

**GROWING  
COMMUNITIES ON  
KARST 2010**

**GREAT VALLEY  
WATER RESOURCES  
SCIENCE FORUM**

**SEPTEMBER 15—17, 2010  
US FISH&WILDLIFE SERVICE NATIONAL  
CONSERVATION TRAINING CENTER  
SHEPHERDSTOWN, WEST VIRGINIA**



**Join experts from USGS, GeoConcepts, Earth Vector Systems, the Mahfood Group, WVDEP, and regional and local officials to discuss land use policy and learn about issues that matter most in protecting environmentally sensitive lands and water quality.**

*This conference is for:*

- Planning staff
- Elected officials
- Stormwater managers
- Public works staff
- Transportation supervisors
- Engineers
- Developers
- Geologists
- Soil Scientists
- Remediation experts
- Urban foresters
- Consultants
- Watershed Associations
- Concerned citizens
- Conservationists
- Well / gas drillers
- Landscapers
- Educators
- Environmental consultants
- Conservation professionals



*Program summary:*

Field Trips

- Dye tracing and detection methods
- Using GPS to collect data
- Understanding carbonate rock land forms

Groundwater Contamination Issues

- Drilling in the Marcellus Shale
- Topographic settings and water quality
- Understanding ecology and groundwater

Local Planning Issues

- Chesapeake Bay activities
- Water supply
- Developing land use policy for karst
- Early warning systems for source water protection

Using Geographic Information Systems

- GPS data uploads
- Fracture Trace/Lineament Analysis

Remediation Methods and Regulations

**Conference fees of \$25 includes two days of seminars and instruction by experts and professionals. Fee includes NCTC's fabulous lunch buffet and breaks. Wednesday field trip (\$15 extra) includes canoe rental. Commercial display space available!**



*Sponsored by:*



Check with your accreditation or certification group to see if you qualify for up to 10 hours of Professional Development Hours (PDH's) (only \$40 with field trip and conference)!

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**REGISTER BY SEPTEMBER 1<sup>ST</sup>! SPACE IS LIMITED**

**Wednesday – September 15, 2010**

11:30am-4:30pm	Canoe Field Trip – Dye tracing at a karst window - meet at NCTC Orange Lot Practicum: Using GPS and Uploading Data	Karst Waters Institute and WVDEP Earth Vector Systems, LLC
5:00pm-6:00pm	Networking and hors d'oeuvres	

**Thursday – September 16, 2010**

8:15am - 3:30pm	Conference Registration and Exhibits Welcome Groundwater Contamination and Karst Relation of Groundwater Quality and Topographic Settings Ecological flows in the Shenandoah Chesapeake Bay Activities and Future Directions Marcellus Shale Issues Field Trip – Recognizing and Understanding Local Geological Features	Potomac Headwaters RC&D Robert Denton, GeoConcepts Engineering Will White, Penn State, retired Bruce Lindsey, USGS - Water Sciences Carlton Haywood, ICPRB Scott Phillips, USGS - Chief, Chesapeake Bay James Coleman USGS Energy Program Dave Weary USGS
3:30pm-5:30pm	Poster Session and hors d'oeuvres	

**Friday – September 17, 2010**

8:15am-3:45pm	Conference Recap Land Remediation Karst Considerations at the Local level Clarke County's Proactive Approach Early Warning Detection Systems for Source Water Protection Water: Planning for the Future Fracture Trace/Lineament Analysis using GIS	Robert Denton, GeoConcepts Engineering, Twila Carr and Don Martin, WVDEP William Stubblefield, Berkeley County Commission John Staelin, Clarke County Commission River Alert Information Network Jill Keihn, Northern Shenandoah Valley Regional Commission Mark Kozar, Dan Doctor, and David Weary, USGS
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**Register today! Contact Olga Adams, Potomac Headwaters RC&D**

**Phone: 304-267-8953 ext. 5**  
**E-mail: [phrcd.6003@verizon.net](mailto:phrcd.6003@verizon.net)**

**E-mail or call and leave a message.**  
**Let us know: Your NAME; your PHONE NUMBER;**  
**your E-MAIL; and, WHICH DAYS you plan to attend.**

**Or clip and mail to:**  
**PHRC&D**  
**151 Aikens Center, Suite 6**  
**Martinsburg, WV 25404**

**US Fish & Wildlife Service National Conservation Training Center**  
**Phone: 304-876-1600 <http://training.fws.gov>**

✂ ✂ To register by mail clip below and mail to PHRC&D. ✂ ✂ ✂ ✂ ✂ ✂ ✂

Conference Fees	Amount	Total Enclosed	Days attending:	NAME:
Wednesday Field Trip	\$15		<input type="checkbox"/> September 15 Canoe Field Trip	AFFILIATION:
Registration – Two days includes lunch and breaks	\$25		<input type="checkbox"/> September 16	PHONE:
Registration – One day only	\$18		<input type="checkbox"/> September 17	EMAIL:
Display Booth - Includes one paid registration	\$100		<b>Method of Payment:</b>	ADDRESS:
			<input type="checkbox"/> Check enclosed payable to: PHRC&D	
			<input type="checkbox"/> Credit card - We invoice you by e-mail, then you log onto to input credit card information	
				TOTAL ENCLOSED: <input type="text" value=""/> .00