

Aquatic Interactions with MHK Devices

September 14, 2011

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MHK ENVIRONMENTAL WEBINAR **SERIES**



Development of Webinar Series:

 Subgroup of the Federal Renewable Ocean **Energy Working Group**

NOAA, BOEMRE, DOE, EPA

 Pacific Northwest National Laboratory— Provides technical assistance and houses webinars within the environmental database, **Tethys**

Series Goals:

- 1. To identify gaps and priority areas for future research efforts.
- 2. To communicate ongoing studies and results.
- 3. To help inform siting and permitting efforts.



MHK ENVIRONMENTAL WEBINAR **SERIES**



Additional webinars:



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- 1. Data Management, Risk Assessment, and Cumulative Effects Analysis (July 27th)
- 2. Aquatic Animals and Device Interactions (August 29th)

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Tethys

July 27 2011 webinar

Marine Hydrokinetic Environmental Webinar #1

Environmental Data Management, Cumulative Impacts and Ri

Emerging marine and hydrokinetic (MHK) technologies convert wa and salinity-gradient power into electricity. These technologies have many regions of the United States. In order to assure the respons developed, a number of different agencies, federal research institu and universities are working to research the potential environment impacts of MHK technologies. The Department of Energy (DOE) a federal agencies involved in reviewing, permitting, and regulating working to coordinate and collaborate on MHK environmental rese well as disseminate resulting products to other labs, federal agenc industry, and interested stakeholders. This webinar series aims to awareness of current research efforts.

The first webinar in the series, "Environmental Data Managemei Cumulative Impacts and Risk Assessment" was held on Wedne July 27. Approximately 160 participants were online for the preser The presenters, in order of appearance, were:

Introduction to webinar series and specific webinar topic (Ani

Webinars can be accessed at:

http://mhk.pnnl.gov/wiki/index.php/DOE_MHK_Webinar_Series

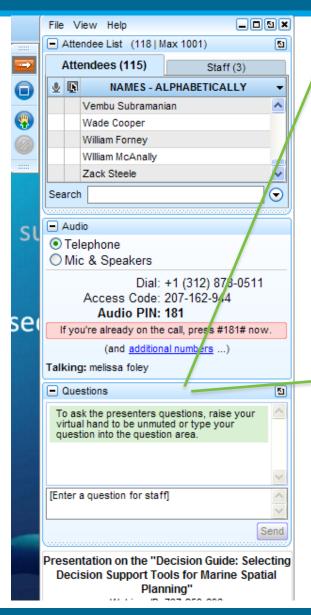
MONITORING TECHNOLOGIES AND STRATEGIES FOR MHK DEVICES

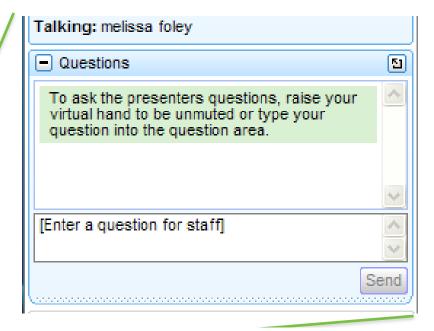


September 14, 1-3:30 EDT Monitoring Technologies and Strategies for Marine and Hydrokinetic Devices

- Acoustic Monitoring of Fish and Their Interactions with the Ocean Renewable Power Company (ORPC) Device (Gayle Zydlewski, University of Maine)
- Kinetic Hydropower Operational Monitoring Strategies and Technologies for Pilot Arrays (Mary Ann Adonizio, Verdant Power Inc.)
- Lessons Learned at the World's First Commercial Scale Tidal Turbine SeaGen in Strangford Lough, Northern Ireland (David Ainsworth, Marine Current Turbines, Ltd. and Frank Fortune, Royal Haskoning)
- Integrated Post-Installation Monitoring: A Discussion of Post-Installation Monitoring for Marine Life Interactions, Acoustics, Water Quality, and Inflow Velocity on a Tidal Turbine, Including the Development Pathway for a New Stereo Imaging System (Brian Polagye, University of Washington)
- Characterizing Biological Communities at Marine Renewable Energy Sites (John Horne, University of Washington)
- Passive Acoustic Based Compliance Monitoring for Tidal Turbines (Tom Carlson, Pacific Northwest National Laboratory)
- Long-Range Active Acoustic Detection, Localization, Tracking and Classification for Offshore Renewable Energy Applications and Radiated Noise Measurements in a High-Current Environment Using a Drifting Noise Measurement Buoy (Peter Stein, Scientific Solutions Inc.)

DISCUSSION PERIOD—HOW TO ASK A QUESTION





- 15 minute presentation, 5 minute Q&A following each presentation
- Please submit questions using the question chat feature. We will NOT be using the virtual hand raise function.
- Staff will compile questions and pose to presenters at appropriate Q&A periods.