

# Guidelines for the Engineered Placement of Wood in Rivers

2008 Northwest Stream Restoration Design Symposium  
Skamania, WA

Chairs:

Chris Brummer  
Jim Miller

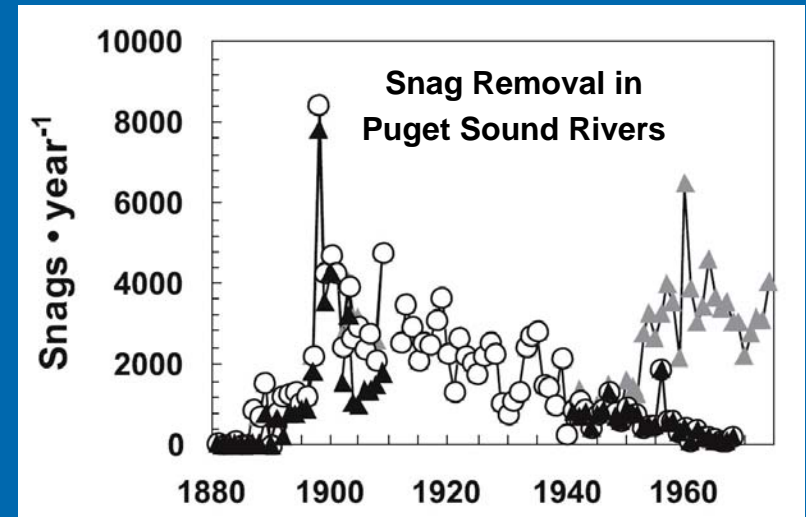
Speakers:

Ian Mostrenko  
Barry Sutherland  
Matt Brennan  
Tracy Drury

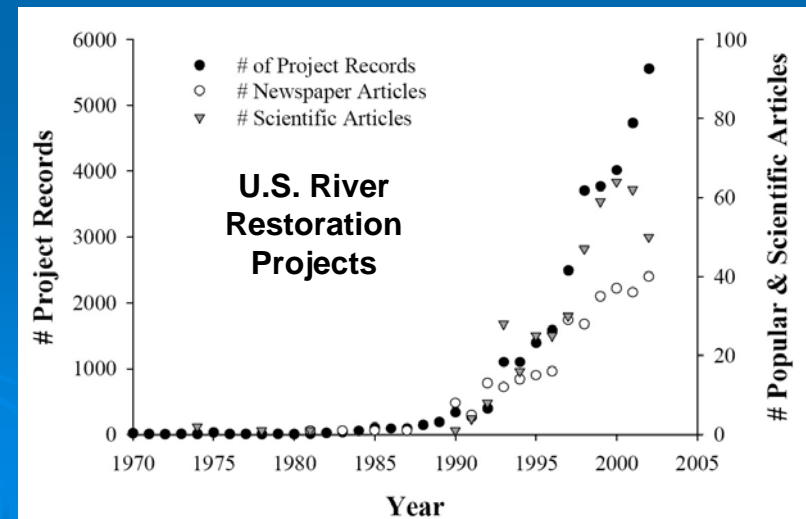


# Guidelines needed for the engineered placement of wood in rivers

- Historical wood removal
- Wood reintroduction
  - Habitat enhancement
  - Bank stabilization
  - Riparian forest recovery
- Challenges for scientists, designers, & contractors
- Compatible with public safety & property



Collins et al. 2003



Bernhardt et al. 2005

# Chehalis River December 2007 Flooding



Boistfort Valley Bridge (Seattle Times)



Woody debris in farmlands, Boistfort Valley (The Chronicle)



Wood removal at Lost Valley Road, mouth of Stillman Creek (The Chronicle)

# Common concerns for wood placement

- Performance (habitat, stability, cost)
- Increase in flood elevations
- Channel migration
- Risk to property and infrastructure
- Public safety and recreational use
- Lack of guidance on liability and risk



# ACEC Committees on EPW

## 1) Project Definition

- Science-based approach
- Geomorphic and ecologic assessments
- Concept development

## 2) Design Development

- Critical analyses (hydraulics, force-balance, scour)
- Hazard and risk assessments
- Feasibility and constructability
- Documentation of design basis

## 3) Liability Management

- Sources of liability
- Legal statutes
- Warnings and notices

# Purpose and Goals of Session

- Present case studies
  - Baseline data needs
  - Project goals and constraints
  - Engineering rationale and analyses
  - Performance
  - Risk management
- Identify additional guideline concerns
- Provide input for EPW working group

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