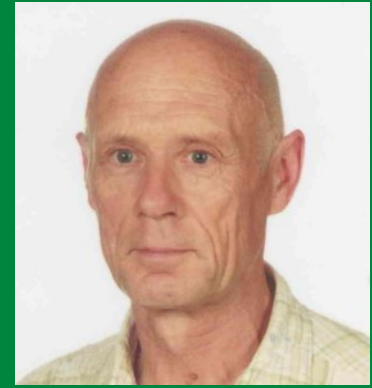


# Hydropower Track 2

Environmental R&D and Data Management

Potomac

- Tim Brush, Inter-Fluve
- Colleen McNally-Murphy, American Rivers
- Edith Zagona, University of Colorado-Boulder
- Juliusz Kirejczyk, Independent Consultant



## THANK YOU, REVIEWERS!

- **Project presentations will be kept to a strict 20 minutes, with 10 minutes of Q&A following, unless otherwise stated on the agenda.**
- **A yellow card will be flashed at the last 5 minutes, and then a red card will be held when time is up.**
- **Please respect your fellow presenters by keeping within your allotted time.**
- **The Review Panel Lead will kick off the Q&A, then allow questions from the other reviewers, and then the audience, time permitting.**
- **Any questions left unanswered due to time limitations can be addressed during the End-of-session Networking Activity.**



# Track 2: Agenda-at-a-Glance

Tuesday,  
October 8<sup>th</sup>

Plenary

Hydropower  
Program Overview

Hydropower Vision  
Roadmap Update

HydroWIRES

Big-Data Access  
and Management

Wednesday,  
October 9<sup>th</sup>

Hydro Plenary

Environmental R&D  
and Hydrologic  
Systems Science

Thursday,  
October 10<sup>th</sup>

Hydro Plenary

Environmental R&D  
and Hydrologic  
Systems Science

Town Hall

# Track 2: Tuesday, October 8<sup>th</sup>

Start	End	Agenda Session	Presenter	Affiliation	Track	Room	
2:15 PM	2:45 PM	Overview of Big-Data Access and Management	Hoyt Battey	WPTO	Enviro+Data	Potomac	
2:45 PM	3:15 PM	Annual Hydropower Market and Trends Report	Rocio Uria-Martinez	ORNL	Enviro+Data	Potomac	
3:15 PM	3:45 PM	Hydropower Regulatory and Permitting Information Desktop (RAPID) Toolkit	Aaron Levine	NREL	Enviro+Data	Potomac	
3:45 PM	3:55 PM	Coffee Break					
3:55 PM	4:25 PM	An Examination of the Hydropower Licensing and Federal Authorization Process	Aaron Levine	NREL	Enviro+Data	Potomac	
4:25 PM	4:45 PM	End-of-Session Networking Activity	All recent presenters	All recent presenters	Enviro+Data	Potomac	
4:45 PM	5:15 PM	Hydro Enviro + Data Peer Reviewer Only Meeting					Madison

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# Track 2: Wednesday, October 9<sup>th</sup>

Start	End	Agenda Session	Presenter	Affiliation	Track	Room	
9:45 AM	10:10 AM	Overview of Environmental R&D and Hydrologic Systems Science	Dana McCoskey	WPTO	Enviro+ Data	Potomac	
10:10 AM	10:20 AM	Introduce 9505, Water Modeling	Simon Gore	WPTO	Enviro+ Data	Potomac	
10:20 AM	10:50 AM	Third SECURE Water Act Section 9505 Assessment	Shih-Chieh Kao	ORNL, PNNL	Enviro+ Data	Potomac	
10:50 AM	11:05 AM	Coffee Break					
11:05 AM	11:35 AM	Advancing Modeling Tools for Assessment of Long-Term Energy/Water Risks for Hydropower	Mark Wigmosta	PNNL	Enviro+ Data	Potomac	
11:35 AM	12:05 PM	Monitoring Technology Development for Sensitive Species (Eel/ Lamprey Tag Development)	Daniel Deng	PNNL	Enviro+ Data	Potomac	
12:05 PM	12:30 PM	End-of-Session Networking Activity	All recent presenters	All recent presenters		Potomac	
12:30 PM	1:15 PM	Lunch					

# Track 2: Wednesday, October 9<sup>th</sup>

Start	End	Agenda Session	Presenter	Affiliation	Track	Room	
1:15 PM	1:20 PM	Introduce BioDE, EDS	Dana McCoskey	WPTO	Enviro+ Data	Potomac	
1:20 PM	2:05 PM	Biologically-Based Design and Evaluation of Hydropower Turbines	Alison Colotelo	PNNL, ORNL	Enviro+ Data	Potomac	
2:05 PM	2:50 PM	Environmental Decision Support: Science-Based Tools for Hydropower Stakeholder Collaboration	Brenda Pracheil	ORNL	Enviro+ Data	Potomac	
2:50 PM	3:00 PM	Coffee Break					
3:00 PM	3:10 PM	Introduce 1662 projects	Dana McCoskey	WPTO	Enviro+ Data	Potomac	
3:10 PM	3:40 PM	Deep Learning for Automated Identification of Eels in Sonar Data	Paul Jacobson	Electric Power Research Institute (EPRI)	Enviro+ Data	Potomac	
3:40 PM	4:10 PM	Modular and Scalable Downstream Passage Systems for Silver American Eels	Steve Amaral	Alden Research Laboratory, Inc.	Enviro+ Data	Potomac	
4:10 PM	4:40 PM	Fishway Entrance Palisade	Kevin Mulligan	University of Massachusetts Amherst	Enviro+ Data	Potomac	
4:40 PM	5:00 PM	End-of-Session Networking Activity	All recent presenters	All recent presenters	Enviro+ Data	Potomac	
5:00 PM	5:30 PM	Hydro Enviro + Data Peer Reviewer Only Meeting				Enviro+ Data	Madison



# FOA 1662 – Innovative Solutions for Fish Passage

## Date:

- Issued 9/20/2017; Selections announced 4/25/2018

## Objective:

- Address key technological, environmental, and market challenges as they relate to upstream and downstream fish passage at hydropower dams and assist hydropower owners and operators in meeting rigorous environmental permitting requirements and bring more hydropower online faster.

## Topic Areas

- Topic Area 1: Testing the Effects of Innovative Fish Passage Technologies
- Topic Area 2: Advancing Innovative Methods and Technologies to Improve Fish Passage

## Projects for Review

- Alden Research Laboratory, Inc. (EE0008338 -- *Modular and Scalable Downstream Passage Systems for Silver American Eels*)
- University of Massachusetts Amherst (EE0008340 -- *Fishway Entrance Palisade*)
- Electric Power Research Institute, Inc. (EE0008341 -- *Deep Learning for Automated Identification of Eels in Sonar Data*)

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Thursday,  
October 10<sup>th</sup>

Hydro Plenary

Environmental R&D  
and Hydrologic  
Systems Science

Town Hall

# Track 2: Thursday, October 10<sup>th</sup>

Start	End	Agenda Session	Presenter	Affiliation	Track	Room	
10:20 AM	10:30 AM	Introduction: Lab Projects	Dana McCoskey	WPTO	Enviro+Data	Potomac	
10:30 AM	10:55 AM	Commercialization of Sensor Fish Technology to Support Hydropower Development	Daniel Deng	PNNL	Enviro+Data	Potomac	
10:55 AM	11:20 AM	Self-Powered Acoustic Transmitter	Daniel Deng	PNNL	Enviro+Data	Potomac	
11:20 AM	11:50 AM	Evaluation of the Whooshh Fish Transport System	Alison Colotelo	PNNL	Enviro+Data	Potomac	
11:50 AM	12:05 PM	End-of-Session Networking Activity	All recent presenters	All recent presenters	Enviro+Data	Potomac	
12:05 PM	12:25 PM	Closing Remarks on Enviro+Data	Dana McCoskey	WPTO	Enviro+Data	Potomac	
12:25 PM	1:15 PM	Lunch					
1:15 PM	3:30 PM	Hydro Enviro+Data Peer Reviewer Only Meeting					Madison
3:30 PM	3:45 PM	Coffee Break and Transition					
3:45 PM	5:30 PM	Town Hall	Multiple	Multiple	Plenary	Grand Ballroom	
5:30 PM	6:00 PM	Peer Reviewer Only Meetings (All Hydro Reviewers)				All Hydro Tracks	Madison

- **Annual Operating Plans**
  - EERE is committed to funding multi-year project plans
  - Plans include Go/No-go decisions in 12-18 month period
  - Merit reviewed externally on a 3-year cycle project cycle
  - Reviewed and approved by WPTO annually

