Low-Tech Process-Based Riverscape Restoration Virtual Workshop Guide

This guide was created by the Montana Watershed Coordination Council as a quick reference for the 2020 Low-Tech Riverscape Restoration Workshop by the USU Restoration Consortium and Joe Wheaton's ET-AL lab. The workshop:

- Introduces low-tech process-based (LTPBR) approaches for restoring streams and their associated riverscapes
- Familiarizes participants with beaver dam analogs (BDAs) and post-assisted log structures (PALs) intended to mimic and promote specific ecosystem processes

We recommend reviewing Module 1 first, then selecting content relevant to your needs. Full module content and lengths are indicated on the left and highlights are linked on the right. YouTube allows playback at accelerated speed if that is useful.

Intro
Module 1
(4hr13min)

Highlights: 1hr7min normal speed
- Scope of the problem, definition of riverscapes and low-tech process-based restoration video (13min)
- Beaver ecology video (28min)
- Post-assisted log structures video (14min)
- Beaver dam analog video (12min)

Science
Module 2
(2hr22min)

Highlights: 1hr8min normal speed
- Bridge Creek BDA and Beaver Activity Case Study video (25min)
- Asotin Creek PALs Case Study video (19min)
- Ongoing and outstanding science of LTPBR and knowledge gaps video (24min)

Planning
Module 3
(2hr39min)

Highlights: 1hr45min normal speed
- Mapping valley bottoms video (30min)
- Reading riverscapes for structural forcing video (25min)
- Resource inventory & analysis assessment of risk, condition, and recovery potential video 1 (10min) and video 2 (40min)

Design
Module 4
(2hr27min)

Highlights: 1hr32min normal speed
- Design standards of practice, designing at complex scale, and recommended minimum package video (41min)
- USDA BDA and PALs Specification Sheet
- Designing at the structure scale video (36min)
- Field design documentation and approaches for data capture and management video (15min)

Implement
Module 5
(2hr37min)

Highlights: 1hr10min normal speed
- Logistics, equipment, and safety video (23min)
- Stages of constructing PALs and BDAs video (28min)
- PALs construction examples and BDAs construction examples
- Adaptive management for LTPBR video (19min)

Workshop Textbooks
Low-Tech Process-Based Restoration of Riverscapes
- Design Manual Version 1.0 online PDF
- Pocket Field Guide online PDF

Virtual Field Trips
- Reading Riverscapes at Spawn Creek field trip
- Beaver Assisted Restoration at Birch Creek field trip

Assessments and Monitoring
- Valley Bottom Extraction Tool video (7min)
- Riparian Condition Assessment Tool video (9min)
- Beaver Restoration Assessment Tool video (12min)
- LTPBR Project Implementation & Monitoring Protocol
- LTPBR Explorer

Bonus resources by module topic can be found here