

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

# IMPACT

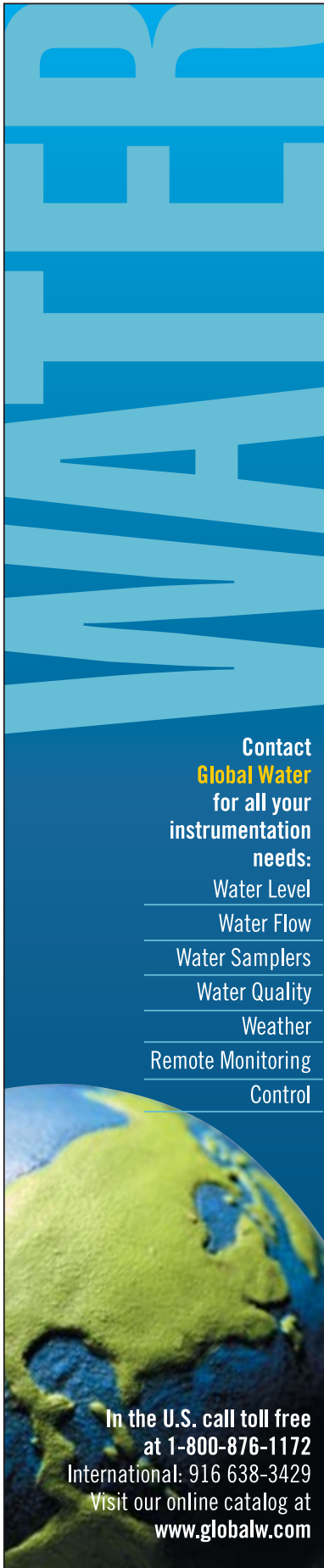
March 2005 | Volume 7 | Number 2

Sustainable Water  
Resources  
Management  
in Hawaii

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## SUSTAINABLE WATER RESOURCES MANAGEMENT IN HAWAII

Associate Editor • **JASON K. LEVY** • [jlevy@hawaii.edu](mailto:jlevy@hawaii.edu)

Recent years have seen a significant increase in the demand for water in Hawaii: burgeoning populations and a changing configuration of water uses are causing the competition for water resources to become more intense. As an island chain, with its limited fresh water, fragile environment, and unique economic challenges, sustainable water resources management has always been a paramount concern. Water resources management in Hawaii provides insights for the entire Asia-Pacific region and forms the basis for the AWRA 2005 Spring Specialty Conference in Honolulu. Specifically, this conference explores policies, technologies, and institutions for sustainable watershed management in the Asia-Pacific region. This includes regulatory frameworks and capacity building in addition to water governance, water rights, and collaborative watershed planning processes for resource conservation. An increasing number of institutions in the Asia-Pacific are looking to indigenous water practices for guiding sustainable watershed management. For example, the Hawaiian concept of watershed management (ahupua'a) can augment contemporary systems of resource management by emphasizing holistic thinking, social justice, and ecological integrity.

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#### 3 Sustainable Water Resources Management in Hawaii: Introduction

**Jason K. Levy** ([jlevy@hawaii.edu](mailto:jlevy@hawaii.edu))

### FEATURE ARTICLES

#### 6 Institutions, Policies, and Technologies for Sustainable Watershed Management in the Asia-Pacific

**Clark C.K. Liu** ([clarkliu@hawaii.edu](mailto:clarkliu@hawaii.edu))

**Charley F. Ice, Jason K. Levy, and James Moncur**

The island chain of Hawaii, as a microcosm of complexities found elsewhere, constitutes a timely and illuminating venue for the upcoming AWRA 2005 Spring Specialty Conference dealing with technology and policy for sustainable watershed management in the Asia-Pacific.

#### 10 Recent Discoveries and New Interpretations of Hawaiian Ground Water Systems

**Jené Michaud** ([jene@hawaii.edu](mailto:jene@hawaii.edu))

The geography and geology of the Hawaiian Isles result in somewhat unusual hydrologic conditions that makes for a fascinating exploration of Hawaii's precious ground water resources.

#### 13 The Hawaii Commission on Water Resource Management and the Water Code: Protecting the Public Trust

**Charley F. Ice** ([Charley.F.Ice@hawaii.gov](mailto:Charley.F.Ice@hawaii.gov))

**Jason K. Levy and Clark C.K. Liu**

The Commission on Water Resources Management is responsible for making "reasonable and beneficial" water allocation decisions in the context of Hawaii's diverse and unique water resources, including streams with a naturally extreme variation.

#### 16 Optimal Water Allocation in Hawaii: Towards a Revised Water Code and a Revamped Water Commission

**Chennat Gopalakrishnan** ([chennat@hawaii.edu](mailto:chennat@hawaii.edu))

**Jason K. Levy**

Revising the Hawaii Water Code and the Water Commission has the prospect of significantly improving water reallocation in Hawaii.

#### 20 Understanding the Ahupua'a Model Part I: Introduction and Overview

**Jason K. Levy and Joseph Chernisky**

The geography, ethics, and leadership principles of the ahupua'a concept are explored to provide an introduction to this indigenous Hawaiian model of resource management.

#### 23 Understanding the Ahupua'a Model Part II: Application to Community Based Education and Resource Management in Hawaii

**Jason K. Levy and Joseph Chernisky**

The ahupua'a concept is applied to contemporary watershed management issues in Hawaii including coastal zone management, marine protected areas, and water resources education.

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# IMPACT

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**For AWRA's 2005 Summer Specialty Conference**  
**"Institutions for Sustainable Watershed Management: Reconciling Physical and Management Ecology in the Asia-Pacific"**  
**JUNE 27-29, 2005 • HONOLULU, HAWAII**

## Scheduled Topics for Future Issues ...

### MAY 2005

**PALEOHYDROLOGY**  
**KENNETH WRIGHT (GUEST EDITOR)**  
**([kenwright@wrightwater.com](mailto:kenwright@wrightwater.com))**

### JULY 2005

**PERFORMANCE-BASED MANAGEMENT MEASURES**  
**FAYE ANDERSON ([fayeanderson2@aol.com](mailto:fayeanderson2@aol.com))**

### SEPTEMBER 2005

**INFRASTRUCTURE CRISIS**  
**LAUREL E. PHOENIX ([phoenixl@uwgb.edu](mailto:phoenixl@uwgb.edu))**

### NOVEMBER 2005

**WATER RESOURCES AS A GROWTH TOOL**  
**MICHELLE HENRIE ([mhenrie@rodey.com](mailto:mhenrie@rodey.com))**

### JANUARY 2006

**NATIONAL HYDROLOGY DATASET**  
**JEFFREY D. SIMLEY ([jdsimley@usgs.gov](mailto:jdsimley@usgs.gov))**

All of the topics listed above are subject to change. For information concerning submitting an article to be included in the above issues, contact the designated Associate Editor or the Editor-In-Chief N. Earl Spangenberg at ([espangen@uwsp.edu](mailto:espangen@uwsp.edu)).



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