



The mission of the Mississippi Department of Environmental Quality is to safeguard the health, safety, and welfare of present and future generations of Mississippians by conserving and improving our environment and fostering wise economic growth through focused research and responsible regulation.

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MDEQ Staff Changes

Michael Bograd

After more than 46 years of service to the state, State Geologist and Head of MDEQ's Office of Geology, Michael Bograd is retiring June 30. Bograd has served in these positions since 2004, and is also a long-standing member of the Mississippi Environmental Quality Permit Board.

"I have found MDEQ a good place to work. Its responsibilities are very important to the economy, health, and welfare of the citizens of Mississippi, and the work is interesting and intellectually stimulating. I have enjoyed working with a great group of professional, dedicated colleagues through my years with the Geological Survey / Bureau of Geology / Office of Geology," said Bograd.



Helping students identify fossils in gravel.

Immediately after graduation from Mississippi State University in 1971, Bograd worked for the Geology Section of the Gulf Coast Research Laboratory. On January 1, 1972, he started as the junior geologist at the Mississippi Geological Survey, which in 1979 became the Bureau of Geology and Energy Resources of the Mississippi Department of Natural Resources and in 1989 the Office of Geology and Energy Resources of the Mississippi Department of Environmental Quality.



This 1989 photo of Michael Bograd shows a sample of Selma chalk from the quarry at Artesia, where it was mined for cement manufacture. The hole is from a borehole in the quarry. The boulder dissolved away over several months. The Selma chalk outcrop belt has been studied in Mississippi for two proposed hazardous waste disposal facilities, and was the site of Mississippi's proposal for locating the Superconducting Super Collider in the 1980s.

Cody Fisher

Cody Fisher was recently selected as the Chief of the newly-established Emergency Response and Preparedness Division. Cody has worked at MDEQ for over 15 years in the Environmental Compliance and Enforcement Division. Cody brings to this position a firm foundation in many of MDEQ's programs and has several years of experience working with the Mississippi Emergency Management Agency (MEMA) and other state and federal agencies during disaster response as the agency's Emergency Coordinating Officer. The division is responsible for MDEQ's response to hazardous material incidents statewide and also for maintaining MDEQ's preparedness and ability to adequately respond to man-made and natural disasters.



"Environmental response and preparedness are crucial to this agency's mission of protecting human health and the environment. I feel that the formation of this division will help increase the coordination with the great staff and across the variety of programs at MDEQ during times of disaster. I am truly grateful and blessed to have this opportunity to lead the division and will do my best to serve the agency and the citizens of the state to the best of my ability," said Fisher.

Cody has been with MDEQ since 2002. He was raised in Union, Mississippi, and earned a B.S. in Biological Engineering at Mississippi State University and a Master's in Environmental Engineering from the University of Mississippi. He is a registered Professional Engineer and is also a Board Certified Environmental Engineer in Hazardous Waste.

Gas Station Operator Pleads Guilty to Discharge of Hazardous Pollutant into Yazoo City Sewage Treatment System

On May 3, the U.S. Department of Justice announced that Mahant Singh, operator of a convenience store and gas station in Yazoo City, pled guilty to a criminal violation of the Clean Water Act. Singh admitted to discharging the contents of an underground fuel storage tank into a sewage line connected to the Yazoo City wastewater treatment system, which created a fire or explosion hazard and risked contaminating local water supplies.

At the end of April 2016, water from rainstorms leaked into one of the underground gasoline storage tanks at the 49 Quick Stop though an inadequately maintained tank cap. The presence of water in the fuel storage tank triggered an automatic shut off, preventing the dispensing of gasoline. Instead of removing the gasoline and water mixture from his tank Singh pumped some of the content of the contaminated tank into an opening in the sewage line.

"We are fortunate that the illegal disposal of contaminated gasoline did not cause an explosion or injury," said Chris Sanders, Director of MDEQ's Office of Pollution Control. "A quick response by Yazoo City and MDEQ officials to identify the source of the discharge limited the risk of harm to the public and to the city's sewage treatment system. However, numerous buildings, including a school, had to be evacuated when gasoline fumes were detected in several areas throughout the city. Cooperation between EPA's Criminal Investigation Division and MDEQ on this illegal disposal was essential to these charges."

Federal law authorizes a Class A misdemeanor under the Clean Water Act for any person who negligently introduces into a publicly-owned treatment works any pollutant or hazardous substance which the person knew, or reasonably should have known, could cause personal injury or property damage or to introduce into the system any material other than in compliance with all applicable federal, state, or local requirements or permits. Sentencing is scheduled for July 17, 2017.



MDEQ's Dan Harper (right) and Andrew Villar, Mississippi Department of Agriculture and Commerce (left), measuring the amount of the fuel and water ratio in an Underground Storage Tank to determine how much had been pumped out.

Beach Outfalls Challenge Voting

We are excited to invite you to cast your vote to help decide the finalists in the Beach Outfalls Challenge! On May 1, MDEQ announced 12 semifinalists for the Beach Outfalls Challenge. The Beach Outfalls Challenge, funded through a National Fish and Wildlife Foundation Gulf Environmental Benefit Fund grant, seeks to improve the water quality and benefit the ecology of the Mississippi Sound, as well as restore natural resources harmed by the *Deepwater Horizon* oil spill.

Now is the time for you to cast your vote for the design idea that you think will provide the most improvement to water quality and beach aesthetics. Each semifinalist has prepared a video highlighting their team's idea.

We invite you to cast your vote as part of the process to help decide the finalists! Voting begins Friday, May 19, 2017, at 12:01 a.m. and ends June 4, 2017, at 11:59 p.m. Central Time. Each person can vote once per day for their favorite video on the [Beach Outfalls Challenge Website](#).

Please follow us on social media (Facebook: [@BeachOutfallsChallenge](#) or Twitter: [@MSOutfalls](#)) to keep up with the voting process, and sign up for the newsletter on the [Beach Outfalls Challenge Website](#).

The six finalists will be announced on June 8.



VOTING BEGINS
MAY 19, 2017

beachoutfallschallenge.org

Adopt-A-Stream Workshop

MDEQ and The Mississippi Wildlife Federation will host an Adopt-A-Stream workshop at George P. Cossar State Park near Enid on June 13 to 14.

Adopt-A-Stream is a program that promotes environmental stewardship through training workshops, outdoor field activities, and by introducing participants to watershed action projects.

The two-day program provides an in-depth study of watersheds, as well as hands-on training in chemical and biological parameters important to a healthy stream. In addition, the workshop will:

- Increase awareness of nonpoint source pollution
- Introduce surveying and mapping of a watershed
- Increase watershed protection awareness and possible action that can be taken to help a watershed with ideas about projects such as:
 - Storm drain marking
 - Stream clean-ups
 - Recycling
 - Advocacy

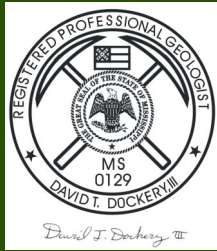
Who Should Participate?

Educators, land managers, advocacy groups, Scout troop leaders, Envirothon Team advisors, watershed team leaders, environmental educators, and concerned citizens. For teachers, two Continuing Education Units are available.

Registration Information

Registration is available at www.mswildlife.org/AAS/ or contact Debra Veeder, Adopt-A-Stream Coordinator, at (601) 605-1790 and dveeder@mswf.org.





Geological Finds at the Rankin Trails Park and Amphitheater

David T. Dockery III, RPG, James E. Starnes, RPG, and Tyler Berry, RPG, Office of Geology

The Rankin Trails Park and Amphitheater is a \$4.2 million renovation of Brandon's Shiloh Park on the property of the old Marquette Cement Manufacturing Company's quarry and plant site (Figure 1). The renovation includes a pavilion, several state-of-the-art baseball fields, walking and biking trails, and the new Marquette Amphitheater, all projects requiring excavation and bedrock exposure. This site is also a fossil locality designated as Mississippi Geological Survey (MGS) locality 98. Thus, it should come as no surprise that recent construction at this site uncovered jackhammer-hard bedrock, limestone, and fossils. Figure 2, on the next page, shows the quarry wall of the old Marquette quarry which was a favorite fossil collecting site for the Mississippi Gem and Mineral Society. The front office of the Marquette Company on site included a display case with fossils from the quarry. One of these fossils was a limestone block with the cylindrical cast of a palm tree trunk, which is now in the *Stories in Stone* exhibit at the Mississippi Museum of Natural Science.



Figure 1. Design concept for the Rankin Trails Park and Amphitheater as posted on October 14, 2014.



Figure 2. Glendon Limestone at the Marquette Cement Manufacturing Company's quarry at Brandon, Mississippi. Picture is from *The Geology of Mississippi*, p. 458, fig. 770; it was taken in July of 1978.

In 2016, when Office of Geology staff arrived at the Rankin Trails construction site, they found construction workers and supervisors showing off fossils they had collected (Figure 3). The site, therefore, was a well-rounded opportunity for an educational geology field trip for Geology staff and Millsaps College students as it combined stratigraphy, fossils, and karst limestone associated with the lower ledge of the Glendon Limestone as shown in Figure 4. Just below the Glendon Limestone, and near the top of the underlying Marianna Limestone, was a foot-thick bed of bentonite. Bentonites in the same geologic formation were once commercially mined in Smith County, Mississippi, for various industrial uses. Such bentonite beds are weathered volcanic ash deposits derived from volcanic eruptions as far west as New Mexico and Colorado. Bentonites often contain crystals of biotite and sanidine that can be radiometrically analyzed to find the age of the eruption event in millions of years. For this reason, samples of the Rankin Trails bentonite bed were collected with the help of a company backhoe (Figure 5). In Figure 6, company supervisor David Rattcliffe shows his fossil crab specimen to Millsaps College students and professors on a class field trip.



Figure 3. Left, supervisor David Ratcliffe shows a fossil heart urchin and two shark teeth he found at the Rankin Trails construction site. Picture was taken on October 3, 2016. Right, four views of the heart urchin *Schizaster americanus*, which David Ratcliffe donated to the Mississippi Museum of Natural Science.

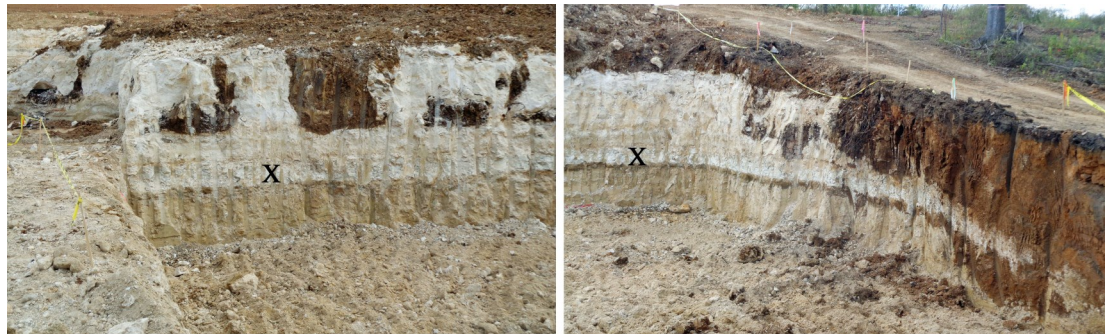


Figure 4. Karst caverns in the lower ledge of the Glendon Limestone filled with clay from the overlying Bucatunna Formation. Xs mark the location of the bentonite bed below the Glendon Limestone. Pictures were taken on October 27, 2016.



Figure 5. Left, trackhoe operator uncovers bentonite bed for sampling. Right, Tyler Berry (at left) and a Millsaps student collect bentonite samples. Pictures were taken on October 27, 2016.



Figure 6. Left, Millsaps College Geology Department field trip to the Rankin Trails construction site. Third from the right, David Ratcliffe holds a fossil crab specimen. Right, fossil crab *Necronectes vaughani* from the Glendon Limestone. Pictures were taken on October 27, 2016.



Burrowing fossil clam *Panopea oblongata* in life position in limestone.



MDEQ Environmental Action Links

- Draft permits currently at public notice, <http://opc.deq.state.ms.us/publicnotice.aspx>
- Environmental Permits Division Scheduled Public Hearings, <http://opc.deq.state.ms.us/publichearingheader.aspx>
- Geology Permit Application Public Notice, http://opc.deq.state.ms.us/geology_public_notice.aspx
- Permits and certificates issued in the last 90 days, http://opc.deq.state.ms.us/report_permits.aspx
- General permit coverages issued in the last 90 days, http://opc.deq.state.ms.us/report_gnp_issued.aspx
- Notices of Intent for coverage under a Statewide General permit received by the Environmental Permits Division, http://opc.deq.state.ms.us/report_gnp_notice.aspx
- List of the 401 Water Quality Certifications currently at public notice, http://opc.deq.state.ms.us/report_wqc_public_notice.aspx
- List of the compliance inspections recently conducted, http://opc.deq.state.ms.us/report_eced_tasks.aspx
- Orders issued by the Mississippi Commission on Environmental Quality, http://opc.deq.state.ms.us/report_orders.aspx

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Picture of the Month

Pelahatchie Creek.

Taken by Chris
Hawkins, Office of
Land and Water Re-
sources.

