

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

IMPACT

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LAND USE AND
WATER SHORTFALLS

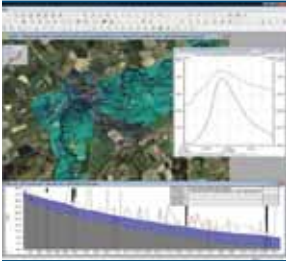


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Community, Conversation, Connections
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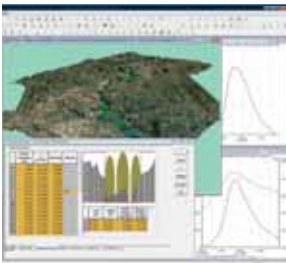
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**InfoWorks RS
surface flood
modeling**

With the increasing frequency of extreme flood events, managing the flow of water in rivers and coastal floodplain areas has never been more important.

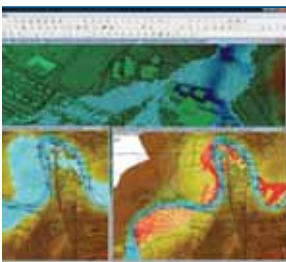
InfoWorks RS is an advanced modeling tool that combines 1D simulation of flows in rivers and channels with 2D simulation of surface flood modeling in the floodplain and urban environment.



**InfoWorks RS
geographical and
sectional views**

InfoWorks™ RS

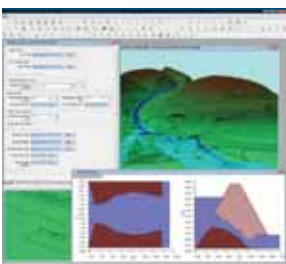
- Full solution modeling of open channels, floodplains, embankments and hydraulic structures
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animated maps of
depths & velocities**

InfoWorks™ 2D

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**InfoWorks RS
dynamic breach
modeling**

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Wallingford Software Inc
6015 Harris Parkway, Suite120,
Fort Worth, TX 76132
Telephone: 888-520-2224
Email: sales@wallingfordsoftware.com

LAND USE AND WATER SHORTFALLS

Eric J. Fitch ~ Associate Editor
fitche@marietta.edu

The subject of this issue of *IMPACT* is *Land Use and Water Shortfalls* (i.e., what can be done when the planned or actual demand for water exceeds the supplies in a particular geographic region). A wide array of geographic locations and types of impacts and shortfalls are presented, as well as a wide sampling of water management responses.

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The author examines the role of water as the key resource for growth in Phoenix, Arizona, and the complex balance between the environmental systems that provide water and the socio-economic systems that demand it.

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27 Impact of Urbanization on Water Quantity and Quality: The Need for an Integrative Watershed Modeling Approach ... *Yusuf M. Mohamoud*

This article presents an integrative watershed modeling approach to simulate complex and interacting water quantity and quality stressors centering on a hypothetical scenario in which a small watershed undergoes an intensive urban development at its headwaters.

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 • 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: espangenberg@uwsp.edu
 (Support for Dr. Spangenberg is provided by the
 College of Natural Resources
 University of Wisconsin-Stevens Point)

AWRA DIRECTOR OF PUBLICATIONS PRODUCTION**CHARLENE E. YOUNG**

3077 Leeman Ferry Rd., Suite A3
 Huntsville, AL 35801-5690
 (256) 650-0701 • Fax: (256) 650-0570
 E-Mail: charlene@awra.org

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ASSOCIATE EDITORS**FAYE ANDERSON**

(fayeanderson23@gmail.com)
 Graduate School, USDA • Washington, D.C.

JEFFERSON G. EDGENS

(jedgens@alltel.net)
 EnviroSolutions • Irwinton, Georgia

ERIC J. FITCH

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

MICHELLE HENRIE

(mhenrie@atkinson-thal.com)
 Atkinson & Thal, PC
 Albuquerque, 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

ADDITIONAL CONTRIBUTORS**TECHNICAL DIRECTOR****RICHARD A. ENGBERG**

(dick@awra.org)
 AWRA • Middleburg, Virginia

BUSINESS CORRESPONDENT**CHRISTINA STEINHOFF**

(Steinhoff@waterexchange.com)
 WestWater Research • Vancouver, Washington

LEGAL CORRESPONDENT**KYLE S. HARWOOD**

(kyle@harwood-consulting.com)
 Harwood Consulting, PC, • Santa Fe, New Mexico

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