

**Missouri Department of Natural Resources Turns 40**

**40**  
years

This year marks the 40th anniversary of the Department

of Natural Resources, which was established under state reorganization in 1974. Missourians value clean air, water, soils and a healthy outdoors for recreation, and together we have achieved a great deal in the past 40 years. We will continue to work with and for all Missourians to ensure clean air, water and land for future generations to enjoy.

Watch for additional information about DNR's 40th anniversary in upcoming issues of *Missouri Resources* throughout the year.

**Camp Pin Oak Lodge Reopens**

Gov. Jay Nixon cut the ceremonial ribbon



reopening the Camp Pin Oak Lodge at Lake of the Ozarks State Park on Oct. 11. Nixon was joined by students and officials from State Fair Community College, and leadership from Missouri State Parks and the Missouri Department of Natural Resources.

The original structure, built in the 1930s by the Civilian Conservation Corps, caught fire during a late summer thunderstorm in 2010.

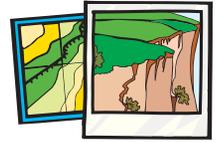
In 2011, Gov. Nixon announced a memorandum of agreement between Missouri State Parks and State Fair Community College in Sedalia for a training and education project with students rebuilding the lodge. The Missouri Department of Economic Development authorized a community development block grant of \$1.5 million to Pettis County to fund the project.

The finished Camp Pin Oak Lodge was built with careful attention to historical accuracy in the same location and approximate size of the original.

Amenities were designed to match the original building.

**New Geologic Maps Published**

The Missouri Geological Survey, a division of the Missouri Department of Natural Resources, recently published three new geologic maps. Staff geologists Edith Starbuck and Mike Siemens conducted field work in central Missouri and created bedrock geologic maps of the Guthrie, New Bloomfield and Osage City quadrangles. Geologic maps provide a baseline for data related to energy resources, mineral resources, natural hazards, water resources, soil conservation and climate science.



For more than 20 years, the Missouri Geological Survey has participated in the U.S. Geological Survey's STATEMAP component of the National

**Time Exposures**

As orange-tinted, sulfur-smelling water bubbles up into a concrete basin, it is hard to believe that Pertle Springs once hosted a bustling and successful mineral water resort. The resort, near Warrensburg, catered to thousands of health and pleasure seekers from far and wide. On summer weekends, a special train was set up to carry people back and forth from Warrensburg to the resort. Visitation was so heavy, the train made multiple daily trips. The Pertle Springs Resort and its Hotel Minnewawa often hosted Fourth of July picnics, temperance rallies, free-silver conventions, Chataquas, and camp meetings. It also included many other on-site amusements.

This August 1897 photograph documents the start of the annual family reunion of the James H. Russell, Sr., family of Chilhowee. Russell was born in Boonville in 1843, moved to Johnson County in 1866 by covered wagon, and later became a successful farmer. Russell's success as a farmer allowed him to enjoy family gatherings at destinations such as Pertle Springs. The background of the image shows part of what was once Stewart Cottage on the grounds of Pertle Springs Resort. Russell is seated near the left, holding an umbrella and hat.



Photo courtesy Ron Russell

Send your photo to "Time Exposures," c/o Missouri Resources, PO Box 176, Jefferson City, MO 65102-0176. Original photos will be returned via insured mail. Pre-1970 environmental and natural resource photos from Missouri will be considered. Please try to include the date and location of the picture, a brief description and any related historic details that might be of interest to our readers.

Cooperative Geologic Mapping Program. During this time, staff geologists have completed 210 bedrock and surficial material maps and completed four 1:100,000 scale maps. These maps may be purchased online from the Missouri Geology Store at [missourigeologystore.com](http://missourigeologystore.com) and at 111 Fairgrounds Road, Rolla. Web versions of the maps may be viewed online at [dnr.mo.gov/geology/statemap/missouri-maps.htm](http://dnr.mo.gov/geology/statemap/missouri-maps.htm).

### Missouri State Parks Offers New Mobile Tour System

Missouri State Parks is piloting the use of hand-held mobile devices to provide audio tours at Weston Bend State Park near Weston, and Mastodon State Historic Site in Imperial.

Mobile tours will offer visitors another avenue to learn about the cultural and natural aspects of each site through historical images, written text, and audio commentary. The system is provided through the OnCell Mobile Tour System.

Once at a participating park or site, the mobile tour is accessible in a variety of ways. The full tour can be accessed through the internet, the On-Cell app, or by scanning a QR Code on each tour stop sign. The tour still can be accessed by smartphone or by calling the phone number listed on the tour signs. Once the number is called, the audio portion of the tour will play.

### February is Earthquake Awareness Month

Each February, Missouri observes Earthquake Awareness Month. Three earthquakes, estimated at magnitude 7.0 or greater, occurred along the New Madrid fault in the winter of 1811-12 and small earthquakes occur in Missouri daily. These earthquakes are a natural hazard that no one can accurately predict.



Fortunately, there are things everyone can do to be better prepared. To

## Stream Team Notes

### Gravois Creek Advocate Wins Ambassador Award



DNR photo by Kat Lackman

Mike Engle is the Stream Team Ambassador Award winner for Volunteer Water Quality Monitoring for his work on Gravois Creek in 2012. Mike was born and raised in St. Louis and received a B.S. in biology from St. Louis University. After college, Engle spent two years in the U.S. Army working with waterborne and communicable diseases. This training taught him the problems that can arise when water resources become polluted. He later received a Ph.D. in biochemistry, also from St. Louis University. Mike's education and background fostered a great deal of respect for the chemistry and biology of ecological systems. "Fishing and hiking have always been an important part of my family's life and we all look forward to spending time in Missouri's beautiful outdoors," said Engle. "I am honored and humbled by the 2012 Stream Team Ambassador Award because I know there are many other individuals who are as worthy as I to receive this honor. This will only make me work harder to justify receiving this award." Mike is currently doing a Cooperative Stream Investigation (CSI) project on Gravois Creek. He also monitors Little Indian Creek in Franklin County with wife Susie and son Jack.



raise awareness, geologists with the Missouri Department of Natural Resources will partner with local, state and federal agencies and organizations by participating in a number of public activities and educational opportunities regarding the basics of earthquakes. Missourians are encouraged to attend public events throughout the month. Learn more at [dnr.mo.gov/geology/geosrv/earthquakes.htm](http://dnr.mo.gov/geology/geosrv/earthquakes.htm).

### DNR Education Web Page Posts Bonus MR Content

Starting in this issue of *Missouri Resources*, certain stories and content will include the icon pictured at right to indicate that additional educational content for that entry is available. Go to [dnr.mo.gov/education](http://dnr.mo.gov/education) to access



these, as well as other educational information and links.

The bonus content will vary from additional text that was not included in the print edition, to Web links for more information about the topic or related topics. The blue "e" icon in the print edition will be found on the education page next to the link for the online version of *Missouri Resources*.

The online version of *MR* can be accessed at [dnr.mo.gov/magazine/index.html](http://dnr.mo.gov/magazine/index.html).

For news releases on the Web, visit [dnr.mo.gov/newsrel](http://dnr.mo.gov/newsrel).  
 For a complete listing of the department's upcoming meetings, hearings and events, visit the department's online calendar at [dnr.mo.gov/calendar/search.do](http://dnr.mo.gov/calendar/search.do).  
 Looking for a job in natural resources? Go to [dnr.mo.gov/hr](http://dnr.mo.gov/hr).