

CALL FOR ABSTRACTS

CENTER FOR
WATERSHED
EXCELLENCE



2008 South Carolina Water Resources Conference

October 14 - 15, 2008

Charleston Area Convention Center - North Charleston, SC

Concerned about water issues in South Carolina? The first Clemson University Restoration Institute-hosted statewide conference on water resources will be held at the Charleston Area Convention Center on October 14-15, 2008. The purpose of the conference is to provide an integrated forum for discussion of water policies, research projects and water management in the state. The conference co-sponsors represent the broad range of South Carolina water resource interests; the planning committee and co-sponsors are listed below.

This ambitious undertaking seeks to include participants from all areas concerned with water issues: public policy decision makers, municipal water authorities, stormwater managers, environmental engineering and consulting firms, colleges and universities, state and federal agencies, non-profit organizations, economic development organizations, utility companies, land trusts and land managers.

The event will focus on research and policies vital to the quality of life and economic prosperity of South Carolina and seeks to build productive collaboration among key stakeholders and interested citizens from across the state.

Registration Fees

Full Conference

2-days (before 10/1/2008) - \$195; Student - \$85
2-days (after 10/1/2008) - \$245; Student - \$100

One Day (Choose Tuesday or Wednesday)

1-day (before 10/1/2008) - \$140; Student - \$50
1-day (after 10/1/2008) - \$175; Student - \$75

Individuals interested in presenting at this conference should submit the following information online at www.SCwaterconference.org by June 2, 2008.

Name of Author/Presenter	Category (from list or a suggested topic)
Organization/Affiliation	Abstract (Max. 450 words)
Phone	Desired Format: oral presentation or poster
E-mail	Presenter Bio (Max. 300 words)
Presentation Title	

Applicants will be notified of the selection committee's decisions by June 20, 2008. For those papers selected, full manuscripts will be due on September 15, 2008. Oral presentations at the conference will be limited to 30 minutes each. Posters are invited and abstracts may be submitted for all outlined tracks.

For more information on how you can participate, contact:

Jon Van Bergen, Program Coordinator

Clemson University Restoration Institute – Center for Watershed Excellence

132 Long Hall, Clemson, SC 29634-0135 – Tel: 864-656-2618, SCwaterconference@gmail.com

CALL FOR ABSTRACTS

Conference Co-Sponsors and Planning Committee

Beaufort-Jasper Water Authority; Black & Veatch Engineers; BP Barber Engineers; Coastal Carolina University; College of Charleston; Corps of Engineers-SAC; EPA Region IV, Watersheds; Medical University of South Carolina- Biomedicine & Environmental Sciences Center; NOAA-Hollings Marine Laboratory and Coastal Service Center; Santee Cooper; SC Sea Grant Consortium; SC Department of Health & Environmental Control – Water Bureau and Ocean and Coastal Resource Management; SC Department of Natural Resources- Hydrology and Marine Research; University of South Carolina – School of the Environment; USDA Forest Service; USGS-South Carolina

Clemson University Co-Sponsors

Center for Watershed Excellence, Clemson Computing and Information Technology, Genomics Institute, Strom Thurmond Institute

Abstracts are currently being accepted for topics related to these conference tracks:

Track A:	Track B:	Track C:	Track D:	Track E:
WATER POLICY & PLANNING	RIVER BASIN & STREAM SYSTEMS	COASTAL & ESTUARINE SYSTEMS	WATER USE MANAGEMENT & PERMITTING	LAND USE PLANNING & COMMUNITY-BASED PROGRAMS
Water Withdrawal & Allocation	Water & Water Quality Research & Monitoring	Water & Water Quality Research & Monitoring	Conservation / Demand Management	Watershed Management
Water Quality & Standards	Hydrologic / Storm Water Processes	Hydrologic / Storm Water Processes	NPDES & Storm Water Management	Outreach & Communication
Future Challenges	Watershed / Habitat Management	Watershed / Habitat Management	Water Reclamation & Reuse	Education
Economic Development & Funding Impact	Erosion & Sediment Transport	Erosion & Sediment Transport	Competing Interests	Case Studies
Statewide Water Planning	Public Health	Public Health	Surface & Groundwater Management	Land Use Change & Population Dynamics
Other	Stream & Wetland Restoration	Stream & Wetland Restoration	New Applications	Other
	Data Management	Data Management	Water Supply Planning	
	Modeling, Water Quality TMDL	Modeling, Water Quality TMDL	Other	
	Other	Other		

Expanded Track Information

Water Policy & Planning

Water Withdrawal & Allocation:

Research concerning impacts of reservoir management, FERC licensing, inter-basin transfer issues, surface water withdrawal permits, groundwater usage and coastal aquifers and saltwater intrusion. Papers addressing water allocation during droughts and for non-human uses are encouraged.

CALL FOR ABSTRACTS

Water Quality & Standards:

Water policy and planning in many ways set the standards for water quality. Topics should consider the need for new or revised water quality criteria, implementation of current water quality standards, impacts of current activities such as development and/or industry on water quality, water quality management plans, NPDES permitting, impaired waters and TMDL development, water quality trading, and effects of non point source pollution on water quality.

Future Challenges:

This session is intended to explore future challenges facing the Southeast region of the United States at the watershed level. Example topics include sharing water with neighboring states, climate change, coastal population growth, private and industrial development planning, etc. Additional topics may include, but are not limited to, future water resource challenges expected to impact sustainable environments, regional and local economies, regulatory agencies, environmental stakeholders, water managers, water users, as well as owners and operators of water systems. Special focus should also be paid to emerging innovative techniques to address these issues.

Economic Development & Funding Impact:

This session will address the balance needed between economic development and sustainable natural resources. This balance is critical to maintain key growth sectors of our economy while preserving or enhancing a high quality of life for our citizens. Topics may include "green" growth; environmentally conscientious development; local, river basin, and regional economic development issues; methods for minimizing adverse effects on surface water and groundwater; and innovative technologies for water conservation, reclamation, and reuse as they relate to economic development. Topics may also include avoidable and unavoidable development consequences; advanced design concepts; on-site water storage, treatment and reuse; and infrastructure impacts of industrial, commercial and residential development on public utilities. In addition, funding mechanisms for infrastructure improvements, water use, reuse, conservation, and reclamation projects are requested. Innovative funding and financing is of special interest.

Statewide Water Planning:

A comprehensive statewide water program that integrates water quantity, water quality, and environmental needs in South Carolina is necessary to ensure policy coordination, maintain economic prosperity, preserve water quality, maximize water supply, allocate usage, guide decision-making, and protect natural systems. Proposed legislation has been submitted in 2007 to provide funding to strengthen the existing South Carolina Water Plan. Paper topics in this session may include comprehensive water planning, policy framework, regional water management plans, regulated riparian doctrine, and river basin and aquifer management.

River Basin & Stream Systems

Water & Water Quality Research & Monitoring:

Research and monitoring, investigating biological systems and ambient water quality is required to assess the health of freshwater rivers, streams and impoundments. Such investigation includes, but is not limited to, macroinvertebrate and fish community assessments, habitat assessments, microbial source tracking, water quality physical and chemical investigations, including micropollutants and emerging pollutants, etc. Another component of research and monitoring is the establishment of cyberinfrastructures that lead to the creation and advancement of chemical and biological sensors. Papers involving cyberinfrastructure as it relates to water resources and quality are especially invited.

CALL FOR ABSTRACTS

Hydrologic/Stormwater Processes:

Topics include, but are not limited to, planning and decision-making, surface water-ground water interaction, saltwater intrusion, stormwater mitigation, water quality and its ecological impacts, and modeling hydrologic and stormwater processes. Case studies are welcome.

Watershed Planning/Habitat Management:

Many watershed planning efforts are directed at river basin and stream systems. Possible topics include watershed management efforts involving land-use planning and community-based programs, innovative habitat management plans or projects, and success stories among others. In addition, papers addressing stakeholder involvement in decision making are encouraged. All submissions for this session topic are encouraged to have a special focus on freshwater systems. In addition, papers addressing stakeholder involvement in decision making are encouraged.

Erosion and Sediment Transport:

Each year in South Carolina, thousands of acres of land are left vulnerable to the effects of erosion and sedimentation as a result of activities such as construction, agriculture and timber harvesting. Despite protective practices, excess sediment is deposited within creeks, rivers and lakes, endangering the habitat of valuable aquatic species, reducing water clarity and conveying other potentially harmful pollutants. Paper topics in this session could include quantifying sediment impacts, sediment adsorption dynamics, modeling erosion and sediment processes, and controlling erosion and sedimentation through effective best management practices.

Public Health and Well Being:

Topics can include changes in vectors and diseases with alterations in freshwater ecosystems due to competing demands for water quantity and anthropogenic impacts on water quality; influence of rapid population growth and land cover changes on loss of wetland, stream, and riparian habitat resulting in reduced ecological services and functions; and reduced quality of life as recreational use of lakes, streams, and rivers are diminished from bacterial and heavy metals contamination resulting in recreational use warnings and fish consumption advisories.

Stream and Wetland Restoration:

Stream and wetland restoration activities are increasing in the Southeastern United States. Papers may address actual restoration activities and methods, permitting, monitoring and modeling, challenges faced, and lessons learned. Case studies explaining positive and negative outcomes are especially requested.

Data Management:

Many diverse groups are generating environmental data that are available for monitoring, assessing, and predicting aspects of water quality and availability. The optimal management – and thus utility – of these data includes topics such as database development, common standards development, data sharing protocols, metadata development and documentation, middleware tools, and infrastructure needs.

Modeling:

Modeling approaches can be used to assess eco-hydrologic processes such as sediment and nutrient cycling and transport, management of rivers, streams, and lakes for water quantity (yield) and water quality, Total Maximum Daily Load (TMDL), land management, land use and climate change effects. Additional topics include the effects of management practices, land use and climate change on lakes, rivers, streams, and estuarine ecosystems as decision making tools, as well as the use of cyberinfrastructure as a modeling aid.

CALL FOR ABSTRACTS

Coastal and Estuarine Systems

Water & Water Quality Research & Monitoring:

Research and monitoring, investigating biological systems and ambient water quality is required to assess the health of tidal creeks, rivers, and estuaries. Topics include, but are not limited to, community assessments, habitat assessments, microbial source tracking, water quality physical and chemical investigations, etc. Another component of research and monitoring is the establishment of cyberinfrastructures that lead to the creation and advancement of chemical and biological sensors. Papers involving cyberinfrastructure as it relates to water resources and quality are especially invited.

Hydrologic/Stormwater Processes:

Topics include, but are not limited to, planning and decision-making, surface water-ground water interaction, saltwater intrusion, stormwater mitigation, water quality and its ecological impacts, and modeling hydrologic and stormwater processes. Case studies are welcome.

Watershed Planning/Habitat Management:

Many watershed planning efforts are directed at coastal and estuarine systems. Papers are requested that describe ongoing efforts at watershed planning, particularly those which involve habitat management and habitat impact. In addition, papers addressing stakeholder involvement in decision making are encouraged. Possible topics include watershed management efforts involving land-use planning and community-based programs; innovative habitat management plans or projects; success stories among others. In addition, papers addressing stakeholder involvement in decision making are encouraged. All submissions for this session topic are encouraged to have a special focus on coastal and estuarine systems.

Erosion and Sediment Transport:

Each year in South Carolina, thousands of acres of land are left vulnerable to the effects of erosion and sedimentation as a result of activities such as construction, agriculture and timber harvesting. Despite protective practices, excess sediment is deposited within creeks, rivers, marsh, and estuaries, endangering the habitat of valuable aquatic species, reducing water quality and conveying other potentially harmful pollutants. Paper topics in this session could include quantifying sediment impacts, sediment adsorption dynamics, modeling erosion and sediment processes, and controlling erosion and sedimentation through effective best management practices.

Public Health and Well Being:

Topics can include changes in vectors and diseases with alterations in coastal ecosystems due to global climate change, influence of population and land cover changes on marine seafood, and effects of loss of coastal habitat on mental well being.

Tidal Creek, Marsh, and Wetland Restoration:

Topics include tidal creek, marsh, and wetland restoration activities in the Southeastern United States. Papers may address actual restoration activities and methods, permitting, monitoring and modeling, challenges faced, and lessons learned. Case studies explaining positive and negative outcomes are especially requested.

Data Management:

Many diverse groups are generating environmental data that are available for monitoring, assessing, and predicting aspects of water quality and availability. The optimal management – and thus utility – of these data includes topics such as database development, common standards development, data sharing protocols, metadata development and documentation, middleware tools, and infrastructure needs.

CALL FOR ABSTRACTS

Modeling:

Modeling approaches can be used to assess eco-hydrologic processes such as sediment and nutrient cycling and transport, management of rivers, creeks, and estuaries for water quantity (yield) and water quality, Total Maximum Daily Load (TMDL), land management, land use and climate change effects. Additional topics include the effects of management practices, land use and climate change on rivers, creeks, and estuarine ecosystems as decision making tools, as well as the use of cyberinfrastructure as a modeling aid.

Water Use Management & Permitting

Water Conservation and Demand Management:

This session will address research on and application of techniques to reduce the amount of water demanded by particular users or processes. Municipal, industrial/energy, and agricultural/turf uses are of particular interest. Papers that relate reduction techniques to documented reductions are especially requested.

NPDES Stormwater Management:

Topics include, but are not limited to, stormwater management, NPDES stormwater permitting, innovative approaches (such as LID, green infrastructure, etc.) to control stormwater impacts to the environment, stormwater and water quality integration, sediment and erosion controls, MS4 program, actual project and/or case studies, and/or topics that would assist in the management of stormwater.

Water Reclamation and Reuse:

This session will focus on reclamation and reuse of wastewater and stormwater from municipal, industrial and agricultural sources. Subjects might focus on aspects of technology, economics, regulation, storage, quality requirements and public acceptance.

Competing Interests:

Growth increases competition for use of our water resources. Papers that address use distribution of this finite resource are requested. Topics could include shared uses and reuses; use prioritization and policy; use trading; specific or unique needs, examples, problems and solutions; and ecological, economic, recreation, and social issues and other considerations. Papers regarding use prioritization and needed policy changes are especially requested.

Surface and Groundwater Management:

Topics include, but are not limited to, vulnerability and withdrawal of surface water and groundwater; surface water withdrawal and inter-basin transfer laws and regulations; proposed surface water withdrawal permitting regulations and policies; groundwater withdrawal registration and capacity use management; monitoring and assessment of both surface water and groundwater; and surface water and groundwater management with emphasis on innovative approaches, water quality, source water protection, shellfish harvesting and aquatic biology.

New Applications:

A major component of water management and permitting is the application process for new and changing water consumption. Best practices for handling new applications and case studies on streamlining the permitting process should be examined. Additional topics should consider, but are not limited to, methodologies for application management, acceptance or denial criteria, and how to apply limitations on new applications. Abstracts may also consider new

CALL FOR ABSTRACTS

application formats for requests to increase consumption use/demand, well construction, environmental resource permitting, etc.

Water Supply Planning:

This session will focus on planning by public or private entities for future water supplies. All aspects of water supply are included: municipal, industrial, agricultural, recreational, ecological, energy generation, etc. Papers addressing actual case studies are encouraged. The role and reaction of community stakeholders is of special interest.

Land Use Planning and Community Based Programs

Watershed Management:

This session will address examples of watershed management efforts that involve land-use planning and community-based programs. Papers are requested that describe how innovative land-use planning approaches are being used to help implement watershed management plans. Also of interest are presentations that describe community-based efforts and involvement in watershed planning and management.

Outreach and Communication:

Advances in environmental monitoring and data management provide increasing opportunities for providing users, stakeholders, legislators, and decision-makers with improved information for planning purposes. Optimizing access and utility of environmental information could be addressed by topics such as tools for accessing data, custom development of data sharing platforms such as web portals, and building productive lines of communication between data providers and diverse users.

Education:

There is a critical need for educating the public about the vulnerability of water resources and the opportunities for improved use and conservation. Approaches for advancing education include providing water resource information in school curricula, developing engaging learning vehicles for schools, and identifying mechanisms to disseminate information to the broader public.

Case Studies:

Community-based programs educate local stakeholders and decision makers on watershed issues related to the value, preservation, conservation, and sustainable use of their natural resources. Paper topics may include K-12 natural resources education; land-use management; best management practices; community-based conservation; community-based monitoring programs for streams, rivers, and estuaries; land trusts; community-based ecological restoration; and private industry partnering with water-based organizations.

Land Use Change and Population Dynamics:

South Carolina watersheds will be impacted by the state's projected population increase of over 1 million persons between 2000 and 2030. Topics could include population change and its effects on former agricultural and forested lands being converted to suburban and urban land types; urban sprawl and its increasing amounts of impervious surfaces; effects of additional nutrients, contaminants and pathogens in non-point source runoff and effects on the overall function of the hydrologic cycle.