

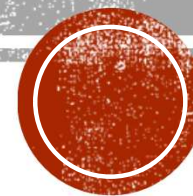
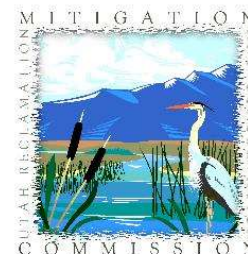
MANAGING URBAN WATERWAYS

Jordan River Watershed Council

October 5, 2023



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TOPICS

- Overview – why rivers and riparian areas are important to citizens of Utah
- Case Studies around Utah
 - Ogden City – Ogden and Weber Rivers
 - Helper City – Price River
- Discuss novel habitats created by human activity
- Talk about broader watershed characteristics to consider
- Challenges and characteristics of urban streams
- Establishing and developing urban goals
- Additional case studies
 - Jordan River
 - Provo River



Reconnecting rivers

What's in it for me?

1. Removing obsolete barriers improves the biodiversity and water quality of rivers – a healthy river is a flowing river!
2. Re-establishes the natural water level
3. Decreases the risk of local flooding
4. Enables fish and other species to move freely
5. Increases fish and invertebrate populations
6. Re-establishes our natural heritage and ecological continuity
7. Ensures fish populations are less isolated and therefore more resilient to future change
8. Results in cooler water temperatures and mitigate against climate change
9. Supports local communities, increasing the amenity value for canoeing, kayaking, angling, and swimming
10. Contributes to restoring the functions of connected wetlands



Biodiversity and water quality

Natural water levels

Decrease risk of flooding

Fish can move freely

Increase in fish and other life

Natural heritage and ecological continuity

Resilient fish and bird populations

Cooler water temperatures [and surrounding landscapes]

Providing recreational amenity

Restore function of connected wetlands

How do rivers benefit humans?



Riparian Areas

- Riparian areas are the transitional zones between land and water, typically found along the banks of rivers, streams, lakes, and other water bodies.
- They are characterized by unique vegetation, including trees, shrubs, and plants adapted to the wet environment.
- Riparian areas can vary in width from a few feet to hundreds of feet, depending on the specific ecosystem and geographical context.



OGDEN RIVER RESTORATION

**Working Together to Rehabilitate Urban
Stream Corridors and Fish Habitat**



PURPOSE AND NEED

Improve Stream Health, Habitat and Recreational Opportunities

- Establish, Restore & Protect Riparian Corridor
- Improve River Access
- Enhance In-stream Habitats
- Improve Water Quality
- Buffer Nonpoint Source Pollution
- Install Stormwater Return Areas



PURPOSE AND NEED

Revitalize Community

- Sustainable Economic Development
- Improve Quality of Life
- Foster Community Ownership and Pride

Economic Development and Ecological Restoration are not Mutually Exclusive!!



REAL PURPOSE AND NEED









REMOVED

- 5,684 Tons of recyclable material
- 2,715 Tires (many of which were on rims)
- 9 Whole cars and plenty of other parts
- 8,359 Tons of debris/litter = 300 semi trucks full of garbage or non recyclable material.
- 22 Boxes of Cultural Resources Artifacts delivered to Natural History Museum of Utah



ACCOMPLISHMENTS

- 1.1 Miles of River Restored
- 30,000 Plants, including Trees and Shrubs
- 15 Angler access paths created
- 2 physically challenged access path to water
- 8 Buildings demolished from the riparian corridor



ACCOMPLISHMENTS

- 17 Acres of interior floodplain connected to the river
- 2,600 Linear feet of in-channel enhancements
- 13 Cross vanes and numerous in-channel habitat boulder clusters
- 9 Constructed storm water return areas
- 2 Drainage swales to buffer adjacent Development
- Adopt-a-River Program established









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FLOOD MANAGEMENT









STEWARDSHIP

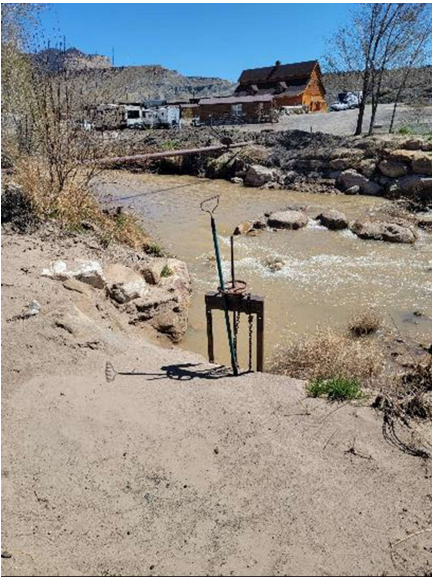
- Sustaining the habitat
- Weeds
- Garbage



Helper City – Price River

- Central focus of VITALITY in Helper City
- Helps connect people to nature
- Provides a place for solitude and contemplation
- Provides a cooler place to relax and swim in hot summer months
- Recreation feature close to downtown
- Angling opportunities close to workplace





HUMAN EFFECTS ON THE LANDSCAPE

- Human modifications on the landscape rival natural geological forcing but are different in scale (Tarolli and Sofia 2016).
 - Intensive land reclamation and agricultural use
 - Mining
 - Transportation networks
 - Water development
- Novel landforms



What can Cities and Towns Do?

- Development pressures in urban areas place natural areas at great risk.
- Local governments play an important role in gathering information
 - Identify waterways and $\frac{1}{4}$ mile buffer
 - Most sensitive areas
 - Identify stormwater contribution areas
- Local governments can develop ordinances to protect these natural areas
 - Waterway building setbacks
 - 20-50' from highwater mark or midchannel
 - Septic system setbacks
- Community stakeholders and leaders
 - Develop management strategies and restoration plans
 - Raise funding

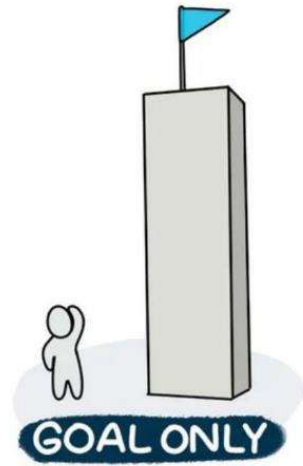




DEVELOPING GOALS

- Develop a watershed plan to document issues within watershed
 - Sensitive areas
 - Recreational uses/barriers
 - Active transportation opportunities
 - Stormwater inputs
 - Water rights holder concerns
- Engage diverse partners
 - Local champions
 - Agency staff
 - City staff
 - NGOs

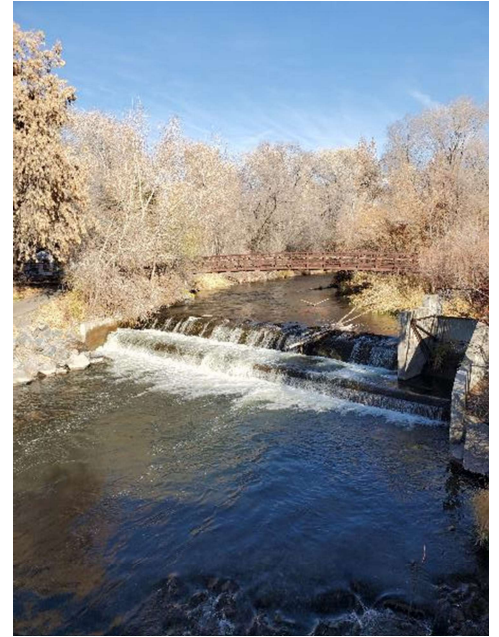


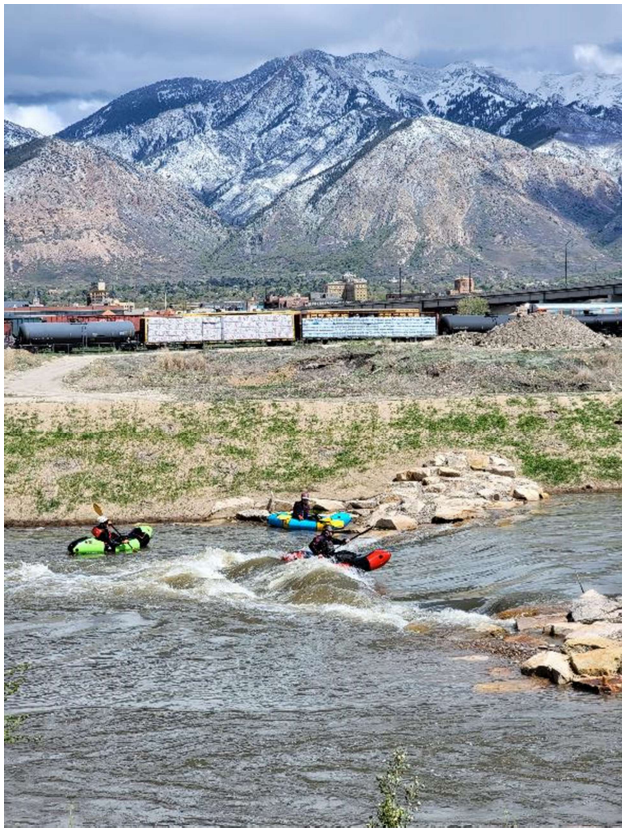


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Scan to participate in future restoration workshops

