

UPPER DELAWARE COUNCIL MEETING MINUTES December 7, 2017

The Upper Delaware Council held its monthly meeting on Thursday, December 7, 2017 at the Tusten Town Hall in Narrowsburg, NY. Chairperson Jim Greier called the meeting to order at 7:02 p.m. The Pledge of Allegiance and roll call followed.

In attendance: Town of Hancock-Fred Peckham, Town of Fremont-Jim Greier, Town of Delaware-Harold G. Roeder, Jr., Town of Cochection-Larry Richardson, Town of Tusten-Susan Sullivan, Town of Deerpark-David Dean, Damascus Township-Steve Adams, Berlin Township-Alan Henry, Lackawaxen Township-Doug Case, Shohola Township-Aaron Robinson, Westfall Township-Mike Barth, Commonwealth of Pennsylvania-Tim Dugan, National Park Service-Carla Hahn. Staff in attendance: Executive Director-Laurie Ramie, Resource Specialist-Pete Golod, Secretary-Cindy Odell. Absent: Town of Highland, Town of Lumberland, State of New York, Delaware River Basin Commission. Media: Dave Hulse, Peter Becker, Meg McGuire. Guests: David Yoxtheimer, Don Hamilton, Jane Varcoe, Shirley Masuo, Wes Gillingham, Barbara Arrindell, Jim Barth, Roger Saumure, Ray Bucardo and others.

Presentation on “Shale Gas Development and Water Resource Considerations in the Susquehanna River Basin” by David Yoxtheimer, P.G., hydrogeologist and Penn State Extension associate with Penn State University’s Marcellus Center for Outreach and Research: Greier introduced Yoxtheimer. Greier reminded those in attendance that the presentation is an informational session and not a public hearing. He said that upon conclusion of the presentation, questions by the Council members will be entertained first followed by the public. Yoxtheimer said he is a hydrogeologist with Penn State Marcellus Center for Outreach and Research and that he does a lot of the outreach as well as some research. Yoxtheimer said he was asked to describe some of the activities in the Susquehanna River Basin so they could be compared and contrasted to what “probably won’t happen here in the Delaware River Basin.” A PowerPoint presentation was shown. A slide depicting an overview of the mapped known shale basins that may be prospective for oil and gas development in the U.S. was shown. Yoxtheimer showed a slide of the Marcellus Shale which spans across the Southern Tier of New York through much of northern and western Pennsylvania into Ohio and down through western West Virginia. He said it is estimated to be one of the largest shale basins in the world with about 500 trillion cubic feet of recoverable natural gas using today’s technology. He covered the depth of the shale of the Appalachian Basin. He noted that below the Marcellus is the Utica-Point pleasant shale. This shale is located from 2,000 to 5,000 feet below the Marcellus depending on your location. Yoxtheimer stated that most of the Utica shale drilling takes place in Ohio. He showed a slide depicting the unconventional wells drilled by year from 2004 through 2016 in Pennsylvania, West Virginia and Ohio. Yoxtheimer reported that, to date, there are about 16,000 shale wells in the Appalachian Basin with approximately 10,600 of those in Pennsylvania alone. He spoke of shale gas production projections. He said the best available information suggests that production will continue and continue to increase. A slide of the Appalachian Basin natural gas production was shown and explained. He noted that a combined 25 billion cubic feet per day is coming out of both the Marcellus and Utica formations, accounting for about one-third of the U.S. natural gas production.

Yoxtheimer showed a diagram of a cross-section of a typical horizontal Marcellus well and explained the anatomy of and process for installing it. He noted the importance of understanding the

geology, putting the steel casing at the right depths, and making sure a good cement seal is in place so as to seal off any deeper hydrocarbons or fluids from potentially impacting shallower ground water. He said he was involved in a study several years ago that found that approximately 3.4% of shale wells in Pennsylvania up to that time had some sort of integrity issue requiring remediation. Those numbers continue to decrease as the technology and geologic understanding of the shales increases.

Yoxtheimer spoke of the uses of water in hydraulic fracturing operations. He said it involves the injection of more than a million gallons of water, chemicals, and sand at high pressure down the well. The pressurized fluid mixture causes the formation to crack, allowing natural gas or oil to flow up the well. Regarding volumes, Yoxtheimer said for every 1,000 feet of a well that is drilled, 1 to 1.5 million gallons of fluid may be used. The longer the laterals, the more water will be used. Water sources in the Appalachian Basin are primarily surface water (streams and rivers) via permitted intakes. Return of the fluids of a fractured well, referred to as flowback, ranges from approximately 5-50% of injected fluid volume dependent on the formation. In the Marcellus, you get about 5-6% of the fluids back. Once a well is put into production, you will continue to get fluids along with the hydrocarbons, he added.

Yoxtheimer shared the results of a study he was part of that determined the average water use per well in Pennsylvania. It was estimated that around 7 million gallons of water was being used to fracture a Marcellus Shale well based on the year 2014, while around 10 million gallons of water were being used to fracture a Utica Shale well. He added it takes approximately 1,000 to 1,500 gallons of water to fracture each foot. The water is being pushed down at about 8,000 to 10,000 pounds per square inch (psi).

Regarding total water use in Pennsylvania, Yoxtheimer said that at the peak in 2013, the industry used about 5 billion gallons of water in that one year. A large percentage of the return fluid is being recycled in Pennsylvania, he added. The return fluid, or brine, is blended in with the freshwater in order to fracture subsequent wells. In 2013, there was a little over 1 billion gallons of brine that were used to fracture additional wells.

Yoxtheimer noted that fresh water can be stored in lined open impoundments. He noted that brine can not be stored in the open impoundments anymore; Pennsylvania is phasing them out as they are prone to leakage. Temporary tank systems are being used in most cases.

Yoxtheimer showed a slide of and explained a fracturing operation. He added that in the Marcellus play, you see mostly what is known as a slickwater frac where you have mostly water along with a friction reducer that helps force the water into the shale more efficiently with less frictional losses. An additive sterilizes the water to avoid unwanted bacteria going down the well. He spoke of other additives and the purposes of each.

Yoxtheimer explained that a well pad is a roughly 5-acre area where the drilling activity occurs. A typical well pad may have 6 to 8 wells on it, spreading out in different directions. Some well pads in Pennsylvania have over 20 wells on them. He said the spacing between wells may range between 500 and 1,000 feet. Alternating fracturing between adjacent parallel wells, commonly known as "zipper fracs", is common for efficiency and potential for better reservoir stimulation.

Yoxtheimer showed a slide of a pie chart from Fracfocus which listed the chemicals of potential concern. Fracfocus is a hydraulic fracturing chemical registry website designed to provide information about chemicals used in the hydraulic fracturing of oil and gas wells. This is the registry currently used in Pennsylvania, he added, and is available at <https://fracfocus.org/>. He provided details on some of these chemicals and spoke of some of the naturally occurring contaminants in the shale. Yoxtheimer said there can be quite a mix of any of the contaminants in the return fluid, which is why they have to be managed in a way so they don't cause impacts to water quality. He provided details of flowback and produced fluids management options and treatment technologies.

Yoxtheimer covered some of the environmental concerns as they relate to water quality. He said that shale energy development can and has impacted groundwater. He noted that causes of groundwater contamination include: methane migration into groundwater/surface water due to faulty well construction; release of drilling fluids into the aquifer, including with pipeline installations; direct spill of fluids to ground surface via leaking pipes, impoundments, spills or a blowout; or hydraulic communication with abandoned wells. He spoke of orphaned and abandoned wells, noting that these incidents happen mostly in western Pennsylvania. Recent estimates show that there may be 200,000 to more than 500,000 old wells drilled with only 8,000 mapped.

Yoxtheimer reported that the Environmental Protection Agency (EPA) conducted a nationwide study of Hydraulic Fracturing Impacts on Drinking Water. He shared the key observations/findings from a Northeast Pennsylvania study of 36 wells, 2 springs, and 2 surface sources. He noted it was a narrowly defined study.

Yoxtheimer showed a picture of the Eternal Flame Falls, a small waterfall located in the Shale Creek Preserve, a section of Chestnut Ridge Park in Western New York. He stated it is a naturally occurring seep of natural gas out of the shale. He added that methane can occur in groundwater. He explained that methane can migrate away from a well bore during the drilling process as a result of poor well integrity. According to the Pennsylvania Department of Environmental Protection (PA DEP), to date there were 39 wells with stray gas issues out of 9,597 shale wells drilled through 2015. He said in 2011, the regulations were strengthened to put an intermediate string of casings in the ground that seals off any shallow gas in the upper several thousand feet which was where most of the stray gas issue was occurring.

During the drilling process in Bradford County, PA, drillers were finding multiple hits of methane pockets in the upper 1,000 feet of the Earth in the same zone used for installing private wells. Yoxtheimer said it is known that methane can migrate up through the Earth over the course of geologic time. This is why it is really important that pre-drilling sampling occurs before drilling so that pre-drilling baseline conditions can be established. A slide showing the topographic relationship of methane and groundwater was explained. Yoxtheimer noted that most of the higher concentrations of methane in groundwater occur in the major river valleys. He shared results of a study conducted by hydrogeologist Donald Siegel of Syracuse University in New York on methane concentration ranges in ground water versus distance to nearest oil and gas wells.

Yoxtheimer said that in Pennsylvania, groundwater quality is good in general, making it easier to determine if there are any issues with nearby shale gas wells. He stated that the majority of the gas industry now is sampling all private gas wells within a half mile radius of a shale gas well before it is drilled in order to establish pre-drilling conditions. He provided a list of PA DEP recommended analytes for water supply testing.

Yoxtheimer spoke of a case study of drilling impacts to groundwater of three residential wells in Bradford County, PA. He said a "full scale approach" to assessing the situation was taken and found that there were some unique chemical signatures found in the private water wells that could be attributed to a drilling foam additive. He said the PA DEP did not find this result as many labs are not set up to detect all of the various compounds that are used in the process as they are not "regulated compounds". Methane was also tested and Yoxtheimer said that a multiple lines of evidence approach was taken to assess the situation.

Yoxtheimer reported on the Susquehanna River Basin Commission's (SRBC) role in shale development. He noted that their focus is on water quantity; they regulate water withdrawals and consumptive use in the basin. The SRBC evaluates how proposed withdrawals might impact other water uses, fish, wildlife habitat, recreation, and water flows in streams. This regulatory oversight begins with the "first drop" with respect to the shale industry. The SRBC also regulates consumptive water use for each well. They also monitor water quality via the remote water quality monitoring network, although technically, the SRBC does not regulate water quality. Most of the regulatory activities at the state level are with the PA DEP. They issue the drilling permits, look at earth disturbance issues, stream crossings, etc. Yoxtheimer stated that the SRBC is different from the Delaware River Basin Commission (DRBC) in that the DRBC has jurisdiction over water quality in addition to quantity.

The SRBC's remote water quality monitoring network has a total of 59 stations continuously monitoring for conductance, pH, dissolved oxygen, temperature, and turbidity, Yoxtheimer stated. A recent study was released that found that 40 of 53 stations with more than three years of data had some statistically significant change in water quality for at least one of the five field parameters, with conductance having the most frequent change at 20 of 53 stations. He said it was determined that the conductance changes were not correlated to watershed land use, shale well density, presence of other ions, or changes in the biological community.

Yoxtheimer compared the Susquehanna and Delaware River Basins, noting there are some similarities and there are some differences. He provided his statistics that the Susquehanna drains 27,510 square miles while the Delaware drains 13,539 square miles; average flow at the mouth of the Susquehanna is 18 million GPM and the average flow at the mouth of the Delaware is 5.2 million GPM; land use within the Susquehanna is 63% forested, 22% agricultural use, 7% urban use, and 8% water surface where land

use within the Delaware is 60% forested, 24% agricultural use, 9% urban use, and 7% water surface. One big difference between the two watersheds is there are about 4 million residents within the Susquehanna River Basin while there are around 8 million residents within the Delaware River Basin with 15 million relying on its water. He added that the geology, soils, topography, and climate are all similar within the two basins.

A slide showing the difference in natural gas sites between 2004 and 2014 was shown. He said that the potential for contamination has been reduced over time with better engineering practices.

At the conclusion of his presentation, Yoxtheimer entertained questions from the UDC board members and the audience. Some of the questions and comments follow. Robinson asked if there has been any progress in using an alternative fluid other than water. Yoxtheimer said there has been some use of alternative fluids; the results were proprietary. He noted that if they had been “gang busters” results, you’d see more of those alternative fluids being used. He said what makes water so effective is that it is virtually incompressible. He added that the Department of Energy is conducting ongoing research of alternative fluids.

Sullivan asked if the SRBC regulates the quantity of water, who gets priority for water in times of drought. Yoxtheimer said that the SRBC regulates pass-by flows. If one has an intake to withdraw water from a stream or river and the flow drops below a critical threshold, that intake gets shut off until the flow comes back up. This condition is especially true of the shale industry, he added. Sullivan said she read that there are nine dams on the Susquehanna River and that the river contains coal waste. Yoxtheimer elaborated on this statement. Sullivan commented that the Susquehanna River and the Delaware River are two very different rivers.

Yoxtheimer said that back in 2010, the Department of Energy (DOE) was interested in trying to figure out better treatment technologies for the flowback water and overall waste management strategies. There was some funding available at the DOE level and industry cooperation was sought to see what would work best for everybody. He noted that Pennsylvania is unique with over 90% of that water recycled, which does minimize the need to do a lot of the treatment. He spoke of the treatment technologies that came out of this initiative. He added that economics does drive many decisions.

Robinson asked Yoxtheimer what he would consider more of an environmental risk; the horizontal drilling of fracking or the vertical drilling deep into the Utica layer under the Marcellus. Yoxtheimer stated that the deeper you drill the more difficult drilling conditions can become. He elaborated on this answer.

Westfall Representative Mike Barth asked how often a well is drilled that doesn’t produce. Yoxtheimer told him that shale is fairly predictable and the success rate is quite high.

Richardson asked if any of the old wells in Pennsylvania have run out. Yoxtheimer said that some of the wells have reached the end of their economically productive life.

Peckham asked what happens to the flow back water that does not come back up for collection. Yoxtheimer said the shale is quite dry and acts as a sponge and absorbs a lot of that water. He said over the course of a well’s life, maybe half of the water that was injected stays down there.

Adams asked if the 39 wells with stray gas issues were repaired. Yoxtheimer said yes and explained the process to deal with these issues. He said the industry wants to avoid spills and other issues, adding that there are risks involved with this industry and they look to minimize the risks.

Barth asked if there is on-site monitoring for the wells. Yoxtheimer said there are automated pressure sensors on all of the wells as well as well tenders who check the wells on a daily basis.

A brief discussion about the testing that labs perform and don’t perform took place. Yoxtheimer said he is working on a research project to improve the laboratory analytical techniques to more simply scan for a large range of compounds.

Jim Barth provided statistics on the Pennsylvania Department of Environmental Protection regarding staffing and complaints filed. He asked how health risks and other risks can be minimized when PA DEP is understaffed and underfunded. Yoxtheimer said he knows staff at PA DEP and that they take their jobs very seriously, but agrees that they are underfunded and understaffed.

Ray Bucardo of Pike County shared his concerns about the DRBC’s proposal to allow companies to withdraw water and to discharge some of the purified discharge water back into the Delaware River. Yoxtheimer noted that this is not an industry without risks associated with it. He said the regulators and elected officials need to do their jobs. He said at Penn State they are trying to push the science to the point where it does “hold people’s feet to the fire.” He spoke of the many other sources of contamination.

Wes Gillingham shared some information he learned regarding the Utica shale at a geology symposium in 2010. Yoxtheimer said he is working on a project called the “Shale Network” where they are trying to collect water quality data so it can be available to the public. He noted that one of the most important things scientists can do is to get data out to the public in a way that non-technical people can understand it. He explained The Shale Network is a group of individuals working together to organize water quality and quantity data in regions where shale gas is being exploited. He stated that knowing where faults are in the shale is important and the gas industry will typically try to avoid those areas which are complicated from a drilling standpoint.

Dave Hulse asked where the water that is forced into the ground and does not flow back is going. Yoxtheimer said the shales are generally dry and they act like a sponge in drawing the water in. It stays put despite the volume of water. Hulse asked where the information regarding depths and volume information comes from on maps. Yoxtheimer told him it comes from old drilling logs. Hulse asked Yoxtheimer if Penn State University’s Marcellus Center for Outreach and Research is funded at all by the industry. Yoxtheimer said that most of their funding comes from either Penn State itself and grants from the Natural Science Foundation. He said they have done “a little bit” of industry sponsored research, but it is a small amount.

David Yoxtheimer, P.G. can be contacted via email at day122@psu.edu with additional questions. Greier thanked Yoxtheimer for his presentation and presented him with a UDC lapel pin.

Approval of November 2 Meeting Minutes: A motion by Richardson seconded by Henry to approve the November 2 meeting minutes was carried unanimously.

Public Comment on the Agenda: None

Committee Reports: Committee reports were provided based on the meeting minutes. They were: November 21 Water Use/Resource Management by Peckham, November 28 Project Review by Richardson, and November 28 Operations by Greier.

Status Reports

Delaware River Basin Commission: The DRBC was absent, however, the hydrologic report was provided. The NYC Delaware River Basin Storage as of December 4, 2017 was at a combined capacity of 71.1% with Cannonsville at 51.6%.

NYS Dept. of Environmental Conservation: No report in the absence of Representative Bill Rudge. One press release dated November 17 and titled “DEC and Cornell Launch New Hemlock Woolly Adelgid Biological Control Laboratory” was included in members’ packets at Rudge’s request.

PA Dept. of Conservation and Natural Resources: Dugan handed out a communication piece that the Bureau of Forestry produced. It is a laminated brochure of “Delaware State Forest Plants & Wildlife”. He briefly reviewed the brochure with members.

Dugan handed out a laminated business card containing information on the Spotted Lanternfly. The Spotted Lanternfly is an invasive planthopper. He noted that Pennsylvania has quarantined a variety of products, including Christmas trees, in 13 southeastern counties in a bid to control the infestation. It was discovered in Berks County, Pennsylvania in 2014 and is quickly spreading, he added. It has the potential to greatly impact the grape, hops and logging industries. Dugan stated that the Tree of heaven (*Ailanthus altissima*) is the preferred egg laying site. Richardson asked if similar cards are available for other invasive species. Dugan said yes.

Dugan reported that the DCNR Community Conservation Partnerships Program grants were recently announced. In Pike County, the Conservation Fund was awarded \$800,000 towards the acquisition of approximately 1,053 acres in Delaware and Lehman townships for addition to the Delaware Water Gap National Recreation Area and open space protection. In Wayne County, Lacawac Sanctuary Foundation, Inc., was awarded \$111,450 towards the acquisition of approximately 0.8 acres in Paupack Township for addition to the Lacawac Sanctuary and the creation of a new Environmental Education Center. Wayne County was awarded \$40,000 to prepare a trail study for the development of approximately 15 miles of the

former Delaware, Lackawaxen and Strourbridge Railroad in Palmyra and Texas townships and Hawley and Honesdale boroughs. Dugan noted that Pennsylvania Environmental Council, Inc. received \$160,000 to coordinate and fund activities of the Pocono Forests and Waters Conservation Landscape including the 2019 mini-grant program; identify priority conservation parcels and conduct property owner outreach; and identify priority trail gaps.

National Park Service-Upper Delaware: Hahn reported that Superintendent Heister will elaborate at the January full Council meeting on the National Park Service Upper Delaware Scenic and Recreational River's Fiscal Year 2017 Annual Report which was distributed electronically on November 24.

Hahn provided information on FY 2018 planning currently underway.

Hahn said there were several applicants for the Community Land Use Planner position. The pool has been narrowed down to three and the final selection will take place in the near future.

Hahn reported that an UDSRR maintenance worker retired this month.

The NPS provided a tour of the river valley on November 7 & 8 to Sharon Davis, the Delaware River Program Manager for the National Parks Conservation Association.

Hahn reported that one of the NPS protection staff received 40 hours of critical incident team training in Waymart, PA.

UPDE has received \$33,000 for a long-range interpretive plan, Hahn said.

An update on the UPDE Instagram page was provided.

Hahn provided updates on the GIS tool and the Project Review Guide.

She referred to a copy of the article "A ray of hope for American shad" by NPS Chief of Natural Resources Don Hamilton which appeared in *The River Reporter*.

Hahn provided details of a conference call organized by the NPS on documenting de-water impacts to biota.

A small patch of the highly invasive Mile-a-Minute vine was pulled near the Skinners Falls access, Hahn reported.

A study of micro-plastics in the Upper Delaware Region was funded through the USGS/NPS Water Quality Partnership program, Hahn said. She provided a definition of micro-plastics referring to them as an emerging contaminant of concern in marine and fresh-water systems.

Hahn said that bat resident boxes are being installed in Lackawaxen near the Roebling Bridge parking lot this month.

An update on the Oral History project was provided and Hahn reported that wood furniture at the museum will receive conservation funding this year. Early park planning records have been sent to the Regional Museum Services staff to be professionally cataloged. Hahn said she started working with the UPDE compliance team and provided details of the work being done. An update on the history of Corwin Farm was provided. Efforts are being coordinated with the Regional Planning and Long-Range Interpretive Planning staff for a workshop to discuss visitor options at Zane Grey and the Delaware Aqueduct site, Hahn added.

UDC Executive Director's Report: Ramie reported that the DRBC did release its draft regulations for natural gas activities on November 30. The proposed regulations are posted on their website and a copy of was provided in members' packets. Ramie said that the Project Review Committee will initiate the UDC's discussion at their December 19 meeting. She said a local public hearing is scheduled for January 23 from 1-4:30 and 6-9:30 at Camp Ladore in Waymart. Registration is required by December 31 and a ticket is required to attend, she added. Those wishing to testify will be able to sign up in January. Ramie said she is not sure we'll be in a position to express a unified position at the January 23 hearing. To do this would require the full Council to take action at the January 4 meeting. There is a 90-day comment period from November 30 with a February 28 deadline, Ramie added.

Ramie noted that the WU/RM Committee had directed sending a letter to the NYC DEP to request a progress report on improvements to the public early warning system for any hazardous incidents involving the Delaware River Basin Reservoirs. A copy of the letter was provided in members' packets. She said she was contacted by Adam Bosch, the NYC DEP Director of Public Affairs, about scheduling a presentation by DEP and their consultants in early 2018 to provide an update. A date is to be determined.

Ramie noted that the NYC DEP has been very accommodating to all of our requests for information on this issue.

Ramie said she received a phone call from NYS Assemblywoman Aileen Gunther expressing her support of the UDC's campaign for this communications improvement project and saying that she'll get in touch with DEP as well.

Ramie said that on Monday, December 4, we received a Lead Agency proposal notice from Sullivan County, along with a draft Environmental Assessment Form, for the Highland Access Improvements project. She noted that while no deadline is given, she thinks it would be appropriate for the Council to make a motion acknowledging receipt of the document and expressing support for Sullivan County to serve as the lead agency. Ramie said the UDC serves on the steering committee and has been present for meetings between the county, consultants and involved parties, with Golod routinely providing reports at Water Use/Resource Management and Project Review committee meetings, so we will continue to have direct input. Ramie provided a brief project description and listed the involved parties. A motion supporting Sullivan County serving as the lead agency for the Highland Access improvements project was made by Robinson, seconded by Richardson and carried.

Ramie referred to the UDC news release titled, "Upper Delaware Council Responds to National Park Service's Fund Inquiry" provided in members' packets for their information. As noted, she said we sent our letter and a 25-lb box of supporting documents on November 30 to Colorado and have asked for a projected timetable for completion of this review. A brief discussion about the cost of this review took place.

Ramie reported that our FY 2018 Application for Federal Assistance is still under review by the NPS Northeast Region Contracting Office.

With regards to our New York State project funding request to the Department of Environmental Conservation, Ramie said we received an additional letter of support from the Town of Tusten. Greier said the Town of Fremont did a letter of support and he will look into its whereabouts.

Ramie said the Council continues to meet with our state and federal elected officials to familiarize them with the UDC, discuss any issues of concern and to build relationships. A request for a constituent meeting is currently in to U.S. Senator Chuck Schumer.

Ramie referred to the December calendar of UDC Meetings, Activities and Deadlines provided in members' packets. She reminded members that all three committees are scheduled to meet on December 19. A presentation by Mike Mrozinski, the director of the Pike County Office of Community Planning, is scheduled for January 4 to discuss the Pike County Hazard Management Plan which recently underwent a 5-year update as a requirement of the 2002 Federal Disaster Mitigation Act in order for states to ensure eligibility for FEMA assistance. Mrozinski will explain the five new hazards that have been added to the 12 they had and why.

Old Business: None

New Business:

Nominating Committee Report: Henry announced the following 2018 slate of officers for consideration at the Council's annual meeting and election in January: Chairperson – Aaron Robinson (Shohola Township); Vice-Chairperson – David Dean (Town of Deerpark); and Secretary/Treasurer – Alan Henry (Berlin Township). Other candidates can be nominated from the floor and elections will be by ballot vote at the January meeting.

Draft Resolution 2017-13: Revising Upper Delaware Council Bylaws: A motion approving Resolution 2017-13 was made by Peckham, seconded by Henry and carried.

Draft Resolution 2017-14: Revising Conflict of Interest Policy for Representatives, Alternates and Officers: A motion approving Resolution 2017-14 was made by Peckham, seconded by Robinson and carried.

Draft Resolution 2017-15: Approving Fiscal Year 2017 Independent Accountants' Review and IRS Form 990 Tax Return: A motion approving Resolution 2017-15 was made by Roeder, seconded by Sullivan and carried.

Draft Resolution 2017-16: Contract with Eckersley and Ostrowski, LLP for Fiscal Year 2018 Financial Review: A motion approving Resolution 2017-16 was made by Robinson, seconded by Peckham and carried. Richardson expressed the Council's appreciation for the help given us by Eckersley and Ostrowski during the recent financial review. Members agreed.

Other: Henry asked Dugan if he has any update on the Emerald Ash Borer. Dugan said there are some biocontrols that are being used. He said there is a release site on state forest near Lake Wallenpaupack for parasitic wasps. The species predates on the eggs of the EAB.

Dugan reported there was a 125-acre forest fire in Pike County a week ago right behind the 911 Center. He said it is relatively dry.

Public Comment: Shirley Masuo said the Damascus Citizens for Sustainability has been conducting a survey on the health impacts of drilling. She provided copies of excerpts from some of the survey takers for those interested.

Adjournment: A motion by Roeder, seconded by Peckham to adjourn the meeting at 9:16 p.m. was carried unanimously.

Minutes prepared by Cindy Odell 12/21/17