Meeting Objectives

1. To allow USCA members to discuss priorities, identify future projects, and identify potential funding needs for 2017-2018.
2. To work within existing groups, the newly formed Ditch Work Group, and to identify new work groups (i.e., invasive species).

Regional Updates

Update 1: Hydrilla in the Upper Susquehanna Watershed

Hilary Mosher – Partnership for Regional Invasive Species Management (PRISM). PRISM’s mission is to reduce the introduction, spread, and impact of invasive species within the Finger Lakes PRISM region through education, detection, prevention, and control measures. Hilary presented on the threat of an invasive species called hydrilla and provided a brochure that lists high priority invasive species in New York and where they are focusing on early detection and eradication. PRISM reported that hydrilla has impacted fishing and recreational activities. It also depletes oxygen in the water and will grow over fish spawning areas, resulting in reduction of fish populations.

There are two different types of hydrilla – dioecious and monoecious. The Upper Susquehanna has the monoecious type, where it creeps along the lake bottom, grows incredibly fast, and is very different from another aquatic plant called Elodea sp. Hydrilla will not be noticed in a system until the populations are several years old. August and September seem to be the best time to look for hydrilla as it quits growing horizontally and shoots up where it becomes visible on the surface of the water. Most recently, PRISM has found that the end of September and early October have been prime times to find it.

There are three counties in the Upper Susquehanna watershed in New York that have hydrilla – in Broome, Tompkins, and Tioga Counties. The hydrilla currently in Cayuga Lake consumes 27 acres and will cost approximately $134,000 to eradicate if they use chemical application. However, the site is also located next to water intake pipes that serve Wells College. Therefore, PRISM is looking at viable treatment options with the Army Corps of Engineers.

The second site is in the Town of Owego, Tioga County, and has been ignored for several years. Hydrilla keeps growing there. The New York State Department of Environmental Conservation (NYSDEC) has tried to convince the landowner to treat it, but the site is privately owned and the owners refuse to treat it. The NYSDEC will continue to contact the landowner to see if they are willing to treat it. The concern is that if hydrilla gets out of the pond and into the Upper Susquehanna, it will be harder to treat and become more costly. For example, the cost to treat the recent infestation in Ithaca, New York, was $500,000. Additional information can be found at fingerlakesinvasives.org and #stoptheinvasion
Recommendation and Needs:
1. Need to determine where in the Upper Susquehanna River watershed hydrilla exists. Any reports should be made to PRISM.
2. Citizen Science opportunities:
   a. Tompkins County Soil and Water Conservation District (SWCD) put in a grant for 3 years of treatment → needs monitoring!
   b. Looking for citizen scientists to search for hydrilla, be on high alert, and know what to look for.
3. USCA members recommended that we start an invasive species work group as this is a major concern and a work group is necessary to address these needs. Hilary is now the new lead for this group.

Update 2: Water Quality Assessments and Citizen Science in the Upper Susquehanna Basin

Alene Onion – NYSDEC Water Assessment by Volunteer Evaluators (WAVE). The WAVE Program is a citizen-based, water quality assessment program. PEER is another program where professionals work with NYSDEC to collect data. The WAVE Program is a stream sampling method that includes collection of macroinvertebrates to assess water quality in lakes, rivers, and streams. WAVE training workshops are held in May to educate volunteers on data collection methods. The samples are collected on a rotating basis throughout the state. Teams are responsible to sample one macroinvertebrate site per year. Many streams in New York are “unassessed”. Some are currently being assessed. If a stream has not been assessed in 10 years, it is considered “unassessed”. Sampling in the Upper Susquehanna is scheduled for 2018 with coordination beginning in 2017. WAVE website can be found here: http://www.dec.ny.gov/chemical/92229.html

Recommendations and Needs:
1. WAVE goal is to educate volunteers to get the word out to watershed groups and direct them to the website. WAVE is looking for local coordinators, independent samplers, or volunteers to be part of a WAVE team.

Update 3a: Upper Susquehanna Coalition (USC) Landscape Planning Tool Update

Patrick Raney provided an update on the USC’s GIS Landscape Planning Tool called the Susquehanna Basin Climate Change Resiliency GIS Toolkit. The toolkit is a pilot GIS project that helps identify locations to implement best management practices (BMPs) to address climate change. Funding for this tool was provided by Department of Agriculture, so the BMPs are prioritized for farms, however, USC did not restrict the tool to just farms, but rather can be used basin-wide. USC has taken steps to prioritize areas that provide water storage and groundwater recharge like wetlands. Buffers have been identified and prioritized. This tool can be shared with towns to promote usage. Tioga County already has it online; simply download it to your desktop. See website: http://praney3.wixsite.com/patrick-raney/tools

Patrick provided an example of the results of the toolkit by pulling data from several sources and integrating these tools to remotely identify BMPs. A detailed report also goes along with this tool.
Recommendations and Needs:
1. USC is looking to secure more funding to enhance this tool (to further address climate change and enhance the tool with higher resolution).
2. Secure funding to take this tool to local communities and train them to use it.

Update 3b: Fantastic Wetlands and Where to Find Them

Patrick Raney modeled rich fen distribution in New York State using Max Ent. Fens are rare areas in New York and we do not have good distribution information or tools to identify these settings remotely.

Species on the endangered species list that are found within New York fens include bog turtle, Houghton’s goldenrod, and Eastern massasauga. American globeflower was considered for listing at one time. Many of these fens have multiple rare species present, so this tool could help focus important fens to protect over time.

Fine scale maps will not be made public. He used HUC 10 watershed maps to protect threatened and endangered species.

Patrick’s model estimates that 0.04% of wetlands are rich fens in New York (546 sq km), 9% of which are protected. The model can identify sites at both the parcel level and landowners. There is also a Google Earth dataset, which has limited access.

Recommendations and Needs:
1. Use tool to focus on more protection of rich fens within the Upper Susquehanna watershed.
2. USCA groups can go on-line and use this model to identify where fens are located.
3. Raney and Leopold paper is now under review. Patrick will give update at the fall meeting.


Sandie Doran provided an update on the Baltimore District Corps of Engineers’ (Corps) Comprehensive Flood Damage Reduction Feasibility Study. The Corps and the NYSDEC would like to complete this study within 3 years. USCA members and work groups could help with this study by identifying areas in the watershed where we can recommend changes in infrastructure (e.g. culverts) to reduce flooding and areas where sensitive species are known to occur. Sandie used the brook trout map as an example of how we can work together to provide substantial recommendations to the Corps. Sandie will set up a conference call with the USCA work group leads in the near future to discuss the opportunity to participate in this study as members of the USCA.

Dan Fuller of NYSDEC is a partner in this study. The NYSDEC would like this study to be as comprehensive as possible. Now is the time to bring up our comprehensive concerns. As the
study progresses, the scope may narrow down, but they would rather be looking at the entire basin, in particular, and incorporate things that are less structural or non-structural.

Fact sheets and maps from the Corps website were provided at the meeting and provided more info on this effort. Sandie asked the group to contact her if you or someone you know is interested in participating in the study. USFWS will set up a webinar for USCA members in the near future and ask the Corps and NYSDEC to present the project to our members. We will then have an opportunity to discuss how we can pull our resources together and provide recommendations and suggestions to the Corps and NYSDEC on flood damage reduction in the Upper Susquehanna watershed.

Recommendations and Needs:
1. Contact Sandie if you’d like to participate in this effort. For those interested in participating, USFWS will host a webinar to provide additional information.
2. Sandie will coordinate with the work groups during the next 3 months to ensure that our flooding concerns and suggestions are incorporated into the study.

Member Updates

Kris West – Finger Lakes Land Trust (FLLT) is happy to report that they closed on another acquisition in the Upper Susquehanna watershed – 144 acres on top of the hill near the Wileysville wetland complex and next to Danby State Forest. The Finger Lakes Trail goes through the site. FLLT hopes to close on three more projects this year.

Carly Dean – Chesapeake Conservancy and Envision the Susquehanna – a press release for Envision the Susquehanna is available on the Envision the Susquehanna website at http://envisionthesusquehanna.org/ and the Chesapeake Conservancy website at http://chesapeakeconservancy.org/

Janet Thigpen – The flood work group did not meet this winter, but they are working to develop a flood brochure to disseminate to the public.

Recommendations and Needs:
1. The outreach group will work with Janet to create and distribute the flood brochure.

Judy Robinson – Buffalo District Corps – the Corps issued the 2017 Nationwide Permits (NWPs) in March. They expire every 5 years. Judy recommended that the group take a look at the new NWPs, especially for routine work in the Upper Susquehanna because changes have been made to stream restoration (NWP 27), bank stabilization (NWP 13), and culvert replacements (NWP 3) for maintenance. Those working with the NWPs need to re-read project-specific information.

Jim Curatolo – The Wetland Trust is working on leveraging money to be used for in-lieu fee programs.

Mike Lovegreen – Upper Susquehanna Coalition – there is a new stream corridor assessment guide available that shows components of a stream corridor and its upland contributions. No
stream training is scheduled in the near future. David suggested that perhaps the outreach work
group could facilitate getting the stream corridor assessment guide out.

Recommendations and Needs:
1. Outreach group to work with Mike regarding distribution of the guide.

Work Group Breakout Sessions

Hellbender Group

Noelle Rayman-Metcalf reported that the group was awarded two funding sources for five
different, yet interconnected, projects.
1. Egg collection – 10 artificial nests boxes were placed in a tributary to the Susquehanna
River in New York. Dr. Peter Petokas plans to locate nests in the fall to collect more
eggs for the head-starting project in the Upper Susquehanna watershed. The hope is to
find eggs in the nest boxes and if unsuccessful, Pennsylvania eggs will be used for the
Upper Susquehanna head-starting effort.
2. New Berlin head-starting facility – project has changed now from SUNY ESF to the USC
New Berlin facility with the hope of getting a student on board to oversee project. Bronx
Zoo hellbenders will be transported up to the New Berlin facility soon.
3. Pit-tag arrays – a detection method laid out across a stream to detect movement of
pit-tagged hellbenders. Dr. Petokas is consulting with BioMark right now to see how
three systems can be built for future head-start release efforts in New York. He plans to
test them in a Pennsylvania stream once constructed.
4. DNA sexing at Buffalo State – Dr. Amy McMillan is working on this project to help with
early gender detection of the head-start animals from the Bronx Zoo. Hellbenders reach
sexual maturity at about 6-7 years of age so it’s a long time to wait to determine the sex
ratio of released animals.
5. eDNA (environmental DNA) work is nearing completion by Robin Foster (University of
Buffalo). She collected many water samples to extract eDNA to assess presence/absence
in streams where hellbenders have a potential to occur. There have been some positive
results and she is planning to conduct stream surveys this summer to try and verify
presence.

Future Needs:
1. Further investigate distribution of chytrid fungus and see if there are fungal strain
differences that cause mortality. Our group is hoping to partner with Cornell University
to do this.
2. Work with Buffalo State College to genotype animals from the Bronx Zoo by collecting
blood or tissue samples during the pit-tagging process. The goal is to try to identify the
number of parents that contributed genes to the clutch of eggs being used for head-
starting, and to get a better idea of overall genetic diversity in the Upper Susquehanna
watershed.
3. Robin Foster wants to look for additional animals in the Chenango River.
4. Jim Curatolo received funding from the Richardson Hill Superfund Site for land
acquisition and habitat restoration, and the hope is to expand on this effort to increase
land protection and quality of habitat where we have hellbenders in the Upper Susquehanna. The NYSDEC is also seeking State Wildlife Grant (SWG) funds to do habitat restoration.

5. Focus on outreach. Jim Curatolo is working with a non-profit group this summer and outreach materials may be needed for this event.

6. Bring Justin Dalaba (Outreach work group) in the field to capture the work they are doing.

Pearly Mussels

Paul Lord reported out for the group. The mussel work group is concerned over the lack of recruitment of the eastern elliptio freshwater mussel. Paul explained to the group that he and others are only finding large, older mussels and few younger mussels (juveniles). The concern is that without host fish (American eels) to distribute glochidia (young juvenile mussels) they are not likely to persist in Upper Susquehanna system beyond 5 years. He plans to continue this work to justify his findings by collecting and tagging eastern elliptio in Otego Creek and, pending funding, in Oaks Creek as well.

Ella Scott – SUNY Oneonta student presented her study, Eastern elliptio Survivorship and Host Availability in Otego Creek, West Oneonta. Contact Ella at this email for more information: Scotge47@oneonta.edu

Future Needs:
1. Paul Lord is requesting funds to collect and tag eastern elliptio in Oaks Creek.
2. Group needs to collaborate with other surveyors in the watershed and coordinate with NYSDEC regarding survey needs in the watershed.

Eastern Brook Trout

Sandie Doran reported out for the group. The group reviewed a draft GIS map that the USFWS put together that overlays brook trout streams with USCA priority areas. They discussed items missing from the map and any additions that they would like to see. GIS support was identified as a need and the Susquehanna River Basin Commission (SRBC) could assist. The map will be revised and used to determine opportunities for brook trout restoration. NYSDOT will also assist in identifying priority culverts using the TNC report.

Future Needs:
1. Justin Dalaba to contact Steve Swenson (NYSDEC) and Danny (Town of Edmonston Highway Superintendent) who recently completed a brook trout restoration project to set up a date for an interview.
2. Dams; Town of Morris needs a fish ladder. The group will work with the town.
3. The New York State Department of Transportation (NYSDOT) will review The Nature Conservancy (TNC) data, identify potential culverts for replacement in brook trout priority areas. The brook trout group needs to work with NYSDOT and let them know where culvert projects are needed so that they can include it in their annual work plan.
4. Additional GIS is needed to help drill down to project areas and where to focus work.
5. Local municipalities need to be brought in.
6. Aquatic restoration in the watershed. Steve Swenson will continue to work with the Federal Emergency Management Agency (FEMA), local municipalities, and the mussel and hellbender groups to see where they are working.

Landscape Conservation

Andy Lowell reported out for the group.

1. New partnerships were formed at this meeting. For example, NYS Parks and Finger Lakes Land Trust (Kris West). Special online tools presented by Patrick Raney will be useful to them; need a central repository with links to data.
2. USFWS has inherent problems with hosting GIS tools for others to access. Discussed ideas on who could host data. EarthEngine is a Google product with real-time processing on the public internet. There are many tools that the USCA members can access easily. Andy will come up with a partial list for our website.
3. Outreach need: Landscape Conservation Cooperatives (LCC) is looking for significant projects in the watershed to share with our group. Anything public can and should be added. We will continue to talk that through and come up with projects in the near future. Polygons have been obtained from USC to further develop the riparian database tool – Trees for Tribs and other data sources (30 sites) and growing over time. Continual project to ground-truth everything and making polygons.
4. USC is working on pitches for several new NYSDEC grants.

There was a question from the National Oceanic and Atmospheric Administration (NOAA) National Weather Service, Jim Brewer, about the NYS-GIS data sharing cooperative. USFWS Regional Office in Hadley owns the membership to this group. USFWS also has limited rights to post data as it is often either derived from other sources or is classified. Upper Susquehanna-specific layers should go on an Upper Susquehanna-specific site. USC might have a possible solution at a future point in time.

Fields to Young Forests

Eric Rozowski reported out for the group.

Priorities identified:
1. Brochure developed in 2016 will be distributed to Soil and Water Conservation Districts (SWCD) in the next week. Need to find demonstration areas. Looking to have multiple demonstration areas throughout the watershed. For example, Connecticut Hill is doing a complex demonstration area with vernal pools, trails, and kiosk to provide literature. Lime Hollow is also a good example of early successional habitat. Another site is located in Virgil and was completed within the past year. This project included vernal pools and early successional habitat. The NYSDEC State Forester helped with the project along with SWCD.
2. Within the next several years, USC, USFWS, NYSDEC, and landowners will complete up to four demonstration areas. The goal would be to scatter demonstration areas
throughout the watershed. A potential project of up to 350 acres and three landowners is in the planning stage. USC would be the lead for this project with involvement from the entire work group.

3. The USFWS can provide match for projects in the form of staff time and equipment. Natural Resources Conservation Service (NRCS) has a program designed to provide statewide funding to do young forest habitat on private lands.

Flood Work Group

Janet Thigpen reported out.

1. The flood work group will work with the NYSDEC and Corps on a flood damage reduction study.
2. The NY Silver Jackets is developing a proposal for an inundation map for the Chemung River (main stem).
3. NYS Floodplain and Stormwater Managers Association will be meeting in June 2017 in Binghamton. The group is having detailed conversations with managers regarding flood resiliency, installation of in-stream structures, and requesting that they install riparian buffers.
4. Culvert work – we are still assessing the seven watersheds.
5. The group will be providing culvert training for highway departments.
6. The group is still planning to put together a brochure about flooding and emergency stream work.

Future Need: Outreach to work with Flood Work Group on brochure.

NEW! Roadside Ditch Work Group

Rebecca Schneider reported out for the group.

They discussed the following:
1. Proposed content for brochures for educational purposes.
2. Regulatory aspects of ditches from the Buffalo and New York Corps’ perspective. Identified key groups who need this information – citizens, municipalities who own road rights-of-way. They realize that ditches are owned by private property owners too.
3. Could provide information through water bills to reach out to landowners.
4. Existing programs were identified. For example, in Pennsylvania, towns get funding if they go through training.
5. Inventory assessment programs – are there examples out there?
6. Corps has informational meetings that are free that we can take advantage of.
7. Counties meet with all their towns.

Outreach Work Group

Justin Dalaba reported out for the group.
Priorities for 2017-2018:
1. Improve communication and continue collaboration throughout the year.
2. Continue to highlight accomplishments of each work group by:
   ● Providing an update form once a month by email for updates from each work group – accomplishments, future projects. It would be great to get enough updates each month to send out a newsletter in order to keep everyone informed of what others are doing.
   ● Regularly updating the resources tab on the right-hand side of the website. This is dependent on everyone to keep it up to date. We may have some mapping tools to add. If you have anything, feel free to send it to Justin Dalaba at justin_dalaba@fws.gov
   ● Suggestion to have a map of the Upper Susquehanna watershed demonstrating all the projects in the last seven years since USCA’s inception. The goal is to have it be interactive with pictures and information about each project completed by work groups. Be aware of sensitive information because we want to share with the public.
   ● Organizing an invasive species work group – Justin will be working with Hilary Mosher to gauge interest from members and pull together a group to work on protecting the watershed from invasive species.
   ● Maintaining the Facebook group as a closed forum for discussion, resource sharing, and accomplishments. We need more members to join. Justin will send out another invitation to the group.

Questions to Outreach Group

Patrick Raney mentioned the need to reach out to the public; we all are excellent at expressing our work to our peers. We need to relay information to the public – how can we carry the message externally? Response: There are some potential stories to tell with hellbender and brook trout work groups that Justin will be working on this spring/summer. There is opportunity for more stories out of New York to highlight in the Bay Journal, or other external media.

Meeting Wrap-Up – David Stilwell

Members provided feedback on the meeting
1. Rebecca Schneider commented that the meeting provided a nice opportunity to network.
2. We have identified a new work group – invasive species – now we need members to join in.
3. The agenda did not allow enough time for group discussions, to visit other work groups (leave one group to visit another). Suggest that we provide enough time to go to a different group. Response – the planning team will address at next meeting.
Closing Statement

David stated that the strength of the USCA is the diversity and numbers of our membership. We have been growing, however, David suggested to the group that we reach out to others who aren’t here at this meeting or who have not attended a meeting in a while and invite them to attend. We, as a group, need to figure out why they aren’t coming – are they no longer interested, or is the group not serving their purpose? We need to strive to be relevant to all of our members and attract others.

If you need anything to facilitate your work group or have a presentation for next meeting contact David or Sandie.

Thank you for another productive meeting. See you in the fall.