

1. Welcome and announcements – 82 (76 by video, 6 called in by phone) people attended (see listing below). The meeting opened at 9:30 AM. The meeting was recorded on WebEx. Attendees were asked to sign into the Chat. Links to additional resources entered into the Chat are included at the end of the minutes.

The September 10, 2020 minutes were reviewed. A motion to approve was made by Todd Erling, seconded by Scott Croft. The minutes were approved. (A Nay in the chat box would indicate opposed - no nays were recorded.)

Reminder: Sign up for the Estuary Program's newsletter *RiverNet*, to keep up on the latest news, learn about current events, grants announcements and more...

<https://www.dec.ny.gov/lands/76018.html>

2. Updates:

A. Estuary program updates:

Fran Dunwell announced the following:

Committee Members: Erik Fyfe, HR Clearwater, has resigned. Erik has taken a position at the Stony Kill Farm Environmental Center. His contributions to the Committee in recent years were acknowledged and appreciated and we wish him well in his new position. A package of proposed new appointments is being developed and will be submitted to the Commissioner for approval.

Staff: This year's SCA members will be ending their terms at the end of the year. Anna Palmer will return for a 2nd term in 2021. Shannon Ervin, Amanda Simmonds, Rianna Scanlon and Chelsea Moore are moving on. Fran noted the importance of the work that the SCAs do for the program. This year's team had the additional challenge of adapting to COVID-19 shortly after they arrived. Everyone did a great job in adjusting and keeping the work of the Program going.

Action Agenda and State of the Hudson (SOH): The *Draft Action Agenda 2021-2025* is moving through Executive review and approval. When released, it will be a public comment draft document and will include a public review and comment period before becoming final. The State of the Hudson report is in a similar situation. The SOH reports on the condition of the estuary and includes information on water quality, temperature, trends in habitat condition, access and other indicators. When released, it will be a final report.

Estuary Grants: We continue to wait for approval to release the next round of Estuary Grants. This has been slowed by the COVID-19 pandemic. The award of last year's Tributary restoration and connectivity grants, including four projects totaling more than \$855,000, was recently announced. These projects include efforts to remove barriers to tributary stream flow and culvert right sizing.

<https://www.dec.ny.gov/press/121663.html>

Handbooks: Two handbooks promoting Best Management Practices (BMPs)-- a Scenic Vistas management handbook and an Access flood resiliency handbook--are currently under review by DEC executives.

B. Committee member and other updates:

Budget: Andy Bicking reported on stakeholder outreach about the budget for environmental programs. He said that stakeholders are hearing from state officials and legislators that these continue to be challenging times with significant gaps continuing in the State budget. The Division of Budget is doing a careful and deliberate job in managing the state's cash flow to keep the state fiscally sound. This may affect the timing of grants and other funding. The proposed Mother Nature Bond Act has been tabled for the time being. He noted that we have been through hard times before and we will get through this. He thanked DEC's strong leadership, Commissioner Seggos and Jim Tierney, for their continued support.

Climate change: Andy Bicking reflected that the Committee, Scenic Hudson, the Nature Conservancy, and other partners, have been working on climate change in the Valley for sometime now, noting past conferences, the Sea Level Rise Task Force, and Lidar mapping that led to tools such as the Scenic Hudson Sea Level Rise Mapper. Valley communities including Piermont, Catskill, Stony Point and Kingston continue to work together through the Task Force, and TNC is actively reaching out to communities to continue to help them prepare for a healthy, and resilient future.

Tide station: Stuart Findlay noted the importance of having the tide station at Turkey Point for providing much needed data to record change and document how the river system is responding over time.

CRRA: Emilie Hauser provided information on recently released Community Risk and Resilience Act (CRRA) documents, Natural Resource Measures and Flood Risk Guidance. It was noted that Kristin Marcell, Heather Gierloff, Libby Zemaitis, and Emilie Hauser all worked very hard on developing these resources. See the Chat summary below.

U.S. Army Corps of Engineers (USACE) projects: Peter Weppler reported that a study on the potential widening and deepening of areas in the harbor is now available for public review. Also, the Corps was the recipient of an award presented by the Waterfront Alliance.

Lisa Baron, ACOE announced the HRHR award. The Hudson River Habitat Restoration Feasibility Report is now available. It includes three projects: Henry Hudson Park shoreline restoration in Bethlehem; Schodack Island State Park side channel restoration; and Moodna Creek tributary habitat connectivity projects. They have been summarized in a 'placemat' format in a pdf available on the Army Corp website:

<https://www.nan.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/566424/fact-sheet-hudson-river-habitat-restoration/>

3. Estuary Program Featured Project Updates:

A. Hudson River Fisheries, Atlantic Sturgeon status: Amanda Higgs and Rich Pendleton presented an overview (with PPT) of the status of this important Hudson River species. This presentation is in response to recent questions raised by committee members regarding the status, research and threats to recovery of the species.

Rich Pendleton discussed the history of Atlantic sturgeon, dating its importance back to the earliest Native Americans and European settlers. While there is little data to estimate populations in the 1880's, there was a highly active fishery, and sturgeon were often referred to as "Albany

beef". Similar to trends seen along the coast, lower levels of harvest occurred in the estuary throughout the 1900's. By the mid 1990's, landings had reached an all-time low, and the need for more management action was apparent. From 1993-1995, size limits were increased, and limits were imposed on daily take and open seasons. This proved to be inadequate to protect the stock, and in 1996, the fishery for Atlantic sturgeon was closed in NY followed by a coast-wide closure in 1998. In 2012, the National Marine Fisheries Service (NMFS) declared the Atlantic sturgeon an endangered species. With this designation and the coast-wide closure, fishery managers would no longer have harvest record information upon which they could manage the fishery, and researchers turned to alternative ways to assess the population.

DEC, in collaboration with Cornell University and the US Fish and Wildlife Service have been surveying and monitoring the relative abundance of juvenile sturgeon. While there is variability in the data, research shows an overall positive trend, with an increase in juvenile populations, indicating that the 1996 closure has likely benefited the stock.

Amanda Higgs continued by discussing methods to estimate populations of the adult spawning stock in the river, including Andy Kahnle's work using harvest data, and more recently, estimates that use information from side scan sonar and tagging. She discussed the various challenges that Atlantic sturgeon face on their road to recovery, including their long life span to maturity and spawning age, the impacts of by-catch, ship strikes, and the fish's large migratory range from the NY/NJ Bight, as far south as the Carolina's and Florida and north to the Bay of Fundy. It can take 11-20 years for sturgeon to mature to their first spawning event (11 yrs. for males, 15-20 for females). The fish protected by the 1996 closure are just now starting to arrive back into the estuary. However, there are potential sources of mortality affecting these adults. For example, there are a number of fisheries along the coast that report sturgeon in their bycatch, including the NY sink-gill-net monk fishery and the trawl fisheries off the Rockaways on Long Island. Ship strikes also occur both in the estuary and up and down the coast. Both large vessels and smaller recreational boats have reported such strikes.

Considering all of the population estimates and trends analyses, Atlantic sturgeon appear to be making a slow recovery. The data from the Hudson River is among the best data along the coast. It was noted that, though required as part of their designation as endangered by the NMFS 8 years ago, there is no recovery plan for the species that would provide targets that could be used for management and planning.

Stuart Findlay thanked the staff for this positive story, and Fran Dunwell noted the importance of annual sampling. The Estuary Program has supported these efforts for many years. The studies that have been done by the Fisheries Unit provide valuable information that has been provided to the ASMFC to help inform stock status and identify research priorities.

After a period of Q&A, Dan Shapley recommended the Committee develop a statement to be sent to Commissioner Seggos expressing concern over the recovery of Atlantic Sturgeon and requesting that additional actions be put into place to reduce ocean by-catch. Dan agreed to draft a statement that will be circulate to committee members for comment.

Hudson River Park Trust: Nicolette Witcher offered to discuss partnership opportunities with HRFU to help with monitoring the movement of these fish by placing tracking devices at the Park, and perhaps get other river facilities to do the same. She will follow up with Amanda Higgs.

B. Climate Adaptive Design (CAD) Phase 2 at Kingston Point Beach and the Village of Piermont, Dan Miller presented a summary of recent engineering studies conducted at these two Hudson River waterfronts in partnership with NEIWPC, Cornell University. This is a collaborative project of the Estuary Program habitat team and climate team. Libby Zemaitis was not available to co-present this day.

CAD started a number of years ago, when the Estuary Program, Cornell University, Scenic Hudson and several Hudson River waterfront communities partnered to bring architectural students into several communities (Kingston, Piermont, Catskill, Stony Point) to help develop visionary designs for what waterfront areas could look like in the future under various sea level rise scenarios. This resulted in teams of students developing design concepts for these waterfronts.

With the support of the Estuary Program and NEIWPC, Kingston and Piermont then hired consultants to take these ideas and develop engineering designs that could become actual, feasible projects. The result is two reports that include preliminary 30% designs and cost estimates that the communities can now use to raise funds. The concepts and designs need to be cost effective, need to be supported by local, state, and federal agencies, be consistent with LWRPs, and other resource plans, and be in keeping with the local community's vision for the sites. At Kingston Pt., a proposed terraced beach, an enhanced wetland and public pier are proposed. At Piermont, the plan aims to utilize a sustainable living shoreline to diminish the effects of sea level rise and protect a planned marsh area. Both plans provide the communities with a tool they can now use to seek funding, apply for permits and move to implementation.

Fran Dunwell gave a shout out to both Cornell and NEIWPC for their strong partnership and cooperation that has made projects like these possible along the estuary.

Featured Members/Partners Reports:

Albany Pool Communities Combined Sewer Overflow Long Term Control Plan (LTCP):

Martin Daley, Capital Region Planning Commission, presented a tour of the project's website; <https://cdrpc.org/programs/water-quality> to demonstrate the progress that has been made on the LTCP for the Capital District. Six communities, City of Albany, Cohoes, Watervliet, Green Island, Troy and Rensselaer, participate in a unique intermunicipal agreement, approved by DEC, to collectively address problems and cost share in the funding and sharing of resources. The agreement implements projects to meet clean water quality standards in the "Albany Pool" reach of the river. The program started in 2011 in anticipation of a consent order from the state. The website provides public facing information on the program, including semiannual reports to DEC, and a summary of the mission, history, administrative organization, as well as the Inter-municipal agreement and details on projects. Information on projects and reports dating back to 2011 as well as active projects are available. Project fact sheets provide essential details on projects, including a basic information narrative, project status, milestones, costs, ownership, reports to DEC, and grant funding. Monitoring reports serve as a report card on how the program is meeting its targets. A quick overview of the program's metrics shows where progress has been made since the program's inception and where improvements are still needed in Troy and Rensselaer facilities. The Beaver Creek (Albany) project is expected to have a significant positive impact when implemented.

Stuart thanked Martin for the work of the Commission and its positive impact on the river downstream. Fran reflected that the impetus for this work came from the 2005-2010 Action

Agenda and the goal set at that time for a swimmable river. This launched the process of getting water quality permits in place. The Estuary Program provided an initial \$ 2 million into the development of the LTCP. This support was key to getting the municipalities to agree to work together and laid the groundwork for the unique intermunicipal agreement.

NY Sea Grant: Jessica Kounen outlined for the committee three projects that she has underway that relate to sea level rise, flooding, and Hudson River access:

- a) an Environmental Justice Mapping Tools Guide which brings together a variety of online EJ mapping tools, (Webinar 11/17/2020),
- b) a Community Flood Watch reporting tool, funded by the National Sea Grant office, that will provide a platform for photographic documentation of flooding and high-water events (implementation date: 2022), and
- c) the Hudson River Access Site Inundation Study (ongoing). The Access site study aims to take a detailed look at sea level rise risk at Hudson River access sites using GIS, measures and metrics, and will include an expert review of access site locations and boundaries. This work will support the Estuary Program's Flood Resilience Handbook.

Riverkeeper: Dan Shapley updated the committee on efforts Riverkeeper is undertaking to bring attention to and support the protection of drinking water sources for Environmental Justice communities. As follow up to Jim Tierney's 2019 visit with HREMAC, Riverkeeper sent a letter to Jim recommending that the protection of drinking water sources for vulnerable communities be made part of the State's policies when considering cumulative environmental impacts of proposed projects on these areas. Currently, DEC's EJ policy applies to proposed projects located in vulnerable communities, but not to those proposed in the water supplies serving those same communities.

George Jackman discussed Riverkeeper's recent removal of a dam on the Quassaick Creek and a future project to remove a dam on Furnace Brook (aka Jamawissa Creek). Both block fish passage to upstream habitat American eel and other fishes, including hopefully river herring. The Strooks Felt dam on the Quassaick was built in 1914. It is the first barrier, located about ½ mile upstream from the Hudson and is/was 5-6 feet tall. The Furnace Brook dam to be removed is also a first barrier to fish passage on that tributary. Plans are underway for a second barrier further upstream to be removed by the County. Funding for these recent removals came from the Estuary Program.

Laura Heady asked about pre-removal and post removal studies on invertebrates. George indicated that there had been pre-removal studies and follow up monitoring is planned. Cornell U., DEC, the ACOE, the counties, local municipalities and private land owners were all engaged in procuring the needed studies, permits and permissions to conduct the removals.

Margie Turrin asked about community buy-in. George replied that buy-in was extensive and very positive, including local watershed groups and communities.

Work on Watersheds (WOW) Report: Emily Vail, Hudson River Watershed Alliance: Emily announced the availability of this new report, which includes 32 watershed group stories, and discusses their roles, impacts and collective accomplishments in the Hudson Valley. The report can be found at: <https://hudsonwatershed.org/work-on-watersheds> . This is a first of its kind effort to bring together all of the region's watershed groups to communicate their successes in a

collective voice. Presentations to regional partners are planned for November. She thanked the Estuary Program and NEIWPC for funding this document. Hard copies are available.

Featured Committee Discussion: The Future of the NYS Canal System and its impact on the Hudson. Stuart Findlay updated the group on this HREMAC information gathering exercise. There are 5 sub-groups now formed. Brief updates were provided by members leading the following topic areas:

Ecosystem/ecology (Stuart Findlay lead): Stuart is collecting available technical reports. So far, it appears that information is focused largely on wetlands. Stuart is interested in the invasive species aspect of the future of the canal and the possibility of barriers that can block species movement between watersheds.

The technical reports that are publicly available are largely from the Reimagining the Canal Task Force. To date it seems that the knowledge about the canal itself is not voluminous with regard to water quality, habitats, etc.

One of the issues of particular interest to Stuart is the management of invasive species, and there is a long technical report on this which does propose physical closures and an acoustic fish barrier. However, he noted the report does not address the positive and negative impacts of these proposed strategies nor does it address the impacts on other uses of the canal and how usage of the canal might change in the future.

Navigation (Scott Croft lead): Scott has found limited information of boater usage; He would like to have a bigger picture of boat usage along the canal. Lock-through data seems to be limited to one point at Oswego, and other data does not appear to be publicly available. He will continue to pursue.

Scott asked if the committee would expand the scope of this effort to become more involved in participating in decision making processes made regarding the Canal. Stuart responded that while the Mohawk is outside the defined estuarine district boundary set for the program, the program does on occasion consider issues in surrounding areas if they have an impact on the estuary.

Water Management (Simon Litten lead): will be looking into issues including irrigation and flooding.

Recreation (Bill Conners lead): Bill has offered to look into recreational uses and sporting activities.

Sense of Place (Lucy Johnson lead): Lucy noted the importance of the trend of local farms being transformed into larger industrial farming operations and the impact that that is having on the regions' economic and tourism sectors.

Wrap-up: Stuart concluded the discussion by saying that this effort will continue. He does not expect unanimous decisions from HREMAC. Rather this is a fact-finding exercise that has at its core the idea that if we are interested in the Hudson estuary, we need to look at the whole watershed, including the Mohawk river and the canal.

7. Old business, new business:

NY/NJ Harbor and Estuary Conference: Isabelle Stinette announced the upcoming conference being held during the week of Nov 9-13. Topics for the conference include community engagement, diversity, equity, inclusion and EJ issues.

Day in the Life of the River and Harbor: October 22, 2020: Chris Bowser reviewed the challenges that this year's event faced given the limitations for on-site events during COVID. On October 22, 30 partner organizations, in three regions of the estuary, collected samples and produced short video segments for educational purposes. All sites recorded the usual parameters and submitted data. DEC plans to create 3 regional videos, each with comparable content. Partners and/or DEC will do remote post-trips with teachers and students. The videos are expected to be used by educators well beyond the fall of 2020.

2021 HREMAC Meeting dates: March 4, June 3, November 4.

Fran thanked staff and all the presenters for a productive meeting.

The meeting adjourned at 11:46 AM. Respectfully submitted, Nancy Beard, recorder.

Links provided in the Chat:

- Recently announced CRRRA guidance documents.
<https://www.dec.ny.gov/energy/102559.html>

Link for Natural Measures Guidance

is https://www.dec.ny.gov/docs/administration_pdf/crranaturalmeasuresgndc.pdf

Link for Flood Risk Management Guidance:

https://www.dec.ny.gov/docs/administration_pdf/crrafloodriskmgmtgdnc.pdf

- <https://albanypoolcso.org> for the Albany Pool Communities Long Term Control Plan website.
- Day in the life video : YouTube Link: <https://youtu.be/xlV083m2HZA>
- <https://hudsonwatershed.org/#> for information on Emily Vail's Work on Watersheds report

Attendance:

82 (76 by video, 6 called in by phone) people signed into the meeting: (not all phone call participants identified themselves and therefore they may not be listed below)

HREMAC Members:

Allan Beers	Rockland County Coord. Environmental Resources
Andy Bicking	Scenic Hudson
Janet Burnett	Rockland County recycling
Scott Croft	HR Boat and Yacht Club Assoc.
Todd Erling	Hudson Valley Agri-business Development Corp.
Stuart Findlay	Cary Institute of Ecosystem Studies, and Committee chair

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
Lisa Baron	Army Corps of Engineers
Carla Castillo	HR Valley Council
Nikki Chung	Scenic Hudson
Martin Daley	Capital Dist. Regional Planning Commission
Dewayne Fox	guest
Chana Friedenber	guest
Alana Gerus	NYS DOH
Brian Gramlich Rahm	Cornell University
Manna Jo Greene	HR Sloop Clearwater
Simon Gruber	Orange County consultant
Clay Hiles	HR Foundation
George Jackman	Riverkeeper
Jesse Jaycox	NYSOPRHP
Dave Kazyak	guest
Simon Litten	guest
John Lipscomb	Riverkeeper
Jesse Murray	NOAA
Alan Sorenson	Orange County Planning
Isabelle Stinette	NY/NJ Harbor and Estuary Program
Pat Sullivan	Cornell University
Nava Tabak	Scenic Hudson
Margie Turrin	Lamont Doherty
Emily Vail	Hudson River Watershed Alliance
Shannon White	guest
Nicolette Witcher	Hudson River Park Trust
Phil	philnps@aol.com

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 Caprioli	HRNERR, grants administration
Scott Cuppett	Estuary Program, watersheds
Fran Dunwell	Estuary Program, Hudson River Coordinator
Heather Gierloff	HRNERR, Research Reserve Manager
Ingrid Haeckel	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
Gregg Kenney	DEC, Hudson River Fisheries Unit
Mark Lowery	DEC, Climate Change
Megan Lung	Estuary Program, SCA intern
Sherri Mackey	Estuary Program, administration
Zoraida Maloney	DEC R3, Fish and Wildlife
Jeff Mapes	DEC, Div. Lands and Forests
Dan Miller	Estuary Program, habitat restoration
Chuck Nieder	DEC, Div. Fish and Wildlife
Rich Pendleton	Hudson River Fisheries Unit
Susan Pepe	Estuary Program, grants administration
Dan Rearick	Estuary Program, HRECOS
Beth Roessler	Estuary Program, Trees for Tribs
Maude Salinger	Estuary Program, communications
Angela Schimizzi	DEC, Marine Resources permits
Clif Staples	Estuary Program, Resilient waterfront communities
Becky Thomas	Estuary Program, Contracts Administration
Kelly Turturro	DEC Albany, Region 3 Regional Director

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