

**Virginia Cave Board**  
**Saturday, January 7, 2023**  
**Shenandoah Caverns, Quicksburg, Virginia**

**TIME AND PLACE**

The meeting of the Virginia Cave Board took place at 11:00 a.m. on January 7, 2023, at Shenandoah Caverns in Quicksburg, Virginia.

**VIRGINIA CAVE BOARD MEMBERS PRESENT**

Robert K. Denton, Jr., Chair  
Dr. Daniel H. Doctor, Vice Chair  
Jason H. Carter  
John H.H. Graves  
John T. Haynes

Rick Lambert  
Allen L. Louderback  
Russell Kohrs  
Meredith Hall Weberg

**VIRGINIA CAVE BOARD MEMBERS NOT PRESENT**

Roger W. Kirchen, *ex officio*

**DEPARTMENT OF CONSERVATION AND RECREATION STAFF PRESENT**

Anne Chazal, Chief Biologist, Division of Natural Heritage  
Emi Endo, Senior Public Relations and Marketing Specialist  
Michael Fletcher, Board and Constituent Services Liaison  
Katarina Kosič Ficco, Field Cave and Karst Scientist  
Will Orndorff, Karst Protection Coordinator  
Andrew Smith, Chief Deputy Director  
Frank Stovall, Deputy Director for Operations  
Matthew S. Wells, Director

**OTHERS PRESENT**

Andrea Futrell  
Craig Hindman  
Summer Larson, The Caverns at Natural Bridge  
Carol Tiderman  
Larry Wheeler, The Caverns at Natural Bridge

**ESTABLISHMENT OF A QUORUM**

With nine members of the Board present, a quorum was established.

**CALL TO ORDER**

Chairman Denton called the meeting to order and asked for introductions and announcements.

Chairman Denton reported that the ASTM (American Society for Testing and Materials) "Standard Practice for Karst Surveys for Development" was approved by the ASTM Karst Subcommittee and will now be going to balloting by the Committee as a whole. The hope is to have the standard finalized and issue by late Spring.

Mr. Graves reported that staff at Luray Caverns has been working with Senator Mark Obenshain regarding approval for a Karst and Caverns license plate for Virginia. Because the legislation requires four hundred and fifty pre-orders, Senator Obenshain intends to introduce the bill for the 2024 General Assembly Session. Mr. Graves will work with Mr. Fletcher and DCR to establish the process for pre-orders. Members are encouraged to begin promoting the idea of the plates. The intention is for the \$10 per plate to go to the Virginia Cave Board through DCR.

Mr. Orndorff reported that the caving community had lost two members in the fall.

Ray Sira, a long-time caver from Blacksburg, died in an ATV accident. Eric Lee Hahn, a young member of the caving community, also from Blacksburg, died in a cave diving accident in Missouri.

Mr. Kohrs reported that he had contacted Project Underground with the Southeast Cave Conservancy, Inc. They are interested in a workshop presenting Project Underground to teachers, particularly in elementary and middle schools.

Mr. Orndorff noted that the Karst Institute is working on a similar issue. Mr. Kohrs and Mr. Orndorff will work together on this project. Mr. Haynes commented that James Madison University (JMU) should also be involved.

#### **NEW BUSINESS**

Chairman Denton advised that the Board still has two open vacancies. He noted that Andrea Futrell and Carol Tideman have both applied for those vacancies, but that no action had been taken as of the meeting date. Ms. Futrell and Ms. Tideman attended the meeting.

#### **TREASURER'S REPORT – Anne Chazal, Chief Biologist, DCR**

Ms. Chazal gave the following summary of Cave Board financial activities:

<b>FY23 Beginning Cash Balance</b>	<b><u>2,148</u></b>
<b>Revenues (by Fiscal Year)</b>	
Prior Year Revenues	9,348
<u>FY23 Revenues</u>	<u>-</u>
<b>Total Revenues</b>	<b><u>9,348</u></b>
<b>Expenses (by Fiscal Year)</b>	
Prior Year Expenses	6,992
<u>FY23 Expenses</u>	<u>-</u>
<b>Total Expenses</b>	<b><u>6,992</u></b>
<b>Total Cash Balance (as of December 31, 2022)</b>	<b><u>2,148</u></b>

#### **APPROVAL OF MINUTES FROM JUNE 4, 2022**

Ms. Weberg noted several technical edits to the DRAFT minutes provided.

Mr. Graves moved that the minutes of the June 4, 2022, meeting of the Virginia Cave Board be approved as amended. Mr. Kohrs seconded, and the motion carried.

**DCR KARST PROGRAM UPDATE – Wil Orndorff, Karst Protection Coordinator**

Mr. Orndorff gave the following update.

**Support to VDEQ on the Treatment of Karst Issues Through VDEQ’s Stormwater Management and Erosion and Sediment Control Permitting Programs**

Staff worked with Drew Hammond of Virginia Department of Environmental Quality (VDEQ) to enhance the treatment of karst in VDEQ’s Stormwater Management Guidelines. Helpful input was also provided by Cave Board Chair Bob Denton.

DCR staff are participating in the Stakeholder Advisory Group (SAG) for VDEQ’s forthcoming *Stormwater Management Handbook*, which has a target completion date of late 2023. Development of the *Stormwater Management Handbook* is being led by VDEQ and its contractor, Arcadis North America, a major engineering and consultancy firm. VDEQ only allows organizational stakeholders one seat each on the SAG due to its large size, and the DCR seat has been shared to date by DCR Natural Heritage staff Rene Hypes and Wil Orndorff. Moving forward, Orndorff will attend the majority of the SAG meetings, and DCR staff will submit formal comments per VDEQ procedures through Rene Hypes as primary DCR SAG representative. However, a large portion of the issues in the *Stormwater Management Handbook* pertain to karst, and for the most part, the SAG lacks the expertise to adequately address these issues without input from the DCR Karst Program. Input from additional stakeholders with karst expertise and experience would be valuable. Cave Board Chair Bob Denton was recently added to the SAG as a representative of his employer, Terracon, Inc. This significantly increases the cave and karst expertise on the Board. SAG meetings are held at VDEQ’s Richmond headquarters and are open to the public. SAG meetings in 2023 are currently scheduled for:

- Friday, January 20
- Friday, February 17
- Friday, March 17
- Wednesday, April 12
- Wednesday, May 17
- Wednesday, June 14
- Wednesday, July 12

For procedural reasons that I do not understand, state boards such as the State Water Control Board, the Board of Conservation and Recreation, and the Cave Board are not offered representation on the SAG. I am hopeful that these boards and other interested and relevant state agencies will have an opportunity to review and provide feedback on the *Stormwater Management Handbook* before it is finalized.

***Groundwater Isopods of Virginia* Monograph**

The *Groundwater Isopods of Virginia* will be published in 2023 by the Virginia Museum of Natural History as a monograph, has been through the peer review and revision, and is now in press (copy editing) at the museum. The monograph includes several dozen cave and karst species, including formal descriptions of several previously undescribed (i.e., new) species discovered during field and laboratory work in preparation of the monograph. The monograph also includes detailed phylogenetic analyses that help to shed light on the origins of the extraordinary diversity of groundwater isopods in Virginia.

### **Investigation of Ancient Bat Guano Deposits**

Ancient guano deposits were collected from a second cave in Giles County, VA, as part of a collaboration with Virginia Tech paleoclimatology researchers attempting to correlate bat guano deposits and peat cores to better understand late Holocene climatic variations in the central Appalachians.

### **International Congress of Speleology**

DCR's Katarina Kosič Ficco attended the International Congress of Speleology in France in July, and delivered a presentation on Virginia and Appalachian karst to an international, largely European, audience of peers. The talk was well received.

### **Environmental Project Review**

Tom Malabad leads the DCR Karst team's project review efforts and screened ~ 160 project for impacts to karst since the June Cave Board meeting. These project reviews continue to pay huge dividends both in terms of conservation and exploration. Impacts to known caves are avoided or mitigated, and new caves are regularly reported back to the karst team from stakeholders that use the Natural Heritage Environment Project Review service. This is an activity that takes place in the background but forms a cornerstone of DCR's protection of natural heritage resources, including karst.

### **Bat Hibernacula Counts**

Bat hibernacula counts for 2023 began January 2 with Tawneys and Thompsons caves near Blacksburg. Hibernating bat populations by species will be assessed in approximately 30–35 caves, focusing on caves with previously counted populations of Tricolored Bats, Little Brown Bats, and Big Brown Bats. In addition, a subset of caves on state and federal lands, not previously assessed for hibernating bats, will be visited. Caves with populations of Virginia Big-eared Bats and Indiana Bats are generally counted every other year, and will be visited again in 2024.

### **Dye Tracing Capacity of DCR**

DCR Karst Program has purchased and installed a spectrofluorophotometer (Shimadzu RF-6000) in the Geology Department of Virginia Tech in space provided by Dr. Madeleine Schreiber, a groundwater researcher with a long interest in karst. Once it is up and running, this instrument will allow DCR staff to perform dye tracing investigations in house to map relationships between karst features such as sinkholes, sinking streams, caves, springs, and wells tapping karst aquifers.

### **Mountain Valley Pipeline**

Construction on the Mountain Valley Pipeline continues to be suspended while federal permitting issues are addressed. The construction zone is regularly expected to ensure that erosion and sediment control measures are functioning properly. Two, small subsidence events were reported to VDCR in December and January, respectively. The first was a hole in sediment trap at the end of a water bar and was repaired within 24 hours using an inverted filter. The second was a small area of subsidence in a lay down yard in an area where pre-existing fill and colluvial material (coarse cobble deposits) overlay limestone near an inactive underground mine. No action is recommended for this second feature.

### **LAND CONSERVATION UPDATE**

#### ***The Nature Conservancy***

Because Mr. Lindeman is no longer a member of the Board, there was no report from The Nature Conservancy (TNC). Mr. Orndorff agreed to reach out to TNC and ask for representation at future meetings.

**Department of Conservation and Recreation**

Ms. Chazal reviewed the following report for DCR.

**DNH LAND PROTECTION REPORT (Calendar Year 2022)**

**Summary:**

**Eight individual acquisition projects closed during the calendar year across 6 different Natural Area Preserves; several notable and important projects failed during the year for various reasons (more details on each can be found below). With the help of the Real Property Office, Office of the Attorney General, and Department of General Services work continues on at least 14 additional acquisition projects funded through various grants. DNH obtained an additional \$2,837,440 in competitive grant funds to support new projects that are also gearing up in the new year. Staff are working to develop the next round of prospective projects for grant submissions, expected around the middle of 2023. For more information contact [Rob.evans@dcr.virginia.gov](mailto:Rob.evans@dcr.virginia.gov) or (919)748-0225**

**CLOSED PROJECTS**

**Pinnacle NAP (Russell Co):** DCR accepted donation from TNC of just over 258 acres consisting of all or portions of 5 parcels along the Clinch River. In total, these parcels include an estimated 4,715 feet of river frontage and an additional 9,368 feet of tributary streams, all just upstream of one of the most significant remaining freshwater mussel shoals remaining in the Commonwealth, and location for at least 2 federally listed fish species. Transactional expenses were reimbursed by federal grant funds and the donated land value served as part of the required match for a USFWS Recovery Lands Acquisition grant (see next item).

**Cedars NAP (Lee Co):** DCR purchased both the “Smith heirs” (26.18 acres, closed March 2022) & “Wilder-Free” (4.919 acres, closed April 2022) tracts. Acquisition funds were awarded to DNH as part of a \$1,822,139 grant obtained through a USFWS Recovery Lands Acquisition program and partnership with DWR.

The “Smith heirs” tract overlaps the subterranean footprint of at least 2 caves, one of which has been recognized as state significant under the Virginia Cave Protection Act. “Sweetpotato Cave” is known to support at least 3 narrowly endemic, globally rare species, including a Cave Pseudoscorpion (*Kleptochthonius similis*), Rotund Cave Beetle (*Pseudanophthalmus rotundatus*), and Powell Valley Terrestrial Cave Isopod (*Amerigoniscus henroti*). In addition to the Rotund Cave Beetle, the second documented cave (“Smith Cave”) is also known to support the globally rare Delicate Cave Beetle (*Pseudanophthalmus delicates*).

Wilder-Free is located on exposed limestone outcrops along the existing Preserve boundary within the recharge area of sinkholes ultimately draining into Flanary Bridge Spring a significant tributary to the Powell River. Acquisition will enable DNH to remove a derelict home, outhouse, and extensive amount of associated household trash encroaching on the Preserve and threatening water quality.

**Poor Mountain NAP (Roanoke Co):** DCR closed on this 78-acre tract on 7/29/2022. The parcel includes ridgeline and mountainside bordering Twelve O’Clock Knob Road. The Preserve, and this new tract, help protect the world’s largest population of Pirate Bush (*Buckleya distichophylla*) a globally rare plant species found in pine-oak heath habitat. This habitat type is especially prone to high intensity fires that can be difficult to control. Reducing the number of adjoining structures and inholdings is a key to managing with controlled burning. The boundaries of this tract provide some defensible spaces to

support fire line and buffers along the entire northeastern flank of the existing Preserve. The acreage also supports intact forest in a mapped ecological core, a headwater stream/tributary of the Roanoke River, a drinking water spring used for several generations, and the viewshed seen by Salem and southwest Roanoke citizens, as well as Appalachian Trail users. DNH obtained a \$236,847 grant award from the Virginia Land Conservation Fund to support this project.

**Crows Nest (Stafford Co):** DCR closed on 2 small tracts in September as part of an ongoing effort to protect key inholdings in and adjacent to this NAP. These tiny parcels (just under 1.3 acres combined) are strategic locations needed to support improved public access as well as control one of the known sources for trespass and ongoing stewardship issues for the Preserve. Funding was provided by a \$186,000 grant awarded to DNH through the Virginia Land Conservation Fund in 2020.

**Crows Nest (Stafford Co):** DCR closed on purchase of ~ 59 acres in June with this purchase from our conservation partner, the Northern Virginia Conservation Trust (NVCT). DNH sought NVCT's help when the original private owners decided to sell before the state could consummate the transaction. The property is strategically located adjacent to the Preserve's northwest boundary where it provides an excellent visual and ecological buffer along the main public access corridor, while protecting extensive forested riparian buffers and songbird habitat along Accokeek Creek. DNH obtained a \$450,000 grant from Virginia Land Conservation Fund to support this project.

**Cypress Bridge Swamp NAP (Southampton Co):** This approximately 17.5-acre tract closed in early November. Located in the floodplain of the Nottoway River (designated state Scenic River), this parcel is surrounded on three sides by existing Preserve ownership and on the fourth by a paved road (SR 742 or Cheroenhaka Rd). The Preserve lies within one of Virginia's "essential conservation sites," designed around 5 different natural heritage resources deemed critical for biodiversity conservation in Virginia, including one species found nowhere else in the Commonwealth and four others representing one of the two best known examples in Virginia for their type. DNH obtained a \$52,000 grant award through the Virginia Land Conservation Fund to support this purchase.

**Difficult Creek NAP (Halifax Co):** This "tiny but mighty" 1.4-acre property closed in the month of December. The small parcel is the only remaining true "in-holding" within this 820-acre preserve. Featuring a world-class fire-dependent Piedmont savanna, numerous rare species and a globally significant natural community, this Preserve has one of the highest levels of documented floristic diversity in the Commonwealth and the southeastern United States. Maintaining these resources requires regular prescribed fire burning and an occupied, residential dwelling on this parcel impacts p-burn operations on 3 management units totaling approximately 30% of the Preserve's total acreage. Without the ability to utilize fire management, DNH would be forced to utilize less effective and far more costly mechanical treatment methods. The current owners have been supportive neighbors, but their advanced ages made DCR concerned about the future of the parcel. The time was right to acquire their property to further our stewardship goals BUT the owners desired to live out their remaining years on the property. In the end, we were able to buy the property and provide a residential lease-back option that satisfied all parties (an arrangement completely new for DCR). Partial funding was provided by a \$50,153 grant awarded to DNH through the Virginia Land Conservation Fund (2021) and the remainder with funds realized from restoration timber thinning on the adjacent NAP.

## ONGOING PROJECTS

**Deep Run Ponds (Rockingham Co):** DCR is accepting donation of approximately 1 acre parcel adjoining the existing Preserve boundary. The property is entirely wooded and will help buffer this portion of the boundary from incompatible development and support ongoing management and restoration activities. Transactional costs are being supported by a \$20,000 Virginia Land Conservation Fund grant.

**Cedars (Lee Co):** DNH recruited a private conservation buyer who purchased a key “resiliency parcel” that was listed on the open market before it was lost to incompatible development. This approximately 60-acre parcel adjoins Dry Creek Barrens. DCR is working with the conservation buyer and hopes to transfer the parcel in the upcoming year. DNH was awarded a \$204,000 grant from VLCF to support this purchase.

**Chestnut Ridge:** DNH is close to consummating acquisition of approximately 770 acres in Bland County in one of the region’s largest and least protected “ecological cores”. Funding has been provided by a \$915,500 grant awarded to DNH through the Virginia Outdoors Foundation Forest Core Fund, awarded in 2018.

**Folly Mills Fen NAP (Augusta Co):** DNH is seeking to purchase ~58 acres of privately owned land featuring a globally rare calcareous wetland with numerous rare plant species. A portion of the area was previously dedicated as NAP, while remaining in private ownership. Purchase will enable termination of a “building envelope” and certain agricultural activities within that dedicated footprint and expand protection to include additional wooded acreage nearby. Funding will ultimately support demo of several existing structures. Due diligence work is underway. Funding is being provided by DuPont mitigation funds.

**Cowbane Prairie NAP (Augusta Co):** DNH is focused on acquisition of an ~ 19.3-acre privately-owned parcel as well as transfer of an additional ~14-acre parcel currently owned by TNC. The former includes floodplain habitat along the south bank of the South River in one of the most intact and important remaining segments in the watershed and provides riparian buffer between the river and an existing residential development. The tract has mapped occurrences of 2 significantly rare plants, one of which is not documented on the existing Cowbane Prairie NAP, and is believed to support an example of Shenandoah Valley Prairie Fen, a globally rare wetland community type known from only 4 other documented examples across Virginia and North America. The TNC-owned parcel supports the bulk of the rare species known from this site and Preserve and has been the focus of repeated prescribed fire. Due diligence work is underway. Funding is being provided by DuPont mitigation funds.

**Lyndhurst Ponds NAP (Augusta Co):** DNH seeks to add all or portions of 3 adjoining parcels to this Preserve, totaling ~ 54 acres. At least 2 significantly rare plant species are known on 2 of these parcels. Due diligence work is underway. Funding is being provided by DuPont mitigation funds.

**Pedlar Hills NAP (Montgomery Co):** DNH is targeting approximately 203 acres in 3 adjacent co-owned parcels. Due diligence and landowner negotiations are ongoing. DNH was awarded a \$515,000 Virginia Land Conservation Fund grant in 2021.

**Chestnut Creek Wetlands (Floyd Co):** DCR is targeting a key adjoining wetland parcel of ~11 acres with an existing abandoned farmstead. Landowner negotiations are ongoing. Land values necessitate consideration of added demolition costs. DNH was awarded a \$165,000 Virginia Land Conservation Fund grant in 2021.

**Pinnacle NAP (Russell Co):** DCR will be working with TNC on their pending purchase, supported by a VLCF grant. The new parcel adjoins 3 previous TNC purchases of approximately 116 acres along the north bank of the Clinch River. Together, TNC and DCR will bundle all 4 parcels together for fee-simple transfer to the Commonwealth. TNC obtained a VLCF grant that will cover a portion of the acquisition costs.

## NEW PROJECTS

**Brocks Gap (Rockingham Co):** This project will result in establishment of a new NAP along the North Fork Shenandoah River in the heart of one of Virginia's essential conservation sites. Site has geological, biological, and historical significance. Features Virginia's largest and best example of globally rare Northern White Cedar Slope Forest (G2), as well as a population of state threatened Wood Turtles. The site lies along the North Mountain fault, a major geologic boundary defining the edge of the Shenandoah Valley and displays one of the best fault outcrops in the Shenandoah Valley. Forests present on the property represent the northern terminus of one of the region's largest and most significant blocks of unfragmented forest. A pitched battle took place here on October 6, 1864, between General George Custer's cavalry division and that of Confederate General Thomas Rosser, known as the Battle of Brock's Gap. DNH recently awarded \$670,000 VLCF grant to support this project.

**Camp Branch Wetlands (Floyd Co):** DNH is targeting acquisition of ~ 56-acre parcel adjoining this existing NAP, in partnership with the Conservation Fund. DNH recently awarded \$365,000 VLCF grant to support this project.

**Crows Nest (Stafford Co):** DNH is targeting 3 adjacent parcels consisting of approximately 220 acres. DNH recently awarded \$390,000 VLCF grant to support this project.

**Deep Run Ponds (Rockingham Co):** DNH is targeting all or a portion of a 110-acre parcel adjacent to the existing preserve, with one or more sinkhole ponds present. The property is partially protected with an existing conservation easement. DNH recently awarded \$453,800 VLCF grant to support this project.

**Ellets Escarpment (Montgomery Co):** DNH is targeting acquisition of ~ 33 acres that will result in establishment of a new NAP designed to protect the Ellett Valley Millipede (*Pseudotremia cavernarum*). Fee-simple purchase of two adjacent parcels will enable DCR to protect the entrance to the globally significant cave ("Dave's Cave"), home to both the Millipede as well as another significantly rare Virginia endemic, the Ellett Valley Cave Beetle (*Pseudanophthalmus pusio*). DNH recently awarded \$293,500 VLCF grant to support this project.

**Bull Run Mountain NAP (Prince William Co):** The Virginia Outdoors Foundation received a recent VLCF award to seek purchase of an approximately 10-acre tract adjoining the existing dedicated Preserve.

**Grassy Hill NAP (Franklin Co):** DNH has sought out a conservation buyer who has obtained a contract to purchase a +/- 48-acre parcel that was listed for-sale and brought to our attention by one of DNH's inventory staff. The parcel supports Piedmont Fameflower (*Phemeranthus piedmontanus*) a globally imperiled (G1) species, as well as a globally rare Central Appalachian Basic Ash - Hickory Woodland. DNH will seek grant funds to purchase this tract from the conservation buyer at the next available opportunity.



## FAILED PROJECTS

DNH is always targeting strategically important tracts. In some cases, landowner express an initial willingness to consider sale to the state but later withdraw that interest. In some cases this occurs well after we have begun the laborious process of obtaining necessary grants, contracting for due diligence work, etc.

Unfortunately, this happened at least 14 times this year as shown below:

**Cedars NAP:** 3 tracts fell apart relatively deep in the process, known as the Powell River Baptist Association, Ross “house tract”, and Woodward. In the first case, the Association tract (which had multiple EO’s and was once of the longest standing high priorities for acquisition) bowed to pressure from a neighbor who was adamantly opposed to state acquisition, and they sold the parcel to him instead of us. The second parcel (most critical to support access and fire line establishment to support prescribed burning) was lost when the TX owners reportedly received a call from “the state” offering a value much less than our approved price which caused them to contact a local realtor to sell the property on their behalf. The realtor ended up purchasing the tract and has since apparently severely damaged the natural resources present. The final tract (with several documented element occurrences, a natural spring with a probable new species to science, and extensive river frontage) had a willing seller to the very end. However, title research revealed a title exception the state could not accept so the owner promptly sold it to another individual.

**Picketts Harbor NAP:** 2 tracts – the first tract (aka “Silver”), included beach front, maritime grassland, and maritime forest, was sold to private individuals who paid cash quicker than the state process could allow. The second, with extensive freshwater lake frontage and maritime forest, simply changed her mind.

**Deep Run Ponds NAP:** 4 tracts – all of which would have provided much better buffer and landscape context for the existing NAP, were lost when the state’s appraised values were considered too low by the landowners.

**Poor Mountain NAP:** 2 tracts – one of which was highly desirable for transitioning to a possible prescribed burn program to evaluate effects on Pirate-Bush was lost due to time delays in the acquisition process and eventually a better offer from a neighbor. The second parcel, an important “stair-step connector” toward nearby managed lands, was lost when the family patriarch passed away unexpectedly.

**South Quay Sandhills NAP:** arguably the largest and most significant tract in the resiliency plan for this Preserve, and longest standing priority had been unavailable due to cost. Although Suffolk County eventually decided to partner with DCR, and obtained a significant grant to support the purchase, the onerous due diligence process for the funding cause extensive delays and the landowners sold the tract to another interested party.

**Dendron Swamp NAP:** a key tract to provide better access and additional bottomland protection was funded by a DNH-obtained grant. When the appraisal results were conveyed to the owner they scoffed at the low value and withdrew.

**Mill Creek NAP:** A large and significant potential addition to the Preserve was available for sale through a realtor. DNH obtained a grant and enlisted the help of a conservation buyer to negotiate on our behalf. The buyer and the seller could not come to terms and the grant will likely be returned.

## **NEW BUSINESS**

### ***Lighting at Caverns at Natural Bridge***

Mr. Wheeler spoke on behalf of the Caverns at Natural Bridge. He noted that the cave has been neglected for some time. Staff are trying to change that with new lighting that will help to take care of the bats and formations.

Mr. Wheeler indicated that next to Natural Bridge State Park, the hotel and caverns are owned separately. He noted that the upgrade and care of the cavern has not been addressed in recent years.

Ms. Larson advised that staff was hoping to work with Ms. Weberg in terms of identifying grants for which they can apply.

Mr. Orndorff commented that it was important to identify the problem before seeking funds. He suggested the caverns pursue a grant to review the existing problems and to identify long-term solutions.

Dr. Doctor noted that in 2011 the Cave Board released a document regarding how to light caverns to avoid algae growth. He agreed to send that document for review.

Mr. Haynes noted that JMU might provide assistance through the engineering department. He agreed to check with his colleagues in that regard.

Mr. Wheeler invited the Board to meet at the Caverns at Natural Bridge for their next meeting.

## **INTERACTIONS BETWEEN CAVE BOARD AND OTHER CAVE/KARST ORGANIZATIONS**

Chairman Denton advised that when developing plans for the October meeting, the topic of encouraging interpretations and communication between the Virginia Cave Board and the Virginia Region (VAR) of the National Speleological Society (NSS), the Cave Conservancy of the Virginias, the Virginia Speleological Survey, and the Eastern Region of the National Cave Rescue Commission.

Mr. Kohrs inquired regarding the composition of the Board and whether certain positions from those organizations could be designated. Mr. Fletcher advised that would take legislative action but that certainly representatives from those organizations could apply for Board membership.

Chairman Denton noted that it would be helpful to make sure that the Board is represented at the meetings of those organizations.

Ms. Weberg said that for years she has been giving a report on the Cave Board to the VAR.

Mr. Kohrs volunteered to compile a list of organizations, when they are meeting, and who their representatives are. That list can be shared with the Board so that a representative will be certain to attend.

Dr. Doctor noted that there are several relevant documents on the Cave Board website but that may be hard to find. He suggested sending links to those out in email blast to the organizations. Mr. Kohrs agreed to add email contact info to the list he is preparing. He will have that prior to the next meeting.

## **OLD BUSINESS**

### ***Virginia Cave Owners' Newsletter***

Ms. Weberg advised that it was time to begin thinking about the newsletter for 2023. She noted that the newsletter is typically sent out in April to allow time to discuss Virginia Cave Week. There are approximately 1,600 cave owners on the mailing list, about 100 of those are sent electronically.

Ms. Weberg asked for ideas for the next newsletter.

Ms. Weberg suggested that Ms. Kosič Ficco write about the International Congress of Speleology in France in July. Ms. Kosič Ficco agreed.

Ms. Chazal asked if the newsletters are archived. They are on the Virginia Cave Board website.

Mr. Graves suggested that the Karst and Cave license plate be promoted.

Mr. Wheeler agreed to write about the Caverns at Natural Bridge.

Ms. Weberg asked that articles be submitted by February.

### ***Report on sinkhole cleanup***

Ms. Weberg advised that the VAR Conservation Committee cleaned up three sinkholes on Rockland Farm in Leesburg. The next cleanup will be April 22<sup>nd</sup> in Alleghany County.

### ***Virginia Cave Week***

Virginia Cave Week will be June 4–10, 2023. This week encompasses June 6, which is National Cave and Karst Day. Ms. Weberg asked that members and others send information regarding events they would like to host.

Information regarding Virginia Cave Week can be found on [virginiacaveweek.com](http://virginiacaveweek.com). Dave Socky maintains this website.

### ***Mountain Valley Pipeline***

Mr. Orndorff advised that, as noted, construction on the MVP is suspended. The erosion and sediment control is being maintained. There is no indication of when permits might be reapproved.

Mr. Orndorff noted that the Atlantic Coast Pipeline (ACP) is absolutely shut down. The pipe will be pulled out of the ground and the ground restored and replanted.

Mr. Lambert suggested that the ACP remain on the agenda. While the project is shut down, the right of way is still active.

**2023 National Speleological Society Convention, Elkins, WV**

The NSS Convention will be held in Elkins, West Virginia, on June 26–30, 2023. The Cave Board will have a table in the nonprofit exhibit area. Ms. Weberg will work with Ms. Endo in the Public Communications and Marketing Office regarding graphics for the display.

**TREATMENT OF KARST AND CAVES IN VDEQ EROSION AND SEDIMENT CONTROL**

Mr. Orndorff noted that this item was covered in his report. A company named Arcadis is developing a new version of the stormwater handbook. He noted that the regulatory Code specifically addresses karst but not erosion and sediment.

Mr. Orndorff noted that, while the responsibility for stormwater management was transferred to the Department of Environmental Quality in 2013, VDEQ continues to rely on DCR for karst related issues.

One of the goals of Director Rolband at VDEQ is the development of stormwater guidance that will make it clear for developers and regulators.

Mr. Orndorff noted that members could comment through DCR. There will be an opportunity for public comment in the future. Any comments on behalf of the Board should be coordinated through DCR.

**REVIEW OF BOARD BYLAWS**

Chairman Denton noted that the Board Bylaws were last updated in 2017. A copy was provided to members.

Any suggested edits should be provided to Mr. Fletcher. Any necessary action will be taken at the next meeting.

**ELECTION OF OFFICERS**

Dr. Doctor nominated Mr. Denton to continue to serve as Chairman. Ms. Weberg seconded. There were no further nominations and the motion carried unanimously.

Ms. Weberg nominated Dr. Doctor to continue to serve as Vice Chair. Chairman Denton seconded. There were no further nominations and the motion carried unanimously.

Mr. Haynes nominated Mr. Graves to serve as Recording Secretary. Dr. Doctor seconded. There were no further nominations and the motion carried unanimously.

Mr. Fletcher will continue to serve as the designated staff to the Board.

**PUBLIC COMMENT**

There was no public comment.

**NEXT MEETING**

The next meeting will be in May depending on the agency schedule. Mr. Fletcher will poll the Board. The meeting will be held at the Caverns at Natural Bridge.

**ADJOURN**

There was no further business and the meeting adjourned at 2:21 p.m.