

**Virginia Cave Board  
Saturday, October 20, 2018  
Blacksburg Volunteer Rescue Squad  
Blacksburg, Virginia**

**TIME AND PLACE**

The meeting of the Virginia Cave Board convened at 11:01 a.m. on Saturday, October 20, 2018 at the Blacksburg Volunteer Rescue Squad in Blacksburg, Virginia.

**CAVE BOARD MEMBERS PRESENT**

Steve Lindeman, Chair	Mark Hodge
Dr. Daniel H. Doctor, Vice Chair	Rick Lambert
Anthony R. Bessette	Marian McConnell
Robert K. Denton, Jr.	Meredith Hall Weberg

**CAVE BOARD MEMBERS NOT PRESENT**

David Ek	John Haynes
John H.H. Graves	Roger Kirchen

**DCR STAFF PRESENT**

Thomas Smith, Deputy Director of Operations  
Isaac Sarver, Deputy Director for Boards and Constituent Services  
Lisa McGee, Director of Policy  
Rob Evans, Natural Areas Protection Manager  
Michael Fletcher, Board and Constituent Services Liaison  
Wil Orndorff, Karst Protection Coordinator  
Katarina Kosič Ficco

**OTHERS PRESENT**

Lynda Majors  
Linda Parsons Sink  
Frances Parsons

**ESTABLISHMENT OF A QUORUM**

With eight (8) members of the Board present, a quorum was established.

**CALL TO ORDER**

Chairman Lindeman called the meeting to order at 11:01 a.m.

**TREASURER'S REPORT** - *Rob Evans, Natural Areas Protection Manager*

The Cave Board fund balance as of September 30, 2018 was \$97.

**APPROVAL OF MINUTES FROM JUNE 30, 2018**

**BOARD ACTION**

Mr. Lambert moved that the minutes from the June 30, 2018 meeting of the Virginia Cave Board be approved as submitted by staff. Dr. Doctor seconded and the motion carried.

**BUDGET REQUEST UPDATE** – *Thomas Smith, Deputy Director for Operations*

Mr. Smith advised that in the budget process, DCR divisions submit budget needs. These are reviewed at the agency level, and are then presented for review by the Secretary of Natural Resources and the Department of Planning and Budget.

Mr. Smith reviewed the submission from the Division of Natural Heritage.

*2020 Need in Summary*

**Natural Heritage Critical Staff Needs**

Personnel – 5 positions - \$473,446  
Non-personnel –  
    Start up - \$165,700  
    Ongoing - \$118,300

**Karst Program Personnel**

Personnel – 2 positions - \$205,240  
Non-personnel - \$67,500

Mr. Smith noted that the agency would find out which recommendations moved forward when the Governor announces a proposed budget in December.

Mr. Bessette agreed to draft a letter to the Secretary of Natural Resources on behalf of the Board, emphasizing the Board's support for the budget requests. Ms. Weberg will edit the letter, and Chairman Lindeman will sign.

Ms. McGee agreed to send budget data to Mr. Bessette.

**LEGISLATIVE REQUEST UPDATE** – *Lisa McGee, Director of Policy*

Ms. McGee presented proposed DRAFT legislation that would amend the Cave Protection Act to become the Cave and Karst Protection Act. She explained that the legislative process was similar to the budget process. The proposed legislation is reviewed by the agency, and then by the Secretary of Natural Resources. The Department of Planning and Budget also reviews legislation to determine if there is a fiscal impact.

Ms. McGee noted that, once the draft is approved, DCR would look for a legislative patron to move the bill forward. The bill will then be referred to a committee. She encouraged members to consider attending the committee hearings.

Ms. McGee advised that some of these changes could possibly be addressed through changes in the Stormwater Regulations, as well as the Erosion and Sediment Control Regulations. Those Regulations are housed with the Department of Environmental Quality.

Board members with recommendations for edits or changes to the draft proposed legislation were encouraged to get those items to Ms. McGee by Wednesday, October 24.

**DISCUSSION OF REGULATIONS REGARDING KARST ISSUES** – *Lisa McGee*

Ms. McGee began a discussion regarding the Erosion and Sediment Control Regulations and the Stormwater Management Program Regulations. These regulations fall under the Department of Environmental Quality. She suggested that revisions to these regulations might help the Board better address Cave and Karst issues. She advised that opening up the regulations for changes could take as much as eighteen months.

Mr. Orndorff noted that one of the issues of concerns was the lack of karst training for Erosion and Sediment Control staff.

Dr. Doctor suggested that the Cave Board could be more proactive with regard to communication with the State Water Control Board.

Chairman Lindeman agreed to contact the State Water Control Board to begin the discussion. Ms. McGee offered to provide background information the Board and their meeting schedule to Chairman Lindeman.

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

Mr. Orndorff presented the following written report.

**Assessment of Natural Heritage Cave Resources**

Work began July 1, 2018 on a project entitled *Conservation Assessment of Natural Heritage Cave Resources in Virginia: Phase 1, New River Karst Region*. Approximately 50% of the funds supporting this project were supplied by a generous grant from the Cave Conservancy of the Virginias. This project constitutes year 1 of a five-year project to enhance the amount and quality of data about Virginia cave and karst resources. These data form the foundation for the majority of state conservation actions pursuant to the protection of Virginia's cave and karst resources. Specific issues addressed are:

- Biological inventory surveys are being performed in state designated Significant Caves lacking baseline biological data. At the onset of this project, 120 of the 373 state designated significant had no records of biological information.
- At the onset of this project, 525 element occurrences in the Natural Heritage database represented rare fauna found in Virginia caves. Of these, 79 were considered historical due to the age of the last observation, numerous are soon to become historical, and 178 lack an assessment of the occurrence's viability. Records falling in one or more of these categories cannot be accurately accounted for in conservation planning. Updating historical record and assigning viability ranking to all such occurrences is a critical component of this project.

- Karst hydrological data, especially the results of dye trace studies, are a critical component of environmental stewardship in karst. An open-file, GIS based karst hydrology atlas was created by the DCR karst program between 2002 and 2008. However, budget cuts at that time resulted in suspension of the project. Under the current project, the hydrology atlas will be updated and measures implemented to ensure that it moves forward as a useful, dynamic planning resource.

During the first three months of this project, over a dozen significant caves were visited for the first time for biological inventory, and hundreds of specimens have been collected that will result in new records as well as updates to existing records. A full copy of the funded proposal is available upon request to Board members.

### **Environmental Project Review**

During the third quarter of 2018, DCR staff reviewed 118 proposed development projects in Virginia's karst region for potential impact to sensitive cave and karst resources.

### **Gray bat behavior and migration in Virginia**

Staff is completing the second year of a project to monitor gray bat activity patterns at summer roost sites in Virginia (occupied ~ April 1 through October 15.) Twelve sites were monitored this year in coordination with DGIF and Radford University, who monitored stream corridors in the Clinch River Basin likely used by the same bat populations. Researchers plan to present results at the Northeast Bat Working Group meeting in January 2019. VDOT has also been an active collaborator in this study. The US Fish and Wildlife Service is working with DCR to develop a grant to support extending this effort through 2020.

### **Cave Beetle Species**

In early December, VA DCR karst staff will be meeting with biologists from the US Fish and Wildlife Service to discuss conservation needs of 17 cave beetle species petitioned for federal protected status (listing) by the Center for Biodiversity. These species were the subject of a recent inventory project by VA-DCR. The final report for the project included listing decision recommendations. A copy of the report is available to Board members upon request of VA DCR.

### **ATLANTIC COAST PIPELINE/MOUNTAIN VALLEY PIPELINE UPDATE - Wil Orndorff**

Mr. Orndorff gave the following update regarding the Atlantic Cost Pipeline and the Mountain Valley Pipeline.

### **Mountain Valley Pipeline**

There continued to be issues associated with erosion and sediment control since the June 30 Cave Board meeting. These included release of material from the ROW to sinkholes. However, the frequency and magnitude of these releases have decreased due to improvements in erosion and sediment control measures. In the trench itself, karst features have turned up. The most notable was an intermittent sinkpoint within the open trench just north of the Catawba Road crossing in Montgomery County. This feature was reported by MVP (Draper Aden Associated, contractor) to DCR and DEQ. Water entering the feature was traced to "Bottom Spring" on a nearby farm (next paragraph.) The 42" transmission pipe has now been installed in the extremely problematic area between construction mileposts 226 and 227, and the construction area is being restored to the final ROW condition, including reseeding and installation

of final stormwater management features (e.g permanent water bars.) Draper Aden/MVP have also reported two small subsidence features in the trench in Montgomery County that were remediated using inverted filters.

On August 8, the DCR Natural Heritage Karst Program staff collaborated with Draper Aden Associates of Blacksburg to provide karst training pursuant to the Mountain Valley Pipeline to DEQ staff, DEQ contractor inspectors from MBP, Inc. of Roanoke, Mountain Valley Pipeline environmental compliance staff, and MVP contractors including Tetra Tech, who developed the erosion and sediment control plans for the project. This request was held at the suggestion of karst protection coordinator Wil Orndorff in response to several discharges off of the project and into sinkholes in May and June, 2018. These discharges were likely responsible for repeated turbidity events at the privately owned Bottom Spring in Montgomery county, to which DCR demonstrated a connection via dye tracing from a karst feature exposed in the pipe trench between two of the suspect sinkholes during late July, 2018. Dye tracing by DCR prior to the MVP project had already documented a subterranean flow path that was subsequently crossed by the pipeline project. Participants in the August 8 meeting were given a primer on karst landscapes and hydrology, and on how erosion and sediment control are essential to protection of the karst hydrological system, which includes not only subterranean and surface aquatic habitat, but also water supplies used for human consumption.

Construction of the pipeline in the extensive karst areas of Giles County is expected to commence in Spring, 2019. The portion of the Giles County section east of Newport has been cleared and graded, while the western portion has just been cleared. Environmental measures will be inspected and maintained during the construction hiatus. DEQ and MVP expressed at the August 8 meeting that lessons learned from the events of May and June 2018 in Montgomery County will be used to modify and enhance erosion and sediment control measures in order to better protect karst resources.

Here is where things stand with the Mountain Valley Pipeline, per an update I requested from Draper Aden Associates, the subcontractor to MVP addressing environmental issues associated with karst:

Miles of karst crossed in Virginia – 21.4 miles total (Spread G and Spread H)

In the Virginia karst area:

- Miles trees felled – almost all of the trees have been felled on karst
- Miles mechanically cleared – approximately 6.6 miles now (18.0 total to date)
- Miles graded – approximately 6.3 miles now (11.4 total to date)
- Miles trench open – approximately 1.0 miles
- Miles pipe installed and covered – approximately 4.1 miles (of the 11.4 graded)
- Target completion – fourth quarter 2019
- Fall/winter stop date – end of December 2018
- Spring start date – March/April 2019
- List of ongoing investigations – Bottom Spring, Parsons property (Montgomery County)
- Overview of problems to date - Please refer to formal reports from MVP to Virginia DCR

Mile estimations are based on field observations as of October 16, 2018.

### **Atlantic Coast Pipeline**

Grading and trenching along the ACP ROW in Virginia has not begun. To date, trees have been felled only along the Deerfield Valley in Bath County and Augusta counties along ~ 50% of karst area crossed in Virginia. Construction is anticipated to commence in 2019, depending on resolution of federal permit issues. Geoconcepts Engineering (Terracon) is continuing to perform dye trace studies in Little Valley (Bath County) and turbidity monitoring of Hamilton Branch and Deerfield Spring in Western Augusta County. Dye tracing studies and associated recommendations have been completed for the Cochran's Cave Conservation Site and Gardner Spring, one of the primary public water supplies for the City of Staunton.

### **LAND CONSERVATION UPDATE**

*Department of Conservation and Recreation – Rob Evans*

Mr. Evans advised that DCR had closed on three parcels of land adjacent to the Cedars Natural Area Preserve since the last meeting.

Mr. Evans distributed promotional cards developed to educate the public regarding Natural Area Preserves and protected species.

*The Nature Conservancy – Chairman Lindeman*

Chairman Lindeman advised that The Nature Conservancy had been working on a property located on Pine Mountain. This property is not karst related.

TNC is in the beginning stages of discussing property with karst concerns. The parcels are located in Russell County. This will be a long-term project.

### **NEW BUSINESS**

*Election of Officers*

The following slate of officers will be voted on at the first Board meeting in 2019.

- Daniel H. Doctor, Chair
- Steve Lindeman, Vice Chair
- Marian McConnell, Recording Secretary

### **OLD BUSINESS**

*Virginia Cave Owners' Newsletter – Meredith Weberg*

Ms. Weberg advised that there is no scheduled date for the next newsletter. The hope would be to get a new edition out prior to Cave Week in 2019.

Ms. Weberg asked that a member agree to write an article profiling John Holsinger.

A more detailed publication plan will be discussed at the next meeting.

*Virginia Cave Week – Meredith Weberg*

Virginia Cave Week encompasses Earth Day, held annual on April 22. The theme for 2019 will be sinkholes.

Ms. Weberg reported that Cave Week 2018 was not well publicized and that there needs to be a better effort to get the word out. Janet Tinkham is still willing to assist with Cave Week.

Mr. Hodge suggested that Cave Week be promoted in the Virginia Region of the National Speleological Society (VAR) newsletter. He offered assistance in making that connection.

Mr. Hodge, Ms. McConnell, and Mr. Bessette agreed to work with Ms. Weberg regarding Cave Week.

*Virginia Cave and Karst Trail and signage – Meredith Weberg*

Ms. Weberg noted that the brochure was close to being finished. She agreed to distribute a PDF of the draft for Board members to review.

Most of the 55 signs printed have been distributed and installed.

*2019 National Cave and Karst Management Symposium – Wil Orndorff*

The 2019 National Cave and Karst Management Symposium will be held October 7-11, 2019, at the Holiday Inn and Conference Center in Bristol, Virginia. The Cave Board is a sponsor of this event. The Symposium is geared toward those who manage caves, including cave conservancies, and agencies.

**PUBLIC COMMENT**

There was no public comment.

**DATE OF NEXT MEETING**

Staff will poll the Board regarding dates for the next meeting. Tentative dates are late January 2019.

**ADJOURN**

There was no further business and the meeting adjourned at 2:11 p.m.