

W A T E R R E S O U R C E S

# IMPACT

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OPEN WATER  
DATA INITIATIVE

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*Community, Conversation, Connections*

AMERICAN WATER RESOURCES ASSOCIATION



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# THE OPEN WATER DATA INITIATIVE

SANDRA FOX

Guest Associate Editor ~ sfox@sjrwmd.com

In the face of climate change and unprecedented drought, improving access to data and enabling open exchange of water information is imperative. As geospatial information has undergone the transition from paper maps to digital data, and then from digital data to increasing availability as web services, the next major transition is to the "Open Water Web." This issue of *Water Resources IMPACT* brings together leaders in the Open Water Data Initiative – the OWDI – seeking to improve the Open Water Web. AWRA through its commitment to "Community, Conversation, Connections" is actively playing a role to support the OWDI.

### 3 "Community, Conversation, Connections" in Support of the Open Water Data Initiative ... Sandra Fox

#### FEATURE ARTICLES

### 5 Context of the Open Water Data Initiative ... Jerad D. Bales

Recognizing the many challenges created by the fragmented nature of the ever-increasing amount of water and water-related data, the Federal government's Open Water Data Initiative was conceived, and then formerly presented at AWRA's 2014 Annual Conference in Tysons Corner, Virginia.

### 7 The Open Water Data Initiative: Water Information for a Thirsty Nation ... Alan H. Rea, Edward P. Clark, Angela Adams, and William B. Samuels

Initial efforts of the Open Water Data Initiative have focused on three use cases covering flooding, drought, and contaminant spill response, with a goal of identifying critical water data resources and making them more accessible. Significant progress has been made in the past year, although much remains to be done.

### 11 Virtuous Data Management: Ensuring the Availability and Quality of Environmental Data ... Theodore A.D. Slaweck

The handling of data in a principled and exemplary manner – a "re-branding" of the overall data management approach as "Virtuous Data Management" – provides a roadmap to improved communications and understanding with managers and the general public.

### 14 Enabling the Free Flow of Water Data ... Daniel P. Ames and David G. Tarboton

The need for interoperability was anticipated in the U.S. Presidential Executive order on open data, "Making open and machine readable the new default for government information." Three important developments in open water standards and software are presented that will help us rise to this data challenge.

### 18 The National Water Availability and Use Science Program ... Sonya A. Jones, Ari M. Michelsen, Eric J. Evenson, and David Blodgett

The creation of a "national water availability and use assessment program" within the USGS is part of the SECURE Water Act, Omnibus Public Land Management Act of 2009. Among the goals of this program are to provide a more accurate assessment of the status of water resources in the U.S., and develop the basis for an improved ability to forecast the availability of water for future economic, energy production, and environmental uses.

### 21 OWDI Impacts: Testimonials From the Future ... John C. "Jack" Hampson, William B. Samuels, and John K. Dorman

What will stakeholders be saying in the future about how the OWDI has improved their work? Take a trip "back to the future" with the authors as they imagine how the OWDI will impact management of a toxic oil spill, flood risk/emergency management, and application development.

WATER RESOURCES

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**AMERICAN WATER RESOURCES ASSOCIATION**  
4 West Federal Street • P.O. Box 1626  
Middleburg, VA 20118-1626  
(540) 687-8390 / Fax: (540) 687-8395  
E-Mail: [info@awra.org](mailto:info@awra.org) • Homepage: [www.awra.org](http://www.awra.org)

**EDITOR-IN-CHIEF**

**ERIC J. FITCH**

Associate Professor of Environmental Science and Leadership  
Chair, Department of Biology and Environmental Science  
Director, Environmental Science Program  
Marietta College ~ 215 Fifth St. ~ Marietta, Ohio 45750  
(740) 376-4997 ~ Fax: (740) 376-4753  
E-Mail: [IMPACT-editor@awra.org](mailto:IMPACT-editor@awra.org)

**TO PLACE AN AD IN THIS PUBLICATION CONTACT**

**CHRISTINE MCCREHIN**

**DIRECTOR OF MEMBERSHIP AND MARKETING**

(540) 687-8390 / Fax: (540) 687-8395  
E-Mail: [christine@awra.org](mailto:christine@awra.org)

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**ASSOCIATE EDITORS**

**JOE BERG**

([jberg@biohabitats.com](mailto:jberg@biohabitats.com))  
Biohabitats, Inc. ~ Baltimore, Maryland

**LISA BEUTLER**

([Lisa.Beutler@mwhglobal.com](mailto:Lisa.Beutler@mwhglobal.com))  
MWH ~ Sacramento, California

**MAE A. DAVENPORT**

([mdaven@umn.edu](mailto:mdaven@umn.edu))  
University of Minnesota ~ St. Paul, Minnesota

**JONATHAN E. JONES**

([jonjones@wrightwater.com](mailto:jonjones@wrightwater.com))  
Wright Water Engineers ~ Denver, Colorado

**CLAY J. LANDRY**

([landry@waterexchange.com](mailto:landry@waterexchange.com))  
WestWater Research ~ Boise, Idaho

**RICHARD H. MCCUEN**

([rhmccuen@eng.umd.edu](mailto:rhmccuen@eng.umd.edu))  
University of Maryland ~ College Park, Maryland

**E. TIM SMITH**

([etsmithsiri@aol.com](mailto:etsmithsiri@aol.com))  
Sustainable Water Resources Roundtable

**COPY EDITOR**

**RICHARD A. ENGBERG**

([dick@awra.org](mailto:dick@awra.org))  
American Water Resources Association  
Middleburg, Virginia

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**Phone • (540) 687-8390 / Fax 13 • (540) 687-8395**  
**By E-Mail • [info@awra.org](mailto:info@awra.org)**  
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