



**US Army Corps  
of Engineers**

Engineer Research and  
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# Environmental Executive Notes

**February 2001  
News Briefs from**

Environmental Laboratory  
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## **Environmental Laboratory and University of Mississippi Medical Center Team Up to Investigate Metals Uptake in Biosystems**

The Environmental Laboratory and the University of Mississippi Medical Center's Department of Pharmacology and Toxicology have entered into a joint testing agreement to study the formation of complexes between anionic organic compounds and metals and how these complexes affect the bioavailability, mobility, and bio-uptake of metals by biological systems. ERDC's ion- and size exclusion chromatography will be coupled with ICP-MS. These state-of-the-art environmental chemistry techniques will be used to study the bio-uptake properties of those Fe (II) and Fe (III) complexes that are pharmacologically and environmentally important. **POCs: Steven L. Larson, 601-634-3431, *Steven.L.Larson@erdc.usace.army.mil*, and Robert P. Jones, 601-634-4098, *Robert.P.Jones@erdc.usace.army.mil*.**

## **Florida Bay Water Quality Model Completed**

The Environmental Laboratory recently completed a water quality model (WQM) for Florida Bay. The WQM was designed to address nutrient-related questions involving environmental deterioration in the bay. The WQM includes computations of salinity, temperature, chlorophyll, nutrients, oxygen, light attenuation, and seagrass. Sensitivity analyses were conducted and a nutrient budget for the system was completed. The project final report "Water Quality Model of Florida Bay," ERDC/EL-TR-00-10, is available online at <http://www.wes.army.mil/el/elpubs/genrep.html>. **POC: Carl F. Cerco, 601-634-4207, *Carl.F.Cerco@erdc.usace.army.mil***

## **Completed Guidelines for Mapping Vegetation**

The recently completed "Guidelines for Mapping Vegetation on Army Installations" also apply to civilian vegetation. Recognizing the importance, utility, and complexity of current mapping technology, the U.S. Army Environmental Center sponsored development of the guidelines to provide an organized approach to mapping vegetation that could be used by a variety of users. The Guidelines are on the Web in two files, "Main Body" and "Appendices." Go to <http://www.wes.army.mil/el/elpubs/genrep.html>, then page down in the 2000 publications to either view or download. **POC: Dr. L. Jean O'Neil, 601-634-3641, *L.Jean.O'Neil@erdc.usace.army.mil***

## **Puget Sound Model**

The Environmental and Coastal and Hydraulics Laboratories of the ERDC are developing a watershed model for Sinclair and Dye's Inlets of Puget Sound for the Navy's Puget Sound Naval Shipyard. The model includes runoff quantity and water quality and will be used in the assessment of total maximum daily loads (TMDLs) and watershed management alternatives. **POC: Mark Dortch, 601-634-3517, *Mark.S.Dortch@erdc.usace.army.mil***

## **Conservation Assistance Program**

Dr. H. Roger Hamilton, Chief, Resource Analysis Branch, Environmental Laboratory, ERDC, has been named manager of the Army Conservation Assistance Program (CAP). CAP is a rapid-response technical assistance program that provides direct, hands-on technical assistance and technology solutions for natural and cultural resource problems at military installations. The program specifically addresses issues regarding the Department of Defense's Conservation Pillar. **POC: Dr. H. Roger Hamilton, 601-634-3724, *H.Roger.Hamilton@erdc.usace.army.mil***

## **ERDC/EL Developing Water Quality Model of Lower St. Johns River**

A water quality modeling study is being conducted as part of an effort to evaluate water quality and develop Total Maximum Daily Loads (TMDLs) for the Lower St. Johns River, FL. The project is a cooperative effort between the ERDC, the USAE District-Jacksonville, and the St. Johns River Water Management District (SJRWMD). The SJRWMD is conducting hydrologic and hydrodynamic studies while ERDC/EL is developing water quality components. The ERDC/EL will complete development of the model during this FY and provide the modeling system to the SJRWMD for the development of TMDLs. **POC: Dr. James L. Martin, P.E., 601-634-3714, *James.L.Martin@erdc.usace.army.mil***

## **Upcoming Environmental Events**

*March 4-7, 2001, St. Louis, MO, "Water Environmental Federation (WEF) TMDL Science Issues Conference 2001," POC: <http://www.wef.org/Conferences>.*

*March 19-22, 2001, San Diego, CA, "The Eleventh Annual West Coast Conference on Contaminated Soils, Sediments, and Water," POC: Marc Nascarella (413-549-5170, *marc@aehs.com*)*

*April 9-12, 2001, New Orleans, LA, "UXO/Countermining Forum," POC: Charlotte Gaylon (1-888-808-5303, *TheForum@tva.gov*)*

*April 10-11, 2001, Raymond, MS, "Mississippi Water Resources Conference," sponsored by Water Resources Research Institute, Mississippi State University, POC: Jeffery Ballweber (662-325-3620).*

*April 16-20, 2001, Portland, OR, "Environmental Remediation and Ecosystem Restoration Conference," POC: Mike Klosterman (703-428-7337, *Michael.J.Klosterman@HQ02.usace.army.mil*)*

*April 30-May 2, 2001, San Antonio, TX, "2001 AWRA Spring Specialty Conference Water Quality, Monitoring, and Modeling," POC: American Water Resources Association (540-687-8390, *info@awra.org*)*

*June 10-13, 2001, Orlando, FL, "2001 International Containment & Remediation Technology Conference and Exhibition," POC: [www.containment.fsu.edu](http://www.containment.fsu.edu)*

*June 18-20, 2001, San Diego, CA, "Fourth Tri-Service Environmental Technology Symposium," POC: <http://www.ets-2001.com>*