

Stormwater Runoff Water Quality Newsletter
Devoted to Urban/Rural Stormwater Runoff
Water Quality Management Issues

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This issue of the Newsletter contains announcements of sources of information on a variety of topics that are pertinent to water quality evaluation and management with particular attention to pesticide-related water quality issues. The announcement of several CWEMF workshops, other conferences, and publication are also included.

USGS Pesticide Analytical Methods

Dr. K. Moran of TDC Environmental has informed the UP3 Project that the USGS has recently published a compendium of methods for the chemical analysis of 62 pesticides. A reference for that compendium and its abstract are presented below.

Hladik, M., K. L. Smalling, and K. M. Kuivila (2008). "A Multi-Residue Method for the Analysis of Pesticides and Pesticide Degradates in Water Using HLB Solid-Phase Extraction and Gas Chromatography–Ion Trap Mass Spectrometry." *Bulletin of Environmental Contamination and Toxicology* 80(2): 139-144 2008).

“Abstract:

A method was developed for the analysis of over 60 pesticides and degradates in water by HLB solid phase extraction and gas-chromatography/mass spectrometry. Method recoveries and detection limits were determined using two surface waters with different dissolved organic carbon (DOC) concentrations. In the lower DOC water, recoveries and detection limits were 80%–108% and 1–12 ng/L, respectively. In the higher DOC water, the detection limits were slightly higher (1–15 ng/L). Additionally, surface water samples from four sites were analyzed and 14 pesticides were detected with concentrations ranging from 4 to 1,200 ng/L.”

Pesticide Science Update

Laura Speare, UP3 Project Manager, announced that the UP3 Project has published its annual science update, entitled, "Pesticides in Urban Surface Water: Annual Review of New Scientific Findings 2008." That report is available on the UP3 Project web site at http://www.up3project.org/up3_monitoring.shtml. The announcement stated, in part,

“New Information. This year’s review includes the following significant new information:

- *Updated recommendations for sample collection, storage, and analysis for samples that will be tested for pyrethroids.*
- *Identification of research priorities to address the numerous data gaps related to evaluation of the potential threat posed by use of the insecticide fipronil.*
- *Additional details regarding pyrethroid-related water quality problems. Notable among this information is that toxicity in wet weather creek water samples has been attributed to pyrethroids, suggesting that pyrethroids could affect organisms dwelling in the water column—not just sediment-dwelling organisms.*

The report also includes specific monitoring and research recommendations as well as recommendations for managers seeking to prevent or respond to pesticide-related toxicity problems.”

SETAC Symposium on Urban Pesticides

Dr. Pamela Rice has announced that the AGRO Division of the American Chemical Society is hosting a special symposium with SETAC (Society of Environmental Toxicology and Chemistry) titled "**Modern Pesticides in Urban Environments: Risk Assessment and Management.**" That symposium will be held as part of the SETAC North America 29th National Meeting, 16-20 November 2008 in Tampa, Florida. The announcement of that symposium states in part,

“Concerns over the detection of modern pesticides in surface and ground waters and their toxicological significance has led to intense scrutiny of potential sources in urban areas. Challenges exist in modeling and monitoring these pesticides compared with more conceptually simpler agricultural scenarios. Of special interest are the assessment of turf pesticide risk during pesticide registration and the environmental permitting of golf courses.

Suggested Topics (but not limited to):

- characterization of modern pesticide use patterns in urban venues
- characterization of managed areas in the urban landscape using GIS
- environmental fate of pesticides in turf and ornamental systems
- application of runoff, leaching and in-stream models
- use of once-through pesticides in wastewater treatment plants
- pesticides applied intentionally or unintentionally to outside hard surfaces
- occurrence and risk of urban pesticides in surface water and ground water -indicator organisms in urban streams
- potential impacts on endangered species (e.g. salmon and the red legged frog)
- outdoor residential exposure and risks
- extent of current BMPs in urban areas required by local design ordinances, and their risk reduction efficacy
- research on BMPs, and BMP education/outreach

At the conclusion of the presentations, very brief but provocative presentations will be given in an informal environment conducive to discussion and debate.

Abstract deadline: June 4, 2008 Submit abstracts to: tampa.setac.org

For further information contact Pamela Rice USDA/ARS - Soil & Water Management Unit Dept. of Soil, Water, & Climate - University of Minnesota 439 Borlaug Hall, 1991 Upper Buford Circle St. Paul, MN 55108 (612) 624-9210 Phone (651) 649-5175 FAX pamrice@umn.edu.”

Central Valley Water Quality Pesticide Regulation

The California Central Valley Regional Water Quality Control Board (Central Valley Water Board) has announced the release of its draft report entitled, “Relative-Risk Evaluation for Pesticides Used in the Central Valley Pesticide Basin Plan Amendment Project Area,” which is available for public review and comment. According to the announcement,

“The draft report describes a process for identifying a target list of pesticides that pose the highest overall relative risk to aquatic life beneficial uses in surface water within the Central Valley Pesticide Basin Plan Amendment Project Area. This document is available at the Board’s Website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/central_valley_pesticides/risk_evaluation/index.shtml.

*Central Valley Water Board staff is inviting public comments on the draft report by **9 June, 2008**. Comments related to technical or legal issues should be clearly supported by reference to applicable law or scientific or technical reports, where appropriate. References should include bibliographic citation and a copy of the reference if it is not publicly available.*

Any questions about this information or requests to receive a printed copies should be directed to Zhimin (Jamie) Lu at (916) 464-4830 or zlu@waterboards.ca.gov, or Danny McClure at (916) 464-4751 or dmcclure@waterboards.ca.gov”

CWEMF Modeling Workshops

The California Water and Environmental Modeling Forum (CWEMF; www.cwemf.org) is jointly hosting a technical workshop with CWR, LLNL, and UCB on:

California Central Valley Groundwater Modeling

“July 10-11, 2008 6:00 to 9:00 p.m. 8:00 a.m. to 5:00 p.m.

International House, 2299 Piedmont Ave, Berkeley, California 94720

Lawrence Berkeley National Laboratory 1 Cyclotron Road, Berkeley, California 94720

Fee: \$75 for CWEMF members ; \$125 for non-members† ; \$10 for students*

Registration fee includes lunch and refreshments during the workshop, and the conference proceedings.

Space is limited. To register, please complete and email the registration form [available at <http://www.cwemf.org/workshops/GWorkshop.pdf>].”

Their workshop announcement includes a “Call for Presentations” pertinent to Central Valley groundwater models.

CWEMF is also jointly hosting a technical workshop with the U.S. Army Corps of Engineers’ Hydrologic Engineering Center entitled, “**Technical Workshop on Watershed Modeling with HEC-HMS** (Hydrologic Engineering Center Hydrologic Modeling System)” on May 28, 2008, 9:00 a.m. to 4:00 p.m. Sacramento City Hall Council Chambers, (New) City Hall, 915 “I” Street, Sacramento, California.

“Off-Street parking available at 10th and “I” Streets and 6th and “J” Streets

Fee: No-charge for CWEMF members, \$50 for non-members/\$10 for student non-members

To register, please email your name, affiliation, membership status and email address to HECHMSTEchnicalworkshop@cwemf.org.

The purpose of the workshop is to introduce participants to the U.S. Army Corps of Engineers Hydrologic Engineering Center’s Hydrologic Modeling System, HEC-HMS, including the model’s: (1) theory and structure, (2) applications and (3) calibration and validation techniques.

The Hydrologic Modeling System (HMS) is designed to simulate the precipitation-runoff processes of dendritic watershed systems. Its design allows applicability in a wide range of

geographic areas for solving diverse problems including large river basin water supply and flood hydrology, and small urban or natural watershed runoff. The program features a completely integrated work environment including a database, data entry utilities, computation engine, and results reporting tools. The model choices include gridded and area-averaged methods for event or continuous simulation. The model is used for design and operation of flood control projects, regulating floodplain activities, monitoring water use, local and regional watershed planning, water availability studies, urban drainage design, flow forecasting, determining urbanization impacts on waterways, reservoir spillway design, determining flood damage reductions, and real-time system operation of flood events. For more information, please visit: <http://www.hec.usace.army.mil/software/hec-hms/>.”

US EPA BASS Model Update

Dr. M. Craig Barber, of the US EPA has announced that the BASS bioaccumulation and fish community modeling software has now been posted to the EPA's Center for Exposure Assessment Modeling (CEAM) website (<http://www.epa.gov/ceampubl/>). “The BASS homepage is <http://www.epa.gov/ceampubl/fchain/bass/index.htm> and is directly linked to the following other CEAM pages:
<http://www.epa.gov/ceampubl/fchain/index.htm> (BASS)
<http://www.epa.gov/ceampubl/recent.htm> (either model)
<http://www.epa.gov/ceampubl/products.htm> (either model)”

Dr. Barber indicates, “if you have any questions regarding BASS's usage, operation, or formulation, please contact me at your earliest convenience. Likewise, if you would like or need assistance in setting up BASS projects for particular applications, please do not hesitate contact him.

M. Craig Barber, PhD, Ecologist

*USEPA, Office of Research and Development, National Exposure Research Laboratory
Ecosystems Research Division 960 College Station Road Athens, GA 30605 USA
phone: 706-355-8110 fax: 706-355-8104 email: barber.craig@epa.gov”*

National Mitigation & Ecosystem Banking Conference

The 11th National Mitigation & Ecosystem Banking conference entitled, “Banking on the Environment” will be held on May 6–9, 2008 at the Hyatt Regency in Jacksonville, Florida. Information on this conference is available at <http://www.mitigationbankingconference.com>. For further information contact Carlene Bahler, JT&A, Inc 703-837-9763.

National Monitoring Conference

The Sixth National Monitoring Conference entitled, “**Monitoring: Key to Understanding Our Waters,**” will be held on May 18-22, 2008 in Atlantic City, New Jersey. Information on this conference is available at, <http://acwi.gov/monitoring>.

Watersheds, Groundwater, and Drinking Water

The University of California Division of Agriculture and Natural Resources has published a guidance document entitled, “Watersheds, Groundwater, and Drinking Water.” This publication is a “Practical Guide” consisting of a collection of articles that have been edited by Thomas

Harter and Larry Rollins. This paper bound 274 page is available for \$40.00. Information on this guide is available at <http://anrcatalog.ucdavis.edu/Items/3497.aspx>.

GAO Review of US EPA Activities

The US Congress Government Accountability Office (GAO) recently released the following reports, testimony, and correspondence:

“LETTER REPORT

Chemical Assessments: Low Productivity and New Interagency Review Process Limit the Usefulness and Credibility of EPA's Integrated Risk Information System.

GAO-08-440, March 7, 2008 <http://www.gao.gov/cgi-bin/getrpt?GAO-08-440>

Highlights - <http://www.gao.gov/highlights/d08440high.pdf>

TESTIMONY

Toxic Chemicals: EPA's New Assessment Process Will Increase Challenges EPA Faces in Evaluating and Regulating Chemicals. GAO-08-743T, April 29, 2008

<http://www.gao.gov/cgi-bin/getrpt?GAO-08-743T>

Highlights - <http://www.gao.gov/highlights/d08743thigh.pdf>

These and other GAO products are available from the "Reports and Testimonies" section of GAO's Internet site, <http://www.gao.gov>.

US EPA Water Quality Standards Academy

The US EPA Office of Science and Technology announced the offering of a “Water Quality Standards Academy: Basic Course,” in Arlington VA (near Washington, D.C.) on July 21-25, 2008. Its announcement stated, “*The Basic Course is an introductory course in water quality standards designed for those with fewer than six months experience with them. Others may also benefit from the course, including veterans of the water quality standards program who want a refresher course. For further information and to apply for admission to the course on line, please go to: <http://www.epa.gov/waterscience/standards/academy.html>*”

US EPA Webcast on Water Program Strategy: Response to Climate Change

“On Thursday, May 8, the US EPA will be hosting a free webcast from 2:30 to 4:30 pm EDT to discuss EPA's Draft National Water Program Strategy: Response to Climate Change. The agency recently distributed this draft strategy and is now seeking comment until May 27, 2008. The draft strategy represents an initial effort by EPA's National Water Program to identify potential impacts of climate change for clean water and drinking water programs, and to define actions both to adapt water programs to these impacts as well as to mitigate the release of greenhouse gases. The free webcast will highlight some of the key impacts on water resources and water programs, and key actions we are proposing. If you are interested in participating in this webcast or want a copy of the draft strategy go to <http://www.epa.gov/water/climatechange/>.”