

DESIGN, REVIEW, AND CONSTRUCTION OF STREAM CROSSINGS FOR ECOLOGICAL FUNCTION

Workshop Dates: March 15-18, 2022;
10:00 am to 2:30 pm daily with 1 hour for lunch

Format: Online - Zoom Webinar hosted by
Southeast Alaska Fish Habitat Partnership (SEAKHP)
Content will be recorded.

Moderators: Debbie Hart (Southeast Alaska Fish Habitat Partnership), Kim Clark (Alaska Department of Fish and Game), Heather Hanson, Andy Stevens & Jess Straub (US Fish and Wildlife Service)



TUESDAY • MARCH 15, 2022

- 9:45 Sign in and Introductions** (*Attendees please post name and locations in the chat*)
- 10:00 Welcome and Introduction to Part 1: Understanding the ecological functions of streams and riparian areas and how stream crossings impact these functions** (Heather Hanson)
- 10:05 Functions and Functional Processes of Streams and Riparian Areas**
Matt LaCroix (Environmental Protection Agency) (30 mins)
- 10:40 Aquatic Organism Passage and Wildlife Corridors**
Erika Ammann (National Oceanic and Atmospheric Administration) (15 mins)
- 10:55 TEN MINUTE BREAK**
- 11:05 Wetland Connectivity and Beavers**
Kirsti Jurica (Copper River Watershed Project) (20 mins)
- 11:30 Stream Temperature and Erosion**
Sean Egan (National Oceanic and Atmospheric Administration) (20 mins)
- 11:50 ONE HOUR LUNCH BREAK**
- 12:50 The Fish Passage Inventory Database Mapper: Anadromous Waters Catalog & Fish Passage**
Kim Clark (Alaska Department of Fish and Game) (20 mins)
- 1:15 The Stream Function Pyramid and the Alaska Stream Quantification Tool (AK SQT)**
Will Harman (Stream Mechanics) (30 mins)
- 1:45 TEN MINUTE BREAK**
- 1:55 Introduction to Part 2: Incorporating geomorphology, hydrology and ecological function into the design of stream crossings** (Heather Hanson)
- 2:00 Fluvial Geomorphology and Regional Curves**
Matt Varner (Bureau of Land Management) (30 mins)
- 2:30 Attendance and Sign Off**

WEDNESDAY • MARCH 16, 2022

- 9:45 Sign in** (*Attendees please post name and locations in the chat*)
- 10:00 Recap of Day 1, Continue to Part 2: Incorporating geomorphology, hydrology and ecological function into the design of stream crossings** (Heather Hanson)
- 10:05 Hydrology at Road Crossings**
Franklin Dekker (US Fish and Wildlife Service) (60 mins)
- 11:05 TEN MINUTE BREAK**
- 11:15 Geomorphic Analog Design Method**
Heather Hanson (US Fish and Wildlife Service) (75 mins)
- 12:30 ONE HOUR LUNCH BREAK**
- 1:30 Streambank Bio-engineering and Revegetation Techniques**
Jess Johnson (Alaska Department of Fish and Game) and Emily Munter (US Fish and Wildlife Service) (60 mins)
- 2:30 Attendance and Sign Off**

THURSDAY • MARCH 17, 2022

- 9:45 Sign in** (*Attendees please post name and locations in the chat*)
- 10:00 Recap of Day 2, Continuation of Part 2: Incorporating geomorphology, hydrology and ecological function into the design of stream crossings** (Heather Hanson)
- 10:05 Invasive Northern Pike Eradication on the Kenai Peninsula and Considerations for Barriers to Help Prevent their Return**
Rob Massengill (Alaska Department of Fish and Game) (15 mins)
- 10:25 Stream Surveying for the Geomorphic Analog Design Method (Reference Reach and Crossing Sites)**
Heather Hanson and Jess Straub (US Fish and Wildlife Service) (20 mins)
- 10:50 TEN MINUTE BREAK**
- 11:00 Unique Design Considerations**
Bill Rice (US Fish and Wildlife Service) (60 mins)
- 12:00 ONE HOUR LUNCH BREAK**
- 1:00 Introduction to Part 3: Permitting Stream Crossing Projects** (Kim Clark)
- 1:05 Environmental Impact Analysis NEPA**
Jennie Spegon (US Fish and Wildlife Service) (20 mins)
- 1:30 State and Local Permitting**
Megan Marie (Alaska Department of Fish and Game) (20 mins)
- 1:50 TEN MINUTE BREAK**
- 2:00 The US Army Corps of Engineer's Permitting Process and the US Fish and Wildlife Service's Role as a Technical Expert**
Greg Mazer (US Army Corps of Engineers) and Bob Henszey (US Fish and Wildlife Service) (30 mins)
- 2:30 Attendance and Sign Off**

FRIDAY • MARCH 18, 2022

- 9:45 Sign in** (*Attendees please post name and locations in the chat*)
- 10:00 Recap of Day 3 and Introduction to Part 4: Construction, Maintenance and Case Studies** (Kim Clark)
- 10:05 Construction Practices for Maintaining Functioning Habitat**
Jennie Spegon (US Fish and Wildlife Service) (20 mins)
- 10:30 Understanding Fish Passage Construction Drawings And Specifications**
Jess Straub (US Fish and Wildlife Service) (20 mins)
- 10:50 TEN MINUTE BREAK**
- 11:00 Managing Construction to Avoid Invasive Plants**
Blythe Brown (Kodiak Soil and Waters Conservation District) (15 mins)
- 11:20 Construction Techniques and Maintenance Benefits - Case Studies from the Mat-Su Borough**
Alex Senta (Mat-Su Borough) (20 mins)
- 11:45 Investing in Ecological Function at Stream Crossings: Costs and Benefits**
Heather Hanson (US Fish and Wildlife Service) (15 mins)
- 12:00 ONE HOUR LUNCH BREAK**
- 1:00 The Power of Partnerships in Rural Alaska Conservation**
Nicole Swenson (Tyonek Tribal Conservation District) (20 mins)
- 1:20 Sharing the Workload and Diversifying the Workforce - Sharing Hoonah's experience and making the case for youth and community citizens and contractors in the AOP process**
Ian Johnson (Hoonah Indian Association) (30 mins)
- 1:50 TEN MINUTE BREAK**
- 2:00 Case Studies - US Forest Service Culvert Restoration Projects in Alaska**
Sheila Jacobson (US Forest Service) (20 mins)
- 2:20 Wrap Up and Thank You to Presenters and Participants!**
Instructions for submitting evaluations and PDH credits. Plan for follow up with local case studies!
Heather Hanson (US Fish and Wildlife Service)

