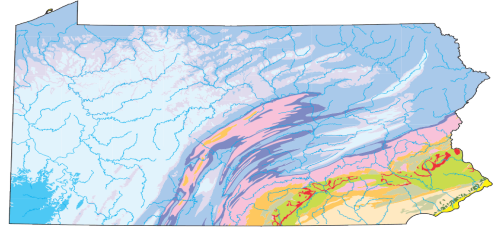




American Institute of Professional Geologists

Pennsylvania Section



www.aipg.org

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President's Message

Changes on the Horizon

Well, the election is over. There will be big changes ahead and we'll all need to be ready. Expectations in the industrial world are positive due to development of vaccines, but are also negative due to potential tax increases and a negative business environment.

From speaking with several companies, consulting work is expected to decrease after the holidays. So be cautious and alert. AIPG will try to stay ahead of changes and issue alerts when possible. Watch for them, and remain active.

We will continue to partner with other organizations to aid in 1) knowledge of changes in regulations, 2) business opportunities, and 3) new technologies and updates to existing technologies which can help you be more efficient.

You may contact me, Dennis Pennington, directly at feldspar18@gmail.com.

Dennis Pennington
Section President



Photo above right is from AIPG's *The Professional Geologist*, Volume 55, no. 4



Regulatory Updates

Contributed by Joe Kraycik

Contact Us:

Dennis Pennington,
President
feldspar18@gmail.com

Michael Edelman,
Vice-President
MEdelman@trccompanies.com

Joe Kraycik, Secretary
jkraycik@envstd.com

Kevin Kelly, Treasurer
kkelly@Langan.com

Cliff Dodge
Screening Chair
cdodge@pa.gov

ITRC PFAS Team Updates Fact Sheets and Technical Guidance Document

The Interstate Technology and Regulatory Council (ITRC) recently announced the release of a series of 11 updated per- and polyfluoroalkyl substances (PFAS) fact sheets. The new fact sheets provide updated content and replace the previous versions. The fact sheets are available as PDF files, but also include several tables of supporting information published separately so that ITRC can make periodic updates. In addition to the fact sheets, ITRC also issued a newly updated online PFAS Technical and Regulatory Guidance Document. This document is designed specifically to support state and federal environmental staff, as well as others (including stakeholders, project managers, and decision makers), to gain a working knowledge of the current state of PFAS science and practice.

Link to ITRC PFAS Fact Sheets: <https://pfas-1.itrcweb.org/fact-sheets/>

Link to PFAS Technical and Regulatory Guidance Document: <https://pfas-1.itrcweb.org/>

BCONE Hosts Virtual Regulatory Roundup Focusing on Changes to PA DEP's Management of Fill Policy

On September 29, 2020, the Brownfields Coalition of the Northeast (BCONE) hosted a virtual regulatory roundup that focused on recent changes to the Pennsylvania Department of Environmental Protection's (PA DEP's) Management of Fill Policy. One of the more significant changes ties the Clean Fill Criteria to the Residential Statewide Health Standards under Pennsylvania's Act 2 program. Proposed revisions to the Residential Statewide Health Standards are anticipated to be instituted in 2021, which will in turn impact the Management of Fill Policy. Standards for several common compounds, including PAHs and metals, will increase or decrease. Additionally, emerging contaminants such as PFAS may now need to be considered as part of clean fill due diligence. Staying ahead of these regulatory changes will be critical in the coming months. BCONE graciously offered free attendance to AIPG members.

The revised PA DEP Management of Fill Policy can be accessed here: <http://www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=4647>

BCONE and the PA Section of AIPG have collaborated on several educational and networking events over the past two years and will continue to do so in the future. Please visit the BCONE website and consider membership in this valuable organization.

<https://www.brownfieldcoalitionne.org/>

Recent Virtual PA Field Conference Provides Prelude to 2021 Meeting

Contributed by Clifford H. Dodge, Pennsylvania Geological Survey

Owing to the severity of the ongoing COVID-19 pandemic, it was necessary to postpone the 85th Annual Field Conference of Pennsylvania Geologists for a year to October 2021. The meeting will focus on the geology of Ohiopyle State Park and the Laurel Highlands of southwestern Pennsylvania. The Conference headquarters will be located at Seven Springs Mountain Resort, Somerset County.

In order to build interest and provide context for next year's Field Conference, the Executive Committee decided to host a virtual Field Conference by video communications from 6–7 pm on November 19 and 20. Principal trip leaders for the Conference included Jim Shaulis and Katie Schmidt, Pa. Geological Survey; Dr. Frank Pazzaglia, Lehigh University; and Dr. Stephen Lindberg, University of Pittsburgh at Johnstown. Over 150 registered participants attended the virtual meeting.

Prior to attending the virtual conference, participants were asked to review a series of up to 10 videos uploaded to YouTube that covered such topics



as geomorphology research at Ohiopyle State Park, including knickpoint migration and cosmogenic geochronology of ancient terraces along the Youghiogheny River at Ferncliff Peninsula; the geology and paleontology of the Mississippian Wymps Gap

Limestone Member (lower Mauch Chunk Formation) in the former J. V. Thompson quarry; the Devonian, Carboniferous, and Quaternary geology of Ohiopyle State Park and the Greater Youghiogheny River Gorge; geology of Laurel Caverns (Mississippian Loyalhanna Limestone Member, lower Mauch Chunk Formation); and unmanned aerial vehicle (drone) flyovers along the Youghiogheny River. All of the preceding subject matter will be observed and discussed at various stops during the actual Field Conference in 2021.

Photo above: Entrance to Turtlehead Rock Bog Geoheritage Site (bog not visible).
Photo credit: Jim Shaulis, PA Geological Survey

Virtual PA Field Conference Summary - continued

"I'm fascinated by the narrative of geology, and I'm a veritable pack rat of a collector on the road. I keep a rock hammer in my car."

*-Marianne Wiggins,
American author and
native of Lancaster
County, PA*

Opening the first night of the virtual meeting, Kristen Hand, Chair of the Field Conference, welcomed participants and remarked on this first use of video conferencing by the organization. She also noted that the Field Conference had recently received the "2020 Outstanding Geologic Field Trip Guidebook Series Award" from the Geoscience Information Society, a true honor and validation of the important role of the Field Conference. Thereafter, Drs. Pazzaglia and Lindberg led the meeting, in which they answered questions submitted online by participants and expounded upon the subjects presented in their YouTube videos. Pazzaglia focused on the geomorphology and river terraces (Quaternary Carmichaels Formation) along the Youghiogheny River at Ohiopyle State Park and elaborated on the methodology and value of cosmogenic age dating, particularly radioactive BE10 and AL26, for determining time of exposure or burial dates of rock materials. Lindberg discussed the geology and depositional environments of the Wymys Gap Limestone and the exceptionality of preserved invertebrate fossil fauna at the former Thompson quarry.

On the second night of the virtual conference, Jim Shaulis and Katie Schmidt led the sessions, which delved into the surficial and bedrock geology of the area. Schmidt summarized the geology of the Loyalhanna Limestone at Laurel Caverns, which is situated along the western limb of Chestnut Ridge anticline, Fayette County. The Loyalhanna represents a complex series of depositional environments, including shallow marine sand waves, eolian sheet sands, and subaerial sandy dune fields. Laurel Caverns consists of an upper (eastern) part towards its entrance made up of a network of interconnecting grid-like passages and a lower (western) part composed of a more dendritic system of passages. Some commentary on the speleogenesis of the Caverns ensued, which involved the dynamics of formation and resulting conduit network that depended upon local hydrology, lithology, structure, geochemistry, topography, and other factors. Shaulis commented on the principal bedrock stratigraphy and structure of Ohiopyle State Park but centered much of his discussion on the role of the resistant Homewood Sandstone Member of the Pottsville Formation (Pennsylvanian), representing the channel bottom of the Youghiogheny at Ohiopyle Falls, a source of significant bedrock colluvium throughout the area, and the unit in which the Turtlehead Rock Bog Geoheritage Site is situated (Figure 1). Turtlehead Rock Bog is one of the most significant occurrences of its kind in Pennsylvania and contains a continuous record of Holocene sedimentation estimated to extend back to about 12,000 to 13,000 years Before Present.

For more information on the upcoming 2021 Field Conference of Pennsylvania Geologists, please visit the website at <https://www.fcopg.org/>.

LAUREL HILL CEMETERY HALLOWEEN TOUR, OCTOBER 2020

Contributed by Mike Edelman

AIPG Pennsylvania Section conducted a tour of the historical Victorian-age Laurel Hill Cemetery on October 25, 2020. The tour covered several topics including, typical rock-types used in monument fabrication/sculpture, geomorphology, environmental, and underlying geology. The cemetery was founded in 1836 by John Jay Smith who wanted to build the cemetery "outside the city", which had become too congested to provide adequate burial space. Of course, the cemetery today is located within the heart of the city in the Germantown Section of Philadelphia. The cemetery was constructed as a memorial park in which living relatives could visit their departed family and friends. The Victorians embraced the notion such that the park became a favorite Sunday picnic location. Folks would set their lunch up right at their family plots.



Due to the age of the cemetery, the rolling hills upon which the cemetery is built, represent the original country landscape prior to development of the city surrounding the cemetery. Preservation of the original landscape is important in understanding the level of effort expended in developing the City of Philadelphia. If you walk through the surrounding neighborhood, the obvious contrast is the relatively flat topography of the neighborhood compared to the terrain of the cemetery. An historic rendering of the cemetery (above) illustrates the original topography prior to the footprint of the city expanding to surround the cemetery.

The tour began with a look at the locally-quarried rocks used to construct the wall outside of the cemetery. The rocks of the Wissahickon formation consist of schist, quartzite, amphibolite, serpentinite, and gneiss. Many of these rock-types are present in the wall. The tour continued with a look at the rock-types used in monument making such as marble, gabbro, granite, syenite, sandstone. Some of the rock-types are shown below:



Marble use in wall



Granite Headstone



Sandstone Headstone



Granodiorite Headstone

LAUREL HILL CEMETERY HALLOWEEN GEOLOGY TOUR SUMMARY - continued

The tour continued with the topic of environmental conditions that affect monuments such as weathering of marble from rainfall, which was slightly acidic naturally but has increased over time due to the development of acid rain caused by various modern emissions. The flowing example represents differential weathering of marble. Marble and granite are prominent geological materials used throughout the cemetery. Obviously, granite has been the preferred material due to a higher degree of resistance to weathering.



Sculpture is also prevalent throughout the cemetery, with monuments designed to last, including those pictured here.



Thanks to Mr. David Weiss, a local geologist who provided many of the photos used in this summary. Also involved with setting up and participating in the tour were local geologist, James Connor, and industrial archeologist, Mike Bernstein.



Attendees in the first of the two tour groups are pictured at left – wearing masks and socially distancing.

Call for Articles: Please submit articles or ideas for articles which you feel meet the goals of this newsletter to Mike Edelman at MEdelman@trccompanies.com.

Pennsylvania Geological Societies – be sure to stay in touch with these geological societies for opportunities to hear interesting speakers and to network with other professionals:

Philadelphia Geological Society – <http://philageo.org>

Harrisburg Area Geological Society - <http://fcopg.org/contact-us/links/hags>

Northern Alleghenies Geological Society -
<https://www.facebook.com/Northern-Alleghenies-Geological-Society-177847959291767/>

Pittsburgh Area Geological Society –
<https://www.pittsburghgeologicalsociety.org>