

1. Welcome and announcements - 64 people attended (see listing below). The meeting opened at 9 AM.

A moment of reflection was observed to remember committee member Frank Bergman, who passed away recently. Stuart Findlay chaired the meeting as Chairman Dennis Suszkowski was recuperating from hip surgery. Introductions were made around the room.

The June 7, 2018 minutes were approved: Motion made by Lucy Johnson, seconded by Andy Bicking and Jerry Faiella. The minutes were approved.

Staff Updates: New Estuary Program staff members were welcomed:

Nate Nardi-Cyrus has joined the Conservation and Land Use team. Brian Buchanan has joined the Watershed team. Zach Smith is our new HRECOS coordinator, and Cliff Staples is interning with the Climate Change team. Elisa Chae has taken a permanent position with DEC's R3 legal team.

This year's SCA interns were recognized for their work. Two are returning for another term; Martice Smith and Aidan Mabey. Those leaving the program, Erin Lefkowitz, Alex Curtze, Ashawna Abbott, and Russell Barbera, were thanked for their good work and wished well in their future ventures.

Budget: Andy Bicking recapped that a successful budget was approved for the program in 2018, with an increase to \$6.5 million: (\$5.5 million for the Estuary Program and \$1 million for the Mohawk River Program.) He recognized the importance of having a stable and predictable Environmental Protection Fund each year that allows many programs to pursue their work. He noted the work Frank Bergman contributed, even during his struggles with cancer, to advocate for the Hudson, going to Albany on Hudson River Appreciation Day and talking to legislators.

Grants: Susan Pepe reported that we are expecting the announcement of the 2018 Estuary Grant awards for Stewardship, Access and Education projects soon. The Tributary grants announcement is pending.

2. Jon Bowermaster video: "*Undamming the Hudson River*". Dan Shapley introduced this film, produced by Riverkeeper that explores the possibilities for dam removals in the Hudson Valley. The 15-minute film was shown with a short discussion period following.

3. Action Agenda 2020-2030: Fran Dunwell presented an overview of the process being initiated to develop the next Action Agenda 2020-2030. The meeting broke into working groups, including two 1-hour sessions of 4 groups each to have in-depth discussions on proposed targets and strategies for the following categories: river habitats, education, land use/scenery, climate change, fisheries, access, watersheds and water quality (Hudson River mainstem). Each working group was asked to give a

general response to draft targets and identify key strategies. All sessions were actively attended. The following is a summary of the results from the sessions. Note: Many more comments were received than are reported here. Program staff will use all feedback provided during the meeting and on worksheets developed for the meeting throughout the Action Agenda planning process.

Breakout Session Summaries:

1. Access: Draft Target as presented:

Target 1: By 2050, all public river access sites supporting boating kayaking swimming, fishing and riverside wildlife viewing are actively managed to maximize resiliency to flooding and sea level rise and for accessibility to all users. These facilities enable residents and visitors to have rich and diverse river experiences, improve quality of life, and support economic development and tourism. By 2030, the impacts of sea level rise on the amount and condition of river access sites has been evaluated, ecologically-sound mitigation plans have been developed for sites in need, and existing access sites improve accessibility for people with disabilities, older adults, and families with small children. (same as Comprehensive Restoration Plan (CRP) TEC)

Comments received:

- Switch the order, put accessibility first, resilience second
- Change the word 'existing', to 'all' sites, allowing for new/more access sties to be developed
- add recreational water-dependent commercial tourism (tour boats, large boats)
- Include NY Harbor (urban audience)
- Make the language stronger (from 'actively managed' to "are resilient")
- Other specifics recommended included reference to; railroads, visual access, informal access sites, access into the water in urban areas, public perceptions, communications.

Top Strategies Identified:

- Increase number of audiences of new water dependent tourism-based access sites. (deep port commercial tourism)
- Include funding for interpretation, signage communication to reach new and diverse audiences
- Address impact of the railroads on access and future response to sea level rise conditions; consider how to engage the railroads in conversations.

2. Climate Resilience: Draft Target as presented:

Target 1: By 2050, Hudson River shoreline communities have dramatically reduced their vulnerability to chronic and catastrophic impacts of climate change. Strong economies and recreational opportunities create vibrant waterfronts; homes, businesses and infrastructure are resilient to variable and extreme conditions and natural areas and waterfront parks slow and store floodwaters. By 2030, all riverfront communities

identified as having significant risk to sea level rise, flooding and drought have, with the active participation of residents and businesses, completed a resilience plan, proactively updated municipal law, zoning and building codes and implemented practices to reduce their vulnerability, using ecological principles where appropriate. (same as Comprehensive Restoration Plan TEC)

Comments received:

- Scrap 2050, Not aggressive enough, needs to be more measurable
- Broaden concept of infrastructure
- Consider resilience of the system
- Consider natural infrastructure as part of infrastructure, consider natural and human systems as living systems
- Consider economics/costs/financing of buyouts (loss of revenue), conservation and ecosystem services
- Consider more communication and shared goal setting with other arms of government

Strategies Identified:

- Increase community capacity and fostering county level support to municipalities developing and implementing resilience plans
- Increase investment in research, development and update of state policies
- Increase investment in programming that fosters resilient design and engages communities through inspirational programs like CAD
- Increase coordination of outreach and programming with key partners (Waterfront Resilience Group and Learning Group)
- Increase support to our partners and develop models to help them complete community vulnerability assessments and resilience plans
- Increase support to communities to: assess/update local policies, map/ assess and upgrade water infrastructure

3. Conservation Land Use: Draft Target as presented:

Target 1: By 2050, there is an increase in conservation and acquisition of lands and waters that are recognized as priorities for biodiversity, water resources, ecosystem services, and scenery; and increased and enhanced connectivity of unfragmented habitats and natural areas in the estuary watershed. By 2030, there is an increase in the adoption of conservation practices, plans, and policies by municipalities, land trusts, and regional partners in the estuary watershed, especially in priority areas with high biodiversity, important water resources, ecosystem service values, and scenery.

Comments received:

- make stronger connections to climate change
- add "stewardship"

-expand list of audiences/partners

Strategies Identified:

- Increase community capacity for conservation of priority lands and waters through delivery of training, technical assistance, and tools; e.g., model local laws, peer-to-peer networks, intermunicipal agreements, etc.
- Increase and diversify funding sources available to municipalities for local protection and acquisition of priority lands and waters by municipalities, including Community Preservation Fund.
- Increase capacity and funding to New York State agencies for protection and acquisition of priority lands and waters, including staffing.
- Develop incentives to increase use of already developed land over natural land.
- Increase financial incentives for landowner stewardship.

4. Education: Draft Targets as presented:

Target 1: By 2050, every K-12 student receives meaningful classroom and hands-on education regarding the Hudson River, ample research and training opportunities are available for citizen scientists and post-graduate students, and all communities have designated access points and programming for interested stakeholders and residents. These concerted efforts ensure a strong, viable constituency for the ongoing management of the Hudson River Estuary. By 2030, effective curricula and programs are developed and deployed to inform students, educators, residents and decision-makers of both challenges and success stories and those engaged represent a more diverse audience.

Target 2: Residents of the Hudson Valley understand and appreciate the contribution of the estuary, its watershed, and its fish and wildlife to their lives, and take action to conserve the estuary and its resources.

Target 3: Students who graduate from high school and colleges in the Hudson River Valley have a fundamental understanding of the estuary and its connected local waterways. They appreciate the river's value to natural and human communities and have participated in stewardship activities along the estuary or in its watershed.

Target 4: This target is focused on building capacity with interested stakeholders, to help scale up the impact of our environmental education work by enhancing experiences and expertise in the broader Estuary community of practitioners. (Question: Should we focus on environmental educators as the "practitioners", or include a wider group of stakeholders?)

Comments received:

Target 1 (Public/People):

- Need to broaden audiences (politically, recreationally, socially)
- Should emphasize economic assets.
- Funding is a way to broaden audiences

Target 2 (Students/Teachers):

- Should focus more on Pre-Service teachers.
- Almost no science in K-5 grades.
- Questions on curriculum design and usefulness.
- More student research/citizen science

Target 3 (environmental community capacity building):

- Broaden out from env ed to other stakeholders and groups.
- Funding is crucial.
- More academic research is needed.
- Cultural diversity needs to be increased.

Strategies Identified:

Target 1:

- Marketing/Branding: target resources for people to connect to the river; address barriers to attending programs; increase diversity of audience; place-based recognition of the whole watershed.
- Videos/Apps: Increase digital media across the board, including training.
- Citizen Science: Increase whole family participation (recruiting each other) and all ages; improve participant understanding and engagement.
- Adult Learning Programs: need a greater number of opportunities, topics, and venues; consider service learning; work with more communities of faith.
- Survey Hudson Valley residents to establish the current level of public understanding and appreciation of the estuary and watershed, identify the chief means by which residents receive information about these systems.
- Dept. of Health Fish Advisories: Encourage local fishing and healthy choices in fish consumption.
- Public Field Programs: Maintain and grow public programs such as canoe programs, Science on the River, festival tabling, and Fish Counts.
- Almanac & HRECOS: Continue publishing the Almanac; add digital content and interactive modules with HRECOS, etc.

Target 2

- Stewardship & “real” experiences (K-12): move beyond basic lesson plans and one-off field trips, emphasis on citizen science, critical thinking, research;
- Professional Development (teachers): Many parts, including: alignment with state standards; accreditation through Dept of Ed; include; school administrators, in-service and pre-service teachers, all grades and subjects (not just science).
- Field & School Programs: continue place-based programs at Norrie Point and other sites; continue and expand classroom offerings; include more interaction with HRECOS and other department efforts and messages.
- Day in the Life of the Hudson & Harbor: Maintain at current or higher levels, expand classroom use of pre- and post-trip lessons

- Curriculum Development: Make publicly accessible curriculum available through DEC website and partner sites; use of this curriculum is included in professional development offerings for at least 100 teachers annually.
- Incentivizing HR focus of local colleges and universities: support ideas including “HR weeks”, freshman HR courses, public recognition and awards for students, better connections to internships and employment, better networking amongst colleges and instructors.
- Institutionalize river education in NYS Learning Standards

Target 3:

- Establish shared HR literacy principles and key understandings: To promote a natural history-based sense of place and a wider understanding and appreciation of the estuary.
- Funding for partners: through education grants programs or direct support
- Regular Stakeholder Meetings: to share resources, best practices, funding, and expertise
- Improve Facilities: make opportunities more accessible and diverse.
- Maintain and increase effort towards racial and cultural diversity (note; this is overarching. Question was raised: Should this be worded into Target 3 instead of being a strategy?)

5. Fisheries: Draft Target as presented:

Target 1: By 2050, populations of signature Hudson River fisheries are robust, and contaminant levels are declining in all targeted species. These conditions will support both ecologic and economic vitality while restoring historic fishing traditions. By 2030, both populations and contaminants are effectively monitored, and managed, and key habitats needed to support American shad, river herring, striped bass, American eel, blue crab, and sturgeon populations during critical life-stages and seasons are identified, protected or restored. (same as Comprehensive Restoration Plan TEC)

Comments received:

- Ecosystem based management is missing
- Refer to “signature species”, rather than listing species out
- Should not be shooting for declining contaminants, should eliminate them.

Strategies Identified:

- Continue to participate in interstate and international fisheries management groups.
- Continue/increase capacity to monitor abundance of key life stages
- Consider impacts of offshore fishing and bycatch, identify and quantify sources of mortality

- Monitor, communicate, educate and increase awareness of our stakeholders (fishers/anglers)
- Mitigate anthropogenic effects
- Improved integrated management, analysis and communication
- Invasive species: Consider developing fisheries → Eat them
- Understand and control pollutant movement in the tidal Hudson
- Integrate habitat & fish goals
- Identify priorities for management of signature species based on the current state of the population vs. robust population.
- Identify reasonable reopening targets for the striped bass and American shad fisheries by 2020.

6. River Habitats: Draft Targets as presented:

Target 1: By 2050, vital shallow water and intertidal habitats measure at least 12,000 acres, including 7,500 acres of tidal wetlands and 4,500 acres of native submerged aquatic vegetation. These habitats provide essential life-support for the native fish, birds and other wildlife of the estuary. By 2030, 10 conservation or restoration projects for such habitats are underway or complete.

Target 2: By 2050, 700 acres of riparian areas are protected to accommodate future wetland expansion caused by sea level rise, and 20 miles of hardened Hudson River shorelines north of the Gov. Mario M. Cuomo Bridge are softened or otherwise restored to improve habitat, enhance floodplain connectivity, and/or facilitate the migration and formation of tidal wetlands. By 2030, XX miles of shorelines have been restored to improve habitat, and an additional X mile of 'natural' dynamic shoreline adjacent to undeveloped, low-elevation lands and tidal wetlands have been preserved.

Target 3: By 2050, ecologically-significant natural plant and animal communities are more resilient to a variety of stressors, including climate change and invasion by non-native species. Such natural communities support ecosystem function and provide significant benefits to people. By 2030, existing occurrences and known pathways for harmful species invasions are mapped, prioritized, treated and monitored for success while critical habitats whose loss could perpetuate cascading effects are identified and prioritized for protection and restoration.

Target 4: By 2050, we understand more about the contribution and movement of sediment from the watershed into the Hudson River estuary, which is reflected in both management actions and monitoring data trends. This knowledge will support the planning and appropriate actions in the watershed to improve tributary habitats and water quality, as well as robust shallow water estuary habitats. By 2030, 25 projects are underway to either reduce sediment in tributaries where excess sediment is a documented impairment or deliver more sediment to shallow estuary habitats needing more sediment to sustain levels with seal level rise.

Comments received:

- Combine Targets
- Sediment Target from CRP TEC did not make sense- make it a strategy under Target 1

Strategies Identified:

Target 1:

- SAV-2025 complete an analysis of SAV Bed habitat change over time, species composition, grow genetically diverse SAV and plan to restore SAV beds
- Wetland Migration-ID pathways, prioritize land acquisition, enhance
- Shorelines-incorporate nature-based shoreline designs in both public and private restoration projects, increase public outreach about the benefit of nature-based shorelines
- Sediment- Use SETs to assess whether HR marshes are keeping pace with sea level rise, pilot projects that allow for sustainable habitats with rising water levels
- Assessment of Hudson river habitats to determine species use and protect and/or restore habitat needed to support species of greatest conservation need.
- Train decision makers on restoration practices and scientific findings
- Collaborate with partners to evaluate potential stewardship and restoration opportunities and develop conceptual plans for 10 priority projects.

Target 2:

- Nutrients-Inform harmful algal bloom monitoring in tidal wetlands with trial deployment of nutrient probes
- Assess- risks associated with the introduction and establishment of non-native species and develop containment and/or treatment strategies
- Train professionals and provide technical assistance to decisionmakers to increase understanding of science regulations and policy to better detect, control and manage harmful species
- ID- non-impacted sites and prioritize to protect from future threats

7. Watershed: Draft Targets as presented:

Target 1. Tributary water quality: By 2050, the condition of all Hudson River tributaries will meet their intended use, supporting the variety of aquatic life that is intended. Healthy rivers and streams will be maintained, impacted streams will be improved delivering high quality freshwater to the Estuary and to drinking water sources. By 2030, communities and watershed groups have developed and are implementing watershed-based plans to improve or sustain the ecology and water quality of tributaries, including drinking water supplies, through improved watershed planning and protection strategies, land use practices, reduced sewer overflows, nonpoint source pollution abatement projects, restoration of riparian vegetation,

stormwater management, and increase in forest and wetland cover. (New Target - No Watershed Planning/Management TEC)

Target 2. Flooding: By 2050, all watershed communities will be taking measures to mitigate flood risks affecting people and ecosystems, and where feasible reducing flood insurance costs to residents. By 2030, half of the Hudson River Estuary watershed will have a watershed flood hazard study completed, and five pilot watersheds will be implementing ecologically sound flood mitigation programs. (New Target - No Flooding TEC)

Target 3. Free-flowing stream habitat: By 2050, dams are removed, and culverts are replaced at priority locations to allow free movement of fish and other animals in Hudson River tributaries. Removing dams and replacing barrier culverts supports healthy populations of recreational, commercial, and resident fish species, and helps restore clean water and native habitats. By 2030, 20 tributary dams will be removed, and 30 barrier culverts will be replaced to allow upstream movement of fish and other animals. (Same as (same as Comprehensive Restoration Plan TEC)

Comments received:

- Comments on changes: Although DEC regulatory language is meaningful in certain contexts, many stakeholders didn't understand what we meant by terms like "intended use," "aquatic life," and "impacted."
- The statement "All Hudson River tributaries" was unreasonable.
- HREMAC feedback also indicated that we need to specify a target number of communities, watershed groups, and watershed plans.
- The original target statement also included a number of example strategies, which were taken out, as they will be built out as full strategies under the target.

Strategies Identified:

- Capacity-building, awareness/education for watershed groups to improve work across municipal boundaries
- Education, outreach, and technical assistance to municipalities (including source water protection)
- Improve intermunicipal implementation of projects from plans (including riparian buffer restoration, green infrastructure projects, wastewater improvements, local policy changes, etc.)

Top 5 strategies flooding:

- Conserve, revegetate and reconnect floodplains, riparian buffers and wetlands to mitigate flooding and recharge groundwater.
- Assess, prioritize and implement green infrastructure practices in urban areas to manage stormwater (e.g. wetland detention basins, rain gardens, permeable pavement)

- Outreach, technical assistance and capacity building for streamside landowners, watershed groups & municipalities
- Devise action plans to ensure that flood assessment studies that reflect climate change get translated into implementation.
- Reduce flood risk by prioritizing and replacing undersized, flood-prone culverts and bridges, and remove unnecessary and hazardous dams.

Other important strategies:

- Research/monitoring (to help with prioritizing, work with educational institutions, strategy for data sharing, etc.)
- Outreach to a wider audience to create buy-in for watershed improvements (landowners, regional partners, public messaging, etc.)
- State-level protocol and/or policy changes to protect forests, wetland, and buffers

8. Main Stem Hudson River Water: Draft Targets as presented:

Target 4. Hudson River Water Quality: By 2050, Long term Control plans (LTCP) will be fully implemented in all combined sewer systems that discharge to the Hudson River, and wastewater treatment plants throughout the watershed will no longer regularly discharge untreated sewage. Clean water is vital to all aspects of life in the Hudson Valley, from drinking water for communities, to infrastructure for economic growth to clean headwater streams and estuary waters supporting robust fisheries and recreation. By 2030, 25 projects likely to measurably improve conditions within whole tributaries or entire municipalities have been implemented in priority locations to improve wastewater infrastructure or stormwater management. (same as Comprehensive Restoration Plan TEC)

Target 5. Hudson River Contaminants: By 2050, identify and reduce contaminants entering the Hudson river, and remove or remediate river sediments contaminated by long-term pollutants, so that food webs of the river are supported, people can safely eat Hudson River fish, and harbors are free of contaminants that constrain their operation. These efforts decrease direct and indirect toxic risks to human communities and improve ecosystem health and resilience. By 2030, priority contaminants of greatest concern are identified, the respective transport mechanisms and fluxes are well understood, and their sources and distribution are mapped and monitored, while at least 10 priority source sites are being prepared for remediation in direct consultation with affected communities. (same as Comprehensive Restoration Plan TEC)

Comments received:

-Contaminants: Stakeholders felt that the target should include emerging contaminants and that there must be a mechanism to continuously update priorities based on emerging contaminants

Strategies Identified:

- Identify primary pollutant of concern or resource condition (emerging contaminants, pathogens, DO, etc.) in need of attention and implement monitoring program to better understand conditions (using HRECOS, new technology, NYS, and citizens)
- Prioritize WWTP for improvement – source water? Volume?
- Determine relative importance by tributaries vs. wastewater plants through modeling.

Strategies: Contaminants

- Create research and monitoring program to coordinate roles for long term pollutants
- Create proactive emerging contaminant monitoring program/plan
- Develop Public messaging strategy to build public awareness & support for clean-up and prevention and to inform affected communities

4. **American Shad update:** In response to the Committee’s March 2018 request, Gregg Kenney and Bobby Adams, Hudson River Fisheries Unit, and Jason Didden, Mid-Atlantic Fish Management Council, presented an overview of the population status of American Shad, a short history of harvest and regulations, an update on the ASMFC American Shad stock assessment, a summary of management actions taken since 2010 and details on the bycatch harvest of river herring and shad in federal water fisheries. Power points were presented, followed by discussion.

Shown through graphs and charts, the harvest of American shad in the Hudson experienced three peaks in the 1880’s, 1940’s, and 1980’s, with each subsequent peak being smaller than the previous one. All-time lows were recorded in the late 2000’s, and both the commercial and recreational fisheries were shut down in 2010. Because of its economic and cultural value in the Hudson Valley, DEC started monitoring American shad in the early 1980s.

Bobby Adams reviewed the results from two long-term surveys undertaken by the Department, the Young-of-Year (YOY) survey, which indicates recruitment strength, and the Adult spawning stock tagging survey. While it is difficult to do a trend analysis on the adult fish, comparisons between these two surveys indicate that the YOY survey is an appropriate tool to indicate trends in the future adult stock. Predictions for the future through 2022 do not indicate much, if any improvement. Recruitment has been very low since 2002. Mortality rates on adult fish remain high. The YOY survey is a valid index to use to track trends in the spawning stock, there continues to be a decline in mean length at age for female fish, and mortality rates remain high. Overall, the population is not as healthy as it was in the 1980’s.

Management Actions that have been taken since the closure include: Adding a benchmark for mixed-stock harvest in Delaware Bay, implementing shad bycatch

caps in several federal water fisheries, work on genetic identification of shad bycatch to determine what stocks the fish are coming from, and the restoration of habitat at Gay's Point in the Hudson. Annual monitoring continues, and efforts are underway to continue the Long-River Survey, a utilities' monitoring effort ongoing since the 1970's, 1980's. With the closure of Indian Point, no funding is proposed for this work. Two water users have made significant improvements in their withdrawal of Hudson river water; the Empire State Plaza water intake permit will make improvements that will drastically reduce impacts within 5 years; The LaFarge Cement plant in Bethlehem, has reduced withdrawals to 25% of previous levels, effectively eliminating what used be impinged and entrained by this facility.

While it is difficult to determine which are most important, a number of threats to recovery include; harvest- bycatch in federal waters and harvest in existing fisheries; impingement and entrainment at water intakes; loss of habitat; changes in natural morality (due to an increase in marine predators), and impacts from invasive species, such as zebra mussels in the estuary.

Commercial harvest continues in Delaware Bay where some of the fish are from the Hudson River stock. An approved Sustainable Fishing Plan was approved in 2017 that included: a recognition that some of these fish are from the Hudson stock; added a benchmark for mixed stock harvest and moved the demarcation line on the Delaware side of the Bay. The average bycatch harvest of Hudson River stock in the Delaware Bay over the last ten years was about 3000 lbs (1000 fish) per year.

Jason Didden, Mid-Atlantic Fish Management Council. Jason furthered clarified the roles of the Atlantic State Fisheries Commission as the management entity that manages the stocks for river herring and shad, and the Council that manages the by-catch of these species in other fisheries. Jason summarized American Shad bycatch monitoring and results in fisheries operating in Federal waters of the Atlantic Ocean. The estimated harvest of American Shad in these fisheries over the past ten years was about 152,000 lbs. The stock origin of these shad is unknown.

Comments:

Pat Festa: Requested DEC reinstate a catch and release fishery on shad for the 2019 season. It is important to continue to connect people to the fishery. He argued that the mortality from catch and release is miniscule, estimating that 98% of fish caught and released survive. The closed fishery prohibits the public from realizing the recreational benefit of this natural resource. (Note. Mr. Festa provided several documents that were distributed to the committee prior to the meeting. These are appended to these minutes.)

Dan Shapley: Disagreed with this proposal due to risk to the fishery at this time. The stock is fragile, the impacting drivers of decline are unknown. He cannot support a

catch and release fishery on the stock at this time in its crashed status. What would be considered a healthy recovery? He stated that a return to 1980's abundance should not be the definition of recovery.

Karin Limburg: what are other states seeing up and down the coast? Are others seeing these persistent changes up and down the coast? Karin noted that fish are getting smaller throughout the world. The impacts of fishing, climate change and other impacts is difficult to untangle.

Wes Eakin (HR Fisheries Unit): The data varies up and down the coast.

John Lipscomb, and Stuart Findlay agreed to petition for more resources as needed by the Fisheries Unit to work on this issue.

Key decision points in the future will be the reassessment of the stocks in 2019, followed by the update of the recovery plan. DEC will keep the committee informed as this process moves forward.

1. Old Business, new Business

Dan Shapley offered to draft a letter to the Commissioner on behalf of the Committee requesting DEC release the report, "Characterizing Wastewater Facilities for a Swimmable and Resilient Hudson River Estuary." The draft report and database were presented to HREMAC in 2016. The draft letter will be circulated to Committee members for review and comment. The offer and review process were approved by the committee.

Scott Keller announced the Greenway's Hudson River Train Tour App is now live and includes the Estuary Program's access site data.

Karin Limburg: announced, The NY American Fisheries Society will hold its conference in Poughkeepsie, February 6-8, 2019., "Fish on the Move".

The meeting adjourned at 3 PM.

Attachments: Patrick Festa to Commissioner Seggos, 4/9/2018, Patrick Festa to Gregg Kenney, 10/1/2018, memo, "Shad are not Eagles", Patrick Festa 4/9/2018 article.

Attendance: 64

HREMAC Members:

Andy Bicking	Scenic Hudson
Dave Church	Orange County Planning
Jerry Faiella	Historic Hudson River Towns
Stuart Findlay	Cary Institute of Ecosystem Studies
Dan Shapley	Riverkeeper, Inc. (for Paul Gallay)
Lucy Johnson	Vassar College, HV Consortium, HRES
Tom Lake	Naturalist, Educator
John Mylod	M.T.Net, commercial fisherman
Julie Noble	City of Kingston (for Steve Noble)
George Schuler	The Nature Conservancy
Shino Tanikawa	Lower Hudson Coalition of Conservation Districts
Rene VanSchaack	Greene County IDA

Ex-OFFICIOS:

Scott Keller	Hudson River Valley Greenway
Rick Winfield	US EPA (for Peter Brandt)
Diana Carter	NYS OPRHP
Jamie Ethier	NYS DOS
Rob Pirani	NYNJ HEP (for Rob Pirani)

Guests:

Elizabeth Allee	Riverkeeper
Krista Birenkrant	Riverkeeper
Bill Conners	Sportsman
Jason Didden	Mid-Atlantic Fish Management Council
Patrick Festa	sports angler
Lynn Glassman	HRBYCA
Carolyn Klocker	Cooperative Extension Dutchess County
Karin Limburg	SUNY ESF
John Lipscomb	Riverkeeper
Liz LoGuidice	Columbia/ Greene Cooperative Extension
Europa McGovern	HVRC
Mary McNamara	HRWA
Chris Nack	SUNY ESF
Bug Nichols	Fishpartners
Maija Niemsto	Clearwater
Andy Peck	Nature Conservancy
Margie Turin	Lamont Doherty, Columbia U.
Stephen Wilson	HRES

Peter Zaykoski

NEIWPCC

DEC, Estuary Program staff and SCA interns

Bobby Adams	Hudson River Fisheries Unit
Nancy Beard	Estuary Program, public information
Jessica Best	Hudson River Fisheries Unit
Brian Buchanan	Estuary Program, Watersheds
Ann Marie Caprioli	HRNERR, grants administration
Scott Cuppett	Estuary Program, watersheds
Brian DeGasperis	HRNERR, Habitat
Fran Dunwell	Estuary Program, Hudson River Coordinator
Laura Heady	Estuary Program, land use and conservation
Amanda Higgs	Estuary Program, Hudson River Fisheries Unit
Rebecca Houser	Estuary Program, education
Gregg Kenney	DEC, Hudson River Fisheries Unit
Erin Lefkowitz	Estuary Program, SCA intern
Ted Kerpez	DEC, Region 3 Wildlife Manager
John Ladd	Estuary Program, Benthic Mapping
Megan Lung	Estuary Program, watersheds, culverts
Sherri Mackey	Estuary Program, administration
John Maniscalco	DEC, Marine Resources
Jeff Mapes	DEC, Lands and Forests
Kristin Marcell	Estuary Program, climate change
Susan Maresca	DEC, Region 2, permits
Dan Miller	Estuary Program, Habitat Restoration
Nate Nardi-Cyrus	Estuary Program, Conservation and Land Use
Susan Pepe	Estuary Program, Grants coordinator
Beth Roessler	Estuary Program, Trees for Tribs
Maude Salinger	Estuary Program, communications
Zach Smith	Estuary Program, HRECOS
Kelly Turturro	Regional Director, Region 3 DEC
Emily Vail	Estuary Program, watersheds
Libby Zemaitis	Estuary Program, climate change

Nancy Beard, recorder

ATTACHMENTS:

April 9, 2018

Commissioner Basil Seggos
NYS Department of Environmental Conservation
625 Broadway, Albany NY, 12233-0001

Dear Commissioner Seggos,

Help. Another Hudson River spring and no shad fishing.

I am writing this on behalf of the anglers of the Capital District, Hudson Valley and beyond. We need your help to address a long-standing and unnecessary resource use restriction that is preventing us from enjoying one of the premier sportfishing opportunities on the East Coast.

Ten years ago, researchers/managers closed the Hudson River to all fishing for American shad. This action was taken in response to a continuing decline in the commercial net catch of adult shad during the spring spawning run and declining sampling estimates of young shad outmigrating the river. The closure included recreational angling even though it was known that recreational fishing harvest accounted for an insignificant portion of the fishing mortality (<1%). It, inexplicably, even prohibits “catch and release” fishing although DEC and USF&WS studies in the Hudson (and elsewhere) estimated shad hooking mortality at less than 2%. This seemingly irrational prohibition continues today without any reasonable explanation or indication of change.

This situation is especially unfortunate because: 1) the great majority of recreational shad anglers attach little value to harvesting their catch relative to the excitement of hooking and fighting the “poor man’s salmon” and, 2) the Hudson shad fishery was very likely the best in the entire country. Essentially all the benefits of this recreational fishery can be provided without any impact on the shad population abundance or recovery efforts. In fact, eliminating all public contact with the resource may well prove to be counterproductive for its long-term management.

We, the anglers who in previous decades had enjoyed the excellent Hudson River shad recreational fishery, have waited very patiently for the DEC to conduct their studies and assessments and get back to managing this resource for public enjoyment. We have waited longer than we should have given that no purpose exists for continuing the closure of a catch and release fishery. Soon, none of us who have known the value of this resource will be left to enjoy it again and younger generations of anglers are being deprived of this experience with each passing year.

Attached is a briefing paper that makes a case for reexamining the Department’s approach to managing access to the Hudson River shad resource. Also, for reference and perspective, two sets of comments provided to the Department ten years ago on this issue.

In summary, it is requested that the **current fishing regulation be adjusted to simply allow anglers to fish for shad on a “catch and release only” basis** in the Hudson River starting this

Spring or for the 2019 run at the latest. I believe this is such a logical, overdue and win-win request that it should not require any extensive “gather the townspeople” agitation and should easily be addressed directly and routinely through the Department’s normal rule making process.

On behalf of all of our aging shad fishing fraternity, we very much thank you for your review, consideration and action on this request. A response at your earliest convenience would be much appreciated. I will send an email version of this correspondence shortly. Please feel free to forward to appropriate staff and interested parties.

Sincerely,

Patrick J. Festa
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Bureau of Fisheries (retired 2003)
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This letter and request were contributed to and are endorsed by:
Michael C. Gann, former Regional Fisheries Manager for NYSDEC Region 3 and former Section Head NYSDEC Bureau of Fisheries and Walter T. Keller, former Regional Fisheries Manager for NYSDEC Region 4.

Attachments:

- A) Briefing paper: Some Thoughts and Suggestions Regarding Hudson River Shad Fishing. 2 pages
- B) 2008 comments regarding regulatory options for reducing fishing mortality of Hudson River Shad – P. Festa 1/15/08. 2 pages
- C) Some comments and questions on the Oct.23, 2007 Draft document “Status and restoration of American Shad in the Hudson River, New York. 4 pages
- D) Cover page and tables from the 2003 report “Mortality Associated with Catch and Release Angling of Striped Bass and American Shad in the Hudson River. 3 pages
- E) Photos of Hudson River American shad. 1 page

Cc: M.Gann, W.Keller

From: Pat Festa gmail (pfesta17@gamin.com)

To: Gregg Kenney, (DEC)

Date: 10/1/2018

Subject: Draft proposal summary

Proposal: Reinstate a Catch and Release Only rule for recreational shad fishing in the Hudson River for 2019.

Reason: The existing prohibition on Catch and Release fishing serves no purpose, prevents a sustainable public use benefit and is detrimental to the public's interest in the long term conservation of the Hudson River American shad resource.

Information: After ten years of complete harvest closure it is clear that in-river fishing mortality has not been a limiting factor to American shad recruitment or restoration.

It is obvious that the relatively low mortality associated with the sport fishery was never a factor in the decline of HR shad abundance. Allowing an active catch and release fishery will have no impact on the abundance or restoration of American shad stocks.

It is estimated that hooking mortality associated with a catch and release fishery would involve less than two tenths of one percent of the adult spawning run.

There is no reason to believe that the findings of upcoming shad assessments would suggest a need to prohibit a catch and release fishery. Also, an active spring catch and release fishery will in no way interfere with any research, survey or assessment activities. Recreational and even commercial harvest fisheries continue to occur in all other states and New Jersey does not (has never?) prohibit catch and release fishing in its portion of the Hudson.

Complete closure of all shad fisheries results in a total disconnect between the resource and the public and eventually will remove the HR shad from any public interest or concern regarding its status or even existence.

To delay reinstatement until completion of another assessment will push back this resource use opportunity at least another three to five years and, completely without cause, deprive many of the dwindling number anglers who enjoyed this sport in the past the chance of catching another feisty "poor man's salmon."

Shad Are Not Eagles

Patrick Festa, 4/9/2018

Some Thoughts and Suggestions Regarding Hudson River Shad Fishing

(An open letter to Hudson River resource managers and stakeholders)

It seems, that despite much serious effort, inquiry and speculation, we really are no closer now (2018) to understanding the cause or the solution to the Hudson River shad decline than we were in 2008. We still do not know what is unique to the Hudson that has suppressed juvenile recruitment here while neighboring systems i.e. Connecticut and Delaware have experienced some relatively robust runs (relative to their more recent fishery history) in some of the same past 10 years.

Regardless of the continuing research and population modeling endeavors, it really is time to rethink how we are approaching the management of shad in the Hudson River. Researchers and modelers can easily become fully enmeshed in the mathematics and theory of their studies. Their constituency might become, in function, more their fellow researchers and theorists than the user groups that are supporting their work. The forest lost for the trees. At times it is necessary to bring the studies and equations back into focus as to what value they have regarding a public benefit.

It was wise and necessary to finally curtail the commercial harvest of adult shad as estimates of their abundance continued to markedly decline during the 2000-2008 period. It was understandable, if not scientifically meaningful, to also prohibit the recreational harvest - even though the mortality from that source was inconsequential relative to the commercial impact.

The initial tactic to allow the continuance of a recreational catch and release fishery made much sense from a resource management perspective since this activity did allow some continued public use of and connection to the resource - without any impact on restoration or conservation efforts. Studies in the Hudson itself had shown that hooking mortality on released shad was less than 2%. Why the Department (NYSDEC) determined it was necessary to prohibit even a catch and release recreational fishery for shad in 2009 is not known. There was no apparent scientific basis for this restriction that abruptly eliminated one of the best, if not the best, shad sportfisheries in the country and, perhaps even more problematic, totally removed the Hudson River shad population from contact with the public. Isolating a natural resource from all human interactions may minimize research variables for the short term but it is certainly counterproductive to any long-term public interest in its conservation.

Shad are not eagles. One bald eagle flying over the valley can provide a thrill and connect with a thousand people in a single flight. People can thus benefit from, appreciate and support our management efforts and *their* expenditures to conserve the eagle population. You can not see shad swimming up the river. For the last 10 years people of the Hudson Valley have had no connection with or awareness that shad exist. Whether there are 50 or 5 million – who knows and so who cares.

Recreational anglers recognize that the primary value and enjoyment associated with shad fishing lies in the species' relatively large size and great fighting ability - the opportunity to pursue the "poor man's salmon" with light tackle from shore or small boats. Probably more than any other sportfish species they are sought after much more for the thrill of the fight than the meal on the plate. This reality provides fishery managers with the wonderful option of delivering a non-consumptive benefit to their constituency while fully protecting a stressed resource. Recreational shad fisheries that continue in the Connecticut and Delaware Rivers attract anglers from large geographical areas and create a good deal of local interest and economic activity and, importantly, a meaningful connection between the public and the resource.

It should be remembered that an overriding legislative mandate of the Department (Section 11-0303) is (para 1) "the maintenance and improvement of such resources (fish and wildlife) as natural resources and the development and administration of measures *for making them accessible to the people* of the state[emphasis added]." Also, that the Department is directed to carry out programs and procedures having regard to (para 2) "the importance of fish and wildlife resources for recreational purposes." Further, the Department has recently identified its Core Services to include "providing the opportunity for enjoying the outdoors, including fishing" Clearly, when and where an option exists to provide a beneficial use and make a resource accessible without diminishing its sustainability, it would seem to be the duty of the Department to allow and even promote that use.

It is my understanding that many current and former resource managers in New York, who are very familiar with the Hudson River and the fishery, agree that there is no restoration benefit to be achieved by prohibiting a catch and release shad fishery. That there is, in-fact, a significant and unnecessary loss of recreational opportunity currently occurring.

During this ten year period of recreational closure, no new information has come to light that would indicate a purpose for continuing a prohibition on 'catch and release only' fishing for American shad in the Hudson River.

Given the above, it is recommended that a "catch and release only" recreational fishing regulation be reinstated for the 2018 season.

pjfasta 4/9/18