RIVERFRONT COMMUNITIES

BEST PRACTICES

SERIES

JORDAN RIVER COMMISSION

ROLE OF WETLANDS

A look into the critical components of restoration plans, the variables affecting on-site assessments, and techniques for designing successful riparian restoration projects.

April 19-21, 2017

Utah Cultural Celebration Center

ENVIRONMENT BEST PRACTICES

RIVERFRONT COMMUNITIES

BEST PRACTICES SERIES

ROLE OF WETLANDS

April 19-21, 2017 - Utah Cultural Celebration Center

AGENDA

APRIL 19, 2017

8:30-8:45AM - Introduction - About the Best Practices Series and Course Overview

8:45-9:30AM - Common Terminology and Concepts of Riparian and Wetland Restoration
Presented by Phil Scoles, Terra Science, Inc.
-The term "restoration" versus rehabilitation, enhancement or creation

9:30-10:15AM - Defining Ripariand and Wetland Restoration Goals
Presented by Eric McCulley, River Restoration
-Reasonable goals
-Measureable objectives
-Specific tasks

10:15-10:30 - Break

10:30 -11:15PM - Desktop Criteria for Suitable Riparian Wetland Mitigation Sites
Presented by Phil Scoles, Terra Science, Inc.
-Hydrology
-Soils
-Surrounding land uses

11:15-12:00 PM - Small Group Work Session and Presentations
-Student activity

12:00-1:00PM - Lunch

1:00-1:45PM - Quick Field Assessment for Suitable Restoration Sites and Afternoon Field Visit
Presented by Phil Scoles, Terra Science, Inc.
-Tools for students to use for evaluation
-Data tracking

1:45- 2:00 PM - Break and Prepare for Field Trip

2:00- 4:45 PM -Travel to Afternoon Field Sites
-Visit sites along the Jordan River between 7000-8000 S

Homework Assignment - TBD Reading

APRIL 20, 2017

8:30-8:45AM - Introduction - About the Best Practices Series

8:45-9:30AM - Describing Restoration Site Hydrology
Presented by Phil Scoles, Terra Science, Inc.
- Surface water connections - floodplains
- Groundwater Connections

9:30-10:15AM -Understanding Soils for Restoration Sites
Presented by Phil Scoles, Terra Science, Inc.
-Finding the right soils - drainage classes
-Soil Seed Banks

10:15-10:30AM - Break

10:30 -11:15 AM - Identifying Appropriate Reference Sites
Presented by Eric McCulley, River Restoration
- Where are suitable reference sites?
- What attributes are most important
-How to be realistic about specific objectives
-Predicted site characteristics

11:15-12:00PM - Site Assessment Protocol and Drafting Performance Standards
Presented by Phil Scoles, Terra Science, Inc., and Eric McCulley, River Restoration

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-Tracking progress
-Meaningful measures to meet states objective
-Adaptive management strategies - iterative process

12:00-12:45PM - Lunch
Presented by Trace Robinson, Riverton City
- How green infrastructure can help with MS4 compliance
- Considerations for green infrastructure implementation

12:45-3:15PM - Travel to Afternoon Field Sites with Field Exercise
-Visit Riverton Wetland Ponds
-Discuss planting, installation, techniques, mulching, etc.

3:15-3:30 PM - Break

3:30- 4:10PM Preparing Grading and Planting Plans
-Best practices for construction
-Soils, erosion control and irrigation
-Adaptive implementation - establishing timelines

4:10- 4:45PM Restoration Construction Planning - Design Specifications and Schedules
Presented by Eric McCulley, River Restoration
-Staging and phasing
-Disturbance and plant installation timing (migratory birds and water)
-Follow up actions for success

Homework Assignment - Wildlife Elements/ Habitat Reading

APRIL 21, 2017

8:30-8:45AM - Introduction - About the Best Practices Series

8:45-9:30AM - Incorporating Wildlife Components for Restoration Sites
Presented by Eric McCulley, River Restoration
-Targets species of wildlife
-Species selection based on site characteristics
-Setting reasonable and measureable objectives
-Minimizing time between disturbance and improved habitat conditions

9:30-10:15AM - Restoration Failures!
Presented by Phil Scoles, Terra Science, Inc.
-Wrong assumptions about site - soils and hydrology
-Missed opportunities for enhancement
-Overcoming invasive species

10:15-10:30 - Break

10:30-12:30 PM - Travel to Morning Field Sites and Field Exercise
-Restoration, maintenance, pitfalls and long-term stewardship

12:30- 1:15 PM - Lunch

1:15-2:00PM - Restoration Site Design Charette
Facilitated by Phil Scoles and Eric McCulley
-Students work on concept designs

2:00-2:45PM - Restoration and Mitigation Plans, As-Built Reports and Adaptive Management
Presented by Phil Scoles, Terra Science, Inc.
-How to display information
-How to report on what was done
-Adapting to changes with a good strategy

2:45-3:30PM - Maintence, Monitorings and Long-Term Stewardship
Presented by Eric McCulley, River Restoration
- What do we need to monitor?
- What maintenance is needed?
- How to keep the site in good condition

3:30-4:15PM - Wrap-up Discussion
Facilitated by Phil Scoles and Eric McCulley
-Review concepts and topics
-Your projects
-Questions?

4:15-4:30PM - Complete Course Evalutations and Handout Certificates

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CONTINUING EDUCATION CREDITS AVAILABLE!

AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS UTAH

CREDITS PENDING

ABOUT THE INSTRUCTORS

Phil Scoles,
Terra Science, Inc.
Phil Scoles is a consulting soil scientist from Portland, Oregon that conducts trainings and field sessions across the western states. His 30 years of experience ranges from valley lowlands to subalpine meadow restoration. He has created wetlands adjacent to schools, within former gravel pits, along roadways, and next to creeks. Phil specializes in wetland delineation, permitting and mitigation. He has extensive experience working with hydric soils and wetland hyrdology. He teaches with Portland State University and the Weltand Training Institute. He is a dynamic individual that balances lectures with case studies and field exercises. As a respected and professionally based soil scientist, businessman and instructor, Scoles delivers both good science as well as a professional hands-on approach to the everyday complexity of wetland business.

Eric McCulley,
River Restoration
Eric McCulley is a Watershed Scientist for River Restoration and is based in Salt Lake City. He has a bachelor's degree in Geology from James Madison University and a Master's of Science in Watershed Science from USU. His experience includes projects involving significant stream, river and wetland restoration of small and large sites across a broad range of habitat types. Eric's experience in the field and respect in the restoration community allows him to provide guidance to local and state decision makers and their staff on optimizing use of project funds for maximum ecological and societal benefit. He is also well versed in fundraising opportunities, raising upwards of $1M in funding for various projects. Eric's expertise includes: restoring wildlife, stream, and wetland habitats; mapping of vegetation, hydrology, soils, and geomorphology; analysis of data on plants, water, and birds; monitoring for adaptive management of stream corridors, natural open spaces, ranches, and nature preserves. He has provided input on design and oversight for implementation of many stream and wetland restoration projects and currently assists with upland and wetland habitat management on thousands of acres throughout the Intermountain West.

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REGISTRATION FORM

NAME _____

ORGANIZATION OR AFFILIATION _____

ADDRESS _____

_____

CITY, STATE, ZIP _____

EMAIL _____ **TEL** _____

REGISTRATION

Tier One _____ **$100**
Jordan River Commission member governments, JRC TAC members, non-profits, and students.

Tier Two _____ **$200**
All other local, state or federal governments

Tier Three _____ **$275**
Private individuals and companies

Call: (801) 536-4158
Email: lahanson@utah.gov
Jordan River Commission
195 North 1950 West, SLC, Utah 84116

PAYMENT

1. Please make checks payable to:

Jordan River Commission
P.O. Box 91095
Salt Lake City, Utah 84109

2. Charge To: Visa MC AmEx Disc
Circle one

Account # _____

Exp. Date _____ **Security Code** _____

3. Register Online:

www.jordanrivercommission.com/training

WORKSHOP LOCATION

This workshop will be held at the Utah Cultural Celebration Center in West Valley City. 1355 West 3100 South, West Valley City, Utah 84119 Directions are available by calling (801) 965 -5100.

REGISTRATION DETAILS

The registration fee includes a book of speaker materials, lunches and refreshments. The Jordan River Commission's Tax ID is 27-3718105. No refunds or cancellations a week before the workshop, but substitutions are welcome.

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Salt Lake City, Utah 84116