REGION 1 INSTREAM FLOW COUNCIL (IFC) FIELD TRAINING

FIELD TECHNIQUES AND DATA ANALYSIS OF INSTREAM FLOWS FOR RIVERINE RESOURCE STEWARDSHIP

October 3 & 4 in Folsom, CA plus ½ Day Post Workshop Session (Date TBD)
Hosted by the IFC and California Department of Fish and Wildlife (CDFW)

DETAILED CLASSROOM AND FIELD TRAINING AGENDA

DAY 1 - TUESDAY OCTOBER 3RD, CLASSROOM DAY

The field science and data needs of instream flow (focus on hydrology and biology methods and models)

0800-0830: Introduction of attendees. Brionna Drescher (CDFW)
Describe who you are, brief background, what you do, length of employment, level of experience with instream flow, and how do you plan to use this training?

0830-0900: Region 1 IFC Director Presentation. Tom Bassista (IDFG)
A refresher of why we are gathered and what we are here to learn, a brief history of IFC (past, present, and future w/ emphasis on training center). Training is focused on the science of hydrology and biology of instream flow and not all riverine components.
Christopher Estes will provide a presentation on lentic systems in the afternoon.

0900-0945: Introduction to the training session. Robert Holmes (CDFW)
Goals and objectives of training. Intro topics: Assessing flows for fish, wildlife and aquatic ecosystems and an overview of study methods and design considerations. How to collect defensible science that tiers into IFC's Book # 2-Instream Flows for Riverine Resource Stewardship (Annear et al. 2004), IFC methods, and the Instream Flow Program Initiative (Annear et al. 2009). Present an overview of common methods and models used by states and provinces and describe the limitations of methods. Lastly, a few words about hydraulic habitat models (though not getting into the nuts and bolts of the models).
(35 minutes and 10 minutes for questions).

0945-1000: Break

1000-1100: CDFW Guidelines to the application and use of the physical habitat simulation system. Diane Haas (CDFW)
Physical habitat simulation models (e.g., PHABSIM, River 2D, HEC 2D) are types of hydraulic habitat modelling tools available within the suite of IFIM methodologies for instream flow practitioners. This presentation will include an overview of the CDFW guidelines for defensible study design and models, and resultant water allocation decisions when using physical habitat simulation models.
(45 minutes and 15 minutes for questions).

Quick Break

1105-1200: California Environmental Flows Framework (CEFF). Alex Milward and Sam Larkin (CDFW)
Introduce and provide an overview of the California Environmental Flows Framework and functional flows approach and showcase new desktop hydrology tools for identifying and developing ecological and environmental flow regimes that consider and protect fish and wildlife resources.
(40 minutes and 15 minutes for questions).

1200-1330: LUNCH – On your own

1330-1400: Lentic Systems - Christopher Estes (ADFG-Retired) “Evolution of the Term "Instream Flow and Water Level Conservation (IFWLC) to Integrate Consideration of Hydrologic Alterations to Lentic Water Bodies”
(20 minutes with 10 minutes for questions and discussion)

1400-1430: Oregon-Spencer Sawaske (ODFW) “An Eastern Oregon Instream Flow Case Study”
(20 minutes with 10 minutes for questions)

1430-1455: California Case Study: Butte Creek 2D Model Fish Passage Study. Bill Cowan (CDFW)
(15 minutes with 5 minutes for questions)

1455-1515: California Case Study: Clear Creek Instream Flow Study. Mark Gard (CDFW)
(20 minutes with 5 minutes for questions)

1515-1530: Break

1530-1630: Overview and Basic Principles of Instream Flow Field Method Protocols.
CDFW staff will describe and discuss the tools we will be using for the field day, including Habitat Mapping, Discharge, Streambed and Water Surface Elevation Surveying, Habitat Retention Method (HRM)/Wetted Perimeter Method (WPM), 1D Model Study Design and Data Collection, 2D Model Study Site Set Up and Topography.

1630-1645: The importance of a Quality Assurance (QA) Program - a CDFW perspective. Hanna Casares (CDFW)

1645-1700: Field Safety Plan and Check list (Jenna Rinde)

Dinner on your own and discussion/follow up as needed back at hotel

DAY 2 - WEDNESDAY OCTOBER 4TH, DRY CREEK FIELD TRAINING DAY

Field tools and data collection techniques

NOTE: CDFW is working on fine tuning the flow of the field day and more exact details on how the field day will work will be finalized with headcount.

0830-0845: Meet and greet at parking lot. Bill Cowan and Jenna Rinde (CDFW)

0845-0915: Safety Plan and Field Supplies/Equipment Checklist Overview (refresher). Jenna Rinde (CDFW)

0915-1045: AM Field Demo's. CDFW Staff.

1) Streambed and Water Surface Elevation Survey
2) Habitat Mapping

1045-1145: Station Rotations. CDFW Staff

1) Discharge Measurements
2) Habitat Retention Method/ Wetted Perimeter Methods
3) 1D Study Design and Data Collection
4) 2D Model Study Site Setup and Topography Data Collection

1145-1300: LUNCH provided - Included in registration.

1300-1600: Station Rotations Continued. CDFW Staff

1) Discharge Measurements
2) Habitat Retention Method/ Wetted Perimeter Methods
3) 1D Study Design and Data Collection
4) 2D Model Study Site Setup and Topography Data Collection

DAY 3 – POST-WORKSHOP ½ DAY - TO BE DETERMINED (WINTER 2023/2024)

Follow-up training post workshop

(Note: Instream Flow Council Members do not need to be present at in-person workshop to attend)

1) Post training check in and our new IFC networking and collaborative relationships.
2) Results of Dry Creek Hydrology and Biology Methods and Models
    a. California Environmental Flows Framework CEFF Analyses
    b. Habitat Retention Method/Wetted Perimeter Method Analyses
    c. 1D Model Analyses (fish rearing and spawning)
    d. 2D Model Analyses (fish passage)
3) Developing Flow Regime Criteria using Desktop and Field Data - Dry Creek Case Study
4) Water management scenario-water allocation (Strategy-obtaining water for fish: how to use science to inform decision makers and influence decisions)
5) When science does not influence an outcome, then what?