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

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

Go to Report or www.epa.gov/ncea

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/nct/ToxPi

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/nct/Tox21

From Collaborators

Go to Report or www.iom.edu/reports

Go to Article or www.cdc.gov


Go to Article or www.cdc.gov


Go to Report or www.waterrf.org


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


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


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article

Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article

Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article

Upcoming Meetings


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](http://www.gwpc.org)

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.

Go to Article or [www.epa.gov/nrmrl](http://www.epa.gov/nrmrl)

**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](http://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/nhsrc](http://www.epa.gov/nhsrc)


Go to Article or [www.asce.org](http://www.asce.org)


Go to Article or [www.awwa.org/publications](http://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](http://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.

Go to Article or [www.epa.gov/nrmrl](http://www.epa.gov/nrmrl)

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

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


Go to Report or [www.epa.gov/nrmrl](http://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](http://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/ncer](http://www.epa.gov/ncer)

**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/nhsrc](http://www.epa.gov/nhsrc)
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

Go to Article or water.epa.gov/infrastructure

From Collaborators

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

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

Go to Report or www.waterrf.org

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.

Go to Report or www.waterrf.org

From the Journals


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article

Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article

Upcoming Meetings


Go to Meeting Page or www.wateruse.org/foundation


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

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

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

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

Go to Report or water.epa.gov/type/watersheds

Go to Article or www.gulfofmexicoalliance.org

Go to Report or www.usgs.gov
Go to Tool, Journal, or water.usgs.gov

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

Go to Report or www.usgs.gov

Go to Report or www.usgs.gov

Go to Report or www.usgs.gov

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

Go to Report or www.usgs.gov

Go to Tool or www.ipni.net

Factors that Influence the Hydrologic Recovery of Wetlands in the Northern Tampa Bay Area, Florida. Metz, P.A. #2011–5127. Investigates why water levels for some wetlands have not increased after reduction in groundwater withdrawals.
Go to Report or www.usgs.gov

NOAA Website Provides Real-Time Information from Chesapeake Bay Interpretive Buoy Systems. Meteorological, oceanographic, and water quality data.
Go to Article or www.wef.org

USGS – Sediment Load from Major Rivers into Puget Sound and Its Adjacent Waters. #2011–3083. Each year, 6.5 million tons is transported to Puget Sound; 70% from rivers (mostly during floods) and 30% from shoreline erosion.
Go to Article or www.usgs.gov

From the Journals

Go to Article
Go to Article

Go to Article

Go to Article

Go to Article

Go to Article

Go to Article

Go to Article

Go to Article

Go to Article

Go to Article

Go to Article

Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to Article


Go to [Article](http://water.epa.gov/scitech/research-riskassess/researchstrategy/index.cfm)


Go to [Article](http://water.epa.gov/scitech/research-riskassess/researchstrategy/index.cfm)


Go to [Article](http://water.epa.gov/scitech/research-riskassess/researchstrategy/index.cfm)


Go to [Article](http://water.epa.gov/scitech/research-riskassess/researchstrategy/index.cfm)


Go to [Article](http://water.epa.gov/scitech/research-riskassess/researchstrategy/index.cfm)


Go to [Article](http://water.epa.gov/scitech/research-riskassess/researchstrategy/index.cfm)

### Upcoming Meetings


Go to [Meeting Page](http://water.epa.gov/scitech/research-riskassess/researchstrategy/index.cfm) or [www.acwi.gov](http://www.acwi.gov)


Go to [Meeting Page](http://water.epa.gov/scitech/research-riskassess/researchstrategy/index.cfm) or [www.awra.org](http://www.awra.org)


Go to [Meeting Page](http://water.epa.gov/scitech/research-riskassess/researchstrategy/index.cfm) or [www.awwa.org](http://www.awwa.org)

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

Go to [www.gcoocs.org](http://www.gcoocs.org)


Go to [www.wef.org/Stormwater2012](http://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](http://water.epa.gov/scitech/research-riskassess/researchstrategy/index.cfm) or [www.rivernetwork.org](http://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.