

Discussion notes for Work Group 1, 3, and 4 verbal presentations

ICEMM March 17-18, 2020 meeting

Working Group 1 (Integrated Monitoring & Modeling):

Working Group 1 focuses on ongoing and new research conducted by U.S. Federal agencies that seek to integrate monitoring activities and modeling approaches to reduce uncertainties and lifecycle costs of environmental cleanup and closure projects.

Ming Zhu (DOE, EM) Co-Chair of Working Group 1 was not able to attend the ICEMM 2020 public meeting. George Alexander (USNRC) reported instead as Co-Chair of the Working Group. George mainly provided information on the Performance and Risk Assessment Community of Practice (P&RA CoP), a community of interest to many potential ICEMM member agencies and affiliated constituencies. Similarly to ICEMM, the P&RA CoP seeks to improve and advance integrated modeling and monitoring and their applications to performance and risk assessments.

The Performance and Risk Assessment Community of Practice has some membership overlap with ICEMM. It started in 2009 and includes: DOE, EPA, NRC, Savannah River National Laboratory, Sandia National Laboratory, Pacific Northwest National Laboratory, the States of Washington and Kentucky, Vanderbilt University and the University of Virginia, as well as several private sector organizations conducting performance and risk assessments.

The goal of the P&RA CoP is to foster exchange of information regarding preparation of performance assessments and risk analyses in support of environmental decisions across agencies and practitioners. The P&RA CoP has held 20 webinars and 8 technical exchange meetings with information available from the [DOE website for the P&RA CoP](#).

Working Group 3 (Forecasting of Ecosystem Functions and Services):

Ken Bagstad (USGS), Pat Deliman (USACE), and Brenda Rashleigh (EPA) Co-Chair this working group. In addition to the Working Group 3 presentation which is posted, Brenda Rashleigh mentions that EPA has now decided to integrate the NESCS and FEGS systems for Ecosystem Services accounting. With respect to modeling of ecosystem functions, EPA is focused on HABs/eutrophication modeling, and fish modeling. Brenda also mentioned the NSF-sponsored meeting in Integrated Hydro-Terrestrial Modeling (IHTM) that took place in early September 2019, where nine federal agencies met and discussed multiple science tracks, including one on HABs/nutrients/eutrophication. A report is in production – Jud Harvey from USGS is the lead on the nutrients chapter and Brenda is a coauthor. On the fish modeling, Brenda and her EPA colleagues have completed a fish metacommunity model. Brenda has also put together some information on the model with the help of colleagues including Kyle McKay at CoE and also NOAA.

Working Group 4 (Surface Water and Watershed Water Quality Modeling):

Working group 4 was led by Billy Johnson (USACE). The focus of the workgroup is to collaborate on the development of surface water and watershed water quality models to simulate nutrient, associated

material (nitrogen, phosphorus, carbon, sediment, organic matter, pesticides, and fecal coliform bacterial), contaminant transport, uptake, loss, transformation, and recycling, and vegetation dynamics and uptake.

Billy Johnson has been working closely with Todd Steissberg (USACE) on watershed water quality modeling and other work relevant to the Working Group. Many of those activities are mentioned in Todd Steissberg's presentation on March 17. Billy Johnson asked that a new Working Group 4 Chair be named and suggested Todd Steissberg. Todd Steissberg was nominated by and approved by the ICEMM Steering Committee to step into this role. Congratulations to Todd Steissberg! And many thanks to Billy Johnson for his leadership as Chair of Working Group 4, and for his continued willingness to help ICEMM moving forward.