

Draft

**TOWN OF RED HOOK
CONSERVATION ADVISORY COUNCIL**

Minutes of meeting
October 14, 2015

Members present: Chairwoman Laurie Husted, Susan Ellis, Jody Jacobs, Mike Zelig, Jen Cavanaugh, Dennis Collet

Absent: Sarah Imboden, Anne Rubin (clerking at ZBA), Ross Gould

Guests: Saw Kill Creek Watershed Research Group members Professor Eli Dueker, Gabriel Perron, Olivia Williams, Tom O'Dowd, and Olivia Rothberg of Bard College; Maryelisa Blundell of the Red Hook Library; Karen Schneller-McDonald, watershed management consultant; Sheila Buff of Milan; Nate Nardi-Cyrus of Scenic Hudson; Sarah Fernald of DEC Hudson River Research Reserve

Guest speakers: Jen Epstein from Riverkeeper and Andrew Meyer from DEC Hudson River Estuary Program

CALL TO ORDER / QUORUM: Chairwoman Laurie Husted called the meeting to order at 6:25 P.M. A quorum was present.

SAW KILL CREEK WATERSHED RESEARCH GROUP: CAC members and Watershed Research Group members did a round of introductions. Eli Dueker as leader of the Research Group detailed the focus of the presentations to be made by Jen Epstein from the Riverkeeper, who will speak about the role of Riverkeeper in partnering with studies of tributary inputs to the Hudson River, and Andrew Meyer from DEC Hudson River Research Reserve, who will speak about grant opportunities for migration barrier mitigation and culvert replacement along the waterway. Eli asked Jen Cavanaugh about the Town already planning to replace some culverts. Jen replied that Highway Superintendent Theresa Burke is interested in implementing this study and is seeking funding to upgrade problematic culverts.

Eli announced that Bard College has received a \$48,000 grant from the DEC Hudson River Estuary Program to support a science based community stewardship called the Saw Kill Watershed Community Group. Eli added that the Saw Kill Watershed Program has a smaller grant from Bard College meant for community use, which will be a partnership between Bard College researchers and community scientists who are

interested in running a monitoring program for the length of the Saw Kill watershed. Riverkeeper has a lot of expertise in that area and Eli would like the Saw Kill Watershed Program to join with the Riverkeeper tributary program.

Riverkeeper representative Jen Epstein : Eli introduced Jen Epstein to discuss Riverkeeper's work. Jen Epstein noted that the last 3 years Riverkeeper has been producing water reports focusing on enterococcus in the Hudson River, as it is the major contaminant determining suitability for swimming. One of the first findings was that tributaries were contributing to the enterococcus contamination levels. Communities along the tributaries expressed concern to John Cronin and others at Riverkeeper, as the Hudson is known to have contamination and dirty looking water, but the tributaries usually look clean. John Cronin began partnering with people in some of the watersheds to determine the tributary water quality. That has now expanded to monitoring projects on 9 tributary watersheds. Riverkeeper samples in the Hudson River and tests in a lab on its boat; community partners on the tributaries are collecting the samples to be tested by Riverkeeper. Riverkeeper has been working with Environmental Conservation Commissions along Rondout Creek, who are using the data to advocate for better water quality. They also are working with the Wallkill Watershed Alliance and Ulster County Board of Health. Partnerships are flexible to adjust for differences in communities.

Eli Dueker asked what the timeline for projects might be. Jen Epstein replied usually May to October, as it is the major recreation season. Sampling is a minimum of once per month, but biweekly or weekly as funds allow. What would need to be done over the winter would be site selection, identifying likely areas of access by map and verifying by field check. To be ready to begin in May, sites need to be selected by early April. There was discussion of how many sampling sites to choose. Jen Epstein said that a 12 – 18 site range would be fine. A 1976 – 1982 Red Hook Rod and Gun Club, Red Hook CAC and Bard College Saw Kill Creek Monitoring Program had 12 – 14 sites covering the junction of most smaller tributaries and having roadside access. Susan Ellis noted that the data from that program has been given to Eli Dueker's team and they have been digitizing it to use for comparison. Susan added that no sites had been sampled in Milan. Jen Epstein continued by noting some of the water issues to be looked for, such as clusters of population and septic, or farms where long term use may create persistent non-point contamination. She said that they typically design these studies to be a long term monitoring to get a complete picture of the watershed. There will need to be follow-up and perhaps use of different methods to pinpoint sources of contamination.

Eli Dueker questioned Jen Epstein about how the tributary data has been used, locally or regionally. Jen replied that in the Spar Kill Creek Watershed, Riverkeeper is trying to discuss results with the local sewer district to compare data and see where they could use the data to improve their situation. On the Rondout Creek and Walkill Creek they

have kayaking monitors and are trying to match data with outflows. In the Catskill Creek Watershed, the data was used by DEC enforcement. Emily Vale of the Hudson River Estuary Program has been using data for a project that Cornell University has prioritized to plan for updates to sewer plants. Riverkeeper does a lot of commenting on State Pollution Discharge Elimination System (SPDES) permits. Every two years the State does an inventory update of the conditions of state waterbodies, and Riverkeeper supplied data for that. If updated data shows increase of pathogens in the waterbody, DEC will give it higher priority for funding for further studies and reduction of pollution input.

Eli Dueker described the results of the 4 sampling sites on Bard campus that were monitored, 2 above and 2 below the Sewer Plant outflow, in order to determine the impact of the Bard community on the stream quality. There were a very few days that the fecal coliform exceeded the limits for swimming. Eli asked how Riverkeeper adjusts the analysis to account for rain events, as most of the testing at Bard was done under dry situations. Jen Epstein said that they really haven't tackled that issue, as it is not easy to have samplers readily available. Jen Cavanaugh added that it depends upon what is being looked for; there need to be several samples taken over a 72 hour period to see how a rain event affects pollutant levels. Jen Cavanaugh explained how in her work on catch basins, she has a rotating carousel of sample tubes set to fill at specific intervals. Denis Collet asked what level of analysis would be required to reach the next level of information. He has worked on a 10, 12, or 15 channel flood analyzer, fairly old technology, and suggested that it might be worthwhile to partner with someone to develop a plan to analyze samples as they are collected. Eli said that it would be interesting to consider that option, and added that some tests, such as conductivity are being handled that way in the student sampling.

Eli Dueker asked Jen Epstein about the next step for meeting about sample site selection. Jen replied that whenever the Research Group and the CAC or other interested parties would set a meeting date she would devote part of the meeting time to site selection. Jen Cavanaugh asked if Jen Epstein would bring training materials; Jen Epstein replied that she has a sheet that describes how the sampling would be done. Eli thanked Jen Epstein for her presentation.

Andrew Meyer from DEC Hudson River Estuary Program : Eli introduced Andrew Meyer, guest speaker about aquatic barriers to habitat connectivity in watersheds, from dams to culverts, and what can be done to fix them. He presented maps showing the locations of barriers in the Saw Kill Watershed and the range of impact on migrations. The American eel is one migratory inhabitant of the Hudson River. Andrew noted that for the eel there is ~ 90% loss of migration at each barrier. The barriers also restrict some fish, mussels, salamanders, reptiles and macroinvertebrates. Andrew is interested

in reconnecting the watershed for the ecological value of reopening all the habitats for all the organisms, fixing the water hydrology so that the water flows as it should, and fixing water quality issues by getting properly sized culverts. The economic argument for addressing culverts is that an undersized culvert is a hazard to the community for flooding. The Hudson River Estuary Program is working to prioritize and fix those culverts that have the most significant potential for flooding and will provide the most benefit for the expenditure. In 2013 they did an ecological study of the Hudson for 10 counties from Albany to New York to determine what were the most important barriers, culverts and dams that would have the most impact on habitat connectivity. They documented about 170 locations, and field verified them. Andrew Meyer explained that the Biologically Important Barriers mapped for the Saw Kill Watershed in a 2013 partnership with the Dutchess County Soil and Water Conservation District was one of the first aquatic barrier projects done. The Soil and and Water personnel drove the roads of the watershed and collected data on the culverts and dams. Andrew added that in 2014 the Estuary Program partnered with a regional watershed data base, but that the Aquatic Organism Passage data is not fully scored and entered yet. Andrew said that he would be happy to help the Saw Kill Watershed Research Group work through the prioritization and towards grants that might assist the Town to act upon its designated priorities. The issue of dams is more complex, as they are most often privately owned, so there is no economic argument for a community to deal with them; removal is costly and a burden. Andrew Meyer also offered to speak with owners, if that would be something of interest to the Town. Eli thanked Andrew Meyer for his presentation and agreement to partnership.

Eli wanted to talk about other work the Saw Kill Research Group has been doing. Susan Ellis and Sheila Buff are working to gather historical data. Sheila said that they hadn't met to put together the information yet. There is so much research out there to be connected in this waterway. Karen Schneller-McDonald and Sarah Fernald have worked to compile information and maps to describe the condition of the Watershed. Karen presented a summary of Saw Kill Watershed Research notes, adding that Andrew Meyer has checked off one of the items on the map list with the map designating known aquatic barriers. The water quality section of the summary research notes needs more information gathered. The characteristics of impervious surfaces, buffers, forested areas, flood plains and ecosystems throughout the watershed are pretty good indicators of watershed health. By putting all this information together, the Watershed Resource Group will have a good idea of how to plan projects and how to prioritize what actions the community may consider, whether it is fixing a problem or protecting something that is in good shape. Karen is envisioning it not as a huge report, though there will be files of information, but a series of maps and fact sheet summaries that are accessible and easy to use.

Eli Dueker asked Andrew Meyer and Jen Epstein if the culvert map could have an overlay to determine 5 culverts that may not have shown historical flooding, but are undersized. Denis Collet asked who drives the issue of upgrading a culvert; where does the research integrate with the responsibility for action. Jen Cavanaugh noted that Highway Superintendent Theresa Burke and the Town Engineer are aware of culvert issues and are looking at applying for grants to upgrade 5. Jen C added that where an undersized culvert is not causing significant flooding, it also provides water retention to reduce downstream flooding

Eli Dueker and the Saw Kill Watershed Research Group left the meeting, along with Jen Epstein and Andrew Meyer. All were thanked for their participation.

SOLARARIZE HUDSON VALLEY: Laurie Husted updated information on the Sustainable Hudson Valley grant funded 3 year program to help communities do commercial and residential photovoltaic installations. This is year two of the program; Red Hook did not apply last year for the program. Round 2 applications are due at the end of October for a campaign that would run from next February through June. Laurie asked the CAC if there is interest in trying for it and who could help with it. Laurie noted that Red Hook by itself is too small, so the idea would be to work with the Northern Dutchess Alliance and see which of those 11 communities might apply with Red Hook. At this point it seems that Red Hook, Rhinebeck and Hyde Park might make the strongest application. Hyde Park seems like a solid partner. Town Board member Emily Svensen, the CAC and the Chamber of Commerce are interested; the Staatsburg Library is also committed. The Town of Rhinebeck Supervisor, Elizabeth Spinzia is looking at it and passed it on to the CAC Chairman Ryan Dowden, who asked Laurie to speak at their CAC meeting on Thursday. Laurie does not yet have a commitment from the Starr Library, or the Rhinebeck Chamber of Commerce. Laurie has asked for the Northern Dutchess Alliance to act as Lead Agency.

Dennis Collet asked Laurie what the mission of the CAC is for this project. Laurie replied that the opportunity to tap into Solarize Hudson Valley's campaign would help with the Request For Proposals (RFP) process to find a preferred installer, discounts, an education campaign and staff member benefits. Denis asked if Laurie had a sense from the meetings that the campaign would make a significant difference in the adoption of solar technology and solar projects within the community. Denis noted that major competition among solar competitors, before grants and rebates dry up, might result in less benefits. Jen Cavanaugh noted that The Town would be providing as a service an option for residents, hopefully at a reduced price. Denis felt that the more interesting project would be a community solar farm project. Laurie agreed, but added that the Solar Hudson Valley campaign work and organization would be a step towards the end goal of a future application for rural networks, even if the initial project has a

limited number of solar installations. Denis said that he would be available to work towards that goal. Laurie spoke of needing anyone willing to help by acting as a solar ambassador with personal contact and social media. She mentioned the fact that in February, Dutchess County passed an ordinance to allow municipalities to grant financing of solar installations on property tax bills. CAC members discussed the implications of the possibility. Laurie has more information to collect, but is interested in making the solar and energy issue a priority for her CAC work. Denis would help with solar, but added that sewer and infrastructure issues are critical to the growth of the Village.

HOFFMAN RESIDENTIAL DEVELOPMENT PROPOSAL: Denis Collet asked the status of the Hoffman Residential Development proposal. He was told that it was granted Preliminary Site Plan approval. Denis wanted to know what they were going to use for heating. He was told oil or propane, as their cost is down. Denis had attended a conference on geothermal installations, and wants to encourage developer representative Richard Rang to offer alternatives to fossil fuels. Jen Cavanaugh suggested that the actual final choice has not been made, and Denis ought to write a letter with figures to show the benefits to Richard Rang. Jen and Denis spoke of infrastructure issues and the need for Village and Town cooperation to address sewage, water and transportation issues in order to support the economy of the area.

DEC SUMMER CAMPER REPORT: Jen Cavanaugh attended the last Town Board meeting where Summer Camp Scholarship recipient Rebekah Martz attended to report on her experience at Camp DeBruce. She gave a thank you card that Jen will deliver to the Masons, who sponsored her scholarship. Jen will confirm that the other recipient, Ragy Beshay, has thanked the VFW for their sponsorship.

MINUTES OF THE CAC MEETING FOR SEPTEMBER 9, 2015: The minutes of the September 9, 2015 were approved with a motion made by Jody Jacobs and seconded by Mike Zelic.

ADJOURNMENT: The meeting was adjourned at 8:45 P.M.

NEXT MEETING: Wednesday, November 11, 2015 at 7 P.M. at the Town Hall

Respectfully submitted,

Susan H. Ellis, Secretary