

US EPA ARCHIVE DOCUMENT



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Protecting Aquatic Life and Human Health from Chemicals and Microbes in Water

From EPA

EPA Releases Final Health Assessment for TCE.

Added to IRIS; characterizes trichloroethylene as carcinogenic to humans and a health hazard.

Go to [Report](#) or www.epa.gov/iris

NCEE – Do Regulators Overestimate the Costs of Regulation? Simpson, R.D., 2011. National Center for Environmental Economics.

Go to [Report](#) or www.epa.gov/ncee

EPA Strengthens Key Scientific Database to Protect Public Health. Plans to improving the Integrated Risk Information System (IRIS), database for human health assessments.

Go to [Report](#) or www.epa.gov/iris

NCEA – Exposure Factors Handbook 2011 Edition. EPA/600/R-09/052F. Refining the assumptions used in exposure assessments and reducing uncertainty.

Go to [Report](#) or www.epa.gov/ncea

New Standard Evaluation Procedures Provide Guidance for Review of EDSP Tier 1 Assays. Support consistency, efficiency, and transparency in the process.

Go to [Report](#) or www.epa.gov/scipoly/oscpendo

Supporting Decisions by the Pie Slice: EPA Researcher Serves Up Data. An EPA statistician is developing innovative ways to translate vast quantities of toxicological data into an accessible, visual format.

Go to [Article](#) or www.epa.gov/ncct/ToxPi

A Beta Version of the Dietary Exposure Evaluation Model-Food Commodity Intake Database (DEEM-FCID) Is Available for Testing. System for chronic and acute exposure assessments.

Go to [Report](#) or www.epa.gov/pesticides/science

The Future of Toxicity Testing is Here. EPA's CompTox has partnered with the NIEHS's National Toxicology Program, the NIH's Chemical Genomics Center, and the FDA in a collaboration known as Tox21.

Go to [Report](#) or www.epa.gov/ncct/Tox21

From Collaborators

Fungal Diseases: An Emerging Threat To Human, Animal, and Plant Health – Workshop Summary. Institute of Medicine of the National Academies. Exploring the scientific and policy dimensions.

Go to [Report](#) or www.iom.edu/reports

Water Research Update

Surveillance for Waterborne Disease Outbreaks and Other Health Events Associated with Recreational Water – United States, 2007-2008.

Hlavsa, M.C., V.A. Roberts, A.R. Anderson, V.R. Hill, A.M. Kahler, M. Orr, L.E. Garrison, L.A. Hicks, A. Newton, E.D. Hilborn, T.J. Wade, M.J. Beach, and J.S. Yoder, 2011. *Morbidity and Mortality Weekly Report*, 60(ss12), 1-32.

Go to [Article](#) or www.cdc.gov

Surveillance for Waterborne Disease Outbreaks Associated with Drinking Water – United States, 2007-2008. Brunkard, J.M., E. Ailes, V.A. Roberts, V. Hill, E.D. Hilborn, G.F. Craun, A. Rajasingham, A. Kahler, L. Garrison, L. Hicks, J. Carpenter, T.J. Wade, M.J. Beach, and J.S. Yoder, 2011. *Morbidity and Mortality Weekly Report*, 60(ss12), 38-68.

Go to [Article](#) or www.cdc.gov

WaterRF – State of the Science of Hexavalent Chromium in Drinking Water. McNeill, L., et al., 2011. #4404. Occurrence, sources, analytical methods, treatment options, health effects, and regulations.

Go to [Report](#) or www.waterrf.org

WaterRF – Adaptation of the Minimum Anticipated Biological Effect Level (MABEL) Approach to Emerging Compounds of Interest. #4214. Developed health-protective Acceptable Daily Intakes.

Go to [Report](#) or www.waterrf.org

WaterRF – Formation of Halonitromethanes and Iodo-Trihalomethanes in Drinking Water. #4063. Investigated precursors and occurrence as well as the influence of parameters on the formation.

Go to [Report](#) or www.waterrf.org

Trace-Elements and Radon in Groundwater across the United States, 1992-2003. Ayotte, J.D., et al., 2011. Nearly 20% of wells exceeded benchmark for at least one trace element. Radon exceeded benchmark in >65% of samples.

Go to [Report](#) or www.usgs.gov

AWWA – Monitoring Indicates Crypto Threat Lower than Thought. EPA's preliminary data suggests that *Cryptosporidium* is less prevalent in drinking water supplies than previously believed.

Go to [Article](#) or www.awwa.org

From the Journals

Effect of Water Disinfection Type on Adverse Fetal Outcomes. Wright, J.M. and Rivera-Núñez, Z., 2011. *Journal of the American Water Works Association*, 103(10).

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Nitrosamines from Pipeline Materials in Drinking Water Distribution Systems. Morran, J., et al., 2011. *Journal of the American Water Works Association*, 103(10).

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Occurrence and Concentrations of Pharmaceutical Compounds in Groundwater Used for Public Drinking-Water Supply in California. Fram, M.S. and K. Belitz, 2011. *Science of the Total Environment*, 409(18), 3409-3417.

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Predicting the Migration Rate of Dialkyl Organotins from PVC Pipe into Water. Adams, W.A., Y. Xu, J.C. Little, A.F. Fristachi, G.E. Rice, C.A. Impellitteri, 2011. *Environmental Science & Technology*, 45(16), 6902-6907.

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Evidence Suggesting that Di-n-Butyl Phthalate Has Antiandrogenic Effects in Fish. Aoki, K.A.A., et al., 2011. *Environmental Toxicology and Chemistry*, 30(6), 1338-1345.

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Social Disparities in Nitrate-Contaminated Drinking Water in California's San Joaquin Valley. Balazs, C., et al., 2011. *Environmental Health Perspectives*, 119(12), 1272-1278.

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Detection of *Aeromonas hydrophila* in Water Using PCR. Gulab, P., et al., 2011. *Journal of the American Water Works Association*, 103(11).

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Health Effects of Naturally Radioactive Water Ingestion: The Need for Enhanced Studies. Canu, I.G., et al., 2011. *Environmental Health Perspectives*, 119(12), 1676-1680.

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Estimating Water Supply Arsenic Levels in the New England Bladder Cancer Study. Nuckols, J.R., et al., 2011. *Environmental Health Perspectives*, 119(9), 1279-1285.

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An Estimate of the Cost of Acute Health Effects From Food- and Water-Borne Marine Pathogens and Toxins in the USA. Ralston, E.P., et al., 2011. *Journal of Water and Health*, 9(4), 680-694.

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Effects of the Antihistamine Diphenhydramine on Selected Aquatic Organisms. Berninger, J.P., et al., 2011. *Environmental Toxicology and Chemistry*, 30(9), 2065-2072.

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Prioritizing Contaminants of Emerging Concern for Ecological Screening Assessments. Diamond, J.M., et al., 2011. *Environmental Toxicology and Chemistry*, 30(11), 2385-2394.

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Demasculinization of Male Fish by Wastewater Treatment Plant Effluent. Vajda, A.M., et al., 2011. *Aquatic Toxicology*, 103(3-4), 213-221.

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USEPA to Review Additional Drinking Water Regulations. Holmes, T. and J.A. Roberson, 2011. *Journal American Water Works Association*, 103(11), 14-15.

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Perchlorate, Bromate, and Chlorate in Hypochlorite Solutions: Guidelines for Utilities. Stanford, B.D., et al., 2011. *Journal American Water Works Association*, 103(6).

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Age-Associated Variation in Sensory Perception of Iron in Drinking Water and the Potential for Overexposure in the Human Population. Mirlohi, S., et al., 2011. *Environmental Science & Technology*, 45(15), 6575-6583.

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Identifying New Persistent and Bioaccumulative Organics Among Chemicals in Commerce II: Pharmaceuticals. Howard, P.H. and D.C.G. Muir, 2011. *Environmental Science & Technology*, 45(16), 6938-6946.

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Three Common Metal Contaminants of Urban Runoff (Zn, Cu & Pb) Accumulate in Freshwater Biofilm and Modify Embedded Bacterial Communities. Ancion, P.Y., et al., 2010. *Environmental Pollution*, 158(8), 2738-2745.

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Spatial Patterns and Temporal Trends in Mercury Concentrations, Precipitation Depths, and Mercury Wet Deposition in the North American Great Lakes Region, 2002-2008. Risch, M.R., et al., 2011. *Environmental Pollution*, 161, 261-271.

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Uptake of 17 β -Estradiol and Biomarker Responses in Brown Trout (*Salmo trutta*) Exposed to Pulses. Knudsen, J.J.G., et al., 2011. *Environmental Pollution*, 159(12), 3374-3380.

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Stability, Preservation, and Quantification of Hormones and Estrogenic and Androgenic Activities in Surface Water Runoff. Havens, S.M., et al., 2010. *Environmental Toxicology and Chemistry*, 29(11), 2481-2490.

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Iron-Rich Oklahoma Clays as a Natural Source of Chromium in Monitoring Wells. Scott, D., et al., 2011. *Journal of Environmental Monitoring*, 13(12), 3380-3385.

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Effects of Subchronic Exposure of Early Life Stages of White Sturgeon (*Acipenser transmontanus*) to Copper, Cadmium, and Zinc. Vardy, D.W., et al., 2011. *Environmental Toxicology and Chemistry*, 30(11), 2497-2505.

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Could the Health Decline of Prehistoric California Indians be Related to Exposure to Polycyclic Aromatic Hydrocarbons (PAHs) from Natural Bitumen? Wärmländer, S.K.T.S., et al., 2011. *Environmental Health Perspectives*, 119(9), 1203-1207.

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Polychlorinated Biphenyl Elimination Rates and Changes in Chemical Activity in Hibernating Amphibians. Angell, R.A. and G.D. Haffner, 2010. *Environmental Toxicology and Chemistry*, 29(3), 700-707.

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Development of Biotic Ligand Models for Chronic Manganese Toxicity to Fish, Invertebrates, and Algae. Peters, A., et al., 2011. *Environmental Toxicology and Chemistry*, 30(11), 2407-2415.

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Waterfowl Abundance Does Not Predict the Dominant Avian Source of Beach *Escherichia coli*. Hansen, D.L., et al., 2011. *Journal of Environmental Quality*, 40(6), 1924-1931.

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Influence of Dissolved Organic Carbon on Toxicity of Copper to a Unionid Mussel (*Villosa iris*) and a Cladoceran (*Ceriodaphnia dubia*) in Acute and Chronic Water Exposures. Wang, N., et al., 2011. *Environmental Toxicology and Chemistry*, 30(9), 2115-2125.

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A Tale of Two Pesticides: How Common Insecticides Affect Aquatic Communities. Groner, M.L. and R.A. Relyea, 2011. *Freshwater Biology*, 56(11), 2391-2404.

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A Survey on the Temporal and Spatial Distribution of Perchlorate in the Potomac River. Impellitteri, C.A., et al., 2011. *Journal of Environmental Monitoring*, 13(8), 2277-2283.

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A Kinetic study of Accumulation and Elimination of Mycrocystin-LR in Yellow Perch (*Perca flavescens*) Tissue and Implications for Human Fish Consumption. Dyble, J., et al., 2011. *Marine Drugs*, 9(12), 2553-2571.

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An Assessment of Bone Fluoride and Osteosarcoma. Kim, F.M., et al., 2011. *Journal of Dental Research*, 90(10), 1171-1176.

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Upcoming Meetings

Emerging Issues in Groundwater Conference. February 27-28, 2012 in San Antonio, TX. National Ground Water Association – Ground Water Summit.

Go to [Meeting Page](#) or www.ngwa.org

The Hot Topics in UIC. January 23-25, 2012 in Houston, TX. Regulatory and technical considerations for hydraulic fracturing and groundwater protection.

Go to [Meeting Page](#) or www.gwpc.org

Building for Better Decisions: Multi-Scale Integration of Human Health and Environmental Data. May 8-11, 2012 in Research Triangle Park, NC. SOT and SETAC Workshop.

Go to [Meeting Page](#) or www.setac.org/meetings

Innovative and Affordable Tools and Technologies for Sustainable Public Health Protection

From EPA

Harnessing Water, Waste and Energy Systems for Sustainability. Strategies of water decentralization, recovery, and reuse matched with energy conservation.

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EPA Examines Ways to Treat Biotoxins in Drinking Water. Agency researchers advance science to help protect the nation's drinking water.

Go to [Article](#) or www.epa.gov/sciencematters

Comparison of Ultrafiltration Techniques for Recovering Biothreat Agents in Water. EPA/600/R-11/103. Laboratory-based UF method established by CDC was compared to a field-portable UF method developed by EPA.

Go to [Report](#) or www.epa.gov/nhsr

Formulation of Chlorine and Decontamination Booster Station Optimization Problem. Haxton, T., R. Murray, et al., 2011. In the 13th Annual Water Distribution Systems Analysis Symposium Proceedings. Optimally locating stations to decontaminate following an incident.

Go to [Article](#) or www.asce.org

USEPA's Climate Ready Water Utilities Initiative. Ampleman, M., C. Baranowski, A. Posner, J. Whitler, 2011. *Journal American Water Works Association*, 103(9), 28-31.

Go to [Article](#) or www.awwa.org/publications

Screening Methods for Metal-Containing Nanoparticles in Water. EPA/600/R-11/096. Capability of single particle-inductively coupled plasma mass spectrometry (SP-ICPMS) for transformations of silver nanoparticles in surface water.

Go to [Report](#) or www.epa.gov/nerl

Researchers Develop Innovative Tools in Drinking Water Treatment Studies. Providing a library of shelf-stable, drinking-water-relevant NOM samples from representative sources around the U.S.

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Post Amerithrax: Advancing the Science and Engineering of Decontamination. EPA scientists are developing and evaluating decontamination technologies to inactivate lethal bacteria such as anthrax.

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Costs of Arsenic Removal Technologies for Small Water Systems: U.S. EPA Arsenic Removal Technology Demonstration Program. Wang, L., and A.S.C. Chen, 2011. EPA/600/R-11/090. Analysis of costs for 50 demonstrations across 26 states.

Go to [Report](#) or www.epa.gov/nrmrl

Game On: Can Serious Games Help Inform Serious Environmental Challenges? EPA researchers partner with IBM to provide data and science for CityOne, a serious game with real-world potential.

Go to [Article](#) or www.epa.gov/ord

Sustainable Chesapeake: A Community-Based Approach to Stormwater Management Using Green Infrastructure. Science to Achieve Results (STAR) program. Funding research to engage lay persons and experts in solutions to stormwater problems.

Go to [Article](#) or www.epa.gov/ncr

Persistence and Decontamination Testing of *Brucella suis*. EPA/600/R-11/111. Helping plan for responses to natural occurrences or intentional releases of biological agents.

Go to [Report](#) or www.epa.gov/nhsr

Water Research Update

EPA's Water Security Modeling and Simulation Research. EPA/600/S-11/007. Summarizes advance computing products for water security.

Go to [Article](#) or www.epa.gov/nhsrc

EPA Announces Final Study Plan to Assess Hydraulic Fracturing. Investigating potential impacts on drinking water resources and the responsible use of this source of natural gas.

Go to [Article](#) or www.epa.gov/hydraulicfracturing

Aging Water Infrastructure Research: Science and Engineering for a Sustainable Future. EPA/600/F-11/010. Brochure.

Go to [Article](#) or water.epa.gov/infrastructure

From Collaborators

Sustainability and the U.S. EPA. National Research Council. Better assess social, environmental, and economic impacts of options in EPA decision making.

Go to [Report](#) or www.nationalacademies.org

WaterRF – Engineered Biofiltration for Enhanced Hydraulic and Water Treatment Performance. #4215. Operational modifications to the ozone/biofiltration process to attain water treatment objectives.

Go to [Report](#) or www.waterrf.org

Novel Membrane Helps Remove Perchlorate from Drinking Water. Electrodialysis and an electrochemical reaction in one system reduces low-levels of perchlorate to non-toxic chloride.

Go to [Article](#) or www.udel.edu/udaily

WERF – Technology Roadmap for Sustainable Wastewater Treatment Plants in a Carbon-Constrained World. #OWSO4R07d. Research needs and options for optimizing carbon and nutrient management.

Go to [Report](#) or www.werf.org

WaterRF – Enhancing Removal of Viruses in Water Treatment Plants Using Zero-Valent Iron. #4140. Assesses the effectiveness of zero-valent iron (ZVI) to remove the pathogenic viruses.

Go to [Report](#) or www.waterrf.org

WaterRF – Hydraulic Fracturing Issues and Research Needs. Wright, B.A., et al., 2011. #4301. Identifies environmental and water quality issues related to drilling in oil shale formations.

Go to [Report](#) or www.waterrf.org

WaterRF – Energy Efficiency Best Practices for North American Drinking Water Utilities. #4223. Includes best practices in the energy efficient design and operation of water industry assets.

Go to [Report](#) or www.waterrf.org

Green Gov Success Stories. Examples of projects that will drive long-term savings, improve efficiency, reduce pollution, and eliminate waste.

Go to [Report](#) or www.whitehouse.gov/greengov

WaterRF – Accuracy of In-Service Water Meters at Low and High Flow Rates. #4028. Quantified flow measurement accuracy with exposure to particles in the system and other degradation factors.

Go to [Report](#) or www.waterrf.org

WaterRF – Copper Pitting and Brass Dezincification: Chemical and Physical Effects. #4289. Establishes whether chemical constituents inhibit or accelerate copper pitting corrosion.

Go to [Report](#) or www.waterrf.org

Final Report: Anaerobic Pre-Treatment for an Algae-Based Wastewater Treatment System. Horst, G., 2011. SBIR Program. Sequesters nitrogen and phosphorus into the biomass of algae that can be converted into useful products.

Go to [Report](#) or www.epa.gov/ncer

WaterRF – Membrane Treatment of Impaired Irrigation Return and Other Flows: Creating New Sources of High-Quality Water. #4069. Producing potable water from winter irrigation return flows.

Go to [Report](#) or www.waterrf.org

WaterRF – Comparing Conventional and Pelletized Lime Softening Concentrate Chemical Stabilization. #4283. Demonstrates the efficiencies of a technology to improve reverse osmosis recovery.

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From the Journals

Optimizing Alert Occurrence in the Cincinnati Contamination Warning System. Allgeier, S.C., et al., 2011. *Journal of the American Water Works Association*, 103(10).

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Removal of Selected Endocrine Disrupting Chemicals and Personal Care Products in Surface Waters and Secondary Wastewater by Ozonation. Tay, K., et al., 2011. *Water Environment Research*, 83(8), 684-691.

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Science Policy Considerations for Responsible Nanotechnology Decisions. Morris, J., J. Willis, et al., 2011. *Nature Nanotechnology*, 6, 73-77.

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Dynamics of Steroid Estrogen Daily Concentrations in Hospital Effluent and Connected Waste Water Treatment Plant. Avberšek, M., et al., 2011. *Journal of Environmental Monitoring*, 13(8), 2221-2226.

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Theoretical Modeling and Experimental Validation of Leakage in Drinking Water Networks. Bennis, S., et al., 2011. *Journal American Water Works Association*, 103(12).

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Removal and Formation of Chlorinated Triclosan Derivatives in Wastewater Treatment Plants Using Chlorine and UV Disinfection. Buth, J.M., et al., 2011. *Chemosphere*, 84(9), 1238-1243.

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A Tale of Two Technologies: Hydraulic Fracturing and Geologic Carbon Sequestration. Dammel, J.A., et al., 2011. *Environmental Science & Technology*, 45(12), 5075-5076.

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Modeling Techniques of Best Management Practices: Rain Barrels and Rain Gardens Using EPA SWMM-5. Aad, M.P.A., M.T. Suidan, and W.D. Shuster, 2010. *Journal of Hydrologic Engineering*, 15(6), 434-443.

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Real-time In-network Distribution System Monitoring to Improve Operational Efficiency. Allen, M., et al., 2011. *Journal American Water Works Association*, 103(7).

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Tertiary-Treated Municipal Wastewater is a Significant Point Source of Antibiotic Resistance Genes into Duluth-Superior Harbor. LaPara, T.M., et al., 2011. *Environmental Science & Technology*, 45(22), 9543-9549.

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Measurement of Organic Nitrogen and Phosphorus Fractions at Very Low Concentrations in Wastewater Effluents. Sattayatewa, C., et al., 2011. *Water Environment Research*, 83(8), 675-683.

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Persistence of Non-Native Spore Forming Bacteria in Drinking Water Biofilm and Evaluation of Decontamination Methods. Shane, W.T., J.G. Szabo, and P.L. Bishop, 2011. *Environmental Technology*, 32(8), 847-855.

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Application of WWTP Biosolids and Resulting Perfluorinated Compound Contamination of Surface and Well Water in Decatur, Alabama, USA. Lindstrom, A.B., M. Strynar, A. Delinsky, S.F. Nakayama, L. McMillan, E. Laurence Libelo, M. Neill, L. Thomas, 2011. *Environmental Science and Technology*, 45(19), 8015–8021.

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Treatment of Wastewaters Containing Bisphenol A: State of the Science Review. Melcer, H. and G. Klečka, 2011. *Water Environment Research*, 83(7), 650-666.

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Domestic Wastewater Treatment as a Net Energy Producer-Can This be Achieved? McCarty, P.L., et al., 2011. *Environmental Science & Technology*, 45(17), 7100-7106.

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A Bench-Scale Constructed Wetland as a Model to Characterize Benzene Biodegradation Processes in Freshwater Wetlands. Rakoczy, J., et al., 2011. *Environmental Science & Technology*, 45(23), 10036-10044.

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A Minimum Data Set of Water Quality Parameters to Assess and Compare Treatment Efficiency of Stormwater Facilities. Ingvertsen, S.T., et al., 2011. *Journal of Environmental Quality*, 40(5), 1488-1502.

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Fighting Water With Water: Behavioral Change versus Climate Change. Strassberg, V. and B. Lancaster, 2011. *Journal American Water Works Association*, 103(6).

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Transformation of Dissolved Organic Matter in a Novel Groundwater Recharge System with Reclaimed Water. Linlin, W., et al., 2011. *Water Environment Research*, 83(12), 2140-2146.

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Algal Turf Scrubbing: Cleaning Surface Waters with Solar Energy while Producing a Biofuel. Adey, W.H., et al., 2011. *Bioscience*, 61(6), 434-441.

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Field Application of a Renewable Constructed Wetland Substrate for Phosphorus Removal. Rosenquist, S.E., et al., 2011. *Journal of the American Water Resources Association*, 47(4), 800-812.

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Snake in a Lake-An Innovative Pipeline Design. Grandelli, P. and J. Holland, 2011. *Journal American Water Works Association*, 103(7), 36-40.

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Hot Water Treatment (Chronic Upper Lethal Temperature) Mitigates Biofouling by the Invasive Asian Mussel *Limnoperna fortunei* in Industrial Installations. Perepelizin, P.V. and D. Boltovskoy, 2011. *Environmental Science & Technology*, 45(18), 7868-7873.

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Upcoming Meetings

16th Annual Water Reuse & Desalination Research Conference. June 4-5, 2012 in San Diego, CA.

Go to [Meeting Page](#) or www.watereuse.org/foundation

The Utility Management Conference. January 30-February 2, 2012 in Miami, FL. Hosted by the American Water Works Association and Water Environment Federation.

Go to www.wef.org/UtilityManagement

Ecological Systems Approach to Protect and Restore Sustainable Water Quality and Water Quantity on a Watershed Basis

From EPA

An Assessment of Decision-Making Processes: Evaluation of Where Land Protection Planning Can Incorporate Climate Change Information. EPA/600/R-09/142F.

Go to [Report](#) or www.epa.gov/ncea

A Primer on Using Biological Assessment to Support Water Quality Management. Reports on condition of aquatic biota, developing biological criteria, and assesses results of management actions.

Go to [Report](#) or water.epa.gov/scitech

EPA Announces the Healthy Watersheds Initiative National Framework and Action Plan. Intended to protect the nation's watersheds, prevent impairment, and accelerate restoration.

Go to [Report](#) or water.epa.gov/type/watersheds

Efficacy of Ballast Water Treatment Systems: A Report by the EPA Science Advisory Board. EPA/SAB/11/009. Recommended a risk-based approach to address invasive species in vessel ballast water discharge.

Go to [Report](#) or www.epa.gov/sab

New and Improved EPA Website on Nitrogen & Phosphorus Pollution. Information about this type of pollution (sources, impacts, helpful actions) and states' numeric water quality criteria for nutrients.

Go to www.epa.gov/nutrientpollution

Improving EPA Review of Appalachian Surface Coal Mining Operations under the Clean Water Act, National Environmental Policy Act, and the Environmental Justice Executive Order. The guidance to work with stakeholders towards a balanced approach that protects communities from harmful pollution associated with coal mining.

Go to [Report](#) or water.epa.gov

Reactive Nitrogen in the United States: an Analysis of Inputs, Flows, Consequences, and Management Options. EPA/SAB/11/013.

Analyzed sources and fate of reactive nitrogen; recommended research and control strategies.

Go to [Report](#) or www.epa.gov/sab

Gulf of Mexico Regional Ecosystem Restoration Strategy. Released by the Gulf Coast Ecosystem Restoration Task Force after extensive feedback from citizens throughout the region.

Go to [Report](#) or www.epa.gov/gulfcoasttaskforce

Down the Drain: Wetlands as Sinks for Absorbing Reactive Nitrogen. First continental-scale analysis to estimate how much nitrogen is removed by wetland ecosystems.

Go to [Article](#) or water.epa.gov/type/wetlands

From Collaborators

USDA – Economic Research Service Report: Nitrogen in Agricultural Systems: Implications for Conservation Policy. Two-thirds of U.S. cropland not meeting criteria for nitrogen management.

Go to [Report](#) or water.epa.gov/type/watersheds

New USEPA Water Quality Criteria by 2012: GOMA Concerns and Recommendations. Gooch-Moore, J., et al., 2011. *Journal of Water and Health*, 9(4), 718-733.

Go to [Article](#) or www.gulfofmexicoalliance.org

USGS – Sources, Fate, and Transport of Nitrogen and Phosphorus in the Chesapeake Bay Watershed: An Empirical Model. Ator, S.W., et al., 2011. #2011-5167. SPARROW model. Significant contributions from agricultural and urban activities as well as natural sources.

Go to [Report](#) or www.usgs.gov

Water Research Update

USGS – Regional SPARROW Model Assessments of Streams and Rivers. Access to six regional models describing how rivers receive and transport nutrients. Articles based on this program in the October issue of the *Journal of the American Water Resources* - 47(5).

Go to [Tool](#), [Journal](#), or water.usgs.gov/nawqa

Global Change and Extreme Hydrology: Testing Conventional Wisdom. Committee on Hydrologic Science, National Research Council. Examines if floods and droughts are increasing, changes at the regional scale, and the influence of the global climate.

Go to [Report](#) or www.nap.edu

USGS – Hydrography of and Biogeochemical Inputs to Liberty Bay, a Small Urban Embayment in Puget Sound, Washington.

Takesue, R.K. (ed.). #2011-5152. Effects of contaminant inputs from an urban watershed and modifications of the shoreline to nearshore habitats.

Go to [Report](#) or www.usgs.gov

USGS – Organic Contaminants, Trace and Major Elements, and Nutrients in Water and Sediment Samples in Response to the Deepwater Horizon Oil Spill. Nowell, L.H., et al., 2011. #2011-1271.

Differences in contaminant concentrations before and after landfall of oil.

Go to [Report](#) or www.usgs.gov

USGS – Trends in Suspended-Sediment Loads and Concentrations in the Mississippi River Basin, 1950-2009. Heimann, D.C., et al., 2011. #2011-5200. Declines in sediment loads and concentrations; generally explained by corresponding decreases in stream flows.

Go to [Report](#) or www.usgs.gov

WERF – A Strategic Risk Communications Process for Outreach and Dialogue on Biosolids Land Application. Eggers, S., et al., 2011.

#SRSK2R08. Includes methods, tools, and materials to enable effective outreach.

Go to [Report](#) or www.werf.org

Approaches for Ecosystem Services Valuation for the Gulf of Mexico after the Deepwater Horizon Oil Spill. National Research Council. Options to include the analysis of ecosystem services to help address the spill.

Go to [Report](#) or www.nap.edu

USGS – Columbia River Estuary Ecosystem Classification: Concept and Application. Simenstad, C.A., et al., 2011. #2011-1228. Characterize large flood plain rivers influenced by riverine and estuarine hydrology.

Go to [Report](#) or www.usgs.gov

Nutrient Use Geographic Information System (NuGIS). International Plant Nutrition Institute. Predicts partial nutrient balance and nutrient removal to use ratios at county, state, and watershed scales.

Go to [Tool](#) or www.ipni.net

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Go to [Report](#) or www.usgs.gov

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Go to [Article](#) or www.wef.org

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Upcoming Meetings

8th National Water Quality Monitoring Conference – Water: One Resource - Shared Effort - Common Future. April 30-May 4, 2012 in Portland, OR.

Go to [Meeting Page](#) or www.acwi.gov

AWRA's 2012 Summer Specialty Conference. June 25-29, 2012 in Denver, CO. June 25-27: Contaminant of Emerging Concern; June 27-29: Riparian Ecosystems.

Go to [Meeting Page](#) or www.awra.org

AWWA 2012 Sustainable Water Management Conference & Exposition. March 18-21, 2012 in Portland, OR.

Go to [Meeting Page](#) or www.awwa.org

Global Conference on Oceans, Climate and Security (GCOCS). May 21-23, 2012 in Boston, MA.

Go to www.gcocs.org

Stormwater Symposium 2012. July 18-20, 2012 in Baltimore, MD. Water Environment Federation and the Chesapeake Water Environment Association.

Go to www.wef.org/Stormwater2012

River Network's River Rally. May 4-7, 2012 in Portland, OR. An international gathering of the watershed conservation community.

Go to [Meeting Page](#) or www.rivernetwork.org

A Note from the Editors

Welcome to our new publication schedule. As we announced in the last issue, the "Quarterly" is now a semi-annual publication. With the new schedule comes a new name: "Water Research Update." We have a new name and a new schedule but we've kept the same number of titles for your perusal, covering six months instead of three months of titles, meetings and announcements. We expect you will find it helpful, as usual, and of course, we also ask for your feedback. Keep your comments and suggestions coming.

Regards, Luis, Mary, Vera, and the Cadmus Group.