

# 2021 ALABAMA WATER RESOURCES CONFERENCE & SYMPOSIUM AGENDA OVERVIEW

_		AGENTAGONEN
	10:00 AM	Registration Desk Opens (Lobby)
WED - 9/8 AWRA AL Section Symposium		Symposium Theme: Coastal Recovery, Restoration, and Resiliency
	1:00 PM	Welcome & Introductions   Lynn Sisk   AWRA Alabama Section President
		Casi Calloway   City of Mobile
O S		Bethany Kraft   Volkert, Inc.
tion	2:40 PM	Networking Break
Sec		Amy Hunter   Alabama Department of Conservation and Natural Resources
₩	3:10 P/M	Roberta Swann   Mobile Bay National Estuary Program
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$\mathbb{A}$		Announcements & Adjourn
	5:30 PM	Social And Dinner (Flora-Bama)
		Registration Desk Opens (Lobby)
	8:00 AM	Welcome   Greg Guthrie   Alabama Water Resources Conference Committee
		Keynote Address   Toby Feaster   USGS South Atlantic Water Science Center   Panel Discussion
	8:45 AM	
0		Concurrent Session 1
6	77107	Agriculture & Irrigation I   Modeling & Water Management I   Aquatic Ecology   Water Monitoring
<b>THURS - 9/9</b>	10:45 AM	Concurrent Session 2
S		Agriculture & Irrigation II   Modeling & Water Management II   Stormwater I   Water Quality I
		Lunch (Grand Reef)
2	1:40 PM	Concurrent Session 3
王	3:00 PM	Emerging Contaminants   Drought, Flood & Climate I   Stormwater II   Water Quality II
		Concurrent Session 4
		HABs & Reservoirs   Drought, Flood & Climate II   Stormwater III   Water Quality III
	5:30 PM	Social Hour and Poster Session (Grand Reef)
		Refreshments are courtesy of sponsors
	7:30 AM	Registration Desk Opens (Lobby)
	8:00 AM	Welcome   Greg Guthrie   Alabama Water Resources Conference Committee
0		<b>Keynote Address</b>   Commissioner Chris Blankenship   Alabama Department of Conservation and Natural Resources
1	8:45 AM	
0		Concurrent Session 5
FRI - 9/10		Coastal Issues I   Restoration I   Water & Energy Management   Connecting Agencies
<u>~</u>	10:35 AM	
ш	10:55 AM	Concurrent Session 6
	40.45.014	Coastal Issues II   Restoration II   Groundwater   Water Law & Policy
	12:15 PM	Conference Adjourns

## Alabama Section of the American Water Resources Association

## SYMPOSIUM

Wednesday | Sept. 8 | 1-4:40 PM

"Coastal Recovery, Restoration, and Resiliency"

10:00 AM	Registration Desk Opens (Lobby)
1:00 PM	Welcome & Introductions   Lynn Sisk   AWRA Alabama Section President
1:20 PM	Resilience: The Path from Thriving to Surviving   Casi Calloway   Chief Resilience Officer   City of Mobile
2:00 PM	Planning for the Future: Water Resources, Resiliency and Restoration   Bethany Kraft   Senior Program Manager/Restoration Ecologist   Volkert, Inc.
2:40 PM	Networking Break
3:10 PM	Restoration Across the Northern Gulf of Mexico with a Focus on Coastal Alabama   Amy Hunter   Deepwater Horizon Restoration Coordinator   Alabama Department of Conservation and Natural Resources
3:50 PM	Transforming Watershed Management: Building Resilience along the Alabama Coast Roberta Swann   Director   Mobile Bay National Estuary Program
4:30 PM	Announcements & Adjourn
5:30 PM	Social And Dinner (Flora-Bama - casual beach attire)



# **SESSION 1**THURSDAY SEPT. 9 9:15 AM - 10:35 AM



#### **AGRICULTURE & IRRIGATION I**

**SALON ABC** 

MODERATOR: TODD FOBIAN, ALABAMA DEPT. OF CONSERVATION & NATURAL RESOURCES

- 1. Development of a Water Consumption Model to Estimate Broiler Farm Water Needs. Carson Edge, Auburn University\*
- 2. Novel Water Sensors for Precision Agriculture. Zhongyang Cheng, Auburn University
- 3. Response of Crop Yield and Crop Acreage to Droughts in Mobile River Basin Across Different Climatic Divisions. Proloy Deb, The University of Alabama
- 4. Time Stability in Soil Moisture in Irrigated Agricultural Field. Hemendra Kumar, Auburn University

#### **MODELING & WATER MANAGEMENT I**

SALON D

MODERATOR: LATIF KALIN, AUBURN UNIVERSITY

- 1. Predicting Field-Scale Daily Evapotranspiration Using Multi-Source Spaceborne Remote Sensing Imagery and Deep Learning. Taufiq Rashid, Auburn University\*
- 2. How Important is Considering Point Sources in Large-Scale Watershed Modeling? Henrique Haas, Auburn University\*
- 3. Watershed Scale Assessment, Analysis, and Prioritization: A GIS Approach to Whole System Modeling. Jason Throneberry, The Nature Conservancy of Alabama
- 4. Augmented Reality (AR) and 3D Geospatial Technologies for Coastal Flooding Visualization. John Cartwright, Mississippi State University

#### AQUATIC ECOLOGY

**SALON E** 

MODERATOR: PATRICK O'NEIL, GEOLOGICAL SURVEY OF ALABAMA (RETIRED)

- 1. Gulf Sturgeon Fall Spawning: Implications for Water Management in the Choctawhatchee River, Alabama. Steven Rider, Alabama Division of Wildlife and Freshwater Fisheries
- 2. The Invasive Omnivore, *Dreissena polymorpha* (zebra mussel), Structures Multi-Scale Diversity and Ecosystem Attributes in Invasion Front Reservoir Metaecosystems. Riley Lovejoy, The University of Alabama\*
- 3. Multi-scale Fish Diversity and Flow Variability among Streams and Beaver Ponds. Stephanie Sickler, The University of Alabama\*
- 4. Evaluating the Feeding Ecology of Freshwater Mussels (Unionidae) from Gantt Lake, Alabama Using Stable Isotope and Fatty Acid Analysis. Kaelyn Fogelman, Auburn University\*

#### WATER MONITORING

**SALON FGH** 

MODERATOR: KENNETH ODOM, ALABAMA POWER

- 1. Monitoring Karst Aquifers for the Protection of Alabama Cave Shrimp and Tuscumbia Darter Habitats in North Alabama, USA. Gheorghe M L Ponta, Geological Survey of Alabama
- 2. Sediment Risk Index: Crossing Structure and Landscape-Level Influence on Aquatic Organism Passage in Alabama. Daniel West, Geological Survey of Alabama
- 3. Quantification of 3-D Soil Macropore Characteristics in Different Land Uses Using X-ray Computed Tomography. Suman Budhathoki, Auburn University\*



# **SESSION 2**THURSDAY | SEPT. 9 | 10:45 AM - 12:05 PM



### AGRICULTURE & IRRIGATION II

SALON ABC

#### MODERATOR: ASHLEY HENDERSON, ALABAMA SOIL AND WATER CONSERVATION COMMITTEE

- 1. Calibration of Solvita® CO<sub>2</sub> Burst System for Reducing Nitrogen Pollution in Agronomic Systems. Annabelle McEachin, Auburn University\*
- 2. Multi-Level Influences of Center-Pivot Irrigation Adoption in Alabama. Nicholas Magliocca, The University of Alabama
- 3. Assessing the Geographic Representativeness of Irrigation Adoption Studies. Ruchie Pathak, The University of Alabama\*
- **4.** Variable Rate Irrigation: An Environmentally Sound Irrigation Water Management Strategy. Brenda Ortiz, Auburn University

#### **MODELING & WATER MANAGEMENT II**

SALON D

MODERATOR: CHRIS ANDERSON, AUBURN UNIVERSITY

- 1. Urban Areas vs. Impervious Surfaces: Implications for water quality/quantity predictions. Dongjun Lee, Auburn University\*
- 2. What are the Most Important Factors in Generation of Flood Inundation Maps? Atieh Alipour, The University of Alabama\*
- 3. Expanding Utilization and Comprehension of Coordinated Needs Management Strategy: Understanding Where Floodplain Mapping Scope Comes From. Jeff Zanotti, Wood Environment & Infrastructure Solutions, Inc.
- 4. Geographically Isolated Wetland Mitigation of Agricultural Non-Point Source Pollution in the Dougherty Plain, Southwest Georgia. Coleman Barrie, Auburn University\*

STORMWATER I SALON E

#### MODERATOR: SABRA SUTTON, ALABAMA ASSOCIATION OF CONSERVATION DISTRICTS

- 1. Application of Hydrodynamic Modeling and Flood Planning in Resilience Assessment of Urban Coastal Regions. Ross Nazari, The University of Alabama at Birmingham
- 2. The Seven Habits of Highly Effective Drainage Studies. Bradley Heilwagen, Wood Environment & Infrastructure Solutions, Inc.
- 3. The Use of High Definition Stream Survey to Document Channel Conditions for the City of Cleveland's MS4 Stormwater Permit. Brett Connell, Trutta Environmental Solutions
- 4. Closing the Gaps in Local Floodplain Policies. Byron Hinchey, S&ME Inc.

WATER QUALITY I SALON FGH

#### MODERATOR: LEIGH TERRY, THE UNIVERSITY OF ALABAMA

- 1. Influence of Manure Application and Soil Physicochemical Properties on Phosphorus Leaching in Pastures. Kritika Malhotra, Auburn University\*
- 2. Quantifying Nutrient Reductions at Wetlands in the Upper Fish River Watershed. Sabahattin Isik, Auburn University
- 3. Modeling Nutrient Dynamics in Wetlands Undergoing Wetting/Drying Cycles. Latif Kalin, Auburn University
- 4. Addressing Waterbodies Impaired for Siltation Identifying Relationships between Instream Turbidity and Total Suspended Solids. James Mooney & Matt Revel, Alabama Department of Environmental Management

LUNCH IN GRAND REEF - 12:15-1:30 PM



## THURSDAY | SEPT. 9 | 1:40 PM - 3:00 PM



#### **EMERGING CONTAMINANTS**

**SALON ABC** 

#### MODERATOR: PATRICK O'NEIL, GEOLOGICAL SURVEY OF ALABAMA (RETIRED)

- 1. Interactions of "Forever Chemicals" Per and Polyfluoroalkyl Substances with Dissolved Organic Matter as a Potential Contributor to Soil and Water Contamination. John Lawhon, Auburn University\*
- 2. A State-Wide Survey of the Spatial Distribution of Perfluoroalkyl Substances (PFAS) in Alabama. Roger Lopes Viticoski, Auburn University\*
- 3. Measuring Energetic Effects of PFAS on the Eastern Oyster (Crassostrea virginica) Using Respirometry. Kayla Boyd, Auburn University\*
- 4. Employing a Dynamic One Health Approach in Extension and Outreach to Reduce Impacts of Pharmaceuticals and Personal Care Products (PPCPs) on Water Quality. Tyler Mason, Alabama Cooperative Extension System

#### DROUGHT, FLOOD, & CLIMATE I

SALON D

MODERATOR: ROY MCAULEY, MANUFACTURE ALABAMA

- 1. Reducing Coastal Flood Risk for Water and Wastewater Utilities through Proactive and Forward-Looking Systems Management and Resilience Planning. Matt Deavenport, Jacobs Engineering Group
- 2. Flood Mitigation in Region IV: How does Alabama Compare? Byron Hinchey, S&ME Inc.
- 3. Can infrared canopy temperature data be used as a potential irrigation scheduling tool for corn in a humid subtropical climates? Bruno Lena, Auburn University
- 4. Paleo-Records of Sea Level, Floods, and Storms in the Mobile Bay and Weeks Bay Estuaries: Implications for Future Change in Alabama. Rebecca Totten Minzoni, The University of Alabama

STORMWATER II SALON E

MODERATOR: LISA HARRIS, CHOCTAWHATCHEE, PEA & YELLOW RIVERS WMA

- 1. A "B.A.D." Presentation Another Way to Look at Erosion Control on a Construction Site. Perry Oakes, Alabama Soil and Water Conservation Committee
- 2. Use of Vegetative Cover for Prevention of Erosion and Shallow Slope Failure along Roadways. Homayra Asima, Auburn University\*
- 3. The Effects of Coastal Development and Salinity Dynamics on Tidal Creek Ecosystem Functions along the Northern Gulf of Mexico. Christopher Anderson, Auburn University
- **4. A Decision-Support Tool for Cost-Optimal Design of Stormwater Green Infrastructure Practices.** Frances O'Donnell, Auburn University

WAIER QUALITY II

**SALON FGH** 

- 1. Using Molecular Simulations to Develop Temperature Swing Solvent Extraction Processes for High Salinity Brines. Heath Turner, The University of Alabama
- 2. Evaluation of Bacterial and Mitochondrial DNA Markers for Microbial Source Tracking. Wenjing Ren, Auburn University\*
- 3. Impact of Dissolved Organic Matter Properties on Iron (III) Complexation. Natalia Malina, Auburn University
- 4. Proposed Solutions for Wastewater Management in Rural Communities of the Alabama Black Belt. Mark Elliott, The University of Alabama



### THURSDAY | SEPT. 9 - 3:30 PM | 4:50 PM



#### HARMFUL ALGAL BLOOMS & RESERVOIRS

**MODERATOR: LYNN SISK, JACOBS** 

- 1. Ancient Algal Blooms: Did Ancient Societies Like the Maya Experience Water Quality Degradation Similar to Today? Matthew Waters, Auburn University
- 2. Identifying Drivers of Cyanotoxin Production in Subtropical Lakes over the Last 150 Years. Troy Clift, Auburn University\*
- 3. Variations of Nutrient Deposition and Transport between Agricultural and Urban Watersheds through Time. Benjamin Webster, Auburn University\*
- 4. Genetic Tools for Quantifying and Identifying Taste and Odor-Producing Microorganisms in Drinking Water Reservoirs. Brendan Higgins, Auburn University

#### DROUGHT, FLOOD, & CLIMATE II

SALON D

MODERATOR: ROY MCAULEY, MANUFACTURE ALABAMA

- 1. Spatial and Temporal Variability of Flash Drought in the Continental United States. Kyle Lesinger, Auburn University\*
- 2. Effect of Climate Change on Rainfall Erosivity in Southeastern, United States. T. Bijoychandra Singh, Auburn University\*
- 3. Assessment of Drought Impacts on the Uppermost Aquifer across Alabama: utilizing groundwater elevation data from ADEM LUST sites. Terri Osborne, Geological Survey of Alabama
- 4. Survivability of Mussels over the 13-Week Drawdown of Gantt Reservoir, Andalusia, AL and Factors Influencing Survival. Jonathan Miller, Troy University

STORMWATER III

SALON E

MODERATOR: EVE BRANTLEY, AUBURN UNIVERSITY WATER RESOURCES CENTER

- 1. Stormwater Best Management Practices to improve the Parkerson Mill Creek watershed in Lee County Alabama. Thorsten Knappenberger, Auburn University
- 2. Evaluation of Porous Pavements Hydrological Behavior on Alabama Soils. Robson Leo Pachaly, Auburn University\*
- 3. City of St. Petersburg Watershed Model Refinement. Heather Hyde, Jacobs Engineering Group
- 4. Use of Flocculants in Construction Stormwater Treatment. Billur Kazaz, Auburn University\*

#### WATER QUALITY III

**SALON FGH** 

MODERATOR: CHRIS IOHNSON, ALABAMA DEPT OF ENVIRONMENTAL MANAGEMENT.

- 1. Source and Composition of Sediment Organic Matter and Relations to Mercury Distribution in an Impacted Estuarine System, Mobile Bay, Alabama. Sakinat Ahmad, The University of Alabama\*
- 2. Nitrate Levels in Baldwin County Aquifers Suggest Background Levels of Nitrate Present within the System. Mary Brandon Huettemann, The University of Alabama\*
- 3. Lead Testing in Drinking Water in Childcare Facilities. Jason Barrett, Mississippi Water Resources Research Institute
- 4. Aiming to Find a Unifying Framework to Study the Impacts of Aquatic Intermittency on Downstream Water Quality. Carla Atkinson, The University of Alabama

THURSDAY SEPT. 9 5:30 PM - 7:30 PM GRAND REEF

## STUDENT POSTERS

- 2. Phosphorus Loss in Runoff from Soils with Different Soil Test Phosphorus Ratings. Anjan Bhatta, Auburn University
- 3. Validating Straight Pipe Modeling in Rural Alabama. Aaron Blackwell, The University of Alabama
- 4. Investigation of Straight Pipes in Alabama and Throughout the U.S. Jillian Maxcy-Brown, The University of Alabama
- 5. Quantification of Soil Macropores in Hillslope Pastures Using X-ray Computed Tomography. Suman Budhathoki, Auburn University
- 7. Geographically Isolated Wetlands in the Southeastern United States Serve to Store and Process Nutrients from Agricultural Watersheds. Chloe Eggert, Auburn University
- 8. Towards an Evolutionary Data Assimilation System: The Value of Soil Moisture and Evapotranspiration in Drought Monitoring. Keyhan Gavahi, The University of Alabama
- 9. Center Pivot Irrigation in Alabama. Sara Green, The University of Alabama in Huntsville
- 10. Hydroclimatic Trends in the Mobile Bay Basin from 1979 to 2018. Henrique Haas, Auburn University
- 11. Geochemical Controls on DOM-Arsenic Complexes. Caitlyn Herron, Auburn University
- 12. Drought in the West: Embedded Water Demand Stationarity Compromises System Vulnerability Analysis. Ryan Johnson, University of Utah
- 13. Evaluating the Impact of Onsite Wastewater Treatment Systems on Watershed Contamination, Choccolocco Creek Watershed, Alabama. Mallory Jordan, Auburn University
- 14. Understanding the Distribution of Phosphorus Pools in Five Alabama Soil Regions. Gagandeep Kaur, Auburn University
- 15. Phosphorus Variability in Delineated Irrigation Management Zones in the Crop Field. Hemendra Kumar, Auburn University
- 16. Rising Concentrations of E. coli in Choccolocco Creek. Eleanore Larson, Auburn University
- 17. Reconstructing the Cultural Eutrophication of Banana Lake, Florida Using the Sediment Record. Susan lott, Auburn University
- 18. A Comparison of Three Smart-Irrigation Methods for Future Use by Alabama Peanut Growers. Pierce McClendon, Auburn University
- **19. Evaluation of a Living Shoreline Technique on a Southeastern United States Reservoir.** Eric Muth, The University of Alabama at Birmingham
- **20.** Developing a Combined Climate Extremes-Resilience Index: A Case Study on the State of Alabama. Anuska Narayanan, The University of Alabama
- 21. Analysis of Community-Level Factors Contributing to Cholera Infection and Water Testing Access in the Northern Corridor of Haiti. Lonege Ogisma, Auburn University
- 22. Understanding Spatial Variation of Surface Sediments in Two Unique Reservoir Systems, Weiss Lake and Lay Lake, AL. Tristan Orndorff, Auburn University

- 23. Dimensions of Surface Water and Groundwater Connectivity in a Coastal Plain Headwater Stream. Delaney Peterson, The University of Alabama
- 24. Effects of Gypsum-Amended Poultry Litter on Nutrient Release and Water Quality. Anna Powell, Auburn University
- 25. Estimating Curve Numbers Across the Southeastern United States. William Rice, The University of Alabama in Huntsville
- 26. Effectiveness and Implementation of Forestry Best Management Practices for Water Quality Protection in Alabama. Arjun Rijal, Auburn University
- 27. Sediment Basin Solutions through Large-Scale Testing at the AU-ESCTF. Jaime Schussler, Auburn University
- 28. Drivers of Tree Biodiversity in Alabama's Bottomland Hardwood Forests. Matthew Shockey, The University of Alabama
- 29. Stochastic Generation of 15-Minute Precipitation for Water Resource Modeling Under Climate Change Over Southeastern United States. Takhellambam Bijoychandra Singh, Auburn University
- **30.** Preliminary Water Quality Analysis of the Middle Alabama Watershed Using SPARROW Modeling. Rachel Suhs, The University of Alabama in Huntsville

## WATER PROFESSIONAL POSTERS

- 31. The State-of-the-Art Machine Learning for Crop Yield Prediction. Peyman Abbaszadeh, The University of Alabama
- 32. Development and Application of Microplastic Analysis in the Sediments of Lake Weiss, Alabama. Kathryne Bowling, Auburn University
- 33. Phosphorus Stratification and Environmental Implication for Soils with Repeated Poultry Litter Application.

  Debolina Chakraborty, Auburn University
- 34. Incidence of Pharmaceutical and Personal Care Product (PPCP) Contamination in Alabama Waters. Mary Dixon, Alabama Cooperate Extension System
- 35. Improving the Accuracy of Flood Inundation Models Using a Modified Boundary Conditioning Approach. Keighobad Jafarzadegan, The University of Alabama
- 36. Participatory Irrigation Extension program to Increasing Adoption of Best Irrigation Strategies. Guilherme Morata, Alabama Cooperative Extension System.
- **37. 2D Geologic Cross Section Creation Using Arc Hydro Groundwater Subsurface Analyst.** Kelley Rich, Wood Environment & Infrastructure Solutions, Inc.
- **38. Spatial Interpolation Methods in Groundwater Projects.** Kendall Rich, Wood Environment & Infrastructure Solutions, Inc.
- 39. Cost-Effective and Sustainable Biochar Has the Ability to Sorb and Facilitate Degradation of PFAS in Water. Dengjun Wang, Auburn University

### CHECK THE BACK OF YOUR NAMETAG TO DETERMINE YOUR WAVE

YELLOW CIRCLE: 1ST WAVE FROM 5:30-6:30 PM YELLOW CIRCLE: 2ND WAVE FROM 6:30-7:30 PM



### FRIDAY | SEPT. 10 | 9:15 AM - 10:35 AM



#### COASTAL ISSUES

**SALON ABC** 

#### MODERATOR: TODD FOBIAN, ALABAMA DEPT. OF CONSERVATION & NATURAL RESOURCES

- 1. A Comprehensive Watershed Management Plan on a Mission to Protect "America's Amazon". Jeanette Kelson, Wood Environment & Infrastructure Solutions, Inc.
- 2. A Field Validated Model of Temporal Variability in Oyster Habitat Suitability. Anna Linhoss, Auburn University
- 3. Balancing Habitats and Humans: A Conservation Management Plan for the Lower Perdido Islands. Katie Baltzer, The Nature Conservancy
- 4. Contextualizing Extremes: New Sediment Archives and How They Will Help Us Understand the Frequency of Intense Tropical Cyclone Activity along the MS-AL Coast. Emily Elliott, The University of Alabama

RESTORATION I SALON D

#### MODERATOR: ASHLEY HENDERSON, ALABAMA SOIL AND WATER CONSERVATION COMMITTEE

- 1. A Look to the Past and an Eye on the Future An Overview of the D'Olive Watershed Management Plan (Past and Present). Robert Dunn, Geosyntec Consultants
- 2. Alternative Approaches to Water Quality Restoration. Lynn Sisk, Jacobs Engineering Group
- 3. Is Tidal Marsh Construction an Effective Restoration Strategy to Recover Nitrogen Removal Capacity? Behzad Mortazavi, The University of Alabama
- 4. Is Tidal Marsh Construction an Effective Restoration Strategy to Recover Carbon Sequestration Capacity?

  Julia Cherry, The University of Alabama

#### **WATER & ENERGY MANAGEMENT**

**SALON E** 

MODERATOR: ASHLEY MCVICAR, ALABAMA POWER

- 1. Water Use in Alabama An Update. Michael Harper, ADECA Office of Water Resources
- 2. New Water Use Data Application for Alabama. Shae Holley, ADECA Office of Water Resources
- 3. The IBT Map Project: Geovisualization of Interbasin Transfers of Water in Google Earth. Philip Chaney, Auburn University
- 4. Hydropower's Value in a Wind and Solar World. Kenneth Odom, Alabama Power

#### **CONNECTING AGENCIES**

**SALON FGH** 

#### MODERATOR: MONA DOMINGUEZ, AUBURN UNIVERSITY WATER RESOURCES CENTER

- 1. Alabama Private Well Program. Jessica Curl, Auburn University Water Resources Center
- 2. Volunteer Water Monitoring in National Forests of Alabama. Mona Dominguez, Auburn University Water Resources Center
- 3. Fostering Watershed Stewardship in Alabama. Eve Brantley, Auburn University Water Resources Center
- 4. Building a Cross State Estuary Program during a Pandemic. Logan McDonald, Pensacola and Perdido Bays Estuary Program



### FRIDAY | SEPT. 10 | 10:55 AM - 12:15 PM



#### COASTAL ISSUFS II

SALON ABO

#### MODERATOR: STEPHEN JONES, GEOLOGICAL SURVEY OF ALABAMA

- 1. Land Use and Water Quality Trends in Coastal Alabama. Ann Arnold, Geological Survey of Alabama
- 2. The Effects of Maintenance Dredging of the Mobile Harbor Bar Channel on Dauphin Island are Similar to Mining of Alabama's Coastal Sands. Glendon Coffee, Mobile Bay Sierra Club
- 3. Putting Socio-Economic Vulnerabilities and Risks into Perspective: Dealing with Hurricane-Induced Extremes. Hamid Moradkhani, The University of Alabama

RESTORATION II SALON D

#### MODERATOR: PATRICK O'NEIL, GEOLOGICAL SURVEY OF ALABAMA (RETIRED)

- 1. Successfully Rebuilding Bayou La Batre's Waterfront. Mary Kate Brown, The Nature Conservancy
- 2. A Comprehensive Watershed Management Plan Aimed at the Rehabilitation of a Culturally Significant Urban Creek and Bayou. Jeanette Kelson, Wood Environment & Infrastructure Solutions, Inc.
- 3. Watershed Management Planning along the Alabama Gulf Coast. Mollie Taylor, Geosyntec Consultants
- 4. Restoring Three Mile Creek One Neighborhood at a Time. Christian Miller, Mobile Bay National Estuary Program

GROUNDWATER SALON E

#### MODERATOR: GREG GUTHRIE, GEOLOGICAL SURVEY OF ALABAMA

- 1. Investigating Chloride Concentrations in a Coastal Aquifer of the Gulf of Mexico: Methods and Results in the Chicot Aquifer of Southwest Louisiana. Vincent White, United States Geological Survey
- 2. Pesticide Occurrence in Shallow Groundwater Underlying Agricultural Areas in Alabama. Amy Gill, United States Geological Survey
- 3. Hydrogeological Investigation into the Physical Mechanisms of a Spring-Fed River System, Magnolia River, Alabama. Mary Hastings Puckett, Geological Survey of Alabama\*
- 4. Spectral Analysis of Hydrographs to Evaluate Long-Term Aquifer Storage Changes. Greg Guthrie, Geological Survey of Alabama

#### WATER LAW & POLICY

**SALON FGH** 

#### MODERATOR: LISA HARRIS, CHOCTAWHATCHEE, PEA & YELLOW RIVERS WMA

- 1. Alabama Water Management Policy from Past to Present. Cindy Lowry, Alabama Rivers Alliance & Charles Miller, The University of Alabama
- 2. Can Water Governance Reform Avert a Global Water Crisis? Mary Wallace Pitts, The University of Alabama
- 3. Tree-Ring Reconstructions of the ACF River System to Inform Alabama Water Policy. Matthew Therrell, The University of Alabama
- 4. A Grassroots Approach to the Development of Comprehensive State Water Management Plans: An Example from Alabama. Rebecca Bearden, Geological Survey of Alabama

## CONFERENCE REMINDERS

## **All Attendees**

# ALL ATTENDEES ARE EXPECTED TO WEAR A MASK INDOORS WHEN NOT ACTIVELY EATING OR DRINKING. THANK YOU FOR YOUR COOPERATION!

A limited number of disposable masks are available at the registration desk

- We will stagger dismissals of keynote and concurrent sessions for breaks and Thursday's lunch in an attempt to minimize crowding. Please follow moderator instructions for dismissal
- Please spread out during breaks away from the food and beverage tables after selecting your own food/beverage

#### THURSDAY'S POSTER SESSION & SOCIAL HAS TWO WAVES

Check the back of your nametag to determine which wave you have been assigned:

Pink Circle - 1st wave from 5:30-6:30pm Yellow Circle - 2nd wave from 6:30-7:30pm

## **Oral Presenters**

- Upon registration check-in, visit the speaker ready room to confirm your presentation is loaded for your session
- Please report to your session room 5 minutes before session start time to check-in with the moderator

## **Poster Presenters**

- You may store your mounted posters at the registration desk starting Thursday
- · You are responsible for setting up your poster in Grand Reef on your assigned easel number
- Student Posters not set up by 5:30pm will be disqualified from the competition

## Poster Judges

• Meet at the registration desk on Thursday promptly at 5:10pm to receive instructions





## SESSION QUICK REFERENCE

## THURSDAY

AGRICULTURE & MODELING & AQUATIC WATER MGMT I SALON ABC SALON D SALON E WATER MONITORING SALON FIGH

AGRICULTURE & MODELING & WATER MGMT II SALON ABC SALON D SALON E SALON FGH

## LUNCH IN GRAND REEF 12:15 - 1:30pm

EMERGING DROUGHT, FLOOD & STORMWATER II SALON ABC SALON D SALON E WATER QUALITY II SALON FGH

**BREAK** 3:00-3:30pm

HABs & DROUGHT, FLOOD & STORMWATER III SALON ABC SALON D SALON E SALON FGH

## POSTER SESSION & SOCIAL IN GRAND REEF

1ST WAVE - 5:30-6:30 PM | 2ND WAVE - 6:30-7:30 PM

## FRIDAY

COASTAL ISSUES I RESTORATION I SALON ACENCIES SALON FGH

BREAK 10:35-10:55am

COASTAL
ISSUES II RESTORATION II GROUNDWATER POLICY
SALON ABC SALON D SALON E SALON FGH

### **ADJOURN**







Alabama A&M - Alabama Cooperative Extension System

Alabama Mining Association

Alabama Power Company

Alabama Pulp and Paper Council

Alabama Water Institute

Auburn University Water Resources Center

Balch & Bingham, LLP

Brasfield & Gorrie, LLC

Cahaba Consulting, LLC

Flood-Con

Geosyntec Consultants, Inc.

Jacobs

Kleinschmidt - Energy & Water Resources Consultants

PowerSouth Energy

TRI Rivers Waterway Development Association

Trutta Environmental Solutions

Van Essen Instruments

**Wood PLC**