

**1. Welcome and announcements** - 68 people attended (see listing below). The meeting opened at 1:30 PM. The meeting was recorded on Zoom. Attendees were asked to sign into the Chat.

The June 4, 2020 minutes were reviewed. A motion to approve was made by Scott Croft, seconded by Lucy Johnson. The minutes were approved. (A Nay in the chat box would indicate opposed - no nays were recorded.)

## **2. Updates:**

Committee membership and Staff: Fran reviewed the following.

Sarah Mount and husband Ford had a baby girl on July 9, Lucy Shaina Moore. Nate-Nardi Cyrus and his wife Steph are expecting in October. Our SCA members' last meeting will be in November.

Kristin Marcell has left the Program and has relocated to the state of Washington.

Committee Membership: An email was sent out to members asking for their interest and intent on remaining on the Committee. Many have replied yes, A number of resignations have been received, including Roland Lewis (Waterfront Alliance), Jerry Faiella (formerly Historic Hudson River Towns), Rene VanSchaack (Greene County IDA), Steve Noble (City of Kingston-Julie Noble will represent in his stead for now), and previously, Barney Molloy, Watertrail Assoc.) Members were asked to reply by Sept. 15. A package of proposed new appointments will be developed and submitted to the Commissioner for approval in the coming months.

The email was also sent to ex-officios as a check-in to confirm their continued interest and ability to participate in the Committee's activities. Plans are to do this every year to keep the committee's membership fresh and up to date.

**Budget:** Dan Shapley reported that due to the overall state budget situation, the Restore Mother Nature Bond Act will not appear on this year's ballot. While a disappointment, this is understandable, and hopefully this can be part of a future budget.

He noted that while the Environmental Protection Fund appears to remain intact, this doesn't mean that the 300\$ million in the fund will all get dispersed. While base level funding is still happening, many programs are experiencing delays.

Fran noted that while slower than usual, spending has not stopped. Staff salaries are being paid and the Program has received permission to move forward to renew contracts for staffing, research and scientific programs. She is encouraged that our estuary grants will be announced, but there is no news on what the timing will be. The normal schedule of release dates has been delayed. Fran will keep the committee updated.

Action Agenda and State of the Hudson (SOH): The draft Action Agenda 2021-2025 was reviewed with the Committee last fall and earlier this past spring. The finalized draft Action Agenda 2021-2025 is moving through executive approval and the hope is to release the draft for public comment this fall. The new AA will go into effect April 1, 2021. This has been slowed by the COVID situation. The State of the Hudson report is in a similar situation. Fran is hopeful that the 2 will be released together. The SOH reports on the condition of the estuary and includes information on water quality, temperature, trends in habitat condition, access and other indicators.

Handbooks: Staff are completing work on 2 handbooks: A Scenic Vistas management handbook and an Access resiliency handbook. Both are in the final stages of being revised based on public comments received and executive review with approvals to follow. These are targeted to be released by the end of 2020.

Scott Croft offered to help spread the word on the resiliency handbook once it is made public. These reports will be released as on-line PDFs.

### **3. Estuary Program Project Updates:**

**Water Quality Monitoring Results:** The 2020 SOH report has gathered information on available data with the intention of then identifying and developing additional data needed to monitor the environmental condition of the estuary in future reports. With this SOH, the Estuary Program and the NY/NJ Harbor and Estuary Program worked together to collect available metrics to begin to tell the story of the condition of the Estuary. Some of the data provides opportunities to analyze trends, and some will establish a baseline that can then lead to future measurements and analyses.

Stuart Findlay and Dan Rearick presented a few of the monitoring results that will be featured in the SOH report. Stuart noted there is a lot of information available on the estuary, and he thanked Zach Smith and Sarah Fernald for their assistance with data collection and analysis. The presentations covered 3 examples of data analysis for acidity, trends in benthic invertebrates, and nitrate.

**Acidity:** Using a 35-year time series of data collected by the Cary Institute of Ecosystems Studies, this data set shows that the river is becoming slightly more basic, and less acidic, over time. This trend shows up the smaller rivers and lakes in the region as well. Seeing this in the main stem Hudson shows us that over time, there is a trend toward recovery from acid deposition, indicating a positive effect from policy decisions that were put into place over 30 years ago.

**Invertebrates:** Dan Rearick, reviewed data from the state's Bio Assessment Profile (BAP), that looks at benthic macro invertebrates in water systems over time. Information was displayed that showed data from the Troy-Albany reach of the river, which showed a positive trend over time. (sites scoring a 1 (low) in 1973 now score a 5-6 (much better) in 2013. The take home message from this analysis is that the BAP scores are getting higher, indicating less negative impact over time in this stretch of the river. While there is still room for improvement, this is good news for the Hudson.

Fran noted that in the 1970's, before the Clean Water Act took effect, the Hudson was extremely polluted and hardly anything was living in the river in Albany area. There has been notable improvement over time.

**Nitrate concentrations:** Over 35 years of data in the Kingston area of the river was used for this analysis. Nitrate is the most available source of nitrogen in the ecosystem. The Hudson shows higher concentrations of nitrate than other water bodies around it, and there is more nitrate in the estuary than would be expected. While not an issue for drinking water, the concentrations are high enough that, given the right conditions, algal blooms could become a problem. However, the estuary is a very turbid system, and a combination of currents and other conditions limit algal growth by mixing the algae down below the levels of light penetration. (below about 4 feet.) There appears to be a downward trend in nitrate concentrations, which is not well understood and warrants further attention. Possible sources of nitrate include waste water discharges, land use practices, rain fall and storm water runoff. While occasional algal blooms can and do occur, we

are not seeing significant algal blooms in the mainstem of the river at this time. We are lucky we do not have this problem. Work is underway to upgrade the HRECOS monitoring system to be able to monitor relevant conditions and the potential for algal blooms in the future. It was noted that in other estuaries, these levels of nitrate would be a problem. The combination of turbidity, currents and depth in the main stem Hudson limits the potential for algal blooms in the system.

Dan Shapley asked if the bunker die off seen in the estuary/harbor this summer could have been related to high nitrogen concentrations, in addition to the high temperatures and low precipitation conditions. Stuart replied that while possible, it is not clear what the cause of the die-off was.

**Hudson River Fisheries: Circle hook regulations:** Jess Best presented a PPT on the new regulations that become effective January 1, 2021 requiring the use of circle hooks when fishing for striped bass with live bait. This is one of several efforts to reduce the mortality rate on striped bass from recreational fishing by 18%. Studies have shown that the use of circle hooks reduces the mortality rate of released fish from 16% (using standard J hooks) to 5% using circle hooks.

Some states within the Atlantic States Marine Fisheries Commission jurisdiction have some flexibility and are seeking specific exemptions to this new requirement. NYS is not seeking any exemptions. Hudson River Fisheries staff have been taking outreach actions to get the word out. Comments can be sent to Jess Best at DEC in New Paltz. HREMAC can also comment as a group if they wish.

Sample language for this new regulation was presented: “Recreational anglers are required to use an in-line circle hook when fishing for striped bass with naturel baits, whole, cut or live. An in-line circle hook is defined as a fishing hook designed and manufactured so that the point and barb of the hook are not offset from the plane of the shank and bend, and the point is turned perpendicularly back towards the shank to form a circular or oval shape.”

The proposed Rule will be posted in the Fall in the State register with a comment period following.

NYS will make their final ruling, Jan 2021.

Jess’s contact info: [Jessica.best@dec.ny.gov](mailto:Jessica.best@dec.ny.gov)

**Mean Higher High Water in the Hudson:** Dan Miller presented a PPT that illustrated what mean higher high water means to the Hudson estuary and its implications for future development decisions along the river. He used the experience at Nutten Hook when constructing the new fishing pier there this past summer (2020) which provided a real-time example of how high structures need to be built to stay above the water line during “a normal high-water event”. Data from the Turkey Point tide monitoring station and from the Battery in NYC were used to determine the range of water levels that have been experienced around the mean or average figures that are used on FEMA maps and for sea level rise predictions. The data analysis suggests the future designs for structures along the river’s edge should be designed with a clearance of 2.5 – 3 feet above the Mean higher high-water level to stay dry during the expected range of ‘normal’ water levels in the estuary. Storms such as Sandy are true outliers to the range of conditions normally expected along the river. The question then becomes one of balancing costs, benefits and risk assessment when deciding what and how high to build.

**New Website: Conservation Planning in the Hudson River Estuary Watershed:** Laura Heady presented a PPT showcasing a new website that will launch on 9/15 that will provide extensive resources to land use planners, municipalities and others working on land conservation in the Hudson Valley. The site is being hosted by Cornell University. As an extension tool, the site

consolidates 20 years of the Estuary Program's conservation land use work, including data, case studies, guidance on the conservation planning process, assistance opportunities and a library that compiles all of the references, citations and additional resources in one place. The site meets all ADA requirements. There is a link to a survey for users' feedback. Visit the website: <https://hudson.dnr.cals.cornell.edu/>

**Day in the Life of the River and Harbor: October 22, 2020:** Chris Bowser reviewed the challenges that this year's DIL event faces given the limitations for on-site events during COVID. Plans are underway to provide a meaningful experience for participating students, teachers and partners involved in the program. Partners with sites are encouraged to register for the event.

He outlined the model being developed for the event:

Pre-day, (Sept -Oct): Conduct two Zoom meetings for teachers and partners.

On the Day: Oct 22: Divide the Hudson into 3 regions, partners will film short videos, including the site, the fish they catch, and one assigned parameter. Sites will still record all usual parameters and submit data.

Post-day: (Nov.-winter): within a week, DEC will edit video clips into 3 regional videos, each with comparable content. Partners and/or DEC will do remote post-trips with teachers and students.

He noted that these tools can be extended throughout the year and will/can include dozens of partners working on the estuary.

4. 2019 HREMAC Committee Annual Report to Commissioner Seggos: The Committee's 2019-2020 report to DEC was finalized and sent. A copy of the final document was sent to committee members. The letter highlighted accomplishments and raised a number of topics that warrant attention going forward.

## **5. Partner Reports:**

**Train Tour App and Empire State Trail update:** Scott Keller provided the following update on these 2 projects:

Train Tour App: Version 2.0 of the Greenway's Hudson River Train tour app is up, featuring ten new stories, on birds, geology of the Catskills, John Burroughs and Slabsides, Hamilton and the Schuyler family, FDR in the Hudson Valley, Immigration and Race in Newburgh, ice harvesting, HR pilots, Bridges of the HV, and Commercial Fishermen starring HREMAC member John Mylod. Available everywhere apps are: Apples App Store and Google Play. Also available on the National Heritage Area website, [Hudsonrivervalley.com](http://Hudsonrivervalley.com).

Empire State Trail (EST): At 750 miles, the EST will be the longest multi-use trail in the nation when completed later this year. The Hudson Valley piece to will be 80%+ off road, with less than five miles of on-road trail between the Battery and Kingston. The Greenway is directly constructing the 36-mile Albany-Hudson Electric Trail (AHET) between Hudson and Rensselaer. This trail is being constructed under a National Grid powerline on the remains of the Albany Hudson Trolley line, an electric trolley that ceased operating in 1929. The AHET will be complete by the end of the year. The Greenway plans to open one 5-6 mile stretch in each county later this month. As a mitigation for some wetland impacts, freshwater tidal wetlands at Schodack Island State Park were restored/created.

**Wetland Habitat Restoration at Schodack Island State Park:** Diana Carter provided an overview of the Tidal Wetland Creation Project. As part of the U.S. Army Corps of Engineers permit to construct the Albany Hudson Electric Trail, the Greenway provided mitigation funding to State Parks to create 2.3-acres of freshwater tidal wetland in Schodack Island State Park. Work started this spring (2020) and is essentially complete. The project area historically was a channel between two islands, which was filled in with dredge spoil material in the early 20th century. To recreate a tidal wetland, the contractor excavated spoil material to re-establish tidal flow. The dredge spoils were placed on an adjacent area and shaped into a gently sloping mound that has been seeded to grow into a grassy meadow. The new wetland embayment, connected to the Hudson River, fills twice daily at high tide, and was designed to largely drain at low tide, creating a diversity of habitats from emergent marsh to upland fringe. Large logs and tree stumps were placed at various locations to mimic natural conditions and diversify habitat. In addition to the planted material, several native grasses and plant species have already started to appear. Schodack State Park provides important habitat for shortnose sturgeon and is a designated bird conservation area.

Scott Keller noted that over the 36 miles of the Albany-Hudson Electric Trail, only 1.5 acres of low-quality wetlands were lost. These were largely linear, disconnected, drainage culverts.

**Proposed Hudson- Mohawk Raritan Basin Act:** Rob Pirani informed the group about a proposed bill being introduced by Congressman Tonko that would address environmental issues in the Hudson, Mohawk, Raritan Bay estuarine system. The bill proposes \$50 million/year in funding through the National Fish and Wildlife Foundation. The bill addresses water quality, restoration, habitat, fisheries, public access and the needs of environmental justice communities. Rob will keep HREMAC posted on the status of this proposal.

**6. Discussion: the future of the NYS Canal system:** Stuart introduced a discussion focused on the future plans for the NYS Canal system and the potential impacts this could have on the Hudson estuary. A particular concern of his is the potential for the canal to serve as a conduit for invasive species. Stuart would like the committee to take this opportunity, while there is time to gather relevant information about the various aspects of the Canal's functions and importance, and enter into discussions about the topics under consideration, considering the pros and cons of all alternatives.

Stuart will write up an introduction to this issue and send it to the committee to begin to gather information on what the relevant topics are and who the appropriate people are who should be included in the conversations. He identified 5 topic areas to begin with: transportation (commercial and recreational), sporting (fishing and hunting), ecology (restoration and invasive species), water management (irrigation, flooding, hydropower), and place (history, perception, economic opportunities). He suggested HREMAC consider setting up a subcommittee to work on this and identify what needs to be debated and who the experts are that should be brought to the table. Fran concurred that this is an important issue and encouraged the committee to fully engage.

7. No old business, no new business was raised.

The meeting adjourned at 3:35 PM. Motion to adjourn was made by Rob Pirani, seconded by Lucy Johnson.

Respectfully submitted, Nancy Beard, recorder.

Attendance: **68** people signed into the meeting: (Several additional on phone connections may not be identified here)

HREMAC Members:

Allan Beers	Rockland County Coord. Environmental Resources
Janet Burnett	Rockland County recycling
Scott Croft	HR Boat and Yacht Club Assoc.
Stuart Findlay	Cary Institute of Ecosystem Studies, and Committee chair
Erik Fyfe	Clearwater
Dan Shapley	Riverkeeper, Inc. (for Paul Gallay)
Lucy Johnson	Vassar College Lifetime Learning, HV Consortium, HRES
Suzette Lopane	Westchester County Water Agency
Julie Noble	City of Kingston, (for Mayor Steve Noble)
Shino Tanikawa	NYC Soil and Water Conservation District

Ex-OFFICIOS:

Scott Keller	HRV Greenway
Peter Brandt	US EPA
Diana Carter	NYS OPRHP
Chris DeRoberts	NYPA
Jamie Ethier	NYS DOS
Noreen Doyle	Hudson River Park Trust
Rob Pirani	NY/NJ - HEP
Audrey Van Genechten	NYS Dept. of Health
Peter Weppler	US Army Corps Engineers
Jessica Kounen	New York Sea Grant

Guests:

Helena Andreko	Hudson River Foundation
Liz Butler	EPA, NJ Watershed Management Section
Nikki Chung	Scenic Hudson
Rosana DaSilva	Hudson River Foundation
Patrice Drake	Rockland County
Alana Gerus	NYS DOH
Brian Gramlich Rahm	Cornell University
Simon Gruber	Orange County consultant
Mary McNamara	Esopus Watershed
Althea Mullarkey	Scenic Hudson
Jesse Murray	NOAA
Bill Nechamen	Nechamen Consulting, LLC
Isabelle Stinette	NY/NJ Harbor and Estuary Program
Pat Sullivan	Cornell University
Margie Turrin	Lamont Doherty
Emily Vail	Hudson River Watershed Alliance
Steve Wilson	HRES

DEC, Estuary Program staff and SCA interns:

Nancy Beard	Estuary Program, administration and access
Jessica Best	Hudson River Fisheries Unit
Chris Bowser	Estuary Program, Research Reserve, education
Ann Marie Capprioli	HRNERR, grants administration
Emma Clements	Estuary Program, Grants assistance
Scott Cuppett	Estuary Program, watersheds
Kathy Czajkowski	Mohawk River Program
Fran Dunwell	Estuary Program, Hudson River Coordinator
Wes Eakin	Hudson River Fisheries Unit
Heather Gierloff	HRNERR, Research Reserve Manager
Ingrid Haekel	Estuary Program, Conservation and Land Use
Emily Hauser	HRNERR, Stewardship training
Laura Heady	Estuary Program, Conservation and Land Use
Amanda Higgs	Hudson River Fisheries Unit
Rebecca Houser	Estuary Program, Education
Gregg Kenney	DEC, Hudson River Fisheries Unit
John Ladd	Estuary Program, benthic mapping, data management
Mark Lowery	DEC, Climate Change
Megan Lung	Estuary Program, SCA intern
Aiden Mabey	HRNERR, educator
Sherri Mackey	Estuary Program, administration
Dan Miller	Estuary Program, habitat restoration
Chelsea Moore	Estuary Program, SCA intern
Nate Nardi-Cyrus	Estuary program, land use conservation, scenery
Chuck Nieder	DEC, Div. Fish and Wildlife
Rich Pendleton	Hudson River Fisheries Unit
Dan Rearick	Estuary Program, HRECOS
Maude Salinger	Estuary Program, communications
Becky Thomas	Estuary Program, Contracts Administration
Kelly Turturro	DEC Albany, Region 3 Regional Director
Libby Zemaitis	Estuary Program, resilient waterfront communities

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