



Upper Delaware Council

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UPPER DELAWARE COUNCIL MEETING MINUTES

October 6, 2022

The Upper Delaware Council held its monthly meeting on Thursday, October 6, 2022. Chairperson Boyar called the meeting to order at 7:02 p.m. and roll call followed.

In attendance: Town of Hancock- Fred Peckham (Zoom), Town of Fremont- Jim Greier, Town of Delaware- Harold Roeder, Jr., Town of Tusten- Evan Padua (Zoom), Town of Highland- Andy Boyar, Town of Deepark- Virginia Dudko (Zoom), Berlin Township- Alan Henry, Lackawaxen Township- Doug Case, Shohola Township- Aaron Robinson, Westfall Township- Mike Barth (Zoom), Delaware River Basin Commission- Kristen Bowman Kavanagh (Zoom), State of New York- Ryan Coulter, Commonwealth of Pennsylvania- Tim Dugan, National Park Service- Kara Deutsch. Staff in attendance: Executive Director- Laurie Ramie, Resources and Land Use Specialist- Kerry Engelhardt. Absent: Town of Cohecton, Town of Lumberland and Damascus Township. Guests: Dr. Peter Marchetto, Cody Hendrix-NPS, Alex Garcia-Maldonado- NPS (Zoom), Don Hamilton-NPS (Zoom). Media: Liam Mayo- River Reporter, Peter Becker- Tri-County Independent (Zoom).

Introduction of Acting Superintendent Kara Deutsch: Boyar introduced the new Acting Superintendent, Kara Deutsch, saying UDC is delighted to have her and asked her background. Deutsch relayed she came from Delaware Water Gap National Recreation Area in the middle Delaware. She works there as the Natural and Cultural Resource Division Supervisor for ten years and as the Environmental Protection Specialist for 7. She was raised on the Susquehanna River and will be here until 1/21/23 unless a new superintendent is permanently appointed by then.

Presentation: “Open Source Tools For Environmental Sensing” by Dr. Peter Marchetto, Research Engineer and Instrumentation Scientist for FieldKit and Conservify: Boyar shared Dr. Pete Marchetto’s background. He is the Research Engineer and Instrumentation Scientist on staff at FieldKit and Conservify, where he is responsible for calibration, sensor selection, and evaluation, among other system testing and design tasks. Previously, he was an assistant professor at the University of Minnesota’s Bioproducts and Biosystems Engineering department specializing in novel biological and environmental instrumentation and equipment design for a variety of fields, from animal behavior to field hydrology to agronomy and beyond. Pete has a PhD in Biological and Environmental Engineering from Cornell University and his work there as both graduate student and postdoc was spent rigorously building and testing acoustic recording devices for the Cornell Lab of Ornithology and novel field instrumentation for the Cornell Soil and Water Lab. With two decades of experience as a calibration technician and builder of instrumentation, Marchetto brings considerable knowledge to the development of sensing systems and devices.

Dr. Marchetto said to put it more simply, he builds things that wildlife and nature tries to destroy while trying to get relevant data for interested parties. The instruments go outside and listen to the natural world through microphones, pH probes, and through connectivity measurement devices. For example if you want to calculate what a viewshed looks like or what exactly the light level in that viewshed and solar radiometry becomes an issue, that’s where he comes in as a sensory specialist. “Open source” basically means they’re going to tell you how to build the thing that we built in case you want to do it with your own resources and you don’t want to buy it from them, because they don’t want to keep all this stuff getting away. If you are in the NPS, DCNR or at the state level there are companies out there you may be familiar with like Onset, Campbell Scientific, etc. What Conservify is trying to do is make it so that we can bring costs down and still get just the same quality data out so that you can have more coverage over a larger area. Open Source tools means they give you the direction to build it yourself if you want to.

Environmental sensing is any sort of thing you want to know about natural world as part of environment. Conservify does not do them all yet, but part of being open source is that they get you information or the tools or somebody who you may either fund or work with to get the tools and the information to then figure out how to find that environmental parameter and record it so that you have some idea what's going on, what interference is being made by humanity in the natural world or what phenomena are going on in the natural world that you want to study. Conservify is a project of Multiplier. Have you ever heard of a business incubator? It's a business that has other businesses growing within it, like metastatic tumors. Conservify is a business incubator specifically for not-for-profits. Conservify is a maker space, a workshop that sits on Broadway in Los Angeles and is a place where anybody who wants to measure something even in the natural environment can go and get help building that thing for low cost. FieldKit is a project that came out of Conservify when they realized they should give people tools to get started because there's a lot of commonality between what people want. They want something to log the data that they are getting. They want some sort of basic set of sensors. FieldKit is open environmental sensing for everyone. It's a device that allows you to figure out things about the world, you're basically just recording sensor values but it's a little bit more than that. It's open-source tools meaning that these are tools that they give you the key to. You can find out all of what's running under the hood. None of this is closed or proprietary. Anybody can replicate the whole thing they built from the ground up. Dr. Marchetto said they are a 501c3 and are not operating for profit. They're selling this stuff and just making back their money. It is a platform for learning and sharing, meaning that it is a platform that both has an online community and department community manager. You can go to the online platform and ask questions of other users and also share all the data that you want. Or perhaps you are an academic and you must embargo your data because for another 2 years you're still in the process of trying to get that breaking paper published. You can also hide your data from the rest of the world for a given amount of time, and then go public eventually. It's a community of environmental care. It's a way of trying to bring together a bunch of people who want to sense things about the natural world and make a difference in making them better.

There's kind of a spectrum with how this works. There's home-built open-source products, consumer-grade, commercial products, proven scientific tools, and custom built one-off scientific equipment. FieldKit sits in the middle. The things they are making are a web port, a back end where you can view your data and others' data that's freely available. The app itself you use on your phone to download data from one of these boxes that's out in the field, and the field kit hardware. Dr. Marchetto shared about new water quality circuits they worked on (10:24) and FieldKit Underwater. Final prototypes are currently in build. Configurations are for 100-meter depth and 400-meter depth and it measures pH, conductivity, dissolved oxygen, ORP, temperature, depth, and 3 open modules. There's an innovative battery power architecture. The app is relatively simple. It supports management of sensor fleet. You can connect and download data from device. It has data visualization capabilities, sensor configuration and calibration. It drives best practices around scientifically relevant deployments and metadata and features sensor firmware upgrades. The data portal supports project, organization, and deployment administration; advanced sensor configuration, diagnostics, and management; innovative map- and chart-based data visualization capabilities; social integration including sharing of data points and ranges; data annotations, metadata, privacy, and embargo; custom data export templates. It supports the DAT protocol and mobile-first to support a smooth app experience. They provide a massive product guide (20,000 words, photos, videos). The product guide was translated to Spanish and Portuguese and will be translated to French next. It features small shareable tutorial videos for use in the field; blog posts and technical papers from testing and characterizations; online trainings for FieldKit and general sensor work. A Speaker series is in development. Dr. Marchetto shared about their "Citizen Science For the Amazon" project they are working on with the Wildlife Conservation Society and a few universities looking at water quality in various different fisheries context within the Amazon. They also have a program funded by NSF that's joined with the UCLA Institute of the Environment and Sustainability that's in Cameroon where they're implementing bush or jungle measurements that have never been made before and they're making data measurements for a number of different weather parameters in the midst of a rainforest that has never really been engaged.

Dr. Marchetto spoke about Floodnet. It is a NYC, NPW, NYU, and CUNY project for which Conservify is making the data portal. It is a bunch of distance sensors that tell the City of NY they have flooding on specific blocks and DPW should shut down those roads and get the pumps out, etc. Dr. Marchetto said this is way more efficient than trying to get reports from individuals who live in those areas.

Dr. Marchetto lives in Forestburgh and has a depth sensor on Black Brook, a tributary into the Delaware. He has both temperature and electrical conductivity there as well as the depth sensor and a weather station. They also have a station on Tuttle Creek also a tributary into the Delaware near Pond Eddy measuring Glen Spey stage height as well

with a weather station and doing conductivity as well as solar radiometry which is in the test phase. Some recommendations Marchetto would suggest for somebody who wanted to use a FieldKit or on the Delaware River, they have long range radio transmitter capabilities as one of modules that they can put into the Fieldkit. If you put a distance sensor at the middle of Shohola/Barryville Bridge and it's downward pointing now all the liveries and private individuals know what the gauge says remotely and can see whether or not Staircase is going to be a class I or class II rapid. A question and answer session followed. The complete presentation can be found at:

<https://www.youtube.com/watch?v=TyxMSR0pWyM>

Approval of September 1st Meeting Minutes: A motion by Roeder seconded by Henry, to approve the September 1st, 2022 meeting minutes carried.

Public Comment on the Agenda: None.

Committee Reports: There were no questions regarding the following meetings: Water Use/Resource Management September 20th (Ginny Dudko); Project Review Sept. 13th Special Meeting and Sept. 27th (Larry Richardson); and Operations; Sept. 27th (Andy Boyar).

Status Reports

Delaware River Basin Commission: Bowman Kavanagh said there are quite a few advisory committee meetings coming up that are listed on their website: <https://www.state.nj.us/drbc/meetings/> Two are in October: Advisory on Climate Change and Water Management. 12/13 is the Regulated Flow Advisory Committee which was originally intended to meet in September. Their 4th Quarter Public Hearing will be on 12/7. Referencing the Hydrosnap report provided in handouts, it has gotten wetter, and New York City reservoir storage has stabilized so there's much less concern than they had with respect to reservoir storage. It's still dry in some areas and some counties, and of course each State identifies county conditions separately so that's still catching up a little bit to some of the rainfall that we've seen recently which varies across the basin.

Bowman Kavanagh mentioned for the last few years DRBC has been working on technical studies related to aquatic life designated use project. This is looking at dissolved oxygen conditions in the Estuary portion of the Delaware River below Trenton, but specifically, they've been focusing on the urban quarter where water quality is not like the upper basin and there's some very low dissolved oxygen conditions. 9/30 was a deadline which they met to publish a draft analysis of attainability. This study pulled together a lot of different studies performed over the years. Looking at what types of dissolved oxygen improvements could be achieved if ammonia limits from wastewater treatment plants were reduced, the studies show that there were really nine point sources that were the largest contributors. These include the 3 Philadelphia wastewater treatment plants as well as treatment plants, operated in Camden, Wilmington, Gloucester County, Hamilton, Lower Bucks, and DelCora, which is in Chester County.

In addition to the technical analyses, there was also a report on cost and affordability evaluations, because upgrading treatment could be quite expensive. A copy of the report can be found here:

<https://www.nj.gov/drbc/programs/quality/designated-use.html>

The next steps recommended in this process are for the commissioners to initiate a rule making process to consider the results of the technical studies and to consider revising the designated aquatic life uses in that portion of the Estuary then to develop water quality criteria to support those uses. Bowman Kavanagh said it doesn't really directly impact folks up in our area, but it's been a really big project in the lower Estuary. If you have any questions, please let her know.

NYS Dept. of Environmental Conservation: Coulter shared the Mongaup Valley WMA Habitat Management Plan was finalized back in June and is available on their website:

https://www.dec.ny.gov/docs/wildlife_pdf/yfimongauphmp.pdf

Kevin Clarke from the Wildlife Unit shared a presentation on that with the UDC back in 2020. They have a draft site plan for the Mongaup Falls Reservoir Boat Launch Rehabilitation Project. They hope to complete the project in summer 2023. Coulter will meet at the Highland Access on 10/21; this is an improvement project in the works for a few years. DEC looks to help with some paving at the site.

Lastly, big news in the fishery world, last month they documented Northern Snakeheads reproducing in the Bashakill marsh. They are thinking on how to manage that best. They likely up the Delaware River, up the Neversink, up the Bashakill and found suitable habitat.

PA Department of Conservation & Natural Resources: Dugan forwarded his detailed report for the meeting packet. Hunters and outdoors enthusiasts heading into Pennsylvania's state-owned woodlands this autumn will find additional roads open in 18 of the 20 state forest districts. "This improved accessibility, coupled with DCNR's promotion of deer hunting, benefits forest regeneration and the overall ecosystem," said DCNR Secretary Cindy Adams Dunn. "DCNR will be opening more than 533 miles of state forest roads that are normally only for administrative use. They again will be available to hunters, hikers, foliage viewers, and others visiting state forestlands this fall." With the added access to administrative roads, more than 3,250 miles of state forest roadways will be open during the statewide archery deer season, which opens Saturday, 10/1, and closes Friday, 11/18. View a [list of the administrative roads](#) that DCNR forest managers plan to open this season. Many of these roads will continue to stay open through other hunting seasons, continuing into January 2023. Forest managers may close these roads at any time if weather conditions dictate, to prevent damage or deterioration to road surfaces or forest surroundings. DCNR and the Pennsylvania Game Commission continue to update a [new interactive map](#) of state forestlands and game lands across Pennsylvania. The map offers information on the Deer Management Assistance Program (DMAP) and Disease Management Areas, and details on newly opened roads, timber harvesting activity, forestry office contacts, and more. Visit the following link for [hunting opportunities on DCNR lands](#).

As interest in harnessing power through solar energy increases, Department of Conservation and Natural Resources (DCNR) Secretary Cindy Adams Dunn announced the department has developed guidance for landowners, developers, planners, and local officials who are considering building grid-scale solar installations. A grid-scale solar facility is one which generates power from the sun and feeds it into the power grid, supplying a utility with energy. "As Pennsylvania's conservation leader and trustee of the commonwealth's natural resources, DCNR has developed guidance for landowners, developers, planners, and local officials for the siting and construction of grid-scale solar projects," Dunn said. "The department supports advancing grid-scale solar that avoids or limits impacts on forests, wildlife, and water." Dunn added that renewable energy alternatives, such as solar, help to mitigate the impacts of climate change and reduce the Commonwealth's greenhouse gas emissions. The announcement was made on the first day of the [Sustainability Summit](#) hosted by the GreenGov Council. The new resource, [Conservation Considerations for Siting, Planning, and Maintaining Grid-Scale Solar Systems in Pennsylvania \(PDF\)](#) includes a number of key resources for informed planning and decision-making. The recommendations in the document outline 10 considerations for siting best practices and eight for sustainable design. They include: Prioritize the conservation and protection of mature forests, recreational lands, plant and wildlife habitat, and vital ecosystems; Prioritize siting on already disturbed lands; Co-locate near existing energy infrastructure; Avoid and minimize erosion and sedimentation; Actively protect and restore wildlife habitat to include and support native species; and Include decommissioning that restores the land to the same condition as it was before. Grid-scale solar installations are not permitted on DCNR lands, nor on lands that have received DCNR grant funds. The guidance document is intended to help landowners, municipal officials, developers, investors, and planners make informed decisions regarding the siting and development of grid-scale solar. Using the clean energy from the sun, the department is deploying small-scale solar arrays to take certain buildings and facilities off the grid, saving money and reducing DCNR's carbon footprint. Throughout state parks and forests, there currently are 23 solar array installations. By 2030, DCNR will derive all of its electric from renewables, about half of that through solar installations. Learn more about the department's [sustainable practices](#) on the DCNR website.

Highlighting some of the world's most beautiful and diverse fall foliage, DCNR again is making its experts available to serve as regional advisers, offering tips and resources to help residents and visitors experience a colorful autumn in a variety of ways across the commonwealth. Beginning 9/29, [weekly fall foliage reports](#) can be found on the DCNR website. The report will be updated every Thursday. Fall foliage typically peaks for several weeks throughout October across Pennsylvania. Visitors can get suggestions about [the best spots to view fall foliage](#) on the [Penn's Woods Fall Foliage story map](#) and on the [Pennsylvania Tourism Office website](#). Pennsylvania also boasts an abundance of great festivals, pick-your-own farms, and unrivaled haunted attractions that make the state the obvious choice for autumn, to pair with fall foliage viewing. These tourist activities help fuel Pennsylvania's economy, with approximately 200 million travelers injecting about \$45 billion into Pennsylvania's economy. Tourism generates more than \$5 billion in tax revenues and is responsible for more than 500,000 jobs related to or benefitting from tourism. For fall-inspired festivals and experiences, go to [visitPA.com](#)

DCNR Secretary announced free grant workshops in November for those seeking funding assistance for new park trail or conservation projects. Dunn said, "These workshops provide valuable insight into the grant process that can help a borough, township, nonprofit, or watershed group turn plans into action and we welcome all applications." This free, virtual workshop will take place Thursday, 11/3, from 9:00 A.M. to noon. Anyone interested in applying for bureau grants in 2023 is strongly encouraged to attend. The workshop will take place via a Microsoft Teams Live Event. To register, visit the [DCNR calendar of events](#). Videos of workshop presentations will be made available on the DCNR YouTube channel for those who cannot attend.

The workshop will provide insight on: Who can apply; What can be funded; When funding will be available and How to make project applications more competitive. The workshops are especially suited for municipal officials, consultants, board members, trail managers, land trust staff, and park and recreation professionals. The grants are administered by the DCNR [Community Conservation Partnerships Program](#). DCNR provides grants to support outdoor recreation and conservation projects and has funded projects in every Pennsylvania county. This year, DCNR [funded more than 330 projects for a record \\$90 million](#), surpassing the 2021 record [grant award of \\$70 million](#). Funding each year supports projects that directly impact Pennsylvania communities, including parks, playgrounds, trails, nature preserves, boat launches, pools, ballfields, and more. Funding for the grants comes from the state Environmental Stewardship Fund and the Keystone Recreation, Park, and Conservation Fund; as well as the federal Pennsylvania Recreational Trails Program and the Land and Water Conservation Fund.

National Park Service-Upper Delaware: Deutsch reported they are wrapping up their season. They just finished up their annual reporting and are preparing for the next fiscal year. They are staying busy with lots of administrative work.

UDC Executive Director's Report: Ramie said we had a productive staff meeting with Kristen Bowman Kavanagh and Beth Brown from DRBC on 9/19 to discuss our various initiatives and opportunities to collaborate. That was the morning after our awards banquet that they had attended and lodged at Central House Resort as well. It gave us a chance to commiserate over our mutual funding challenges too. Last week, Bowman Kavanagh and Brown met with NYS Assemblywoman Aileen Gunther and graciously brought up the topic of the UDC's lack of any state funding along with their discussion about the NYS share of DRBC operational aid. Her guidance was for both organizations to send her letters in later November detailing our requests so she can work on building support with her colleagues in the Assembly and Senate for sustainable funding through a budget line item. Ramie said we of course will do that. Bowman Kavanagh and Brown also brought us six copies of the "Our Shared Waters" poster which includes a whimsical map of the entire Delaware River Basin, including the UDC office, and interesting facts about it. These are available to take; we already had one posted on the conference room door.

Now that we flipped the calendar into October as the start of Fiscal Year 2023, she was pleased to find that half of our annual National Park Service Cooperative Agreement funding has been deposited into our online account. This enables us to make payment requests to cover our monthly expenses as approved by the Operations Committee without any delays. She also shared with that committee the ongoing exchanges she's had with Congressman Cartwright's Economic Development Director Dr. April Niver since the awards banquet at which the congressman voluntarily pledged in his keynote address to advocate for a federal funding boost for the Council once the most effective methodology is identified. She'll continue reporting back on that.

Boyar had requested an update on news that she shared at the 9/27 Operations meeting about the 11/30 cancellation of our employee medical insurance small group policy due to MVP Health Care's enforcement of a new majority NYS residency requirement for subscribers. We're currently stalled on that because our insurance broker now lives in Cape Coral, FL which was impacted by Hurricane Ian. Nancy had started looking into alternatives for us before it hit but wasn't sure when their electricity and Internet would be restored. She's now in Tennessee on a previously planned trip and told us that she'll resume her research next week.

Those who follow our Facebook page may have seen the post Ramie did on Wednesday showing the new playground equipment at the Damascus Township Park which was partially funded by the first-ever PA grant that Reps. Fritz, Peifer, and Senator Baker had secured for the UDC. This public park is on the same property as the municipal building and Damascus opted to allocate its \$15,000 grant share for this phase of its many improvements. We still await our official close-out letter from the PA Department of Community and Economic Development to

whom we submitted the overall \$100,000 grant project audit on April 28, and she has inquired again. Their last response on May 23 said that it is pending.

On the subject of grants, she surprisingly hasn't seen a lot of coverage on the 2022 round of Delaware Watershed Conservation Fund grants that were recently announced. \$13.8 million was awarded to 36 projects, including a couple for which we had submitted support letters. One of those is the DRBC's "Water Resources Management Studies Across the Delaware River Basin" in the amount of \$866,900. The total water security planning project cost is \$2,990,900. Another award is \$317,300 to Sullivan County for site remediation of the Callicoon Riverside Park in the Town of Delaware at an estimated cost of \$722,300. That is for the purchase and clean-up of 38 acres of the former Upper Delaware Campground including removal of debris and invasive species, installation of welcome signs, and development of rustic trails for public use. Also funded was \$635,500 to the U.S. Fish & Wildlife Service for aquatic organism passage projects on the East Branch Delaware River, and Friends of the Upper Delaware River will receive \$463,700 to support the Upper Delaware River Climate Corps with restoration and resiliency work in the Willowemoc streams.

The NYS DEC Highland River Access on Rt. 97 located between Barryville and the Roebling Bridge closed to the public on Monday, 10/3, and will remain inaccessible until next spring to allow for construction work. This project was also subject of a \$250,000 grant from the Delaware Watershed Conservation Fund to Sullivan County, with partners including the National Park Service, NYS DEC, NYS DOT, and Town of Highland contributing in-kind services toward the match. The final office repairs on our list were completed yesterday with Tom Coacci and his crew replacing the utility room sink faucet which enabled us to turn the hot water back on after a couple weeks and installing the new rods and curtains for six windows after the old drapes did not withstand the washing machine. Ramie saw an announcement today that a UDC alumnus, Shannon Cilento, will receive a Distinguished Service Award from the Sullivan County Chamber of Commerce for her work with Sullivan Renaissance. The chamber's Pride Awards Gala and Annual Meeting will be held on 11/3 at the Villa Roma Resort in Callicoon (also UDC meeting night.) Lastly, please see our October and November calendars with meetings, activities and deadlines, along with a December preview. Note that she's taking six vacation days off between 10/7-17. She'll be back in time for our next UDC committee meeting on the 10/18 but won't be checking emails in the meantime.

New Business

Draft Resolution 2022-07: Approving Technical Assistance Grant for Fiscal Year 2023: A Motion by Henry seconded by Greier to approve the resolution carried. Engelhardt will draft the UDC's contract with the Town of Tusten for Technical Assistance Grant 2022-01: Integration of Zoning Law into Online Document (\$8,622.50), including a copy of the approved resolution, a Scope of Services, and the deadlines for a Mid-Term Progress Report and project completion, to present it for signatures by the Town Supervisor and UDC Chairperson.

Other: None.

Old Business

Earn Shirt, Get Supplies from UDC for Sullivan County Fall Litter Pluck: Ramie provided a press release sharing participants in the Upper Delaware Council (UDC) member towns of Fremont, Delaware, Cochection, Tusten, Highland, and Lumberland can earn free t-shirts and receive clean-up materials to pitch in with Sullivan County's Fall Roadside & Trail Litter Pluck through October 31. With the Sullivan County Legislature's decision to extend its Spring Litter Pluck that offers free disposal at its garbage and recyclables transfer stations, the UDC will follow suit with a second formal round of its Upper Delaware Litter Sweep which had occurred April 22-30. Those interested in focusing on the Upper Delaware River Valley's roadways and trails may contact the UDC to request trash bags, gloves, returnable grabber tools, and safety-colored 2022 t-shirts in available sizes.

Two Towns Complete UDC 2022 River & Shoreline Clean-ups: Ramie provided the press release on the Towns of Deerpark and Lumberland recently completing projects under the Upper Delaware Council's 2022 River and Shoreline Clean-up Grants.

Other: None.

Public Comment: None.

Adjournment: A motion by Roeder, seconded by Greier, to adjourn the meeting at 8:21 p.m. was carried.

*Minutes prepared by Ashley Hall-Bagdonas 10-27-2022
Presentation available on UDC Youtube and recording available upon request*