



## **Aquatic Interactions with MHK Devices**

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## 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.

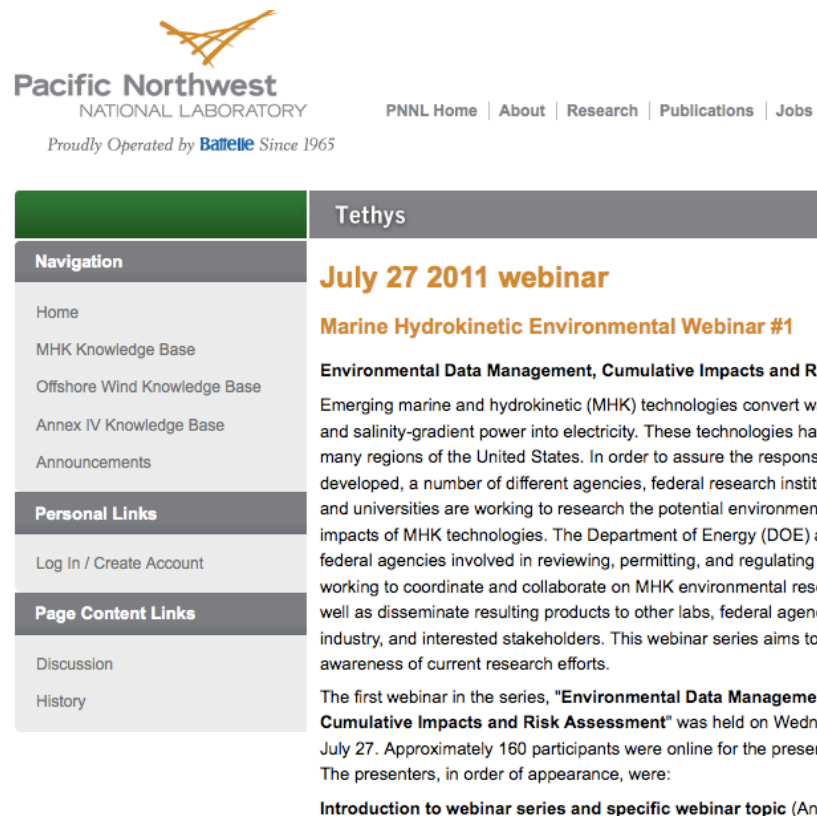


Additional webinars:

1. Data Management, Risk Assessment, and Cumulative Effects Analysis (July 27th)

2. Monitoring technologies and strategies  
(September 14, 1-3:30 EDT)

Webinars can be accessed at:  
[http://mhk.pnl.gov/wiki/index.php/July\\_27\\_2011\\_webinar](http://mhk.pnl.gov/wiki/index.php/July_27_2011_webinar)



The screenshot shows the Pacific Northwest National Laboratory (PNNL) Tethys website. At the top, the PNNL logo is displayed with the text "Pacific Northwest NATIONAL LABORATORY" and "Proudly Operated by **Battelle** Since 1965". Navigation links include "PNNL Home", "About", "Research", "Publications", and "Jobs". The main content area is titled "Tethys" and features a "July 27 2011 webinar" section. This section is titled "Marine Hydrokinetic Environmental Webinar #1" and describes the "Environmental Data Management, Cumulative Impacts and Risk Assessment" webinar. The text explains that emerging marine and hydrokinetic (MHK) technologies convert wave and salinity-gradient power into electricity, and that the Department of Energy (DOE) is working with various agencies to research and regulate these technologies. It mentions that approximately 160 participants were online for the webinar on July 27, 2011. A sidebar on the left contains navigation links (Home, MHK Knowledge Base, Offshore Wind Knowledge Base, Annex IV Knowledge Base, Announcements), personal links (Log In / Create Account), and page content links (Discussion, History).

# RESEARCH ON AQUATIC ANIMAL INTERACTION WITH MHK DEVICES

**August 29, 1-3 EDT: Research on Aquatic Animal Interaction with MHK Devices** – This webinar will focus on research evaluating the potential effects of interactions between MHK devices and aquatic organisms. Speakers include:

- **Evaluation of Fish Injury and Mortality Associated with Hydrokinetic Turbines** (Steve Amaral, Ted Castro-Santos, and Paul Jacobson, Electric Power Research Institute)
- **An Estimation of Survival and Injury of Fish Passed Through the Hydro Green Energy Hydrokinetic System** (Tim Brush, Normandeau Associates and Mark Stover, Hydro Green Energy, LLC)
- **Combining ADCP and Underwater Camera to Assess Marine Species Interactions with the Open-Centre Turbine** (Sue Barr, OpenHydro)
- **Monitoring Marine Mammals at SeaGen, the World's First Operational Commercial Scale Tidal Energy Device – 3 years post-installation** (Carol Sparling, SMRU Ltd.)



# DISCUSSION PERIOD—HOW TO ASK A QUESTION

The screenshot shows a Zoom meeting interface. At the top, there's a menu bar with 'File', 'View', and 'Help'. Below it is the 'Attendee List' showing 118 attendees and 3 staff members. A list of attendees is displayed, including Vembu Subramanian, Wade Cooper, William Forney, William McAnally, and Zack Steele. Below the attendee list is the 'Audio' section, which is set to 'Telephone' with a dial-in number of +1 (312) 878-0511 and an access code of 207-162-944. The 'Audio PIN' is 181. A red box highlights the instruction: 'If you're already on the call, press #181# now. (and additional numbers ...)'. The 'Talking' status is 'melissa foley'. At the bottom, the 'Questions' chat window is visible, containing a green instruction box and a text input field with the placeholder '[Enter a question for staff]' and a 'Send' button.

This is a close-up of the 'Questions' chat window. The title bar says 'Talking: melissa foley'. The window has a 'Questions' header with a minus sign and a maximize icon. Inside, there is a green text box with the instruction: 'To ask the presenters questions, raise your virtual hand to be unmuted or type your question into the question area.' Below this is a text input field with the placeholder '[Enter a question for staff]' and a 'Send' button.

- 20 minute presentation, 5 minute Q&A following each presentation
- 10 minute Q&A at the end
- 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.