



**Louisiana Geological Survey
Louisiana State University Agricultural Center
&
Louisiana Water Resources Research Institute**

***Proceedings of the 13th Annual Louisiana Water
Conference (LA Water 2019)***

Schedule



April 15 & 16, 2019

**Dalton Woods Auditorium
Energy, Coast, & Environmental Building
Louisiana State University
Baton Rouge, Louisiana**

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Structured Decision Making to Support Long-Term Water Resource Planning 48
Alyssa Dausman, Ryan Clark, Michael C. Runge and Ellen Bean

Monday, April 15, 2019

Room: Dalton Auditorium

Time	Presenter(s)	Title
8:00 to 8:10 am	Sam Bentley, Interim Vice President, Office of Research and Economic Development, LSU	Opening remarks
8:10 to 8:20 am	Billy Leonard, Associate Vice President & Program Leader of Water Resources, LSU Agricultural Center	Opening remarks
8:20 to 8:30 am	Earl Greene, Director, Water Resources Research Act Program, U.S. Geological Survey	Opening remarks
(State Wide Water Issues & Management)		
8:30 to 8:55 am	General Russell Honore'	Clean Water is our Life Blood
8:55 to 9:20 am	George Losonsky and William Schramm	What in the World are we Doing About our Fresh Water Resources?
9:20 to 9:45 am	Pierre Sargent	Analysis of Public Supply Water Use in Louisiana
Break 9:45 to 10:00 am		
10:00 to 10:25 am	William Wicker and Alexandra Carter	The Louisiana Watershed Initiative Predisaster Planning & Water Management
10:25 to 10:50 am	William Wicker, Patrick Forbes, Ehab Meselhe and Emad Habib	Louisiana Watershed Initiative: Designing a Monitoring and Modeling Approach in Support of Statewide Comprehensive Watershed Management
10:50 to 11:15 am	Christopher Dalbom	Update on work towards a Comprehensive Water Code for Louisiana
Lunch Break 11:15 am to 1:00 pm		
(Ethics & Techniques)		
1:00 to 1:50 pm	John Johnston	Professional Ethics for Geologists and Engineers
1:50 to 2:15 pm	Scott Bergeron and George Losonsky	Evaluating Shallow Groundwater Resources Using Smart Tools
2:15 to 2:40 pm	Linzy Foster , Leslie Duncan and Brian Clark	Estimating groundwater availability and land-surface subsidence in the Coastal Lowlands Aquifer System using a MODFLOW 6 model and uncertainty analysis
2:40 to 3:05 pm	Wade Kress , Burke Minsley and James Rigby	Hidden complexity of the Mississippi River Alluvial Valley aquifer illuminated like never before using regional-scale airborne geophysics
Break 3:05 to 3:20 pm		
(Southern Louisiana)		
3:20 to 3:45 pm	Anthony Duplechin	Approaches to Minimization of Saltwater Intrusion in the Baton Rouge Area
3:45 to 4:10 pm	Alyssa Dausman , Ryan Clark, Michael C. Runge and Ellen Bean	Structured Decision Making to Support Long-Term Water Resource Planning
4:10 to 4:35 pm	Vincent White	Chicot aquifer water-level increases correspond with a reduction in groundwater withdrawals in the Lake Charles area

4:35 to 5:00 pm	Douglas Carlson	The Springs of Denham Springs, Louisiana their history, chemistry and source of water
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Room: Conference Room

Time	Presenter(s)	Title
(Gulf Coast)		
8:30 to 8:55 am	Chris McLindon	Applications of the Louisiana Coastal Geohazards Atlas in groundwater management
8:55 to 9:20 am	R. Eugene Turner , Nancy Rabalais and Edward Overton	Distribution and recovery trajectory of Macondo oil: shelf and wetlands
9:20 to 9:45 am	Jesse Means	Bayou Lafourche Sewage Project
Break 9:45 to 10:00 am		
(Mississippi River)		
10:00 to 10:25 am	Y. Jun Xu and Yan Qi	Decadal changes in river discharge from the continental United States to the Gulf of Mexico
10:25 to 10:50 am	Tzenge-Huey Shih , David Vossen and Amena Henville	Morganza Control Structure & the Mississippi River Flood Fight
10:50 to 11:15 am	Jeremy Reiman, Lei Gao, Weiguo Zhang and Y. Jun Xu	Contrasting diel dissolved carbon dynamics in the Mississippi and Yangtze Rivers
Lunch Break 11:15 am to 1:00 pm		
(Louisiana and Beyond)		
1:00 to 1:25 pm	Yuanda Zhu and Johan Forsman	Assessing Louisiana public supply water wells in terms of Ground Water under Direct Influence of Surface Water (GWUDISW)
1:25 to 1:50 pm	Songjie He and Y. Jun Xu	Assessment of trace metal levels along an estuary of petrochemical industrial areas in Southwest Louisiana
1:50 to 2:15 pm	Mohammed Elgettafi and Juan Lorenzo	Investigation of the geochemical and geophysical evolution of groundwater in a Neogen basin: kert aquifer NE of Morocco
2:15 to 2:40 pm	Hui Li , Jun Xu and Zhaoyang Wang	Recent Morphological Evolution of the Channel Bar in the Middle Yangtze River During 1985-2015 Influence of Sediment Decline by Anthropogenic Interference
2:40 to 3:05 pm	Douglas Carlson	Trends for Hydraulic Fracturing for Unconventional Plays compare to Haynesville
Break 3:05 to 3:20 pm		
(Northern Louisiana)		
3:20 to 3:45 pm	Ashley Bussell , Courtney Killian, Katherine Knierim, James Kingsbury, Samantha Wacaster and Wade Kress	Mapping the Variability of Specific Conductance in Groundwater of the Mississippi River Valley Alluvial Aquifer

3:45 to 4:10 pm	Corey Shircliff	Challenges with Salt Water Disposal in the Haynesville Shale Play
4:10 to 4:35 pm	Changyoon Jeong and Se-Won Kang	Water quality index in the assessment of the Red Bayou water quality for crop irrigation

Posters

Morning secession 8:00 am to 12:30 pm (Levees and Rivers)

Presenter(s)	Title
Matthew Barley , Carol Wilson, Kehui Xu and Sam Bentley	Characterization of sedimentology and infill rates for borrow areas in coastal Louisiana
Ye-Hong Chen and Frank T.-C. Tsai	Evaluation of Relief Wells along Levees of Inner Harbor Navigation Canal, New Orleans, Louisiana
Abigail Eckland , Mead Allison and Thomas Bianchi	A quantitative analysis of the organic and mineral content of Mississippi River suspended sediment in the falling hydrograph
Daniel E. Locci Lopez , Juan M. Lorenzo, Frank T.-C. Tsai and Mohammed Elgettafi	Shear Wave and Resistivity Surveys to Evaluate Seepage Flow Under A Levee in the Lower Mississippi River Valley
Courtney Poirier and Katie Costigan	Effect of Land Use Change on River Network and Channel Morphology of Four Tributaries in the Vermilion Watershed in South Louisiana
Wei Xu , Y. Jun Xu and Heqin Cheng	Changes in riverbed morphology in the upper lowermost Yangtze River from 1998 to 2013

Afternoon secession 12:30 pm to 5:00 pm (Water modeling, supply, and use)

Presenter(s)	Title
Hamid Vahdat Aboueshagh and Frank Tsai	Developing statewide hydrostratigraphy model for Louisiana state
Angela Collier	2015 Water Use in Louisiana
Aubrey Gilliland , Kelsey Pieper, Susanne Straif-Bourgeois, William Rhoads, Marc Edwards, Kari Brisolaro and Adrienne Katner	Emergency preparedness and recovery lessons after the Great Louisiana Flood of 2016 among domestic well owners
Dongxiao Yin and Zuo Xue	Introduce Sediment Module into WRF-Hydro
Jina Yin and Frank Tsai	Bi-objective saltwater intrusion risk assessment using Bayesian set pair analysis and machine learning based ensemble surrogates
An Li and Frank Tsai	Groundwater-surface water interactions in the Lower Mississippi River Delta Plain

Tuesday, April 16, 2019

Room Dalton Auditorium

Time	Presenter(s)	Title
(Surface Water)		
8:00 to 8:25 am	Zhen Xu and Y. Jun Xu	Elements geochemistry across the waterscape: A case study in the lower Little River Basin, Louisiana
8:25 to 8:50 am	Sara Ates and Matthew Hiatt	Hydraulic responses to frontal passage in a microtidal environment
8:50 to 9:15 am	Bo Wang and Y. Jun Xu	Water-sediment diversion rate at the Old River Control Structures
9:15 to 9:40 am	Jessica Nguyen and Hao Guo	Current and future depositions of nitrogen and sulfate in Southeastern U.S.
Break 9:40 to 10:00 am		
(Groundwater)		
10:00 to 10:25 am	Lee Gary , Robert Reimers and Kari Brisolora	Safe Water For Disinfection: Using Disinfectant Water for the 2014 Eboa Outbreak
10:25 to 10:50 am	Dependra Bhatt , Krishna Paudel, Frank Tsai and Huizhen Niu	Groundwater Use in the Agricultural Sector in Louisiana, 2004-2017
10:50 to 11:15 am	Olivia LaHaye , Emad Habib, Hamid Aboueshagh, Frank Tsai and David Borrok	Managed Aquifer Storage and Recovery Feasibility Study
11:15 to 11:40 am	Hanz Unruh , Emad Habib and David Borrok	The impact of unconventional energy development using hydraulic fracturing on Louisiana water resources availability

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