



## Distinguished Lecturer Series

### Wither Wellspring

Dr. Abe Springer

School of Earth Sciences and Environmental Sustainability — Northern Arizona University



#### DATE & LOCATION

**Thursday, April 23, 2015**

Southwest Research Institute  
San Antonio, TX

The lecture will run from 9:00 a.m. to  
4:30 p.m.

#### COST

Early registrations with payment is \$25  
for the day and includes lunch and  
supporting materials. \$15 for students.  
On site payment is \$30 at the door.  
Payment at the door by cash or check.

#### REGISTRATION

Deadline for registration is Tuesday, April  
21, 2015. Registration and payment can  
be made online at:

[http://www.eventzilla.net/web/event?  
eventid=2139075309](http://www.eventzilla.net/web/event?eventid=2139075309)

If you have questions regarding  
registration, please contact  
Rachel Mitchell:  
rmitchell@edwardsaquifer.org or  
Geary Schindel:  
gschindel@edwardsaquifer.org  
Or call:  
210-222-2204 or 800-292-1047

#### CO-SPONSORS

Southwest Research Institute  
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UT-Austin, Jackson School of Geosciences  
Texas Water Conservation Association  
River Systems Institute, Texas State University  
National Cave and Karst Research Institute  
National Ground Water Association

Dr. Abraham Springer will present a 1-day lecture/workshop on hydrogeology and spring ecosystems titled *Wither Wellspring*. Attendees will learn about springs hydrology, why springs ecosystems are important, springs conditions and risk assessment, stewardship, restoration, and management of springs ecosystem data.

#### TOPICS TO BE COVERED

- Why springs and their associated ecosystems are important;
- Recent advances in springs ecosystem basic and applied science;
- How and why springs are inventoried;
- How springs conditions and risks are assessed;
- Types of stewardship actions that can be taken with inventory and assessment data;
- Lessons learned 15 years after restoration of shallow perched karst springs on the southern margin of the Colorado Plateau;
- How to manage all of the complex, interdisciplinary springs ecosystem data; and
- Ancient and modern springs of the Grand Canyon.

#### ABOUT THE PRESENTER

Abe Springer is Professor of Hydrogeology and was the Inaugural Director of the School of Earth Sciences and Environmental Sustainability at Northern Arizona University (NAU). He received his B.A. in Geology from the College of Wooster and his M.S. and Ph.D. in hydrogeology from Ohio State University. Among the courses he has taught at NAU are hydrogeology, geology of Arizona, environmental geology, applied geology, groundwater modeling, contaminant transport modeling, university colloquium and others.

Dr. Springer and his students study local and regional groundwater flow systems and their human impacts, the role of land-use change and disturbance on groundwater flow systems, and restoration of riparian ecosystems. Additionally, they apply principles of sustainability to aquifer management through models and quantify the hydrological function of groundwater dominated ecosystems. Most of these studies are interdisciplinary and consist of a mix of field and lab work, and basic and applied research.

He has collaborated with ecologists, botanists, plant physiologists, foresters, land managers, engineers, and many different sub-disciplines within the Earth Sciences. Dr. Springer and his students have studied over 1000 springs the past 15 years in Western North America and beyond. He and his colleagues have developed a new comprehensive springs classification system which is featured in the book *Aridland Springs in North America: Ecology and Conservation*.