

Eleventh Annual Louisiana Groundwater, Surface Water & Water Resources Symposium

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

Schedule

Tuesday April 11, 2017

7:45 - 5:00	Registration
Dalton Auditorium	
8:25 - 8:40	Welcome/Introduction

Aquifer Management	Moderator: Anthony Duplechin (Capital Area Ground Water Conservation Commission)
8:45 - 9:10	Charles Heywood, Maxwell Lindaman and John Lovelace. Groundwater-flow and saltwater-transport model simulations supporting the management of saltwater movement in aquifers of the Baton Rouge area, Louisiana
9:10 - 9:35	Anthony Duplechin. Update on Capital Area efforts to address saltwater encroachment in the 2,000-ft sand, Baton Rouge, Louisiana
9:35 - 10:00	Phillip Hays and Sherrel Johnson. Sparta aquifer hydrogeology and status - Science to support management and conservation
10:00 - 10:25	Sherrel Johnson and Phillip Hays. "We're Not California, but We Coulda' Been". How good science and community cooperation saved the Sparta aquifer in South Arkansas & North Louisiana

Break 10:25 - 10:35

Professional Development	Moderator: John Johnston (Louisiana Geological Survey)
10:35 - 11:35	William Schramm and George Losonsky. Ethics for Professional Geoscientists and Engineers (one hour)

Lunch 11:35 - 1:30 Lunch (On Your Own)

Water Management in Agriculture	Moderator: Krishna Paudel (LSU and LSU AgCenter)
1:30 - 1:55	Naveen Adusumilli. Design and evaluation of water rate structure for an irrigation district in Northwest Louisiana
1:55 - 2:20	Changyoon Jeong and Ernest Girouard. Impact of irrigation using diverted and tailwater on nutrients and salinity distribution in row crop cultivation in northwest Louisiana
2:20 - 2:45	Krishna Paudel, Huizhen Niu, Dependra Bhatta and Frank Tsai. Evolution of irrigated crop areas and water use in Louisiana 2004-2016
2:45 - 3:10	Ernest Girouard and Changyoon Jeong. Development of best management practices for the reuse of agricultural runoff as irrigation water in Louisiana

Break 3:10 - 3:20

Water Availability		Moderator: David Borrok (University of Louisiana-Lafayette)
3:20 - 3:45	David Borrok, Jian Chen, Hisham Eldardiry and Emad Habib. Quantifying the impact of water quality on water availability in Louisiana	
3:45 - 4:10	Leslie Duncan, Brian Clark and John Lovelace. Groundwater availability of the Coastal Lowlands aquifer system: Updating a regional-numerical model by integrating past information and new data	
4:10 - 4:35	Drew Westerman, Meredith Reitz, Wade Kress and Brian Clark. Coupling monitoring and modeling to improve understanding of water availability in the Mississippi River Alluvial Plain.	
4:35 - 5:00	Frank Tsai. Conjunctive management of water resources for northern Louisiana under projected future climate change scenarios	

Conference Room

Water Quality and Modeling		Moderator: Ning Zhang (McNeese State)
8:45 - 9:10	Yuyan Zhou, Yijun Xu and Jianhua Wang. Identifying the tillage effects on phosphorus export from Mollisol-dominated agricultural watershed: a plot-scale study in Northeast China	
9:10 - 9:35	Jeremy Reiman, Emily Delduco, Songjie He and Dr. Yi-Jun Xu. Distribution of major elements and trace metals in the Mississippi-Atchafalaya River System	
9:35 - 10:00	Z. George Xue. Assess Impacts of climate change on Louisiana rivers using a coupled climate-hydrology model	
10:00 - 10:25	Mehdi Zeidouni and Mojtaba Mosaheb. Fault leakage characterization using pressure transient analysis	

Break 10:25 - 10:35

Water Quality		Moderator: Yi Jun Xu (LSU and LSU AgCenter)
10:35 - 11:00	Ning Zhang and Weihao Wang. Numerical modeling of Ph and nutrient transport in Calcasieu Lake water system	
11:00 - 11:25	Songjie He and Y. Jun Xu. Recent assessment of nutrient flux from the Calcasieu River to the northern Gulf of Mexico	
11:25 - 11:50	Dana Carsten and Reda Amer. Impacts of land use and land cover changes on water quality of the Pontchartrain Basin	

Lunch 11:50 - 1:30

Lunch (On Your Own)

Aquifer Water Quality		Moderator: Carol Wicks (Louisiana State University)
1:30 - 1:55	Douglas Carlson. Influences on water quality of the Wilcox Aquifer in Northwest Louisiana	
1:55 - 2:20	Jeffrey Hanor and Stephanie Welch. Evolution of groundwater compositions in the Mississippi River Alluvial Aquifer, southeastern Louisiana	
2:20 - 2:45	Douglas Carlson. Has initial development of Haynesville Gas Play impacted water quality of the overlying Wilcox Aquifer?	
2:45 - 3:10	Jia Xue and Samendra Sherchan. Occurrence of Naegleria fowleri in private wells in Louisiana	

Break 3:10 - 3:20

Water Quality		Moderator: Stacia Davis (LSU Agriculture Center)
3:20 - 3:45	Michael Cheatham, Brent Lazenby and Warren Brady. Sustainability Implications of Enhanced In-Situ Bioremediation Implementation	
3:45 - 4:10	Xiuping Zhu. Reverse-electrodialysis cells for salinity gradient energy recovery between seawater and river water	
4:10 - 4:35	Emily Delduco and Yijun Xu. Contribution of the Red River to carbon fluxes in the Atchafalaya River	
4:35 - 5:00	(Visit Posters)	

Poster Session		Moderator: Douglas Carlson (Louisiana Geological Survey)
10:00 - 5:00	Stacia Davis and Daniel Fromme. Managing irrigation using the STAMP Irrigation Tool	
10:00 - 5:00	Rebecca Lenz, David Vinson, John Jennings, Jesse L. Means Iii, Mary L. Gentry and David M. Borrok. The geochemistry of the groundwater in the Mississippi River Alluvial Aquifer	
10:00 - 5:00	Pengfei Wang, Zuo Xue and Hongliang Zhang. Understanding air-sea carbon dioxide exchange in the Gulf Coast	
10:00 - 5:00	Carol Wicks. Fluid flow and heat and mass transfer in the Gulf of Mexico basin: Insights from student-driven course-embedded research experiences	
10:00 - 5:00	Jina Yin, Frank Tsai and Hai V. Pham. Saltwater Intrusion modeling for the Baton Rouge aquifer system, Southeast Louisiana	
10:00 - 5:00	Fabiane Barato, Whitney P. Broussard Iii, David M. Borrok and Katie H. Costigan. The variability of the potentiometric surface in the Chicot Aquifer, Louisiana, from 1940 to 2015	
10:00 - 5:00	Ramazan Karakullukcu, Dependra Bhatta, Frank Tsai and Krishna Paudel. Construction of the Mississippi River Alluvial Aquifer, Northeast Louisiana	
10:00 - 5:00	An Li and Frank Tsai. Groundwater pumping induced land subsidence in the Baton Rouge area, Southeast Louisiana	
10:00 - 5:00	Shuwei Zheng, Yijun Xu, Heqin Cheng, Bo Wang and Wu Shuaihu. Comparison of dune characteristics in the Lowermost Mississippi River and Yangtze River Estuary	
10:00 - 5:00	Fenglin Han and Hongliang Zhang. Deposition of polycyclic aromatic hydrocarbons (PAHs) to Louisiana water bodies	

Wednesday April 12, 2017

9:00 - 10:30	Registration
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Dalton Auditorium

Water Modeling		Moderator: Douglas Carlson (Louisiana Geological Survey)
9:20 - 9:45	Hamid Vahdat Aboueshagh and Frank Tsai. A geological modeling framework based on well log data: A case study of Chicot Aquifer, southwest Louisiana	
9:45 - 10:10	Maryam Roostae and Zhiqiang Deng. Evaluating effects of DEM resolution on watershed modeling	
10:10 - 10:35	John Johnston. Louisiana Professional Geoscientist License Update	

Break 10:35 - 10:45

Geomorphology		Moderator: Navid Jafari (Louisiana State University)
10:45 - 11:10	Y. Jun Xu. What if the Mississippi River does change its course to the Atchafalaya?	
11:10 - 11:35	Craig Colten. Mississippi River Diversions: Historical analogs for coastal restoration	
11:35 - 12:00	Brian Harris and Navid Jafari. Long-term consolidation and subsidence of beach nourishment and dune restoration in coastal Louisiana	

Conference Room

Surface Water Quality		Moderator: Marty Horn (Louisiana Geological Survey)
9:20 - 9:45	Yiyan Wang, Shuo Yang, Zhen Xu and Yi Jun Xu. Diurnal dissolved oxygen dynamics in a shallow urban lake – LSU University Lake	
9:45 - 10:10	Shuo Yang, Yiyan Wang, Zhen Xu and Yijun Xu. Factors affecting dissolved carbon dioxide in lake waters – A Case Study at LSU University Lake	
10:10 - 10:35	Bijay Pokhrel and Krishna Paudel. Selection of optimal best management practices to minimize nonpoint source pollution based on critical source area identification: a case of Tensas River at Tendal Watershed in Louisiana	

Break 10:45 - 10:55

Water Quality and Sediment		Moderator: Frank Tsai (Louisiana State University)
10:45 - 11:10	Bo Wang and Y. Jun Xu. Suspended coarse sediment budget in the lowermost Mississippi River	
11:10 - 11:35	Sanjeev Joshi and Y. Jun Xu. Estimation of suspended load and bedload in the Mississippi River from Old River Control Structure to Baton Rouge	
11:35 - 12:00	Zhen Xu and Y. Jun Xu. Are current forestry best management practices effective on quality of river water entering the Catahoula Lake?	