

---Registration Form---

### 12<sup>th</sup> Annual Geohazards Forum

Name \_\_\_\_\_  
 Title \_\_\_\_\_  
 Organization \_\_\_\_\_  
 Address \_\_\_\_\_  
 Day Phone \_\_\_\_\_ Fax \_\_\_\_\_  
 Email \_\_\_\_\_

Do you need PDH's \_\_\_\_ Yes \_\_\_\_ No

Attendee Type:

- \_\_\_\_ Professional, by July 6 (\$175)
- \_\_\_\_ Professional, after July 6 (\$225)
- \_\_\_\_ Exhibitor (\$800)
- Exhibitors, Guests and all speakers must register
- \_\_\_\_ Full-time Students (\$25)
- \_\_\_\_ Field Trip (\$55)

Payment Information:

- \_\_\_\_ Check or money order made payable to:  
 Marshall University Research Corporation
- \_\_\_\_ Pay by credit card  
 Type of Card (MasterCard, Visa, Discover) \_\_\_\_\_  
 Card Number \_\_\_\_\_ CID \_\_\_\_\_  
 Expiration Date \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

**Registration Ends: July 20, 2012**

*Detach and mail to: Teresa Buckland  
 Marshall University - CEGAS  
 One John Marshall Drive  
 Huntington, WV 25755-2585*

*OR  
 Fax to: 1-304-522-4901  
 OR  
 Email to: [buckland@marshall.edu](mailto:buckland@marshall.edu)*

*You may also phone: 1-304-696-3568*

CEGAS  
 Marshall University  
 One John Marshall Drive  
 Huntington, WV 25755-2585

### 12<sup>th</sup> Annual Technical Forum

# GEOHAZARDS IMPACTING TRANSPORTATION IN THE APPALACHIAN REGION

Hosted by:  
 West Virginia Department of  
 Transportation



**July 31 to August 2, 2012  
 Tamarack, Beckley, WV**

[www.marshall.edu/cegas](http://www.marshall.edu/cegas)

Sponsored by:  
 Nick J. Rahall, II Appalachian  
 Transportation Institute

Center for Environmental,  
 Geotechnical and Applied Sciences



Appalachian Coalition  
 Chair: Dr. Tony Szwilski, P.E.  
 Co-Chair: Kirk Beach

## The Appalachian states are tied by common geographical and geological challenges

Multi-modal transportation in the Appalachian Region is essential for economic development. The coalition includes members from Departments of Transportation and State Geological Surveys from Kentucky, Ohio, West Virginia, Pennsylvania, Virginia, Maryland, Tennessee, Florida, North Carolina, U.S. Geological Survey, the United States Army Corps of Engineers, CSXT and Norfolk Southern Corporation.

This grassroots organization's objectives include sharing of resources and information, exchange of methodologies and experiences, and collaboration on geologic projects and research activities.

It is an exciting prospect to work with federal, state and private entities faced with prevention, correction or remediation of similar geologic problems in the Appalachian region.



### New River Gorge National River Park Field Trip July 31, 2012

The New River has performed natural surgery for us by cutting the Gorge from Hinton to Gauley Bridge. The gorge exposes the New River Formation, which is composed of argillaceous and clean sandstones, siltstones, shales, conglomerates, underclays, and coals.

**New River Gorge Bridge:** The New River Gorge Bridge has a span of 1700 feet and 370-foot rise. The New River Gorge Bridge carries US 19 over the New River at a height of 876 feet, making it the highest vehicular bridge in the Americas, and the fifth highest in the world. Before the 2004 opening of the Millau Viaduct in France, it was the highest in the world.

## Conference Registration Information

To register, please complete the registration form on the back of this brochure. You may either e-mail, fax, or mail your registration according to the directions found on the form. Copies of the brochure are also available online at [www.marshall.edu/cegas/geohazards/](http://www.marshall.edu/cegas/geohazards/).

Registrations received prior to July 6, 2012 will receive the discounted rate. *Please note that*  
**REGISTRATION ENDS JULY 20, 2012**

Cost:	\$175	- Professionals by July 6, 2012
	\$225	- Professionals after July 6, 2012
	\$25	- Full-time Students
	\$800	- Exhibitors (includes <u>ONE</u> registration)
	\$55	- Field Trip*

*\*If you are a foreign national registering for the field trip who would like to visit the Bluestone Dam, please submit a formal visit request by June 22, 2012*

**Conference Registration Cancellation Policy**  
*Refunds, less 15% administrative fee, are available until July 16, 2012. NO REFUNDS AFTER JULY 16, 2012.*

## Hotel Reservation Information

*\*Please mention "Marshall University Geohazards"*

### **Primary Hotel:**

**Country Inn & Suites, 2120 Harper Rd, Beckley WV 25801**  
\$90/night standard rate or \$77/night government rate  
(304)252-5100 *Reservations must be made by June 30, 2012*

### **Secondary Hotel:**

**Fairfield Inn & Suites 125 Hylton Lane, Beckley WV 25801**  
\$88/night standard rate or \$77/night government rate  
(800) 228-2800 *Reservations must be made by July 15, 2012*

## Exhibitor Information

Exhibiting is an excellent opportunity for your organization to display its recent achievements and network with transportation professionals. It also provides an unprecedented source of advertisement. Many companies have capitalized on this opportunity and attribute this conference for increasing their business.

The exhibitor registration fee is \$800 and includes:

- (1) Full registration
- (1) 2 X 8' skirted table display
- (1) Lunch
- (1) Continental Breakfast

## Venue: *The TAMARACK CONFERENCE CENTER*

in Beckley WV, opened in 1996 and was the first statewide collection of "handmade crafts, arts and cuisine" in the United States.



*While here, we hope you find time to explore Tamarack's collection of handmade crafts, art and specialty foods and thousands of one-of-a kind gifts.*

[www.tamarackwv.com](http://www.tamarackwv.com)

## Forum Contact:

Tony Szwilski (Marshall University-CEGAS) [szwilski@marshall.edu](mailto:szwilski@marshall.edu)  
Phone: 304-696-5457 Fax: 304-696-5454

## Conference Registration, Sponsorships or Exhibition Space:

Teresa Buckland [buckland@marshall.edu](mailto:buckland@marshall.edu),  
Phone: 304-696-3568; Fax: 304-522-4901

## Field Trip - continued.

Construction began on the bridge in June 1974, and completed on October 22, 1977. The bridge is the centerpiece of Fayette County's "Bridge Day", during which the bridge is closed to vehicular traffic. Until recently, the bridge was half-open, with two way traffic.

*Catwalk beneath  
New River Gorge Bridge.*



## Bluestone Dam:

The Bluestone Dam is a concrete gravity dam on the New River near Hinton, WV. The project, owned and operated by the US Army Corps of Engineers, has been providing flood damage reduction benefits for the downstream public since 1949. As the state of practice in rock mechanics and structural engineering evolved through the years, the Corps re-analyzed the stability of the dam and found it to be unstable under certain flood conditions due to the potential for sliding along discontinuities in the bedrock foundation. In order to stabilize the dam, the Corps has installed over 200 rock anchors (including some of the largest rock anchors ever installed in the United States).

*\*If you are a foreign national registering for the field trip who would like to visit the Bluestone Dam, please submit a formal visit request by June 22, 2012.*



# AGENDA

## DAY 1: July 31, 2012

*Field Trip (8:00 a.m. to 5:00 p.m.)*

Meet 8:00 a.m.

5:00 – 7:00 p.m. Exhibitor Set Up

7:00 – 9:00 p.m. Reception and Registration

## DAY 2: August 1, 2012

7:00 a.m. Registration & Coffee

8:00 a.m. Welcome: Tony Szwilski (CEGAS)

Opening Session: Innovations in Research

Chair: Joe Carte (WVDOT)

10:00 a.m. *Coffee Break*

10:30 a.m. CONCURRENT SESSIONS

Session 2: Hydrogeology

Chair: Kirk Beach (ODOT)

Session 3: Emergency Response

Chair: John Tomlin (NS)

12:30 p.m. *Lunch*

1:45 p.m. CONCURRENT SESSIONS

Session 4: Landslides

Chair: Matt Crawford (KGS)

Session 5: Risk Assessment

Chair: Steve Brewster (USACE Huntington)

3:45 p.m. *Coffee Break*

4:15 p.m. CONCURRENT SESSIONS

Session 6: Seismic Issues. Chair: John Kiefer (KGS)

Session 7: Role of Water in Geological Hazards

Chair: Hugh Bevans (USGS)

Session 8: Investigation Methods in Hazard Prone Areas

Chair: Ben Rivers, FHWA

6:15 p.m. *Adjourn* (Committee meeting/dinner 6:45 pm)

## DAY 3: August 2, 2012

7:30 a.m. Registration & Coffee

8:00 a.m. CONCURRENT SESSIONS

Session 9: Karst

Vanessa Bateman (USACE Nashville)

Session 10: Foundations in Difficult Ground

Chair: Len Oliver (TDOT)

10:00 a.m. *Coffee Break*

10:30 a.m.

Session 11: Rockfalls. Chair: Brian Bruckno (VDOT)

12:30 *Closing Remarks and Adjourn*

**Forum Presentations:** The PowerPoint presentations (pdf format) of this and previous forums can be found on the Marshall University-CEGAS website:

<http://www.marshall.edu/cegas/geohazards/>.

**Note:** PDH's (Professional Development Hours) will be granted for this conference. However, you must register both (2) days in order to receive the credit.