

**Coalition Building for
Beaver Based Stream and
Wetland Restoration
Success – Regulatory and
Cultural Speedbumps**

Beaver Based Stream Restoration - Regulatory and Cultural Speedbumps

- Lots to choose from – highlighting three examples
 - Clean Water Act
 - National Flood Insurance Act
 - North American Model of Wildlife Management
- Well meaning and necessary (in context)
- Dated and in need of revision
- How to approach the necessary cultural change?

Affecting Cultural Change

- Intentional coalitions
- Knowledge communities and communities of practice
- Social networks

The Dilemma

- Conserving nature and managing fish and wildlife populations for exploitation were made for conflict

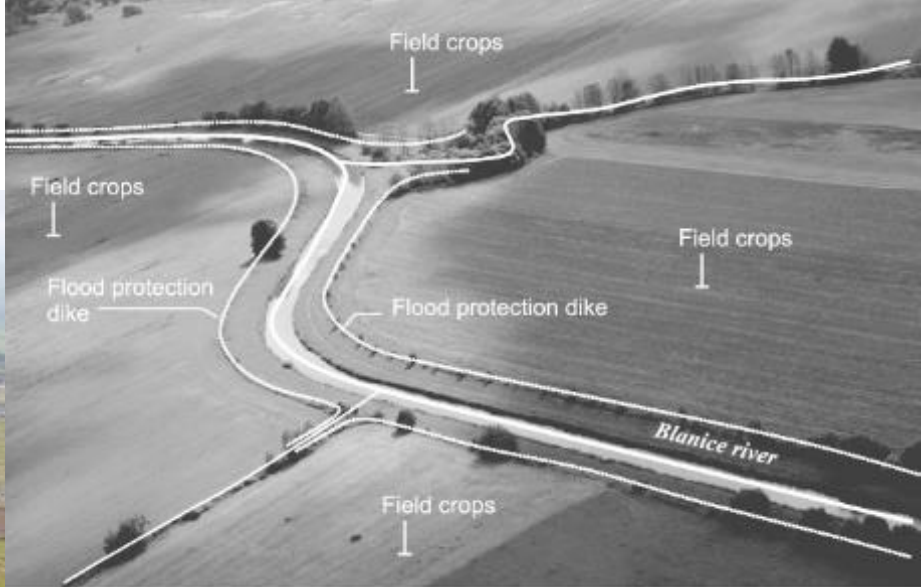




The Dilemma

- Conserving nature and managing fish and wildlife populations for exploitation were made for conflict
- Nowhere could the tension between conservation and management be more evident than in the riverscapes of North America





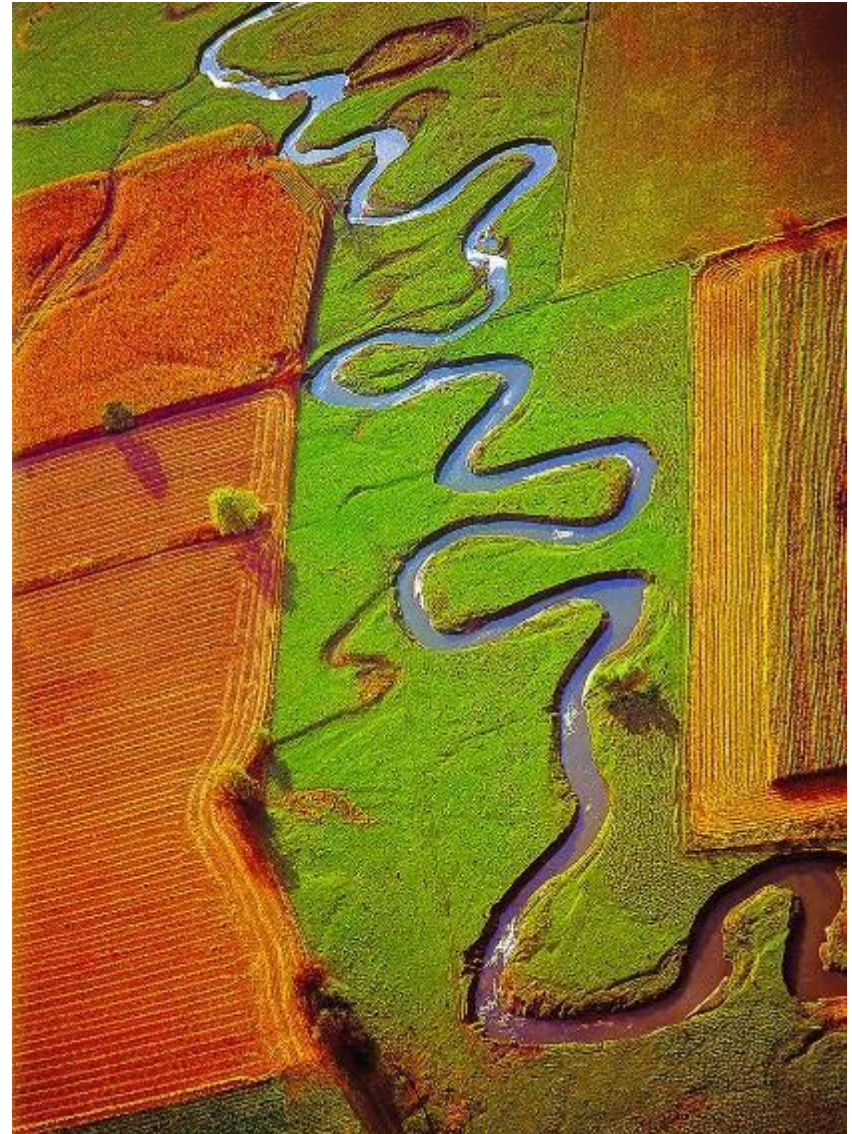






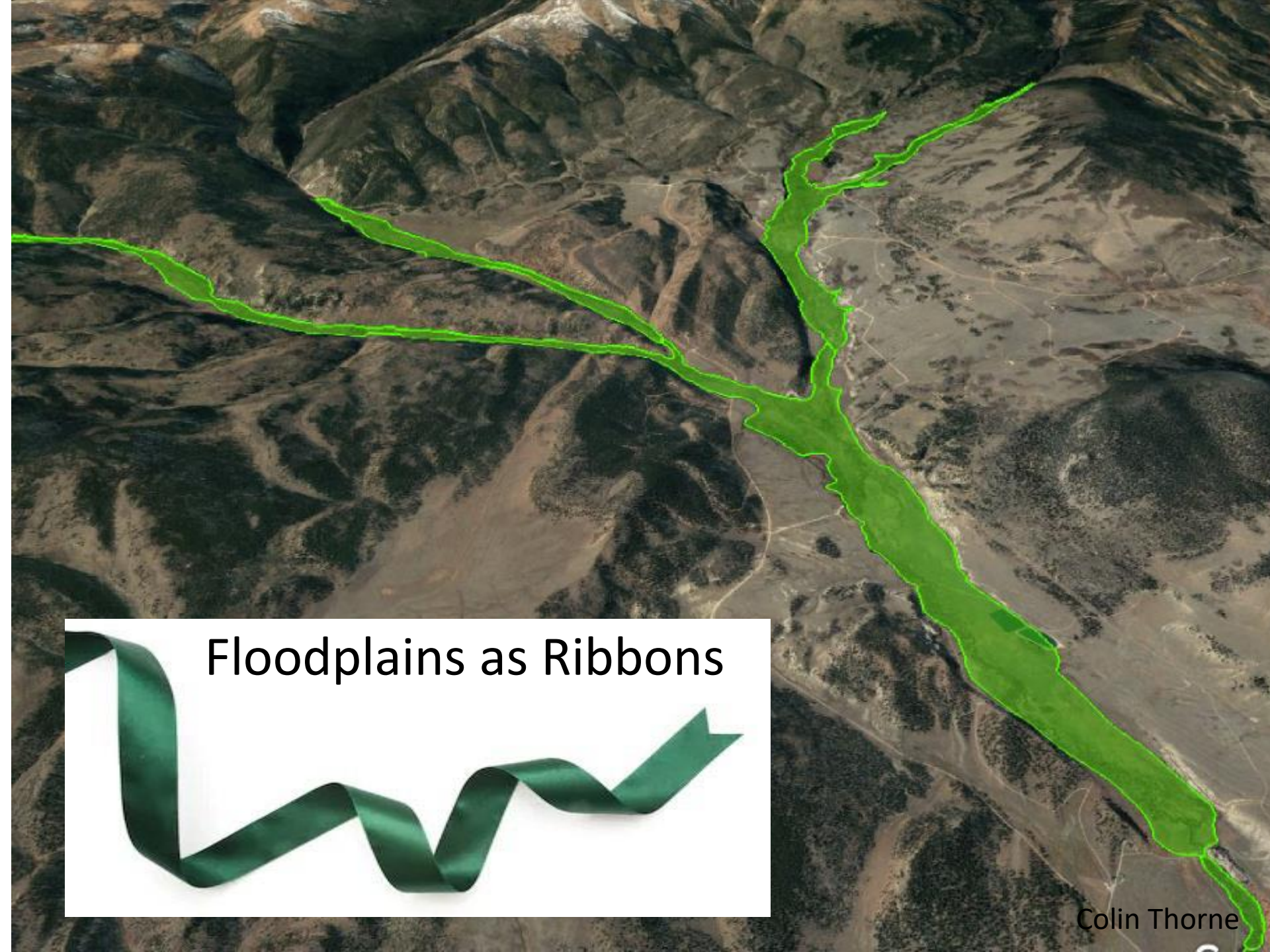








Colin Thorne



Floodplains as Ribbons









USFS - SF McKenzie River



DLT - Whychus Creek

What's standing in the way of wholesale process-based stream, river, and floodplain restoration?



vs.



Clean Water Act

- The CWA requires water quality standards to be set for all identified beneficial uses for all waters of the US.
- Impairments are established in the context of a Total Maximum Daily Load (TMDL) that can be tolerated

Channel Roughness Drives Stream Temperature

Beaver/BDA impounded

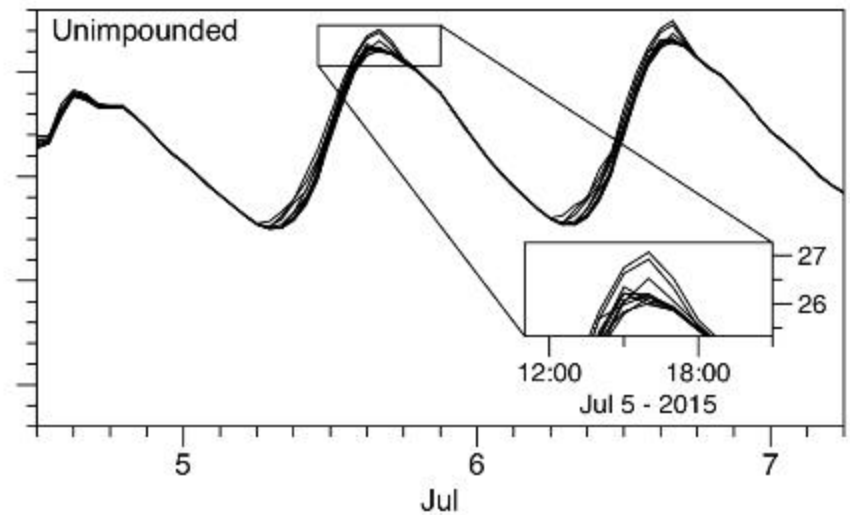
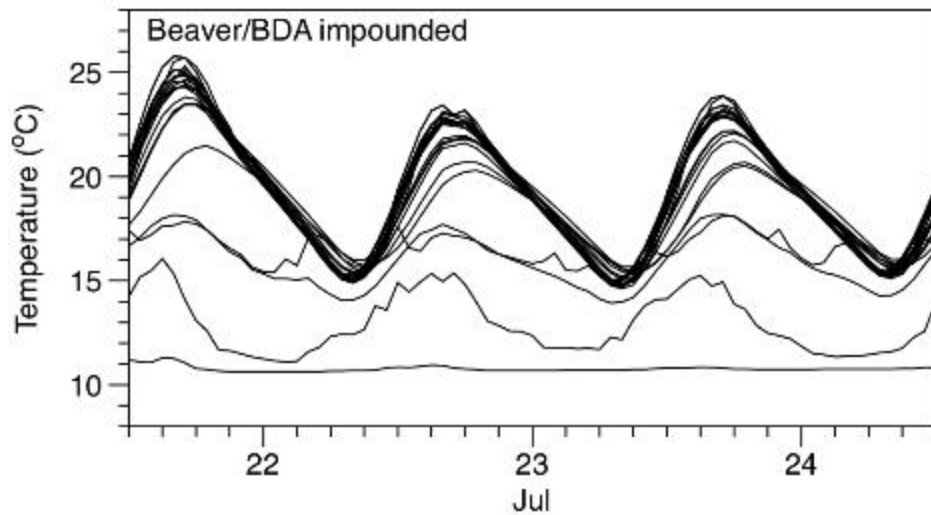


● Temperature measurement location ■ Beaver dam

Unimpounded



← Flow 0 m 10 m 20 m



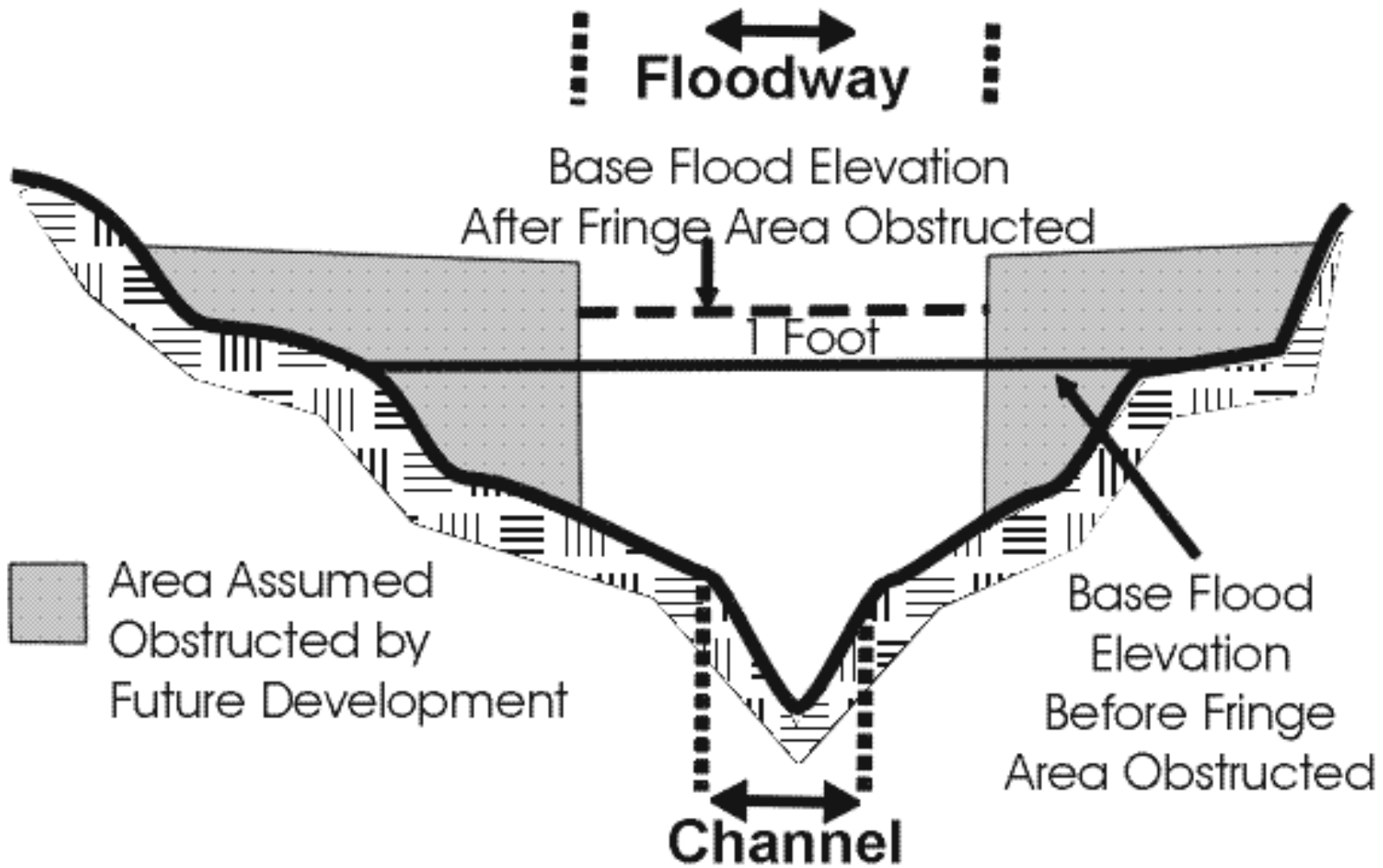
Clean Water Act

- The CWA focuses on “point source” pollution
- Dilution is the solution to pollution
- Water is not a pollutant, so EPA cannot regulate flow

National Flood Insurance Act

- The NFIA formalized floodplain development ordinances for communities (generally counties) that participate, and underwrites flood insurance in mapped 100yr flood prone areas.
- The fundamental principle of the NFIA is the identification of floodways and mapping of base flood elevation for 100yr events

NFIA “no rise”



North American Model of Wildlife Management

- Not a law, but a cultural construct that guides how state and federal wildlife agencies treat beaver

North American Model of Wildlife Management

Seven components or principles describe the key properties of the Model (Geist et al. 2001, Organ et al. 2010):

1. Wildlife resources are a public trust.
2. Markets for game are eliminated.
3. Allocation of wildlife is by law.
4. Wildlife can be killed only for a legitimate purpose.
5. Wildlife is considered an international resource.
6. Science is the proper tool to discharge wildlife policy.
7. Democracy of hunting is standard.

The North American Model - wildlife as a resource to be allocated

- The North American Model has no room for
 - self-determination
 - co-existence
 - wildlife as being beneficial other than as a commodity
- The North American Model perfectly exemplifies our colonization of the natural world





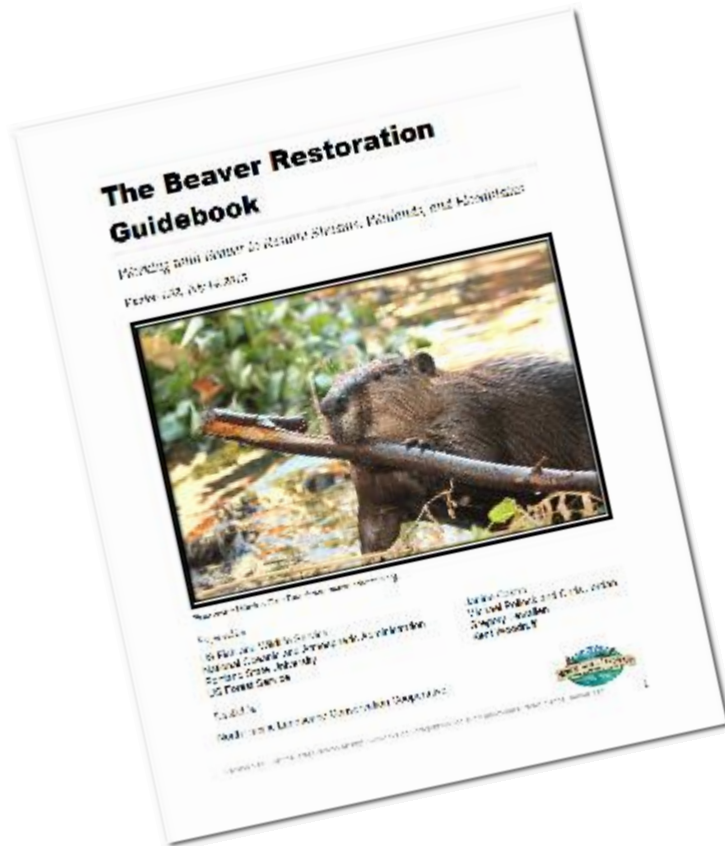




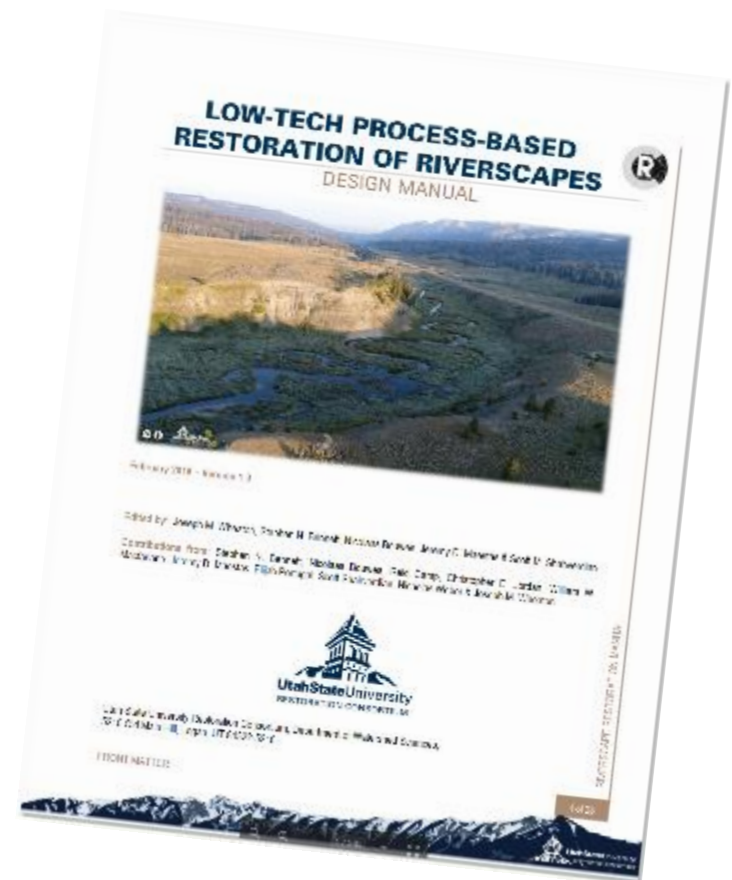
How to move forward?

- I don't really know how,
- But I know that we need to,
- And need to do so with intention and urgency.

We need to be intentionally building a sufficiently large base of interest and knowledge such that requests for regulatory change cannot be easily dismissed. This is a change in our culture.



<https://www.beavercoalition.org/guidebook>



<https://lowtechpbr.restoration.usu.edu/manual>

