



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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Mississippi Department of Environmental Quality

Environmental News

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Delta Sustainable Water Resources Task Force Meets Metering Deadline

The Delta Sustainable Water Resources Task Force (Task Force) successfully met its February 1, 2016, deadline for the reporting of annual metered water use. This achievement follows the completion of the goal of installing meters on 10 percent of the Mississippi River Valley Alluvial Aquifer's (MRVA) irrigation wells by December 31, 2015.

Kay Whittington, Head of MDEQ's Office of Land and Water Resources said, "MDEQ is excited that the producers in the Delta worked together to reach the total 10 percent voluntary metering installation and water use reporting goals put forth by the Task Force. This is a significant accomplishment and everyone who installed a meter and reported their water usage is to be congratulated. We must continue this momentum to reach the water usage reporting milestone annually. We need water usage information by February 1st of each year from to be able to evaluate water use by crop type, soil type, and precipitation as it is geographically distributed throughout the Delta on a long-term basis, and to help maintain that awareness of water use at the local level, as well as the regional and farm levels."

"The water use data are critical to improve our science in evaluating solutions for maintaining an adequate supply of irrigation water. MDEQ is committed to working with the Task Force members to meet this annual goal of the voluntary metering program and to do whatever is needed to ensure that Delta producers have sustainable water supplies for the future," said Whittington.

The Office of Land and Water Resources (OLWR) has researched and collected data for years on the MRVA's groundwater levels. While the region is water rich with over 50 inches of rainfall annually, less than half of this falls during the growing season, so approximately two million acres in the Delta are irrigated, primarily with groundwater pumped from the MRVA. Groundwater levels in the MRVA are declining as irrigation demands have increased, and increased irrigation demand over time has resulted in declines of water levels of almost one foot per year in some parts of the aquifer.

To address these challenges the Delta Sustainable Water Resources Task Force was organized in 2011 and was later formalized by an executive order by Governor Bryant in 2014. The Task Force promotes conservation measures, irrigation management practices, and implementation of alternative Delta surface and groundwater supplies; advises MDEQ on policies related to water resources; and promotes the implementation of strategies and plans developed through the Task Force to ensure the future sustainability of water resources in the Delta. MDEQ leads the Task Force which includes representatives from: Delta Council, Delta F.A.R.M., Mississippi Farm Bureau Federation, Mississippi Soil and Water Conservation Commission, Natural Resources Conservation Service, U.S. Army Corps of Engineers, and Yazoo-Mississippi Delta Joint Water Management District.



Because irrigation is the driver of water level declines in the MRVA, the initial efforts of the Task Force focused on acquiring better information on irrigation withdrawals, and accurate water use data to improve the science to inform policy decisions and to encourage more efficient water use. Moreover, it was decided that the best way to get this information was through fixed flow meters installed on at least 10 percent of MRVA wells with geographic distribution throughout the Delta. Metered water use data could be used in evaluating water conservation scenarios; assessing the effectiveness of different irrigation management practices; and determining the need for additional surface water supplies. The meters also give water users a tool to help them better understand, more carefully manage, and possibly reduce their water use. In February 2013, MDEQ implemented the Voluntary Metering Program, and Task Force members supported the program with the understanding that mandatory metering would be implemented if the program's deadlines were not met.

A guiding principle of the Task Force is to manage water as efficiently as possible, including using the suite of irrigation water management practices researched and documented by Dr. Jason Krutz, an irrigation specialist with the MSU Delta Research and Extension Center, and others. There is no single solution for, and no one group can solve this problem on their own. However, the water, money, and time savings of some of these conservation practices are well documented and should be as widely implemented throughout the Delta as possible. The Task Force is also identifying ways to store water when it is plentiful for use when it is not and researching alternative solutions such as enhancing recharge through the transfer of groundwater, transfers of surface water, and the use of in-stream weirs to make the availability of surface water more dependable. The injection of groundwater and the use of weirs in strategic locations can help increase recharge in critical areas. The use of surface water instead of groundwater can also help reduce pressure on the aquifer.

Mississippi is blessed with a lot of rainfall; however, if business continues as usual, the water that has always been so plentiful in the Delta will no longer be available. Progress must be made now with voluntary conservation measures while all options continue to be investigated.

Public Forum on the Clean Power Plan Canceled

Since there has been much interest in EPA's Clean Power Plan and how the rule might impact Mississippi, MDEQ scheduled a public forum for February 23 to discuss it. However, due to the recent stay issued by the Supreme Court of the United States, MDEQ is canceling that public forum. The stay, so long as it is in place, stops any of the requirements of the Clean Power Plan from becoming effective; therefore, MDEQ is suspending its efforts to develop a state implementation plan until there is a court ruling. Current expectations are that a ruling will not be made until late 2017 or early 2018. Should MDEQ resume public outreach concerning EPA's Clean Power Plan, whatever form it may take, the agency will send notification. Please contact Chad LaFontaine at Chad_LaFontaine@deq.state.ms.us to be added to the contact list.

303(d) Comment Period and Public Meeting

The Clean Water Act Mississippi 2016 Section 303(d) List of Impaired Water Bodies is available for public review and comment. MDEQ has prepared this document in compliance with federal regulations and the Clean Water Act. Water bodies on this list that are impaired are required to have Total Maximum Daily Loads (TMDLs) determined for each pollutant added to the water that causes impairment. A TMDL reports the maximum amount of a pollutant that can be put into a stream without violating water quality standards.

Copies of the draft 2016 list can be obtained by contacting Mike Freiman at Post Office Box 2261, Jackson, Mississippi, 39225, 601-961-5171, or mfreiman@mdeq.ms.gov. It is also available at http://www.deq.state.ms.us/MDEQ.nsf/page/TWB_Total_Maximum_Daily_Load_Section.

Comments can be submitted in writing to Mr. Mike Freiman at the address above before 5:00 p.m. on March 14. In addition, a public hearing will be held to receive comments on March 14, at 3:00 p.m. in the MDEQ Commission Hearing Room at 515 E. Amite Street in Jackson. All comments received during the public notice period and at the public hearing will be considered prior to proposing the list to the Mississippi Commission on Environmental Quality and the Environmental Protection Agency for approval.

Mississippi Gulf Coast Restoration Plan Webinar March 1

In November 2015, MDEQ released for public comment the Mississippi Gulf Coast Restoration Plan, the result of a year-long data collection and stakeholder engagement effort, funded by a National Fish and Wildlife Foundation (NFWF) grant, to understand the Mississippi landscape and the restoration priorities of the public. During the planning effort, the Mississippi Comprehensive Ecosystem Restoration Tool (MCERT) and the Decision Support System (DSS) were developed to support science-based decision making for restoration.

MDEQ will host a webinar at 10:00 a.m. on Tuesday, March 1, to provide Mississippi stakeholders an opportunity to learn more about the Mississippi Gulf Coast Restoration Plan. The webinar will provide an overview of the Plan, MCERT, and the DSS restoration tool.

To register for the webinar: <https://attendee.gotowebinar.com/register/4576210648313748226>, or go to <http://www.gotomeeting.com/webinar/join-webinar> and use webinar code: 158-857-995. For questions regarding the webinar, please contact Sarah Tracy at Sarah_Tracy@deq.state.ms.us.

Fossil Road Show

MDEQ Geologists will be participating in the Fossil Road Show to be held Saturday, March 5, from 10:00 a.m. to 3:00 p.m. at the Mississippi Museum of Natural Science in Jackson.

Bring your favorite finds and have them identified by the experts!

MDEQ's James Starnes (center) and Tyler Berry (right) at the 2015 show. Also included in the photo are James's daughter and Tyler's nephew.





Adopt-A-Stream Workshop

The Mississippi Wildlife Federation along with MDEQ will hold a two-day Adopt-A-Stream workshop at Percy Quin State Park near McComb on June 14 to 15, 2016.

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 your watershed
- ▶ Increase watershed protection awareness and possible actions that can be taken to help your watershed. A new model of - *It Begins at Home*. With ideas about projects such as:

*Storm Drain Marking

*Stream Clean-ups

*Recycling

*Advocacy and More

Who Should Participate?

Educators, land managers, advocacy groups, Scout troop leaders, Envirothon Team Advisors, watershed team leaders, environmental educators, concerned citizens and others. For teachers, two CEU credits are available.

Registration Information

Registration will be available on the Mississippi Wildlife Federation/Adopt-A-Stream website; www.mswildlife.org/AAS/ or by contacting Debra Veeder, Adopt-A-Stream Coordinator at (601)605-1790 or dveeder@mswf.org for a registration form.

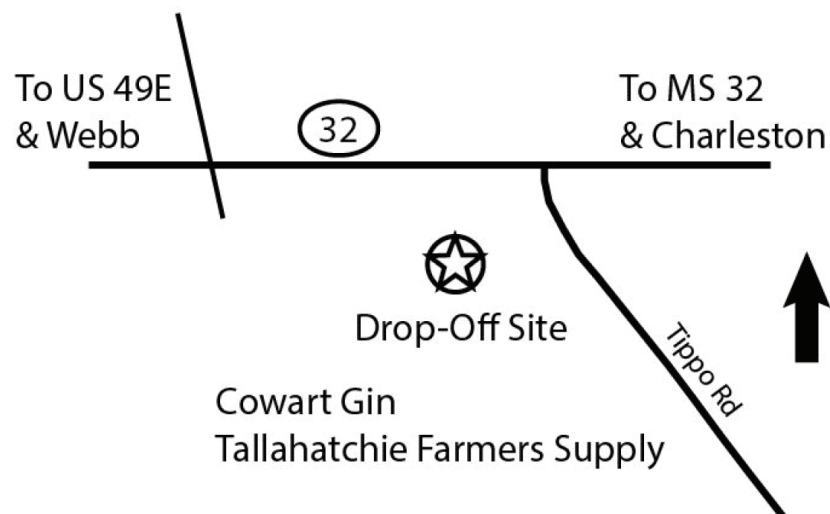
Agricultural Pesticide Disposal Day in Tallahatchie County

Mississippi farmers with waste agricultural pesticides are invited to take part in a waste pesticide disposal event to be held on Wednesday, February 24, from 8:00 a.m. to 3:00 p.m., at the Cowart Gin Yard and Tallahatchie Farmers Supply located at 3990 Tippo Road in Cowart.

There is no charge to Mississippi farmers, but they are responsible for safely transporting waste pesticides to the collection site. Waste pesticides include leftover, cancelled, or otherwise unusable products such as insecticides, herbicides, fungicides, and plant growth regulators. No rinsates or pesticides in bulk containers will be collected.

The event offers farmers a no-cost, environmentally safe way to dispose of leftover pesticide products through a licensed hazardous waste contractor. In addition, waste tires from the farm will also be accepted for recycling. Producers may drop off up to 10 automobile/light truck-sized tires and up to two tractor-sized tires for recycling at the Tallahatchie County Road Building, 4932 Highway 32 Central, Charleston.

The program is coordinated by the Mississippi State University Extension Service with funds made available through MDEQ and the Mississippi Department of Agriculture and Commerce.

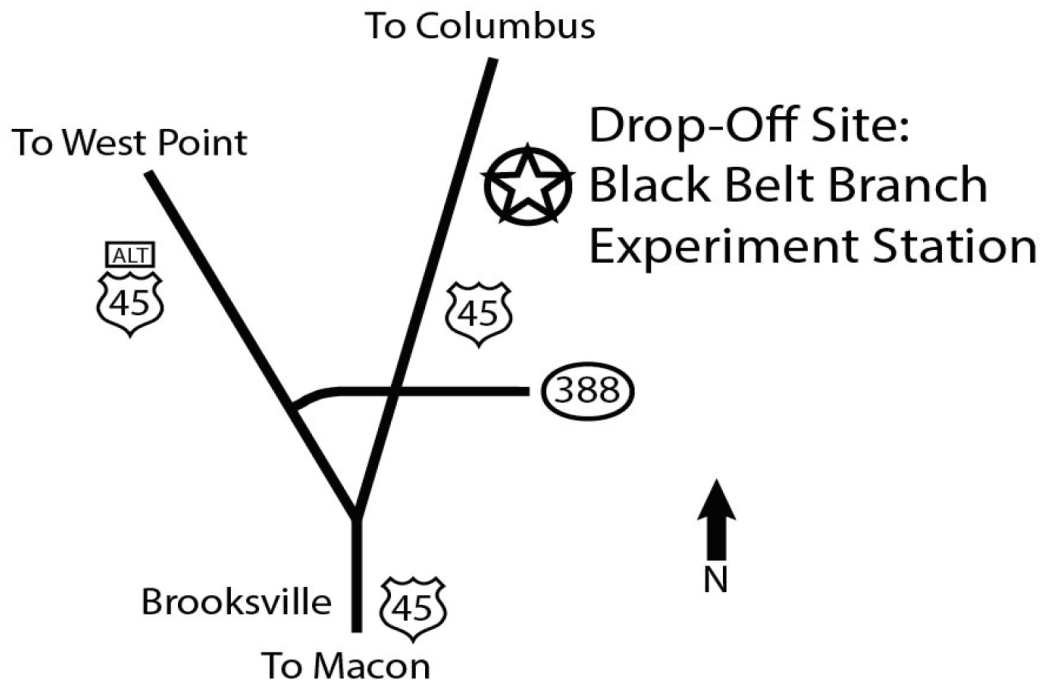


Agricultural Pesticide Disposal Day in Noxubee County

Another waste pesticide disposal event will be held on Tuesday, March 1, from 8:00 a.m. to 3:00 p.m. at the Mississippi State University Black Belt Branch Experiment Station located at 23512 Highway 45 in Noxubee County.

This event is similar to the Tallahatchie County event in regards to the pesticide products accepted, and there is no charge. A licensed hazardous waste contractor will be on hand at the collection site and will collect, analyze, and dispose of or recycle the products out of state according to environmental laws. And, farmers may drop off up to 10 automobile/light truck-sized tires and up to two tractor-sized tires for recycling. For additional tires over the limit, farmers may utilize the local county drop off site for the county in which they reside.

This event is also coordinated by the Mississippi State University Extension Service with funds made available from MDEQ and the Mississippi Department of Agriculture and Commerce.



For any questions or additional information, please contact Kayra Johnson, Data Administration Branch, at 601-961-5106 or via email at Kayra.Johnson@deq.state.ms.us.

NetDMR Training Available

On October 22, 2015, EPA promulgated the NPDES E-Reporting rule, and in order to comply with requirements set in this rule, any permittee in the State of Mississippi that is required to submit Discharge Monitoring Reports (DMRs) must begin submitting them electronically by no later than December 20, 2016. MDEQ has implemented the use of EPA's NetDMR for the electronic submittal of DMRs. Several training classes are being offered throughout the state to help with the transition to electronic submittals.

Each class is three hours and includes a hands-on exercise using NetDMR. Classes are limited to 25 people and registration is required. To register, contact Annette Brocks at 601-961-5252 or via email at Annette.Brocks@deq.state.ms.us. Please include name, phone number, and class to attend.

Class 31 Class limited to 15 participants

March 8, 2016, 8:30-11:30 a.m.
Itawamba Community College, Belden Center, Room 304.

Class 32 Class limited to 15 participants

March 8, 2016, 1:30-4:30 p.m.
Itawamba Community College, Belden Center, Room 304.

Class 33 Class limited to 15 participants

March 9, 2016, 8:30-11:30 a.m.
Itawamba Community College, Belden Center, Room 304.

Class 34 Class limited to 15 participants

March 9, 2016, 1:30-4:30 p.m.
Itawamba Community College, Belden Center, Room 304.

Class 35 Participants need to bring laptops

March 16, 2016, 8:30-11:30 a.m.
MDEQ, 700 N. State Street, Jackson.

Class 36 Participants need to bring laptops

March 16, 2016, 1:30-4:30 p.m.
MDEQ, 700 N. State Street, Jackson.

Class 37 Participants need to bring laptops

April 11, 2016, 8:30-11:30 a.m.
MSU Coastal Research and Extension Center, Room A102, Biloxi.

Class 38 Participants need to bring laptops

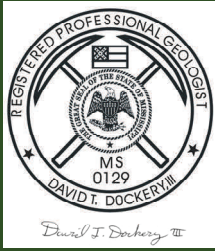
April 11, 2016, 1:30-4:30 p.m.
MSU Coastal Research and Extension Center, Room A102, Biloxi.

Class 39 Participants need to bring laptops

April 12, 2016, 8:30-11:30 a.m.
MSU Coastal Research and Extension Center, Room A102, Biloxi.

Class 40 Participants need to bring laptops

April 12, 2016, 1:30-4:30 p.m.
MSU Coastal Research and Extension Center, Room A102, Biloxi.



The January 2016 Mississippi River Flood

David T. Dockery III, RPG, and Robert T. Berry, RPG, Office of Geology

Floods are the number one natural disaster in the United States as measured in property loss, insurance costs, and in weather-related deaths. It is also a geological event that sculpts the landscape and deposits geological formations such as those mapped by the Surface Geology Division.

Flooding on the Mississippi River is a repetitive event as seen in the winter Mississippi River flood of 2016, which reached the approximate height of the April 2008 flood, as measured from flood crests in Vicksburg (figures 1-3) and Natchez (Figure 4). This spring-like flood event was associated with: (1) a strong El Niño pattern (warm water in the eastern Pacific), (2) January temperatures 8 to 12 degrees Fahrenheit above normal, and (3) frequent storms that produced heavy rainfall totals in the Mississippi Basin. Late-December 2015 flooding in the upper Mississippi River Valley moved downstream to create high crests in January 2016 along the lower Mississippi River valley.

MDEQ participated as part of the state's response at the Emergency Operations Center at the Mississippi Emergency Management Agency. While there were no significant debris issues as experienced during the 2011 flood, MDEQ staff did respond to several oil and chemical releases from barge collisions on the river.



Figure 1. Tyler Berry at left viewing Mississippi River flood waters against the Vicksburg flood wall at right. Pictures were taken on January 14, 2016.

Figure 2 is a picture of selected high flood crests marked on the Vicksburg floodwall as seen on September 26, 2009. Listed chronologically, these include the floods of 1927 at 56.2 feet, 1929 at 52.9 feet, 1932 at 49.5 feet, 1937 at 53.2 feet, 1945 at 47.5 feet, 1961 at 44.9 feet, 1973 at 51.6 feet, 1983 at 49.3 feet, and 2008 at 51.0 feet. In an 80-year period from 1927 to 2007, eight flood crests are recorded on the wall with the highest at 56.2 feet in 1927. In an eight-year period from 2008 to 2016, there have been four flood crests, occurring in 2008, 2009, 2011, and 2016, worthy of a record mark on the wall, with the highest at 57.1 feet in 2011. The bathtub rings of the 2008 and 2009 (at the level of the 1945 crest) crests can be seen between the markers on the Vicksburg floodwall in the 2009 photograph (Figure 2, left).



Figure 2. Left, Flood crests recorded on the flood wall at Vicksburg after the flood of 2008; picture taken on September 26, 2009. Right, Flood level a day before the crest as seen against the Vicksburg flood wall on January 14, 2016.

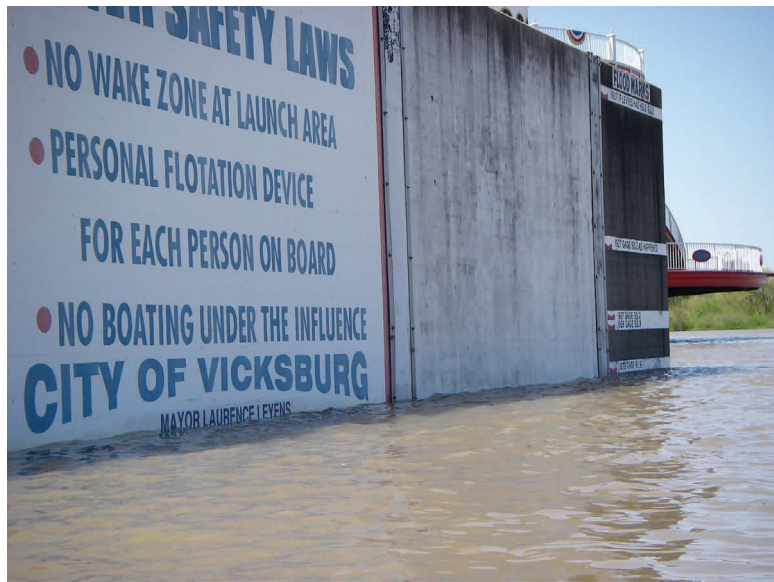


Figure 3. Mississippi River flood crests at the Vicksburg flood wall: Top picture taken April 20, 2008; Middle picture on May 19, 2011; Bottom picture on January 14, 2016.

Figure 4 shows a gate at Natchez Under the Hill as a reference marker for the flood crests of 2008 (top), 2011 (middle), and 2016 (bottom). The January 17, 2016, winter flood crest at 56.7 feet was the fifth highest on record, a little less than the April 2008 spring flood crest of 57.03 feet, but still a couple of inches higher than the 1927 flood. During the 2016 crest, 1.8 million cubic feet of water per second flowed past Natchez. The picture at the bottom of Figure 4 was taken a day after the crest. Pictures of the Vicksburg flood crest in figures 1-3 were taken a day before the actual flood crest on Friday January 15, 2016, at 50.23 feet, a little lower than the 2008 flood at 51.0 feet. At this time some 1.7 million cubic feet of water per second flowed past Vicksburg. At this time the Mississippi River became the second largest river in the world in regard to discharge, eclipsing the Congo River with an average discharge at its mouth of 1.4 million cubic feet per second.

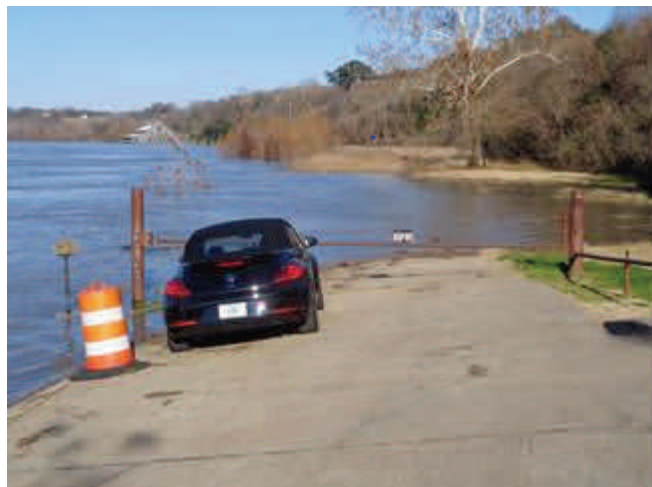
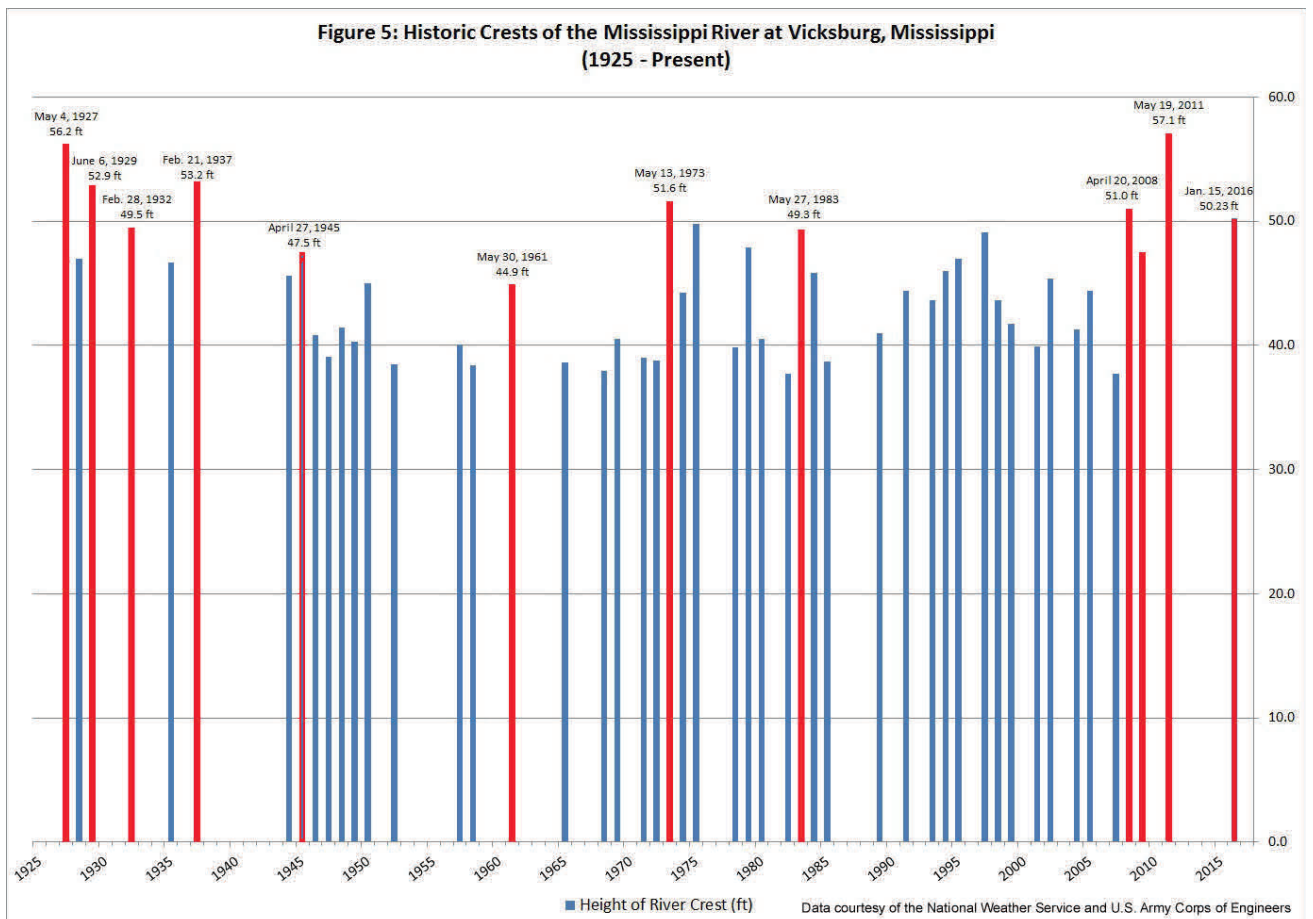
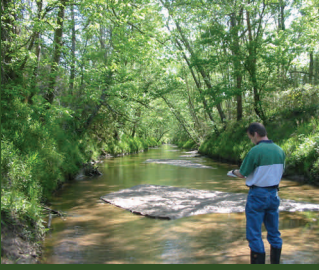


Figure 4. Mississippi River flood crests at Natchez Under the Hill: First photo taken April 21, 2008; Second photo on May 21, 2011; Third photo taken January 18, 2016.

Figure 5 (see below) shows significant Mississippi River flood crests at Vicksburg from 1925 to the present as recorded by the National Weather Service. Those crests recorded in paint on the Vicksburg flood wall and those of similar height from 2008 to 2016 are shown in red. The cluster of high flood crests from 2008 to 2016 is similar to that from 1927-1937, indicating recent floods to be part of the natural ebb and flow of high water on the Mississippi River.



MDEQ ENVIRONMENTAL ACTION LINKS



- Draft permits currently at public notice, <http://opc.deq.state.ms.us/publicnotice.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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