



# Many Disciplines, One Community: Protecting Water Resources

Founded in 1964 by leading thinkers and practitioners in the field of water resources, AWRA represents a multidisciplined community of professionals engaged in two of the most important challenges of our time:

- 1) Ensuring the availability of a safe, sufficient, and ecologically viable water supply, and
- 2) Protecting the future of that supply through effective management, practice, policy, research, and education

To address these challenges, AWRA provides an opportunity for learning and leadership that is unsurpassed in spanning the depth and breadth of water resources issues.

AWRA members – working, networking, and learning together across a broad spectrum of interests – have the opportunity to:

Identify & explore issues of concern with other committed professionals

- Discuss research findings & best practices
- Support undergraduate/graduate studies & research
- Engage in policy dialogues at the highest level
- Develop partnerships to support innovation Advance learning through online resources
- Educate one another on needs & best practices through published articles & presentations Design & attend topically focused conferences and
- Take a stand on protecting & preserving water resources across our communities & globally

Our commitment to a highly professional and friendly association of managers, practitioners, educators, students, policy makers, and community leaders enables us to be unlike any other association anywhere. Our uniqueness and combined sense of responsibility bring us together and set us apart.

We invite you to join our unique and progressive community. Your commitment and AWRA's community can make the difference for the world ... joining and working together.

The management of water resources has never been more critical.

For more information, please visit www.awra.org or call AWRA at (540) 687-8390.

#### RELIGION, CULTURE, AND WATER

### ERIC J. FITCH ~ Associate Editor fitche@marietta.edu

Culture and religion and the adherence to the beliefs inherent in both can impact how people interact with water resources. How can an understanding of a people's faith help better understand their world view and water's place in that world view? Can cultures lead people to regard water with respect and care, or can they cause people to dismiss it and waste it? Can "modern" science and ancient water practices embedded in and transmitted through cultural and religious practices and beliefs coexist? This issue of *Water Resources IMPACT* contains four articles reflecting a small slice of the world's cultures and religions and how they shape people's views about water.

#### **FEATURE ARTICLES**

# 3 Irrigating the Mind-Stream: Buddhism and Water ... Michelle J. Sorensen

This article provides an overview of the historical and faith relationships between Buddhism and water, including obligations to life giving and life bearing waters. The relationships between the modern engaged Buddhist and the environment and right actions for the protection and preservation of the natural resources, especially water, are discussed.

# 6 From Holy Water to Holy Waters ... Gary Chamberlain

The author addresses how the Roman Catholic Church views water resources and how these views can influence its members and broader society. He takes us from the personal and sacramental to the Universal in explaining how water is addressed in theology and practice.

# 10 No One Eats the Fish Anymore: Tribal Reclamation of the Silver Valley, Idaho ... Theodore N. Fortier

Native Americans in the Coeur d'Alene area of Idaho are struggling to regain control over the land and water resources of their indigenous tribal areas. They are attempting to restore their water, land, and culture utilizing American/Western systems of law and justice especially regarding water pollution from mining operations.

# 13 Foundations of Hawai'ian Culture and the Importance of Water ... Eric J. Fitch

Native Hawai'ians had a complex and intricate set of cultural values and knowledge and have retained their culture and faith to this day. This article explores how indigenous faith and knowledge systems of native Hawai'ians teach the broader community about how to live sustainably in an island world.



Volume 14 • Number 2 • March 2012

#### Other features in this issue ...

#### **AWRA BUSINESS**

- 5 AWRA 2012 CONFERENCES Mark Your Calendars | Submit an Abstract
- 15 Highlights of February 2012 JAWRA Papers
- 16 AWRA Spring Conference- Announcement
- 21 Call for Nominations for 2012 AWRA Annual Awards
- 22 President's Message
- 23 Scheduled Topics for Future Issues of IMPACT
- 23 Advertising Opportunities in IMPACT
- 23 Send Us Your Feedback
- 24 AWRA Summer Conferences Announcement
- 25 AWRA 2012 Membership Application
- 26 2012-2013 Richard A. Herbert Memorial Scholarship Opportunities

#### **A OPINION COLUMNS**

- 18 <u>The New Economy of Water</u> ... Grandiose Water Development Plans ... Clay Landry, Matt Payne, and Skye Root
- 19 What's Up With Water ... Menia, Fenia, and The Decline of the Oceans ... Eric J. Fitch
- 20 Could We Do Better ... Cliff? What Cliff? ... Laurel E. Phoenix
- 21 <u>Publishing Issues</u> ... The Open Access Debate ... Jennifer Lynch

(Opinions expressed by our columnists are their own and do not represent the opinion or position of AWRA.)

▲	WATER	R	EX	50	O	U	K	C	E	١٤	•	P	U	Z	Z	L	E	K	ļ				1	7
	Answers	, .																					2	3

#### **ADVERTISERS**

GoldSim Technology Group, LLC	•	•	•	•	•	•	 9
AWRA "Connections"							 .12







# A Bi-Monthly Publication of the AMERICAN WATER RESOURCES ASSOCIATION

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 • Homepage: www.awra.org

### EDITOR-IN-CHIEF N. EARL SPANGENBERG

College of Natural Resources
University of Wisconsin-Stevens Point
Stevens Point, WI 54481
(715) 346-2372 • Fax: (715) 346-3624
E-Mail: espangen@uwsp.edu
(Support for Dr. Spangenberg is provided by the
College of Natural Resources
University of Wisconsin-Stevens Point)

## To Place An Ad In This Publication Contact Charlene E. Young

Phone/Fax: (256) 650-0701 E-Mail: charlene@awra.org

Water Resources IMPACT is owned and published bi-monthly by the American Water Resources Association, 4 West Federal St., P.O. Box 1626, Middleburg, Virginia 20118-1626, USA. The yearly subscription rate is \$80.00 domestic and \$95.00 for international subscribers. For the International Priority Shipping Option, add \$50.00 to the international subscription rate. Single copies of IMPACT are available for \$15.00/each (domestic) and \$20.00/each (international). For bulk purchases, contact the AWRA Headquarters office.

IMPACT is a magazine of ideas. Authors, Associate Editors, and the Editor-In-Chief work together to create a publication that will inform and will provoke conversation. The views and conclusions expressed by individual authors and published in Water Resources IMPACT should not be interpreted as necessarily representing the official policies, either expressed or implied, of the American Water Resources Association.

Mention of any trademark or proprietary product in works published in the *Water Resources IMPACT* does not constitute a guarantee or warranty of the product by the American Water Resources Association and does not imply its approval to the exclusion of other products that may also be suitable.

Contact the AWRA HQ Office if you have any questions pertaining to your membership status. For information on advertising rates and deadlines, contact Charlene Young at the e-mail address or phone number given above.

**POSTMASTER:** Send address changes to *Water Resources IMPACT*, American Water Resources Association, 4 West Federal St., P.O. Box 1626, Middleburg, VA 20118-1626. Copyright © 2012 by the American Water Resources Association.

• VOL. 14 • NO. 2 • MARCH 2012 • ISSN 1522-3175

#### ASSOCIATE EDITORS

#### JOE BERG

(jberg@biohabitats.com)
Biohabitats, Inc. ~ Baltimore, Maryland

#### ERIC J. FITCH

(fitche@marietta.edu) Marietta College ~ Marietta, Ohio

#### MICHELLE HENRIE

(michelle@mhenrie.com) MHenrie | Land Water Law ~ Santa Fe, New Mexico

#### JONATHAN E. JONES

(jonjones@wrightwater.com) Wright Water Engineers ~ Denver, Colorado

#### CLAY J. LANDRY

(landry@waterexchange.com) WestWater Research ~ Boise, Idaho

#### RICHARD H. McCUEN

(rhmccuen@eng.umd.edu)
University of Maryland ~ College Park, Maryland

#### LAUREL E. PHOENIX

(phoenixl@uwgb.edu) University of Wisconsin ~ Green Bay, Wisconsin

#### E. TIM SMITH

(etsmithsiri@aol.com) Sustainable Water Resources Roundtable

#### TECHNICAL DIRECTOR

#### RICHARD A. ENGBERG

(dick@awra.org) American Water Resources Association Middleburg, Virginia

#### **BUSINESS CORRESPONDENT**

#### SKYE ROOT

(root@waterexchange.com) WestWater Research ~ Boise, Idaho

SUBSCRIPTION RATES ~ WATER RESOURCE	CES IMPACT
DOMESTIC	\$80.00
FOREIGN	\$95.00
INTERNATIONAL PRIORITY SHIPPING OPTION	\$50.00

COVER PHOTOS: From istock.com. Selected by Eric J. Fitch, Associate Editor.



AWRA . . . Community, Conversation, Connections