



# COLORADO FLUVIAL HAZARD ZONE

## **IN-PERSON Colorado Fluvial Hazard Mapping Program**

### **Module 1 | Option 1**

**September 13, 2022 | 11:00am—4:00pm**

In Association with the Annual  
CASFM Conference—Steamboat Springs, CO  
*Capacity: 30 | 4 CEC's*

Early Bird Registration: \$225 (register by 08/01/22)  
Late Registration Fee: \$275 (08/02/22—09/12/22)

## **VIRTUAL Colorado Fluvial Hazard Mapping Program**

### **Module 1 | Option 2**

**October 7, 2022 | 9:30am—2:00pm**

Via Zoom (link to be provided)  
*Capacity: 100 | 4 CEC's*

Early Bird Registration: \$150 (register by 08/01/22)  
Late Registration Fee: \$200 (08/02/22—10/06/22)

<https://registration.socio.events/e/sept13fhztrainingmod1opt1>

<https://registration.socio.events/e/oct7fhztrainingmod1opt2>



## **MODULE 1: Fluvial Geomorphic Processes, Hazards, and Opportunities in Stream Corridors**

**Instructors: Michael Blazewicz | Katie Jagt, PE, CFM | Joel Sholtes, PhD, PE**

Streams are not lines, they are corridors! Stream corridors are naturally dynamic environments that bring together physical, biological, and chemical processes all while supporting a host of societal and ecological benefits. When streams and floodplains are treated as static lines on the landscape, stream health declines and risk to human-made infrastructure increases. Providing streams the space they need to accommodate and facilitate natural processes and functions is becoming a central tenet in land, water, and floodplain management practices. But how do we define the stream corridor and effectively communicate the importance of protecting and restoring the processes that define them? What tools are commonly used to protect and restore stream corridors and how well do they really accomplish this? How do we strategically focus watershed and community-level planning to protect stream corridor functions given limited funding and time?

### **What Will You Learn?**

Participants will be introduced to stream corridor processes (physical and biological) and the various ways of defining them. You will explore more and less compatible management practices and opportunities within stream corridors. Participants will identify and understand the fundamental processes and components of Fluvial Hazard Zone maps and how the FHZ Mapping Program can be applied to manage the stream corridors under their purview.

### **Who Should Attend?**

Anyone interested in stream corridors and functional floodplains—ecological, regulatory, and geomorphic. No prerequisites necessary! This includes (but is not limited to) municipal planners and staff or managers in public works, floodplains and stormwater departments; consultants; and state or federal agency staff with purview over stream corridor regulation, projects, permitting, or other forms of stream management.

*\*A second, full-day technical module will follow this for those interested in mapping techniques, hands-on learning, and applications.\**



# COLORADO FLUVIAL HAZARD ZONE

## ~~IN-PERSON Colorado Fluvial Hazard Mapping Program Module 2 | Option 1~~

~~October 19, 2022 | 8:30am—5:00pm  
includes **CANCELLED** component~~

~~Colorado Mesa University—Grand Junction, CO  
(University Center—Room UC 221)~~

~~Capacity: 30 | 7 CEC's | see equipment requirements below  
Early Bird Registration: \$310 (register by 09/01/22)  
Late Registration Fee: \$375 (09/02/22—10/18/22)~~

## IN-PERSON Colorado Fluvial Hazard Mapping Program Module 2 | Option 2

November 10, 2022 | 8:30am—5:00pm  
includes lunch & afternoon field component

Longmont Museum—Longmont, CO  
(Kaiser Meeting Room C)

Capacity: 30 | 7 CEC's | see equipment requirements below  
Early Bird Registration: \$310 (register by 09/01/22)  
Late Registration Fee: \$375 (09/02/22—11/09/22)

<https://registration.socio.events/e/oct19fhztrainingmod2opt1>

<https://registration.socio.events/e/nov10fhztrainingmod2opt2>

## MODULE 2: Mapping the Fluvial Hazard Zone: Field and Desktop Methods and Tools

**Instructors: Michael Blazewicz | Katie Jagt, PE, CFM | Joel Sholtes, PhD, PE**

Mapping Fluvial Hazard Zones (FHZs) involves knowledge and interpretation of a wide variety of field and remotely-sensed data pertaining to geology, landform evolution, stream evolution, watershed processes, soils, valley-scale river processes, riparian vegetation, human interventions and hydraulics. As such, the FHZ mapper's understanding of process-based fluvial geomorphology, especially as it applies to the progressive or acute changes to channels, hillslopes, and floodplains, is critical for FHZ map development. Join us for this one-day, hands-on FHZ mapping short course designed for technical experts seeking to create and/or apply FHZ maps. We will learn more about the components of FHZ maps, decision-making, and documentation during the mapping process as guided by background research, desktop GIS applications, and field observations.



### What Will You Learn?

Building off of Module 1 we will apply an understanding of the hydrologic, geomorphic, and biotic context of a stream corridor system to determine geomorphic trajectory and sensitivity. We will then apply this context to delineating FHZ mapping components based on the methods outlined in the Colorado Water Conservation Board FHZ Mapping Protocol (v1.0). We will learn and apply GIS tools for mapping the FHZ and also conduct a field trip in which we will make and integrate field based observations into our FHZ delineations.



### Who Should Attend?

Our target audience are technical experts in river corridor management who will be creating or reviewing, interpreting, and applying FHZ maps for stream corridor management. For those without backgrounds in surface hydrology and fluvial geomorphology, attending the Colorado Fluvial Hazard Zone Mapping Program - **Module 1 is a strongly recommended prerequisite.** Additionally, attendees should be proficient with ESRI's ArcGIS (ArcMap or ArcGIS Pro).

### Equipment Requirements

Laptop with ERSI ArcMap version 10.7 or higher (basic license or above) or ArcGIS Pro. Spatial and 3D Analyst are required for use of the FHZ tools—however, if you do not have these extensions, we can provide a demonstration and the output from the tools for the class example(s).



**QUESTIONS? Contact Michael Blazewicz: [michael@roundriverdesign.com](mailto:michael@roundriverdesign.com)**