

The Forum

NEW YORK STATE WETLANDS FORUM NEWSLETTER

PROPOSED RULE DEFINING THE SCOPE OF WATERS PROTECTED UNDER THE CLEAN WATER ACT

Kevin Bliss

On April 21, 2014, the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) published in the Federal Register for public comment a proposed rule defining the scope of waters protected under the Clean Water Act (CWA). Needless to say, numerous comments were received. The web site, Regulations.gov (“Your Voice in Federal Decision-Making”), reflects 19,655 public comments received. Wisely, the initial comment deadline of July 21 was extended to November 14, 2014.

The Rule was thought necessary in light of uncertainty and confusion brought about after the U.S. Supreme Court cases in *U.S. v. Riverside Bayview, Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (SWANCC)*, and *Rapanos v. United States (Rapanos)*. These cases resulted in a need to reconsider the basis of determining jurisdiction under the CWA from whether degraded water quality would have an effect on interstate commerce, to a more technical and scientific understanding of water features and their connection and importance to downstream traditional navigable waters, based largely on the “significant nexus” test.

Unfortunately, whether or not certainty and clarity were provided by the proposal is up for debate. An extract from the official response coordinated by the Commissioners of the New York State Department of Environmental Conservation (DEC) and the New York State Department of Agriculture and Markets (DAM) in a joint letter to the EPA and Corps follows:

“...after an in-depth analysis of the proposed rule, and as discussed below,

DEC and DAM find that the proposed rule does not achieve its goal of providing clarity. Therefore, we request that EPA and the Army Corps significantly revise and renotice its proposed rule for public comment. This should occur only after consultation with states and recognize the significant regional differences of water resources across the country. A one-size-fits-all approach to redefining regulated

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Call for Nominations – Board of Directors #

2015 Annual Conference and Meeting Registration Form . . . ž+

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Mission

The New York State Wetlands Forum is a non-advocacy corporation comprised of individuals and groups with diverse backgrounds, interests and viewpoints regarding wetlands and their science, use and management. Incorporated in 1994, the Forum is a 501(c)(3) not-for-profit organization. Its purpose is to improve communication among people interested in wetlands; call attention to and objectively discuss local, statewide, regional, national and global wetland issues as they relate to New York State; improve its members' knowledge and understanding of wetlands; and, make available information about wetlands to its members and the general public.

MESSAGE FROM THE CHAIR

Greetings!

With the reappearance of the sun last week, I am hopeful that we are seeing the last remnants of winter and will soon be able to celebrate the onset of spring. With spring comes so much to look forward to for NYSWF members . . . including the Annual Conference, of course! If you have not visited the website lately, the draft agenda has been posted (a final version will follow in the future). We hope that the various session topics and presenters pique your interests. Online registration is available on the NYSWF's website as well; just follow the links from our homepage.

When coupling the theme of the 2015 Annual Conference (Broader Thinking and Partnerships for Wetlands) with the Conference location (Syracuse), what better project to showcase this pairing than the Onondaga Lake Cleanup Project. As anyone remotely familiar with this project knows, the coordination and cooperation of involved stakeholders has been essential in formulating remediation strategies and implementing the cleanup program. Elements of the remediation program are still underway, but already, significant improvements to the water quality, plant and animal diversity, and recreational opportunities have been documented. We have an array of speakers that will detail the many facets of this large-scale remediation project. Join us on the journey! We also have a line-up of many other exciting topics, updates, and wonderful speakers, so we hope you can join us in April.

A few other items of which to be aware . . . The NYSWF Board is considering a partnership with the U.S. Fish and Wildlife Service and other qualified instructors to offer a second Phase I Bog Turtle Training in May 2015. Approvals and details are being finalized and more information will be made available soon on the website. Also, we are seeking nominations to fill a couple vacancies on the NYSWF Board of Directors. Please refer to the article in this newsletter for additional details.

Keep thawing out! I hope to see you in April!

Johanna Duffy, Chair



PERFORMANCE STANDARDS FOR WETLANDS MITIGATION – THE FAULTS IN INVASIVE PLANT SPECIES REQUIREMENTS

Joseph M. McMullen

Introduction

Wetlands are created or restored for various purposes, though usually to satisfy a mitigation requirement of a wetland permit or other requirements of state and federal regulatory agencies. Anyone with experience in wetlands work is well aware of the several steps involved in the creation/restoration of wetlands or waters under regulatory review. One of those steps is the requirement to monitor the created/restored area after the initial work is completed. It is common for monitoring to be required under a plan over a period of time, usually five years, but longer if forested wetlands or other wetland types that take longer to become established are involved.

In developing a monitoring plan, there is always the question of exactly what metrics should be monitored, and attendant to that question, how do we use those metrics to determine whether the created/restored area has been successfully established? To answer these questions, performance standards are almost always part of the monitoring plan, usually as conditions to a permit or conditions to a plan to restore wetlands/waters when hazardous material clean-up occurs.

Performance standards are criteria used to determine success. Setting forth these standards is a good idea and helps all involved know when the objectives of the plan are met. Some are simple, like an as-built survey requirement or determining whether the exact acreage of wetlands is created. Others, however, can be contentious and can be difficult to put into writing, especially when it comes to measuring biological resources.

One of the performance standards that is always part of a monitoring plan is the limits on invasive plant species abundance. The specifics of this standard have always bothered me.

Invasive Species Defined

Under federal (Executive Order 13112 and National Invasive Species Management Plan) and state (6 NYCRR Part 575) statutes, an invasive species by definition must be non-native. A native species cannot be classified as invasive; they can be nuisance species, weedy species, unwanted species or whatever, but they cannot by definition be called invasive. With the recently passed state Invasive Species Regulations (6 NYCRR Part 575),

which becomes effective on March 10, 2015, we now have a formal clarification of what species are considered invasive in New York. These regulations can be found at <http://www.dec.ny.gov/animals/265.html>.

Species Selected as Invasive

Of paramount importance in establishing performance standards for invasive species is listing exactly which species are to be considered in the invasive species assessment. What bothers me here is the species labeled as invasive. I often see species listed as invasive in performance standards that do not meet the definition of invasive.

Take the various cattail species for example. Broad-leaved cattail (*T. latifolia*) and narrow-leaved cattail (*T. angustifolia*) are both native to New York. Blue cattail (*T. x glauca*) is a fertile hybrid between these two native species, so what does that make it? No cattail species is listed in the new state Invasive Species Regulations. However, it is common to see narrow-leaved and blue cattail listed in performance standards as invasive species.

My personal opinion is that cattails get a bad rap in the northeast. One of the reasons is that much of the literature championing the ills of cattails comes out of the midwest, where cattails are not native and are correctly labeled as invasive. Also, much of the literature is related to the controversy of water level management in the Great Lakes. Those that want more fluctuation in the water levels use cattail as an example. Their logic is: maintaining water levels is bad, cattails are favored when water levels are maintained, ergo cattails must be bad. Not that cattails are without fault, they can form dense colonies in early successional emergent wetlands, especially where nutrient availability is high (like in most created wetlands), but are they really that bad when there is an associated water component?

Another plant species that bothers me being listed as invasive in performance standards is reed canary grass (*Phalaris arundinacea*). Reed canary grass is one of those forage grasses that is both native and introduced. It cannot be considered an invasive and it is not listed in the new state Invasive Species Regulation. Reed canary grass can be aggressive and form large colonies, but it is a great bank stabilizer and has wildlife benefits. When it comes to northern pike spawning in wetlands, it is the perfect species.

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IDENTIFICATION OF NATIVE COMMON REED (*PHRAGMITES AUSTRALIS* SUBSP. *AMERICANUS*) USING MORPHOLOGIC CHARACTERISTICS

Frances Reese, M.S., CPSS, Reese Environmental Consulting

Common reed (*Phragmites australis* subsp. *australis*) is one of the “big four” invasive species targeted by the New York State Invasive Species Clearinghouse and its member agencies for special control and management. This tall Eurasian grass infests roadside ditches along the NYS Thruway and other highways, creating visibility and fire hazards as well as maintenance headaches. It also spreads rapidly along railroad lines and inland waterways. It grows on dry sites such as railroad embankments and tolerates prolonged inundation. The common denominator to most of the habitats seems to be soil disturbance. Common reed thrives on disturbed soil conditions and spreads aggressively by means of stolons and rhizomes as well as by seed. The subspecies originated in Europe and Asia, and migrated to North America with the European settlement. In the past two hundred years, it has proliferated throughout tidal wetlands, inland waterways and areas of filling and disturbance. It tolerates both brackish and freshwater conditions.



Figure 1 *Phragmites australis* subsp. *australis*. Copyright free image from: USDA-NRCS PLANTS Database / Hitchcock, A.S. (rev. A. Chase). 1950. *Manual of the grasses of the United States*. USDA Miscellaneous Publication No. 200. Washington, DC.

Phragmites creates dense stands that out-compete other plants for soil nutrients, sunlight, and growing space. It forms large monospecific clones within marshes and wetlands, reducing wildlife habitat value for food and nesting space. It can also alter wetland hydrology and nutrient status.



Figure 2 Stand of native *Phragmites* near Massena, NY. Note red stems. Photo courtesy of Steve Young, Chief Botanist, New York Natural Heritage Program

Phragmites australis subsp. *australis* is also valued for the same reasons that make it a problem invasive species. It establishes quickly, providing cover and reducing soil erosion. It also takes up nutrients and tolerates pollution, making it effective in treating wastewater.

Morphological differences between stands of *Phragmites* were noted in the literature by Haslam (1971). Haslam investigated differences in height, seed formation, stem density and other characteristics in relation to substrate,

hydrology and other environmental factors. The need for further investigation of *Phragmites* genotypes was expressed in a proposal by Dykyjova et al. (1973).

The presence of *Phragmites* in North America has been documented as far back as 40,000 years BCE (Hansen 1978). Preserved rhizome fragments have been found in archaeological dig sites located in east coast salt marshes dating back 3000 to 4000 years (Orson 1999, Gorman & Wells 2000). Kiviat & Hamilton (2001) documented that *Phragmites* stems were used to make arrow shafts and musical instruments. Stems and leaves were used to make woven mats. Based upon historic and archaeological evidence, native *Phragmites* was utilized extensively by Native Americans for ceremonial and everyday functional purposes, giving it great cultural significance.

My curiosity about native *Phragmites* began nearly 30 years ago when I began observing morphological differences in some stands of *Phragmites*, noting that some plants appeared less robust and grew further apart than the taller, more dense stands of *P. australis* subsp. *australis*. I often wondered whether I was observing a different species, or whether the differences were due to growing conditions.

Scientists at Cornell and Yale Universities have been studying this subject for several years. Kristin Saltonstall of Yale University has identified a total of 27 haplotypes of common reed based on samples taken throughout the world. Eleven of these haplotypes are native to North America. Saltonstall et al. (2004) described the newly recognized native subspecies, *Phragmites australis* subsp. *americanus*.

The native haplotypes have the potential to hybridize with the most invasive haplotype, Type M. Based on genetic evidence from Saltonstall's work, it appears that the non-native haplotype M has not hybridized with the native haplotypes, but has invaded historical habitats that previously supported the native haplotypes.

More recent work conducted at the University of Rhode Island by Laura Meyerson and her colleagues indicates that hybridization of *Phragmites* native and non-native genotypes is possible. Meyerson's laboratory was able



Figure 3 Seedheads of Native (above) and Invasive (Below) *Phragmites*. Note smaller seed head and more loose spikelets on native form. Photo copyright by the Queen's Printer for Ontario, 2013. Used by permission.

to cross a native subspecies with the ubiquitous Type M genotype. Perhaps more importantly, Meyerson et al. (2010) only saw viable seed from plants which had an invasive type pollen donor and a native species recipient. This phenomenon suggests that the non-invasive species pollen cannot produce a viable seed with a non-native

flower recipient, and may provide a partial explanation of how the native subspecies is being replaced. Blossey's data suggest that the flowering times for the native subspecies and the non-native subspecies do not overlap much, which may explain why natural hybridization has not been widely observed.

So how do we tell the difference between the native variety and the invasive one? As field scientists, most of us do not have the resources or expertise of a genetics laboratory at our disposal. Instead, we must rely on our ability to distinguish morphological differences. Excellent on-line resources are available through Cornell University (<http://www.invasiveplants.net/phragmites/morphology.htm>) and the University of Michigan (<http://michiganflora.net/species.aspx?id=2184>). The most readily observable differences between the native subspecies (*P. australis* subsp. *americanus*) and the highly invasive, non-native subspecies (*P. australis* subsp. *australis*) are stem color, leaf color, growth habit, and habitat preference. Table 1 summarizes the observable morphological differences between the subspecies.



Figure 4 Red stem characteristic of native *Phragmites*. Photo courtesy of Steve Young, Chief Botanist, New York Natural Heritage Program

Table 1. Observable Differences Between Native and Introduced Subspecies of *Phragmites*

(Adapted from Blossey, B., 2002, *Michigan Flora Online* and Saltonstall, *et al.* 2005.)

Trait	Native Subspecies	Introduced Subspecies
Ligule	1.0-1.7 mm	0.4-0.9 mm
Glumes	Upper: 5.5-11.0 mm Lower: 3.0-6.5 mm	Upper: 4.5-7.5 mm Lower: 2.5-5.0
Stem color at base	Dark red to chestnut early in season	Tan
Stem texture	Shiny, smooth	Rough, dull
Stem flexibility	High	Rigid
Stem toughness	Low	High
Stem density	Generally lower than introduced. Usually with fewer dead stems in the clone. Generally grows with other species.	High. Mature stands for monocultures. Younger stands may be mixed.
Time of flowering	July-August	August-September
Senescence	Early	Late
Leaf color	Yellow-green	Dark green or gray green
Rhizome density	Low	High
Rhizome color	Yellowish	White to light yellow
Rhizome diameter	< 15 mm	Generally > 15 mm
Clonal expansion rate	Slow	Rapid
Habitat Requirements	Wet or moist soil, but not inundated	Tolerates a broad range of soil substrates, ranging dry to aquatic.

Blossey also notes that an unidentified species of fungus produces black spots on the stems of native genotypes of *Phragmites*, while the non-native, invasive genotype appears to be unaffected by the fungus (Blossey, 2002).

Other differences such as glume length and ligule width are best done with a hand lens or a dissecting microscope. Experts also recommend that glumes and ligules of several plants (at least 10 individuals)



Figure 5 Native and Invasive *Phragmites* Stands. Photo copyright by the Queen's Printer for Ontario, 2013. Used by permission.

be individually measured and an average taken, due to the overlap in measured lengths.

In practicality, when one is doing a walkover or wetland delineation, there is rarely time to do a detailed examination of these features.

Therefore, recognition of the gross morphological differences between the two subspecies is important when inventorying a site. Experienced wetland scientists often rely on the gross characteristics of stem color and density to differentiate between native *Phragmites* and the invasive form (Carr, 2013). It is important to note if there are observable differences between stands of *Phragmites* and to make a tentative determination whether the stand is native or invasive.

Due to the variability in morphological characteristics, and differences in growing conditions, and timing of the observations, genetic testing is still the most definitive way to determine whether a stand of *Phragmites* is native. However, gross plant morphological characteristics can be observed in the field and a tentative determination made based upon a preponderance of characteristics assigned to one subspecies. Cornell University also offers a free diagnostic service for *Phragmites* clones based on morphological characteristics. Samples must be taken within the United States and sent to Cornell.

Resource management goals should include identification and preservation of the native subspecies, since it is important both culturally and ecologically.

References

Blossey, B. 2002. Morphological Differences Between Native and Introduced Genotypes. <http://www.invasiveplants.net/phragmites/morphology.htm>

Carr, Bernard. 2013. Personal communication to F. Reese.

Dykyjova, D., Hejny, S., and Kvet, J. 1973. Proposal for international comparative investigations of production by stands of reed (*Phragmites communis*). *Fol. Geobotanica et Phytotaxon.* 8 (4), 435-442.

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BOG TURTLE TRAINING – A SUCCESS!

Johanna E. Duffy

The New York State Wetlands Forum offered a Bog turtle biology and habitat assessment training in Millbrook, NY on May 14 and 15, 2014. This training was held in cooperation with the New York State Department of Environmental Conservation (NYSDEC) and the United States Fish & Wildlife Service (USFWS) New York Field Office. The training was held at the Trevor Zoo at Millbrook School and included both classroom and field instruction. Representatives from both the NYSDEC and USFWS were active participants presenting agency insight into habitat assessment and coordination and answering many questions from participants.

Day one included instruction from Jason Tesauro from JT Consulting, David MacDougall from Kleinfelder, Lisa Masi from NYSDEC, and Noelle Rayman from USFWS. The



Photo courtesy of Melissa Yearick

new USFWS Phase I Field Forms were also introduced which are available at the following: <http://www.fws.gov/northeast/nyfo/es/>. With day two came the addition of insight from Norbert Quenzer of Bagdon Environmental and Tom Ward with North Country Ecological who shared their invaluable knowledge and experience with participants in the classroom and field. USFWS also discussed Phase II requirements and decontamination measures before entering sites.

The course wrapped in the field with many thanks to those who participated. Thank You also to the Trevor Zoo and Millbrook School for being such gracious hosts.



Photo courtesy of Melissa Yearick

DR. JAMES (JIM) GORDON GOSSELINK

The NYSWF regrets to inform you of the passing of Dr. Gosselink, age 83, on January 18, 2015. Jim was one of our preeminent wetland scientists and scholars. His seminal publication, *Wetlands*, co-authored with Dr. William Mitsch, is required reading by all wetland ecologists. Other notable accomplishments in addition to more than 100 scientific publications and numerous prestigious awards, include serving as Chair of the Department of Oceanography and Coastal Sciences at Louisiana State University and playing a significant role as a member of the National Wetlands Policy Forum in developing the notion of “no net loss” as first advocated by the administration of President George H. W. Bush.

A FEW WORDS OF THANKS AND FUTURE TRAINING PLANS

The NYSWF would like to express its endless gratitude to Alan Tousignant and the Millbrook School/Trevor Zoo for being such gracious hosts. If you are ever in the area, this is a fantastic place to visit (<http://www.millbrook.org/trevorzoo>)! Many thanks to our dedicated and knowledgeable instructors and training planners as well (Dave MacDougall, Lisa Masi, Jason Tesauro, Noelle Rayman, Sandie Doran, Norbert Quenzer, and Tom Ward) – this training would not have been possible without your support. For any folks that did not have a chance to attend the May 2014 training, the NYSWF and U.S. Fish and Wildlife Service are currently discussing the possibility of holding an additional training session this May (2015). If all signs point to go, information will be disseminated by email and on our website in the very near future. Stay tuned!

UPCOMING PUBLICATION

Two authors (Catherine Owen Koning – Franklin Pierce University and Sharon M. Ashworth – Kansas Natural Resource Council) are looking to put together a wetland book that incorporates the stories of people who study, explore, own, protect, restore, or alter wetlands. Personal stories of time spent in wetlands are being requested, particularly stories about forested and scrub-shrub wetland systems. The goal of the book is to present wetlands to the general public in a whole new way, focusing on the wonderment, awe, and coolness of these natural systems. If you have any stories you would like to share, further details and contact information is available at the authors’ website: <http://wetlandwaders.weebly.com/>.

New York State Wetlands Forum, Inc. Annual Conference and Meeting

Crowne Plaza Syracuse, Syracuse, New York

April 14 & 15, 2015

Broader Thinking and Partnerships for Wetlands

April 14

6:30 - 7:30 **Exhibitor/Poster Setup**

7:30 - 5:00 **Registration and Review of Exhibits and Posters**

7:30 - 9:30 **Continental Breakfast**

8:30 - 8:40 **Opening Remarks:** *Ms. Johanna Duffy, Barton & Loguidice, DPC and Chair, New York State Wetlands Forum*

8:40 - 9:20 **Keynote Address:** *Kenneth P. Lynch, New York State Department of Environmental Conservation (NYSDEC), Regional Director - Region 7*

9:20 - 9:30 **Break and Review of Exhibits/Posters**

9:30 - 10:50 **CONCURRENT SESSION A**

1. The Importance of Planning and Involving the Right Partners [Moderator: Ms. Charlotte Brett, KLJ]

New NY Bridge (Tappan Zee Bridge): Endangered Species Oversight on a Major Project

Speaker: Ms. Melissa Toni, Federal Highway Administration

Routing Energy Transmission Projects – A Regulator’s Dream of a Proactive Approach

Speaker: Mr. Roy “JR” Jacobson, New York State Department of Environmental Conservation

Potential- Watershed Planning and Intermunicipal Partnerships

Speaker: Mr. Kevin Olvany, Canandaigua Lake Watershed Council

2. Wetlands in New York [Moderator: Mr. Brian Schwabenbauer, Haley & Aldrich, Inc.]

Protecting Wetlands in the New York City Water Supply Watershed Through Partnership Programs

Speaker: Mr. Frank Parisio, NYC Department of Environmental Protection

An Update of National Wetland Inventory Activities in New York

Speaker: Mr. Ralph Tiner, U.S. Fish & Wildlife Service

Methodology of Current New York State Wetland Re-Mapping Program

Speaker: Ms. Corinne Steinmuller, New York State Department of Environmental Conservation

10:50 – 11:10 **Break and Review of Exhibits/Posters**

11:10 – 12:30 **CONCURRENT SESSION B**

1. Wetland Mitigation and Restoration [Moderator: Mr. Chris Einstein, Clough Harbour and Associates, Inc.]

The Use of Bio-benchmarking as a Guide and Predictor for Tidal Wetlands Restoration

Speaker: Mr. Stephen Seymour, HDR, Inc.

Mapping Potential Mitigation Wetland Banking Sites

Speaker: Mr. Alexander Caven, SUNY College of Environmental Science and Forestry

Floristic Recovery of a Great Lakes Coastal Wetland Marsh

Speaker: Ms. Eli Polzer, SUNY College at Brockport

2. Onondaga Lake and its Tributaries [Moderator: Mr. Edward Frantz, New York State Department of Transportation]

Development of the Onondaga Lake Habitat Restoration Plan

Speaker: Mr. Joseph McMullen, Environmental Consultant

Onondaga Lake Habitat Restoration; Implementation Strategies for Establishing Self Sustaining Wetlands

Speaker: Mr. Mark Arrigo, Parsons

Geddes Brook Wetland Restoration Hydrology Design

Speaker: Mr. Ray D’Hollander, Parsons

12:30 – 2:00 **Lunch, Membership Meeting and Research Grant Program Announcement**

Presentation: An Outcome-Based Assessment of the DEC Freshwater Wetland Permitting Program, a Dissertation by Mr. Kevin Bliss – New York State Department of Environmental Conservation

2:20 – 3:40 **CONCURRENT SESSION C**

1. Wetland Wildlife [Moderator: Mr. Kevin Bliss, New York State Department of Environmental Conservation]

Pool Arrangement and Scale of Translocation Influence Movement Parameters and Habitat Selection of Green Frogs (*Rana clamitans*)

Speaker: Mr. Mike Habberfield, University of Buffalo

Creating Northern Pike Spawning Habitat

Speaker: Mr. Tony St. Aubin, Cardno, Inc.

Frog Watch USA, a Citizen Science Initiative

Speaker: Ms. Susan Graff, Great Swamp Conservancy, Inc. (NPS, retired)

2. Wetlands and Archeology [Moderator: Ms. Aimee Rutledge, McFarland Johnson, Inc.]

Overview of CRIS System

Speaker: Ms. Nancy Herter, State Historic Preservation Office

It's a Brave New World: A Consultant's Perspective on Online Consultation with the NY SHPO

Speaker: Mr. Pat Heaton, EDR, DPC

To Be Determined

Speaker: To Be Determined

3:40 – 4:00 **Break and Review of Exhibits/Posters**

4:00 – 5:20 **CONCURRENT SESSION D**

1. Threatened and Endangered Species [Moderator: Ms. Frances Reese, Reese Environmental Consulting]

Species Distribution Modeling of the Threatened Blanding's Turtle's (*Emydoidea blandingii*) Range Edge as a Tool for Conservation Planning

Speaker: Ms. Kinga Stryzowska, Clarkson University

Bog Turtle (*Glyptemys muhlenbergii*) Phase I Habitat Assessment, Are You Doing Enough?

Speaker: Mr. David MacDougall, Kleinfelder

The Karner Blue Butterfly at Saratoga County Airport

Speaker: Ms. Aimee Rutledge, McFarland Johnson, Inc.

2. Wetlands, Treatment Potential, and Land Use [Moderator: Ms. Lauren Lyons-Swift, New York State Soil and Water Conservation Committee]

Detention Ponds as Ecosystems in Developed Landscapes: Biodiversity and the Effect of Bioturbating Invertebrates on the Biogeochemistry of Man-made Ponds

Speaker: Ms. Kerry Kuntz, Rochester Institute of Technology

Quantifying Combined Sewer Overflow Containment Reduction in Treatment Wetlands

Speaker: Mr. Kevin Kimball, SUNY College of Environmental Science and Forestry

Green Genesee Tool "Paves" the Way for Sustainable Land Use in Genesee County

Speaker: Ms. Sheila Hess, CC Environment & Planning

April 15

7:30 – 8:30 **Registration**

8:30 – 8:35 **Announcements:** *Ms. Johanna Duffy, Barton & Loguidice, DPC and Chair, New York State Wetlands Forum*

8:35 – 9:40 **Onondaga Lake** [Moderator: Mr. Bruce Workman, Terrestrial Environmental Specialists, Inc.]

Onondaga Lake Clean Up- Background and History

Speaker: Ms. Diane Carlton, New York State Department of Environmental Conservation

Restoration Design Components and Challenges: Creating and Enhancing Natural Habitats Along Onondaga Lake's Western Shore

Speaker: Mr. Steve Mooney, O'Brien & Gere

Inland Salt Marsh Restoration on a Soda Ash Settling Basin

Speaker: Mr. Tony Eallonardo, O'Brien & Gere

9:40 – 10:00 **Break and Review of Exhibits/Posters**

10:00 – 11:45 **Legislative and Regulatory Updates** [Moderator: Mr. Brad Sherwood, U.S. Army Corps of Engineers]

The Farm Bill of 2014: Pros and Cons for Conservation of Wetlands and Other Critical Resources

Speaker: Ms. Kim Farrell, Natural Resources Conservation Service

2015 USFWS Indiana Bat and Northern Long-Eared Bat Updates

Speaker: Ms. Robyn Niver, U.S. Fish & Wildlife Service

New York State Department of Environmental Conservation

Speaker: Mr. Tim Post, New York State Department of Environmental Conservation

U.S. Environmental Protection Agency

Speaker: Mr. Daniel Montella, U.S. Environmental Protection Agency

U.S. Army Corps of Engineers

Speaker: To Be Determined

11:45 – 12:00 **Closing Remarks:** Ms. Johanna Duffy, Barton & Loguidice, DPC and Chair, New York State Wetlands Forum

12:00 – 1:00 **Lunch** (on your own)

1:00 – 4:00 **Field Trips** [Mr. Kurt Weiskotten, Greenman-Pedersen, Inc.]

Geddes Brook/Ninemile Creek Wetlands Complex Restoration Area

Harbor Brook Treatment Wetland Site

Field Identification of Listed Bat Habitats

POSTER SESSION

Partnership in Wetland Restoration: a Model to Achieve Regulatory, Conservation and Educational Goals

Presented by Christy Tyler, Rochester Institute of Technology

Evaluating Wetland Restoration Success and Its Impact on Landowners in the St. Lawrence River Valley

Presented by Brenden Carbery, Clarkson University

Variability in the Phenolic Content of Invasive and Non-Invasive Emergent Wetland Plants

Presented by Melissa Maurer, Rochester Institute of Technology

Hydrogeomorphic Classification of Freshwater Marshes in St. Lawrence Valley

Presented by Kyotaek Hwang, Syracuse University

The Influence of Recreational Boats on Macrophyte Communities: Does Increased Propagule Pressure Lead to Increased Non-Native Abundance and Reduced Native Diversity in Lakes?

Presented by Andrew Brainard, SUNY College of Environmental Science and Forestry

Assessing Wetlands for Habitat Rehabilitation in the Rochester Embayments

Presented by Dan Gefell, U.S. Fish & Wildlife Service - New York Field Office

Drivers of *Pyrola asarifolia* and Native Orchid Species on a Mine Tailings Wetland in Star Lake, NY

Presented by Grete Bader, SUNY College of Environmental Science and Forestry

Wetland Restoration Monitoring Plan for Lagoon Park Habitat Restoration Project, Canandaigua, NY

Presented by Dan Kenney, Finger Lakes Community College



2015 ANNUAL CONFERENCE AND MEETING

CROWNE PLAZA, SYRACUSE, NEW YORK 13210 • APRIL 14 - 15, 2015

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- One-day Tuesday (April 14) - **\$100** One-day Wednesday (April 15) - **\$100** \$ _____

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CALL FOR NOMINATIONS – BOARD OF DIRECTORS

Nominations are currently being sought for individuals that are interested in volunteering their time and serving on the NYSWF's Board of Directors. The current NYSWF Board of Directors has appointed a Nominating Committee that will look to fill anticipated Board vacancies through a nomination process, in accordance with Article IV of the Bylaws. You may nominate yourself or another individual by submitting a nomination packet to Johanna Duffy at jduffy@bartonandloguidice.com or 290 Elwood Davis Rd., Box 3107, Syracuse, NY 13220. All nomination packets must be received by 4:00 pm on March 27, 2015, to be considered. Nomination packets should include a biography about the nominated individuals, including their background, interests, work with wetlands, and their past and present membership and involvement with the NYSWF. Directors hold office for a term of three years. Only NYSWF members are eligible to serve. Once the 'call for nominations' period ends, the Nominating Committee will introduce a slate of candidates to the membership prior to the annual meeting in April. The membership will vote on a slate of candidates during the business meeting held on April 14. Feel free to discuss the duties and responsibilities of the Board of Directors with any of the current Board members. Additional information can be viewed in the NYSWF's Bylaws, available on the website (<http://www.wetlandsforum.org/bylaws.pdf>).

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waters will only lead to legal challenges, cause unnecessary harm to farmers, and could lead to other unintended consequences while at the same time not achieving the Administration's stated goal."

Because the final outcome of the rule is (1) uncertain to us, and (2) anticipated this April, and because the rule as proposed is very lengthy and complex, we'll spare you the exhaustive details in favor of learning a good deal more at our annual conference in Syracuse. That said, numerous documents related to the proposed definition of "Waters of the United States" under the Clean Water Act may be found on line at <http://www2.epa.gov/cleanwaterrule/documents-related-proposed-definition-waters-united-states-under-clean-water-act>.

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Standards for Abundance of Invasive Species

Once we get past the selection of invasive species involved in the assessment, the next part of this performance standard is defining the limits of invasive plant species abundance. It is usually expressed as a total cover percentage that all the species considered invasive cannot exceed after a period of time. The commonly used limit is five percent at the end of five years, which means that in order for the wetlands creation/restoration to be deemed a success, the percent cover of all invasive plant species must be below that 5% value, five years after completion. If the invasive species cover is over this limit, then corrective actions must be taken.

The problem with this performance standard and others is that there is no consideration of the wetland we are replacing or restoring, or the makeup of similar wetlands in the area. We do not assess success based on what we are replacing, we assess success based on a comparison to what is considered the ideal wetland, which is reflected in the performance standards. The mitigation mantra of “no net loss in wetlands functions and value” seems to have gotten lost over the years. Success isn’t measured by no net loss, it is measured by meeting the performance standards.

As an example, if I am restoring/replacing a wetland with 99% cover of the invasive Phragmites that was dug up for hazardous waste remediation and my restored wetland has 20% cover of Phragmites after five years, it is deemed a failure. It does not meet the performance standards. Why isn’t the restoration replacement that reduced the invasive species cover by 79% considered a great success? Isn’t there

a gain in wetlands functions and benefits by this reduction? What this means is that performance standards are not necessarily a measure of mitigation success, but more a measure of whether the terms of the monitoring plan have been met. Terms that do not necessarily reflect no net loss replacement, but reflect what an ideal wetland should be.

Measuring the success of mitigation or restoration wetlands should take into account the nature of the area being replaced or restored. Performance standards are fine, but they ignore what is being replaced. They can be used to assess whether the conditions of the monitoring plan are met, but performance standards can go beyond what is necessary to have successful mitigation. The performance standards for invasive species are a perfect example of the bar being set above mitigation requirements.

Author’s Note

With all the years I have been involved with wetlands creation/restoration, I find myself looking back at some of the inconsistencies in this field of wetland study. The faults in assessing wetland mitigation success without consideration of what is being replaced noted in this article are a reflection of some of the problems. Invasive species performance standards are the perfect example to illustrate the issue. At the same time, I believe that invasive species are probably the biggest threat there is to our natural communities. The problem is, what should be done about it, who should be responsible to address it, and how do we deal with it on a practical level? If permittees are required to help solve the problem, then they should be given credit for it. Monitoring requirements should not be structured to give unfounded ammunition to those looking to show that wetlands mitigation is not successful.



Kurt Weiskotten Sketch



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