Hudson River Estuary Advisory Committee Meeting

Minutes: June 4, 2014 Approved November 12, 2014
Norrie Point Environmental Center, Staatsburg, NY

Please Note: Please refer to the following link to the Hudson River Estuary Advisory Committee webpage: http://www.dec.ny.gov/about/46924.html to access additional information and reports.

1. **Welcome/Announcements:** 62 people attended (see listing below). The meeting opened at 9:00 am.

The March 5, 2014 minutes were approved: motion made by L. Johnson, seconded by B. Molloy.

F. Bergman reported that Tina Batoh, DEC, is part of a team working on marina dredging. The team is looking into bundling projects where adjacent marinas are in need of dredging, and looking into the possibility of using a mobile barge unit for in-place processing. Information from marinas is being gathered. Sources of sediment include storms (Irene/Lee), and more localized re-suspension and deposition of sediments from ferry boat operations located adjacent to marinas. Frank will report back in November.

L. Johnson reported on the HRES conference held at SUNY New Paltz, May 7. Presentations focused on the interactions between Hudson watershed tributaries and the mainstem post Irene/Lee and Sandy. The day was well attended and very informative.

G. Schuler reported on the Hudson River Restoration Partnership (HRRP). Work is underway to gather data to generate a GIS map to understand habitat conditions, trends and threats. The Army Corps is making progress in getting the approvals needed to move the project forward. The Target Ecosystem Characteristic (TECs) team has been meeting to define information needs.

DEC and USGS will undertake a 3-year comprehensive study of Mohawk River fish. (NYS DEC press release 5/29/2014).

The Nelson A. Rockefeller Institute of Government will host a forum on challenges facing water facilities infrastructure, 6/11/2014 in Albany.

2. **Discussion of *2015-2020 Action Agenda* and Strategic Plan Development.** The meeting focused on the development of the *Action Agenda 2015-2020*:

   A. **Update on the Strategic Planning Process:** Peter Fairweather summarized thee strategic planning process, core idea, strategy screen and meetings that were held with DEC leaders and partner groups. Program staff will work over the summer to use the strategic plan to set priorities. The final strategic plan will be presented in November. M. Castiglione noted the Greenway is undergoing a similar process and supported the simultaneous planning efforts of both groups.

   B. **Update on the Action Agenda 2015-2020 Planning Process:** L. Heady presented an update on the development of the next Action Agenda including a review of the planning process, and the 6 benefit approach. Staff are now identifying potential actions that will address 2030 outcomes.

Stakeholder meetings on topic areas related to the planning process are underway (May/June). Feedback from these meetings will be factored into the planning process. The program will continue its core programs for fisheries, habitat, watershed and clean water, access, education, outreach and technical assistance, and research and will be looking for ways to improve the program's effectiveness.

C. Trends, Challenges, Opportunities (TCOs): F. Dunwell highlighted a few key trends expressed at stakeholder meetings to date which will guide our Action Agenda development:

- Increased oil transport by rail and barge is raising a variety of concerns, including navigational dredging, oil spill response. DEC is involved, however, much of this issue resides at the federal level.
- Asian carp, other aquatic invasive species, moving both in the out of the basin are of increasing concern.
- River cities: there is renewed interest among both seniors and young adults to live in urban centers, raising the need to make cities more sustainable, attractive places to be and live, including the need to upgrade infrastructure and environmental quality of life. This is needed in EJ communities as well.
- There is a need to look at water quality in tributaries for recreation and swimming.

3. The remainder of the meeting focused on priority issues for the 6 benefits. Program staff presented, followed by committee discussion. A summary of committee comments follows.

(**Note: TCO** refers to trends, challenges, opportunities. Possible ACTION refers to **possible** actions that could be taken as suggested by HREMAC.)

Clean Water Parts A & B (fishable, swimmable, and drinkable), Emily Vail presenter

Targets, Challenges and Opportunities:

Clean Water (Fishable, swimmable)

- Municipal wastewater infrastructure will continue to degrade
- Pathogen sources are not clear

Clean Water (Drinkable)

- More extreme droughts, and greater demand will challenge municipalities to develop new drinking water sources.
- Existing municipal facilities no longer have adequate treatment technology to clean drinking water drawn from the estuary
- Water withdrawals and returns may be far apart

Long Range Outcomes:

Clean Water (Fishable, swimmable)

- Wastewater infrastructure is sufficient to protect water quality in the estuary and tributaries
- By 2030 (Top 3):
    - Water quality is not degraded by sewer overflows or failing infrastructure
    - Water quality (including pathogens) is maintained and improved in the estuary to benefit swimming

    - Accurate and timely information on water quality in reaches most used for swimming is available for public use

Clean Water (Drinkable)

- Communities have access to sufficient drinking water and use it at levels that do not affect ecosystems
- Communities can continue to provide clean drinking water drawn from the estuary
- By 2030 (Top 3)
    - Water withdrawals from the estuary don't degrade the estuary ecosystem
    - Estuary water quality remains clean enough to support municipal drinking water supplies
    - Communities manage their water infrastructure to support smart growth and economic development in a way that does not exceed capacity or degrade the estuary ecosystem

Committee Discussion Summary:

- Developing information tools, outreach, education materials, better datasets, BMPs for water users, and training to use these tools could be a key role for estuary program. (USGS guidance document has a list of options.)
- Drinking water is a far higher priority and concern than how swimmable the estuary is. Pathogen reduction is key for NYC drinking water supply – other contaminants like metals are harder to measure and remove.
- Data drives change. Riverkeeper's pathogen information is helping inform people, and in turn drives policy, and push for regulatory enforcement. Communicating the message of swimmability raises expectations, and gets the discussion going. The partnership with the State is improving.
- Consider Environmental Facilities Corp. and regional planning councils for interagency collaboration. Change the financing structure at EFC. (match requirements are a challenge for municipalities)
- Need to address water management at a basin scale. Need a statewide water database. New ways to deal with municipal wastewater, i.e. dispersed treatment – could contribute to basin-wide improvements.
- Extending Estuary Program into NY Harbor requires balancing complexity against broader estuary efforts
- Education is needed about what a natural estuary should 'look' like. Perception is that drinking water from the tap is not safe, many only drink from plastic bottles.
- Salinity intrusion needs to be highlighted. There's currently 20% more flow now, but this could change.
- Many riverfront community water facilities are and will be impacted by flooding and sea level rise.
- Reduce demand through conservation – has worked well in Orange Co. Need tools and best management practices to reach user groups.
- Convene a conference on best practices for water management. conservation, piloting best practices, municipal energy use for water treatment, ratables, CSO loadings, all are connected and could reduce stress on the system if approached collectively.
- Swimming opportunities are limited due to limited swimming access sites. People are using river areas for contact uses that are not safe (i.e. Newtown Creek)
- Improve information/data coordination between local health depts. and state agencies. Data are needed for water uses in areas for other activities; i.e. kayaking. NYS Dept. of Health has been mapping where it is and isn't safe to fish (based on water quality).

- Shift standard from 30-day average to swimmability (which has a much smaller measurement window). Work with DOH and county health., NYS rules and regulations, Need better policies.

Fish/Wildlife/Habitats & Vital Estuary Ecosystem (fisheries & estuary) Bobby Adams & Sarah Fernald presenting:

Targets, Challenges and Opportunities:

- Invasive species will persist and new arrivals will alter estuary food webs
- There is a strong correlation between SAV beds and fish populations
- Migratory fish may suffer high mortality rates outside of the estuary
- In-estuary mortality factors will continue to include excessive harvest, alteration of food web, and habitat loss and alteration
- PCBs and other historical contaminants in estuary sediments will be vulnerable to disturbance

Long Range Outcomes:

- Healthy intertidal, shallow water, and deep water estuary habitats support healthy fish populations
- Populations of shad, herring, striped bass, black bass, American eel, blue crab, and other species can be commercially or recreationally harvested
- By 2030 (Top 3)
    - Health standards for toxins are met for most sport and commercial fish species
    - Current habitats are maintained and utilized
    - Aquatic invasive species that could reduce ecosystems vitality are kept out of the estuary

Committee Discussion Summary:

- HREP should apply pressure on agencies to keep new invasive species out of the estuary
- Need to better identify the Estuary Program's role. Many agencies are involved in these issues – contaminants, PCBs, invasive species. Get these big issues into the program's work plan. Identify what the program can do on issues that are controlled elsewhere in the hierarchy?
- All invasive species work should focus on keeping new species out, vs. species that are here. We know the vectors for invasive species arrival and how to block them. Take action to prevent new arrivals now.
- Need to develop social component to these issues, i.e. a new generation of anglers who care and will advocate for the resource.
- Need to develop specific, measurable targets. Clarify wording: maintaining, protecting, increasing, no net loss, clarify and say what you mean to do. Need to account for trend of aquatic habitats shifting locations –and address condition that current habitats are insufficient.
- The historic fishing tradition is being lost; the physical tools of the commercial fisheries need to be preserved. Create a venue to warehouse equipment and the history of how to use the equipment in the river.

Vital Estuary Ecosystem (watershed) – Karen Strong and Stuart Findlay presenters

S. Findlay summarized the Science Stakeholder outreach meeting held May 29, 2014 on this topic. Stakeholder comments focused on:

1. Linkages:
   a. sediment into the estuary: what is the right amount?, We don't know.
   b. barriers to prevent the movement of invasives, and prevent the movement of species into additional habitat areas

2. Human Dimensions: Education and outreach challenges: how to keep development out of harm's way (don't build in the floodplains); 'new world' planning, requiring new and dramatic approaches.
3. Water quality: how to deal with existing contaminants and emerging contaminants of concern. How are human uses affecting and contributing to contaminants. Understand this issue better.

Karen Strong presented the highlights of the planning process:

Trends, challenges and opportunities:

- Little baseline science has been done that can clearly connect the impact of watershed threats to consequences in the estuary
- It will continue to be difficult to get communities to prioritize natural resources issue among their many concerns
- Land conservation in the watershed is not coordinated

Long Range Outcomes:

- Watershed ecosystems retain their integrity and can shift with climate change
- Conservation researchers better understand conservation priorities and ecosystem healthy
- Communities utilize strategies that conserve ecosystem services
- By 2030 (Top 3)
    - Forests, wetlands, and open spaces are conserved to preserve estuary vitality
    - Ecosystem healthy, integrity, and food webs are better understood
    - Land-use in the watershed occurs in a manner that minimizes impacts to the estuary

Committee Discussion Summary:

- Develop a land conservation plan for the region, prioritize land conservation with an eye to maintaining and improving water quality, including the protection of source water areas and recharge zones. Develop land conservation plan framework (tools, strategies) that land trusts can use to identify land conservation strategies to help achieve optimal landscapes within the realities of ever changing real estate values.
- Prepare an estuary report card, tracking social changes along with ecological change. Tell a story about what actions should be prioritized to have most gain. Link human behaviors to changes via indicators.
- Concentrate more on villages and cities. Trend is moving toward increasing repopulation of urban areas.
- River Sweep and Clearwater Festival show "if you clean it up, keep it clean, people will keep it cleaner".

Vital Estuary Ecosystem (estuary) – Karen Strong presenter

Trends, Challenges and Opportunities:

- Concerns about flooding and erosion will pressure decision-makers to harden estuary shorelines
- Sediment transport and turbidity in the estuary will become more variable due to heavier pulses created by more intense storms
- Invasive species will persist and new arrivals will alter estuary food webs

Long Range Outcomes:

- Shorelines habitats support a healthy estuary ecosystem
- Intertidal, shallow water, and deep water estuary habitats support productivity and biodiversity
- By 2030 (Top 3)

- Natural estuary shorelines are preserved while other shorelines are managed with habitat-friendly erosion-control approaches
- Tidal wetlands and submerged aquatic vegetation beds increase in total area
- Aquatic invasive species that could reduce ecosystem vitality are kept out of the estuary

Committee Discussion Summary: (See discussion above under watershed)

Education – Chris Bowser presenter

Trends, Challenges and Opportunities:

- Social media – people increasingly use is as an information source, and it is constantly evolving
- People don't understand natural processes or how they benefit from them
- The valley is becoming more culturally and economically diverse
- We have an excellent track record of helping people understand, value, and become active stewards

Long Range Outcomes:

- Residents understand and value the estuary and recognize how they benefit from its diverse resources
- People actively support conservation and restoration efforts on the estuary
- By 2030 (Top 3)
    - Residents learn about the estuary, including students through school-supported curricula
    - Students, teachers, residents and decision-makers from diverse communities actively engage in stewardship of the estuary and its watershed
    - Communities understand the value of clean water and its connection to the landscape and land-use decisions

Committee Discussion Summary:

- Use DOS funded shoreline projects to educate about environmentally friendly options
- Education efforts have shifted from a focus on the problems to a focus on the benefits
- Employees from companies who give them the day off make enthusiastic river cleanup participants
- Spend more time telling people what you want them to do and why. Creating an effective message is crucial (i.e. Water words that work). Keep the message simple, accessible, and provide people with a sense of power that they can have an effect.
- Better connect people at places they visit with messages we want them to take home. Get a sense of how promoting the environmental values of the Hudson Valley contribute to tourism.
- Find the scale at which education efforts create durable constituencies that really make a difference – don't know what this is now, hard to tell whether or not we're on track to succeed
- Tap into different groups of students (inc. at college level), young interns, and get them working to steward the estuary. Environmental literacy, connecting generations is important, link students with roles in their communities. Develop a pipeline of partners in the community to support this, using new audiences including; garden clubs, service organizations. Connecting to Day in the Life of the River.
- Put good stories at the beginning to reignite a sense of wonder, mystery, awe in people.
- Foster an understanding that everyone is part of the system, work to engage and empower everyone.
- Use ongoing projects as teaching tools, i.e. green infrastructure, to demonstrate BMPs.

- Constant and reoccurring outreach and access to tools for municipalities is needed as officials are constantly changing over time. (I.e. on-going assistance provided to City of Kingston has had positive impact. Pace LULA program is a great way to address this need to re-inform municipal leadership.
- Hold a seminar at SUNY New Paltz every other year. Connect to annual meetings of the Association of Towns, Assoc. of Mayors.

Access – Nancy Beard presenter

Targets, Challenges and Opportunities:

- Aging population and veterans require more universal access
- HR Estuary project in 2013 identified ADA needs
- More storms and sea level rise predicted
- Maintenance is expensive, and public expects sites to always be open
- Most people don't have boats, so access needs to be more than launches

Long Range Outcomes:

- The public can enjoy the estuary from access sites that are integral parts of communities and are welcoming to everyone in their design
- All public access sites along the estuary are resilient to sea level rise and storms
- By 2030 (Top 3)
    - Access sites provide opportunities for high-quality, place-based river experiences
    - The public can reach the estuary and its tidal tributaries from universally designed access sites and access is available for underserved communities
    - Access to and along the Hudson is resilient to future storms and sea level rise

Committee Discussion Summary:

- People are doing things where they shouldn't, i.e. swimming in unsafe waters (These are folks could be recruited as advocates for improvements)
- Parks are increasingly being built with a combination of public and private funds, but maintenance costs fall solely on municipalities
- Waterfront parks are not being designed for resiliency to future conditions
- Develop a "visual almanac", using a system of webcams at access sites to connect people and what's happening there, "we saw this this week".
- Get people to volunteer as stewards at local access sites (Scenic Hudson has done this successfully at many of their preserves and sees a lot of value in it)
- Showcase parks that are built well as demonstration sites. Provide guidelines, design, recommendations on ADA, resilience design
- Identify alternatives for access sites that will eventually be inundated by sea level rise,
- Need more education about invasives, mandatory boat washing stations (i.e. now used on Lake George)

Resilient Communities – Kristin Marcell and Emily Svenson presenters

Emily Svenson summarized the stakeholder outreach meeting held on May 27, 2014 on this topic. Stakeholders reported that the major cities on the river are facing major infrastructure issues including; CSOs, pathogen inputs, and failing waste water treatment plants. There is an opportunity here as demographics are changing where more people, seniors and younger generations, are moving

back to urban areas, and want attractive, environmentally resilient places to live. The Estuary Program's technical assistance expertise is unique to address the natural resource component of this trend.

Kristin Marcell presented the highlights of the planning process to date:

Trends, Challenges and Opportunities:

- People usually don't worry about floods, droughts, or heat waves until serious incidents occur in their communities
- Intuitive responses to severe flooding (e.g., channeling tributaries to increase flow) will typically make flooding worse
- Community decisions will address local challenges without regard for implications elsewhere in the watershed

Long Range Outcomes:

- Decisions that make communities more resilient to flooding, drought, heat, and pollution also sustain the estuary ecosystem
- Community waterfronts thrive along a clean estuary
- By 2030 (Top 3)
    - Responses after extreme events make communities safer while avoiding impacts to the estuary and tributaries
    - Estuary and tributary floodplains and riparian buffers are protected to better absorb and slow floodwaters
    - Natural or ecologically-enhanced shoreline protection strategies are used to prevent erosion and flooding problems

Committee Discussion Summary:

- Foster local planning efforts in advance of severe events, improving community resiliency
- Give communities sets of actions to take, communities want to know what to do, to participate in Climate smart communities' initiatives, and to increase momentum.
- Foster peer-to-peer interactions between municipalities to speed the transfer of information and to increase the likelihood of communities adopting good strategies
- Mine community emergency management plans for insights into community priorities and to find ways to integrate good strategic decisions into plans before serious events occur
- Counties are required to have emergency response plans that address mostly fire, police, safety and buildings. New requirements address the need for climate change to be included in mitigation projects when these plans are updated. It was noted that community municipal priority lists (included as an appendix to these plans), are updated annually. Estuary Program input could be incorporated here.

Scenery – Andrew Meyer and Sara Griffen presenters

Sara Griffin summarized the Scenic stakeholders meeting held on May 15, 2014. The stakeholders reported that the scenery of the valley is the most visible and accessible aspects of what people experience. Visitor surveys conducted at Olana, cite the view as the most important resource. There is a very real and important economic benefit to protecting the scenic resource of the region. (Olana, alone, brings in $8 million to the area.) The development of the Hudson River Art trail was cited as another important resource that celebrates and promotes the historic significance of the scenic quality of the region. This links to the Governor's tourism initiative to get people outside and better connected to nature. The connections between protecting scenery and protecting natural resources were discussed. Protecting

viewsheds also protects farmland, habitats and other important natural resources (and vise versa). There is a need to work with other agencies, OPRHP, DOS, Greenway to dovetail activities, identify overlaps and missing opportunities.

Andrew Meyer presented the highlights of the planning process to date:

Trends, Challenges and Opportunities:

- Few agencies are focusing on scenery
- The cleaner the estuary becomes, the more pressure there will be to develop its shoreline
- More people using computers to direct them to locations and enhance their experiences

Long Range Outcomes:

- Scenic vistas are identified and persist along the estuary shoreline and more historic landmarks
- Scenic resources are part of local planning processes, and are identified and promoted locally as well as regionally
- By 2030 (Top 2)
    - Natural scenery along the estuary is conserved, promoted as an economic asset and part of a healthy estuary, and enjoyed by residents and visitors alike
    - Local governments identify, conserve, interpret, and celebrate their significant natural scenery and vistas, and make their vistas and make their vistas more accessible in environmentally sound ways

Committee Discussion Summary:

- A highly valued view in one community often is the land located in another community
- There are ways to protect views in areas being developed by good design
- Start cross-river viewshed compacts to help communities protect each other's views
- Scenic vistas is one of the criteria considered when agencies work together to conserve lands through the Open Space Plan. The SCORP was recently updated and identifies the Governor's priority to reconnect people with nature, landscapes to scenic values.
- Connect to the arts community. Use technology, smart phone apps to better connect to tourism audience
- Manmade scenery is important too. Tourism is a huge driver here. Communities have not been viewing their waterfronts as 'gateways' to their communities, missing an opportunity here. Visual resources across the river need to be addressed by working across the river at the municipal level through partnerships.
- Landscape connectivity benefits viewsheds

Action Agenda next steps: A draft agenda will be presented to HREMAC in November.

Old Business, New Business:
P. Gallay noted that Ulster County has announced it will purchase its energy from 100% renewable energy resources.

Peter Gross has been named the new Executive Director of Clearwater.

F. Bergman motioned the meeting be adjourned. J. Faiella seconded. The meeting adjourned 2:30 pm.

Respectfully submitted, Nancy Beard, recorder. (With special thanks to Fran Dunwell, Lucy Johnson, Maude Salinger, David VanLuven, for the use of their meeting notes.)

Attendance: (62)

HREMAC Members:

Beers, Allan	Rockland County Coordinator Environmental Resources
Bergman, Frank	Hudson River Boat and Yacht Club Assoc.
Burnet, Janet	Ramapo River Watershed Council
Church, David	Orange County Planning
Coddington, Nicola	Irvington Green Policy Task Force
DeRoberts, Chris	Central Hudson Gas & Electric
Erling, Todd	Hudson Valley Agri-Business Development Corp.
Faiella, Jerry	Historic Hudson River Towns
Findlay, Stuart	Cary Institute of Ecosystems Studies
Gallay, Paul	Riverkeeper, Inc.
Griffen, Sara	OLANA Partnership
Johnson, Lucy	Environmental Consortium of Colleges and Universities, HRES
Lake, Tom	Naturalist/educator
Molloy, Barney	Hudson River Watertrail Assoc.
Mylod, John	MT Net
Noble, Steve	City of Kingston Parks and Recreation
Schuler, George	The Nature Conservancy
Suszkowski, Dennis	Hudson River Foundation
Svenson, Emily	Lower Hudson Coalition of Conservation Districts

Ex-Officios:

Baudanza, Tom	NYC Dept. Environmental Protection
Brandt, Peter	US EPA
Carter, Diana	NYS Office, Parks, Recreation, Historic Preservation
Castiglione, Mark	Hudson River Valley Greenway
Devine, Bonnie	NYS Department of State
Keenan, Regina	NYS DOH (Audrey Van Genechten attending)
Mitchell, Brian	Interstate Environmental Commission

Guests:

Fairweather, Peter	Fairweather Consulting
Gruetzner, Charlie	HVMTA
Natzle, Wesley	Guest
Spector, Sacha	Scenic Hudson, Inc.
VanLuven, David	VanLuven consulting

DEC: Estuary Program staff and SCA interns

Adams, Robert	Hudson River Fisheries Unit
Beard, Nancy	Estuary Program, citizen participation
Blair, Betsy	HRNERR, Program Manager
Bowser, Chris	Estuary Program/ Research Reserve, education
Brand, Martin	DEC Region 3 Regional Director
Capprioli, Ann-Marie	HRNERR, grants administration
Cuppett, Scott	Estuary Program, watersheds
Dunwell, Fran	Estuary Program, Hudson River Coordinator
Fernald, Sarah	HRNERR, Research
Haekel, Ingrid	Estuary Program, biodiversity
Harrison, Ann (Goalkeeper)	DEC, Bureau of Environmental Education

Hattala, Kathy	DEC, Hudson River Fisheries Unit
Hauser, Emilie	HRNERR, coastal training
Heady, Laura	Estuary Program, biodiversity
Houser, Rebecca	Estuary Program, education
Kerpez, Ted (Goalkeeper)	DEC Region 3, Fish, Wildlife, Marine Resources
Lowery, Mark	DEC, Office of Climate Change
Mackey, Sherri	Estuary Program, administration
Maloney, Zoraida	Estuary Program, eel ecology
Mapes, Jeff (Goalkeeper)	DEC, Lands and Forests
Marcell, Kristin	Estuary Program, climate change
Meyer, Andrew	Estuary Program, open space, watersheds
Miller, Dan	Estuary Program/HRNERR, habitat restoration
Murphy, Libby	Estuary Program, climate change
Onion, Alene	Estuary Program, HRECOS, WAVE
Roessler, Beth	Estuary Program, watersheds, Trees for Tribs
Rosamilia, Brianna	Estuary Program, SCA (HRNERR)
Salinger, Maude	Estuary Program, Communications/Information
Stanne, Steve	Estuary Program, education
Strong, Karen	Estuary Program, biodiversity
Vail, Emily	Estuary Program, green infrastructure, watersheds