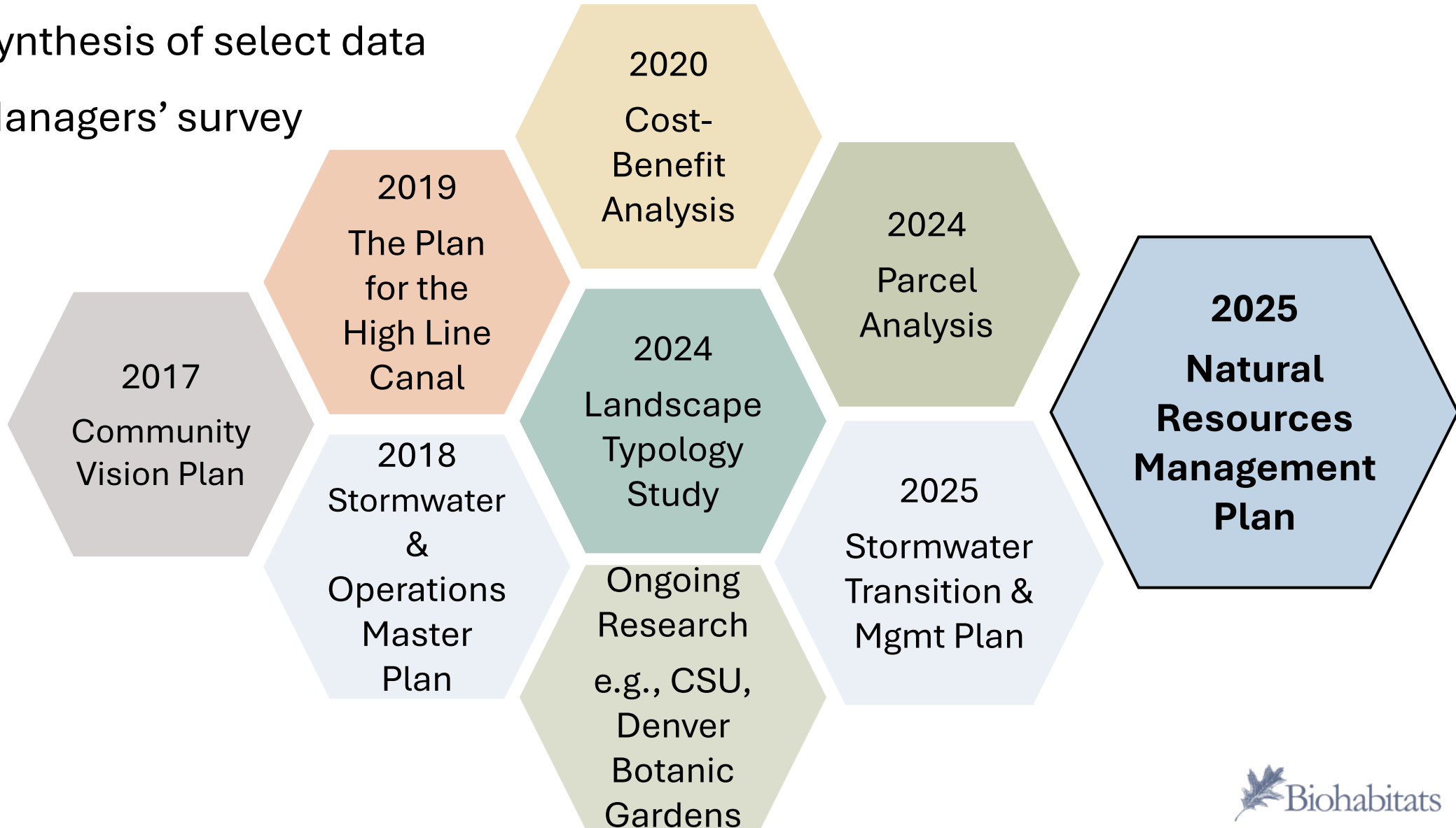
# Canal Corridor Profile



Section Graphic Source: The Plan for the High Line Canal

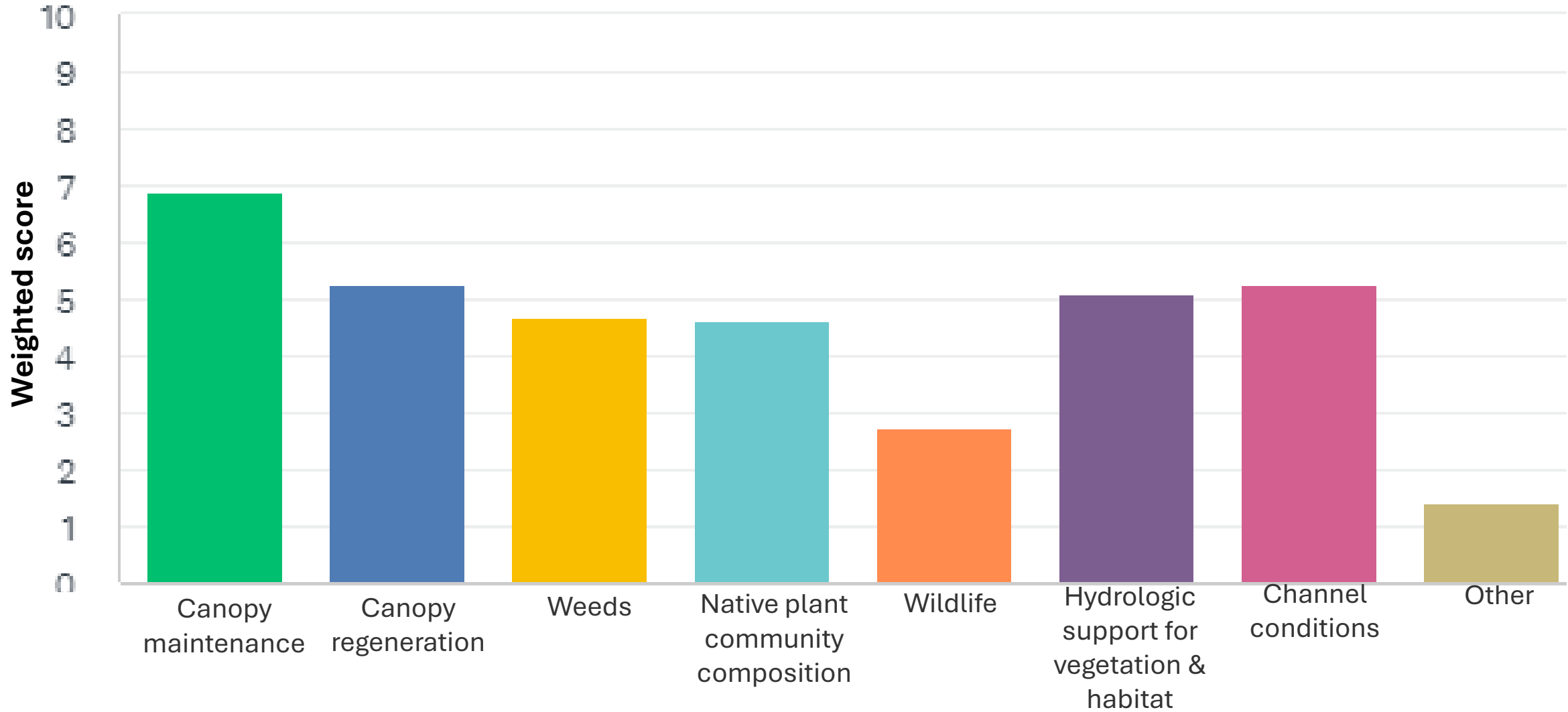
# Collaborative Conservation

1. Background document review
2. Synthesis of select data
3. Managers' survey



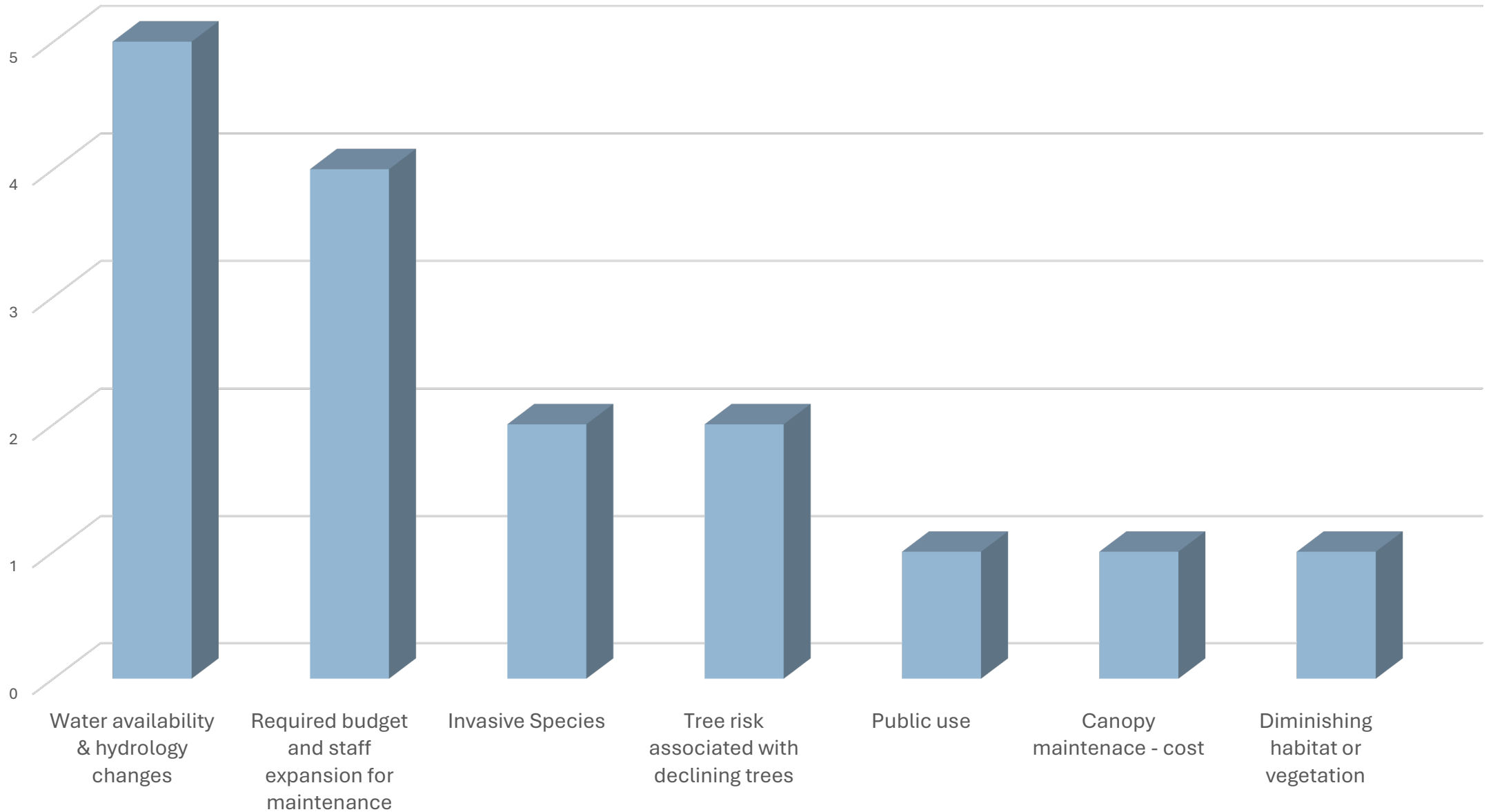


# What are your top five (5) canal resource management concerns?



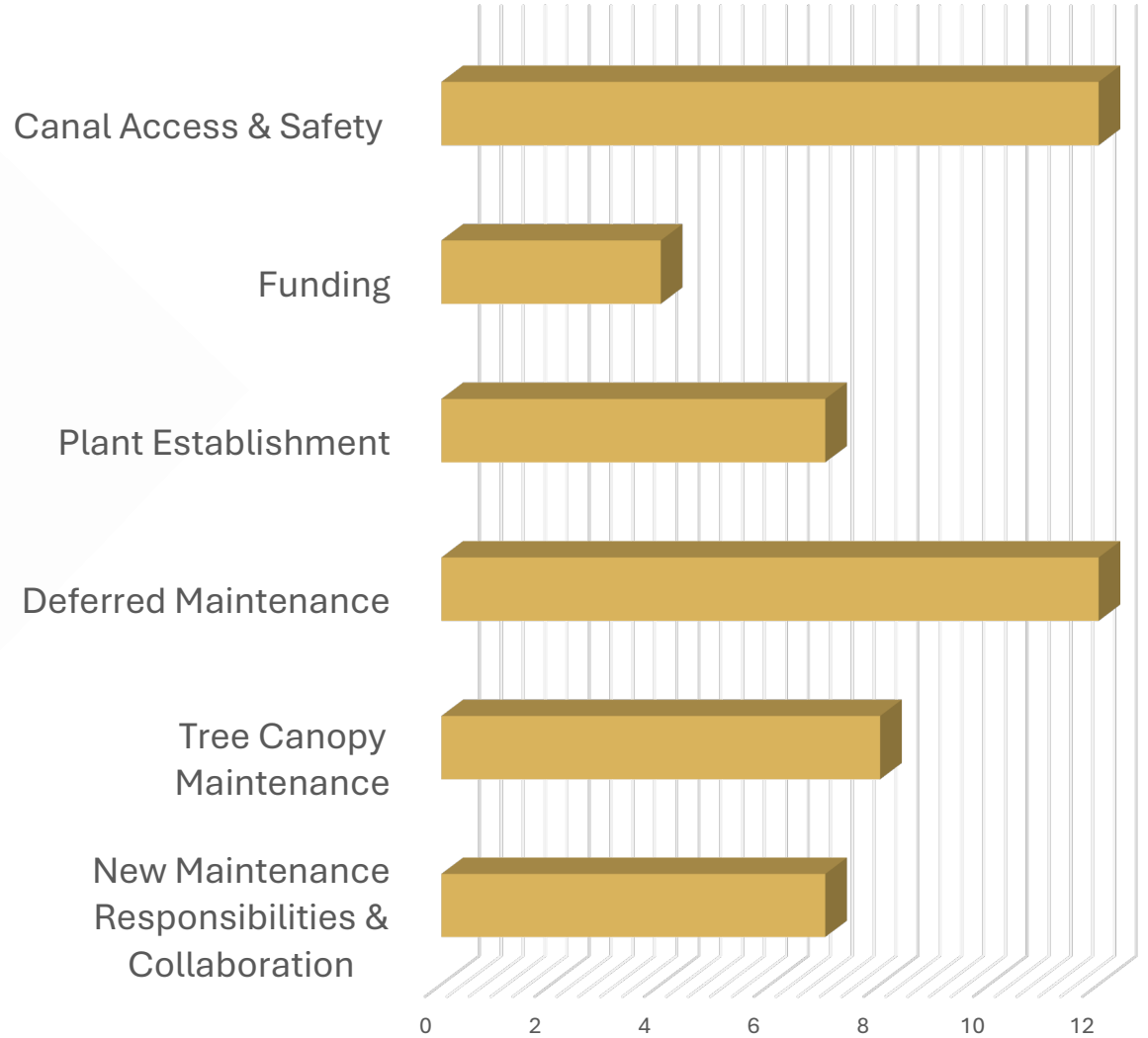


# What are the key sources of stress to your management concerns?





# What are your most significant operational concerns?





# Collaborative Conservation

4. Interviews revealed shared values:

**Effective Collaboration**

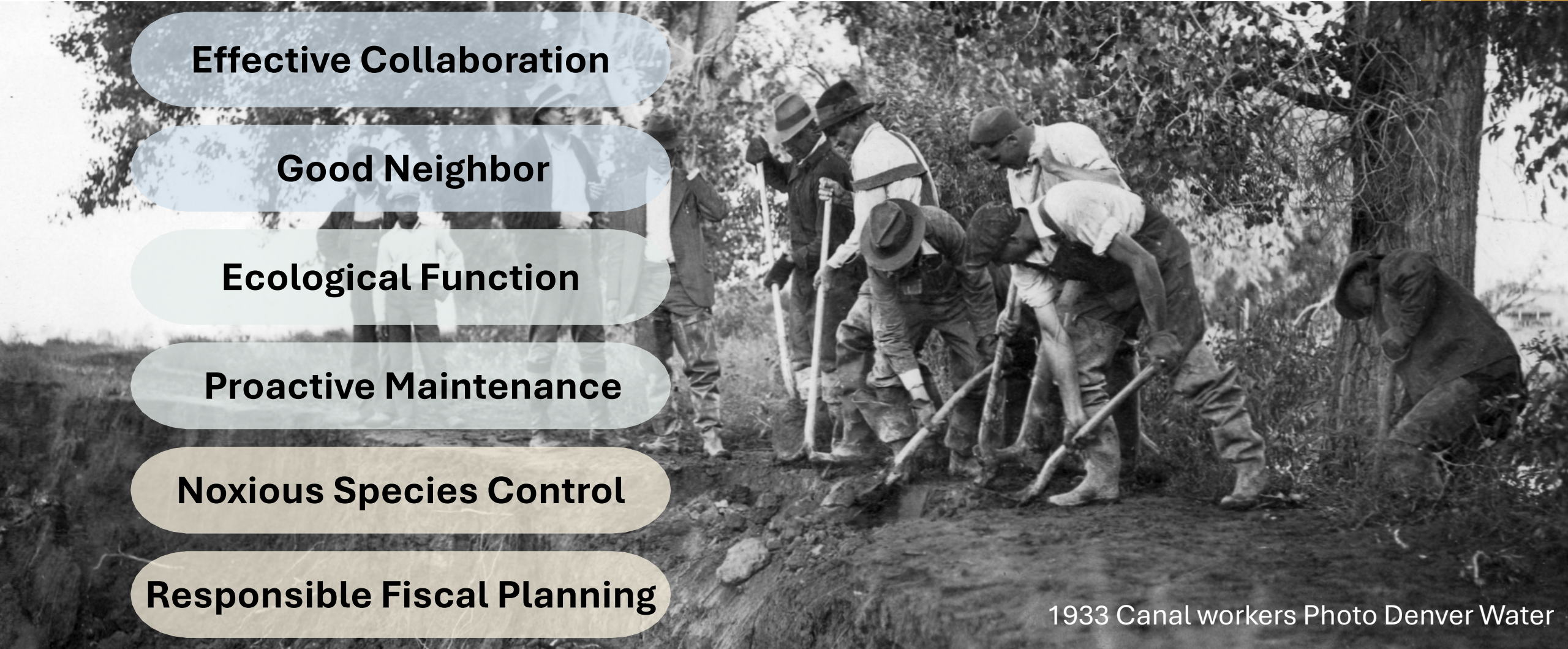
**Good Neighbor**

**Ecological Function**

**Proactive Maintenance**

**Noxious Species Control**

**Responsible Fiscal Planning**



1933 Canal workers Photo Denver Water



## 5. Meetings

5 Subarea tours & follow-up meetings (10 total)

Monthly Steering Committee guidance (~15)

Bi-monthly Project Team guidance (~7)

Leadership Reporting (2 presentations)

Stormwater Transition & Mgmt Plan integration (3+)

Internal ( $\infty$ )

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CANOPY CARE	RESOURCE MANAGEMENT CATEGORY	JURISDICTIONAL ROLES	COLLABORATION OPPORTUNITIES
Maintenance	Tree Risk Assessment	Assessments of high-priority trees annually and of all trees every 2-5 years	* Include in shared/ centralized contract * GIS coordination
	Tree Maintenance & Removal	Prioritized treatments to address immediate threats and maintain the health/ habitat values, including beaver protection	* Coordinate treatments * Include in shared/ centralized contract
Enhancements	Support ecological functions of canopy veg. and natural dynamics	Strategic tree planting where consistent with jurisdictional goals	* Technical & implementation support * Monitoring & adaptive management * Shared or centralized grow-hold contracts
	Integrate sustainability practices	Implement BMPs in support of sustainability	
<b>UNDERSTORY CARE</b>			
Maintenance	Weed Control	Annual monitoring & treatments	* Include in shared/ centralized contract * GIS coordination * Canal-wide fire hazard assessment in partnership with HLCC & Colorado State Forest Service, or another agency.
	Understory Trimming	Annual pruning for line of site/safety	
	Wildfire Hazard Assessment & Mitigation	Periodic assessments of fuels, creation of breaks, fire-wise plant materials	
	Upland Erosion	Monitoring, repair and minimization of disturbances	
Enhancements	Support ecological functions of sub-canopy and herbaceous habitat and dynamics	Landscape transformation to native habitat. Improved connectivity between Canal and Open Space	* Technical & implementation support * Monitoring & adaptive management
<b>CHANNEL CARE</b>			
Maintenance	Bank Stabilization	Assess banks annually for erosion and other degradation. Address degradation ASAP. Consider bioengineering methods to stabilize banks.	* Bioengineering guidance and implementation support
	Mosquito Abatement	Address high exposure areas if complaints received. Proactively eliminate standing water supporting nuisance mosquitoes.	* Collaboration with local public health departments and agencies on monitoring & communication efforts
	Debris Removal	Inspect for and address trash and debris that impairs flow in areas at risk of overtopping	* Technical & implementation support * Monitoring & adaptive management
Enhancements	Naturalize channel and diversify landscape features; manage stormwater adaptively for water quality	Identify priority opportunities. Work with stormwater agencies and departments to incorporate green infrastructure into improvement projects	* Technical & implementation support

# Subarea Recommendations



Douglas County

# SUBAREA NATURAL RESOURCES MANAGEMENT GOALS & PRIORITIES

To supplement the best practices and guidance for Maintenance and Enhancement, individual Subarea Plans were developed to address the unique conditions and goals of separate jurisdictions. The five subareas are briefly summarized below with respect to overall strategic goals that, while at times shared with other partners, are emphasized within the subarea. Key opportunities for subareas are also mentioned. Please see subarea chapters for better context and more comprehensive understanding of the goals and opportunities indicated here.

## Douglas County

### Overall Strategic Goals

- **Canopy:** Ecological health, shift from reactive to proactive maintenance
- **Understory:** Reduce secondary stress of noxious species
- **Channel:** Uninhibited water conveyance

### Key Opportunities

- Stormwater enhancements
- Revegetation
- Connectivity to nearby habitat

## Littleton & Centennial

### Overall Strategic Goals

- **Canopy:** Retain a canopy experience for users
- **Understory:** Ecological function including native biodiversity and cover
- **Channel:** Naturalized design, sufficient maintenance of all zones including the High Bank Frame

### Key Opportunities

- Bank repair
- Vegetation enhancement (i.e. pollinator gardens)
- Tree planting

## Cherry Hills Village & Greenwood Village

### Overall Strategic Goals

- **Canopy:** Sustain through maintenance, replacement, and enhancement
- **Understory:** Ecological function including native biodiversity and cover, and effective control of noxious species
- **Channel:** Landscape diversity balancing maintenance and ecosystem needs

### Key Opportunities

- Irrigated tree planting
- Support sapling establishment

## Denver & Unincorporated Arapahoe County

### Overall Strategic Goals

- **Canopy:** Sustainability while supporting the existing canopy
- **Understory:** Balance maintenance needs with ecological function, effective control of noxious weeds
- **Channel:** Prevent undesirable ponding, encourage landscape diversity

### Key Opportunities

- Landscape transformation
- Irrigated tree planting
- Habitat connectivity to areas beyond the Canal corridor

## Aurora

### Overall Strategic Goals

- **Canopy:** Shift from reactive to proactive maintenance
- **Understory:** Restore native grasses and forbs, control erosion
- **Channel:** Adaptive stormwater management

### Key Opportunities

- Prairie planting enhancements
- Localized tree revegetation where water is available



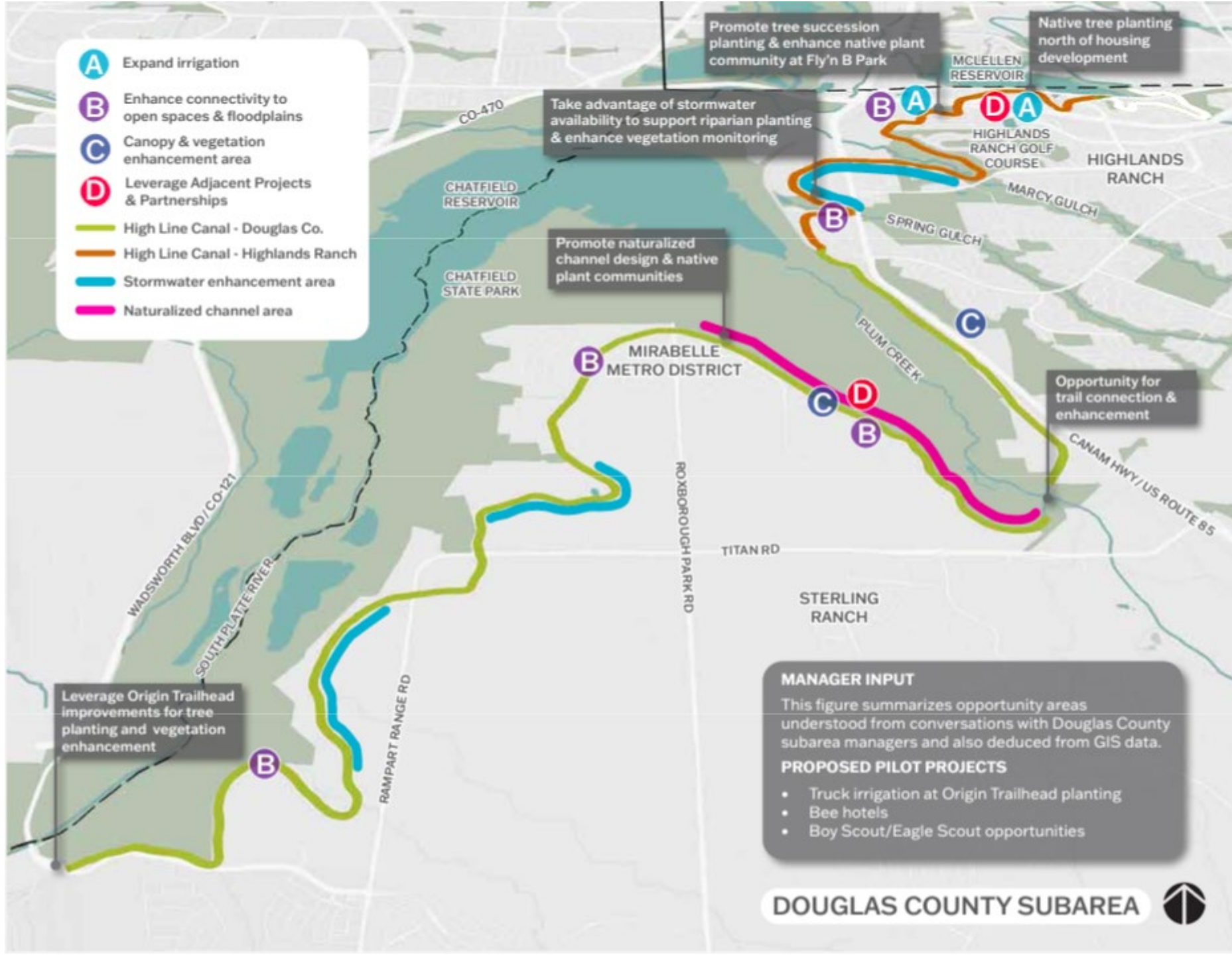
# Douglas County Goals

	Goals	Strategies
Canopy	Ecological function (ecosystem health, higher biodiversity)	<ul style="list-style-type: none"> <li>• Maintain multiscale habitat opportunities (e.g., downed trees, raptor support, connectivity to McClellan)</li> <li>• Trim subcanopy to address safety hazards</li> </ul>
	Shift from reactive to proactive maintenance	<ul style="list-style-type: none"> <li>• Consider alternative approaches to short-term (0-5 yr) resource support to catch up on deferred maintenance</li> <li>• Utilize GIS tools for tree inventory and maintenance planning</li> </ul>
Understory	Reduce wildfire risk	<ul style="list-style-type: none"> <li>• Coordinate regularly with South Metro Fire &amp; Rescue and involve in maintenance planning</li> <li>• Develop a fire hazard mitigation plan and update regularly</li> <li>• Coordinate and communicate with adjacent property owners</li> <li>• Prioritize areas where channel maintenance needs are high.</li> </ul>
	Reduce secondary stress of noxious species	<ul style="list-style-type: none"> <li>• Control noxious species, e.g., Russian-olive</li> </ul>
Channel	Uninhibited water conveyance	<ul style="list-style-type: none"> <li>• Keep the channel clear</li> <li>• Remove Russian-olive</li> <li>• Respond quickly with assessment and maintenance after storms</li> </ul>
Other	Effective collaboration among partners (e.g., Denver W, Forestry)	<ul style="list-style-type: none"> <li>• Regularly communicate needs and planning</li> <li>• Request more involvement by/ coordination with partners</li> <li>• Clarify maintenance roles according to agency</li> </ul>
	Be a good neighbor within the community, communicate effectively	<ul style="list-style-type: none"> <li>• Respond to calls</li> <li>• Educate as appropriate (e.g., benefits of downed trees)</li> <li>• Clarify maintenance roles according to ownership</li> <li>• Communicate fire protection efforts</li> <li>• Maintain ability to respond to unique needs</li> </ul>

*Note: most applicable strategies will depend on future guidance, planning & roles*



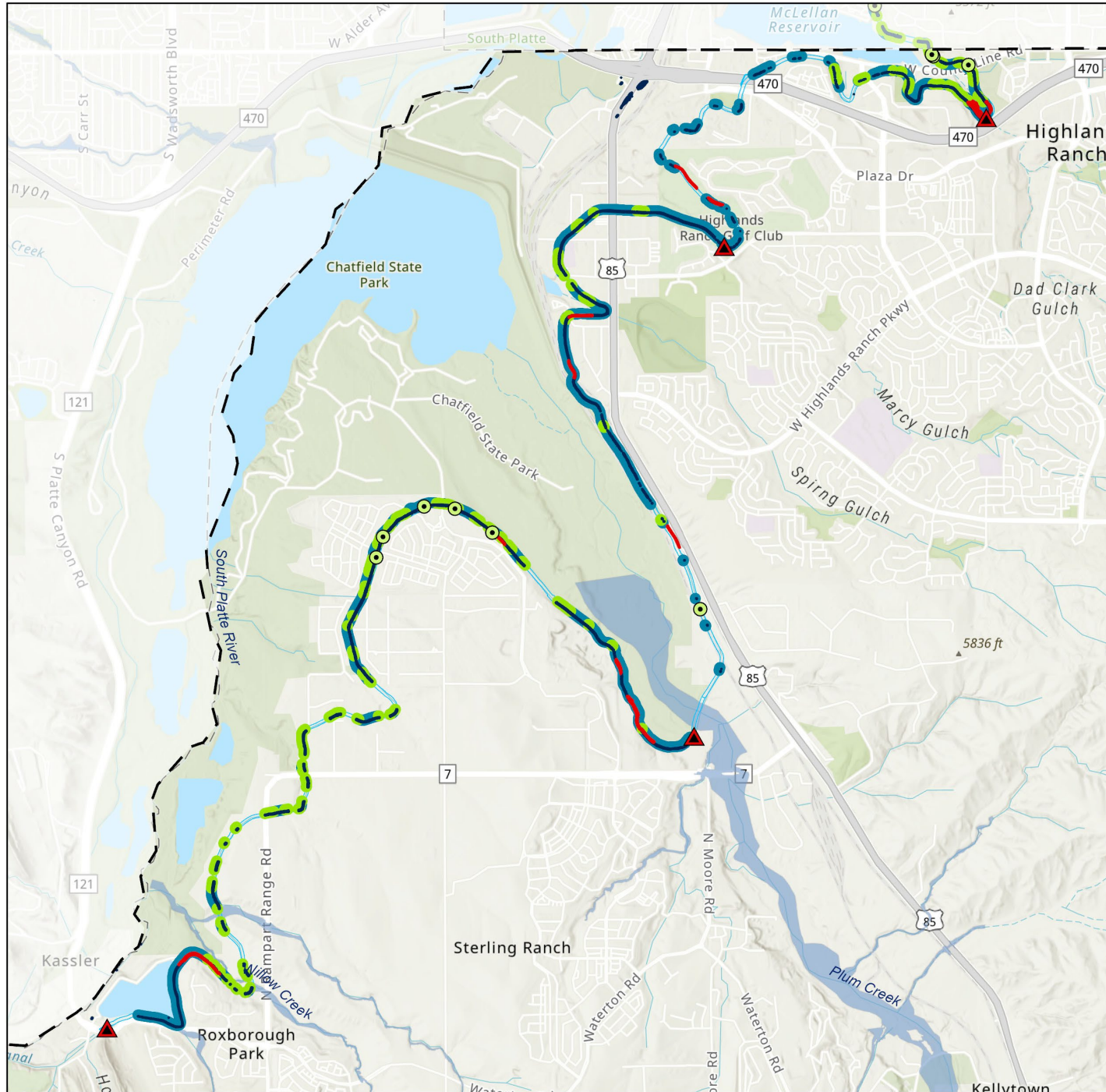
# Manager-Informed Opportunities





# Data-Based Recommendations

[Subarea] Canal Opportunities



High Line Canal  
Natural Resources Management

## CANAL & INFRASTRUCTURE

Douglas County

- Riparian Planting Opportunities
- Conveyance-Friendly Bank Planting
  - Riparian Bank Planting
  - Outfalls\*
  - ▲ Wastegates
  - Poor Bank Angle
  - Storm Depth >2'
  - Regulatory Floodway
  - High Line Canal
  - Douglas County Boundary

*\*Note: Data are from STAMP 2025. Refer to MHFD Living Model for most recent data.*

0 2,500 5,000  
Feet

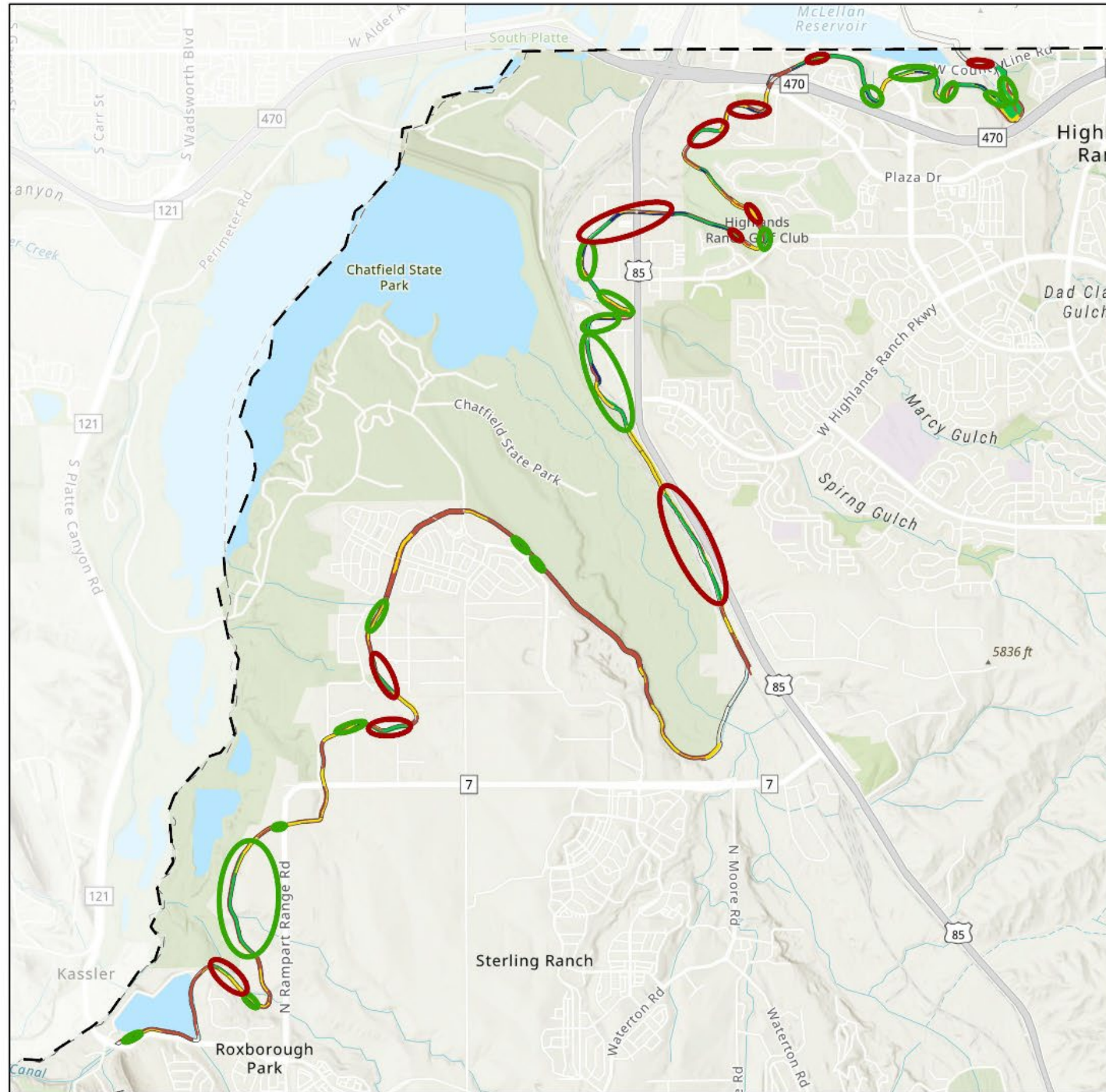
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**Biohabitats**  
SOUTHERN ROCKY MOUNTAIN BIOREGION  
May 2025



# Data-Based Recommendations

[Subarea] Canopy Opportunities



**High Line Canal**  
Natural Resources Management

**TREE ANALYSIS**  
Denver Metro Area

**Douglas County**  
Reaches 1 - 15  
County: Douglas

  High SDI, High Saplings  
  High SDI, Low Saplings  
 Stand Density Index  
 0 - 37  
 38 - 106  
 107 - 200  
 201 - 404  
 Reach  
 Douglas County Boundary

0 2,500 5,000  
Feet

N

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January 2025

[www.highlinecanal.org](http://www.highlinecanal.org)



# HIGH LINE CANAL

## NATURAL RESOURCE MANAGEMENT PLAN

November 2025

Prepared by:



**Thank you**  
**...Questions?**

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SOUTHERN ROCKY MOUNTAIN BIOREGION

# Maintenance and Enhancement Chapters organized by habitat components



Example Canopy, Understory, & Channel Zones Source: Biohabitats

## Landscape Classification by Acre

