



WATERWAY RESILIENCY PROGRAM

WEIR GULCH • SOUTH PLATTE • HARVARD GULCH

South Platte River & Tributaries, Adams and Denver Counties, Colorado Project



Heron Pond/Carpio-Sanguinetti on South Platte River



Weir Gulch precedence (39th Greenway in north Denver)

National Excellence, Vibrant Denver

Near Term Program Focus

1. **Mitigate life/safety risks** caused by flood risk along Weir Gulch
2. **Continued due-diligence** to properly and responsibly mitigate and manage program risks to ensure proper stewardship of public funds

Council Action Items

1. **Resolution Request 24-1297: HNTB Staff Augmentation/Owner Advisor** to support program management
2. **Ordinance Request 24-1296: IGA with MHFD to initiate 30% design** for remainder of Weir Gulch

Efforts on these items are funded through 2025 with previously appropriated WW CIP Funds



THE WHY





South Platte River Flood of 1965



Special Aerial Picture Coverage on Flood-Ravaged Areas

THE DENVER POST

South Platte Torrent Deals Denver Worst Disaster

Navy Jets
Down Pair
H MIGs

Prompt Alarms
Keep Toll Low



Flood Flood

When Denver Plunges
Monday, Page 11



Rocky Mountain News

A Scripps-Howard Newspaper

Colorado's First Newspaper—Founded in 1859

Reg. U.S. Pat. Off.

107TH YEAR, NO. 57

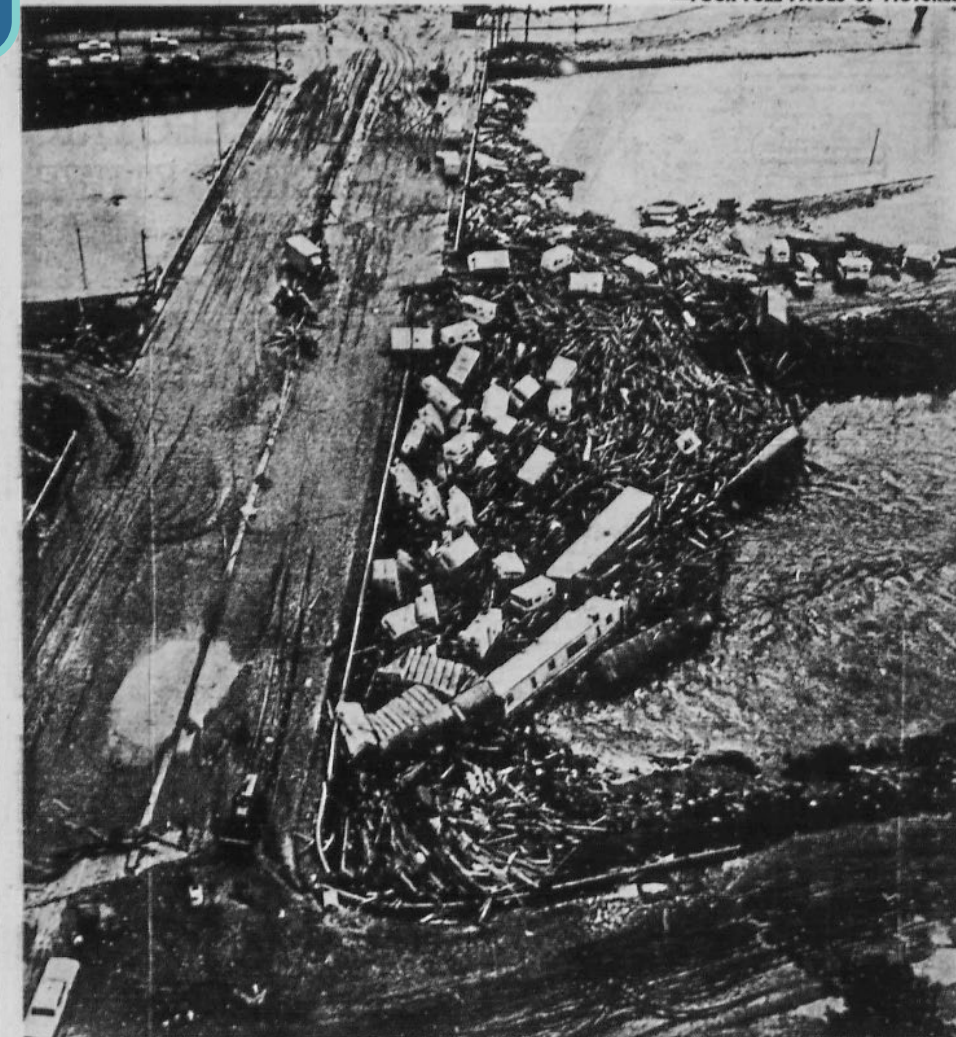
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DENVER 1, COLO., FRIDAY, JUNE 18, 1965

SUNRISE
EDITION
★★★★★
FIVE CENTS
5c
136 PAGES

State's Costliest Disaster

—FOUR FULL PAGES OF PICTURES



The fury of the flood that ravaged Denver Wednesday and Thursday is starkly evident in this photo of the S. Kalamath st.-W. Alameda ave.-Valley Highway area. Cars

in the upper left are on S. Kalamath st. Directly below Kalamath st. is the flooded Valley Highway. The street running from top to bottom at the left is W. Alameda ave. The

heap of rubble — timbers, trucks, and trailers—lies in the bed of the South Platte River, piling up high against the bridge.

—Rocky Mountain News Aerial Photo by Gary Giesinger



Challenge:

Exclusive focus on flood control + urbanization



Degradation of our waterways for people and the environment

Challenge: Significant flood risk for underserved communities

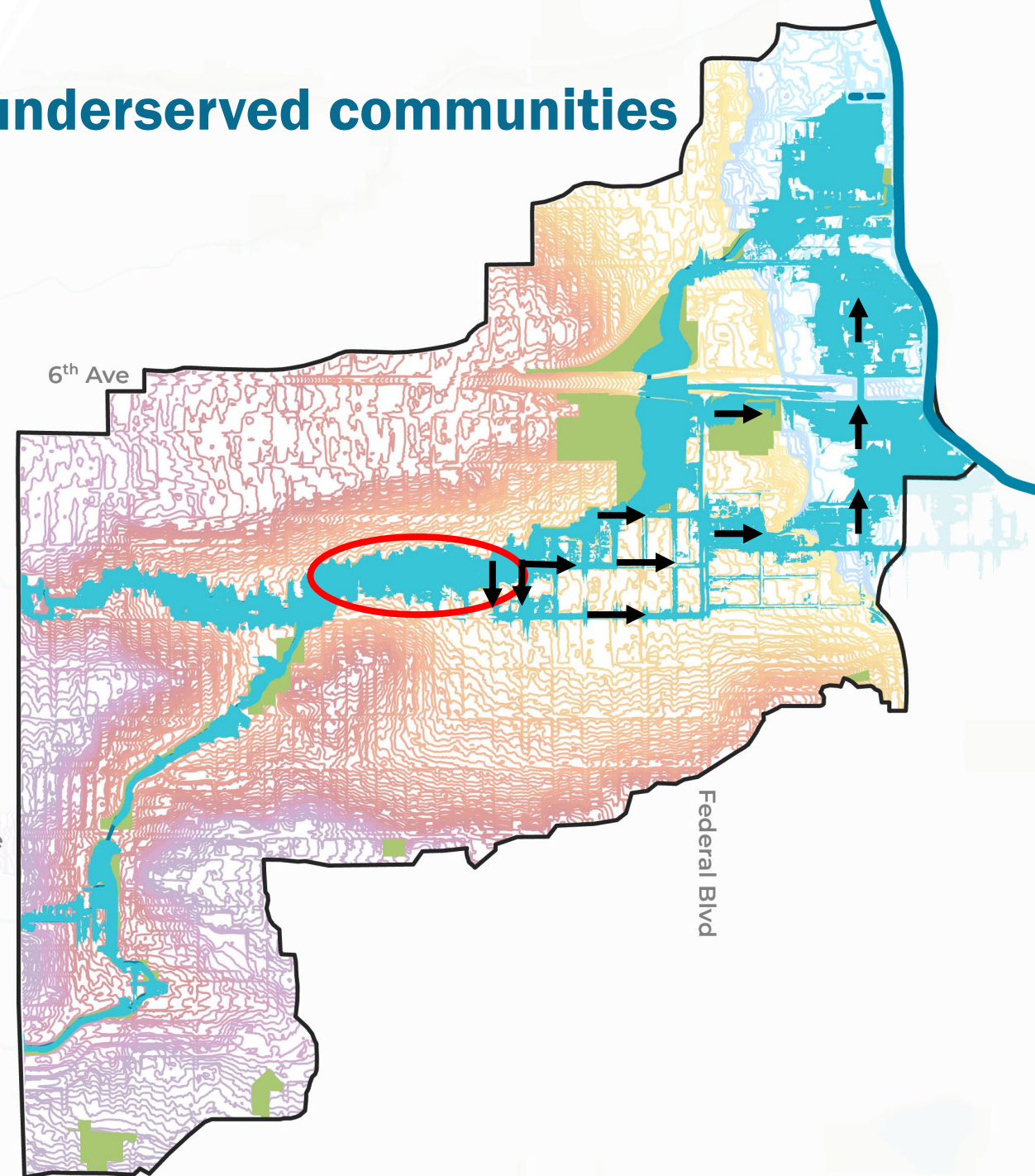
Primary sources of flooding and increased runoff from:

- More impervious surfaces
- Undersized culvert

Depths range from **3-5 feet** in many parts of the floodplain, resulting in:

- Widespread hazardous and unsafe conditions
- Significant property impacts

In a major event, these neighborhoods will flood, prompting **emergency response for some of our most vulnerable communities**



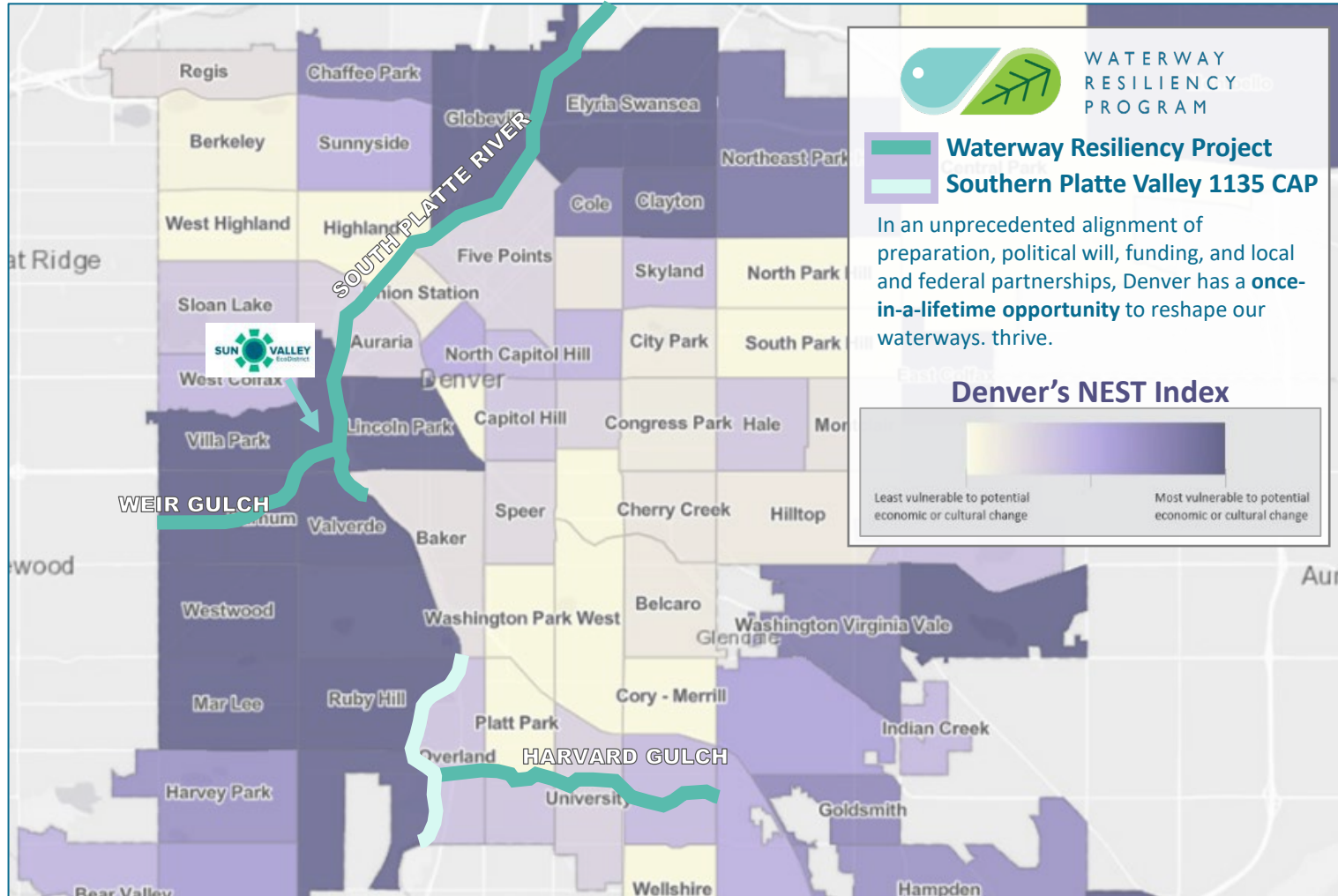
THE WHAT



Denver now has a **once-in-a-lifetime** opportunity to revitalize our downtown river and protect hundreds of underserved residents from flooding



PROJECT OVERVIEW



Ecosystem restoration



Enhanced mobility



Prioritizing equity and environmental justice



Flood risk mitigation



Equitable access to recreational opportunities

SOUTH PLATTE RIVER
 Ecosystem Restoration & Flood Risk Management



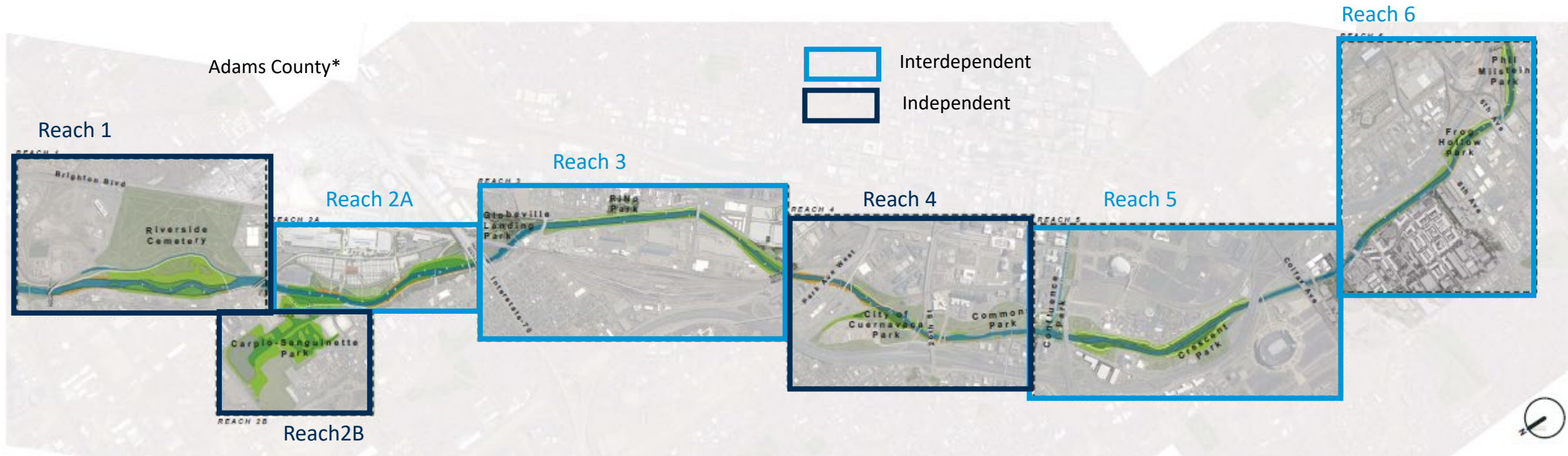
WEIR GULCH
 Structural Flood Risk Management



HARVARD GULCH
 Non-Structural Flood Risk Management



SOUTH PLATTE RIVER



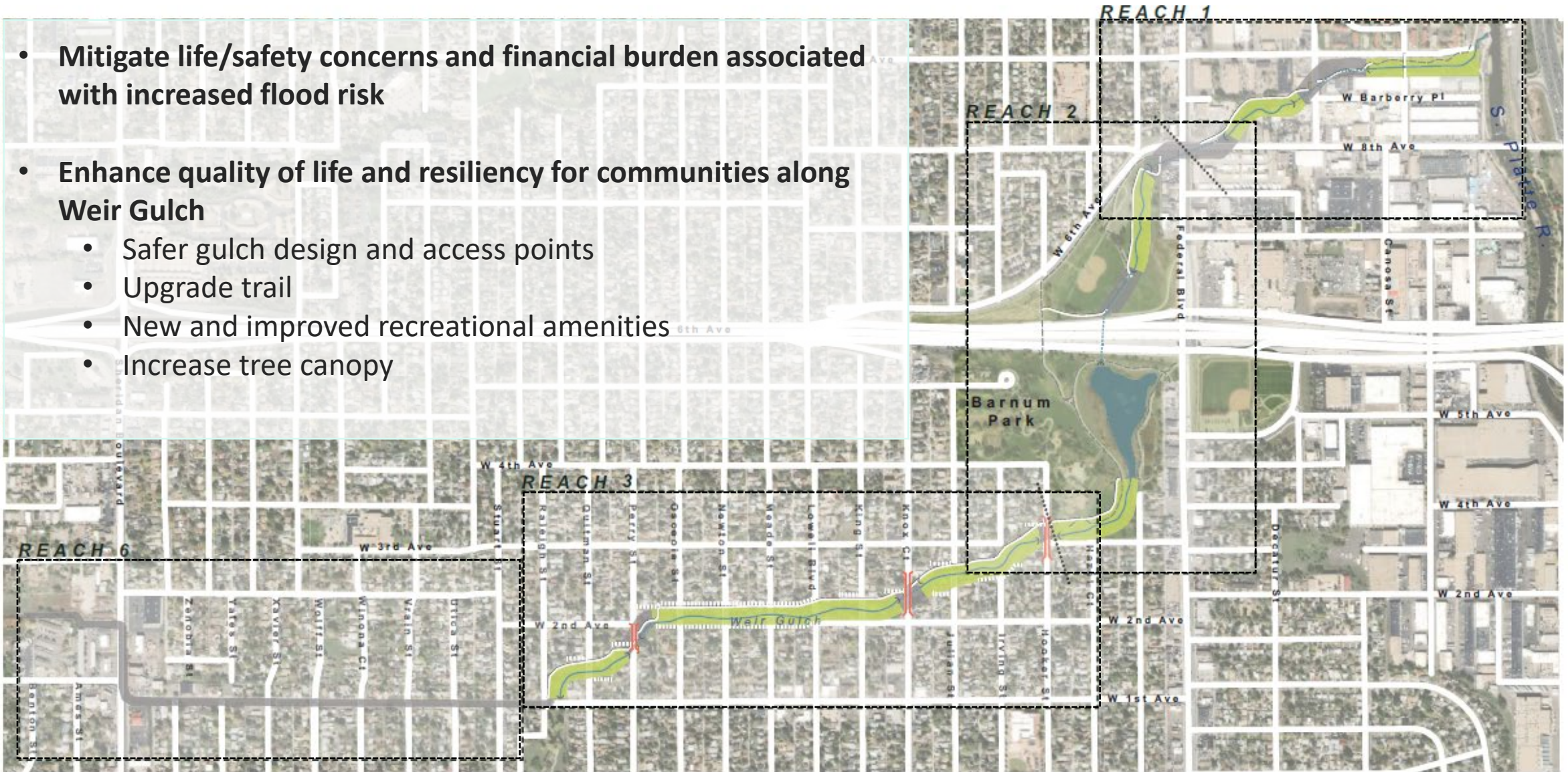
- Enhance quality of life and economic opportunities for communities along the SPR corridor
- Restore wetland, riparian and aquatic habitat
- Increase resiliency along the SPR Corridor
- Upgrade the SPR Trail to the new standards

**Adams County is a critical partner in the Waterway Resiliency Project. An IGA will be developed when project scope, design, and costs are further defined.*



WEIR GULCH

- Mitigate life/safety concerns and financial burden associated with increased flood risk
- Enhance quality of life and resiliency for communities along Weir Gulch
 - Safer gulch design and access points
 - Upgrade trail
 - New and improved recreational amenities
 - Increase tree canopy



PROJECT BENEFITS



A flourishing ecosystem with improved river edge, wetland, and aquatic habitats

6.5 miles of ecosystem restoration along the South Platte River in the heart of Denver



Reduce flood risks to adjacent habitats and neighborhoods

Hundreds of properties and structures will be removed from floodplain designation



Improved mobility that better connects people to where they want to go

Improvements along the South Platte River regional trail and new trail segments and connections along Weir Gulch



Equitable access to a healthy environment for recreation and enjoyment

Fulfill community vision for more opportunities to engage with green space and water activities

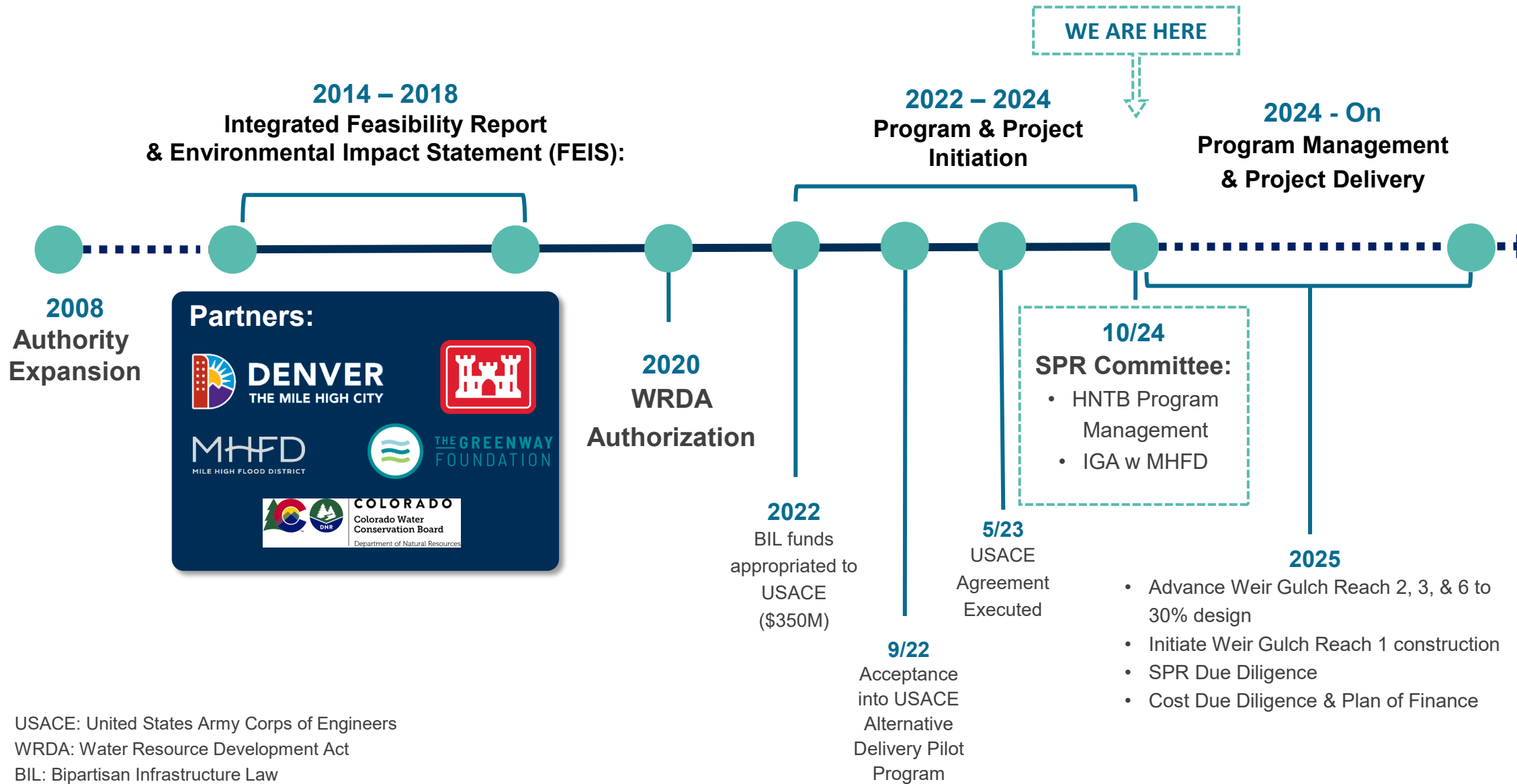


Environmental justice and increased climate resiliency for vulnerable and underserved communities

Provide benefits to historically marginalized communities, underserved and overburdened by pollution

THE HOW





USACE: United States Army Corps of Engineers
 WRDA: Water Resource Development Act
 BIL: Bipartisan Infrastructure Law
 SPR: South Platte River
 CCD: City and County of Denver



EXECUTED AGREEMENT: MAY 8, 2023

1ST OF ITS KIND

- **Denver leads project delivery**
 - **Cost-shared** for “project costs”
 - **Federal (BIL) reimbursement** can be sought as Denver completes discrete segments
- **Significant risk transfer to Denver**
 - Lack of design maturity (FEIS < 5%) = lack of cost certainty
 - Remittance clause



The Revolutionize USACE Civil Works Initiative aims to modernize traditional delivery of the Civil Works program:

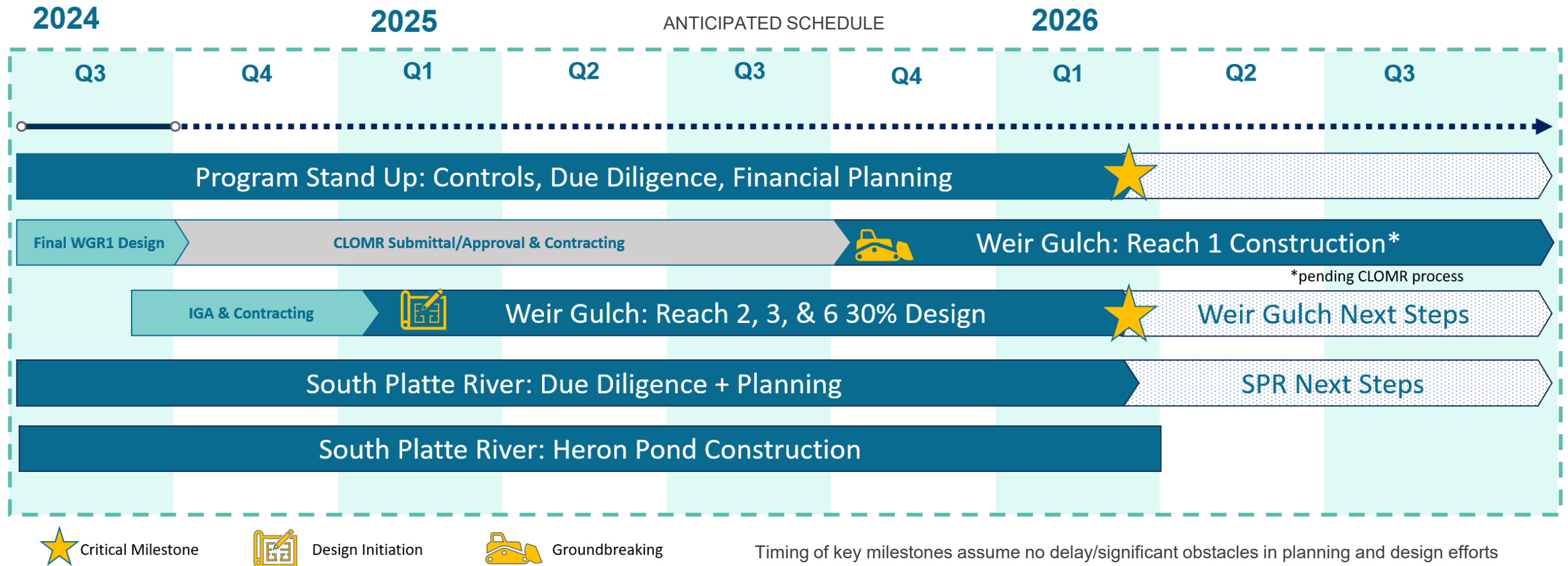
- Optimize local participation and provide Non-Federal Sponsor (Denver) more control
- Accelerate delivery
- Provide life-cycle cost savings for Federal government and local sponsor



PROJECT NEXT STEPS

PRIORITIES

1. Mitigate life/safety risks caused by flood risk along Weir Gulch
2. Continued due-diligence to properly and responsibly mitigate and manage program risks to ensure proper stewardship of public funds



We respectfully request Council approval of the following action items:

- **Resolution Request 24-1297: HNTB Staff Augmentation/Owner Advisor to support program management**
 - **SCOPE**
 - Program Controls: Cost, Schedule and Risk management
 - Support City staff with continued due diligence on South Platte River
 - Communication and outreach
- **Ordinance Request 24-1296: IGA with MHFD to initiate 30% design for remainder of Weir Gulch**
 - **SCOPE**
 - Update existing conditions, alternative analysis, cost update, and community engagement

Efforts on these items are funded through 2025 with previously appropriated WW CIP Funds



Comments or Questions?

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Director, Waterway Resiliency Program

DENVERGOV.ORG/WATERWAYRESILIENCY



ADDITIONAL PROJECT INFORMATION





ECOSYSTEM BENEFITS

Preserve, protect, and enhance the diversity of wildlife and ecological health along the South Platte River:



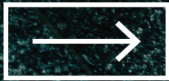
- **Preserve and restore affected ecosystems** directly connected to the city's waterways, tributaries and watersheds
- Restore approximately 160 acres of river edge and wetland habitat, 100 acres of aquatic habitat, and reconnect 190 acres of surrounding habitat, resulting in an **800 percent increase over existing habitat** in the project area
- **Reduce paved areas and improve the tree canopy** to help mitigate urban heat island effects in some of Denver's most underserved communities
- **Improve habitat connections for three species** listed under the Endangered Species Act, twelve state-listed endangered species, and fourteen bird species listed on the National Birds of Conservation Concern list





FLOOD REDUCTION BENEFITS

Enhance resiliency through
flood risk management in each
of the waterways:



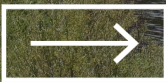
- Ecosystem restoration investments result in **flood risk reduction for structures** along the South Platte River
- Flood risk management reduces **flood risk for hundreds of structures** along Weir Gulch in some of Denver's most vulnerable and underserved communities
- **Voluntary flood risk management for residential and commercial properties** along Harvard Gulch
- Preserve natural and beneficial functions of floodplains
- Implement holistic and resilient water management and land use strategies through interagency and regional collaborations





MOBILITY BENEFITS

Improve the connectivity
of Denver's trail systems
to unite communities with
the places they want to go:



- **Strengthen the South Platte River Trail**, the backbone of Denver's multimodal network.
- Create a **seamless mobility experience** through coordinated public and private investments along the South Platte and Weir Gulch
- **Increase the healthy lifestyle and mobility options** for residents by building new trails, connections, and crossings making it easier and safer to access Denver's growing mobility network.





RECREATION BENEFITS

Create new opportunities for
community access to water
recreation and open space:



- Create connections and enhanced wayfinding signs to **encourage residents to interact with the natural environment**
- **Provide more access for water activities** such as fishing, kayaking, boating, and stand up paddle boarding
- **Increase opportunities for childhood exposure to green spaces**, which has demonstrated mental health benefits and possibly lower risk of psychiatric disorders from adolescence to adulthood



"We would like more trails for walking and running, and places to kayak and paddle board along the South Platte – Community Comment



SOUTH PLATTE RIVER: CARPIO SANGUINETTE / HERON POND PARK



An 80-acre open space park that connects the community to nature and the South Platte River.



SOUTH PLATTE RIVER PARTNERSHIP: RIVER MILE



EXISTING CONDITIONS



USACE Concept

WEIR GULCH: SPR TO 8TH (REACH 1)

Design: Completion anticipated mid-October, 2024

ROW Acquisitions: Complete

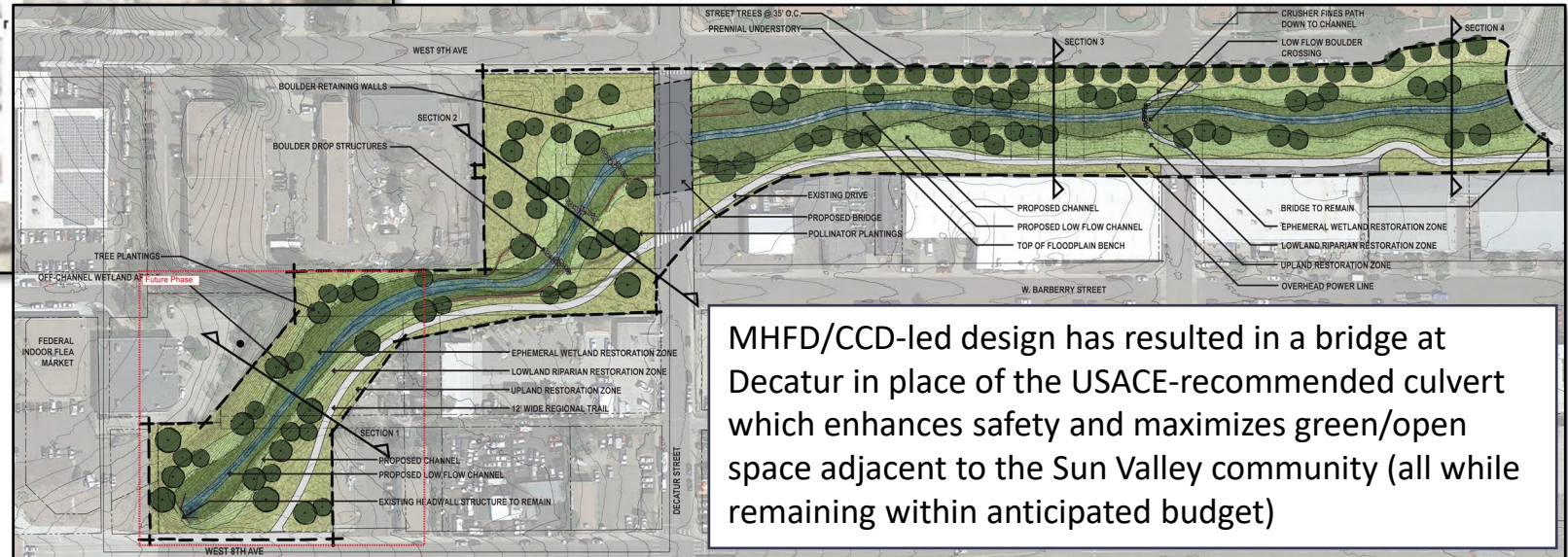
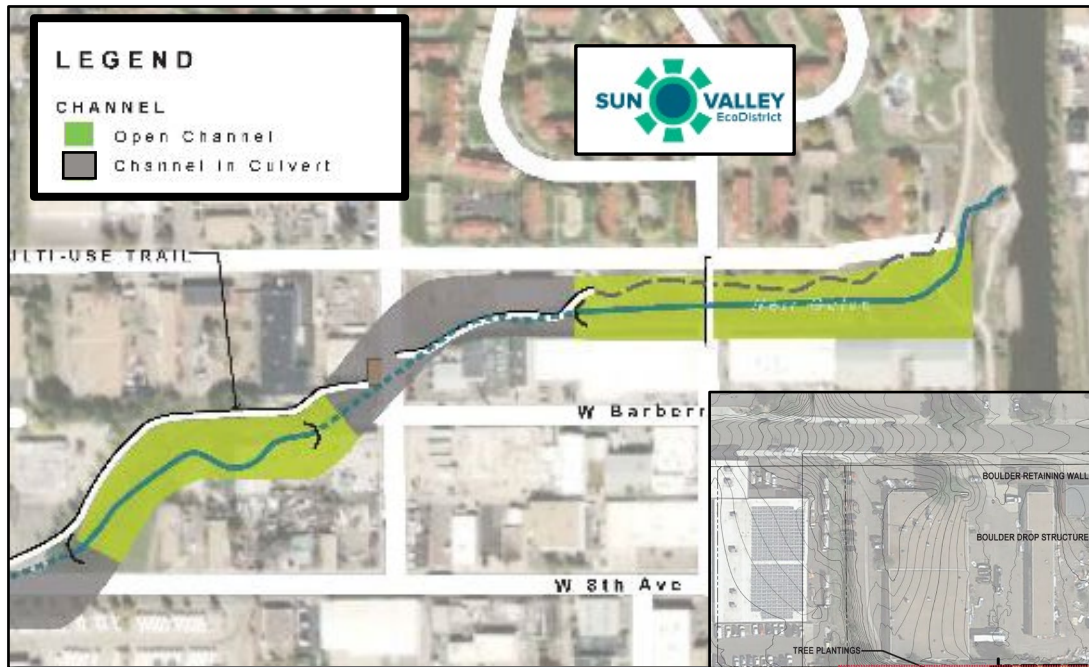
Funding: Fully funded with local funds

Next Steps:

- Finalize design documents and floodplain permit approval
- Initiate construction contracting



Local Design



MHFD/CCD-led design has resulted in a bridge at Decatur in place of the USACE-recommended culvert which enhances safety and maximizes green/open space adjacent to the Sun Valley community (all while remaining within anticipated budget)