DRAFT AGENDA

Salmonid Restoration Federation
Fish Passage Design and Engineering Field School

San Luis Obispo, CA February 24-26, 2026

Tuesday, February 24th

9:00 a.m. **Welcome and Outline of the Day**
Dana Stolzman, Mike Love, Ross Taylor

9:15 a.m. **Aquatic Species and Stream Crossings**
Ross Taylor

- Ecological connectivity of stream channels
- Aquatic organisms of concern in California's coastal streams
- Characteristics of instream structures that block fish movement
- Impacts of fragmenting habitat and populations

10:00 a.m. **Primer on Fish Passage Design Approaches**
Mike Love

- Spectrum of fish passage approaches
- Walk through simple stream simulation design

10:30 a.m. **BREAK**

10:45 a.m. **Assessing Fish Passage and Prioritizing Passage Projects**
Ross Taylor

- Passage Assessments and PAD Database
- Fish swimming abilities and requirements
- Ranking and prioritization of barriers for treatments
- Reasons for implementing fish passage projects
- Fish passage resources

11:15 a.m. **Assessing Geomorphic Risks for Stream Crossing Projects**
Mike Love

- Causes of perched culverts; plunge pool vs. incision
- Causes and impacts of channel incision
- Risk assessments for channel incision with stream crossing projects
- Placing stream crossings in aggraded channels

11:45 p.m. **Neefus Gulch Channel Profile Analysis - Part 1**
Exercise

- Identify stable slope segments and knickpoints
- Estimate degree of incision (vertical offsets) at each knickpoint

12:00 p.m. **Lunch**

1:00 p.m. **Neefus Gulch Channel Profile Analysis - Part 1 continued**
Group discussion of profile interpretations and findings

1:20 p.m. **Pre-design & Project Layout**
Mike Love

- Hydraulic verses Geomorphic design approaches
- Site assessment overview
- Project alignment and project profile
- Determining Vertical Adjustment Profiles (VAP)
- When to use grade control
- Selecting a design approach

1:45 p.m. **Neefus Gulch Channel Profile Analysis – Part 2**
Exercise

- Set low and high VAP profiles
- Set a project profile at crossing
- Show final project designs

2:15 p.m. **BREAK**

2:30 p.m. **CDFW Fish Passage Guidance and Project Review Process**
Mark Gard, Senior Hydraulic Engineer

3:15 p.m. **Stream Simulation Design**
Mike Love

- Overarching principals of stream simulation
- Where it is/is not applicable
- Stream simulation design process
  - Project profile for stream simulation
  - Suitable reference reach
  - Bed design – bed materials, shape, thickness
  - Banklines, key features
  - Selecting crossing structure type and size

4:00 p.m. **BREAK**

4:10 p.m. **Field Tour Logistics**

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4:15 p.m. **Overview of Steelhead Habitat Conditions in SLO Creek Watershed**
Aleksandra Wydzga, Science Director, Creek Lands Conservation

O. mykiss Population Status and Movement in the SLO Creek Watershed
Zach Crum, District Fisheries Biologist, CA Dept. of Fish and Wildlife

5:00 p.m. **Adjourn**

Wednesday, February 25th

9:00 a.m. **Depart from Veterans Hall**

12:15 p.m. **Lunch at Questa Canyon County Park**

4:30 p.m. **Return to Veterans Hall**

Thursday, February 26th

9:00 a.m. **Field Tour Debrief**
Led by Ross Taylor and Mike Love

9:45 a.m. **Stream Simulation Design – Continued**
Mike Love

- Design process, continued
- Stability/mobility analysis for stream simulation culverts
- Construction techniques

10:15 a.m. **BREAK**

10:30 p.m. **Nickerson Creek Tributary Stream Simulation Design Exercise**

- Section A – Interpret geomorphic site data
- Section B – Design profile and alignment
- Section C - Design streambed shape and material mixture
- Sections D and E – Optional

11:30 a.m. **Overview of Hydraulic Designs for Stream Crossings**
Mike Love

- Spectrum of Hydraulic Options
- Types, applications, and limitations
- Fish passage design flow considerations
- Swimming and leaping abilities, and turbulence

12:00 p.m. **Lunch**

1:00 p.m. **Geomorphic-Based Profile Control Techniques**

Mike Love

- Applications
- Geomorphic based roughened channels
  - Basis of approach
  - Types and applications
  - Design process and hydraulic modeling
  - Construction techniques
  - NOAA Guidance

1:45 p.m. **Monitoring and Adaptation**

Ross Taylor

- Questions that monitoring should answer
- Monitoring techniques
- Examples of previous fish passage monitoring

2:30 p.m. **BREAK**

2:45 p.m. **Boulder, Log, and Concrete Weirs**

Mike Love

- Drop structure types (boulder, log, concrete weirs)
- Shape, spacing, slope, and stability
- Design Process

3:30 p.m. **Traditional Hydraulic Designs for Stream Crossings**

Mike Love

- Fishways with stream crossings
- Fish baffles in culverts
- Types, applications and limitations

4:00 p.m. **Adjourn**