

Key Themes and Outcomes Summary

Hydropower Executive R&D Summit Summary – Washington D.C. May 4th, 2017

Hydropower Environmental R&D Workshop Summary – Washington D.C. April 25th, 2018

U.S. Department of Energy, Water Power Technologies Office



Industry Environmental Needs Summary

Hydropower Executive R&D Summit Summary – Washington D.C. May 4th, 2017

- Top environmental R&D needs presented by the hydropower industry:
 - Fish Passage
 - Water Quality focused on Dissolved Oxygen
 - Water/ Habitat Quality
 - Licensing/ Relicensing Guidance
 - Decommissioning Guidance
 - Management
 - Invasive Species
 - Information Sharing and Coordination

Resource Agency and NGO Regulatory Needs Summary

Hydropower Environmental R&D Workshop Summary– Washington D.C. April 25th, 2018

- **Summary of community needs presented by federal resource agencies and NGO hydropower stakeholders:**
- **The need for accessible, rigorous data**
 - Environmental information
 - New and advanced technologies
 - Mitigation measures
 - Adaptive management
 - Regional or basin-scale data
- **Standardization of study methodologies**
- **The need for accessible, interoperable models**
 - Open source and easy to use
 - Stream channel and riparian habitat models
 - Reservoir operations and mass balance models
 - Flow-habitat and flow-ecology models
 - Predictive models that support long-term planning

Resource Agency & NGO Hydropower Research Needs Summary

Hydropower Environmental R&D Workshop Summary– Washington D.C. April 25th, 2018

- Summary of research needs presented by federal resource agencies and NGO hydropower stakeholders:
- Commonality in R&D needs among agencies and NGOs
- Specific research needs for:
 - Fish passage and behavior
 - Environmental flows
 - Adaptive management and mitigation