



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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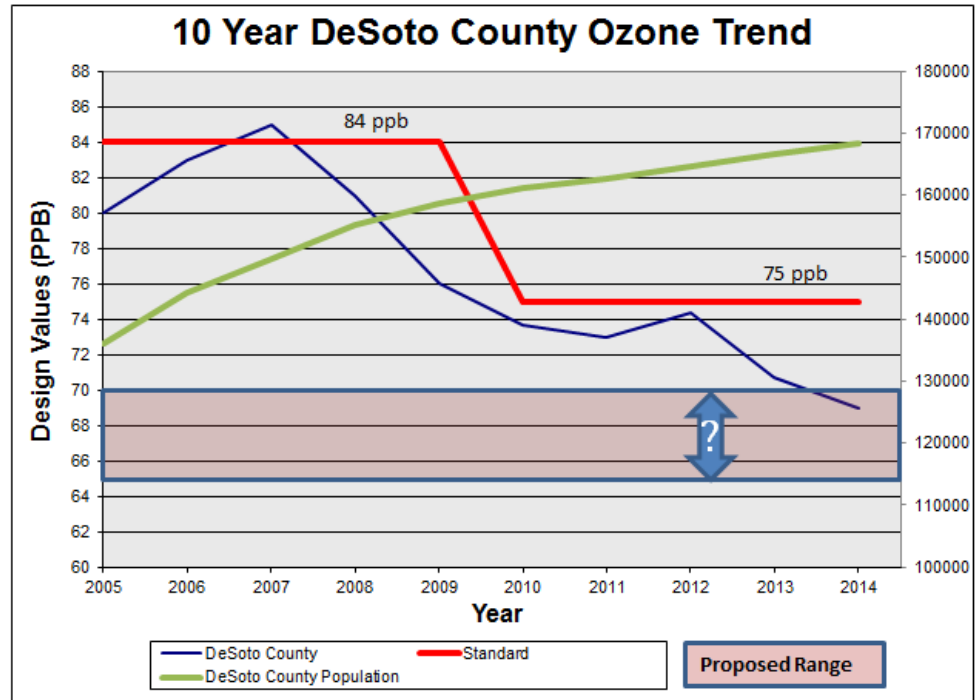
OZONE STANDARD ATTAINMENT STATUS OF DESOTO COUNTY

DeSoto County did its part, but the effort to regain attainment status continues

Elliott Bickerstaff and Dallas Baker, MDEQ Air Division

While DeSoto County's ambient air monitoring demonstrated it met the 2008 ozone standard of 75 parts per billion (ppb), to the dismay of economic developers the county was included in the larger Memphis non-attainment area due to its proximity to Shelby County, Tennessee, and Crittenden County, Arkansas, both of which did not meet the standard. EPA had discretion to include or not include DeSoto County in the non-attainment area, and its unfortunate decision burdened the process of redesignation and kept in place strict permitting requirements in that area.

Mississippi officials disagreed with EPA's decision and in information submitted to EPA demonstrated that DeSoto County did not have a significant contribution to the non-attaining air monitors; however, EPA still designated the northern part of the county as part of the Memphis metropolitan area. The primary factors EPA considered appeared to be population growth and the emissions from vehicles and other mobile sources. Interestingly, the accompanying graph shows that while there has been population growth, the ambient ozone measurements continue to trend down. When EPA releases a lower ozone standard later this year (between 65-70 ppb), DeSoto County could be facing some of the same issues. The decision on the final value will be critical.



So where are we now? Based on the last three years of monitoring data, the entire Memphis area including DeSoto County, is meeting the 2008 standard. This means we can and will request that DeSoto County be redesignated as attaining the standard, but it is not an easy or short process. The request will involve a State Implementation Plan (SIP) submittal including a Maintenance Plan that ensures the county remains in attainment. In other words, there are lots of pieces and parts to the process that includes initial review by EPA, a public comment period and public hearing, action by the Commission on Environmental Quality, and submittal of a final plan to EPA, which will have up to 18 months to approve.

Air monitors in Hernando.



In addition, while each state in the area will submit their own request, we will have to coordinate with the other counties and states to ensure a certain level of consistency. MDEQ' Air Division staff is currently working on the SIP and plans to get the final submittal to EPA by the end of 2015. Hopefully EPA can review, approve, and redesignate the area by late 2016. In the meantime, everyone is eager to see what final ozone standard EPA releases later this year, which could result in the whole process starting again.



MDEQ staff visited the Hernando air monitoring site after a meeting in June with county officials. Pictured: Elliott Bickerstaff, MDEQ, Dallas Baker, MDEQ, Lee Caldwell, DeSoto County Supervisor, Keith Head, MDEQ, and Vanessa Lynchard, county administrator. Not pictured, Richard Harrell.

TWO EARLY RESTORATION NRDA PROJECTS IN MISSISSIPPI ANNOUNCED

In April the *Deepwater Horizon* oil spill Natural Resource Damage Assessment Trustees (Trustees) proposed two early restoration projects to be implemented in Mississippi.

A proposed \$30 million project would construct more than four miles of breakwaters, five acres of intertidal reef habitat, and 267 acres of subtidal reef habitat at eight locations across the Mississippi Gulf Coast. The proposed “Restoring Living Shorelines and Reefs in Mississippi Estuaries” project would restore intertidal and subtidal reefs and use living shoreline techniques in four bays: Grand Bay, Graveline Bay, the Back Bay of Biloxi and vicinity, and St. Louis Bay.



A public meeting was held June 4 in Long Beach to accept comments on all the Phase IV projects including the two proposed in Mississippi.

For more information
about the proposed
projects:
www.gulfspillrestoration.noaa.gov

The second project, “Bike and Pedestrian Use Enhancements at Davis Bayou, Gulf Islands National Seashore,” addresses lost recreational use on federally managed lands by enhancing visitor recreational experiences at the Davis Bayou Unit of the National Park Service’s Gulf Island National Seashore in Ocean Springs. The park’s roadway would be enhanced for pedestrians, joggers, and bicyclists. The estimated cost for this project is \$6,967,000.

Early restoration allows the Trustees to jump-start restoration using up to \$1 billion BP has agreed to make available for projects jointly agreed to by BP and the Trustees. In return, BP’s liability is reduced.

The 10 projects in the draft Phase IV Early Restoration Plan totaling approximately \$134 million are available for public review, and comments will be accepted until July 6. Two of the projects would enhance bird nesting habitat, one project would provide protection to sea turtles and enhance sea turtle nesting, four projects would improve nearshore and reef habitats, two projects would increase recreation opportunities on federal lands, and one project would restore fish.

Thus far the Trustees have approved three phases of early restoration, with a combined total of 54 projects and an estimated cost of \$698 million. If the latest round of identified projects are approved and funded, approximately \$832 million of the \$1 billion will be obligated.

Comprehensive information on all aspects of restoration in Mississippi can be found at www.restore.ms. For more information about the proposed projects visit www.gulfspillrestoration.noaa.gov.



STAFF CHANGE

Christopher Messemore was recently promoted as branch manager for the Management Support Branch of the Environmental Permits Division. He replaces Dallas Baker who became Chief of MDEQ's Air Division. This branch is responsible for EPD training needs, staff concerns, management of the enHance program, as well as the oversight for the pollution prevent grant.

"The responsibilities of this branch are vast and inherent in a fundamental mission of the Mississippi Department of Environmental Quality—to protect the state's air, land, and water while fostering wise economic growth. Our natural resources need to remain viable for use by wildlife and fish as well as agricultural, industrial, and recreational activities. I appreciate this opportunity, and I look forward to the challenges that are ahead," said Messemore.

Mr. Messemore has been employed by MDEQ since 2006. The vast majority of his experience lies in municipal and domestic wastewater collection and treatment. He received a Bachelor of Science in Chemical Engineering from the Mississippi State University and is a registered Professional Engineer in the State of Mississippi.

JOIN ENHANCE!

MDEQ is accepting applications for the enHance program from July 1 to September 30. Check out the enHance website for information on current members, a calendar, training workshop materials, and information on how to apply.

enHance is open to all types of facilities with a separate initiative for municipalities.

enHance is a voluntary initiative to recognize environmental leaders in Mississippi. Participating organizations make a commitment to address and achieve on-going environmental improvements. More information, benefits, an application, and application instructions can be found at www.enhance.ms. Send the completed application to enhance@deq.state.ms.us.

MDEQ RECEIVES EXCELLENCE AWARD FROM EPA

On April 24, 2015, on behalf of the Groundwater Assessment & Remediation Division (GARD) of MDEQ, Trey Hess accepted EPA's Excellence in State Engagement Supporting Reuse Award presented by Robin Richardson, EPA's Deputy Director of the Office of Superfund Remediation and Technology Innovation at the Association of State and Territorial Solid Waste Management Officials conference in Little Rock, Arkansas. MDEQ was one of only three states recognized by EPA at the event this year.

EPA recognized MDEQ's collaboration to support and encourage the appropriate reuse of Superfund sites across the State of Mississippi through a variety of approaches, including offering assistance in reuse planning processes and implementing environmental covenants through the Uniform Environmental Covenants Act. Mississippi's efforts to develop a process and template to streamline placing restrictive covenants on Superfund site properties within Mississippi ensures that remedial actions remain protective as sites are put back into productive use, playing a key role in revitalizing communities. Collaboration among MDEQ, EPA, site owners and the local community is generating success stories and paving the way for future reuse.

Trey Hess (right) accepting the award from Franklin Hill, EPA Region 4 Superfund Director and Robin Richardson, EPA's Deputy Director of the Office of Superfund Remediation and Technology Innovation.



EPA PUBLISHES FINAL RULE ON DEFINITION OF SOLID WASTE

On January 13, 2015, EPA published the Definition of Solid Waste Final Rule (2015 DSW Rule) to address the recycling of certain secondary hazardous materials. EPA goal for the 2015 DSW Rule is to continue to encourage reclamation and recycling of valuable resources in a way that protects human health and the environment while providing protections from the mismanagement of secondary hazardous materials. The 2015 DSW Rulemaking process addresses concerns raised in litigation related to the 2008 Definition of Solid Waste Rule (2008 DSW Rule), which originally codified the recycling exclusions. The 2008 DSW Rule defined hazardous secondary materials as secondary material (e.g. spent material, by-product, or sludge) that, when discarded, would be identified as hazardous waste.

EPA indicates that the new rule corrects regulatory gaps created by the 2008 DSW Rule. EPA believed that these regulatory gaps could allow for adverse impacts from the potential mismanagement of hazardous materials on low-income populations. The hazardous material recycling activities described in the 2015 DSW Rule are permissible only after the proper notifications are made and all of the proper demonstrations are submitted to the EPA and/or to the affected state. The State of Mississippi will adopt part or all of both the 2008 DSW Rule and 2015 DSW Rule as early as the first quarter of 2016. The state will have to adopt those provisions that are more stringent or broader in scope than current hazardous waste regulations and will evaluate the benefits to the environment and regulated community with regards to the parts that the state is not required to adopt. Once adopted, MDEQ will work with affected industries and businesses to ensure compliance with the new regulations.

The new 2015 Rule has six fundamental elements:

1. First, the Rule provides an exclusion for hazardous secondary materials that are legitimately reclaimed under the control of the generator. Under this exclusion, hazardous secondary materials can be reclaimed by the generator onsite, within the same company, and within certain tolling agreements. All financial responsibility for the recycling activity remains with the generating company.

2. Secondly, the Rule includes the definition of “contained.” This definition indicates, in part, that “contained” means a unit that is in good condition, with no leaks or other continuing or intermittent unpermitted releases of hazardous secondary materials to the environment, and the unit is designed to prevent releases of hazardous secondary materials to the environment.

3. The Rule also provides an exclusion for a verified recycler to ensure that hazardous secondary materials go to recyclers that have met the appropriate verification requirements established by the Rule.

4. The Rule provides an exclusion for certain re-manufacturing activities and targets 18 high-value hazardous spent solvents for reacting, extracting, blending, or purifying chemicals in the pharmaceutical, organic chemical, plastics and resins, and the paint and coatings sectors. EPA believes this provision has great potential for recovery of high volumes of solvents which are currently discarded.

5. The 2015 DSW Rule explicitly prohibits sham recycling of hazardous materials and requires that all four legitimacy factors be met for recycling of these materials to be considered allowable. The four legitimacy standards are: the hazardous secondary material must provide a useful contribution to the recycling process or to a product or intermediate, the recycling activity must produce a valuable product or intermediate, the hazardous secondary material must be managed as a valuable commodity, and the product of the recycling activity must be comparable to a legitimate product or intermediate.

6. Lastly, the Rule includes new provisions related to variances and non-waste determinations, which are granted to facilities on a case specific basis. Petitioners seeking a non-waste determination must demonstrate why the existing solid waste exclusions do not apply to their hazardous secondary materials.

These various elements of the new rule also include certain notification and record-keeping requirements, as well as emergency preparedness and response requirements. For questions or more information, contact Krista Caron, RCRA Program Manager in MDEQ’s Environmental Permits Division at 601.961.5171.



FREE WEBINAR: LIGHTING RETROFIT SOLUTIONS

MDEQ's enHance program is sponsoring a free webinar, "Lighting Retrofit Solutions," at 1:00 CDT, on June 25. See the flyer below for more information.

Please register at:

<https://attendee.gotowebinar.com/register/668989420725680386>.

After registering, you will receive a confirmation email containing information about joining the webinar.

Webinar— June 25, 2015 Lighting Retrofit Solutions



*Join us for a free webinar on June 25, 2015
from 1:00 PM—2:00 PM CDT to learn how to
reduce energy usage and save on lighting costs.*



Presenter:
*Stan Walerczyk, HCLP, CLEP
Principal of Lighting Wizards
Chair of Human Centric
Lighting Society*

BETTER LIGHTING for LESS

- ◆ *Did you know that a recent survey of energy efficiency projects showed the average rate of return for lighting projects is over 40%?*
- ◆ *Did you know that "too much light" in work areas can be detrimental to workers' performance?*

Learn what low-cost solutions are available to help you achieve lighting that will minimize your energy costs, maximize worker performance, and benefit the environment, too! Additionally, higher cost options and financing opportunities will be addressed.

Sponsored by the enHance Stewardship Program

Join us for WaterFest
2015!

For more details, follow
@rezonatems on Twitter.

WATERFEST

CELEBRATING AND PROTECTING THE ROSS BARNETT RESERVOIR

WWW.WATERFESTMS.COM

JUNE 27, 2015

4PM-7PM OLD TRACE PARK

ROSS BARNETT RESERVOIR

FREE ADMISSION
BALLOON ARTIST
INTERACTIVE EXHIBITS
CARICATURE ARTIST
DOOR PRIZES
KIDS ACTIVITIES
FOOD VENDORS
PHOTO BOOTH
AND LOTS MORE!

NISSAN



IN CONJUNCTION WITH
THE
FOURTH ANNUAL

Independence
CELEBRATION



THE BARNETT RESERVOIR
FOUNDATION

THE REZ
PEARL RIVER VALLEY
WATER SUPPLY DISTRICT

barnettreservoirfoundation.org



**WANTED:
TWO MANUFACTURERS LOOKING TO
REDUCE ENERGY, WASTES and SAVE MONEY...
DEADLINE TO APPLY: JUNE 30, 2015**

MISSISSIPPI E3 (Economy • Energy • Environment)

What is Mississippi E3?

Mississippi E3 is coordinated by *InnovateMEP* Mississippi and its technical assistance partners* to help Mississippi manufacturers gain a competitive edge.

What are the benefits?

➤ Lower your energy costs, generate less waste, increase productivity and reduce liability

Proven Results: As a result of a comprehensive E3 assessment, a manufacturer in Clarksdale, Mississippi reduced their energy consumption by 14% and cut processing time by 50%.

What is the cost?

The full suite of assessments has an estimated value of \$15,000, **your monetary cost: \$0**

What does E3 include?

- Energy audit
- Lean manufacturing review
- Waste disposal review
- Safety audit



Who is eligible?

Mississippi manufacturers with fewer than 500 employees (NAICS Code beginning with 31, 32, 33)

What is the catch?

Only two (2) free pilot assessments are available through *InnovateMEP* Mississippi and you **must enroll by June 30, 2015.**

The manufacturer must be willing to commit the resources necessary for these evaluations.

This includes:

1. Completing a Pre-assessment survey
2. Providing personnel to support the on-site assessments and
3. Completing Post-assessment surveys

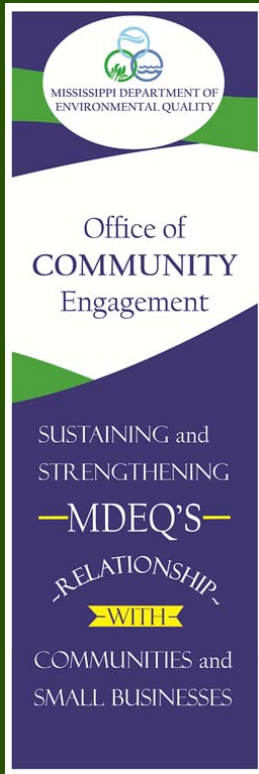
To take advantage of this **limited time opportunity**

Contact:

Dr. Sumesh Arora, Vice President,

***Innovate Mississippi* ♦ sarora@innovate.ms ♦ 601-960-3610**

*The Mississippi E3 program is managed by *InnovateMEP* Mississippi (a line of business of *Innovate Mississippi*) in partnership with the Mississippi Department of Environmental Quality – Pollution Prevention Division (non-regulatory body), Mississippi Development Authority – Energy & Natural Resources Division, MSU CAVS-Extension, MSU Center for Safety and Health, Mississippi Polymer Institute, Itawamba Community College and the Alabama Industrial Assessment Center.



BUILDING SUSTAINABLE COMMUNITIES THROUGH EFFECTIVE FEDERAL, STATE, AND LOCAL PARTNERSHIPS

Staff from MDEQ's Office of Community Engagement, Surface Water Division, Solid Waste Program, and the Brownfields Program recently participated in the Mississippi Conference of Black Mayors' Federal, State and Local Partners Summit. The event was held in May at the Jackson Convention Center and addressed partnerships and collaboration among all levels of government to meet the needs of Mississippi communities.



Gloria Tatum and Cassandra Johnson, MDEQ Office of Community Engagement.

Tony Caldwell, (left), MDEQ SRF program and Taaka Bailey (center), Office of Community Engagement, in a session with elected officials.



OFFICE OF COMMUNITY ENGAGEMENT CHILDCARE CENTERS WORKSHOP

The axiom that two heads are better than one really is true when it comes to strengthening outreach and education in a holistic way. By thinking, planning, and working together the Mississippi Department of Environmental Quality and the Mississippi State Department of Health accomplished goals that neither could have achieved alone.

The Mississippi State Department of Health's seventh Empowering Communities for a Healthy Mississippi Conference was held in May with the theme "Lead, Connect, and Inspire." A pre-conference session, "Empowering Child Care Centers for A Healthy Mississippi," was hosted by MDEQ's Office of Community Engagement's Small Business Environmental Assistance Program (SBEAP) for child care facility operators and owners the day before.

The workshop brought together presenters from various agencies, including Jonnette H. Simmons, U.S. Department of Housing and Urban Development; Gay Logan and Crystal Veazey, Mississippi State Department of Health; Lisa Campbell-Johnson, Mississippi Development Authority; and, Jamon Rucker and Dennis Kelly from MDEQ.

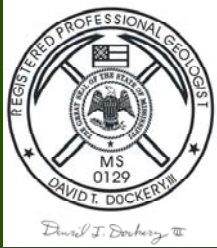
The video of the workshop can be found on MDEQ's YouTube channel: <https://www.youtube.com/user/MdeqChannelOne>.

As a consequence of the partnership with these various agencies, MDEQ offered a professional development opportunity while educating and encouraging participants to create healthy environments, conserve energy, and maintain compliance with environmental permits.

GEOLOGY OUTREACH

James Starnes from MDEQ's Office of Geology presented a program on rocks, minerals, dinosaurs, and the environment on June 11 as part of the Richard Wright Library's Children Summer Reading Program in Jackson.





THE CANTON EARTHQUAKES

David T. Dockery III RPG and Barbara Yassin, Office of Geology

The Jackson–Canton area of central Mississippi has experienced only three earthquakes over the last hundred years, an intensity IV (Modified Mercalli Intensity Scale) in the vicinity of Jackson on November 13, 1927, and magnitude 3.2 (Richter Scale) and 3.0 earthquakes at a depth of five kilometers (3.1 miles) just south of Canton on May 2, 2015. The fault responsible for the May 2, 2015, earthquakes was mapped from 2–D seismic data by Steve Walkinshaw in 2008 and published as a cross section in the July 2008 issue of *Environmental News* (page 4). Figure 1 is a modified version of that cross section and locator map, showing the epicenters of the May 2 earthquakes. The associated fault terminates at a hinge line and overlying fold at the northern margin of the Flora–Ridgeland Syncline, a down-folded trough between Madison and the Jackson Dome named by Priddy (1960) in the Madison County Geology Bulletin (#88). Figures 2 and 3 show the location of respondents to the U.S. Geological Survey earthquake website. Below are two felt reports provided to the Office of Geology.

One earthquake report from a Gluckstadt resident described the first Canton earthquake as like ten cars hitting his house. When he went outside, he found that the gaping cracks marring his driveway had closed up. The following is an account from an Environmental Professional with Neel-Schaffer, Inc. and wife of Paul Parrish (MDEQ’s Office of Land and Water Resources) Julie Parrish as experienced from her home on Moss Woods Drive in Madison.

“I was standing on our back deck around 7:30 pm facing East (deck length is oriented North–South) watching my husband and son throw the baseball in the backyard. I felt vibrations and then a quick rumble on the deck for a few seconds. I thought maybe a piece of heavy equipment could have been driving down the street in front of the house, and wondered what the city was doing on a Saturday evening. The vibrations and rumbling were noticeable, but not as if I were standing by railroad tracks with a train passing through. The vibrations became soft or imperceptible for a few seconds. Then it started up noticeably again with what felt like a ripple beneath me. The ripple felt as if it were traveling from North to South along the length of the deck with a slight bump pushing the boards up beneath me.

At the same time, I was more attuned to it after the first vibrations, and I heard muffled pops. It sounded like distant thunder with at least three or four separate pops. I immediately thought there was an explosion of some magnitude nearby (all of our homes in the neighborhood utilize natural gas for heating) or that something had crashed through or exploded (water heater/hvac) in our house. I yelled for my husband to come to where I was standing and asked if he would check the water heater and the upstairs as I explained what I felt and heard. I immediately turned to look inside, through the glass doors, and saw our cats hunkered down staring up at the ceiling. I was then certain that something in the house was the culprit, especially since my husband felt nothing while standing in the yard (20 feet from where I was on the deck). He walked inside with me for a few seconds and concluded that our house was still sound. We walked back outside to the sounds of two neighborhoods worth of dogs barking in unison. Some neighbors were standing outside in the street with their children with what appeared to be looks of concern on their faces. The dogs continued barking for 10 minutes or so. This prompted us to check the USGS earthquake hazards page to check for local activity, but there were no updates for our area at the time. We checked local news sources and social media to see if there was a pipeline explosion nearby, but found no useful information. At about that time I received a text from someone in the Gluckstadt area asking if we felt anything. We knew something big had happened at that moment, but still thought it was an explosion of some sort. Finally the USGS updated (10-15 minutes later) providing the earthquake activity as a 3.2. Since we heard no sirens and no reports of explosions we came around to the fact that we had experienced a small earthquake.

“A few minutes after the first earthquake showed up on the USGS site, my husband left to go to the store. My son and I were in the living room when the second quake hit. At this point I really believed the first activity was an earthquake when our living room began to vibrate with a couple of rumbling shakes. They were not as distinct as the first quake, but the end was bumpier than the beginning. We were also paying attention more closely to this one. It seemed to last around seven seconds. My six year old son was sitting in a chair situated on scored concrete floor and described it as “bouncy.” All in all it was quite exciting for my husband and me as we both have geology degrees. We had no noticeable structural damage and no wall hangings out of place.”

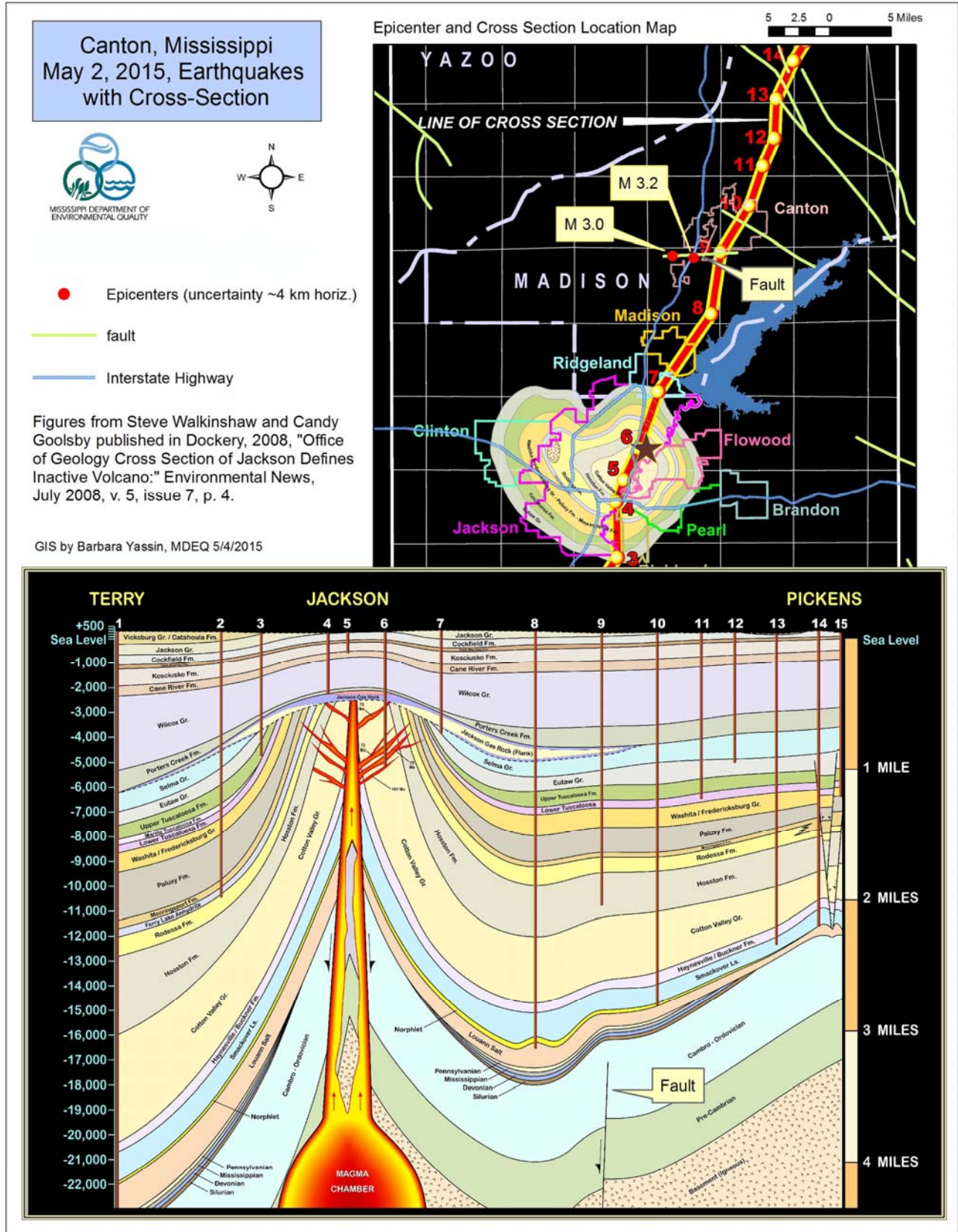


Figure 1. Top: Locator map showing line of cross section, the earthquake fault south of Canton, and the Jurassic-Cretaceous subcrop beneath the Jackson Gas Rock on the Jackson Dome. Bottom: Cross section of the earthquake fault and the Jackson Dome from Walkinshaw and Goolsby (in Dockery, 2008).

USGS Community Internet Intensity Map MISSISSIPPI

May 2 2015 07:39:23 PM local 32.5653N 90.0755W M3.2 Depth: 5 km ID:us20002ax0

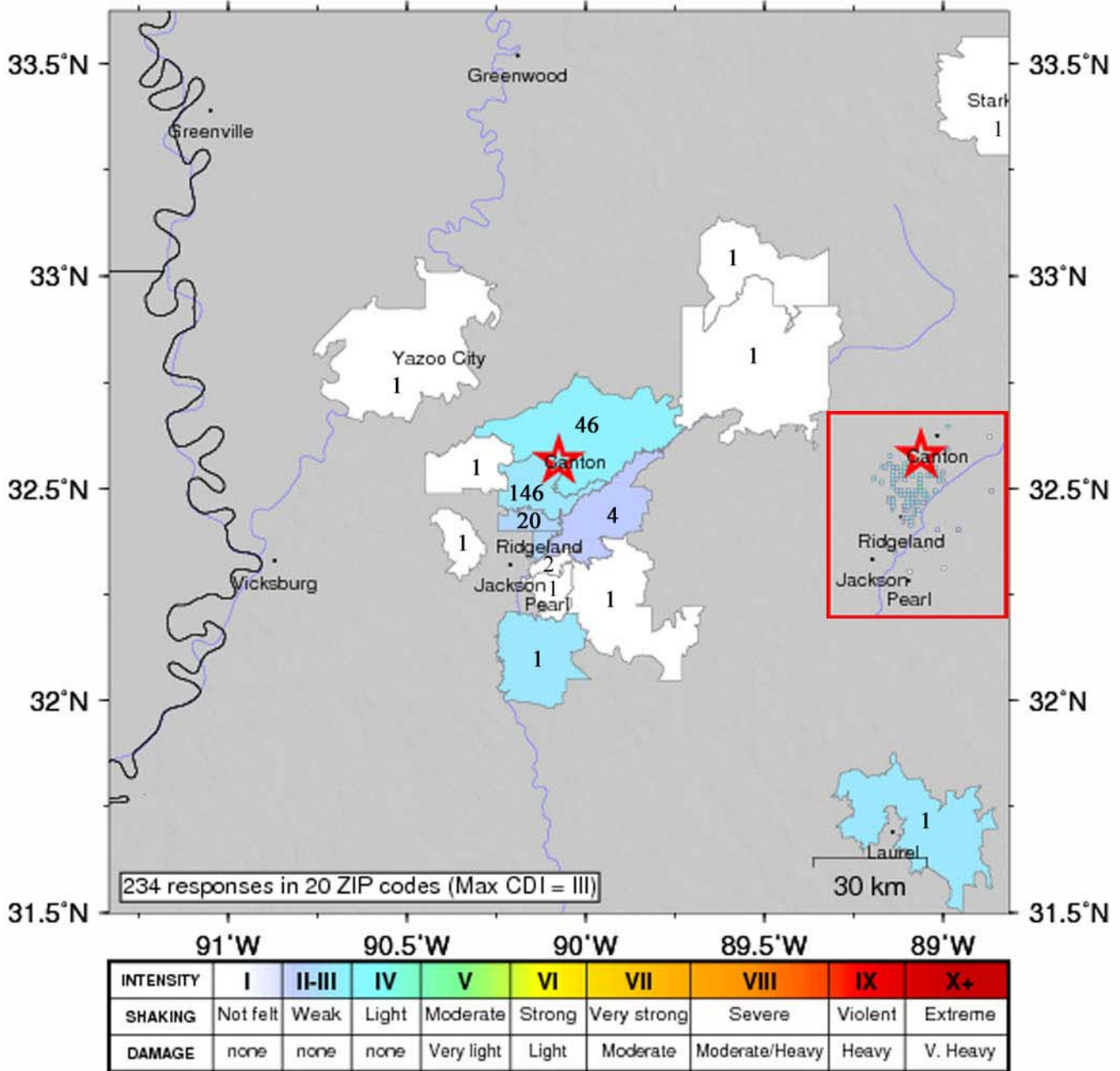


Figure 2. Felt reports to the USGS site of first earthquake according to ZIP code areas. White areas are Intensity I or not felt. Lavender areas are Intensity II. Blue areas are Intensity III. Of 234 responses in 20 ZIP codes, there were: 146 reports from Madison (39110), 46 reports from Canton (39046), 20 reports from Ridgeland (39157), 4 reports from Brandon (39047), and one report from each of the other ZIP code areas. The red-bordered insert at right gives the locations of 65 responses in 48 blocks, most of which are south of the epicenter (red star). The maximum reported intensity for the event was IV.

USGS Community Internet Intensity Map
MISSISSIPPI

May 2 2015 08:08:35 PM local 32.5678N 90.1057W M3.0 Depth: 5 km ID:us20002ax8

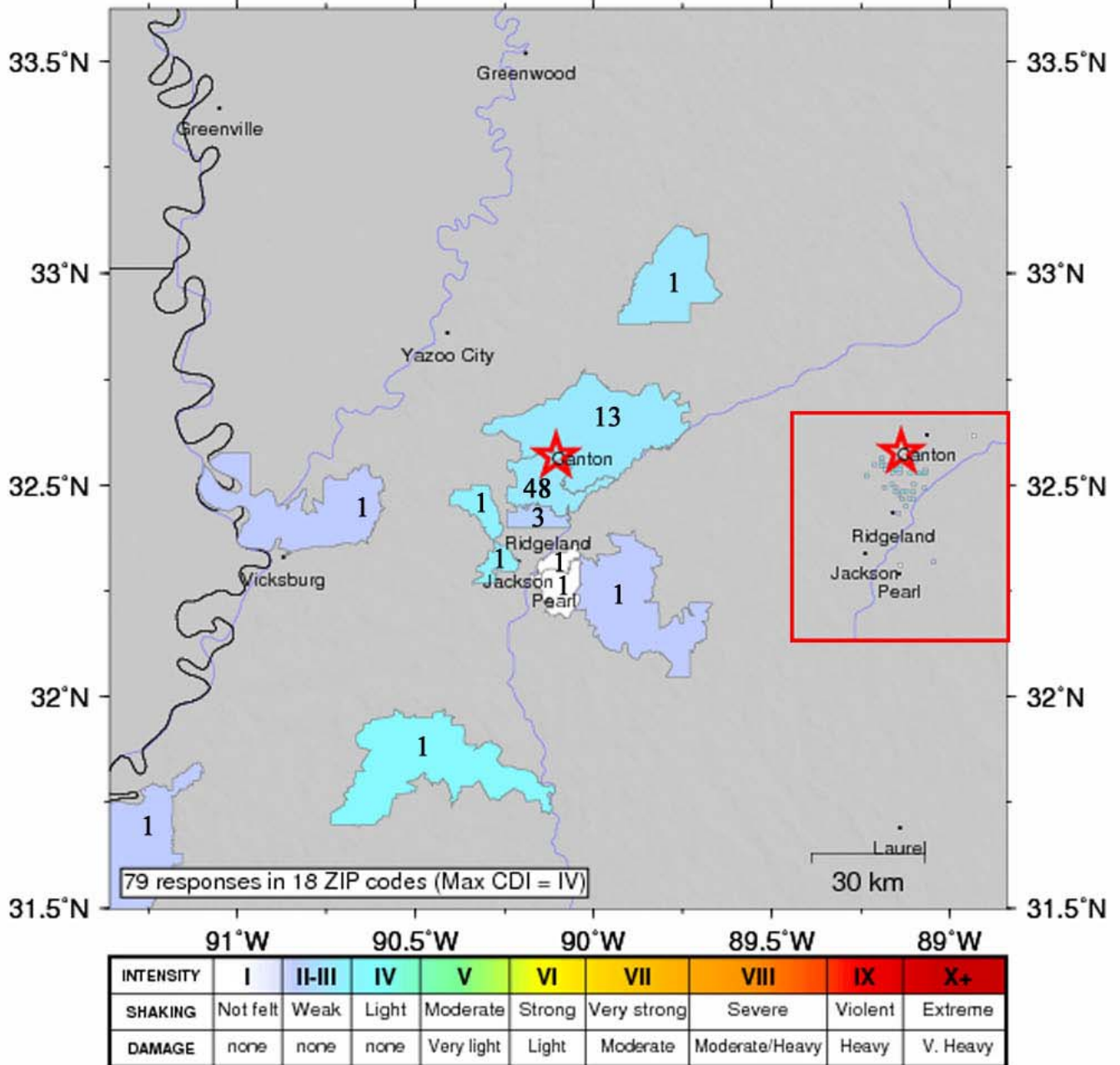


Figure 3. Felt reports to the USGS site of second earthquake according to ZIP code areas. White areas are Intensity I or not felt. Lavender areas are Intensity II. Blue areas are Intensity III. Of 79 responses in 18 ZIP codes, there were: 48 reports from Madison (39110), 13 reports from Canton (39046), 3 reports from Ridgland (39157), and one report each in the other ZIP code areas. The red-bordered insert at right gives the location of 65 responses in 48 blocks, most of which are south of the epicenter (red star). The maximum reported intensity for the event was IV.

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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PICTURE OF THE MONTH

Egret at Low Head Dam
(Scott County).

Taken by Jonathan
McKinnon, Office of
Geology.

