WATER USE/RESOURCE MANAGEMENT COMM. MEETING NOTES
February 16, 2021

Committee Members Present:	Ginny Dudko, Al Henry, Evan Padua.
Committee Members Absent:	Pat Jeffer, Fred Peckham, Andy Boyar
Staff:	Laurie Ramie, Shannon Cilento, Ashley Hall-Bagdonas
NPS Partner:	Don Hamilton, Cody Hendrix
Guests:	None.

The UDC's Water Use/Resource Management Committee met for its monthly meeting via Zoom on Tuesday, February 16th, 2021. There were not enough members to meet quorum. A recommendation was made by Henry to review the agenda as a discussion since there weren't many items that required a vote.

AGENDA

Public Comment on the Agenda: None.

Old Business

Upper Delaware Litter Sweep Update: Cilento said emails had been sent out about the Zoom meeting for our Litter Leaders and people that are generally interested tomorrow (2/17) at 6:00 p.m. We will be asking for input and ideas and are expecting about 20 people to attend that. Many Town/ships have signed on and designated their Litter Leaders already. We have had social media posts and email blasts. Some notable groups like SUNY Sullivan, Delaware Highlands Conservancy, Friends of the Upper Delaware River (FUDR), Growing Lackawaxen, and Callicoon Business Association have expressed interest. Cilento was able to discuss a possibility of a grant for this type of event with staff at Sullivan Renaissance. Hall-Bagdonas and Cilento saw on social media that Riverfront North based in Philadelphia along the Delaware River have loaner litter kits that include a trash grabber, gloves and trash bag. Cilento and Hall-Bagdonas were thinking of creating loaner litter kits so people could stop in year-round and borrow the litter kit to take while walking around town, while on trails, or the river. Cilento said Earth Day would be the launch of the litter loaner kits. Hall-Bagdonas mentioned how important the social media posts and press releases are regarding the Litter Sweep; someone reached out today saying they saw information for it on TV-13 news. Larry Richardson provided a handful of volunteers this weekend for the Town of Cochecton. As Cilento mentioned the Town/ships are filling up nicely and now it will be about filling in the people that did not request a specific Town/ship. Hall-Bagdonas shared that Dan Nelson will be providing the logo for the 3/4 full Council meeting. We also have a valuable contact with Mike Coppola from Keep Hawley-Honesdale Beautiful who does the permitting for the events. Hall-Bagdonas said we also had the opportunity to speak with several NYDOT staff at a Litter Sweep session last year and Dan Paparella, the previous Event Coordinator; had started some of these steps last year so we have a blueprint to work from.

Ten Mile River Access Boat Ramp Update: Ramie said she had circulated the response from Eric Baird of JHA Companies in response to the committee's questions. One question was if the cost estimate he provided ($80,000) included the labor and the answer was yes. The committee was also curious where the boat ramp couldbe located at the access. Baird said that he could meet someone there and stake it out. He said he is still waiting for a response back from the DEC regarding permitting in regard to being able to declare our contract with JHA Companies completed. Ramie said on 1/28 we met with the NPS and she asked Hamilton to address that. Hamilton said there was an internal discussion about that meeting afterwards. They received UDC's request for more information and need a little more time to respond to that request. Henry said for the record he appreciates everyone meeting to discuss the matter.

1/25 Upper Delaware Scenic Byway Report: A copy of the minutes was provided in the meeting packet. Ramie said the Upper Delaware Scenic Byway (UDSB) is trying to be more project oriented lately with developments along the highway that also parallels the river. There is going to be focus on a few distinct projects throughout the corridor. One of them is for grant funding to make improvements to the Village of Hancock's Junction Pool River

Access which the UDC also supported. There is an effort in Lumberland where the pull-off exists on Rt. 97 which is meant to be a picnic area but is so overgrown there are very few views of the river. A subcommittee has been setup to work with the DOT to make recommendations on how that pull-off can be improved. There are a few ongoing projects in the Town of Highland. The Kate Project that the Delaware Company has been doing with the selective clearing to make a path between the Eagle Observation Blind Access and the end of the NPS towpath trail is one. The clearing has been completed and is a great improvement. There is also an effort to make the Town Beach in Highland more accessible for the public. They plan to do an art project and trail system around the River Road cul-de-sac in Barryville. Ramie said it looks like the lease for the Callicoon Train Depot has been finalized in terms of an agreement between the Central New York Railroad and the Callicoon Business Association (CBA). Ramie said it was signed today by CBA and is being mailed back to Central New York Railroad for signing. Ramie said it's a five-acre parcel of a greater 127-acre parcel that the railroad owns in Callicoon. This is the future home of the Upper Delaware Scenic Byway Visitor Center at the Callicoon Train Depot.

1/28 Webinar on Invasive Knotweed: Ramie provided a verbal report on this program hosted by the New York League of Conservation Voters Education Fund.

2/9 Eagle Creek Renewable Energy Supplemental Information: Provided in the meeting packet.

Delaware River Sojourn Planning Update: Cilento said they have their regular meetings and have now broken off into subcommittees for the events for the first couple days in the Upper Delaware region. She is working with NPS, Friends of the Upper Delaware River and Delaware Highlands Conservancy. There will be a Day Zero cleanup in Hancock on Friday 6/18 from 2-4 p.m. Everyone will meet at the Cadosia Access in Delaware County and take out at the Hancock Access. It will be mostly river cleanup with some land-based cleanup for those who are interested. Ingrid Peterec from NPS has said there are some canoes and work gloves available to use. Dinners will be provided at the Hancock access which people will then take to their campsites, with the Sojourn starting the next day. FUDR and the Town of Hancock are arranging for trash disposal with the Town. During the first few days there are slots for educational programming and they are working on figuring out that scheduling.

Other: Ramie said a meeting has been set by PENNDOT and NYDOT for the Skinners Falls-Milanville Bridge Project Advisory Committee on 2/22 via Zoom at 2 p.m.

Henry wanted to make note of the letter that Ramie sent to Superintendent Salvatore on 2/10/2021 noting the UDC has done due diligence and met the Decree from the Regional Director regarding a boat ramp at the TMR Access. Henry said we have a workable solution and hopefully NPS can expedite the Case Incident Records.

New Business

Delaware River Microplastics Study Results: Hamilton said we live in a world awash in plastic waste product. Microplastics are a contaminant of increasing concern in aquatic environments and other areas. Microplastics are plastic particles less than 5mm in diameter and less than 2/10 of an inch but they can become much smaller than that through the continued mechanical and chemical weathering and breakdown of plastics. They come from a variety of sources including fibers shed from synthetic clothing, plastic microbeads used in hand scrubs and toothpaste, and larger plastic litter that breaks down including styrofoam, plastic bags, plastic bottles, wrappers, cigarette butts, etc. Plastics have become one of the most prevalent readily discarded materials in our daily lives. Plastic's largest use today is packaging and we have shifted primarily to single-use containers. Hamilton said half the plastic we use is used once and thrown away such as plastic bags and water bottles. Americans on average discard 185 pounds of plastic per person per year. The majority of plastic use in these containers derive from petroleum-based hydrocarbons. None of these most commonly used plastics are biodegradable leading to near permanent contamination of the natural environment from plastic waste. Microplastics continue to break down into smaller particles through weathering, eventually reaching nanoscale which is the size range of viruses and molecules. This continuous breakdown results in the broad range of particle sizes enabling organisms across the food web from mammals to birds to fish and zooplankton to ingest them. Hamilton said human are not exempt; we ingest microplastics through inhalation. Biological effects of ingestion include obstruction of digestive system, nutritional deprivation, impaired reproduction, toxicity to the liver and cellular damage. Ingestion of microplastics can result in an uptake of bioaccumulation of harmful chemical additives found in plastics as well as an array of organic toxins in the environment that attack the surface of plastics. Studies have shown that nanoplastics can translocate from lungs

to systemic organs. They can cross the bloodstream organ membrane. A 2019 study revealed that they were able to translocate to the fetal compartment in rats with a presence in the liver, lung, brain and heart.

Hamilton said the objective of their study was to determine the occurrence of microplastics in the Delaware River water column, sediments, and aquatic life. Sampling this over a longitudinal gradient of different land uses of population may shed light on land uses associated with different types of microplastics and look at potential risks to aquatic organisms based on ingestion. They sampled water and sediment samples during base low conditions at nine sites over approximately 170-miles from Callicoon, NY to Burlington, NJ. Of these nine sites and three tributaries were also sampled including Bushkill Creek in Easton, PA; the Lehigh River at Glendon, PA; the Musconetcong River at Reigelsville, NJ. Fish and mussels were collected at a western number of sites with the assistance of the Academy of Natural Sciences at Drexel University. Fish collected were smallmouth bass, and white sucker. Eastern elliptio mussels were collected.

Some of the findings are that microplastics were found in 100% of water and sediment samples, 94% of fish, and 45% percent of mussels. Fibers were the dominant microplastic type across all samples. The highest concentrations of microplastics were from the Musconetcong River, a watershed that has a relatively high percentage of urban landcover (19%). The highest percentage of sediment samples was from Bushkill Creek in Easton, PA with 33% urban landcover. Bushkill Creek sediment samples were also high in concentrations of tire particles. In tire particles leachate is shown to be toxic to some fish species such as coho salmon and others. Lowest concentration of microplastics in water samples was from the Delaware River in Callicoon the most upstream and least urban of the sites. In summary, microplastics are not only present in NPS-managed sections of the Delaware River, but they are being ingested by aquatic organisms. Although this study did not examine the biological effects of microplastic ingestion on aquatic organisms, previous studies have shown lethal and sublethal effects.

Dudko asked if the recyclable plastics shed the same way that plastic bags do? Hamilton said if they are discarded in the landscape, they all break down into nano and microplastics eventually. If they are recycled properly maybe they are converted into a park bench or sent to a landfill. Unfortunately, only about 14% of plastic waste gets effectively recycled. Much of it ends up on the landscape and washes into rivers and streams and eventually larger water bodies. Hamilton said they are also seeing microplastics in very remote environments. Increasingly studies have shown atmospheric depositions have made their way to these remote environments. A 2019 study showed over 90% of the rain samples collected in Mt. Vail in Rocky Mountain National Park with an elevation of over 10,000 feet contained microplastics. Another recent study showed that microplastics had concentrations comparable to those found in urban runoff in glacial snowpack in North Cascades National Park. A very recent 2021 paper documented the prevalence of plastics in the food web of Yellowstone Lake, the largest elevation lake in the U.S. Hamilton said this stuff is ubiquitous, it's everywhere. It's a problem and a potential problem for human health. He said we need to find a way to manufacture packaging that serves its useful purpose without persisting for decades or centuries in the environment. Henry asked what is the impact of the recent forest fires that have burnt down towns? Hamilton said that's probably one contributor to atmospheric microplastics. Another one is thought to be overland application of biosolids from waste-water treatment plants and, of course, storm water run-off, industrial and domestic waste-water and breakdown of aquatic equipment such as buoys, lines, nets and boats.

NYS DEC Spotted Lanternfly Press Release: Ramie provided the press release in the meeting packet with information on the 2/23 webinar.

NYS DEC Annual Pheasant Release Program Applications due 3/25: Press release provided in meeting packet with a due date of 3/25.

Delaware River Flow & Storage Report: A copy of the 2/8 DRBC Hydrological Conditions Report was provided in members' packets. Total combined storage was at 84.1%.

Other: None.

Public Comment: None.

Adjourn (Recess): Discussion ended at 7:47 p.m.

Minutes prepared by Ashley Hall-Bagdonas 3/1/2021