



SALT LAKE CITY DEPARTMENT OF PUBLIC UTILITIES

Riparian Corridor Implementation Plan

Public Workshop 2

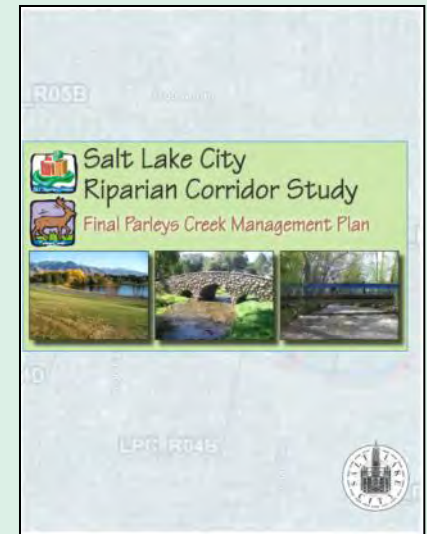
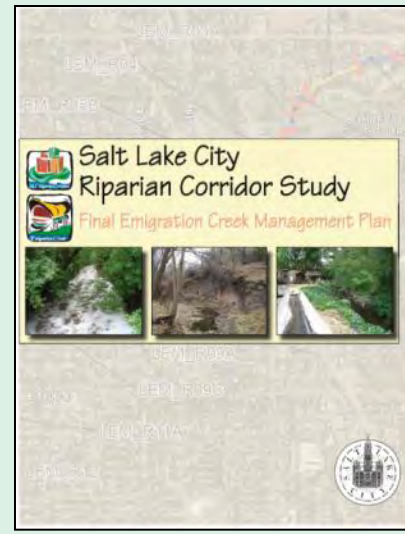
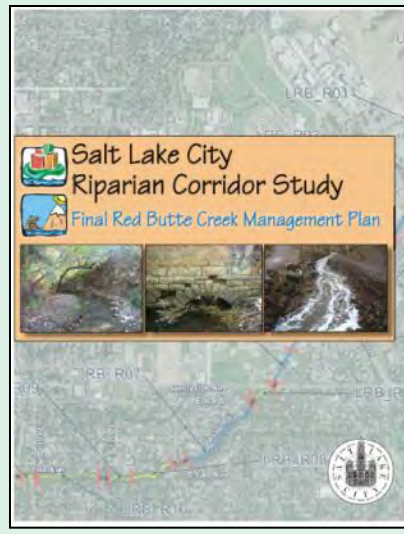
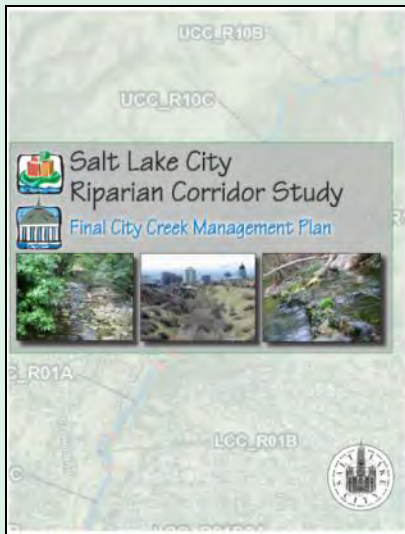
March 28-29, 2012

Facilitated by BIO-WEST, Inc.

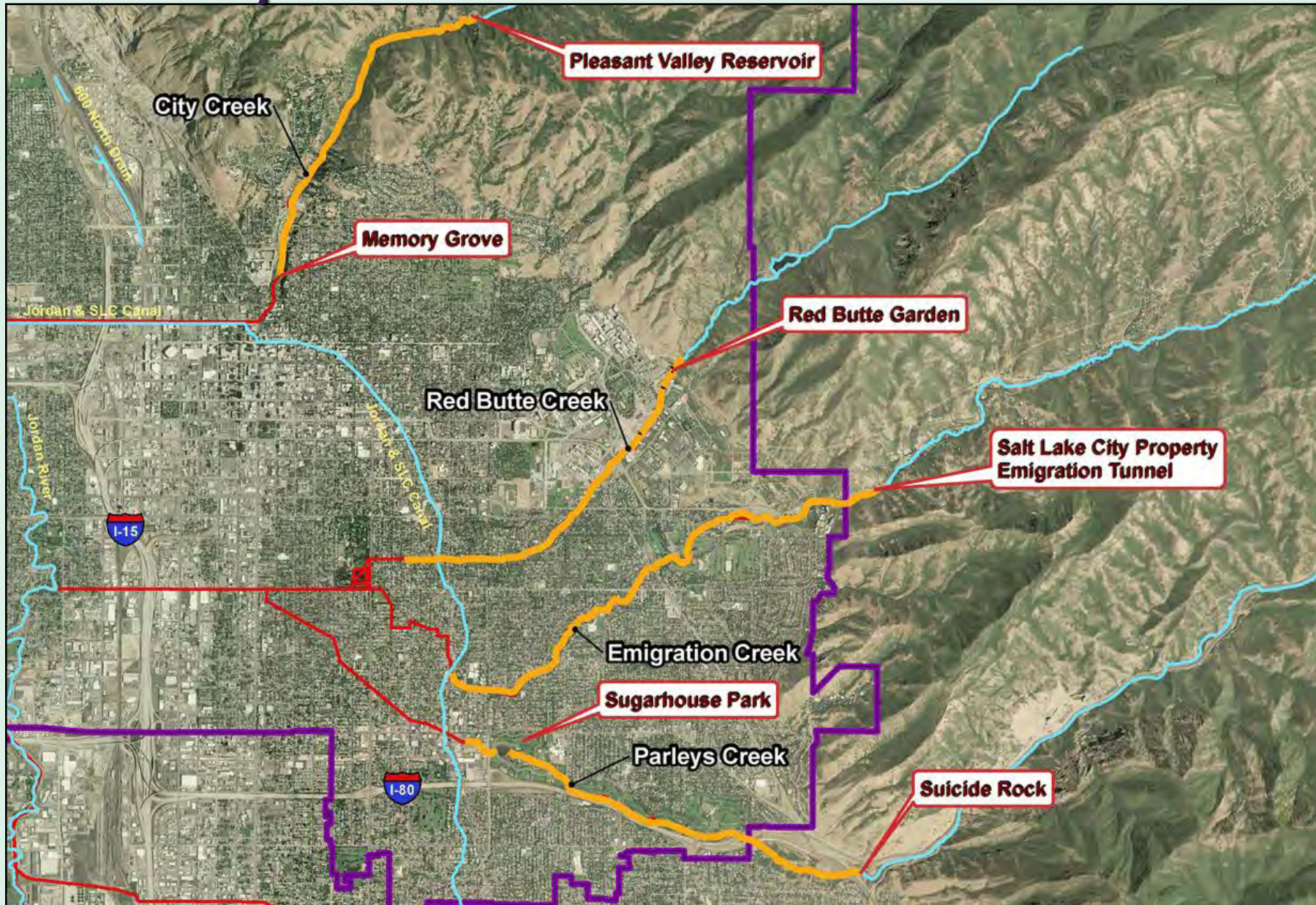


Project Overview

Riparian Corridor Studies and Management Plans were prepared (2008–2010) for the four Salt Lake City creeks (Red Butte, Emigration, City, Parleys)



Four Riparian Corridors Studied



Project Overview

- Plans for each creek include a list of recommended improvement measures, summarized by stream reach
- This effort involves integrating the recommended measures into a prioritized implementation plan
- Implementation plan will also include Jordan River projects identified through other studies

Project Elements

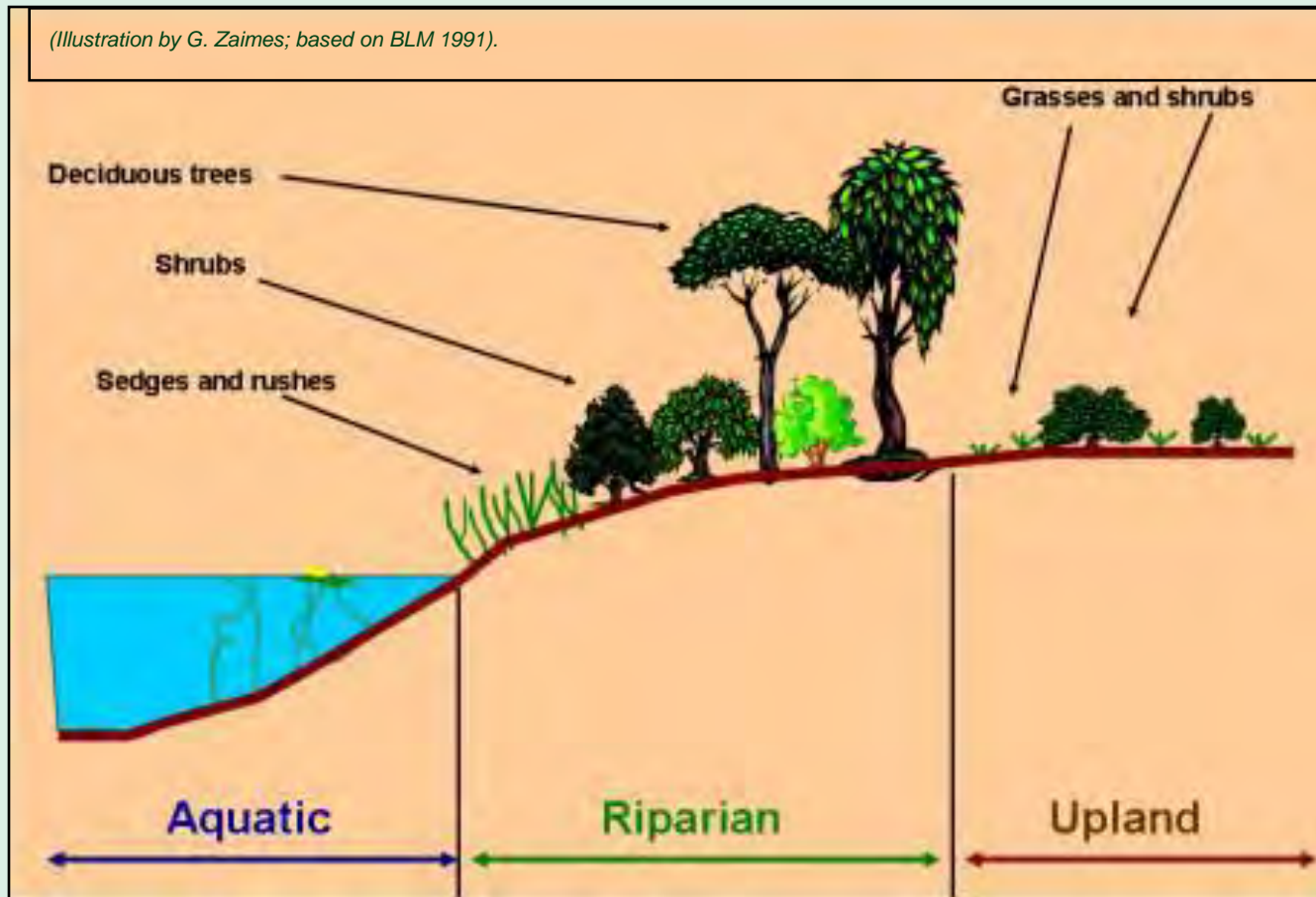
- Establish prioritization criteria/ranking process for projects identified in existing RCS documents and on Jordan River
- Rank projects and prepare integrated, prioritized list
- Prepare implementation plan (schedule, funding, etc.)
- Establish process to accept/rank/prioritize newly-proposed projects (projects not in existing RCS documents)
- Educational creek crossing signs for the four creeks

Project Schedule

- Project began in November 2011
- Met with Riparian Subcommittee December 1, 2011; January 5, 2012; March 15, 2012
- First round of public workshops held in late February
- Project scheduled for completion in May 2012
- City plans to install signs later this summer

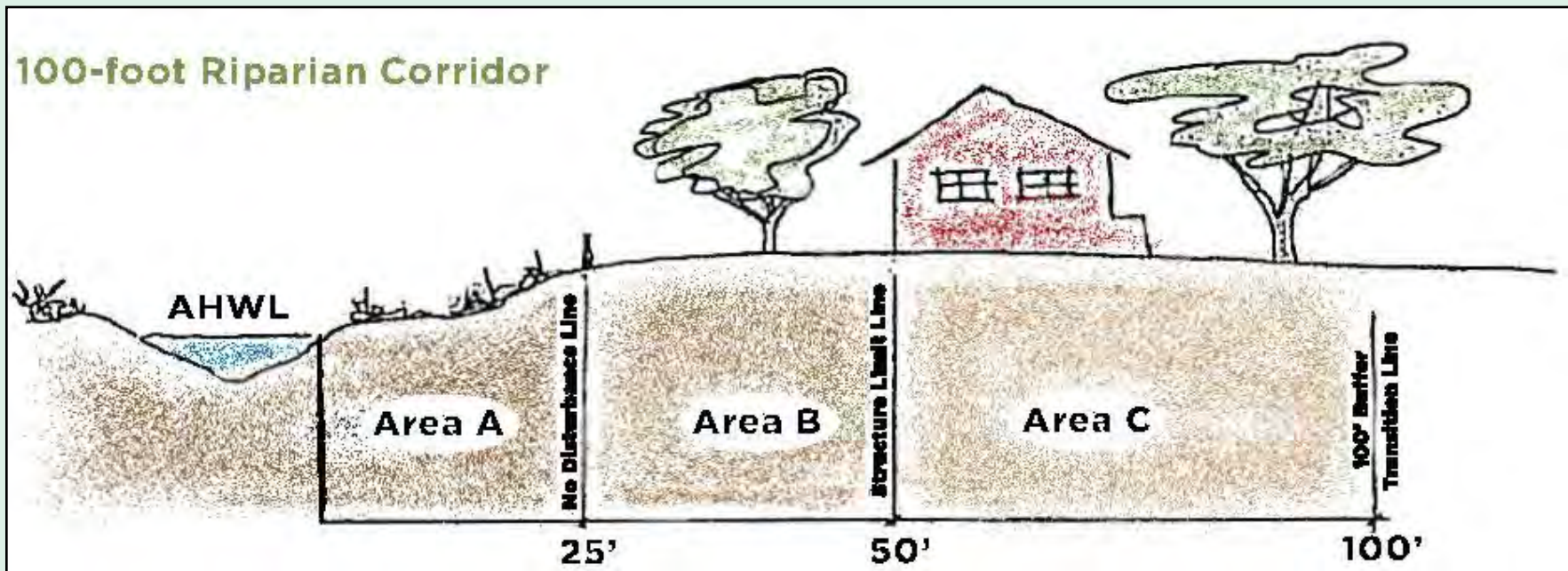
Riparian Area Definition

- Zone of influence between aquatic and upland areas
- Sometimes defined as including channel, floodplain, and transition zone



Riparian Corridor - Legal Definition

- The RCO applies to the area within 100 feet of the annual high water line (AHWL) of above-ground streams
- “Riparian corridor” definition: the stream plus the 100-foot riparian corridor on each side
- This project involves improvement measures in these corridors



Benefits of Healthy Riparian Corridors

- Scenic/Aesthetic
- Recreation
- Floodplain Storage/Flood Damage Reduction
- Water Quality
- Streambank Stability
- Ecological/Habitat



Types of Improvement Measures

- Stream cleanup/mechanized trash removal
- Invasive plant removal and control
- Native understory, shrub, and canopy cover revegetation
- Storm drain improvement/runoff management
- Grade control and biotechnical streambank stabilization
- Access control/trail stabilization
- Fill removal/floodplain re-establishment
- Culvert replacement



Input from February Workshops

- **Prioritization criteria**
 - Projects that incorporate volunteers should score higher
 - Emphasize science-based criteria
 - Consider social criteria (community walkability, etc.)
- **Ranking and project review process**
 - Address emergency situations such as floods, oil spills etc.
 - Integrate with other city planning efforts e.g. East Bench Master Plan etc.
- **High value placed on aesthetic, ecological, recreation, and water quality benefits**
- **Revegetation, weed control, bank stabilization and access improvements are high priorities**

Prioritization Criteria

- **Riparian enhancement potential**
- **Relative need**
- **Location and size**
- **Type(s) and scale of project benefits**
 - Seven benefit categories
 - Immediacy of benefits
 - Natural riverine process enhancement
- **Initial and long-term costs**
- **Third party funding**
- **Volunteer contribution**
- **Stakeholder and public support**
- **Project urgency/third-party synergy**
- **Other factors**
 - Safety or educational benefits
 - Inclusion of scientific monitoring
 - Contribution to regulatory requirements

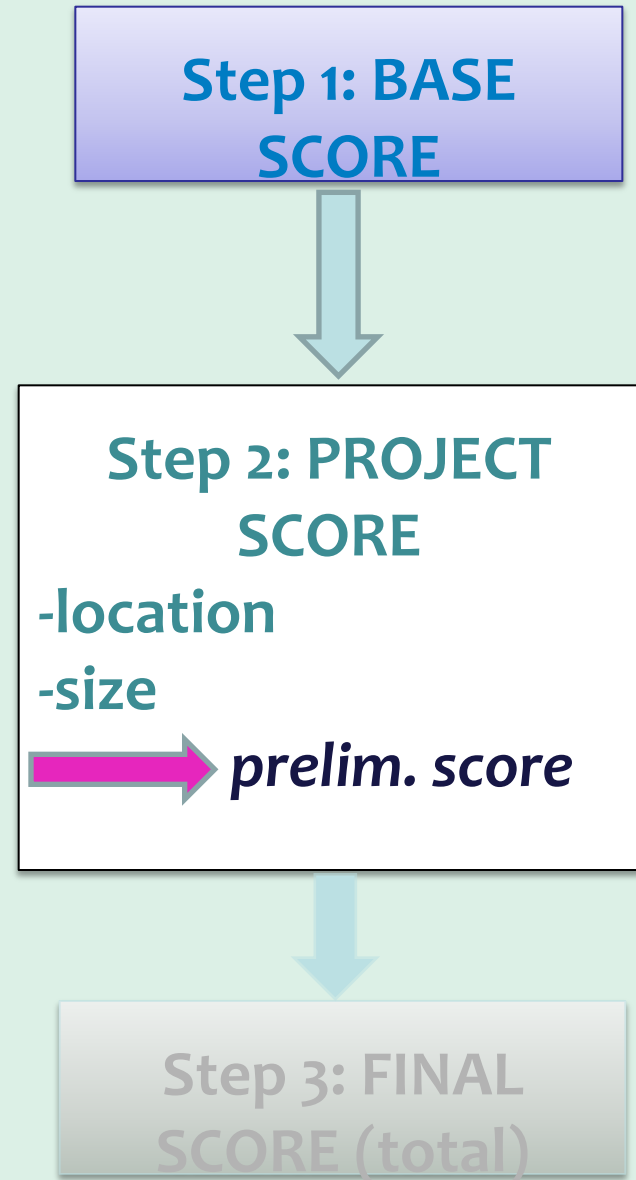
Ranking Process

- If project is proposed in one of the RCS study reaches, it is assigned a “base score” based on
 - Riparian enhancement potential
 - Identified need for project
- Project is then scored using the other criteria
 - Location (public vs. private)
 - Size
 - Project benefit(s), by category
 - Cost considerations
 - Project urgency/opportunity
 - Other factors



High Priority Reaches

- Looked at base scores
 - Riparian enhancement potential
 - Identified need for project
- And project scores for first 2 criteria
 - Location (public vs. private)
 - Size
- Preliminary ranking score



High Priority Reaches

Reach Number	Reach Description	Relative Hydrologic Integrity	Relative Extent of Undeveloped Corridor Width	Relative Longitudinal Integrity/Connectivity	Need Base Score	TOTAL BASE SCORE	Public-Private	Size	TOTAL: BASE + PUB/PRI + SIZE
LPC_R02	Middle Parleys Park	3	3	3	2.3	11.3	3	3	17.3
LPC_R01A01B	Upper Parleys Park	3	3	3	2.0	11.0	3	3	17.0
LRB_R03	University - Above Chipeta Way	3	3	3	1.6	10.6	3	3	16.6
UCC_R09	Pleasant Valley	3	3	3	1.5	10.5	3	3	16.5
URB_R09	Upper Red Butte Garden	3	3	3	1.2	10.2	3	3	16.2
UCC_R10A	Pipeline	3	3	3	1.0	10.0	3	3	16.0
UCC_R10C	Water Crest	3	2	3	1.8	9.8	3	3	15.8
LEM_R04	Bonneville Golf Course - Below Storm Outfall Gully	2	3	3	2.5	10.5	3	2	15.5
UCC_R11A	Elbow Turn	3	2	3	1.4	9.4	3	3	15.4
LPC_R03	Lower Parleys Park	3	2	3	2.4	10.4	3	2	15.4
LEM_R01	Rotary Glen Park	3	3	2	1.4	9.4	3	3	15.4

High Priority Reaches

- Looked at base scores
 - Riparian enhancement potential
 - Identified need for project
- And project scores for first 2 criteria
 - Location (public vs. private)
 - Size
- Preliminary ranking score
- Complete project scoring
 - Assume all recommendations implemented as single hypothetical project
- Compare final scores

Step 1: BASE
SCORE



Step 2: PROJECT
SCORE

-location

-size

prelim. score

-benefits

-costs

-other factors

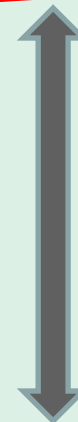


Step 3: FINAL
SCORE (total)



Project Scores and Final Scores

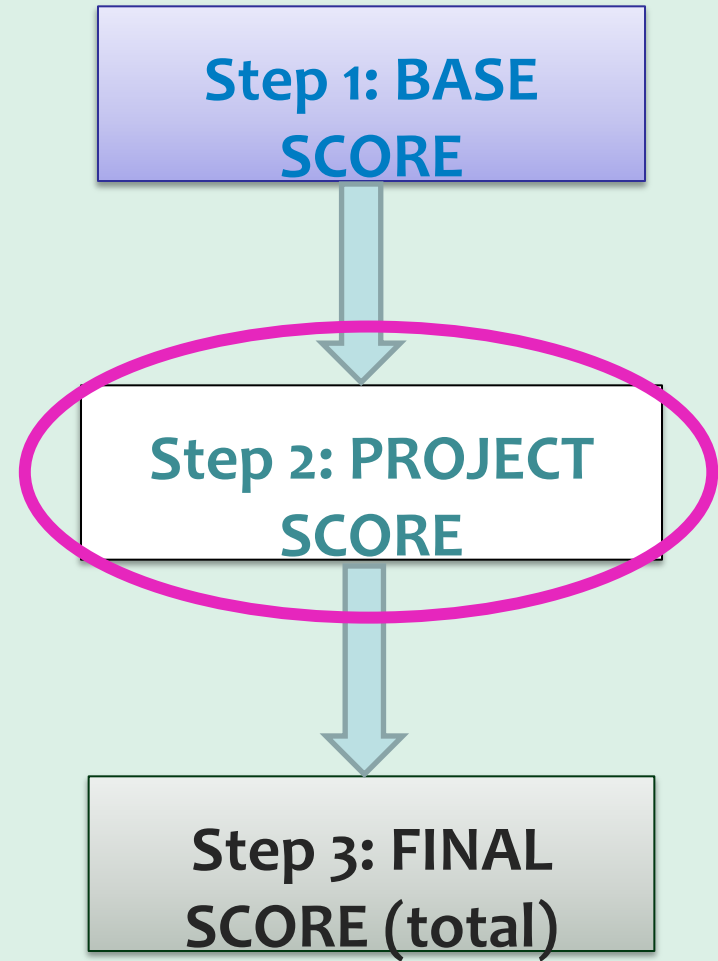
Reach Number	Reach Description	TOTAL BASE SCORE	PRELIM. SCORE	PROJECT SCORE	FINAL SCORE
LPC_R03	Lower Parleys Park	10.4	15.4	42.0	52.4
LPC_R02	Middle Parleys Park	11.3	17.3	40.0	51.3
LPC_R01A01B	Upper Parleys Park	11.0	17.0	40.0	51.0
LEM_R04	Bonneville Golf Course - Below Storm Outfall Gully	10.5	15.5	38.0	48.5
UCC_R10C	Water Crest	9.8	15.8	38.0	47.8
UCC_R11A	Elbow Turn	9.4	15.4	37.0	46.4
LEM_R01	Rotary Glen Park	9.4	15.4	36.0	45.4
UCC_R10A	Pipeline	10.0	16.0	35.0	45.0
UCC_R09	Pleasant Valley	10.5	16.5	34.0	44.5
LRB_R03	University - Above Chipeta Way	10.6	16.6	33.0	43.6
URB_R09	Upper Red Butte Garden	10.2	16.2	32.0	42.2



- Lower Parleys Park has a higher project score – greater benefits, restores riverine process (road/fill removal), addresses listed pollutant (E.coli)
- Pleasant Valley project more limited -weed control, minor access control
- Reaches with low base scores can still receive a high final score if project is well designed

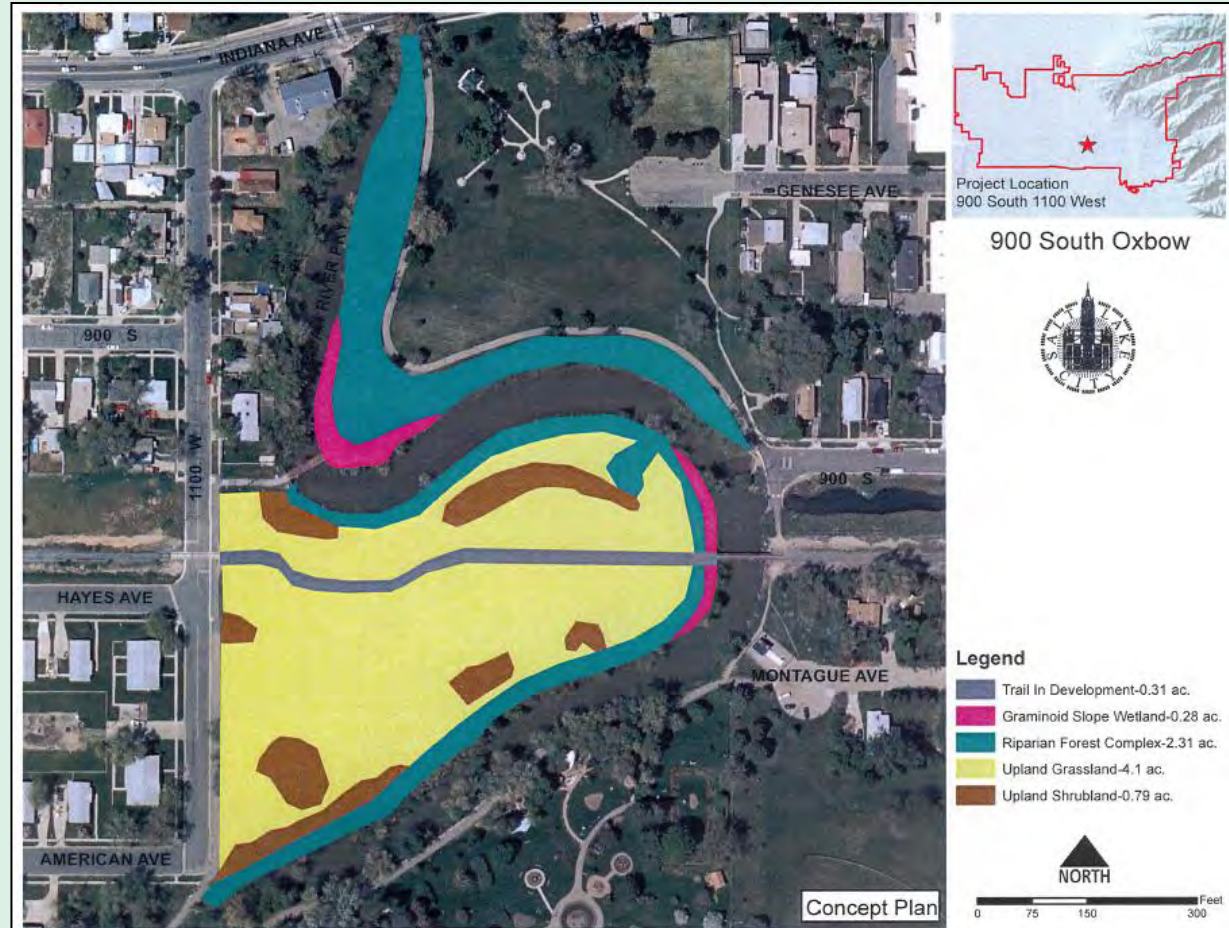
Jordan River Example - 900 S Oxbow

- No base score information available
- Evaluate using project score criteria only
- Project proposed by Salt Lake Parks and Public Lands Division
- Project has received funding through Red Butte oil spill penalty money administered by DWQ
- Involves restoration of native riparian & upland vegetation on meander bend



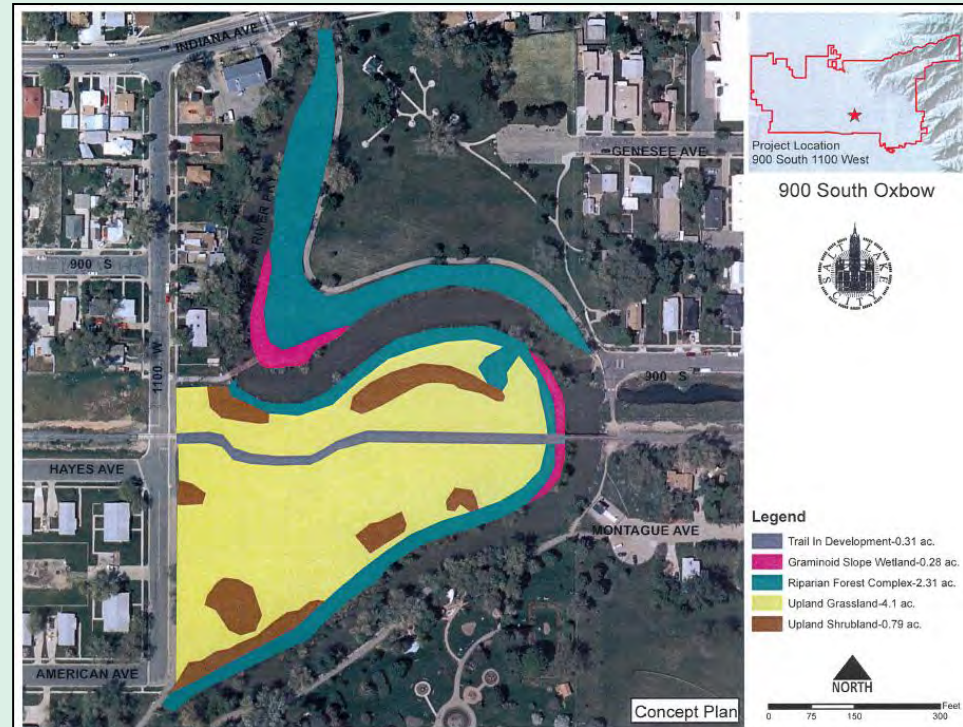
Jordan River – 900 South Oxbow

- Public land, large project
- Moderate aesthetic, habitat, stability, water quality benefits
- Third party funding, uses volunteers, includes monitoring
- Aligns with TMDL, parkway plans

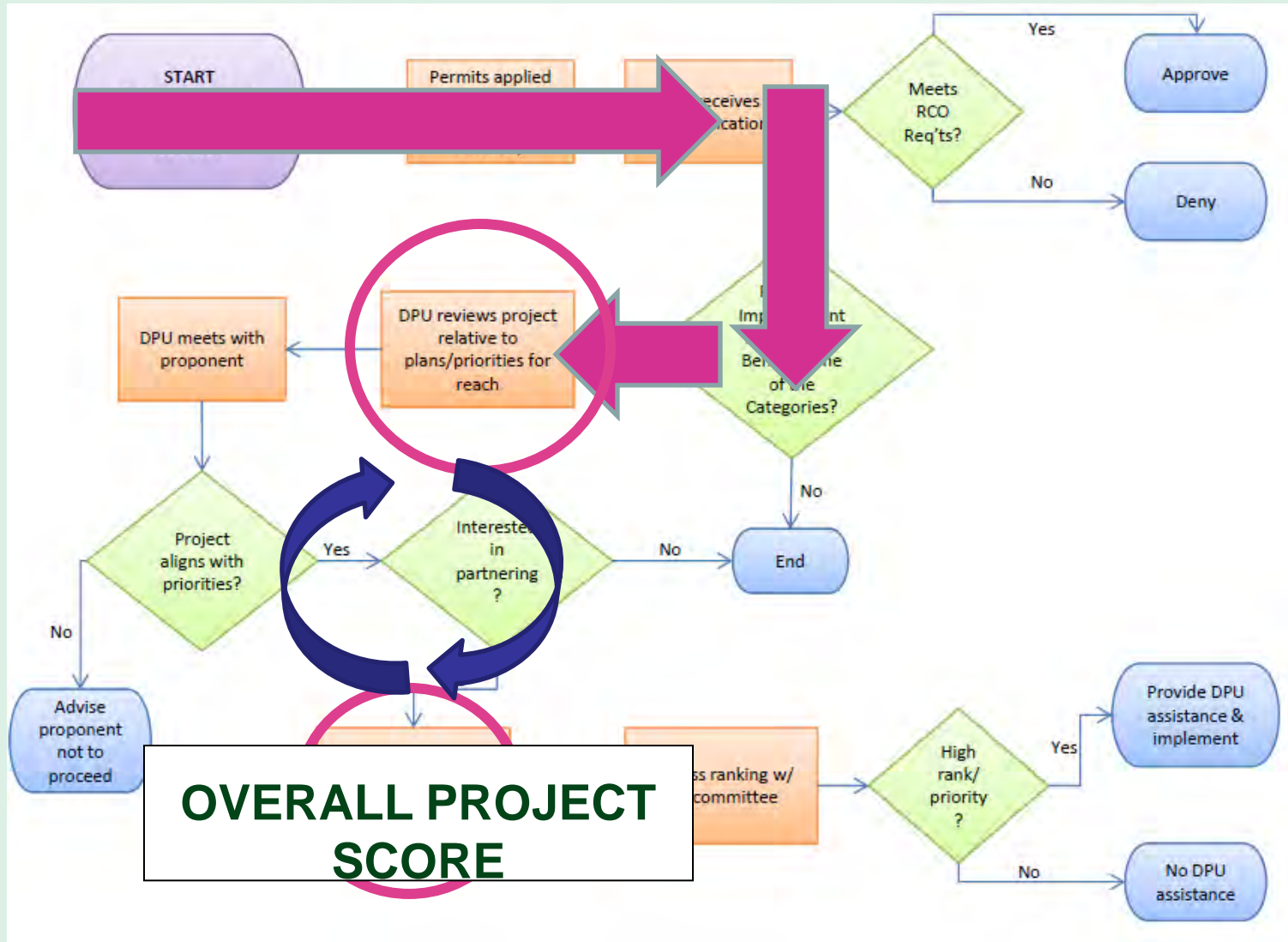


Jordan River – 900 South Oxbow

- Project score = 40
- High priority RCS reaches had project scores of 32 to 42
- Ways to improve 900 S. Oxbow score
 - Floodplain lowering on inside of bend (flood risk reduction benefit, natural process enhancement, organic matter deposition)
 - Include interpretive signs or other educational amenity

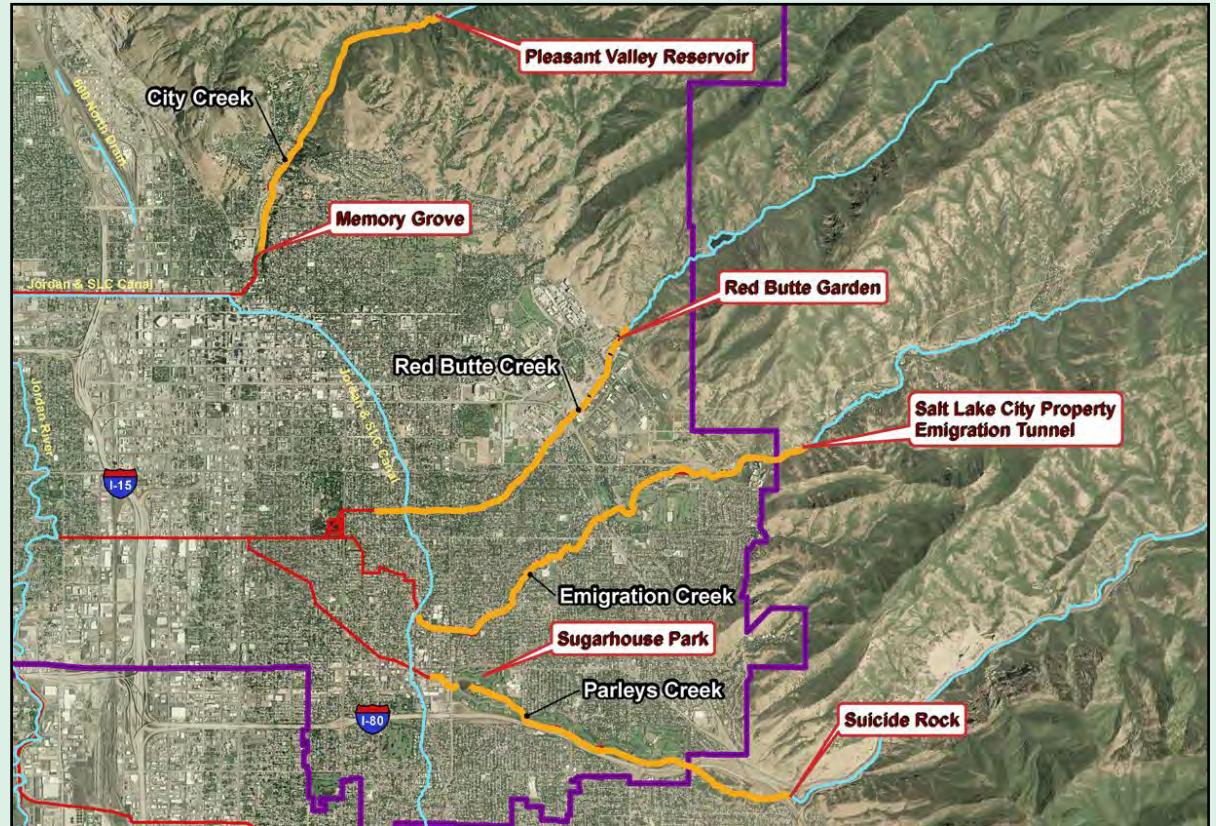


Interactive Tool to Improve Overall Project Quality



Ranking and Prioritization Process

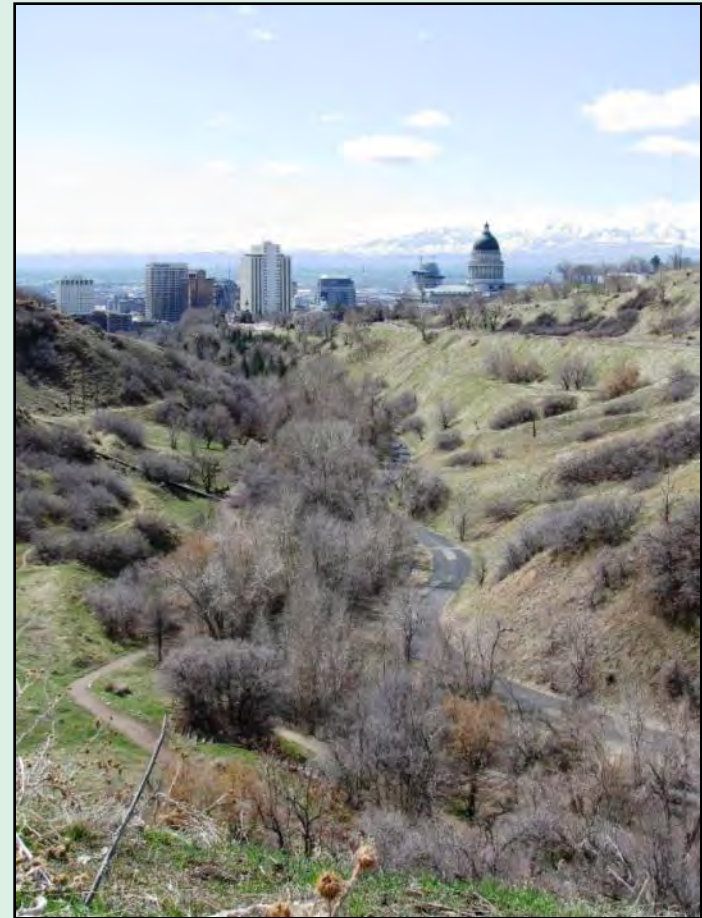
- Questions?
- Comments?



Creek Crossing Signs

GOAL

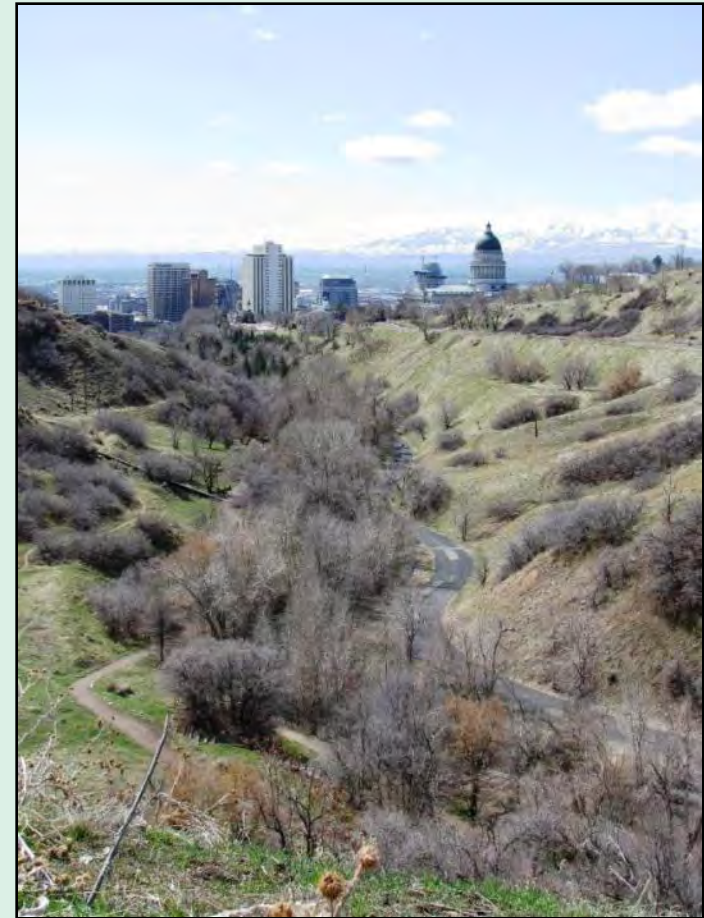
Increase public awareness and geographic knowledge of the creeks within Salt Lake City by informing motorists and pedestrians that they are crossing a creek.



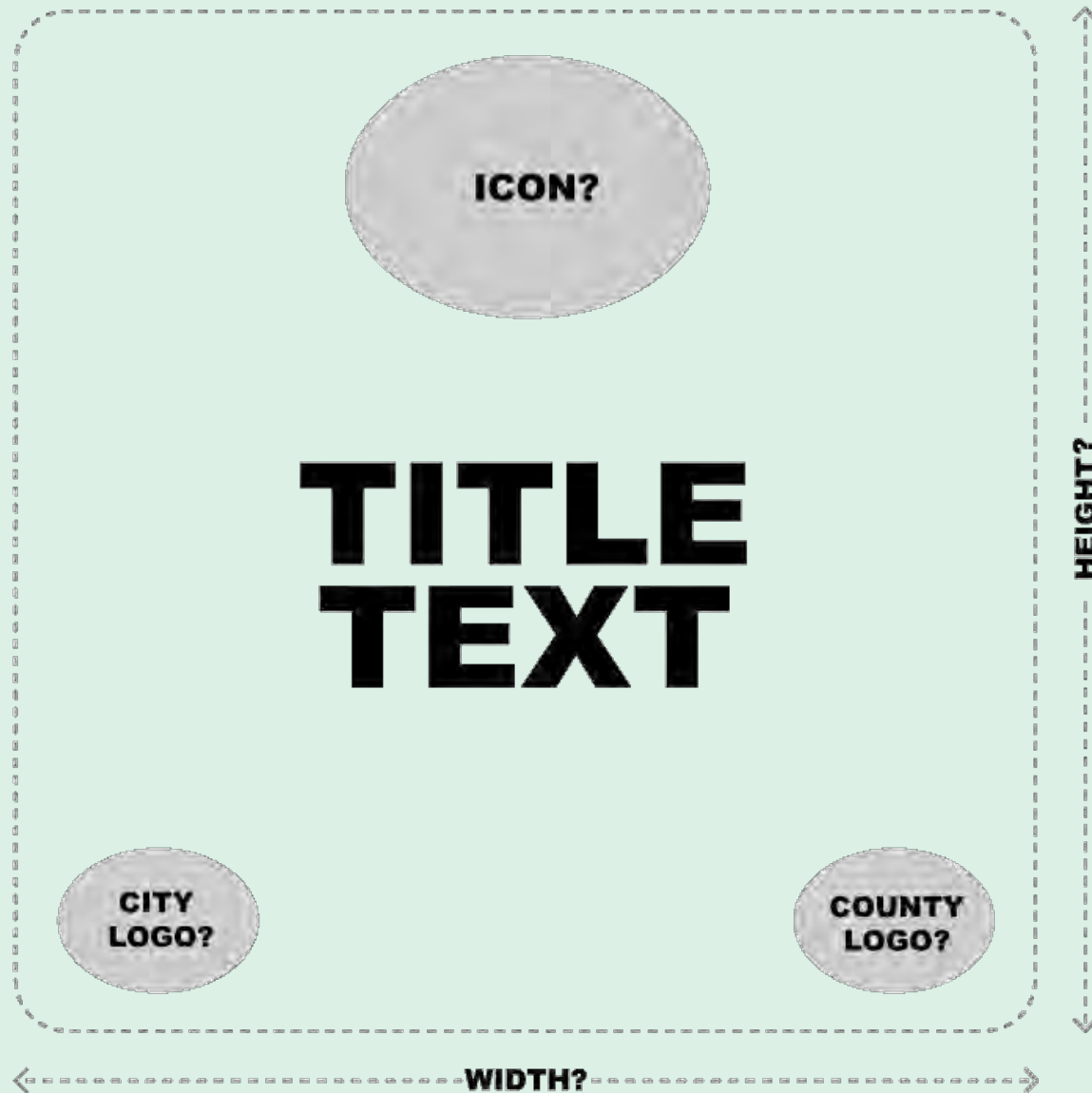
Creek Crossing Signs

DESIGN REQUIREMENTS

- Visible and readable by motorists using major roadways
- Also readable and informative for pedestrians
- Scalable design (able to shrink and embed in other City signage)
- Fits in available roadway shoulder space
- Meets SLC Streets guidelines
- Compatible with future Jordan River signage (?)



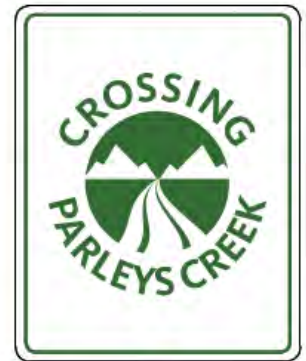
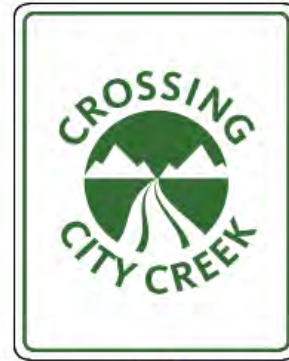
Creek Crossing Signs



Preliminary Designs: Style 1

FEATURES

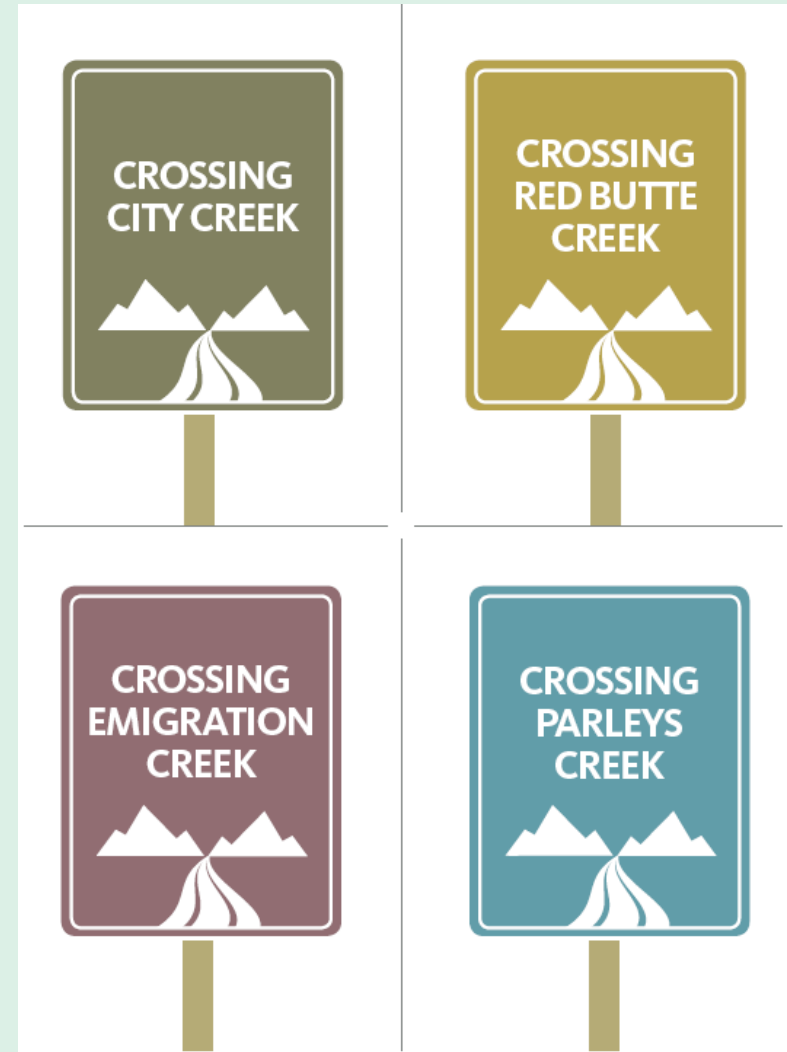
- Single wood post
- Incorporates logo
- Incorporates “crossing”



Preliminary Designs: Style 2

FEATURES

- Single wood post
- Incorporates logo
- Incorporates “crossing”
- Background colors vary by creek



Preliminary Designs: Style 3

FEATURES

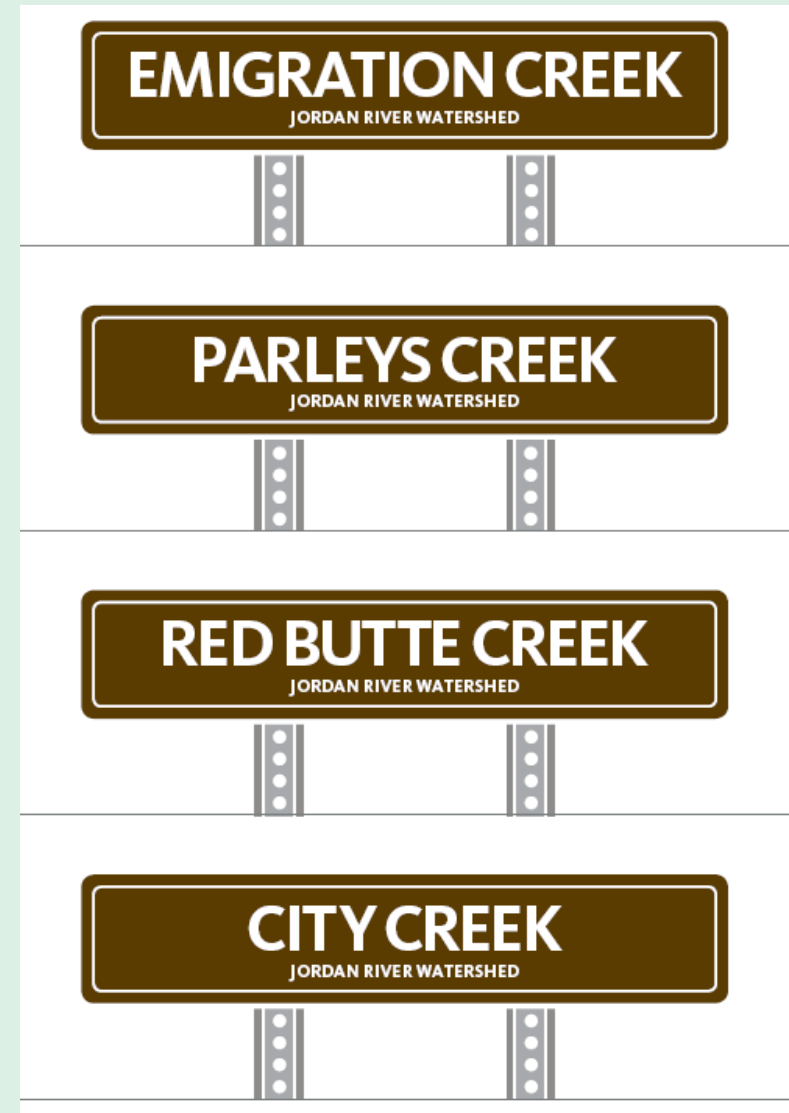
- Single metal post
- Incorporates logo
- Incorporates “crossing”
- Two stacked signs format



Preliminary Designs: Style 4

FEATURES

- Double metal or wood post
- Identifies watershed



Feedback from Public Workshops:

Public Preferences:

- Single-post style
- Text and logo
- Identify Watershed
- “Keep It Pure” logo
- Add “Q-codes”
- Re-design logo so that the Creek does not look like a road
- Idea of including Native American place names
- Jordan R. –coordinate among municipalities



Public Prefers Style 3

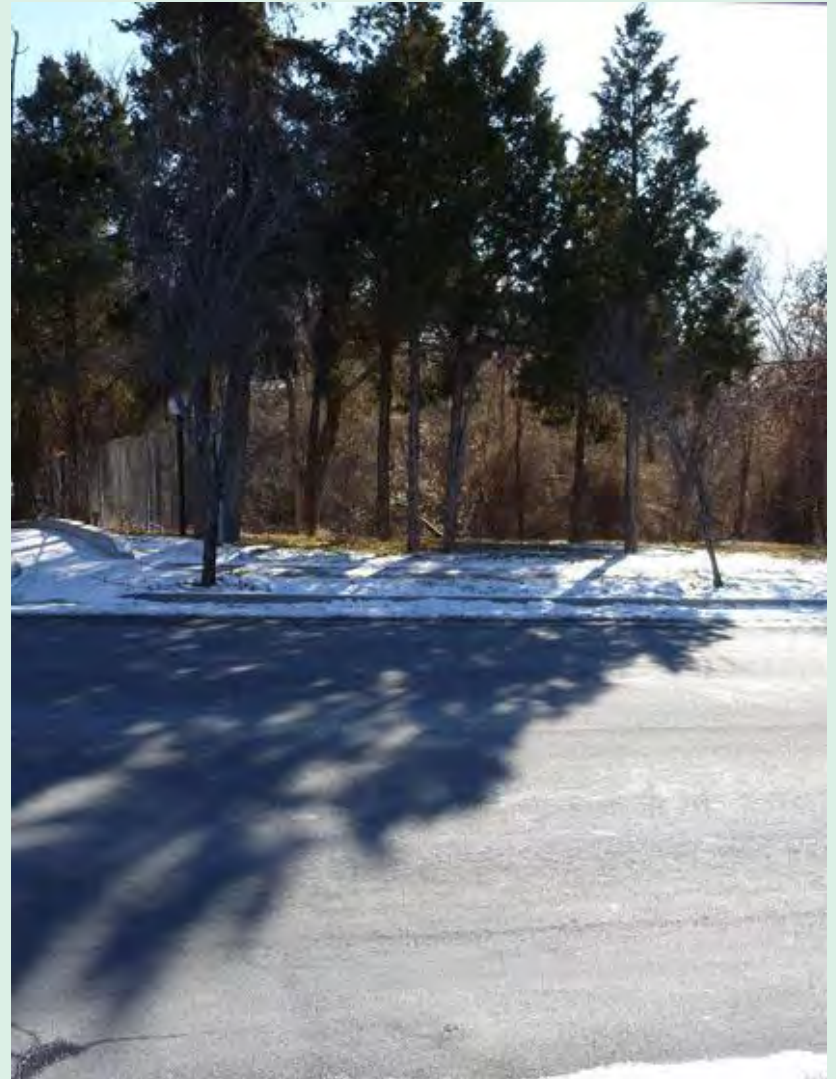
- Style 3 (two stacked signs) received the most “votes”
- Subcommittee interested in retaining a text-only option similar to Style 4 but revised to fit a single post



Feedback from Salt Lake City:

Sign Requirements:

- Min. 2' from roadway
- Min. 7' from ground
- Heavy gauge aluminum with vinyl cutout
- Clear plastic graffiti barrier
- Telspar galvanized post
- Min. size = 24" x 30"
- Vandal resistant hardware



Revised Designs: Style 1

FEATURES

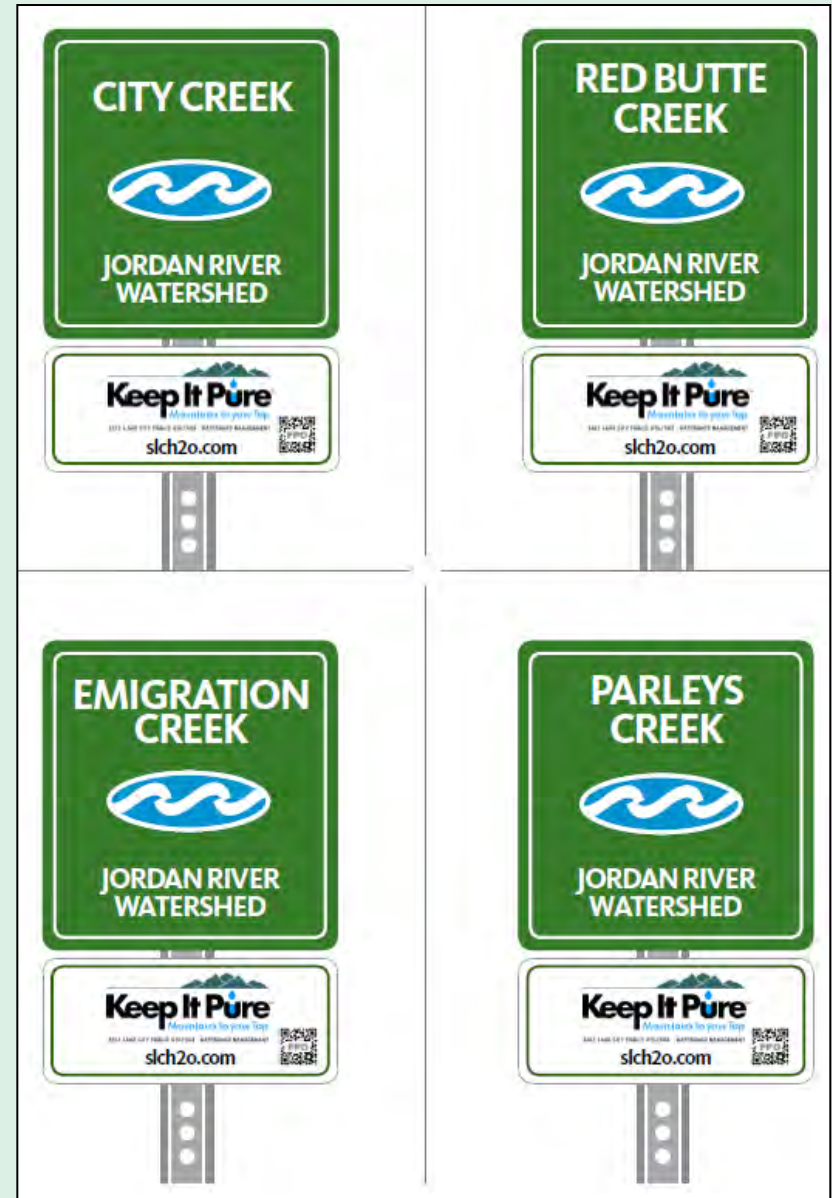
- Single wood post
- Text only
- Landscape orientation
- Identifies watershed
- Blue background



Revised Designs: Style 2

FEATURES

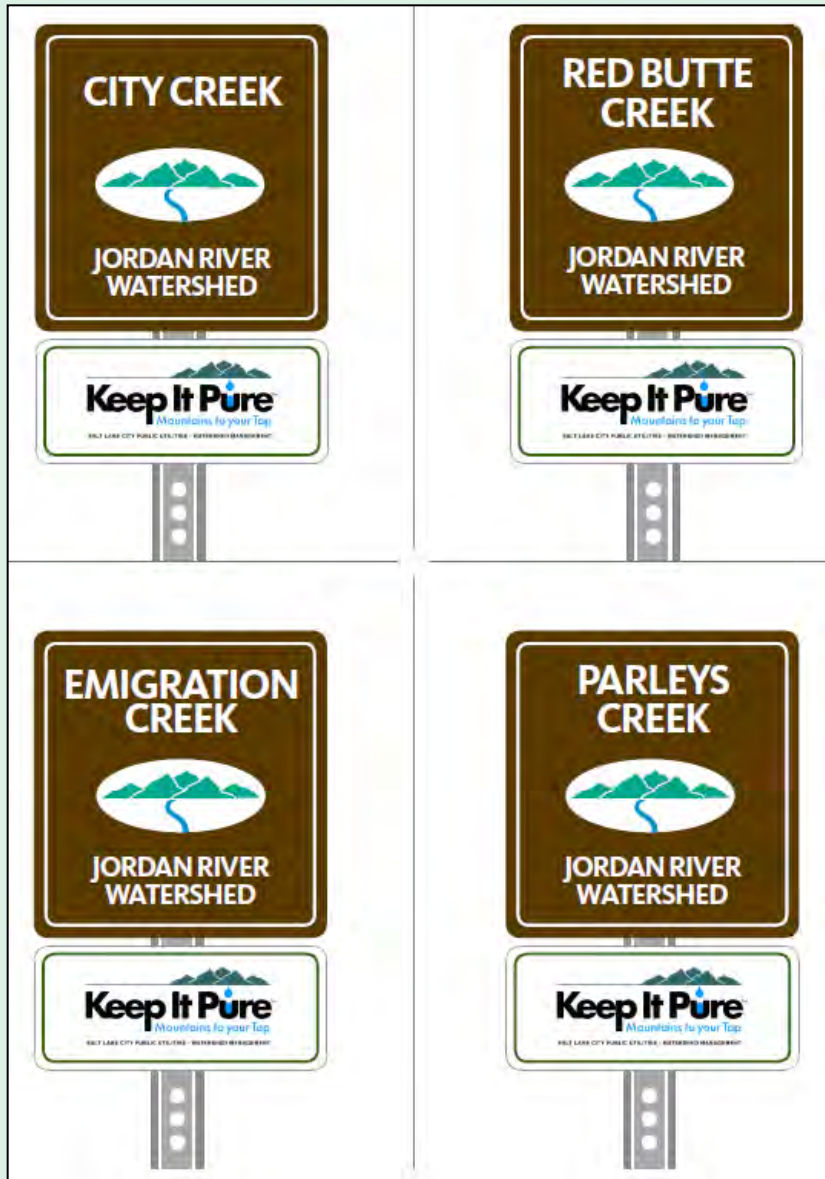
- Logo
- Two stacked signs
- Identifies watershed
- Q-code and website
- Green background



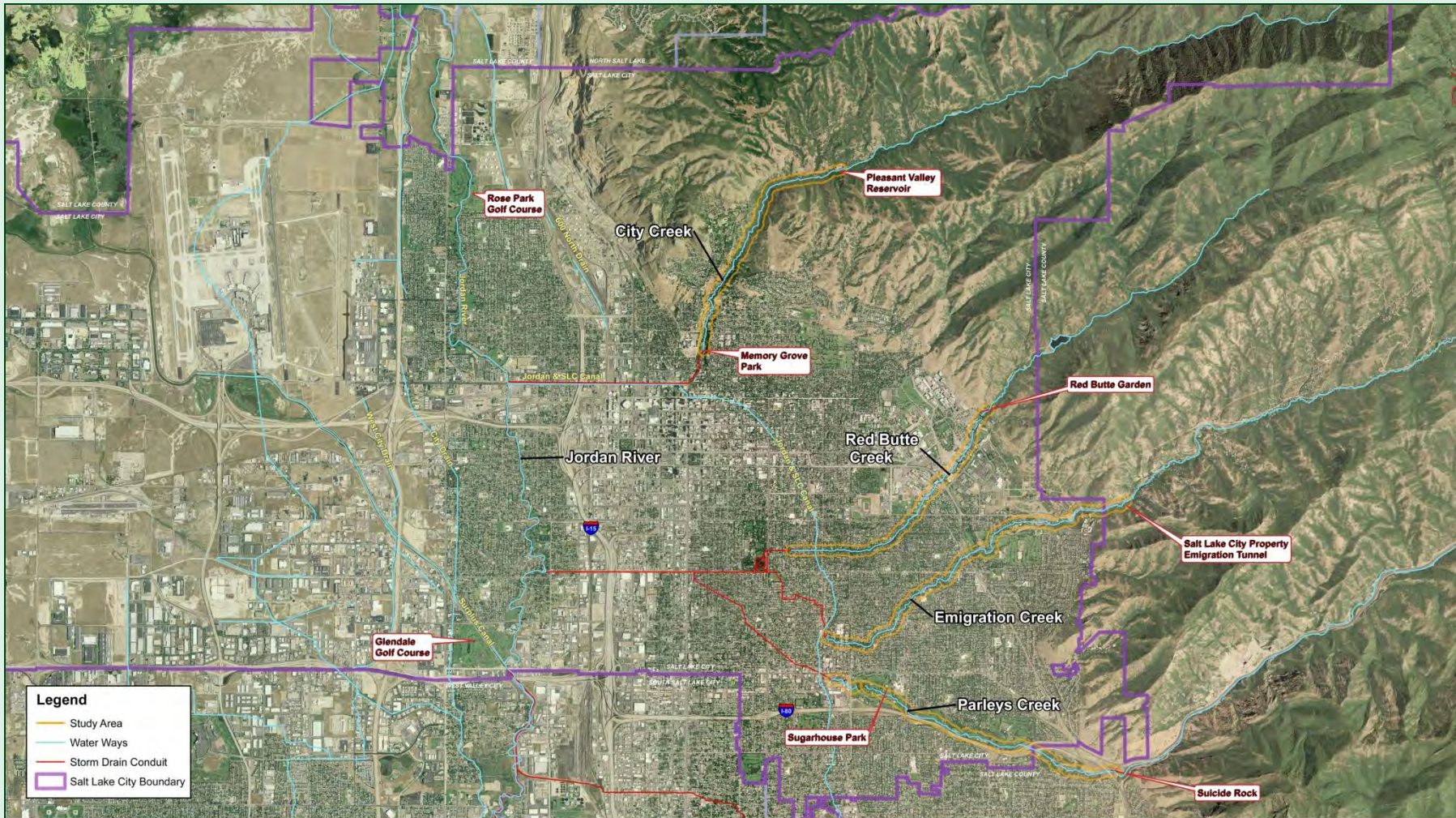
Revised Designs: Style 3

FEATURES

- Logo (Wasatch silhouette)
- Two stacked signs
- Identifies watershed
- No Q-code or website
- Brown background



Sign Locations



Legend

- Study Area
- Water Ways
- Storm Drain Conduit
- Salt Lake City Boundary

BIO-WEST, Inc.
 1063 West 1400 North
 Logan, Utah 84321
 www.bio-west.com
 435-752-4202

Riparian Corridor Implementation Plan



Salt Lake City
 Department of Public Utilities
Serving Our Community... Protecting Our Environment

0 0.5 1 2 Miles
 Created 11/06/09, Updated 02/23/12

Sign Locations

City Creek Signs:

- N. Bonneville Drive
- Other? (conduit/
underground)



Sign Locations

Red Butte Creek Signs:

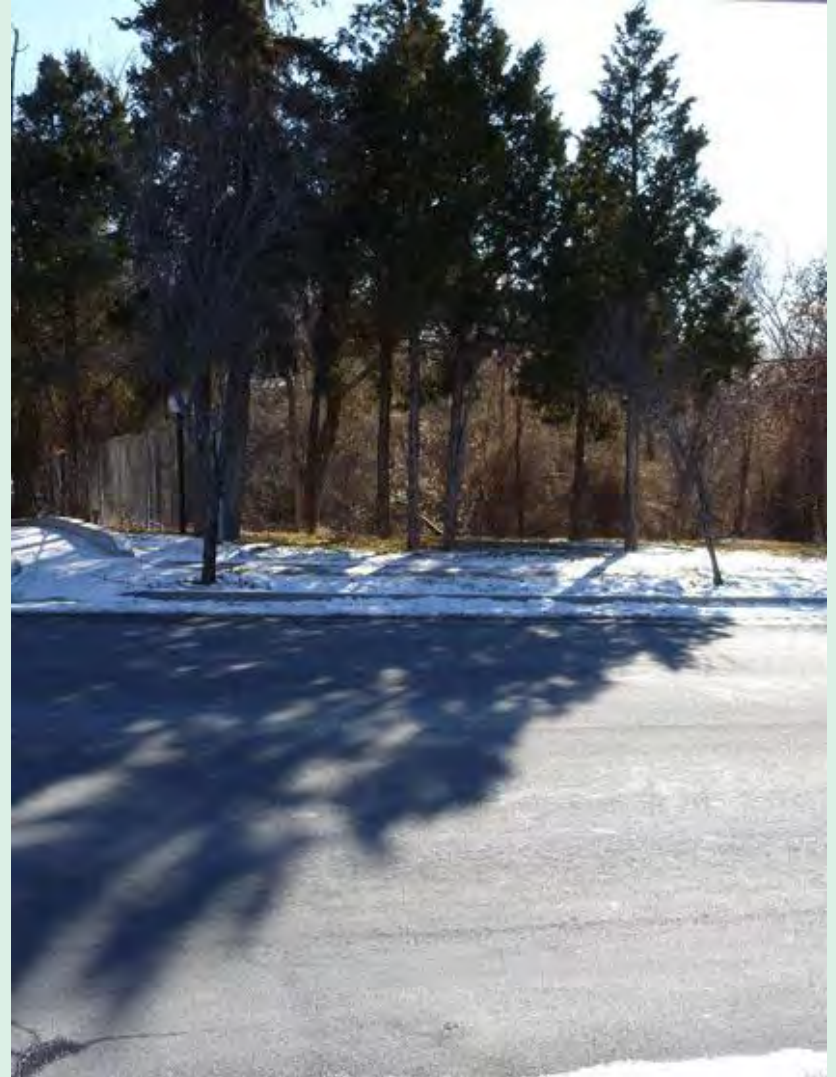
- Chipeta Way
- Foothill Dr.
- Hall St. (in VA Complex)
- Sunnyside Ave.
- 900 South
- 1500 East
- 1300 East
- 1100 East
- 900 East



Sign Locations

Emigration Creek Signs:

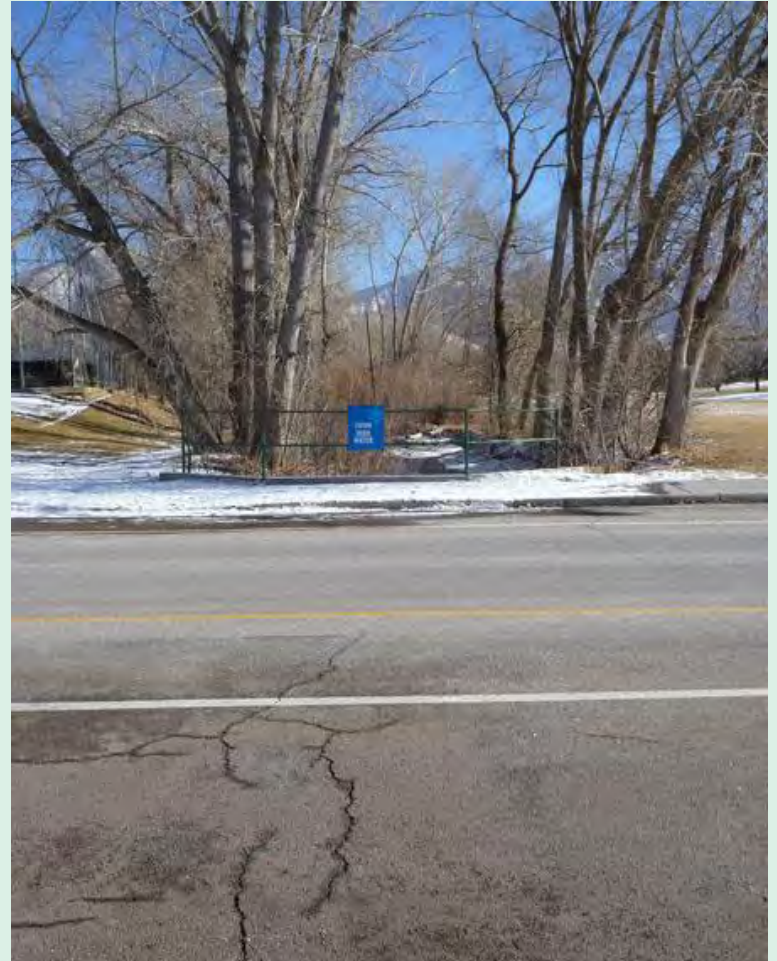
- Crestview Dr.
- Foothill Dr.
- 2100 East
- 1300 South
- 1900 East
- 1700 South
- 1500 East
- 1300 East



Sign Locations

Parleys Creek Signs:

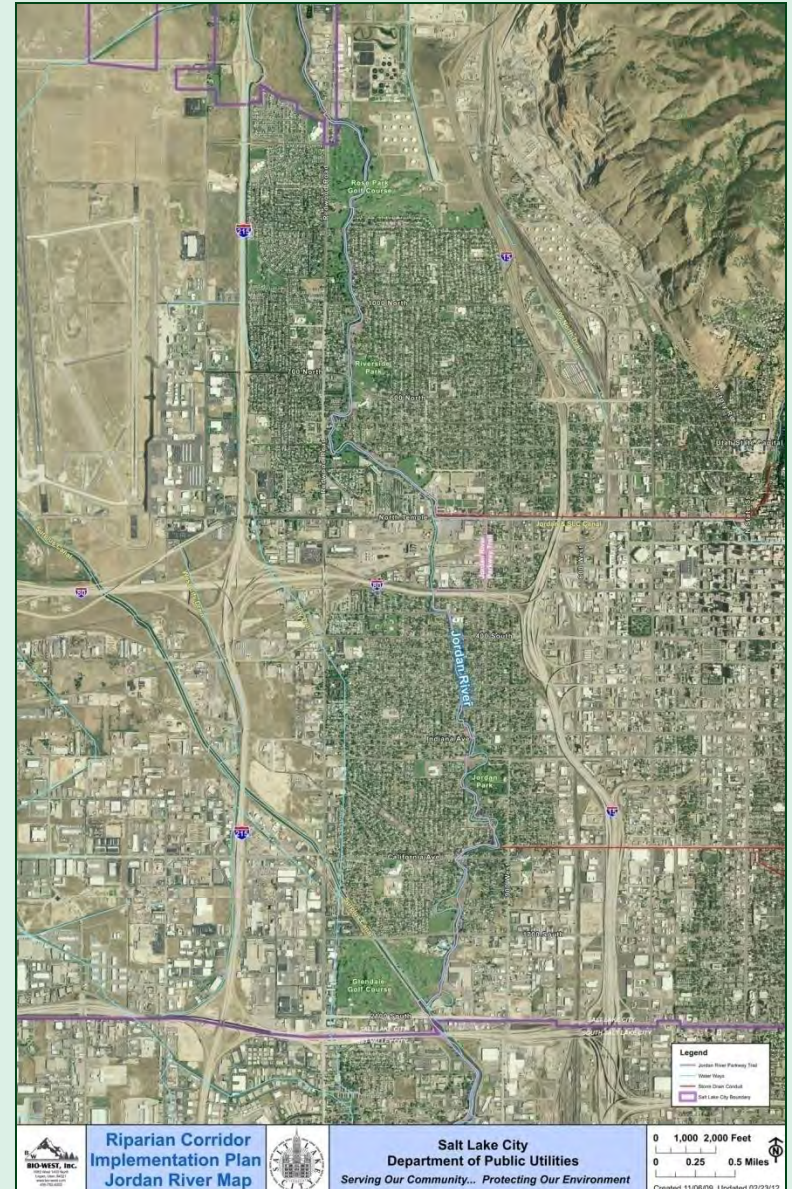
- 2000 East
- 1700 East
- Sugar House Park Road
(eastern crossing)
- Sugar House Park Road
(western crossing)
- 1300 East



Sign Locations

Jordan River Signs:

- 2100 South
- 1700 South
- California Ave. (~1300 S)
- Indiana Ave. (~800 S.)
- 400 South
- North Temple
- 700 North
- 1000 North
- Redwood Road
- Other?



YOUR INPUT IS IMPORTANT!

- Provide input on comment form
- Vote for your preferred sign option
- Ask project staff questions
- Comments accepted through April 16





THANK YOU FOR PARTICIPATING!

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For more information go to www.slch20.com