



Alabama
**WATER
RESOURCES**
Conference
&
Symposium

September 8-10, 2021
Perdido Beach Resort | Orange Beach | Alabama

2021 ALABAMA WATER RESOURCES CONFERENCE & SYMPOSIUM

AGENDA OVERVIEW

WED - 9/8
AWRA AL Section Symposium

- 10:00 AM Registration Desk Opens (Lobby)**
Symposium Theme: Coastal Recovery, Restoration, and Resiliency
- 1:00 PM Welcome & Introductions** | Lynn Sisk | AWRA Alabama Section President
- 1:20 PM **Casi Calloway** | City of Mobile
Bethany Kraft | Volkert, Inc.
- 2:40 PM Networking Break**
- 3:10 PM **Amy Hunter** | Alabama Department of Conservation and Natural Resources
Roberta Swann | Mobile Bay National Estuary Program
- 4:30 PM **Scott Rayder** | Alabama Water Institute
Announcements & Adjourn
- 5:30 PM Social And Dinner (Flora-Bama)**

THURS - 9/9

- 7:30 AM 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 **Break**
- 9:15 AM Concurrent Session 1**
Agriculture & Irrigation I | Modeling & Water Management I | Aquatic Ecology | Water Monitoring
- 10:45 AM Concurrent Session 2**
Agriculture & Irrigation II | Modeling & Water Management II | Stormwater I | Water Quality I
- 12:15 PM **Lunch (Grand Reef)**
- 1:40 PM Concurrent Session 3**
Emerging Contaminants | Drought, Flood & Climate I | Stormwater II | Water Quality II
- 3:00 PM **Break**
- 3:30 PM 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

FRI - 9/10

- 7:30 AM Registration Desk Opens (Lobby)**
- 8:00 AM **Welcome** | Greg Guthrie | Alabama Water Resources Conference Committee
Keynote Address | Commissioner Chris Blankenship | Alabama Department of Conservation and Natural Resources
- 8:45 AM **Break**
- 9:15 AM Concurrent Session 5**
Coastal Issues I | Restoration I | Water & Energy Management | Connecting Agencies
- 10:35 AM **Break**
- 10:55 AM Concurrent Session 6**
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 **Scott Rayder** | Director | Alabama Water Institute
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*
4. **Different Shades of Blue: Mapping Natural Resource Community Groups at the Grassroots.** Ryan Thomson, Auburn University

*STUDENT PRESENTER



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® CO₂ 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



SESSION 3



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

WATER QUALITY II

SALON FGH

MODERATOR: THORSTEN KNAPPENBERGER, AUBURN UNIVERSITY

- 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

BREAK - 3-3:30 PM



SESSION 4



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

HARMFUL ALGAL BLOOMS & RESERVOIRS

SALON ABC

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 JOHNSON, 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



POSTER SESSION & SOCIAL

THURSDAY | SEPT. 9 | 5:30 PM - 7:30 PM

LOCATION:
GRAND REEF

STUDENT POSTERS

- 1. Hydrologic Drought Severity-Duration-Frequency: A Comparative Analysis of Mountain West and Southeast U.S.** Danyal Aziz, The University of Alabama
- 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
- 6. Establishment of Wetland Reference Sites in Alabama Using Aquatic Invertebrates.** Khalil Carson, Troy 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 Iott, 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

REFRESHMENTS ARE COURTESY OF 2021 ALWRC SPONSORS

- 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.** Kathryn 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 Cooperative 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
PINK CIRCLE: 1ST WAVE FROM 5:30-6:30 PM
YELLOW CIRCLE: 2ND WAVE FROM 6:30-7:30 PM



SESSION 5



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

COASTAL ISSUES I

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

BREAK - 10:35-10:55 AM



SESSION 6



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

COASTAL ISSUES II

SALON ABC

MODERATOR: STEPHEN JONES, GEOLOGICAL SURVEY OF ALABAMA

- 1. Stakeholders' Risk Perceptions of Petrochemical Infrastructure Failures, Environmental Risks, and Social Vulnerability in Mobile, AL.** Wanyun Shao, The University of Alabama
- 2. Land Use and Water Quality Trends in Coastal Alabama.** Ann Arnold, Geological Survey of Alabama
- 3. 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
- 4. 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



**SCAN THE QR
CODE WITH
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TO DOWNLOAD
THIS PROGRAM**



SESSION QUICK REFERENCE

THURSDAY

1	AGRICULTURE & IRRIGATION I SALON ABC	MODELING & WATER MGMT I SALON D	AQUATIC ECOLOGY SALON E	WATER MONITORING SALON FGH
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2	AGRICULTURE & IRRIGATION II SALON ABC	MODELING & WATER MGMT II SALON D	STORMWATER I SALON E	WATER QUALITY I SALON FGH
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LUNCH IN GRAND REEF 12:15 - 1:30pm

3	EMERGING CONTAMINANTS SALON ABC	DROUGHT, FLOOD & CLIMATE I SALON D	STORMWATER II SALON E	WATER QUALITY II SALON FGH
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BREAK 3:00-3:30pm

4	HABs & RESERVOIRS SALON ABC	DROUGHT, FLOOD & CLIMATE II SALON D	STORMWATER III SALON E	WATER QUALITY III SALON FGH
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POSTER SESSION & SOCIAL IN GRAND REEF
1ST WAVE - 5:30-6:30 PM | 2ND WAVE - 6:30-7:30 PM

FRIDAY

5	COASTAL ISSUES I SALON ABC	RESTORATION I SALON D	WATER & ENERGY MGMT SALON E	CONNECTING AGENCIES SALON FGH
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BREAK 10:35-10:55am

6	COASTAL ISSUES II SALON ABC	RESTORATION II SALON D	GROUNDWATER SALON E	WATER LAW & POLICY SALON FGH
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ADJOURN





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PowerSouth Energy

TRI Rivers Waterway Development Association

Trutta Environmental Solutions

Van Essen Instruments

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