



## **Evaluation Principles for the Monitoring of Dams and Their Foundations**

April 23, 2020  
Half Day Workshop

USSD Committee Monitoring of Dams and Their Foundations

### **Teaching Moment**

Attendees will learn about methods and considerations for evaluating dam safety instrumentation data.

### **Workshop Description**

The timely evaluation of dam performance monitoring data is a critical component of any dam safety program. Far too often, simple data reporting of performance monitoring data is presented as data evaluation but is ultimately lacking the “so what” that is vital to the comprehensive interpretation of dam performance monitoring data. The successful evaluation of performance monitoring data couples thorough site characterization with project instrumentation data to distill a comprehensive analysis of project performance. Topics presented as part of this workshop will include:

- Basics of site characterization
- Data reporting/presentation
- Evaluation principles
- Case histories and best practice examples

### **Workshop Agenda**

- A. Introduction (0.5 hr)
  - a. Welcome and Introductions
  - b. Brief Case Study – Where evaluation worked.
  
- B. Overview of Data Evaluation (1 hr)
  - a. Site Characterization and Other Considerations
  - b. Common Responses/Instrument Behaviors
    - i. Piezometers v Reservoir
      - 1) Lag
      - 2) Operator
    - ii. Inclinometers – Shear v gradual movement
    - iii. Other Correlations
      - 1) Visual
      - 2) Instrument Grouping
  
- C. Practical Application (2 hr)
  - a. Group Exercise
    - i. Step through an evaluation

- ii. Limit to a couple of instrumentation types
    - iii. Incorporate PFMs
  - b. Example Write-ups
  - c. Post Evaluation – “Now What?”
    - i. IES
    - ii. Maintenance

D. Panel Discussion (.5 hr)