ADAMS & DENVER COUNTIES, COLORADO
GENERAL INVESTIGATIONS STUDY
SOUTH PLATTE RIVER
Meeting Purpose – To share the proposed plan with the community and receive feedback/input.
Study Authority

- 24 September, 2008, by the Committee on Transportation and Infrastructure, U.S. House of Representatives, Docket 2813
  
  “Resolved by the Committee on Transportation and Infrastructure of the United States House of Representatives, That the Secretary of the Army review the report of the Chief of Engineers on the South Platte River and Tributaries, Colorado, Wyoming and Nebraska, published as House Document 669, 80th Congress, and other related reports to determine whether any modifications of the recommendations contained therein are advisable at the present time in the interest of flood damage reduction, floodplain management, water supply, water quality improvement, recreation, environmental restoration, watershed management, and other allied purposes, in Adams and Denver Counties, Colorado”.

Who is the Non-Federal Sponsor?

- City and County of Denver
- Signed a Feasibility Cost Share Agreement in May 2014
How long will the study take?
Expected Submittal of Final Report – December 2018
Expected Chief’s Report to Congress – July 2019

URBAN WATERWAYS RESTORATION PROJECT TENTATIVE TIMELINE: 25 YEARS

2019
- Study Complete

2020
- Seek Preconstruction Engineering & Design

2022
- Seek Appropriations
- Congressional Authorization (2020 Water Resource Development Act)

2023-2043
- Earliest Construction Funding
- Project Completion
Three Reaches:

1. South Platte River
   - 58th Ave. to 6th Ave. (Phil Milstein Park)
   - Ecosystem Restoration Focus

2. Weir Gulch
   - Sheridan Blvd. to South Platte River
   - Flood Risk Management Focus

3. Harvard Gulch
   - Nonstructural Project
   - Flood Risk Management Focus
Address loss of habitat and restore a continuous river corridor along the South Platte River

Why is a solution needed?

- **Scarcity:** Wetland and Riparian habitat is only 2% of CO’s area, and only 0.7% in Denver.

- **Connectivity:** One continuous corridor from the mountain to the plains.

- **Species:** Numerous birds of concern within the project area.
There is a need to restore critical habitat along the South Platte River for migratory birds, wildlife, and aquatic species.
This study focused on the following three habitat types:

- **Riparian** (river banks)
- **Wetlands** (saturated soils)
- **Aquatic** (in the water)
Study assessed the existing condition of the ecosystem habitat

Developed alternatives that benefit the environment

Determined which alternatives provided the most benefit per dollar (most cost effective)
Alternatives Evaluated & Compared:

1. Add wetland benches to narrow low flow channel
2. Create wetland features at storm outfalls
3. Regrade existing benches to create wetlands
4. Add submerged wetland to improve aquatic habitat
5. Add cobble bars to improve aquatic habitat
6. Add jetties to improve aquatic habitat
7. Stabilize eroded and steep banks
8. “Lay back” the banks to improve riparian habitats
9. Replace existing drops with pool-riffle-run complexes for instream habitat and connectivity
10. Replace Confluence Park Dam with Flashboard Gates for sediment movement and in-stream connectivity
11. Relocate trolley tracks to widen river banks
12. Remove invasive species
Benefits of ecosystem restoration include both increases in habitat acres (size) and habitat quality (condition). Benefits can’t be monetized as an acre of wetland doesn’t have a standard value across the nation.

USACE software determines which combination of alternatives generates the most benefits per dollar.

The software produces a series of Best Buy plans from which the project can choose.

Choose the Best Buy plan that best aligns with the study team’s objectives.

Summary: Most Benefits per dollar then which plan meets the team’s objectives.
South Platte River
Tentatively Selected Plan – Reach 1
South Platte River
Tentatively Selected Plan – Reach 2
South Platte River
Tentatively Selected Plan – Reach 2

Reach 2 Downstream Portion (North of Interstate 70)
Typical Section
(Looking Downstream)
South Platte River
Tentatively Selected Plan – Reach 3
South Platte River
Tentatively Selected Plan – Reach 4
South Platte River
Tentatively Selected Plan – Reach 4

SOUTH PLATTE RIVER REACH 4 DOWNSTREAM PORTION (AT CUERNAVACA PARK)
TYPICAL SECTION
(Looking Downstream)
South Platte River
Tentatively Selected Plan – Reach 5
South Platte River
Tentatively Selected Plan – Reach 6
### Cost Breakdown

<table>
<thead>
<tr>
<th></th>
<th>Total Project</th>
<th>South Platte River</th>
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</thead>
<tbody>
<tr>
<td>Total Cost</td>
<td>$515M</td>
<td>$397M</td>
</tr>
<tr>
<td>Annual Cost/Habitat Unit</td>
<td>N/A*</td>
<td>$157K</td>
</tr>
<tr>
<td>Federal Cost Share (65%)**</td>
<td>$337M</td>
<td>$255.4M</td>
</tr>
<tr>
<td>Local Sponsor Cost Share (35%)**</td>
<td>$184M</td>
<td>$141.6M</td>
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</tbody>
</table>

*No overall cost per habitat unit because Ecosystem Restoration (South Platte River) measures benefits differently than Flood Risk Management (Weir & Harvard Gulch)

**Recreation components are cost-shared 50/50 between the Federal and Non-Federal partners, the rest of the project is 65/35 (Fed/Non-Fed).
URBAN WATERWAYS RESTORATION FEASIBILITY STUDY TIMELINE: 4 YEARS

SCOPING & PROJECT UNDERSTANDING
- 2014 PROJECT BEGINS

ALTERNATIVE FORMULATION & ANALYSIS
- DEC 2015 FLOODPLAIN EDUCATION SESSIONS FOR HARV. & WEIR

FEASIBILITY-LEVEL ANALYSIS
- AUG 28, 2018 END PUBLIC REVIEW OF DRAFT FEASIBILITY REPORT

CHIEF’S REPORT
- 2019 R.O.D. CHIEF’S REPORT

SPRING 2015 ROUND 1 PUBLIC MEETINGS
- JAN 2016 ROUND 2 EDUCATION SESSIONS & PUBLIC MEETINGS
- AUG 2018 ROUND 3 PUBLIC MEETINGS
Draft Report available for review at:
http://www.nwo.usace.army.mil/Missions/Civil-Works/Planning/Project-Reports/

You may submit comments or questions via email:
Jeff Bohlken, Project Manager: Jeffrey.C.Bohlken@usace.army.mil
Dave Crane, Biologist, David.J.Crane@usace.army.mil

OR by mail:
U.S. Army Corps of Engineers
ATTN: CENWO-PMA-A – Bohlken
1616 Capitol Avenue
Omaha, Nebraska 68102
QUESTIONS?

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THANK YOU!