COURSE INFORMATION SHEET

Stream Habitat Measurement Techniques
CSP3200

Course Dates: March 20 – 24, 2017
Course Location: National Conservation Training Center, Instructional West, Room 154
College Credit: 2 semester hours
Course Length: 5 days/36 hours

**NOTE** Please read this document in its entirety as there are important instructions pertaining to your enrollment in and pre-course assignments for the Stream Habitat Measurement Techniques course.

Course Description: This field-intensive course provides skills to carry out commonly used stream physical habitat measurements required for determining regional setting, watershed attributes and stream size, longitudinal and cross-sectional profiles, channel dimension, pattern and profile, substrate characterization, mesohabitat identification, discharge and hydrology, velocity, depth, instream cover, riparian cover, and bank condition. The scale of instream habitat attributes addressed encompasses the macro-, meso-, and micro-habitat levels. Techniques learned can be applied to a variety of programs including those involving instream flow determinations, habitat assessment, stream restoration and monitoring, and fish-habitat relationships. Participants will learn techniques applicable to wadeable streams, and will utilize surveying gear and a variety of other tools; measurements will be used to classify a stream reach using the Rosgen classification methodology.

Who should attend: Biologists and other natural resource professionals interested in acquiring skills and knowledge related to stream habitat and geomorphic measurements. This course is a pre-requisite to the CSP3210 Applied Fluvial Geomorphology-Level 1 course.

Objectives:

- Determine watershed regional setting and identification;
- Measure drainage basin characteristics;
- Take elevations using sight and laser level surveying equipment;
- Determine bankfull elevations;
- Use GPS equipment for location and compass bearings for determining stream pattern;
- Take substrate measurements by point-count and wet-sieving;
- Use spreadsheets to plot survey and substrate data;
- Take microhabitat measurements;
- Determine discharge return interval and exceedence values; and
- Classify a stream reach using the Rosgen methodology.
**General Information:** The course will start at 8:00am on Monday, March 20th. The course will adjourn each day between 5:00 and 6:00 p.m., however, there may be evening sessions throughout the week. The last session will end at noon on Friday, March 24th. You are expected to be present for 100% of the class to be considered as having completed the course.

**What to bring:** The course will have both classroom and field components. Wading in small streams, negotiating steep riverbanks, avoiding poison ivy, and walking through brushy locations can be expected. Participants should bring the clothing, shoes, and other gear necessary to be comfortable in the outdoors on all-day field trips. You may want to check the extended forecast for the Shepherdstown, WV area to determine expected temperatures. The past two years we have had snow, sleet and freezing rain on one or more days during the course. A field duffel bag that can hold boots, water bottle, aspirin, etc. is useful. Bring a calculator. In hopes of sunny weather, pack sunglasses and sunscreen, but, just in case, you may want to include rain-wear. The field sessions will be rain or shine! If you have your own hip or chest waders please bring them with you. If you are unable to pack waders, they can be provided to you at NCTC.

**You will be supplied with:** a course manual, pencils, data sheets, field notebooks, sampling equipment, and waders (if you want them).

**Pre-course Assignment:** There will be a Pre-Course Assignment emailed to you approximately 6 weeks prior to the course. This assignment will prepare you to utilize existing online tools in your assessment of project areas. The information you collect in the second assignment exercise will be for the actual stream you will be conducting surveys on during the course. It is imperative that you complete the entire assignment prior to the Pre-Course Webinar.

The Webinar will be scheduled to review the Pre-Course Assignment and to answer any other questions participants may have prior to arriving at NCTC. You will receive a separate e-mail with a Doodle Poll to select the date/time for your participation in this webinar.

**Pre-course Reading Assignment:** If you are new to surveying, please be sure to review Chapter 5 on Surveying Basics to familiarize yourself with elevations, benchmarks, turning points, backsights, foresights, reading a rod, and data entry.


**Lodging:** Participants are responsible for making their own travel arrangements. You must call Hotel Reservations at 877-706-6282 with a valid credit card number to guarantee your room reservation and shuttle reservation (if required). Please plan your arrangements from Sunday, March 19th to Friday, March 24th, 2017. You may check in anytime on Sunday. On Friday, check-out time is by 12:00 p.m.
**Travel:** Participants are responsible for making their own travel arrangements. Allow adequate time for travel check-in and check-out arrangements so that you do not miss the initial or final course sessions. Participants arriving late or departing early do not receive certification of completing the course. The class will dismiss at 12:00 Noon on Friday.

**Course Cancellation Policy:** In the event you need to cancel, all course applicants, including FWS who cancel their reservations four weeks or less prior to start of a course without a substitution are charged in full for tuition. See the Director’s Memo to the Service Directorate dated January 03, 2001, for further clarification if necessary.

The last date to cancel from this course session without penalty is COB February 20, 2017. You need to complete the following steps to cancel:

**DOI Employee** – use DOI Learn online to cancel out of the course.
**Non DOI employee** – contact So Lan Ching (training tech) by email So_Lan_Ching@fws.gov