Voinovich School receives AEP award for biological restorability project

While there are many stream restoration projects conducted nationally, very few meet long-term ecological success. However, with a $250,000 contribution from the AEP Foundation, the Voinovich School of Leadership and Public Affairs and the Appalachian Watershed Research Group are working to better ensure the ecological success of regional water restoration projects through the development of an accurate geochemical and biological model. This model will be used to predict the biological restorability of streams, taking into account the complex changes in conditions before and after restoration.

Of the $250,000, $100,000 is directed towards updating and expanding the interactive online watershed database and providing water quality technical assistance to water resources professionals. The remaining funds are allocated to the three components of the biological restorability project: modeling of historical data, (including the compilation of a stressor analysis to determine which conditions become detrimental for certain species at what threshold points), conducting a case study at Hewett Fork, and modeling the recovery of streams, which will include the calibration of geochemical hydrological and biological models.

The location of Hewett Fork is ideal to conduct a case on the restorability of streams because of its gradient of water conditions, having impaired, transitioned, and recovered zones within its waters. Faculty and students from departments including biological sciences, plant biology, and geology are participating in the sampling and analysis of data along Hewett Fork.

Throughout the case study they will gather samples at Hewett Fork for its physical attributes (velocity of water, substrate, etc), chemical attributes (water quality and sediment samples), and biological attributes (fish, macro vertebrates, algae). Additionally, the team of student and faculty plans to compile a storm analysis through field sampling to isolate storm events that may have an impact on chemical, sediments, and biological conditions of streams. For instance, following a storm, the possible spike in metal and acid levels may be inhibiting a biological community from thriving.

Because Hewett Fork has such a diverse composition of water quality, it will prove invaluable to the development of an accurate model predicting biological restorability. Data collection began in June 2010 and will continue through June 2011.

Energy workshop series for Ohio manufacturers wraps up

Ohio business leaders met in Columbus on October 20 for the third and final workshop in the “New Energy Climate for Ohio Manufacturers” series. The Ohio University Voinovich School and the Ohio Manufacturers’ Association, with funding from the Ohio Environmental Education Fund, sponsored the workshop series. The workshops were designed to facilitate discussion amongst Ohio’s businesses regarding the economic and energy-related challenges associated with anticipated federal and state climate change legislation and regulation. Toward that goal, each workshop included an overview of the current federal energy policy landscape, updates on utility energy efficiency programs available to Ohio manufacturers and case studies in manufacturers’ energy saving programs. In addition to these topics, the final workshop included a session on EPA’s new greenhouse gas reporting program, presented by Dr. Kevin Crist, director of the Center for Air Quality at Ohio University. Additional speakers included in part: Dirk Forrister, managing director, Natsource LLC; Sherry Hubbard, education & training coordinator, energy efficiency/demand response, AEP Ohio; Drew Bergman, deputy director & chief legal counsel, Ohio EPA; and a panel discussion on energy efficiency case studies moderated by Michael Zimmer, executive-in-residence, Ohio University Voinovich School.

The workshop series furthers the Voinovich School’s goal to build stronger university-business and inter-business relationships in Ohio by making resources available to Ohio companies faced with the task of reducing their energy costs to prepare for climate change legislation.

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