

# Iowa River Restoration Project & Riverfront Crossings Park

Community Planning Event

January 28, 2015

# Welcome!

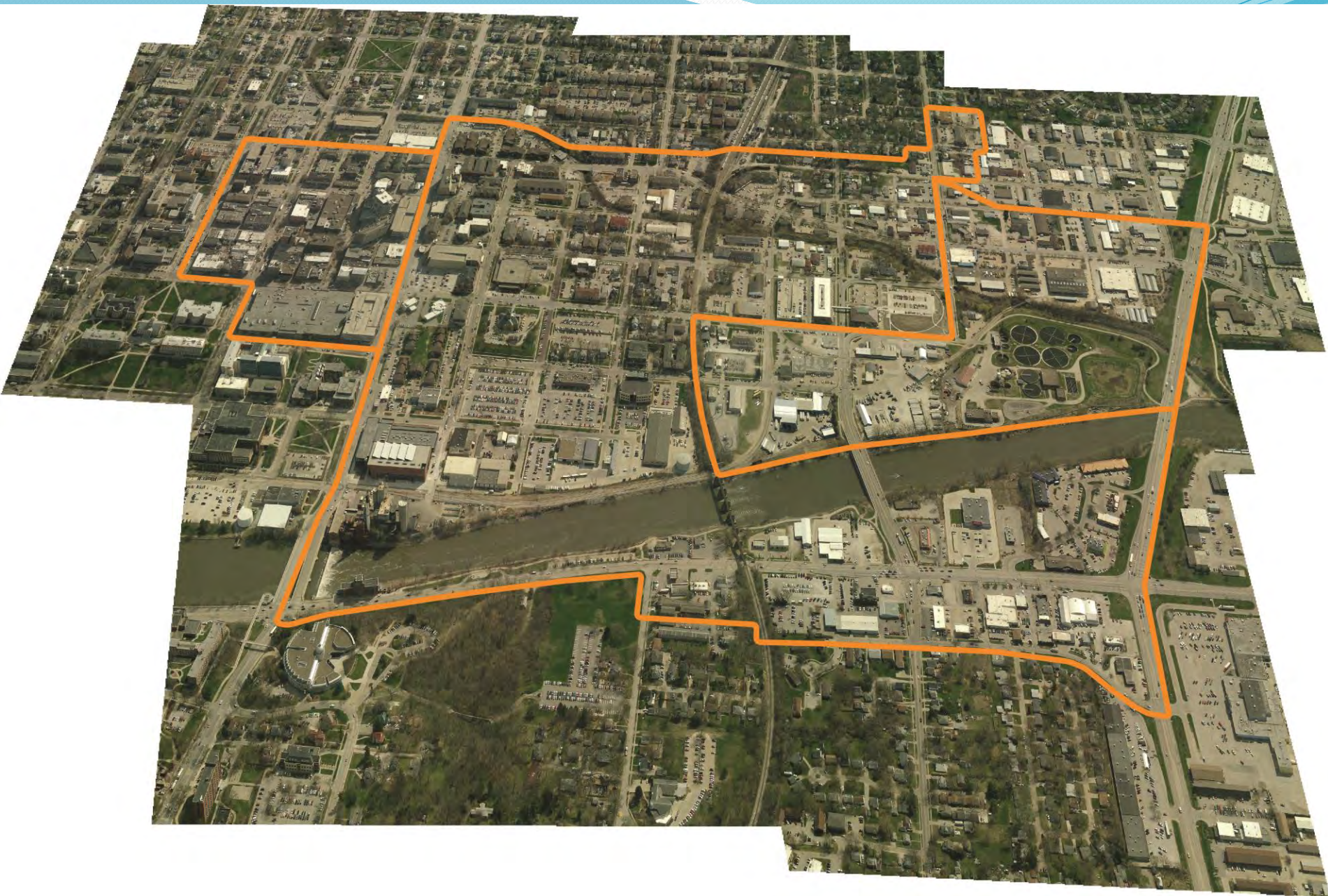
City of Iowa City

- Department of Neighborhood and Development Services
- Department of Parks and Recreation
- Department of Public Works

# Agenda

- 6:00 – 6:40 - Presentations
- 6:40 – 8:00 - Public Open House Input Session
- 8:00 – Wrap-Up





Study Area looking East





June 2008



# Wake-up Call

- Chance to rethink our relationship to the Iowa River and Ralston Creek
- Be more prepared for future flood events
- Opportunity to create a new “great place” to celebrate who we are as a community.



# Riverfront Crossings

## Planning since 2008 Flood

- 2008 Flood
- 2009 EPA funding to promote sustainable redevelopment in flood-damaged Iowa communities
- 2010 – Iowa City one of only 5 communities in the country to be selected by the EPA for their Brownfield Pilot Program through the federal Partnership for Sustainable Communities – adoption of 2011 sub-area plan for Riverfront Crossings
- 2013 – Adoption of the Downtown and Riverfront Crossings Master Plan
- Iowa River Restoration Project and Riverfront Crossings Park master planning effort



# Goals for Riverfront Crossings

- Encourage pedestrian-oriented, mixed-use redevelopment
- Create a resilient riverfront park system
- Enhance Ralston Creek to become a community asset
- Develop a multi-modal transportation network
- Promote sustainable design practices within the district
- Celebrate Iowa City as a center for art and culture



# Public Input for River Restoration

## Over-arching themes

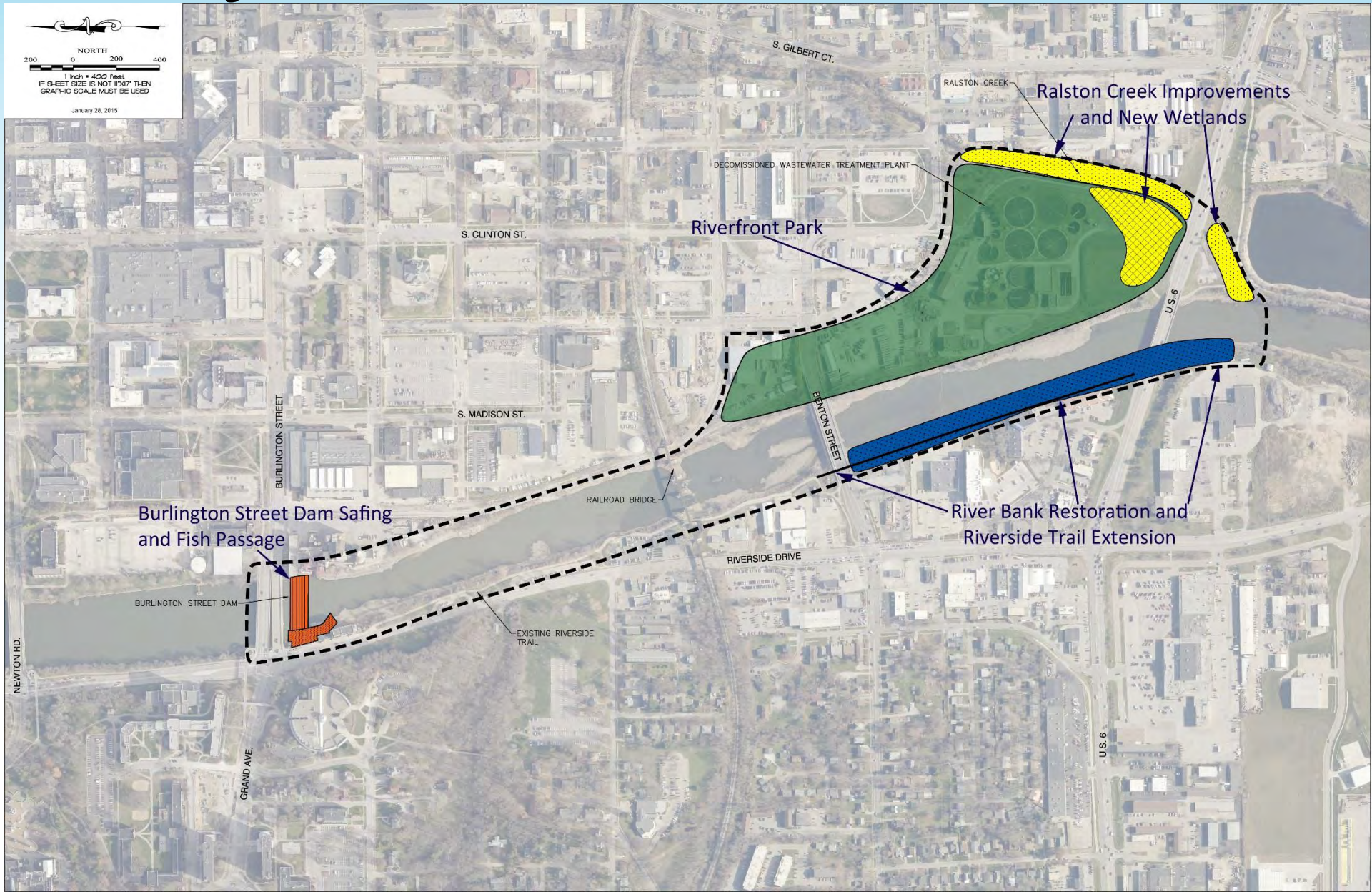
- Promote better environmental stewardship of our urban waters;
- Improve public access to the Iowa River for boating, fishing and wildlife viewing;
- Provide new opportunities for passive and active recreation;
- Promote sustainable practices

# Acknowledgements

- U.S. Environmental Protection Agency
- Iowa Great Places Program (Iowa Dept. of Cultural Affairs)
- Iowa Department of Natural Resources – Dam Mitigation Program
- Iowa Flood Mitigation Program – provides funding to:
  - Decommission flood-prone North Wastewater Treatment Plant
  - Move those functions to our South Wastewater Treatment Facility
  - “Give the land back to the Iowa River” by clearing the site
  - Restore Ralston Creek and create wetland habitat
  - Create new opportunities for public open space, recreation, increasing environmental awareness, and improving access to the river for boating, fishing, and wildlife viewing



# Project Overview





# Burlington Street Dam and Iowa River Improvements Study

- Dam Safety
- Fish Passage
- River Bank Restoration



Photo of Burlington Street Bridge taken between 1915 and 1920

University of Iowa Special Collections

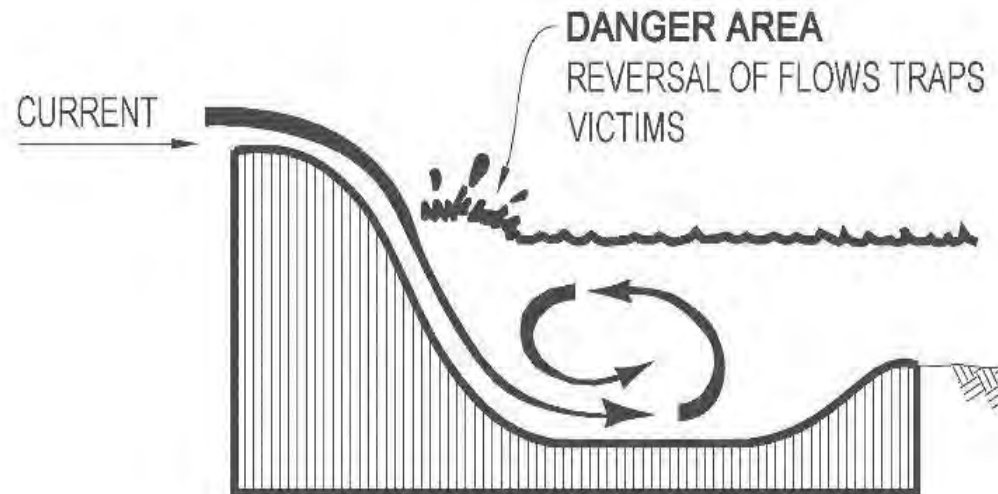
# Why a dam?

- 2 University steam pipes, 1 condensate line
- Water intake for University power/steam plant
- Water intake for University





# Dam Safety Problem



# Burlington Street Dam



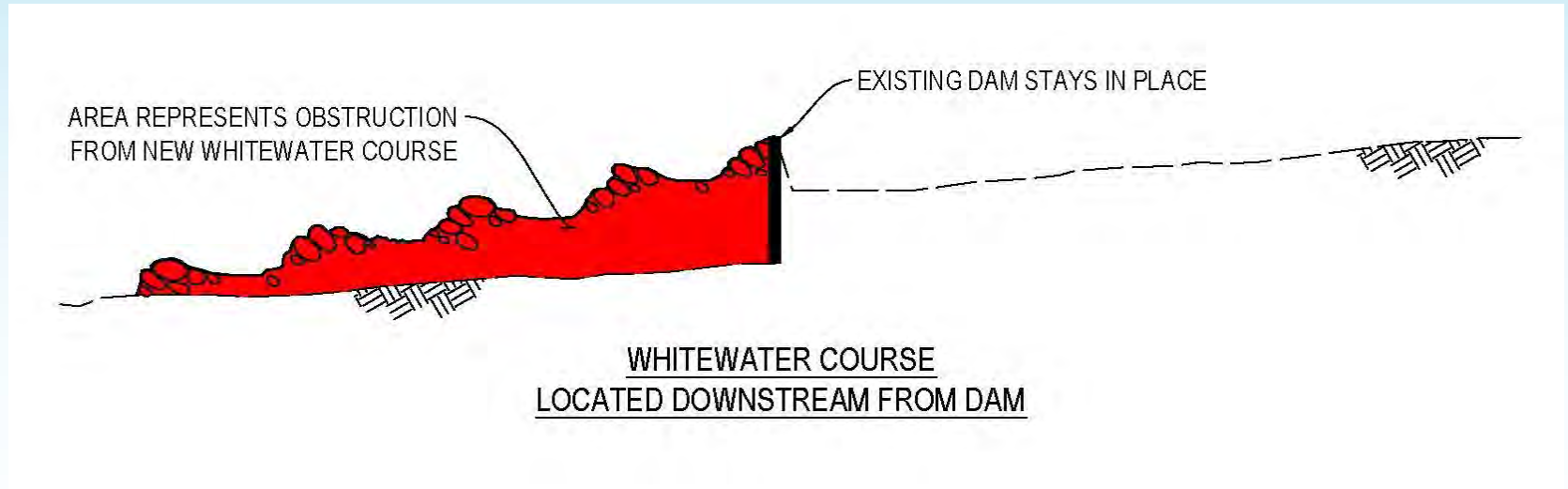


# Option A - Whitewater Course



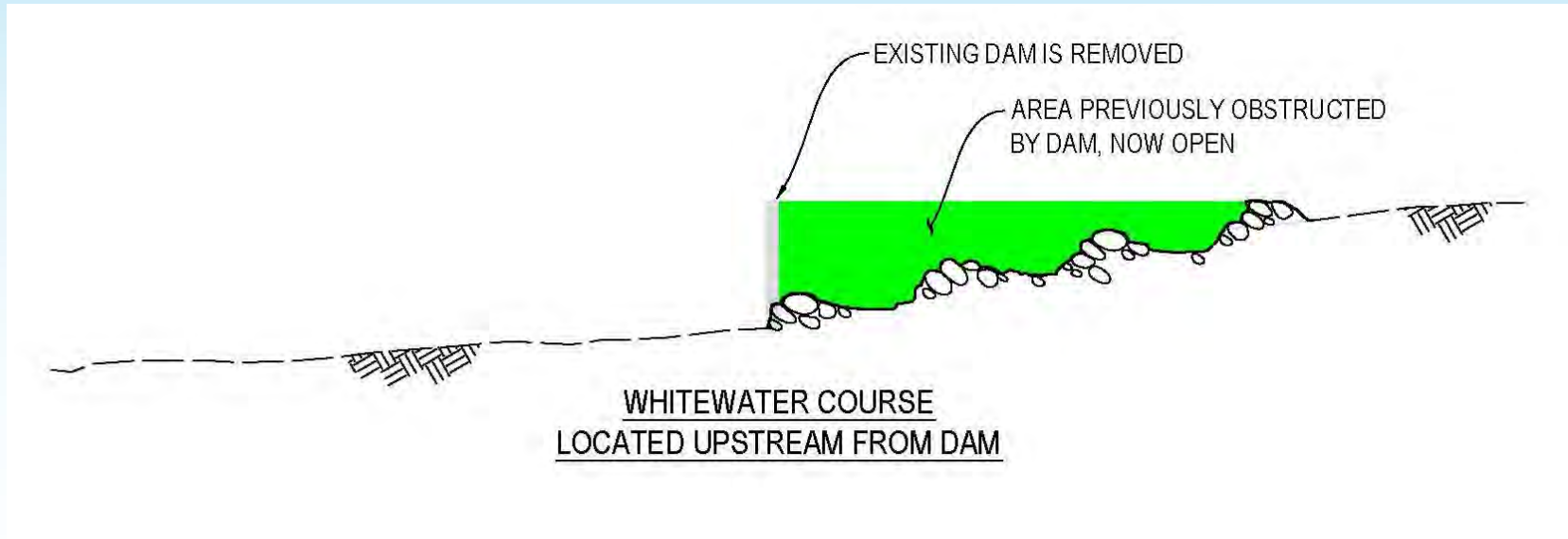


# Whitewater Course Location - Floodplain



- Fill downstream of dam impacts floodplain elevations

# Whitewater Course Location - Floodplain

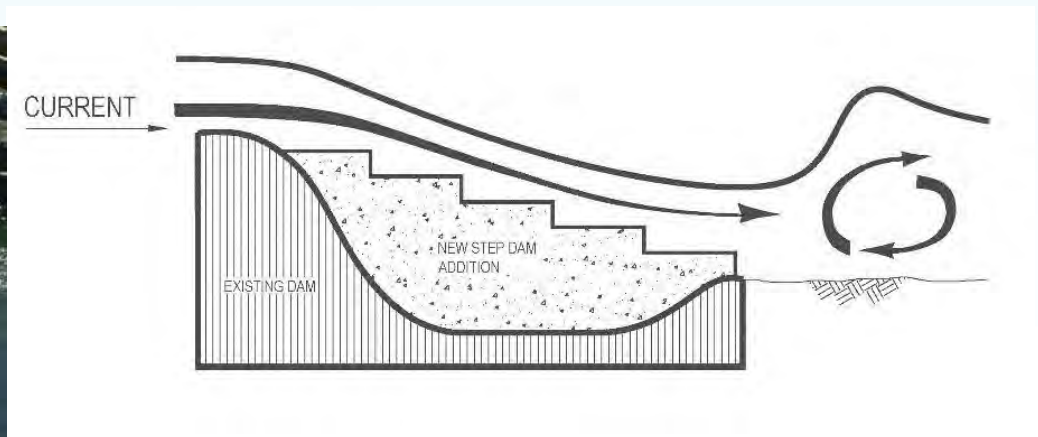
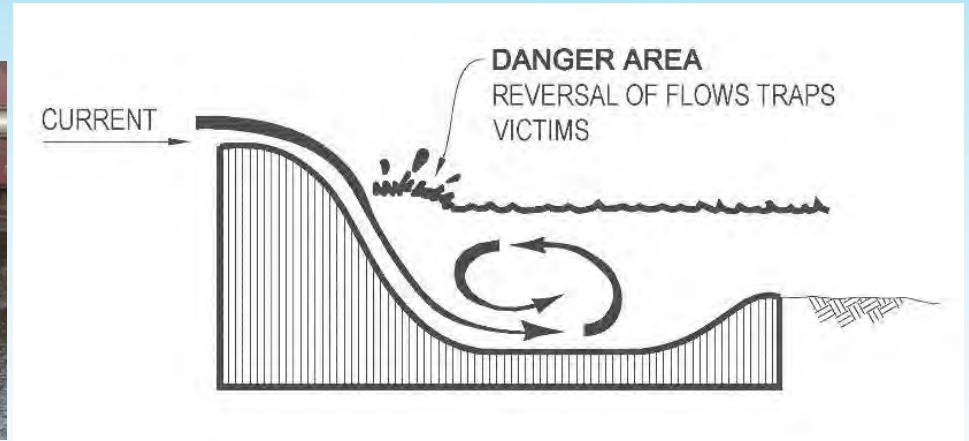


- Upstream of the dam has less impacts to the floodplain.

# Upstream of Dam is More Promising



# Option B - Dam Safing





# Dam Safing



# Environmental Benefits

- Fish Passage
- Water Quality
- Habitat Connectivity
- Habitat Diversity



# Fish Passage

- Naturalistic Roughened Channel
- Provide Suitable Habitat
- Provide Minimum Depth
- Provide Reduced Velocity





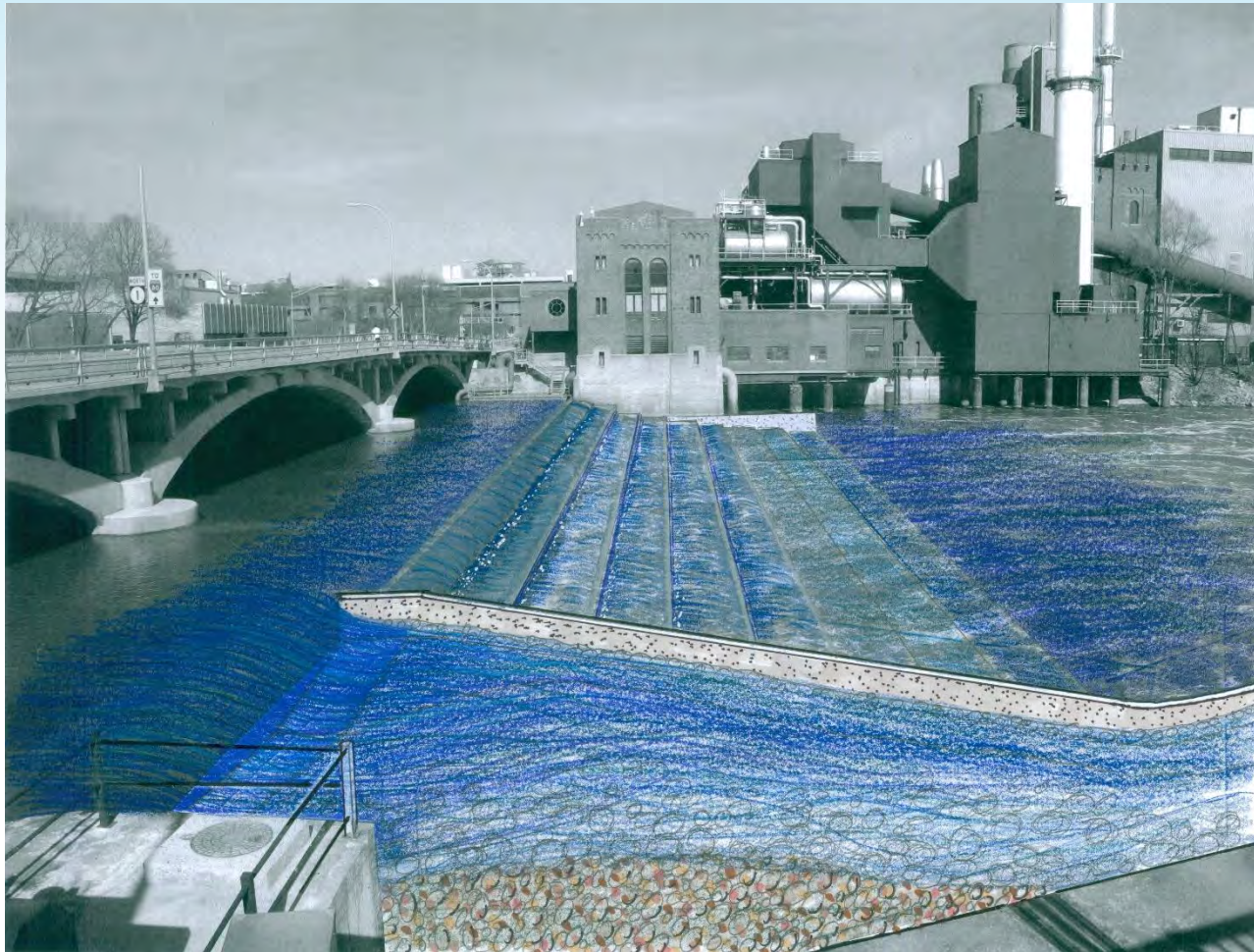
# Burlington Street Dam Concept

- Existing View Looking East at UOI Power Plant



# Burlington Street Dam Concept

- View Looking East at UOI Power Plant with Proposed Improvements





# Burlington Street Dam Concept

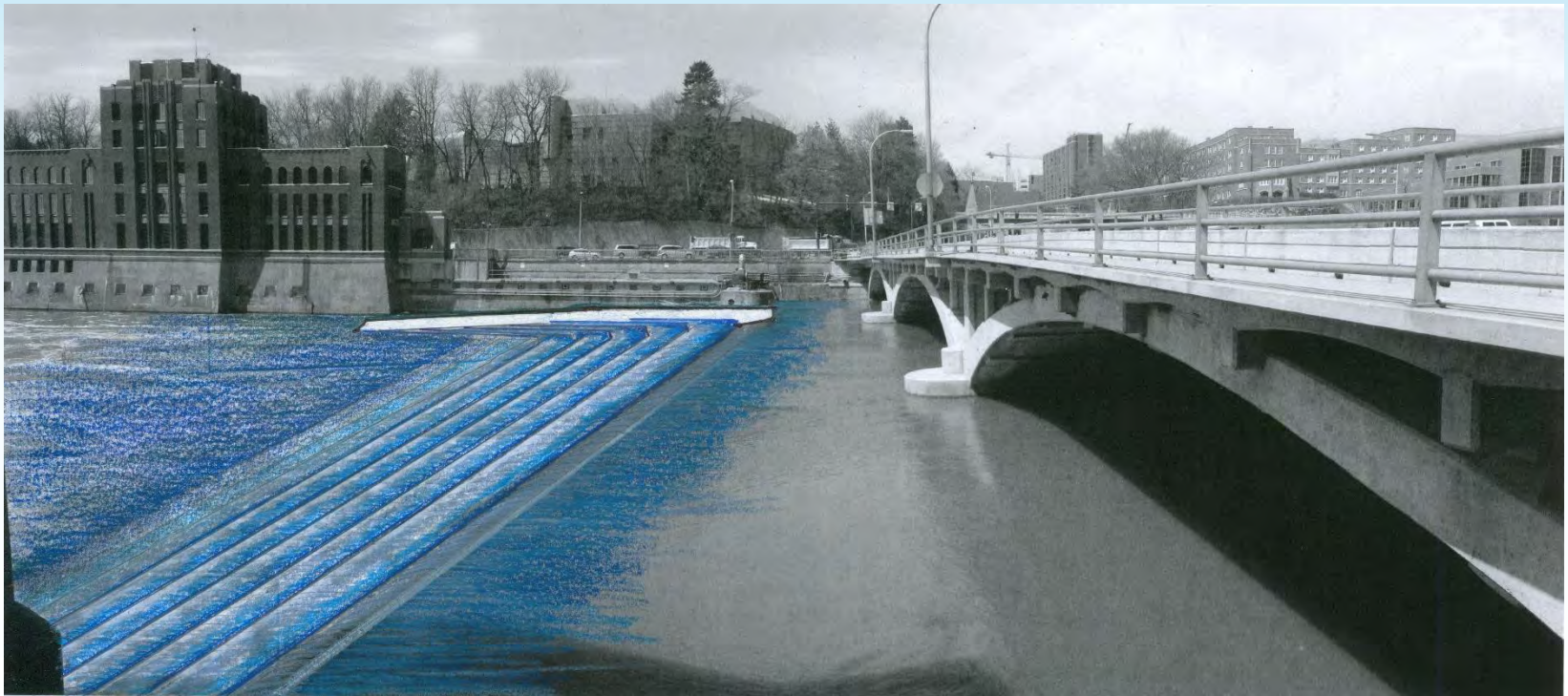
- Existing View Looking West at UOI Hydraulics Lab





# Burlington Street Dam Concept

- View Looking West at UOI Hydraulics Lab with Proposed Improvements





# Project Overview





# River Bank Restoration

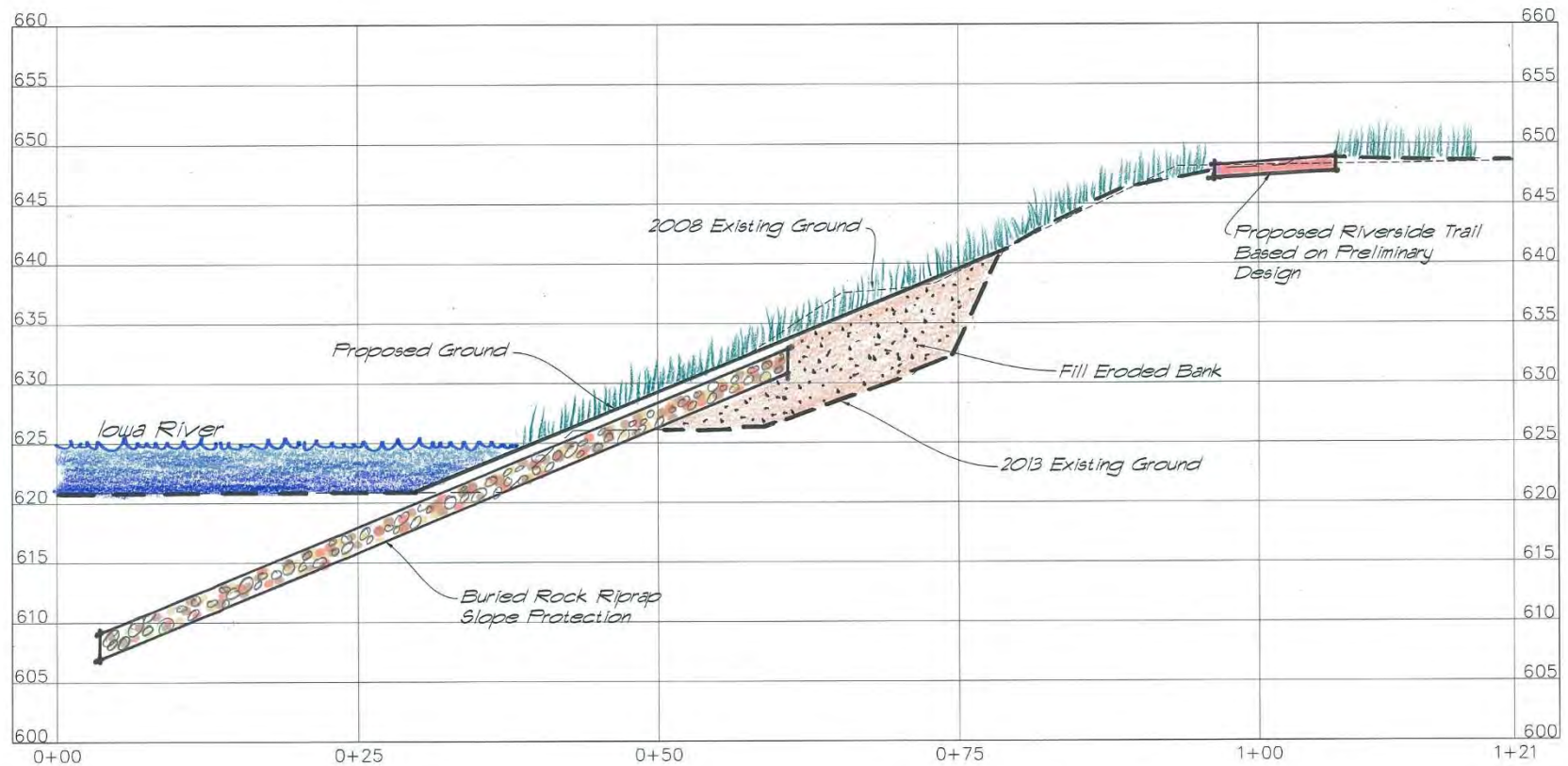
- Benefits
  - Bank stabilization
  - Improved water quality
  - Reduced erosion potential
  - Improved aesthetics



Existing View Looking West Between Benton Street and Hwy. 6

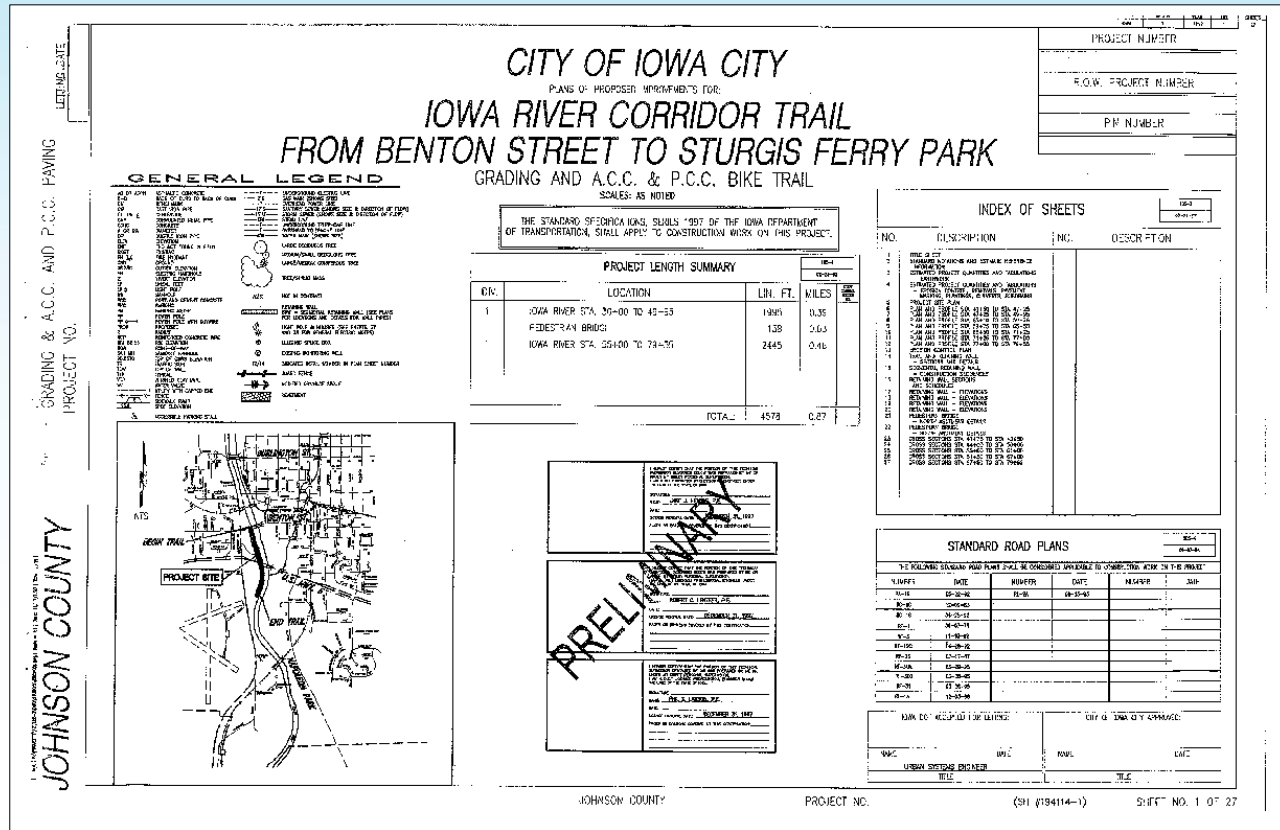
# River Bank Restoration

- Typical Cross Section of Proposed Bank Restoration



# River Bank Restoration

- Regional Trail Improvement Plans by Shive-Hattery, dated 1997



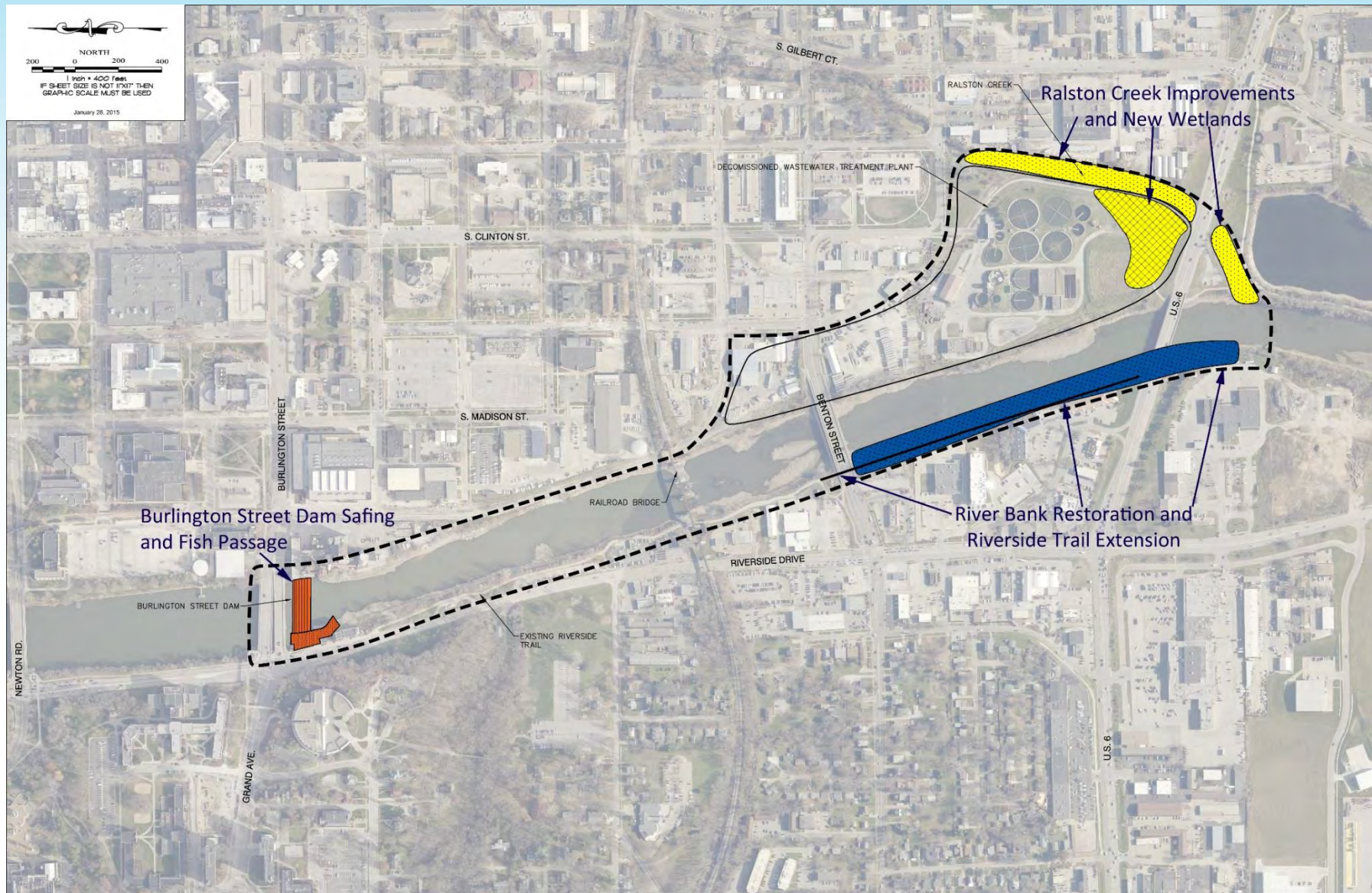


# River Bank Restoration





# Project Overview







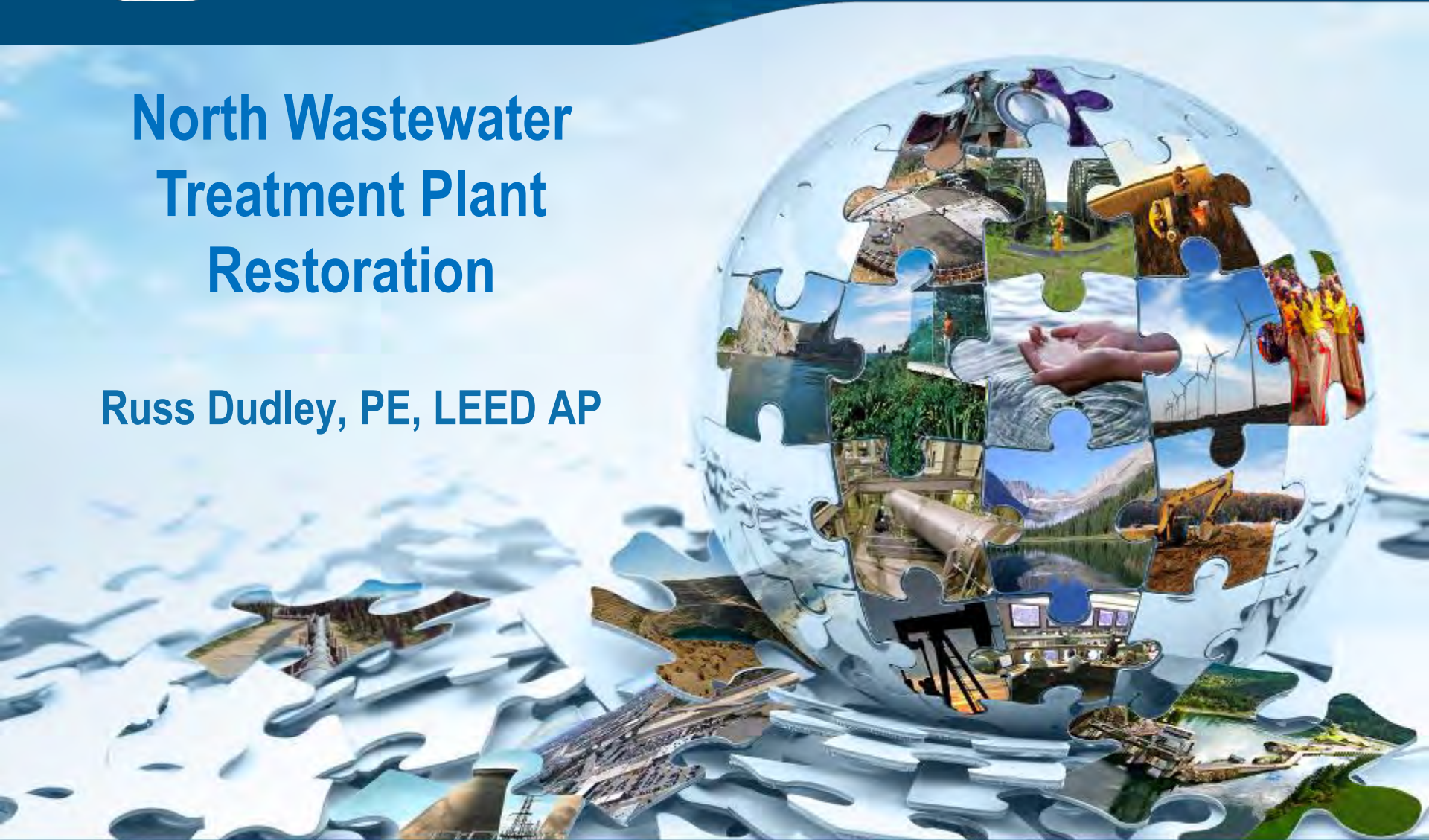
TETRA TECH

complex world

CLEAR SOLUTIONS™

# North Wastewater Treatment Plant Restoration

Russ Dudley, PE, LEED AP



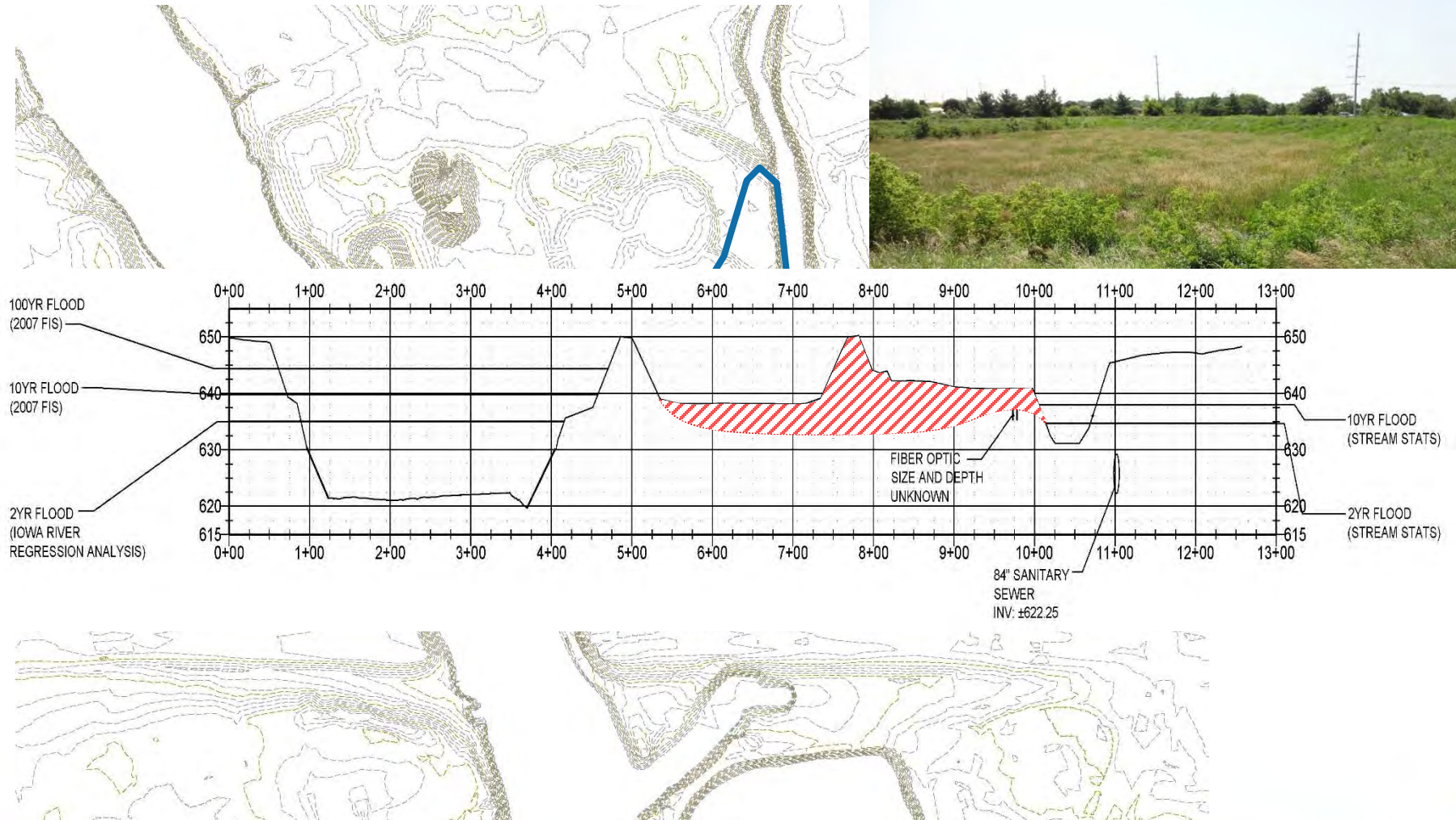


# EPA Green Infrastructure Program

- EPA Technical Assistance Projects  
2014      14 communities  
\$860,000
- Organizations submit a letter of interest describing their need for green infrastructure support
  - Creating green infrastructure **conceptual designs**
  - **Quantifying the benefits** of green infrastructure
  - Exploring options for green infrastructure **outreach**

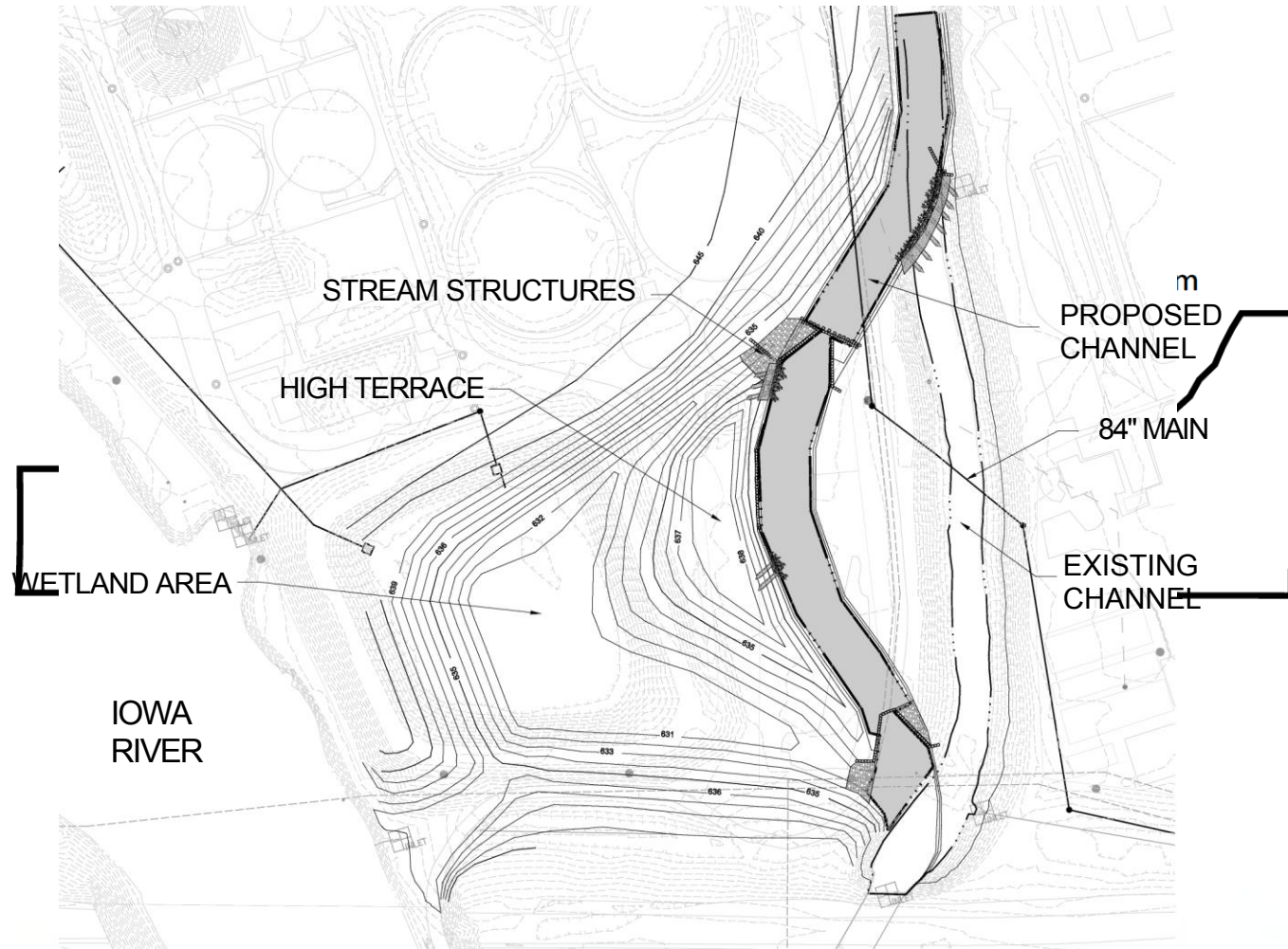


# Existing Conditions

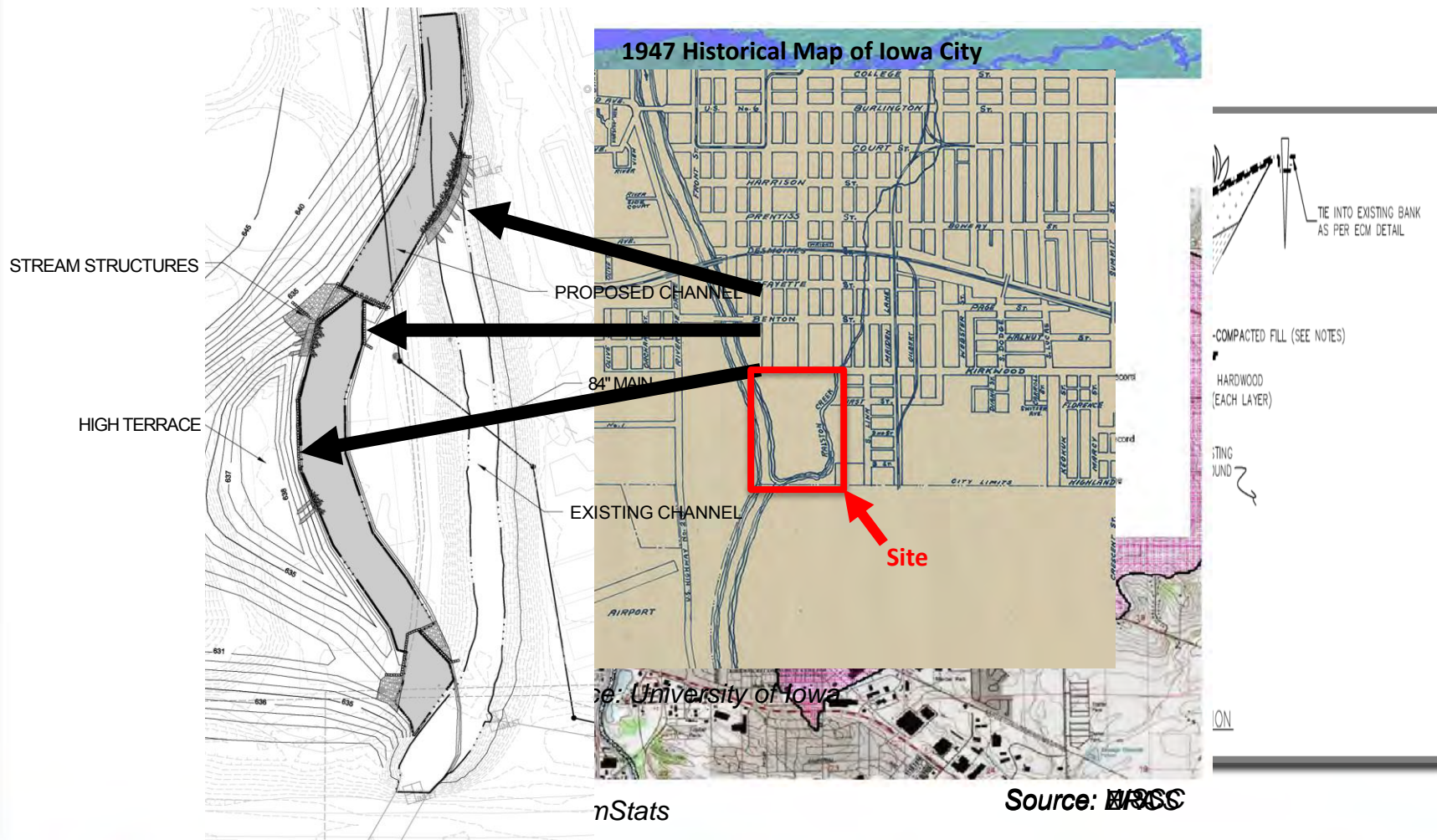




# Proposed Design

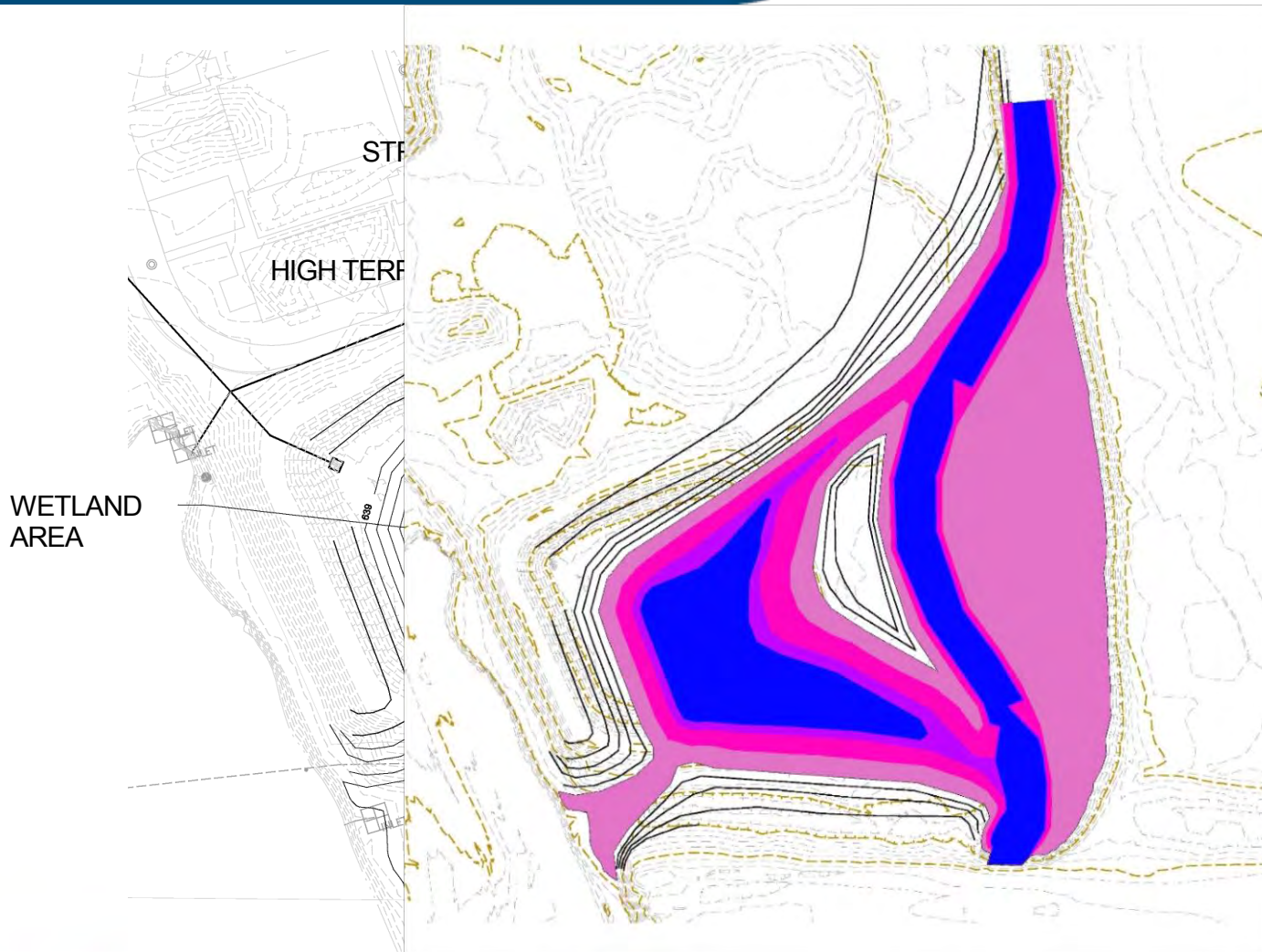


# Restoration of Ralston Creek





# Off-channel Wetlands



connection to  
groundwater table  
provide  
consistent water  
force  
nearly an acre of  
emergent wetlands  
decreases sediment  
nutrient  
removal through  
physical, chemical,  
biological  
processes

# Connection to the Park

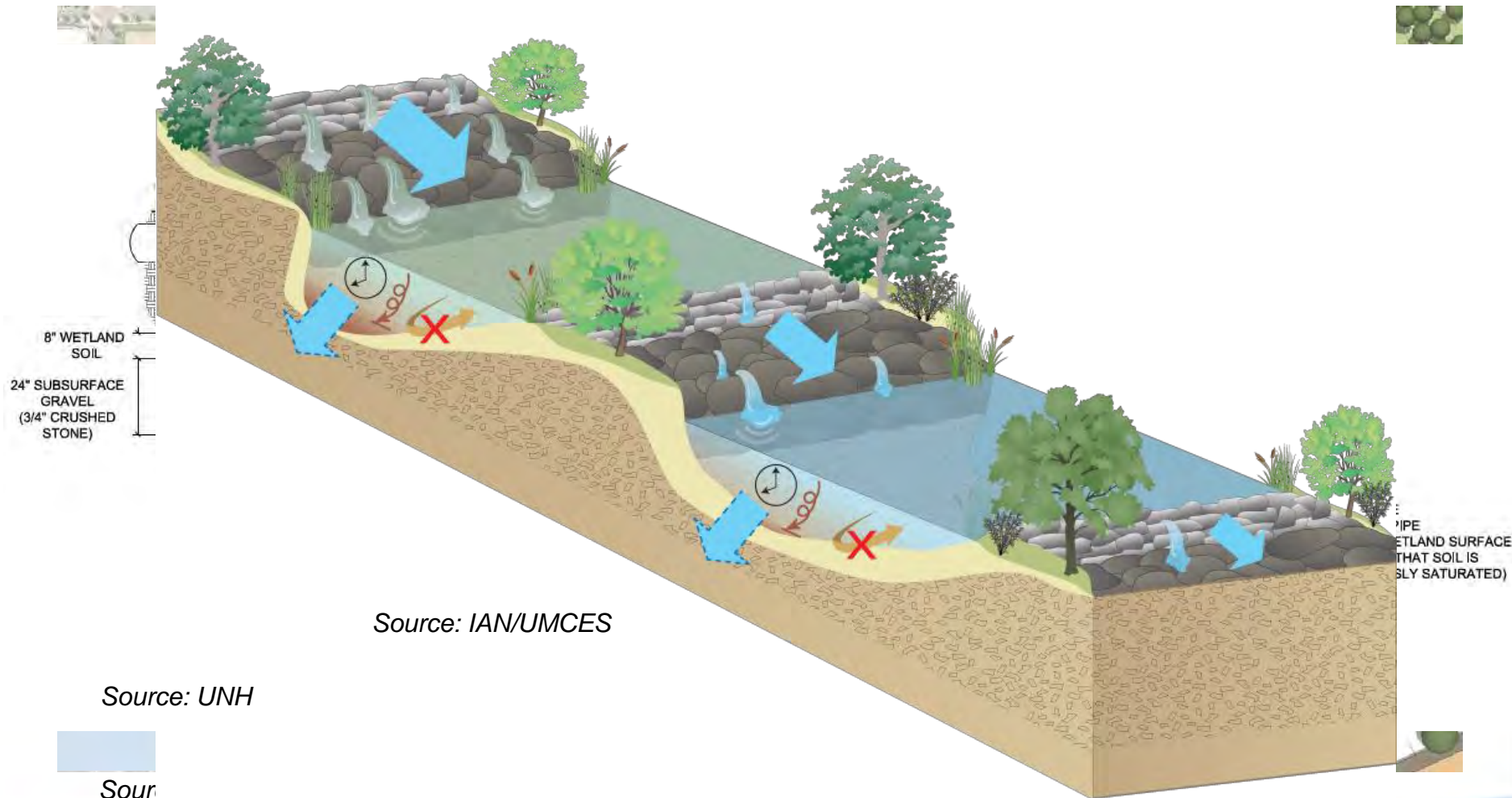


Source: RDG

- Exposure to multiple ecosystem types
- Public access to Ralston Creek and a variety of vantage points
- Green infrastructure opportunities throughout the park
  - Pervious parking/sidewalks
  - Rain gardens
  - Conservation grading
  - Urban agriculture
- Educational signage and research

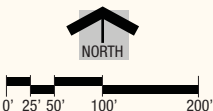


# Connection to Surrounding Redevelopment Areas





# MASTER PLAN

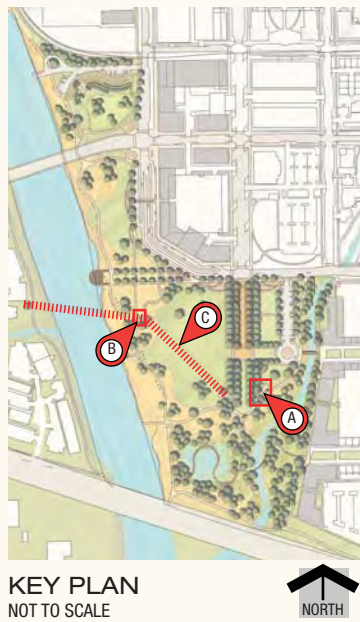


## RIVERFRONT CROSSINGS PARK

JANUARY 28, 2015



# ADVENTURE ELEMENTS



The character images to the right show examples of adventure elements planned for the Riverfront Crossings Park. The final appearance and style of these elements will be different from the images, and will be developed further in future park design phases.



## A NATURAL PLAYScape



## B BOULDERING COURSE



## C ZIP LINE



PARK ELEMENTS



A OPEN LAWN



B NATIVE PLANTINGS



C ORNAMENTAL GARDEN PLANTINGS



D RIVER OVERLOOKS



E TRAIL OPTIONS



RIVERFRONT CROSSINGS PARK

JANUARY 28, 2015



CITY OF IOWA CITY

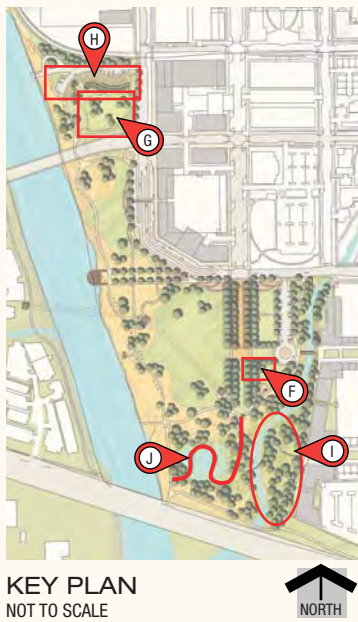
The character images to the right show examples of park elements planned for the Riverfront Crossings Park. The final appearance and style of these elements will be different from the images, and will be developed further in future park design phases.



PLANNING • DESIGN



PARK ELEMENTS



F PARK RESTROOMS & SHELTER



The character images to the right show examples of park elements planned for the Riverfront Crossings Park. The final appearance and style of these elements will be different from the images, and will be developed further in future park design phases.



G DOG PARK



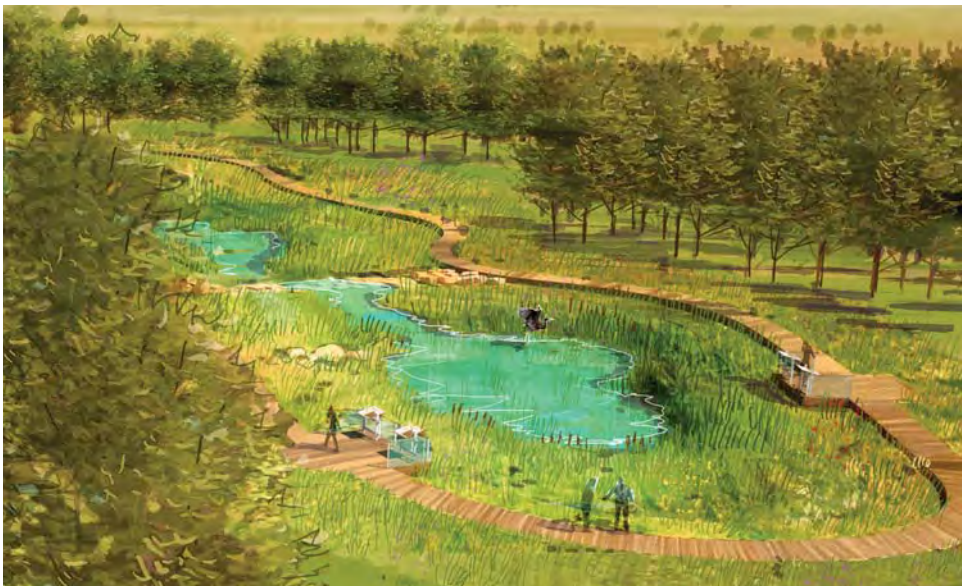
H COMMUNITY GARDEN



I CREEK / NATURE EXPLORATION

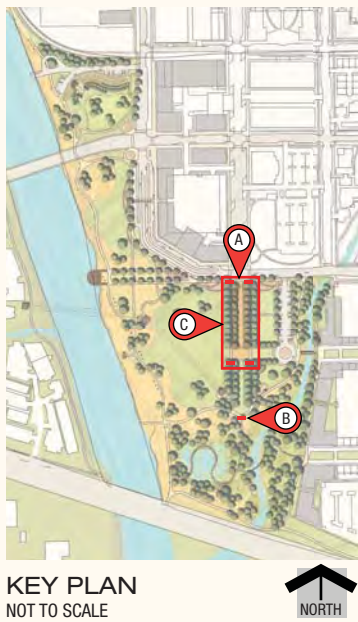


J WETLAND BOARDWALK





# CITY OF LITERATURE ELEMENTS



KEY PLAN  
NOT TO SCALE



**A** POETRY PORTALS AT CLINTON STREET



**B** DETAIL OF POETRY PORTAL



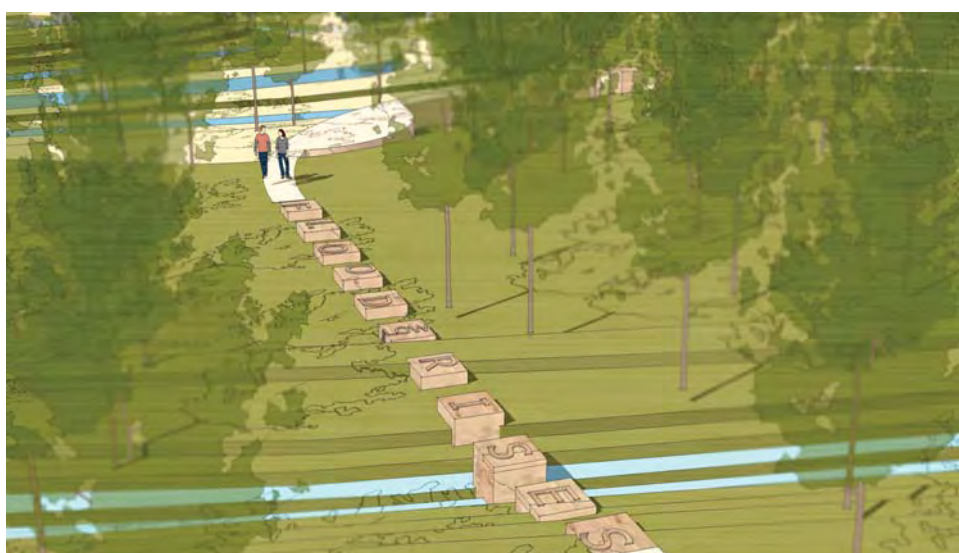
**C** WRITER'S PLAZA ELEMENTS



# CITY OF LITERATURE ELEMENTS



KEY PLAN  
NOT TO SCALE



**D** CREEK STEPPING STONES



**E** SABIN SCHOOL ARCHWAYS



**F** RIVER WALK STONE MARKERS

