

# Stream Crossing Training for CDs

Draft 1/23/19

---

**Purpose:** To improve the capacity of CD staff to implement better stream crossing projects at the county level.

**Format:** 2.5 days

- Day 1: 10:00am-5pm (focus on stream crossing basics)
  - Day 2: 8am-5pm (focus on stream surveying and active Culvert install)
  - Day 3: 8am-3pm (Grade control and instream structures, active Culvert install)
  - Classroom and field
  - Held in State College
  - Limited to 20 attendees at a time
  - **Target Audience:** CD staff responsible for field project part of DGLVR Program.
- 

## Day 1: 10:00am to 5:00 pm – Stream Crossing Basics

- **10am-noon: intro and class session**
  - **Schedule:**
    - 15 min Welcome/Intro/overview/why (Creamer)
    - 10 min Survey Equipment 101. (Brown/Dreese)
    - 20 min Survey Basics. (Brown/Dreese)
    - 30 min Bank Full- Why (Chase, McAdams)
    - 30 min Long-Pro, Slope, Grade control Spacing-Why (Chase/McAdams)
- **Lunch at Facility: 11:45 – 12:30**
- **1-5:00pm: Field Trip and Active Site Visit**
  - **Schedule:**
    - 30 min Travel to forest (Chase, Creamer, Dreese, Morrison)
    - 60 min Scare Pond Site/EnS on Site (Creamer, Chase, Brown)
    - 15 min Survey Basics Field ( McAdams, Dreese, Chase, Brown)
    - 60 min BF/Long-Pro/Grade Control Spacing (McAdams, Dreese, Chase, Brown)
    - 45 min Scare Pond Site (Creamer, Chase, Thomas)
    - 30 min Return (Chase, Creamer, Dreese, Morrison)

## Day 2: 8:00am to 5:00 pm – Stream Crossing Install

- **8-9:30am: Class**
  - **Schedule:**
    - 30 min Initial site assessment, Opening size to BF comparison (Creamer, Challenger)
    - 60 min The Grant App, Structure Cost Basics, The contract, Pre Engineering (Creamer, Challenger)
    - 30 min The permit process for the Shavers Creek process.
- **9:30am – 11:45am**
  - **Schedule:**
    - 30 min travel to site (Chase, Creamer, Dreese, Morrison)

- 45 min Scare Pond (Thomas, Creamer, Chase)
- 30 min Setting the New Structure elevation, Back-fill estimation ( Chase, McAdams, Creamer)
- 45 min Lunch – Shaver’s Creek (Moir, ALP)

○ **12:45pm – 5:00pm**

▪ **Schedule:**

- 45 min Finding/putting material in the pipe. ( Creamer, McAdams, Thomas)
- 45 min Fill and compaction around/over Culvert ( Dreese, Creamer)
- 45 min Washing Material in the Structure ( Thomas, McAdams, Creamer)
- 30 min Return to facility (Chase, Creamer, Dreese, Morrison)
- 45 min Baffles, Structure info, Spans (Dreese, Creamer)
- 45 min Using the Excel Long Pro Form (McAdams)

**Day 3: 8:00am to 2:00 pm – Grade Control and Instream Structures**

○ **8am – 9:30am**

▪ **Schedule:**

- 90 min Grade Control Structures/Instream Habitat - How do they work, Why do we use them, Where do we use them (TU)

○ **9:30am – 12pm**

▪ **Schedule:**

- 150 min Install/Tour of local grade control and instream structures? (TU)
- Lunch @ Shaver Creek environmental center (Moir, ALP)

○ **1:00pm Active Culvert Install: 1.5 hour**

▪ **Schedule:**

- 60 min Final culvert install visit – Scare Pond (Time Optional)
- 30 min Return to Facility (Chase, Creamer, Dreese, Morrison)
- 30 min Wrap up Creamer)