PARTNERING WITH BEAVER IN RESTORATION

Utah Watershed Coordinating Council Workshop
October 25, 2012

ICRRR
Intermountain Center for River Rehabilitation and Restoration

Utah State University
Department of Watershed Sciences
A. INTRODUCTION, EXPECTATIONS & OVERVIEW

Joe Wheaton

UWCC Workshop
October 25, 2012
A. INTRODUCTION / OVERVIEW

I. Welcome & Objectives
II. Introduction to Instruction Team
III. Introduction to Workshop Participants
IV. Overview of Syllabus

Bridge Creek © Wheaton

From: http://www.howstuffworks.com/beaver-dam.htm
HERE TO LEARN ABOUT BEAVER...

- This is a workshop about →

- We are here to learn about an old (1930’s) conservation strategy & some new restoration strategies using beaver

- To do this, we need to
  - Know a bit about beaver biology/ecology
  - Focus on their ingenuity as ecosystem engineers (dam building)
  - Understand where in the landscape such strategies makes sense

From http://thestickytongue.org/

From http://eol.org/data_objects/5898738
OUR HOPE IS...

• This undiscriminating rodent who once shaped so much of North America can
  – Help us restore many of our degraded streams & rivers for cheaper
  – Promote much more dynamic behavior in streams & rivers that will lead to healthier ecosystems and higher rates of biodiversity
  – Help buffer the impacts of climate change

From:
http://www.wildearthguardians.org/site/PageServer?pagename=priorities_wild_places_jemez_mountains_beavers
SOME THINGS TO THINK ABOUT...

- The ecosystem engineer is very experienced
- Most the species we care about have co-evolved with this engineer
- The science is conceptually solid... but fairly qualitative
- Precautionary Principle?
- The cost is one of the most compelling arguments from a restoration perspective
PRIMARY LEARNING OUTCOMES

1. An appreciation of beaver ecology and the complex feedbacks between beaver activity, hydrogeomorphic responses, riparian vegetation and fish ecology;

2. Knowledge of past and ongoing restoration projects using beaver;

3. A working understanding of considerations in restoration designs using beaver;

4. An introduction of how to develop dynamic designs utilizing beaver; and

5. How to manage public expectations regarding potential restoration responses involving beaver.
WORKSHOP WEBSITE

Find:

• Syllabus
• Instructor Bios
• Links/Videos
• Literature
• Workshop Topics
  - Lecture Slides
  - Relevant Literature
• Dynamic content
  - Updated semi-regularly

• Visit http://beaver.joewheaton.org
A. INTRODUCTION / OVERVIEW

I. Welcome & Objectives
II. Introduction to Instruction Team
III. Introduction to Workshop Participants
IV. Overview of Syllabus
TODAY’S INSTRUCTION TEAM...

Joe Wheaton  
Nick Bouwes  
Wally Macfarlane

[Images of the individuals]
WE SHOULD ALSO ACKNOWLEDGE

- Michael Pollock (NOAA)
- Carol Volk (South Fork Research)
- Nick Weber (ELR)

Countless Field Crews & Collaborators

- Ian Tottenahm (ODFW)
- Kenny DeMeurichy (USU)
- Sonya Welsh (USU)
- Brett Roper (USFS)
- Phaedra Budy (USU/USGS)
- Meagan Polino (USU)
- Austin Jensen (USU)
- Alan Kasprak (USU)
- Elijah Portugal (USU)
- CHaMP Field Crews
- Boyd Bouwes (WC)
- Tim Beechie (NOAA)
- Jeremy Christensen (GCT)
- And many others…
A. INTRODUCTION / OVERVIEW

I. Welcome & Objectives
II. Introduction to Instruction Team
III. Introduction to Workshop Participants
IV. Overview of Syllabus
INTRODUCE YOURSELF

- Name
- Where you Reside
- Who you work for
- What you Call Yourself
- Why you’re here
A. INTRODUCTION / OVERVIEW

I. Welcome & Objectives
II. Introduction to Instruction Team
III. Introduction to Workshop Participants
IV. Overview of Syllabus
OVERVIEW

• MORNING
  - Beaver Ecology, Habitat Requirements & Feedbacks
  - Beaver Conservation, Restoration & Regulations
  - Planning & Prioritizing Beaver Conservation & Restoration (BRAT)
  - Bridge Creek Case Study
  - Design Exercise

• AFTERNOON
  - Grounding Concepts