

2012 Spring Symposium
H₂O: More Than a Chemical Formula – The State of
Water in Texas
February 25 – 26, 2012
Lady Bird Johnson Wildflower Center
Austin, Texas

MORNING PLENARY SESSION

ABSTRACTS

Water for Texas: Principal Challenge of the Coming Generation

Andrew Sansom

Executive Director, River Systems Institute, Texas State University – San Marcos

The population of Texas is expected to double in the next generation and yet we have already given permission for more water to be withdrawn from many of our rivers than is actually in them. Thus, if all the current water rights were fully exercised, many of our most significant rivers and streams would be dry today. With twice as many people on the way, we are going to have to fundamentally change the way we do things with respect to water if we expect to have continued economic prosperity and environmental protection.

Through the Riparian Zone: Texas Riparian Ecology and Ecosystem Functionality

Kevin Anderson, Ph.D.

Austin Water Utility - Center for Environmental Research (CER)

Riparian ecosystems play a critical role in the health and functionality of waterways. They are the transition zone between aquatic and upland ecosystems through which the water cycle and other ecosystem cycles are maintained. Above ground, riparian corridors are biologically rich greenways, especially, in the arid Southwest. This talk is an introduction to Texas riparian ecology, an assessment of rural, suburban, and urban impacts on Texas riparian systems, and an overview of ways to restore riparian ecosystems.

Exotic Aquatic and Wetland Plants: Alien Invaders in Texas Waters

Robert G. Howells, BioStudies, TPWD, retired

Over 35 species of aquatic and wetland plants have been found in Texas waters. Some lasted a short time, then vanished. A few have survived in limited numbers without being ecologically problematic. However, far too many became widely distributed and environmentally noxious. Some of these invasive macrophytes have required expensive and time-consuming control efforts, displaced important native plants, stolen desperately-needed water, blocked recreational access, and even helped push rare native fauna to legal threatened and endangered lists. Still other exotic species threaten to invade. Despite this history, certain species continue to be available through the aquarium trade, nurseries and water-garden dealers, and even internet sources. State and federal regulations to limit these invaders do exist, but reduced budgets and resistance to governmental regulations are ongoing challenges to their effectiveness. Individual awareness and actions can be critical in discouraging range expansions of existing invaders and preventing new ones.

WORKSHOPS

Using Naturalistic Water Features and Native Plants in the Landscape

Kevin Wood & Sheryl McLaughlin

Kevin Wood Landscapes

Join Kevin Wood and Sheryl McLaughlin for a discussion about incorporating different types of water features and natives for beautification and wildlife enhancement in your yard.

Rainwater Harvesting for Landscape Irrigation

Dick Peterson, City of Austin, retired

Rainwater Harvesting for Landscape Irrigation will include basic design solutions and examples of simple systems through A/V presentation. Potable uses will be explored. Illustrated pitfalls will save time and money in system installation. Suggested components will be provided and assembled. Audience interaction is encouraged.

Create a Rain Garden

John Gleason, RLA

Landscape Architect, Watershed Protection Department

A rain garden is a shallow, vegetated depression designed to absorb and filter runoff from hard (impervious) surfaces like roofs, parking areas, and driveways. They not only provide an attractive addition to the yard, but also help to conserve water and protect the water quality of creeks and other water resources. The presentation will focus on the six steps to creating a rain garden and describe several rain gardens (both commercial and residential) that have been built in the Austin area.

Recognizing Common Texas Aquatic and Wetland Plants: A Plant Identification Workshop

Joe R. Snow, MS Environmental Science, University of North Texas

We will explore identification techniques and resources based on morphological characteristics and comparisons to identify beneficial native aquatic and wetland plants as well as potentially harmful exotic species. Discussion on plant architecture, habitat function, and behavior in aquatic ecosystems will also be addressed. Open discussion is encouraged.

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SPEAKER BIOGRAPHIES

Kevin Anderson, Ph.D.

Austin Water Utility-Center of Environmental Research

Kevin M. Anderson is a geographer and philosopher who is the coordinator of the Austin Water Utility's Center for Environmental Research. Kevin has studied at Allegheny College in Pennsylvania (BA), Durham University, England, Ohio University (MA) where he taught philosophy and symbolic logic for several years. He has Ph.D. in Geography from the University of Texas at Austin. Kevin's environmental career began on a Pennsylvania farm raising chickens, pigs, and purebred Black Angus cattle, and it has since ranged from running an organic farm in Potomac, Maryland to starting a river conservation foundation in Northeastern Hungary as a Peace Corps volunteer. His research interests include soil ecology and sustainable agriculture, urban ecology, riparian ecology, environmental philosophy, nature writing. He is on the board of the Central Texas Sustainability Indicators Project, a co-founder of the Texas Riparian Association, and former board member of the Texas Society for Ecological Restoration.

John Gleason, Landscape Architect,

City of Austin, Watershed Protection Department

Mr. Gleason is a licensed landscape architect with 30 years of experience. He holds a Bachelor of Landscape Architecture from Louisiana State University. He has worked extensively in the public sector as well as the private sector. John specializes in sustainable landscaping that conserves resources and protects the environment. Currently Mr. Gleason works in the Water Quality division of the City of Austin Watershed Protection Department. His responsibilities include project management, landscape design, and coordination of the City's integrated pest management (IPM) program. You may find more information here:

http://www.cityofaustin.org/watershed/stormwater_treatment.htm

Robert G. Howells

BioStudies, Texas Parks & Wildlife Department, retired

Robert Howells is a fisheries scientist/aquatic ecologist with experience with exotic plants, fishes, and shellfishes, in addition to his work with freshwater mussels and general freshwater and marine fisheries research. Bob's work history include classes and lectures on the staff of the Cleveland Museum of Natural History, ten years with Ichthyological Associates, Inc., and 22 years with the Texas Parks and Wildlife Department's (TPWD) Heart of the Hills Fisheries Science Center. He retired from TPWD in mid-2006, but has continued to work in the field as a consultant (BioStudies) and continues to conduct personal research and writing. His publications include several books, as well as scientific journal articles, technical reports, and educational materials.

Dick Peterson
City of Austin, retired

Dick Peterson retired from the City of Austin in 2009, having worked in the environmental field with both Austin Energy Green Building and Austin Water Conservation. His responsibilities included rainwater harvesting promotion and rebate development, Xeriscape and landscape programs and general conservation of water and electricity. As a consultant and through his website, he continues to encourage rainwater harvesting for landscape irrigation and use in water features as a viable and economical alternative to use of potable water.

Walter Rast, Ph.D.
Director, International Center for Watershed Studies
Texas State University-San Marcos

Walter Rast's research interests focus on the development and application of ecosystem-based integrated water resources management and related environmental and socioeconomic issues, including the assessment, management and sustainable use of aquatic resources for beneficial human needs and for maintaining ecosystem integrity and quality. His specific research interests include development of practical, scientifically-sound principles and guidelines for the integrated management of freshwater systems and downstream coastal waters for sustainable use; aquatic resources governance; and, international dimensions of sustainable aquatic resources management, with a focus on transboundary water systems.

Andrew Sansom**Executive Director, River Systems Institute, Texas State University – San Marcos**

Andrew Sansom serves as Executive Director of the River Systems Institute and Research Professor of Geography at Texas State University-San Marcos. He is a former Executive Director of the Texas Parks and Wildlife Department, Executive Director of the Texas Nature Conservancy, and founder of The Parks and Wildlife Foundation of Texas. Under his leadership at the Texas Parks and Wildlife Department, Mr. Sansom spearheaded several important programs, including creating the Parks and Wildlife Foundation of Texas; acquiring hundreds of thousands of acres of important lands for State Parks and Wildlife Management Areas; creating new programs to promote awareness of conservation issues in urban areas; slashing the backlog of deferred maintenance in the Texas State Parks System; and increasing the Department's efforts to protect and interpret non-game species of wildlife. Mr. Sansom is a past recipient of the Chevron Conservation Award, The Chuck Yeager Award from the National Fish and Wildlife Foundation, The Pugsley Medal from the National Park Foundation, and the Seton Award from the International Association of Fish and Wildlife Agencies. His articles have appeared in Texas Parks and Wildlife, Texas Monthly, Cowboys and Indians, Texas Highways, and The Texas Observer. He is the author of four books and has a fifth due to be published in the Fall of 2011.

Jason Singhurst, Plant Ecologist/Biologist**Wildlife Diversity Program****Texas Parks and Wildlife Department**

Jason Singhurst received a B.S. in Agricultural Science and M.S. in Agricultural Science from Stephen F. Austin State University, Nacogdoches, Texas. He has conducted field-oriented research on the vegetation ecology of the West Gulf Coastal Plain for the past 18 years. His expertise includes natural areas inventory, plant community ecology, plant taxonomy, land management, and field surveys in Texas. He has served as a botanist/ecologist in Texas for the past 16 years for Texas Parks and Wildlife Department. He has described four plant species new to science that are endemic (restricted) to Texas. He has extensive field knowledge and experience with rare plant species in Texas. He has published over 60 scientific publications and in 2008 co-authored a book on Rare Plants of Texas.

Keenan Smith, Architect

Keenan Smith has been an architect for 30 years. He designed the house and rainwater system. He has a Bachelor of Architecture from UT Austin, and a Masters of Architecture Urban Design from Harvard.

Joe R. Snow, MS

Environmental Science, UNT

Joe Snow works with the University of North Texas as a research scientist in the Wetland Ecology Lab. Projects include screening aquatic plants to improve effluent water quality and establishing and planting an ephemeral wetland for mitigation purposes. He also operates Joe Snow Aquatic Plants, a native aquatic plant producer for aquatic and wetland mitigation, habitat construction, enhancement, and restoration.

Kevin Wood & Sheryl McLaughlin

Kevin Wood Landscape

Kevin Wood and Sheryl McLaughlin are partners in Kevin Wood Landscapes, and Sheryl is host of The Austin Gardener on KLBJ radio.