

Virginia Cave Board
Saturday, August 15, 2009
Grand Caverns, Grottoes, Virginia

DRAFT MINUTES

Virginia Cave Board Members Present

Mr. Tom Lera, Chairman
Dr. Daniel H. Doctor
Ms. Babs Funkhouser
Dr. John R. Holsinger
Ms. Barbara L. Moss
Ms. Judy Molnar
Mr. David Socky
Ms. Meredith Weberg
Mr. Roger Kirchen, Virginia Department of Historical Resources representative

Virginia Cave Board Members Not Present

Dr. David C. Culver
Mr. Andrew Harrison, PG
Mr. Jesse J. Richardson

DCR Staff Present

Mr. Joey Fagan
Mr. Larry Smith
Mr. Wil Orndorff
Ms. Jennifer Wampler

Others Present

Mr. Jamie Funkhouser
Mr. Rick Lambert
Mr. Gary Moss
Ms. Mary Sue Socky
Mr. Charles Sticklely
Ms. Lettie Sticklely

Call to Order

Mr. Tom Lera called the meeting to order at 1:00 p.m. and declared a quorum present.

Introduction and Announcements

Mr. Lera welcomed members of the Cave Board, DCR staff, and guests.

Mr. Lera asked the hosts from the Upper Valley Regional Parks Authority and the Town of Grottoes to provide an update on the status of Grand Caverns.

Grand Caverns

Mr. Charles Stickley, representing the Town of Grottoes, reported on the planned transition of ownership and management of Grand Caverns from the Upper Valley Regional Parks Authority (UVRPA) to the Town of Grottoes. The management changes will take place on October 1, 2009. Mr. Stickley and Ms. Lettie Stickley (an employee of UVRPA) fielded questions from the Board. Mr. Stickley expressed the town's desire to continue the good working relationships between Grand Caverns and the Cave Board and with the cavers of the Virginia Region of the National Speleological Society.

Approval of Minutes from April 18, 2009

MOTION: Ms. Barbara Moss moved that the minutes of the April 18, 2009 meeting of the Virginia Cave Board be approved as amended.

SECOND: Ms. Babs Funkhouser seconded.

DISCUSSION: None.

VOTE: Motion carried unanimously.

Treasury Report

Mr. Larry Smith reported that at the time of this meeting, the Cave Board Treasury contains a balance of \$1100.00. There are sufficient funds to publish one issue of the Virginia Cave Owners Newsletter based on distribution to the current mailing list.

Elections

Mr. Lera opened up the floor for nominations for the offices of Chairman and Vice-Chairman.

MOTION: Ms. Barbara Moss moved that offices continue be filled by the slate of Mr. Lera for Chairman and Mr. David Socky for Vice Chairman.

SECOND: Dr. Daniel Doctor seconded.

DISCUSSION: None.

VOTE: Motion to re-elect the current slate of Mr. Lera as Chairman and Mr. Socky as Vice Chairman carried unanimously.

Old Business

Education and Outreach Committee

Ms. Meredith Weberg reported that Ms. Jennifer Wampler of DCR's Division of Recreation Planning attended the morning Education and Outreach Committee meeting where she outlined some of the resources available through DCR's Division of Recreation Planning for the planning and implementation of the Virginia Cave and Karst Trail project. It should be noted that the Virginia Cave and Karst Trail would be a thematic driving trail. The use of Geographic Information System (GIS) tools in the planning process was discussed; Dr. Doctor suggested using the readily available Google Earth. Ms. Babs Funkhouser will be coordinating the efforts of the Cave Board to initiate establishment of the Virginia Cave and Karst Trail. Ms. Weberg discussed plans by volunteers from the caving community to work on cave and karst trail-related projects at the upcoming meeting of the Virginia Region (VAR) at Skyline Caverns in Front Royal and at nearby Crystal Caverns in Strasburg.

Ms. Weberg asked for articles for the next issue of the Virginia Cave Owners Newsletter. She announced a September 15th deadline for submission of materials for the next issue of the newsletter.

Plans for 2010 Virginia Cave Week, to be held during the same week as Earth Day (April 22), will be discussed at the next meeting of the Cave Board. Information on Cave Week will be circulated by e-mail to science teachers across Virginia. Plans include production of a poster in a downloadable PDF format. Mr. David Socky will update the Cave Week website (<http://www.vacaveweek.com>) for the Board.

Joint Technical Committee

Mr. Andrew Harrison noted that the issues discussed by the Joint Technical would be presented as part of the DCR Karst Program Report.

DCR Karst Program Report

A. Technical Assistance

Staff is serving on the DCR Stormwater Management Handbook committee, working to incorporate karst specific provisions and ensure that the revised handbook is consistent with the new regulations.

Staff provided technical comment on stormwater drainage issues associated with the proposed Century Luray development in Page County. Over half of the ~ 80-acre site

drained was internally drained to a broad, shallow sinkhole of uncertain infiltration capacity.

Staff reviewed approximately 170 proposed development projects for potential impacts to karst resources.

Comment [J1]: Change to plural

Staff organized and led a four-day tour of Virginia's karst regions with EPA Region 3 Underground Injection Control program staff Mike Eller and Brian Poe, introducing them to karst-related stormwater management issues in Virginia. Of particular concern were "improved sinkholes" receiving stormwater runoff, which are designated as Class V injection wells, required to be registered with and in some cases permitted by EPA. A variety of sites and situations were visited, both on public and private land. Accompanying Karst Program and EPA staff were various local officials, staff from the Virginia DCR Division of Soil and Water Urban Programs, Department of Transportation staff, Natural Heritage Division Director Tom Smith, and Dan Doctor of the USGS. Most state and local officials were unaware of the requirement for registration of such features with the EPA, and those that were had considerable confusion over what constitutes an "improved sinkhole". It is clear that any improvements either within a sinkhole receiving stormwater, or designed to convey stormwater to a sinkhole, qualify the feature as a Class V injection well. There is more ambiguity in cases where stormwater is discharged to a natural channel, which in turn discharges to a karst feature. In such cases, the receiving karst feature is frequently on properties downstream of those where "improvements" and land development occurred altering the stream hydrology. EPA staff is working to better define this gray area. Virginia DCR does not have authority to regulate underground injection wells in Virginia, where EPA retains primacy on this issue. However, because of the obvious connection between the DCR stormwater management program and this issue, DCR staff can refer entities to EPA in cases where registration of a Class V injection well may be required by law. VDOT as an operator of numerous Class V wells has a separate, independent agreement with EPA on this issue.

B. Data Development

Staff is working with the Virginia Rural Water Association to determine the recharge area for the "young water" component of the Plains Mill Spring in Rockingham County, which is being considered for use as a public water supply by the town of Broadway.

Staff is cooperating with the Department of Forestry on a project to delineate the karst component of the City of Radford's "green infrastructure" – natural features and systems that provide services that would otherwise require engineered and constructed facilities.

Staff continues to work in cooperation with the Natural Heritage Program Inventory staff on the biological inventory of the Powell Mountain Karst Preserve in Wise County. To date, additional significant biological finds on the karst of the property include 1) occupancy of the Blowing Cave entrance to Omega Cave system by a bachelor colony of northern long-eared bats, 2) cave-adapted diplurans, millipedes, spiders, and isopods in Parsons Cave, and 3) cave obligate beetles, millipedes, and spiders in Franklin's pit. In

addition to the colony of northern long-eared bats, small numbers of five additional species of bat (little brown bats, big brown bats, eastern small-footed bats, tricolored bats, and Indiana bats) were identified during mist net sampling on the property in early summer. None of the bats captured exhibited any sign of wing damage consistent with White Nose Syndrome.

White Nose Syndrome

Within 24 hours of the April 18 Cave Board meeting, two additional WNS positive sites were discovered – Endless Caverns, Rockingham County and Newberry-Bane Cave System, Bland County. Shortly thereafter, caver reports of infected bats from Smyth County's Hancock cave were verified, bringing the total of documented infected Virginia sites to five. Bats were measured and banded at Breathing Cave (Virginia's first documented WNS site) in May, and in general, wing condition and weights appeared in the normal range. In late June, harp trapping of the entrance to Newberry-Bane cave produced similar results, with no obvious degradation in the condition of most of the bats observed. A proposal was prepared for submittal to the WNS Rapid Response Fund of the WNS to study summer resident bats in the WNS positive Virginia caves, but was withdrawn when it was discovered that site occupancy of the sites by target species was negligible during the summer. Caver and staff reports had suggested that the bats remained in the caves longer than the generally accepted mid-April date. Field surveys verified that the bats continued to use the caves until mid- to late May, but except for a handful (< 1%) were out of the cave by mid-June.

In response to the urgent need for funding to address the WNS tragedy, the Natural Heritage Program directed funds to support continued WNS data collection efforts.

In July, a press release was distributed that requested locations of summer bat colonies across Virginia. To date, thirty-six reports have been received. Among these, at least three have significant numbers (~ 1000 or more) of little brown bats, at sites in Wythe, Bland, and Fauquier counties. These sites may prove valuable for future monitoring of population trends as WNS progresses in Virginia. Informational packets were sent to all respondents highlighting the ecosystem services provided by bats, the threat WNS poses to bat populations, proper method for excluding bats when they are occupying undesirable human spaces (e.g. – attics, garages, et cetera), and the construction of bat houses.

Proposals for funding were submitted by DGIF to the US Fish and Wildlife Service Preventing Extinction program to support two efforts: 1) banding and tracking of gray bats from summer sites near WNS infected caves to winter hibernacula, and 2) continued monitoring of Virginia's significant bat hibernacula, including banding of bats from WNS positive sites, winter bat counts, biometric measurements, and surveillance for the appearance of WNS in previously uninfected or undocumented caves.

A proposal to trap, measure, and band bats at the entrances to hibernacula caves during the fall swarm season, September 1 through October 15, was funded in the amount of

\$7,500 by the National Speleological Society White Nose Syndrome Rapid Response Fund.

C. Education and Outreach

Twenty-two teachers attended the Chesapeake Bay Academy – Mountain in June. Held at Douthat State Park, the teachers learned about watersheds and water quality through a variety of hands-on activities. Emphasis was placed on the relationships between the bedrock geology and karst geomorphology, and surface water and groundwater quality.

Comment [j2]: Add hyphen

Two Project Underground teacher training workshops were held by facilitators.

Comment [j3]: Delete hyphen that was here

Bath County and Upper James Karst Initiatives for 2009

Joey Fagan gave presentations this summer to the Boards of Supervisors of Alleghany, Bath, and Highland Counties as part of an educational outreach program called "Karst: The World Beneath Your Feet" and sponsored by the Allegheny Highlands Environmental Council.

Comment [j4]: Delete this word

A Project Underground volunteer gave a karst presentation to the Craig County Board of Supervisors.

The Growing Communities on Karst workshop for Bath County will now be held in October.

Mr. Fagan made a presentation on "Karst Resource Considerations for Source Water Protection" to the Rockingham County Board of Supervisors.

International Congress of Speleology

Carol Zokaites led the Education Symposium at the 15th International Congress of Speleology (ICS), held mid-July in Texas. The symposium was very successful with 12 oral presentations and 3 poster presentations, including presentations on the Va. Karst Education program by Carol Zokaites and Wil Orndorff, and Exploring Karst in Google Earth by Katarina Doctor. Mrs. Zokaites also attended a meeting of the World Karst Education Commission, working with educators from many different countries and introducing the Project Underground program to them.

Carol also represented Virginia on the White Nose Syndrome discussion panel, giving a presentation on Virginia's response to WNS. She spent the day with bat biologists and Federal Agency staff working on WNS from around the country.

At ICS, Joey Fagan was a participant in the Karst Management Strategies meeting along with members of several federal agencies and international partners. Tom Lera's paper "Cave Protection Acts: Are They Effective?" was presented by Mr. Fagan at the International Cave and Karst Management Symposium: Government/Caves Session.

Comment [j5]: Add a ? to title

WNS – Carol helped produce the White Nose Syndrome Brochure posted on NSS web site, www.caves.org/WNS.

VRUEC – Carol is Vice-Chair and DCR Representative on the Virginia Resource Use Education Council, and represented DCR at the Science SOL review committee meeting. VRUEC awarded \$2,000 to the DCR Karst Education Program for program support.

Future Karst Education plans

Attend the Virginia Environmental Education Leadership conference and the Virginia Environmental Education conference in September, presenting on WNS and Karst issues.

Attend and present at the Virginia Association of Science Teachers (VAST) meeting in November, where Wil Orndorff will be a keynote speaker.

Wil Orndorff will make a presentation on WNS at the Growing Communities on Karst Workshop in Shepherdstown, WV in September.

Virginia Cave Owners' Newsletter

Dr. John Holsinger has loaned copies of back issues of the Cave Owners Newsletter to the Board. Mr. Socky is currently working to scan the documents in order to produce PDF files for each of the issues for posting on the Cave Board website: (http://www.dcr.virginia.gov/natural_heritage/vcbnewsletter.shtml).

The Virginia Cave Owners Newsletter is currently mailed to 900 addresses. Mr. Orndorff pointed out that as the VSS database is refined using available GIS resources, the size of the mailing list for Virginia cave owners will likely grow to approximately 3,500 addresses, considerably increasing the cost to publish and distribute the newsletter.

Cave Protection Signs update

Several signs have been placed in show caves. The current U.S. Fish and Wildlife Service moratorium on caving has slowed the effort to place cave protection signs. Mr. Rick Lambert noted that placement of signs was being accomplished by “the best way possible” in light of the variety of site conditions encountered.

Land Conservation Update

Mr. Larry Smith reported on The Nature Conservancy's acquisition of the Coy Cope property in the Cedars in Lee County for the protection of Gallohan #1 Cave. The site will be dedicated as part of the Cedars Natural Area Preserve (NAP). Mr. Smith indicated that work is continuing to acquire additional land to expand the Ogdens Cave NAP.

New Business

Cave Board Show Cave Representatives update

Ms. Molnar reported that despite the economic downturn, the admissions at Grand Caverns are holding steady, being only slightly off from last year. Grand Caverns is providing information on White Nose Syndrome to visitors who ask.

Mr. Lera asked members of the Board the status of placement of the new cave protection signs in their assigned show caves; most show caves now have signs installed

Dr. Doctor reported on a field trip to several Virginia Show Caves by a group attending the International Congress of Speleology earlier in the summer. The participants, many from outside the United States, noted substantial incidence of lamp flora in some of the caves visited (also called lampenflora, it consists of cyanobacteria, algae, mosses, and other plants induced by lights placed in cave passages). Lamp flora can be lessened by minimizing the time that lighting is turned on and through carefully choosing lighting with spectra that does not support plant growth. Dr. Doctor suggested that when removing lamp flora, the cave environment is impacted less when treatment is with a hydrogen peroxide solution rather than commonly used chlorine bleach solution. Ms. Weberg noted that the book Cave Conservation and Restoration by Val Hildreth-Werker and Jim Werker (2006) contains a chapter on the "Control of Lamp Flora in Developed Caves." The Cave Board can provide information and provide contacts for Virginia show caves on low-impact methods for minimizing lamp flora.

Cave Board Commercial Caves WNS Statement

The following statement was issued on September 17, 2009 following an email approval by a majority of members of the Board, with Culver and Harrison abstaining:

Virginia Cave Board Statement on White-Nose Syndrome and Commercial Caves

The U.S. Fish and Wildlife Service voluntary moratorium on cave visitation, which is designed to prevent the spread of White-Nose Syndrome (WNS), a disease decimating bat populations along the East Coast, does not apply to commercial caves or caverns. However, Virginia's commercial caves have the highest visitation of any caves within the state, and, while they are not known to be significant bat hibernacula, bats within them can still be adversely impacted by WNS.

Unfortunately, WNS has already been confirmed in a Virginia commercial cave. Upon request, the Virginia Cave Board will work closely with cave owners to provide them advice and help them develop a management strategy. As a precautionary measure, the Virginia Cave Board strongly recommends that commercial cave owners provide their patrons with current WNS information, which is available on the Virginia Cave Board Web Site (http://www.dcr.virginia.gov/natural_heritage/wns_toolbox.shtml).

Report on the 15th International Congress of Speleology and other meetings

See related item under the DCR Karst Program Report. The 15th International Congress of Speleology was held July 19 – 26, 2009 at Kerrville, Texas. Dr. Doctor noted that the

program for the ICS and links to the complete proceedings and other information is posted at <http://www.ics2009.us/program.html> .

WNS Discussion and Additional Information

Mr. Orndorff presented some additional information on WNS (see above under the DCR Karst Program Report). The Board further discussed WNS. Mr. Fagan reported information from Ms. Sumalee Hoskin of U.S. Fish and Wildlife Service. Additional information including a new fact sheet has recently been posted on the U.S. Geological Survey website at: http://www.nwhc.usgs.gov/disease_information/white-nose_syndrome/. Mr. Fagan and Dr. Doctor provided information about pending federal legislation that might provide additional funding for WNS related work. Dr. Doctor noted details that are posted on the National Speleological Society's WNS web pages at: <http://www.caves.org/WNS/index.htm>.

Requests for Funding

The Cave Board will apply for grant funding from the Cave Conservancy of the Virginias, The Virginia Region of the NSS, and other possible sources to pay for future publication and distribution of the Virginia Cave Owners Newsletter.

Public Comment Period and Announcements

Dr. Doctor announced that the next Growing Communities on Karst would be held September 14 – 15, 2009 at the National Conservation Training Center at Shepherdstown, West Virginia.

Ms. Weberg announced plans for the fall meeting of the Virginia Region of the National Speleological Society, more commonly known as the Fall VAR, to be held September 25 – 27, 2009 at the Battle of Cedar Creek Campground, between Strasburg and Middletown, Virginia.

Dr. Holsinger announced that the 16th International Congress of Speleology would be held in Brno, Czech Republic, in the summer of 2013.

Mr. Lera reported on efforts to pass a Comprehensive Plan for Greenbrier County, West Virginia. The proposed plan addresses karst protection issues; it is being supported by Jeff Bray and other cavers from West Virginia.

Dates for Future Meetings of the Cave Board

- January 9, 2010 in Richmond Virginia at the DCR Natural Heritage Division Conference Room in the Aluminum Building.

Thanks to Grand Caverns for Hosting Meeting

Mr. Lera expressed thanks on behalf of the Cave Board to the Upper Valley Regional Parks Authority, the Town of Grottoes, and staff of Grand Caverns for hosting the meeting.

Adjournment

Mr. Lera adjourned the meeting at 3:10 PM.

Respectfully submitted,

Thomas Lera
Board Chairman

Joseph H. Fagan
Secretary