

# Wetlands and Floodplains For Real Estate Professionals

Presented By:

Chazen Engineering, Land Surveying, and  
Landscape Architecture Co., DPC  
Barbara B. Beall, PWS, LEED® AP

March 28, 2017 – Queensbury, NY  
April 4, 2017 – Plattsburgh, NY

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# Wetlands and Floodplains For Real Estate Professionals

Presented By:

Mary O'Dell and Sarah Reynolds  
Wetland Biologists /Ecologists  
Adirondack Park Agency

March 30, 2017

# Topics Covered

- **Basics of Identifying Aquatic Resources**
  - In the field
  - Desktop Mapping Resources
  - Where to Find More Information
- **Regulation of Aquatic Resources**
  - Corps of Engineers
    - \* Section 10 Rivers and Harbors Act
    - \* Section 404 Clean Water Act
  - NYSDEC Streams
  - NYSDEC Wetlands  
(outside of Adirondack Park)
  - Adirondack Park Agency Wetlands  
(inside Adirondack Park)
  - General Overview of Permitting
  - Associated Laws
- **Floodplains/Floodplain Management**
  - Flood Hazard Mapping
  - FEMA and Flood Insurance
  - Local/State Floodplain Administration
- **Roles and Obligations as REALTORS®**
- **Where and how to find HELP!!!!**

# Course Purpose/Goal

This course is not intended to make you an expert in these areas.

The purpose of this course is to

- Help you identify RED FLAGS
- Increase your awareness of aquatic resource regulatory programs
- Help you to be aware of your obligations as REALTORS<sup>®</sup>
- Enable you to speak to your clients about these resources
- Provide advice on where to obtain additional information





# Why Are Aquatic Resources Protected?

- Damage and Storm Water Control
- Wildlife Habitat
- Water Quality Protection
- Recreation
- Open Space
- Scientific Values
- Biological Diversity
- Educational

Not all wetlands are created equal  
Different wetlands do different things  
Some of these things are important to humans



# Why Are Aquatic Resources Protected?



Cumulative loss of wetlands  
is like  
a death by a thousand paper cuts

# Basics of Identifying Aquatic Resources

# Basics of Identifying Aquatic Resources

Close your eyes....

Imagine what an aquatic resource or wetland might look like....

What do you see?





# Basics of Identifying Aquatic Resources



**A Lake** - Lake Champlain



**A River** - Au Sable River



**A Stream** - Headwater stream



**Wetland** - Cattail Marsh with Shrubs



**Wetland** – A Tamarack Bog



**Wetland** - Forested Wetland



# Identifying Aquatic Resources - Waters



**Lakes** - Lake Champlain



**Rivers** - Au Sable River



**Streams** - Headwater stream



**Ponds**

## **Corps of Engineers – under Section 404 Clean Water Act:**

- Navigable waters (also Section 10 Rivers Harbors Act)
- Intrastate/Intra-country Waters/Wetlands
- Waters such as intrastate lakes, streams (including intermittent streams) mudflats, sandflats, wetlands, or natural ponds that could impact interstate or foreign commerce (used by interstate travelers for recreation, interstate sale of fish, used for commerce)
- Impoundments/Tributaries to such waters
- No regulatory map typically

## **NYSDEC – Environmental Conservation Law Article 15 (6 NYCRR 608)**

- Protected Streams (bed and banks)  
Streams with (Standard/Class C(t/ts), B, A)
- Navigable waters of the State:  
Water bodies that can be navigated by at least a single-person vessel; does not include waters surrounded by private lands.
- Regulatory mapping – NYSDEC Environmental Resource Mapper

# Identifying Aquatic Resources - Wetlands



Forested Wetland



Cattail Marsh/Shrub Wetland



Bog/shrub wetland

What are three things these (and all) wetlands have in common?



# Identifying Aquatic Resources - Wetlands

## Corps of Engineers

"**Wetlands** are areas that are inundated or saturated by surface or ground **WATER** at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of **VEGETATION** typically adapted for life in saturated **SOIL** conditions.

- No regulatory map
- No minimum size
- No regulated buffer but....

## Adirondack Park Agency (APA)

- Article 24 Definition NYSDEC Wetlands
- **Based, but not reliant on regulatory map**
- **>1 acre or associated with permanent waterbody**
- **Regulatory buffer case by case basis but adequate to protect functions**

## NYS Department of Environmental Conservation (NYSDEC)

those lands and waters of the state which

- meet definition of Article 24 Freshwater Wetlands Act
- have an area of at least 12.4 acres... or if smaller, have unusual local importance as determined by the Commissioner of NYSDEC....

Article 24 Definition. Lands and waters of the state as shown on the freshwater wetlands map which contain any or all of the following.

- Lands and submerged **AQUATIC lands** called marshes, swamps, sloughs, bogs and flats supporting aquatic or semi-**AQUATIC VEGETATION** of the following types.
- Wetland trees, shrubs, emergent **VEGETATION**, rooted floating or free floating vegetation, wet meadow vegetation, bog mat vegetation, submerged vegetation, depending on seasonal or permanent **FLOODING** or sufficiently **WATERLOGGED SOILS** to give them a competitive advantage over other vegetation.
  - **Based on regulatory mapping**
  - **Can extend jurisdiction 500 feet beyond mapped wetland**
  - **>12.4 acres in size (or smaller if supports important resource)**
  - **Regulated 100 foot buffer**

# Identifying Aquatic Resources - Wetlands

## Corps of Engineers

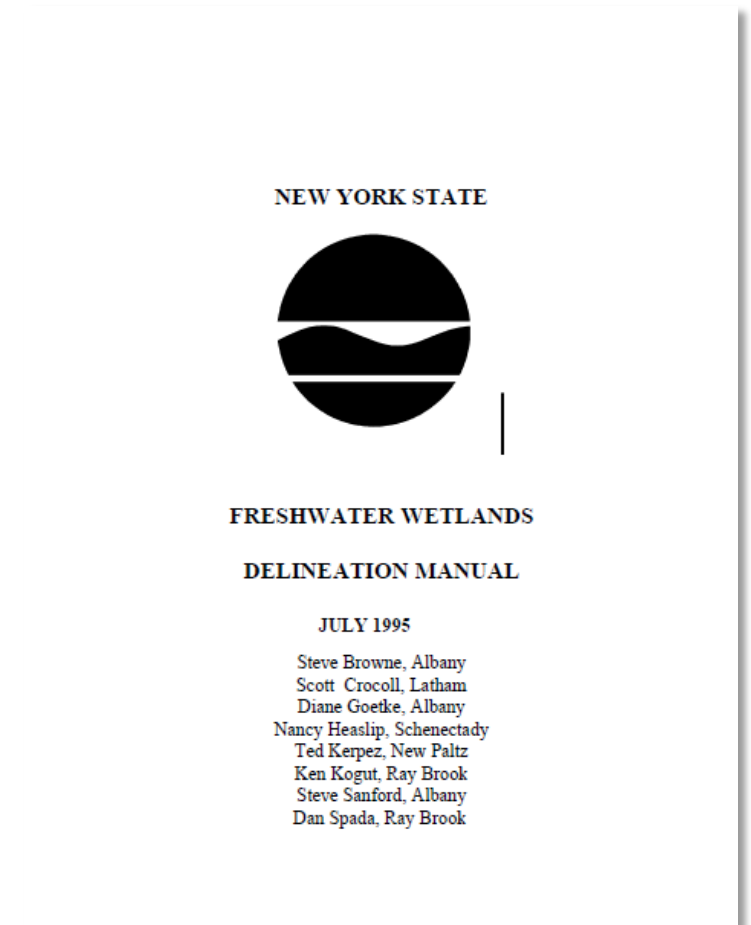
## Wetland Delineation Manuals (Available on-line)

## NYSDEC and APA



“Cookbooks”

Corps Regional Supplement  
Numerous photos of:  
Wetlands  
Vegetation Indicators  
Soils  
Hydrology  
Problem Areas  
Typical of NYS

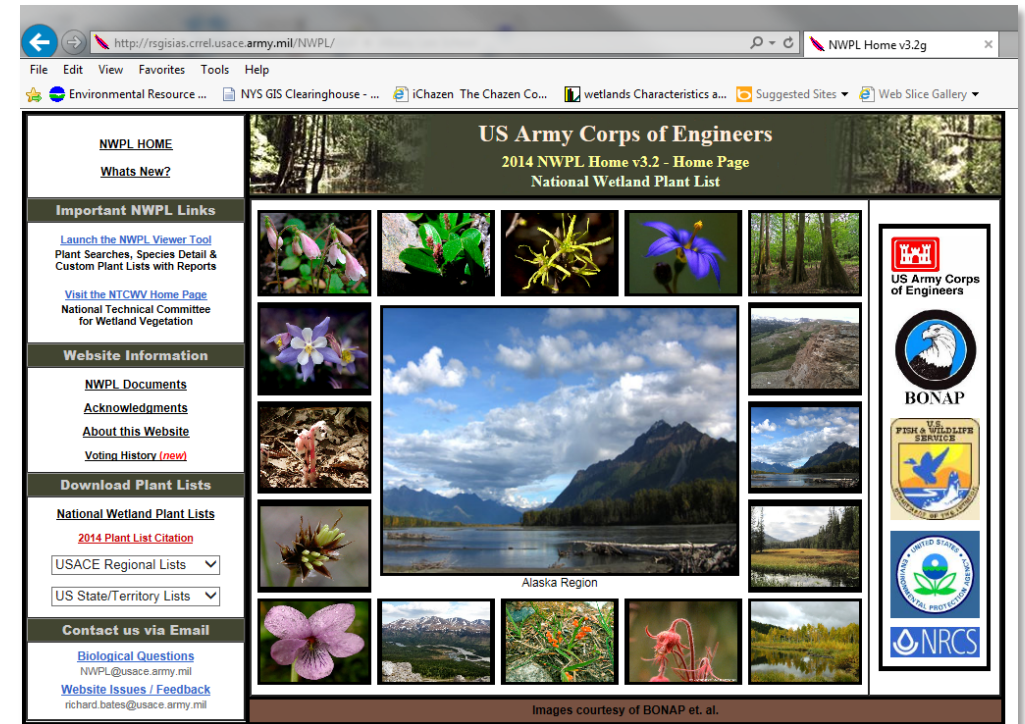


# Identifying Aquatic Resources - Wetlands

**USDA** United States  
Department of  
Agriculture  
  
Natural Resources  
Conservation  
Service  
  
In cooperation with  
the National Technical  
Committee for Hydric Soils

## Field Indicators of Hydric Soils in the United States

A Guide for Identifying and Delineating  
Hydric Soils, Version 8.0, 2016



List of Wetland Plants  
Probably not useful for laypersons

Field Indicators of Hydric Soils  
Good Photos of Wet Soils



# Basics of Identifying Aquatic Resources



MANY DIFFERENT TYPES OF WETLANDS  
NOT ALL HAVE WATER ALL THE TIME  
STANDING WATER OR SATURATED SOILS  
2-3 WEEKS  
DURING GROWING SEASON





# Basics of Identifying Aquatic Resources

SOME CAN BE DIFFICULT TO DETECT BY A LAYPERSON





# Identifying Aquatic Resources - Soils



Peat layer



Thick muck layer



Heavy gray clay



Gray mineral soil with brighter orange spots



Gray sandy soil with orange spots



Upland  
Adirondack  
Soil  
(Spodosol)



# Identifying Aquatic Resources - Hydrology

Ask yourself: Do I see evidence that water is on this site some time during the year? May be subtle.



Figure 49. Drainage patterns in a slope wetland.

**SEEPS**

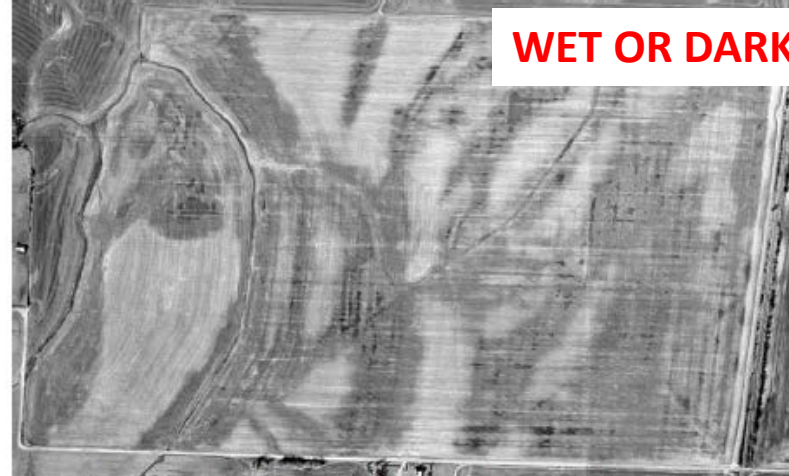


Figure 57. Aerial photograph of an agricultural field with saturated soils indicated by darker colors.

**WET OR DARK SPOTS ON AERIAL PHOTOS**



Figure 58. Stunted corn due to wet spots in an agricultural field in New Hampshire.

**DRAINAGE PATTERNS, STANDING WATER, MOSS TRIM LINES, BUTTRESSED ROOTS, WATER STAINED LEAVES**



Figure 48. Drainage patterns seen during typical early spring flows in a forested wetland. The patterns are also evident when the wetland is dry.



Figure 32. Wetland with surface water present.



Figure 35. Water marks (light-colored areas) on trees in a seasonally flooded wetland.

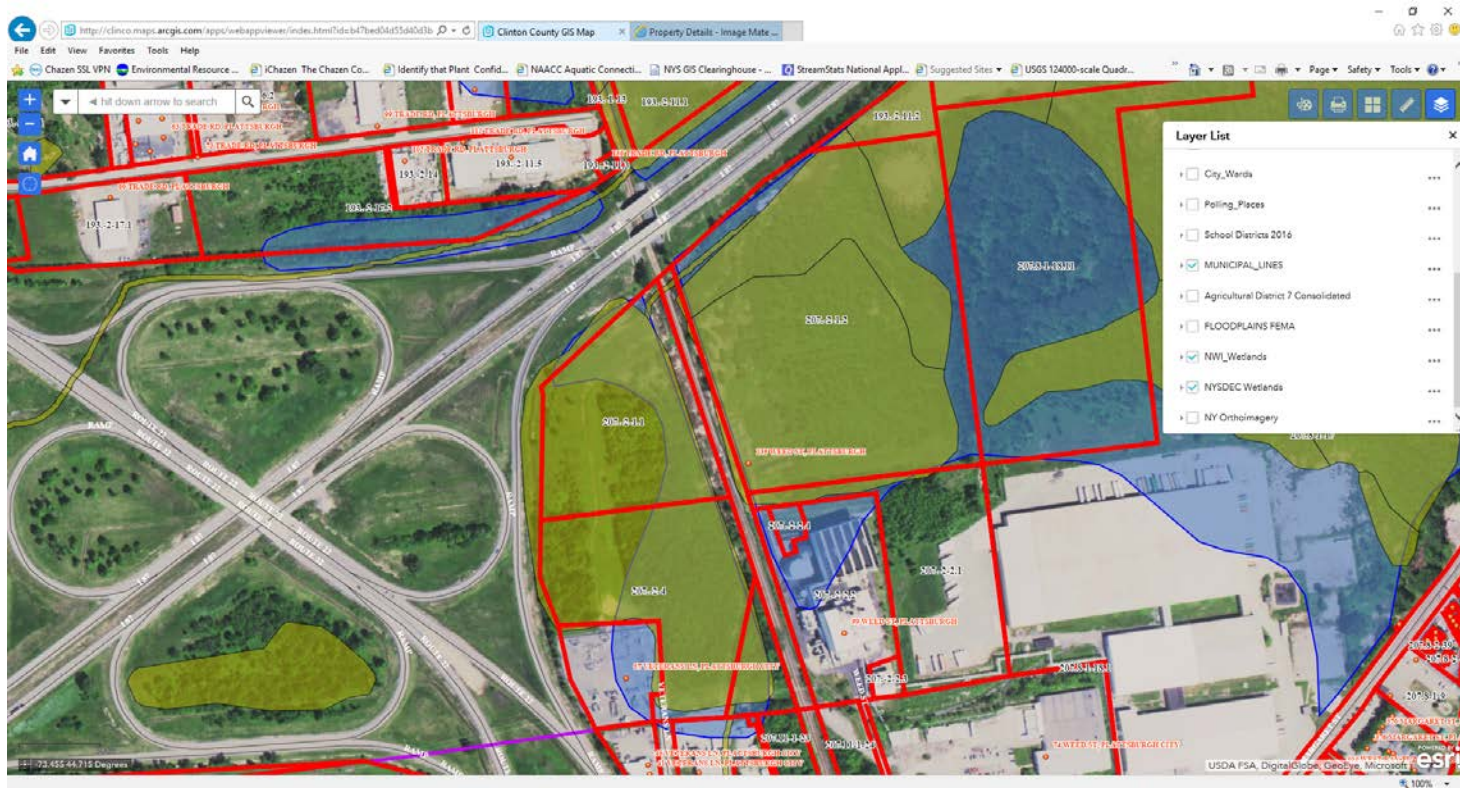


# Aquatic Resources – State v. Fed

State Wetlands and Waters	Federal Wetlands and Waters
<ul style="list-style-type: none"> <li>▪ Jurisdiction based on regulatory maps and site conditions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Jurisdiction based on site conditions</li> </ul>
<ul style="list-style-type: none"> <li>▪ Waters / Wetlands regulated separately                             <ul style="list-style-type: none"> <li>▪ Waters (Article 15) (NYSDEC)</li> <li>▪ Wetlands (Article 24) (NYSDEC with APA in Park)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Wetlands and Waters regulated together</li> <li>▪ Section 404 Clean Water Act Discharge dredged/fill material into Waters of the US including wetlands</li> <li>▪ Section 10 Rivers Harbors Act - Structures or work</li> </ul>
<ul style="list-style-type: none"> <li>▪ Mapped (NYSDEC) plus 500 foot “check zone”</li> <li>▪ Mapped (APA) but can also regulate unmapped wetlands</li> </ul>	<ul style="list-style-type: none"> <li>▪ No regulatory mapping.</li> <li>▪ Jurisdiction based on field mapping and on-site conditions, with positive indicators of soils, vegetation, hydrology</li> </ul>
<ul style="list-style-type: none"> <li>▪ Generally <math>\geq 12.4</math> acres outside of Adirondack Park Smaller important wetlands can be regulated</li> <li>▪ In Adirondack Park <math>&gt;1</math> acre or any size if w/permanent water</li> </ul>	<ul style="list-style-type: none"> <li>▪ No minimum size</li> <li>▪ Must connect to interstate commerce</li> </ul>
<ul style="list-style-type: none"> <li>▪ Outside of park, wetlands have 100 foot buffer</li> <li>▪ Inside park – setback adequate to protect wetland functions</li> <li>▪ Streams (Class C(t) or better) to top of bank</li> </ul>	<ul style="list-style-type: none"> <li>▪ Wetlands have no buffer, regulated to edge of wetland</li> <li>▪ However, in review Corps likes to see enough room around wetland to avoid future impacts</li> <li>▪ All waters typically regulated to OHWM</li> </ul>
<ul style="list-style-type: none"> <li>▪ Wetlands classes (1-4) (highest to lowest) - functions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Wetland classification - Cowardin cover type</li> </ul>

# Identifying Aquatic Resources - Mapping

These indicators and conditions show up on mapping too



Plattsburgh, Clinton County, NY – Saranac Cogeneration Facility

County GIS Parcel Data  
Often has....

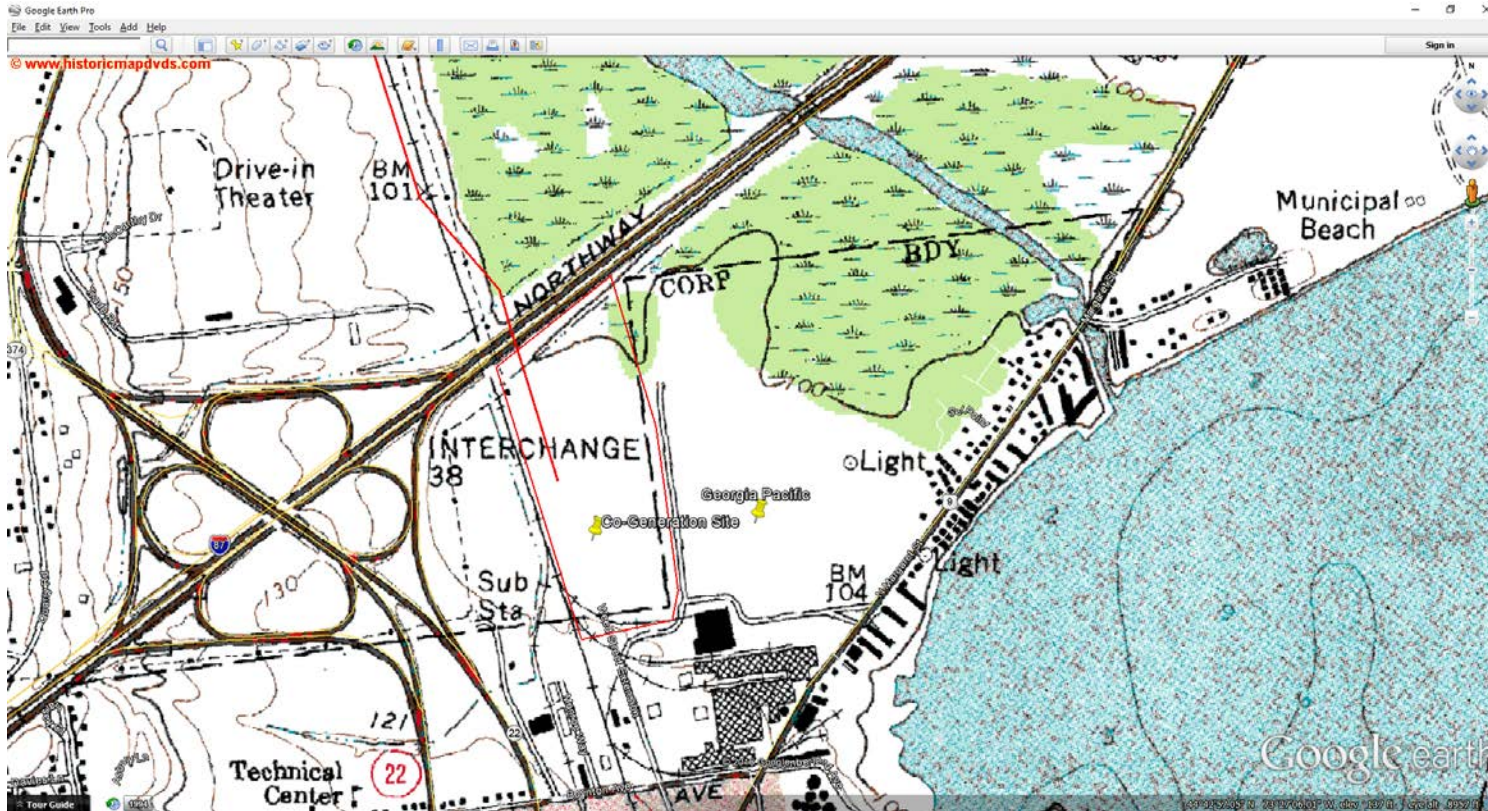
- NYSDEC Wetland Mapping (blue)
- National Wetland Inventory Map (green)
- FEMA Floodplain Data
- NY Orthoimagery
- Topographic mapping

NWI Wetland Map – A non-regulatory map, but good tool, for looking at status and trends of wetlands in United States and for identifying potential wetlands.

NYSDEC Wetland Map – A regulatory Map illustrating approximate boundary of NYSDEC wetlands outside of Adirondack Park. Jurisdictional wetlands can extend 500 feet from the mapped boundary.



# Identifying Aquatic Resources - Mapping



## USGS Topographic Map

Are there streams, lakes or ponds mapped?

Is there a wetland or swamp mapped?

Are drainages marked?

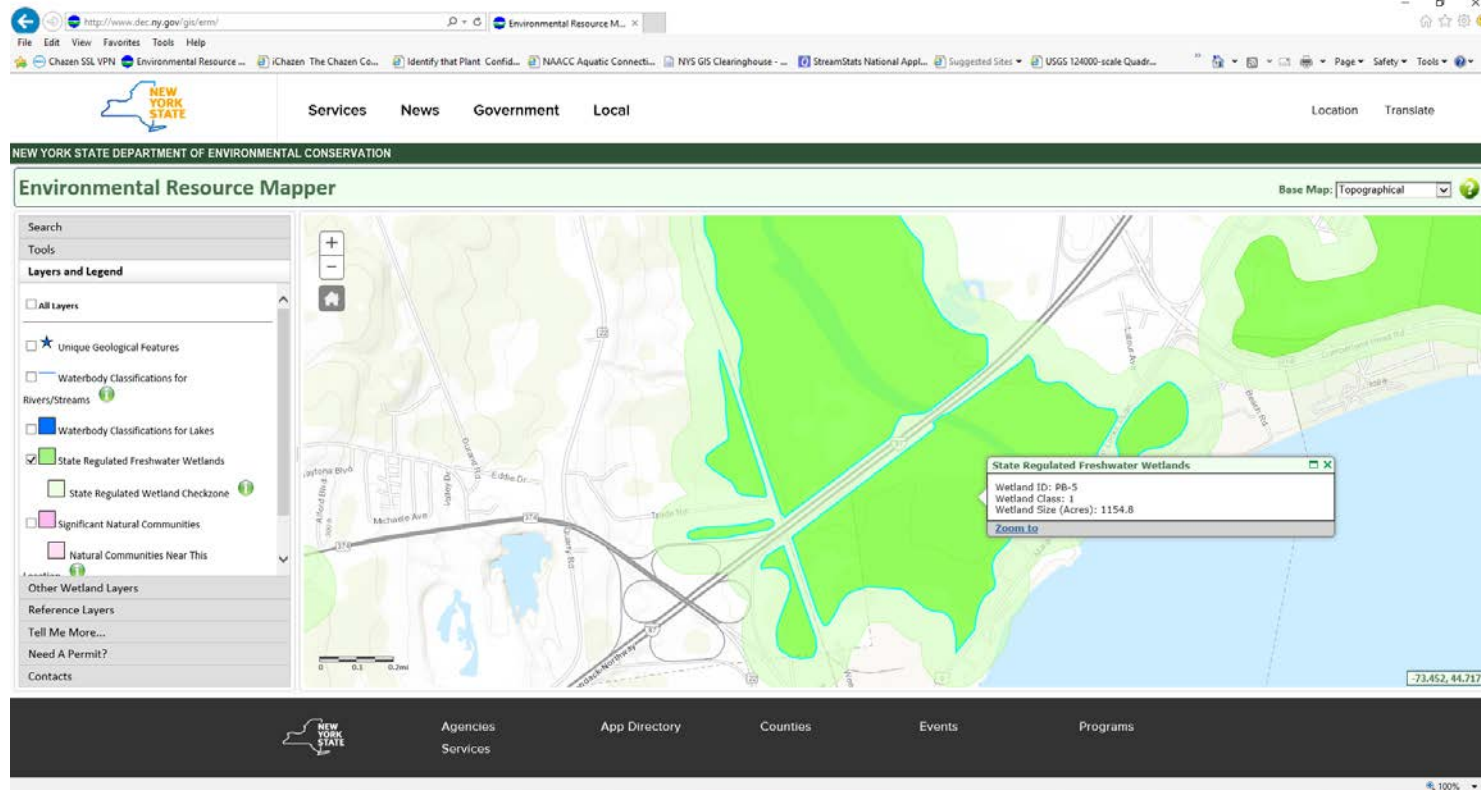
Is it flat?

Where is the low spot on the site?

Are there topographic indicators of drainage?

Plattsburgh, Clinton County, NY – Saranac Cogeneration Facility

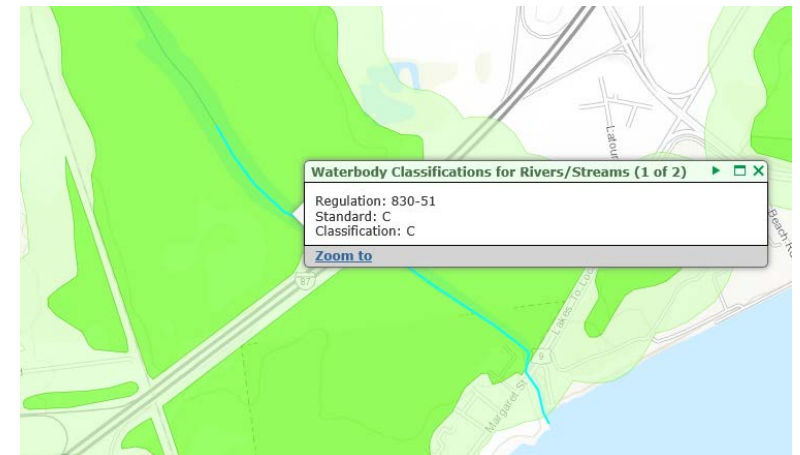
# Identifying Aquatic Resources - Mapping



## NYSDEC Environmental Resource Mapper

Shows state regulated wetlands, classification, and streams and their classification on a variety of backgrounds.

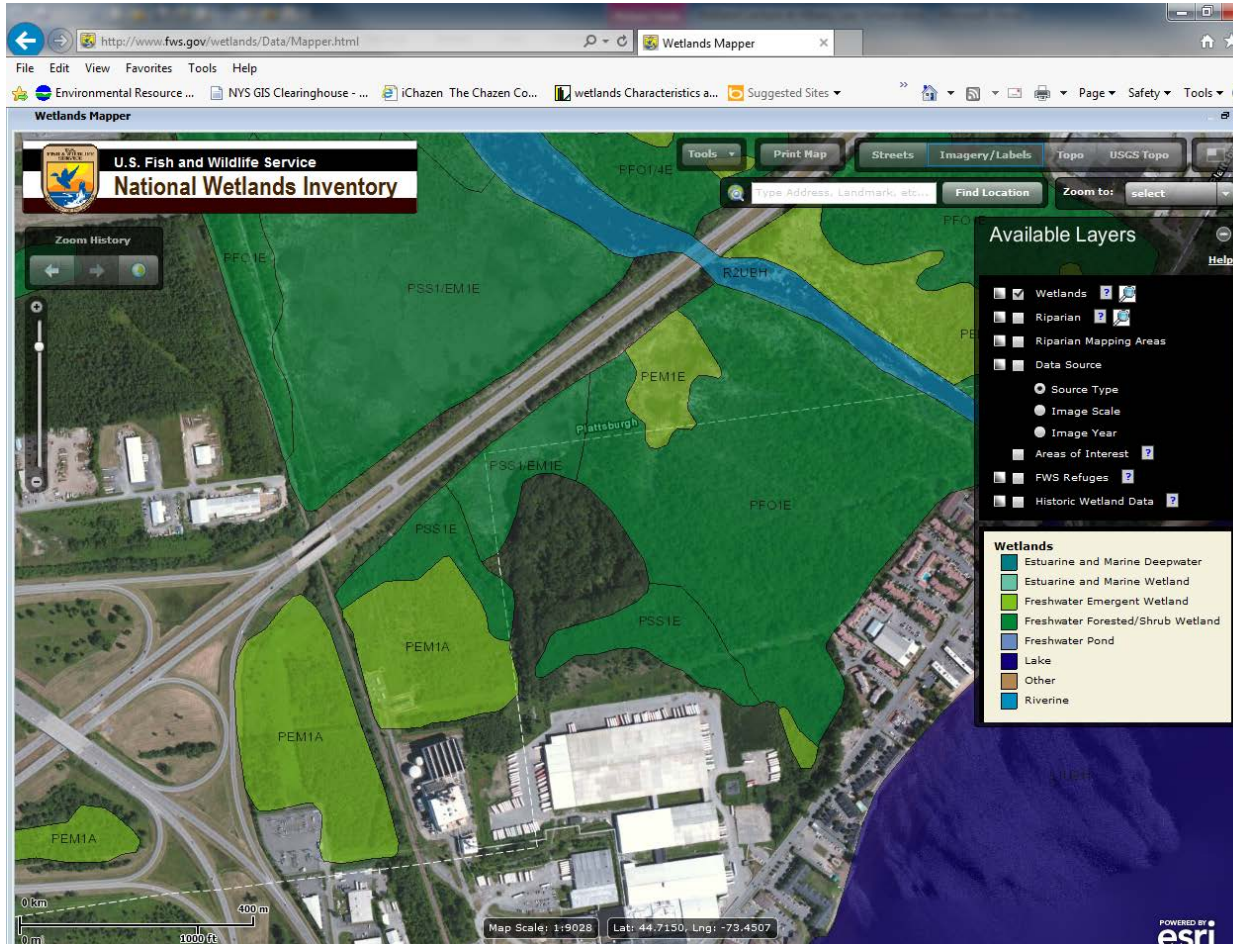
Also shows endangered species occurrence areas and significant habitat communities.



Plattsburgh, Clinton County, NY – Saranac Cogeneration Facility



# Identifying Aquatic Resources - Mapping

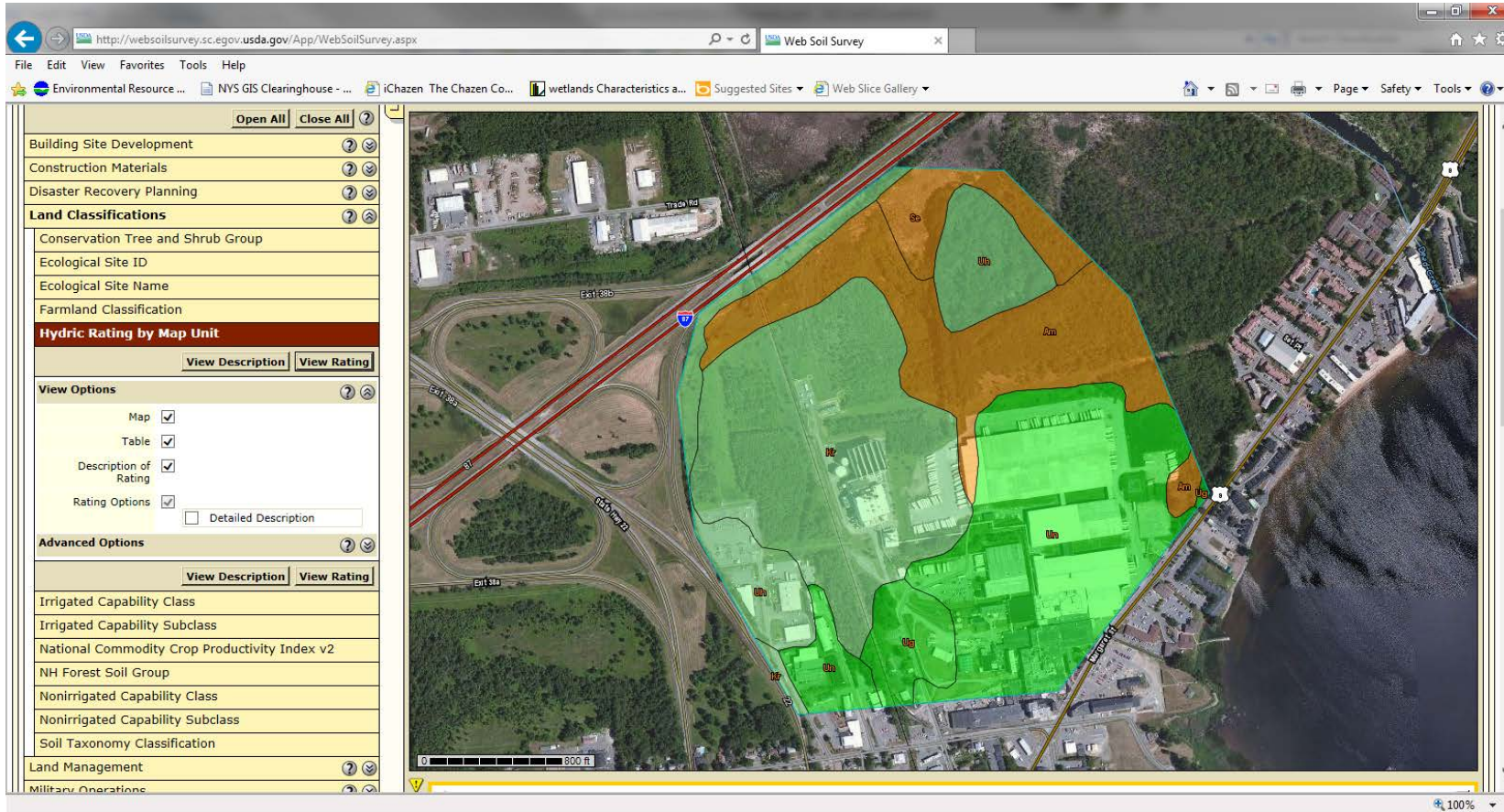


## USFWS National Wetland Inventory

- Shows the wetland types on the site
- Pull down the legend in upper right hand side to identify wetland types.
- This is called the Cowardin Classification System

Plattsburgh, Clinton County, NY – Saranac Cogeneration Facility

# Identifying Aquatic Resources - Mapping



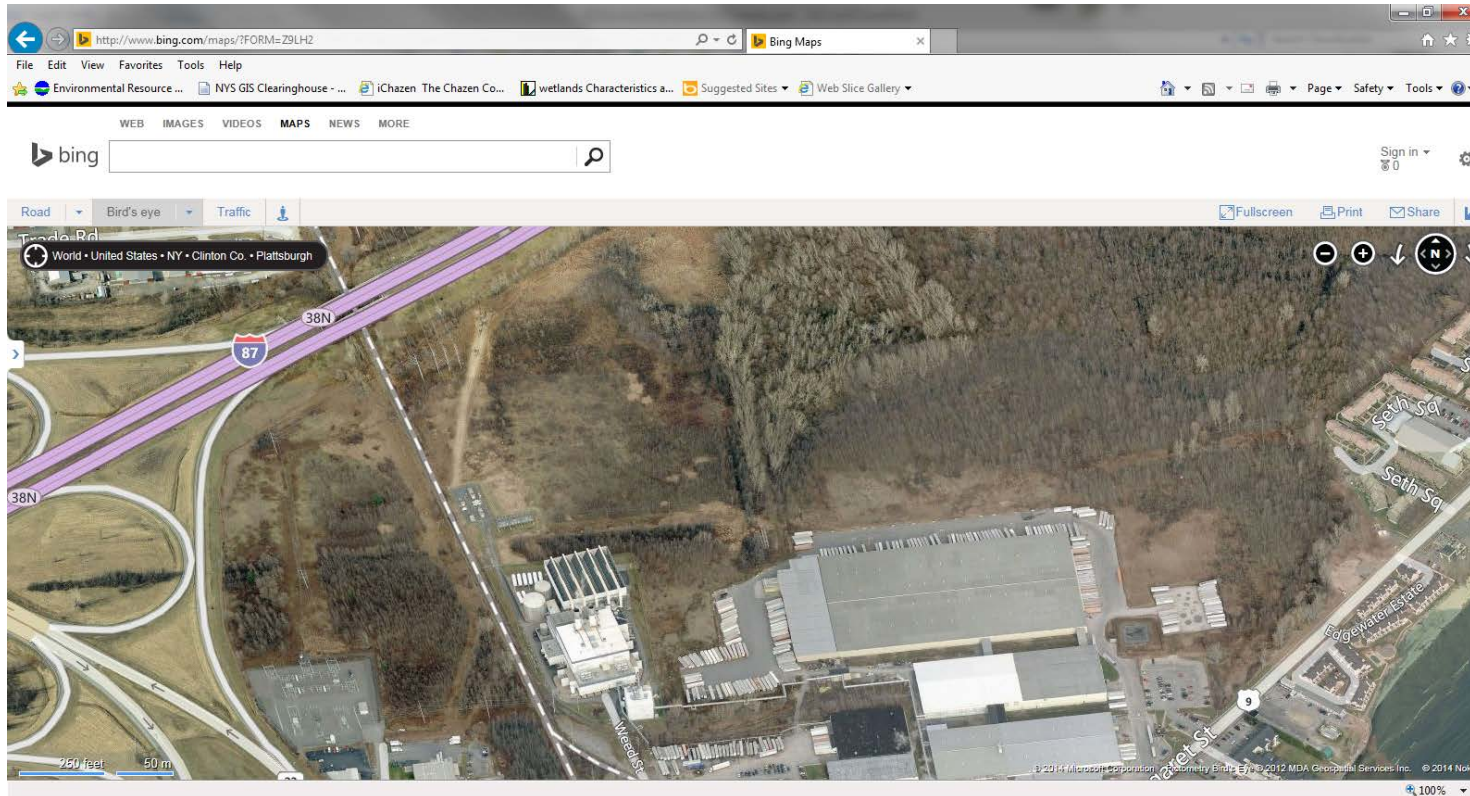
## USDA Web Soil Survey

- Shows the soils on site and if they are hydric
- Location State/County – click onto NYS and County.
- Use zoom and pan to get to site.
- Draw an Area of Interest (AOI) line around the site.
- Click “Soil Map”
- Once soil map is made, go to Soil Data Explore, Land Classifications.
- Click on Hydric Rating
- View Rating. Shows percentage of hydric soil in each soil mapping unit.

Plattsburgh, Clinton County, NY – Saranac Cogeneration Facility



# Identifying Aquatic Resources - Mapping



Plattsburgh, Clinton County, NY – Saranac Cogeneration Facility

## BING Birds Eye View

- If available, BING Birds Eye View shows drainage ditches, wet spots, ponds, cattail marshes, etc.
- Google Earth Street View may also provide excellent views of a site

**Ask yourself: When I look at all the mapping data, is there a pattern?**

- No wetlands or waters?
- On some part of the site?
- The whole site could be wet?

**Ask yourself: Does this collaborate what I am seeing in the field?**



# Identifying Aquatic Resources - Mapping

## THE CAUTIONARY TALE OF RELYING ON MAPPING

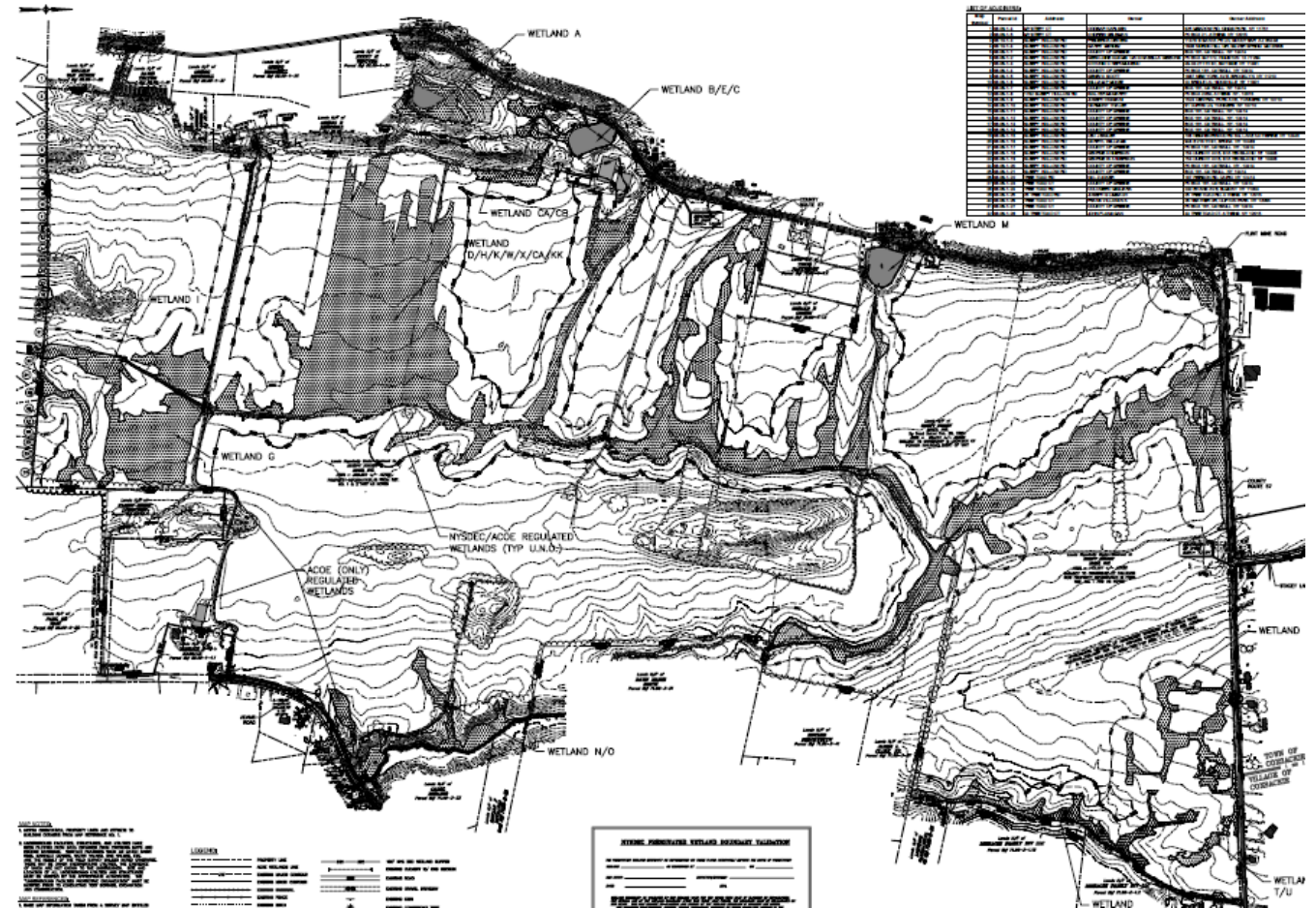
- 600+ acres of old abandoned agricultural lands
- No NWI or NYSDEC wetlands mapped
- No “hydric” soils mapped
- But, flat as a pancake on heavy clay soils, and
- Infrared Orthophotography shows drainage problems





# Identifying Aquatic Resources - Mapping

- 93 acres of Corps wetlands... and NYSDEC wetland
- NYSDEC jurisdiction adds 158 acres of regulated buffer



# Identifying Aquatic Resources – Red Flags

Based on what you have learned here

Based on your past experience

What are some red flags that an aquatic resource (water or wetland) might be present



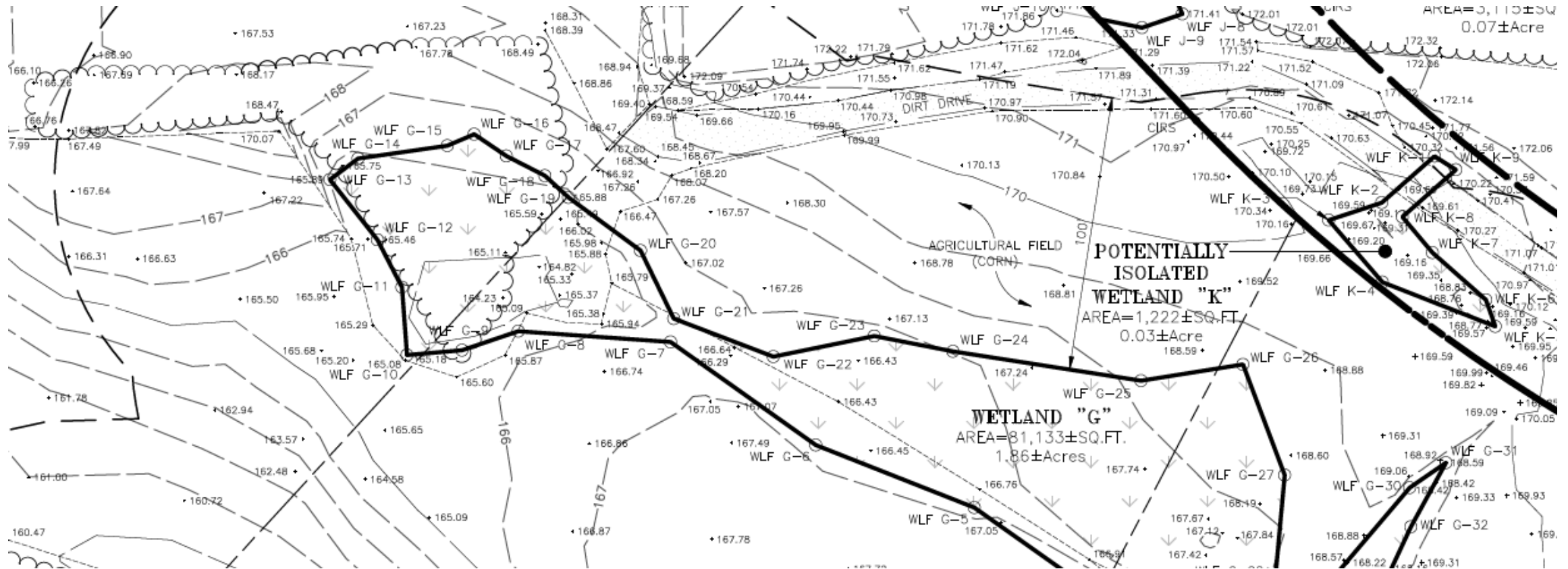
# Identifying Aquatic Resources – Red Flags

- ☐ Lake, pond, stream, wetland on regulatory maps
- ☐ Lakes, ponds, streams, drainage ditches, wet spots or dark spots on aerial photographs
- ☐ Topographic mapping shows a flat site, or a site with “U”s in the topographic lines
- ☐ Standing water on site
- ☐ Soggy soils on site
- ☐ Leaves are black or have mud on them
- ☐ Grass or soil is rutted where it has been mowed
- ☐ It looks like water flows over or sits on part(s) of the site
- ☐ The soils are not a bright color
- ☐ The soils do not pass a percolation test for on-site septic
- ☐ The site is flat and there are drainage ditches every 25 to 50 feet
- ☐ There are wetlands nearby (across the street, on the next lot)
- ☐ The trees have numerous roots that are flat on the ground
- ☐ It looks like a one of the photographs in this slide show
- ☐ It just looks like it could be wet





# Jurisdictional Determinations and Validations



- When/Who completed delineation stated on survey.
- Points sequentially numbered, straight lines between.
- Wetlands labeled, area stated.
- Wetland locations make sense.
- NYSDEC wetlands show 100-foot buffer.
- For federal “approved JD” status of wetland noted
- For federal wetlands, there is information on total area of property, total area of Jurisdictional Determination, area of each wetland, length of each stream.

# Jurisdictional Determinations and Validations

## Corps Jurisdictional Determinations (JD)

By letter. Letter will generally cite a particular survey map with titles, prepared by, dates, and revision dates. If Approved JD, will state which wetlands/waters are NOT regulated under the Clean Water Act, if present. May have a timeframe for validation, may be stated at the end of the letter.

### APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

#### SECTION I: BACKGROUND INFORMATION

- A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): MAY 08 2014
- B. DISTRICT OFFICE, FILE NAME, AND NUMBER: New York District; Mohr, David; NAN-2013-00413
- C. PROJECT LOCATION AND BACKGROUND INFORMATION: East side of West Ave., north of Washington Ave.  
State: NY County/parish/borough: Saratoga City: Saratoga Springs  
Center coordinates of site (lat/long in degree decimal format): Lat. 43.08118° N, Long. -73.80303° E.  
Universal Transverse Mercator:  
Name of nearest waterbody: Unnamed tributary to Putnam Brook  
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Kayaderosseras Creek  
Name of watershed or Hydrologic Unit Code (HUC): Hudson-Hoosic, 02020003  
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.  
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.
- D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):  
☐ Office (Desk) Determination. Date:  
☒ Field Determination. Date(s): July 23, 2013



DEPARTMENT OF THE ARMY  
US Army Corps of Engineers, ATTN: CENAN-OP-RU  
Upstate Regulatory Field Office  
1 Buffington St., Building 10, 3<sup>rd</sup> Fl. North  
Watervliet, New York 12189-4000

Upstate New York Section

MAY 08 2014

SUBJECT: Permit Application Number NAN-2013-00413  
by Mohr, David  
City of Saratoga Springs, Saratoga County, New York

David Mohr  
Mohr Service Center  
239 Washington Street  
Saratoga Springs, NY 12866



THE CHAZEN COMPANIES

Dear Mr. Mohr:

On April 11, 2013, the New York District of the U.S. Army Corps of Engineers received a request for a Department of the Army jurisdictional determination for an 8.9 acre site, currently owned by David Mohr. This request was made by The Chazen Companies, as your consultant. The site is located in the Hudson River watershed, along the east side of West Avenue and the north side of Washington Street in the City of Saratoga Springs, Saratoga County, New York.

The submittal received by this office on April 11, 2013, included a proposed delineation of the extent of waters of the United States within the project boundary. A site inspection was conducted by a representative of this office on July 23, 2013, in which it was agreed that changes would be made to the delineation and that the modified delineation, along with additional information that was requested during the inspection, would be submitted to this office. In submissions received on January 21 and March 20, 2014, this office received the modified delineation and requested additional information.

Based on the material submitted and the observations of the representative of this office during the site inspection, the New York District has been determined that there are no jurisdictional waters of the United States on the 8.9 acre site. The site is depicted on the drawing entitled "Wetland Map, Lands of Mohr", prepared by Gilbert VanGuilder Land Surveyor, PLLC, dated April 21, 1997, and last revised on September 26, 2013.

It should be noted that, in light of the U.S. Supreme Court decision in two cases (Rapanos v. United States, No. 04-1034, and Carabell v. U.S. Army Corps of Engineers, No. 04-1384, both decided June 19, 2006), the area consisting of 1.56 acres and identified as Wetland No. 2 on the above referenced drawing does not meet the current criteria of waters of the United States under Section 404 of the Clean Water Act. The Court ruled that non-navigable tributaries that are not relatively permanent and their adjacent wetlands can no longer be considered waters of the United States if they

[illegible]



# Jurisdictional Determinations and Validations

## NYSDEC

By map. Map signed and dated by NYSDEC staff in a validation block, with a statement of expiration. If multiple maps, signed on first map, and map cites other maps in set. Maps should show state wetlands, acreage, class, and buffer. Map may also show other federal waters, not regulated by NYSDEC.

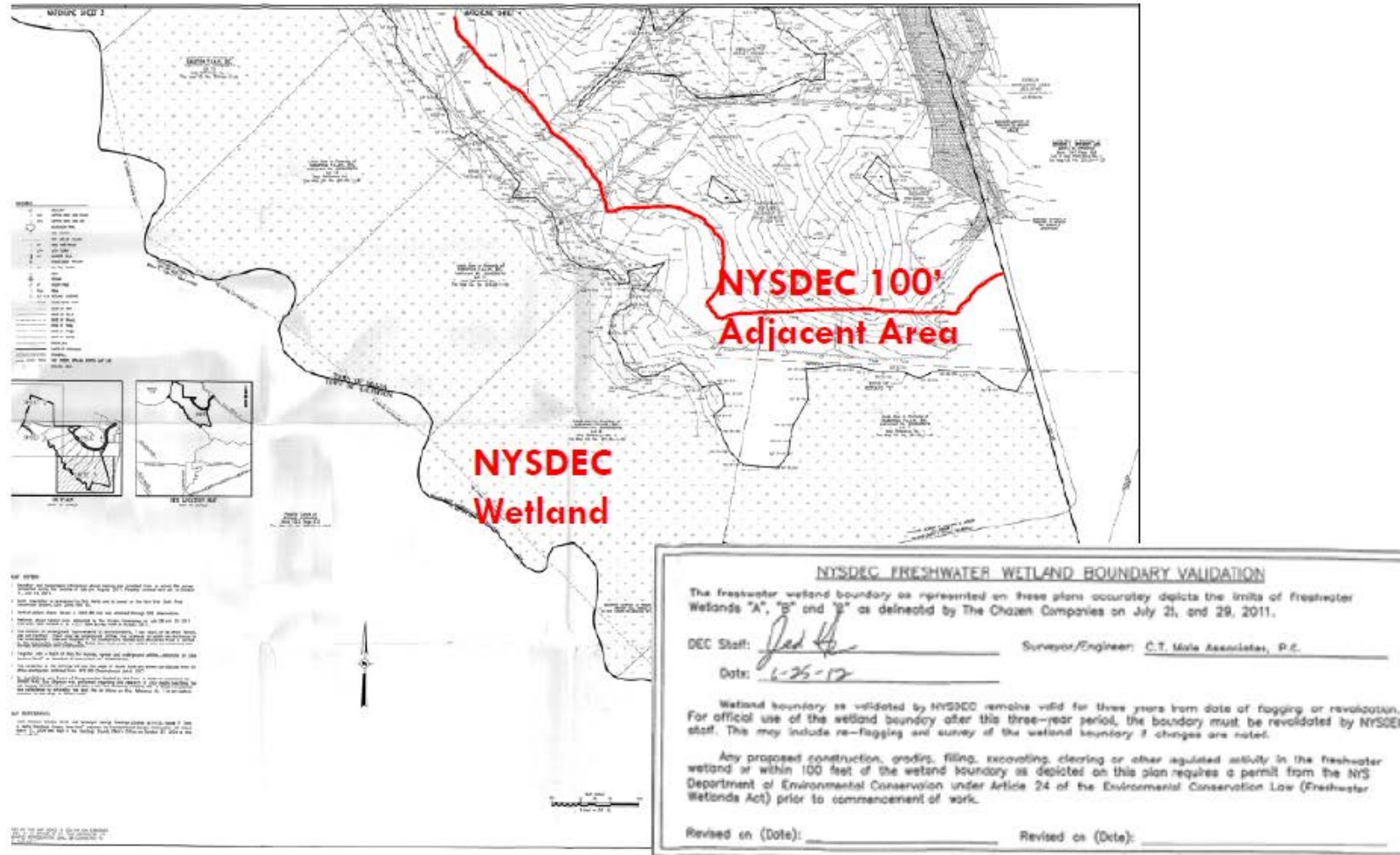
## APA

In Final Permit Decision. APA permit typically includes reference to approved wetland delineation map, and list of waters regulated by the NYSDEC under ECL Article 15.

<u>NYSDEC FRESHWATER WETLAND BOUNDARY VALIDATION</u>	
The freshwater wetland boundary as represented on these plans accurately depicts the limits of Freshwater Wetland _____ as delineated by _____ on _____.	
DEC Staff: _____	Surveyor/Engineer: _____
Date: _____	SEAL
Wetland boundary as validated by DEC remains valid for three years from date of flagging or revalidation. For official use of the wetland boundary after this three year period, the boundary must be revalidated by DEC staff. This may include re-flagging and survey of the wetland boundary if changes are noted.	
Any proposed construction, grading, filling, excavating, clearing or other regulated activity in the freshwater wetland or within 100 feet of the wetland boundary as depicted on this plan requires a permit from the NYS Department of Environmental Conservation under Article 24 of the Environmental Conservation Law (Freshwater Wetlands Act) prior to commencement of work.	

# Regulation of Aquatic Resources

## NYSDEC - Wetlands



# Aquatic Resources – Federal

But I heard President Trump repealed the Clean Water Act, and wetlands aren't regulated anymore....

## **FALSE**

1. On February 28, 2017, President Trump signed an Executive Order rescinding 2015 regulations redefining Waters of the United States
2. Waters and wetlands continue to be regulated under 2007 guidance issued after US Supreme Court decision *Rapanos v. US*. This requires a “significant nexus” determination for the Corps to regulate or not regulate waters/wetlands based on connection to US Commerce
3. A complicated issue. One should assume a water/wetland is regulated by the federal government until documented otherwise
4. Under state law, waters and wetlands still regulated by NYSDEC and APA
5. This information is correct as of the date of this presentation



# Where do I find HELP?

## What do I do/Where do I find help?

- Ask - has the site had any prior wetland delineations/reviews completed
- Society of Wetland Scientists Professional Certification Program
  - Names/Towns of Certified Professional Wetland Scientists in your state
- Ask Environmental Land Use Attorneys Specializing in Wetlands
- Google Wetlands Consultants
- Regulatory Agency Staff – NYSDEC and APA may delineate wetlands, especially on small sites for “mom and pops” You may wait awhile

## Regulatory Assessment

- Ask wetland consultant for Regulatory Site Assessment - who regulates what where, and how to proceed
- Ask for a wetland delineation
- Ask Environmental Attorney to review papers/documents for completeness, issues

## Regulatory Reviews for Existing Projects – Discussed Later

# Basics of Identifying Aquatic Resources

**QUESTIONS AND DISCUSSION**

# Regulation of Aquatic Resources



# Regulation of Aquatic Resources

## Three Agencies – The Simple Version

### Corps:

Federal Clean Water Act – All waters and wetlands\*

Federal Navigable Waters – Work and Structures

### NYSDEC:

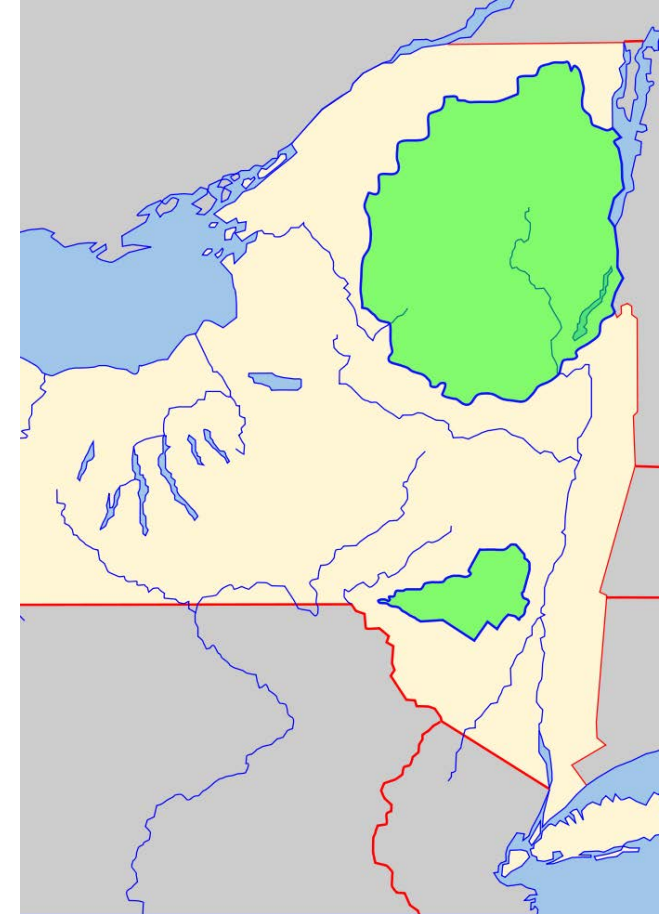
Stream Protection Regulations - All Class C(t), B, A Streams

State Freshwater Wetlands outside the Adirondack Park

### APA:

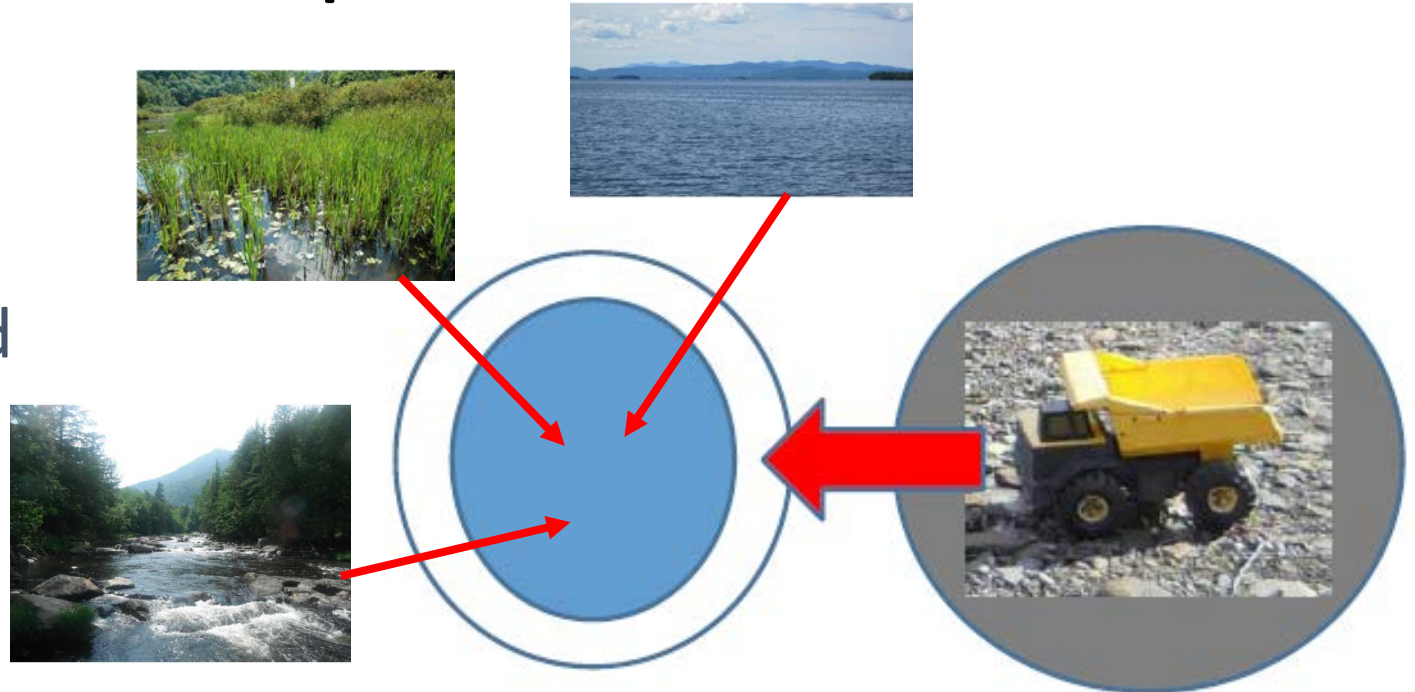
State Freshwater Wetlands inside the Adirondack Park

\* - with a connection to Interstate Commerce



# Regulation of Aquatic Resources

WHEN a regulated activity  
INTERSECTS WITH  
a regulated aquatic resource,  
A PERMIT is probably needed



**Regulated Resource  
(and buffer?)**

Ask yourself:

DOES THIS NEED A PERMIT?

Is the resource regulated?

By what agenc(ies)?

Is the activity regulated by that agenc(ies)?

Will the activity intersect with the resource?



# Regulation of Aquatic Resources

Corps of Engineers	NYSDEC	Adirondack Park Agency
<p>Traditionally Navigable Water (Section 10 Rivers Harbors Act)</p> <ul style="list-style-type: none"> <li>• <b>Doing work, placing structures in Navigable Waters</b></li> </ul> <p>All Waters (including wetlands) if they have a link to Interstate Commerce (Section 404 of the Clean Water Act)</p> <ul style="list-style-type: none"> <li>• <b>The discharge of dredged or fill material into a water of the United States</b></li> <li>• No minimum size wetland or water</li> <li>• Has a connection to interstate commerce</li> <li>• Includes moving soil around in the wetland</li> <li>• Includes grubbing trees and shrubs</li> <li>• Includes placing fill material</li> <li>• Does not include excavation of wetlands with no sidecasting.</li> </ul>	<p>Use and Protection of Waters (ECL Article 15, 6 NYCRR 608)</p> <ul style="list-style-type: none"> <li>• <b>Impacts to bed/banks of protected streams</b></li> <li>• <b>Dams</b></li> <li>• <b>Impacts to navigable waters</b></li> <li>• <b>Docks and moorings</b></li> <li>• <b>Water Quality Certificates</b></li> </ul> <p>Freshwater Wetlands Act (ECL Article 24, 6 NYCRR 663)</p> <ul style="list-style-type: none"> <li>• <b>Most activities within state wetland or its 100-foot regulated buffer.</b> Wetlands mapped, &gt;12.4 acres, or smaller mapped wetlands of local importance</li> </ul>	<p>IN ADIRONDACK PARK ONLY Freshwater Wetlands Act (ECL Article 24, 6 NYCRR 663)</p> <ul style="list-style-type: none"> <li>• <b>Most activities within state wetland or that could have an impact on the wetland</b></li> <li>• Smaller mapped wetlands &gt;1 acre or any size wetland associated with a waterbody</li> <li>• Includes creating ponds out of wetlands</li> </ul>

# Regulation of Aquatic Resources

## How regulated – The Simple Version



### AVOID, MINIMIZE, MITIGATE

- Has the project avoided wetland impacts?
  - Is there another site the project could be located on without wetland impacts?
  - Could the project be redesigned to avoid wetland impacts?
- Could the project be redesigned to minimize wetland impacts?
- How are unavoidable wetland impacts being compensated?

### PUBLIC INTEREST REVIEW

- Does the project adversely impact important public interest factors?
- On balance (weighing pros and cons), is the project in the public interest?



# Regulation of Aquatic Resources

## Corps of Engineers

- Dams, dikes in navigable waters
- Other structures or work, dredging, disposal in navigable waters.
- Altering course of navigable waters
- Discharge of dredged or fill material into waters of the United States including wetlands



# Regulation of Aquatic Resources

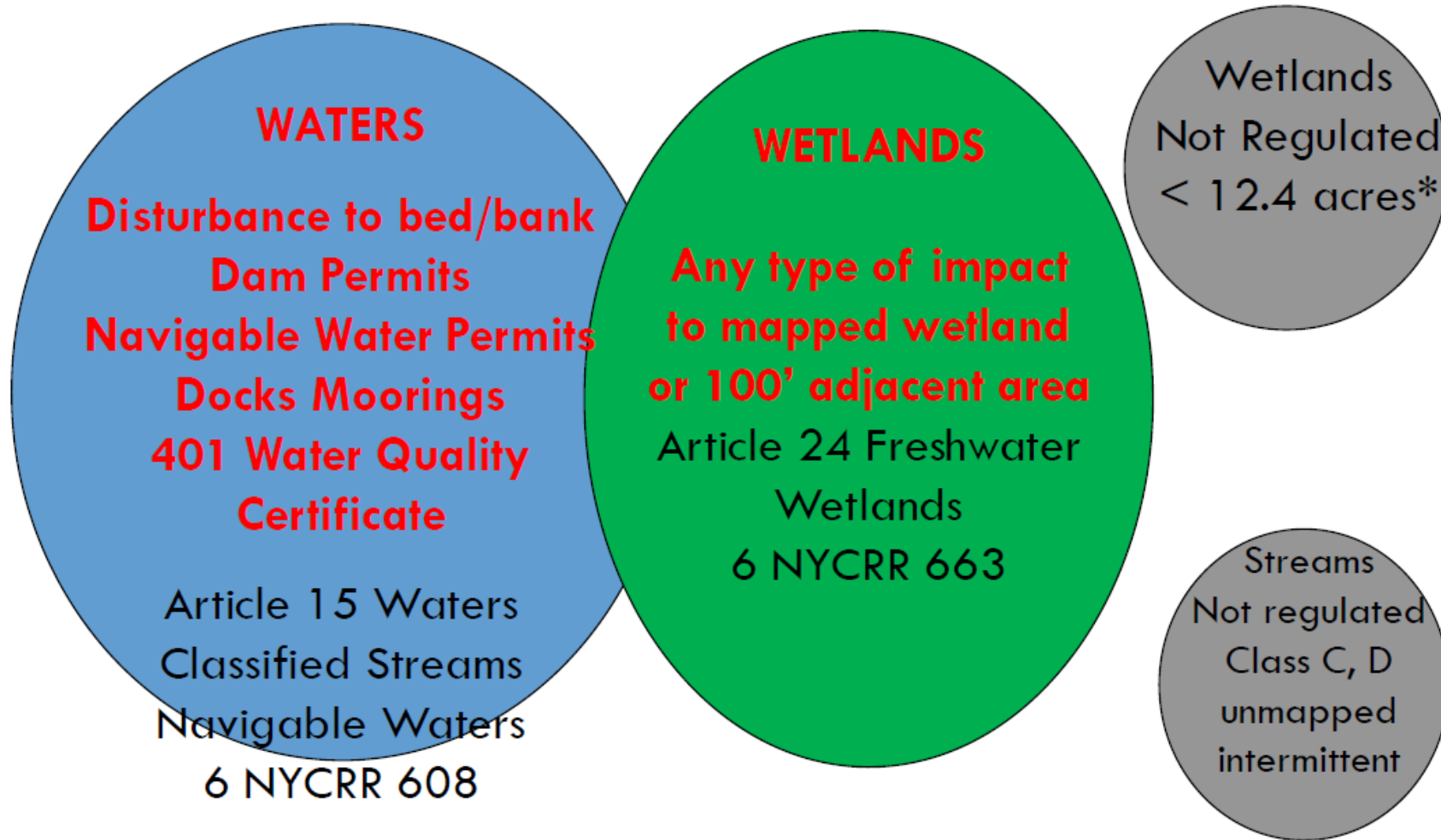
## Corps of Engineers

Area of Impact	Corps	
0 to 0.1 acre	Activity Specific Nationwide Permit (NWP) No compensatory wetland mitigation required	NWP 3 – Maintenance and Repair NWP 12 – Utility Lines
>0.1 to < 0.5 acre 300 LF stream	NWP Requires compensatory wetland mitigation Requires on-site Alternatives Analysis >300 LF stream = Corps waiver	NWP 13 – Bank Stabilization NWP 14 - Roadways NWP 29 – Single Family Homes NWP 39 – Commercial Development
0.5 to <3.0 acre	Individual Corps Permit with mitigation Off-Site Alternatives Analysis Public Notice USEPA and USFWS involvement	Updated every three years. New National Permits / Regional Conditions/ Water Quality Certificates released March 22, 2017
>3.0 acre	US EPA typically assumes jurisdiction	



# Regulation of Aquatic Resources

## NYSDEC



# Regulation of Aquatic Resources

## NYSDEC Waters

- Disturbance bed or banks of protected stream (water quality C(t), B, A)
- Dams
- Docks or moorings in state-owned underwater lands
- Excavation/Placement of fill in navigable waters
- Section 401 Water Quality Certifications





# Regulation of Aquatic Resources

## NYSDEC - Waters

### **6 NYCRR 608.6 – Permit Application Procedures**

- List of items required in a permit application

### **6 NYCRR 608.7 – Permit Application Review**

- Decisions and considerations

### **6 NYCRR 608.8 – Standards for Permit Issuance**

- Project is in the public interest
- Project is reasonable and necessary
- Project will not endanger the health, safety or welfare of the people of the state of NY
- Project will not cause unreasonable, uncontrolled or unnecessary damage to the natural resources of the state including soil, forests, water, fish, shellfish, crustaceans, and land-related environment.

# Regulation of Aquatic Resources

## NYSDEC - Waters

### 6 NYCRR 608.9 – 401 Water Quality Certificate

- 401 Water Quality Certificate is a checks and balances between State and Federal Government
- NYSDEC Blanket 401 Water Quality Certificate issued for many Corps NWPs
- Generally blanket Water Quality Certificate for impacts >0.25 acre.
- If project does not meet condition of blanket Section 401 WQC, than an individual WQC is required

# Regulation of Aquatic Resources

## NYSDEC - Wetlands

### Process:

1. Delineate/Map/Validate wetlands (NYSDEC will delineate)
2. Identify impacts to wetland or within 100 foot adjacent area
3. (Avoid and minimize those impacts to the maximum extent practicable)
4. Examine compatibility by activity (6 NYCRR 663.4(d))
5. Evaluate Standards for Permit Issuance (6 NYCRR 663.5(3))
6. Submit permit application documenting Steps 1 through 5



# Regulation of Aquatic Resources

## NYSDEC - Wetlands

**Two sets of permit issuance standards – these are the tougher ones**

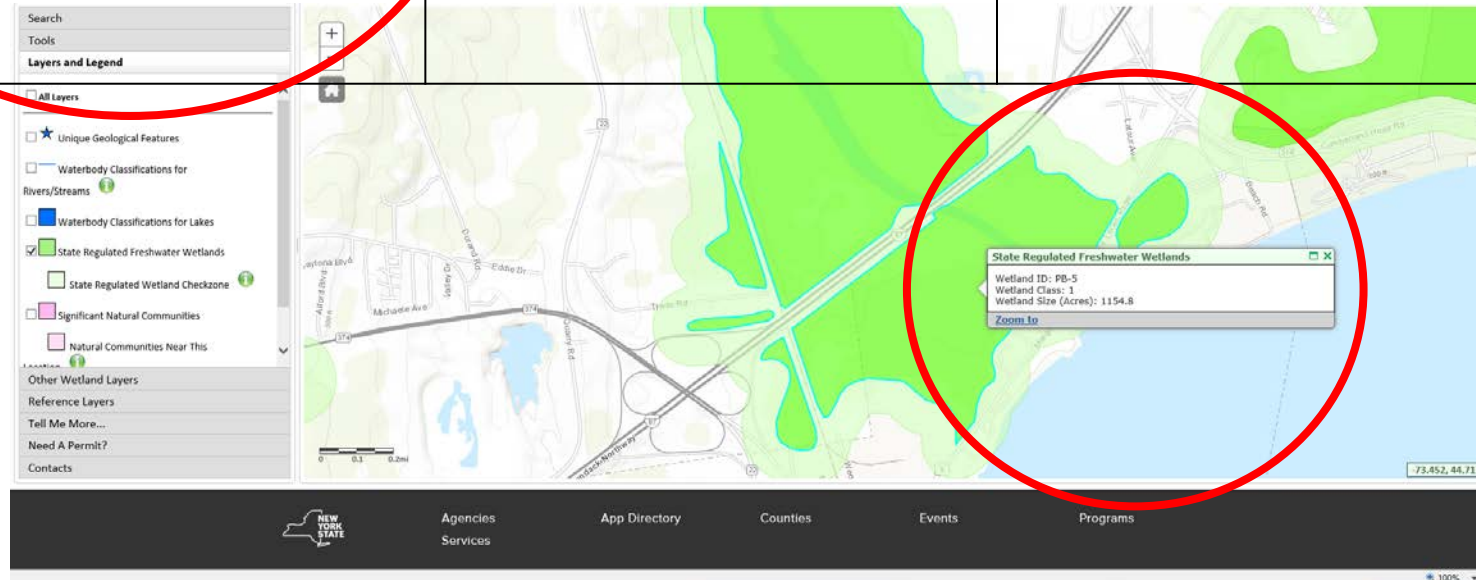
(2) **Weighing** - These weighing standards must be applied to all activities identified as P(X) in subdivision 663.4 (d), and to all those activities listed as P(C) or (N) in subdivision 663.4 (d) or not listed in subdivision 663.4 (d) that do not meet the three tests of compatibility listed in paragraph 663.5 (e) (1). If the proposed activity is listed as (X) or cannot meet the three tests for compatibility, then a permit may be issued only if the proposed activity meets each of the standards below for the class of wetland affected:

- For wetland Classes I, II, III and IV, the proposed activity must be compatible with the public health and welfare, be the only practicable alternative that could accomplish the applicant's objectives and have no practicable alternative on a site that is not a freshwater wetland or adjacent area.
- For wetland Classes I, II, and III, the proposed activity must minimize degradation to, or loss of, any part of the wetland or its adjacent area and must minimize any adverse impacts on the functions and benefits that the wetland provides.
- For wetland Class IV, the proposed activity must make a reasonable effort to minimize degradation to, or loss of, any part of the wetland or its adjacent area.

# Regulation of Aquatic Resources

## NYSDEC - Wetlands

Class 1 Wetlands	Class II Wetlands	Class III Wetlands	Class IV Wetlands
Class 1 wetlands provide the most critical of the state's wetland benefits, reduction of which is acceptable only in the most unusual circumstances. A permit shall be issued only if it is determined that the proposed activity satisfied a compelling economic or social need that clearly and substantially outweighs the loss of or detriment to the benefit(s) of the Class I wetland.	Class II wetlands provide important wetland benefits, the loss of which is acceptable only in very limited circumstances. A permit shall be issued only if it is determined that the proposed activity satisfies a pressing economic or social need that clearly outweighs the loss of or detriment to the benefit(s) of the Class II wetland.	Class III wetlands supply wetland benefits, the loss of which is acceptable only after the exercise of caution and discernment. A permit shall be issued only if it is determined that the proposed activity satisfies an economic or social need that outweighs the loss of or detriment to the benefit(s) of the Class III wetland.	Class IV wetland provide some wildlife and open space benefits and may provide other benefits cited in the Act. Therefore, wanton or uncontrolled degradation or loss of Class IV wetlands is unacceptable. A permit shall be issued for a proposed activity in a Class IV wetland only if it is determined that the activity would be the only practicable alternative which could accomplish the applicants objectives.



# Regulation of Aquatic Resources

## NYSDEC - Wetlands

### NYSDEC Article 24 General Permit for AA impacts

- Demolition/removal of existing accessory/appurtenant structures.
- Construction of driveways or parking areas 1,000 square feet within adjacent area.
- Additional to existing structures 1,000 square feet.
- Installation of garages, decks, porches, sheds, pool, utility lines and structures of less than 1,0000 square feet in adjacent area.
- In-kind, in-place replacement of existing accessory/appurtenant structures, roads, utilities.



# Regulation of Aquatic Resources

## Other Involved Regulations

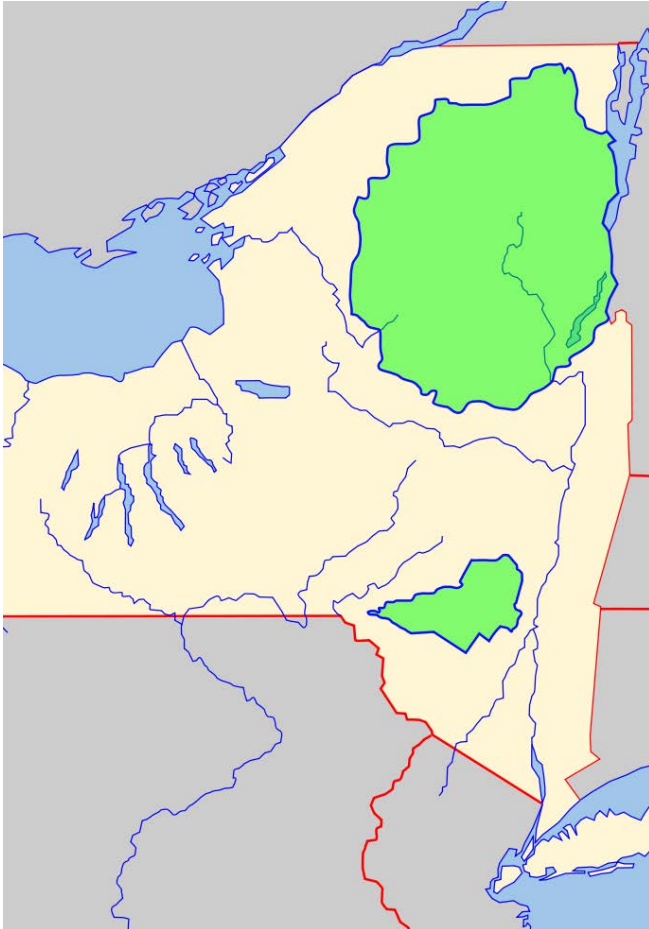
Permitting triggers other regulatory reviews:

- State Environmental Quality Review Act / National Environmental Policy Act
- Federal and State Endangered Species
- Bald Eagle Protection – Management Guidelines
- Cultural and archeological resources
- State Water Pollution Prevention Plans (SWPPS)
- Floodplains
- Wild, Scenic, Recreational Rivers and National Inventory Rivers
- Navigation
- Use of underwater lands belonging to the State
- Movement of aquatic organisms, maintenance of flows

Typically part of a “Public Interest Review” aspect of the permitting review

# Regulation of Aquatic Resources

## APA - Wetlands



### Who Regulates Wetlands in the Adirondack Park?

Wetlands in Adirondack Park are regulated by the Adirondack Park Agency.

Wetlands outside the Park are regulated by NYSDEC.

NYSDEC regulates streams both inside and outside the Park.

Neither the NYSDEC nor the APA are responsible for the Applicant obtaining all necessary permits.

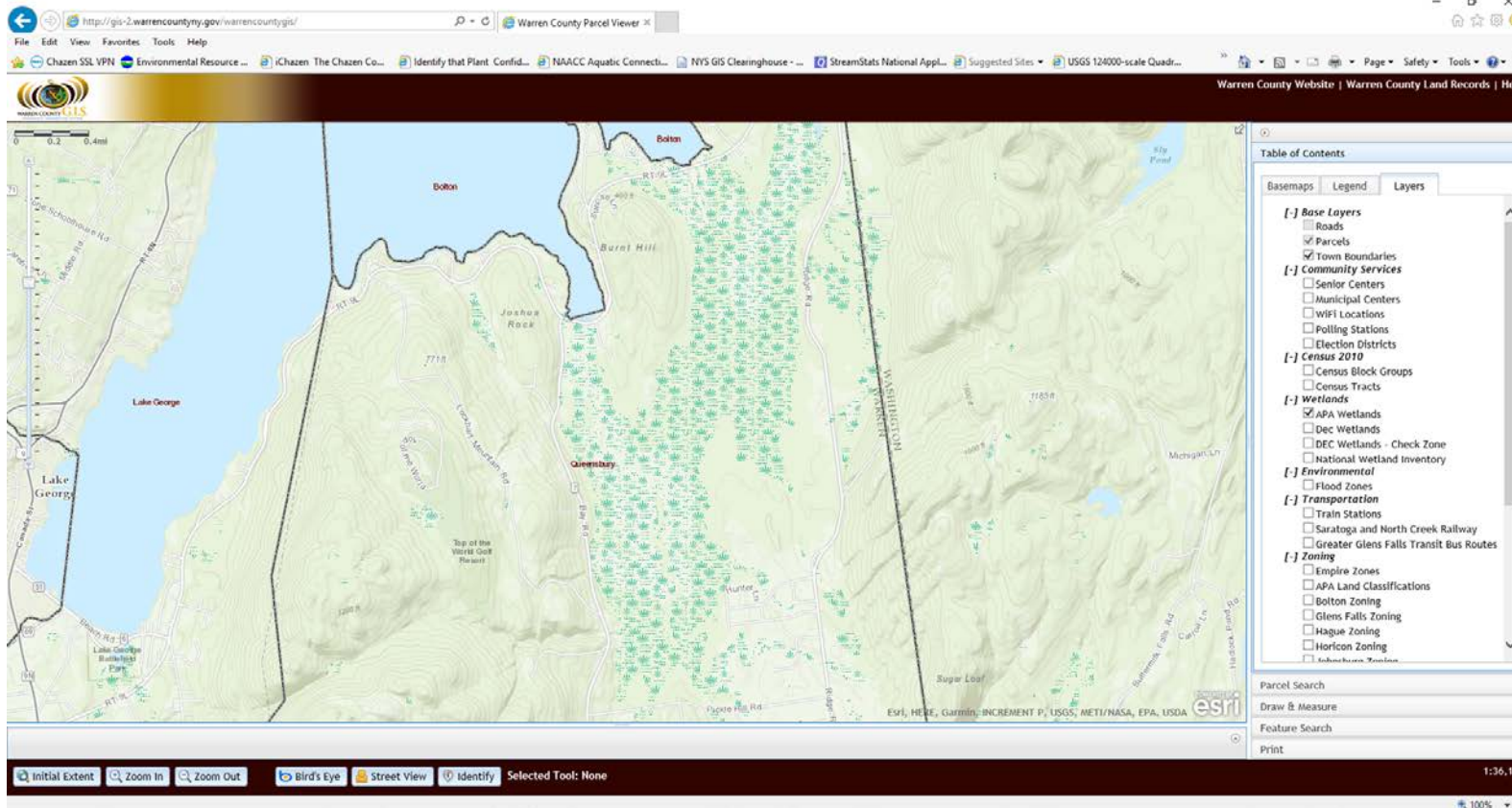
The Corps of Engineers also regulates wetlands and streams in the Park.

Most activities would be covered by Nationwide Permits.

However, most Nationwide Permits require notification.

It is always the responsibility of the landowner and their contractors to obtain all necessary approvals for any project.

# Identifying Aquatic Resources - Mapping



## APA Wetland Map

- Simplified single layer on Warren County GIS Mapping.

## NOTE:

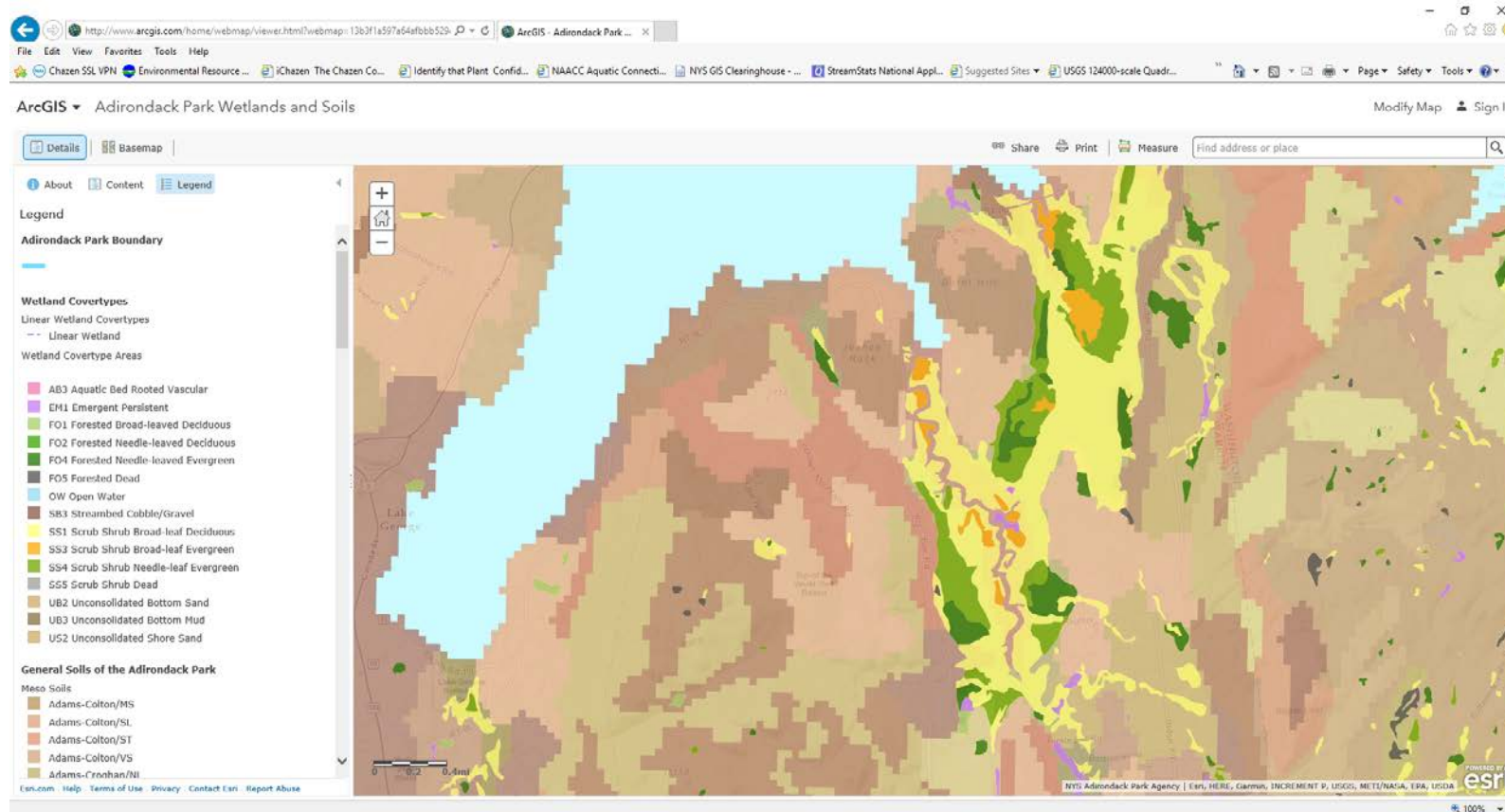
You will still need to look up water body classifications on NYSDEC Environmental Resource Mapper as Waters are regulated by NYSDEC in Adirondack Park.

Stream mapping by NYSDEC not on Warren County GIS Mapper

South End of Lake George, Warren County, NY  
Warren County GIS Mapper



# Identifying Aquatic Resources - Mapping



South End of Lake George, Warren County, NY  
Adirondack Park Agency Website

## APA Wetland Map

- Google “Adirondack Park Agency GIS Mapping.”
- Scroll down the webpage to “DATA” and click “Wetland Covertypes – View On-line map.”
- Scroll into the picture of the Adirondack Park to the location of the site.

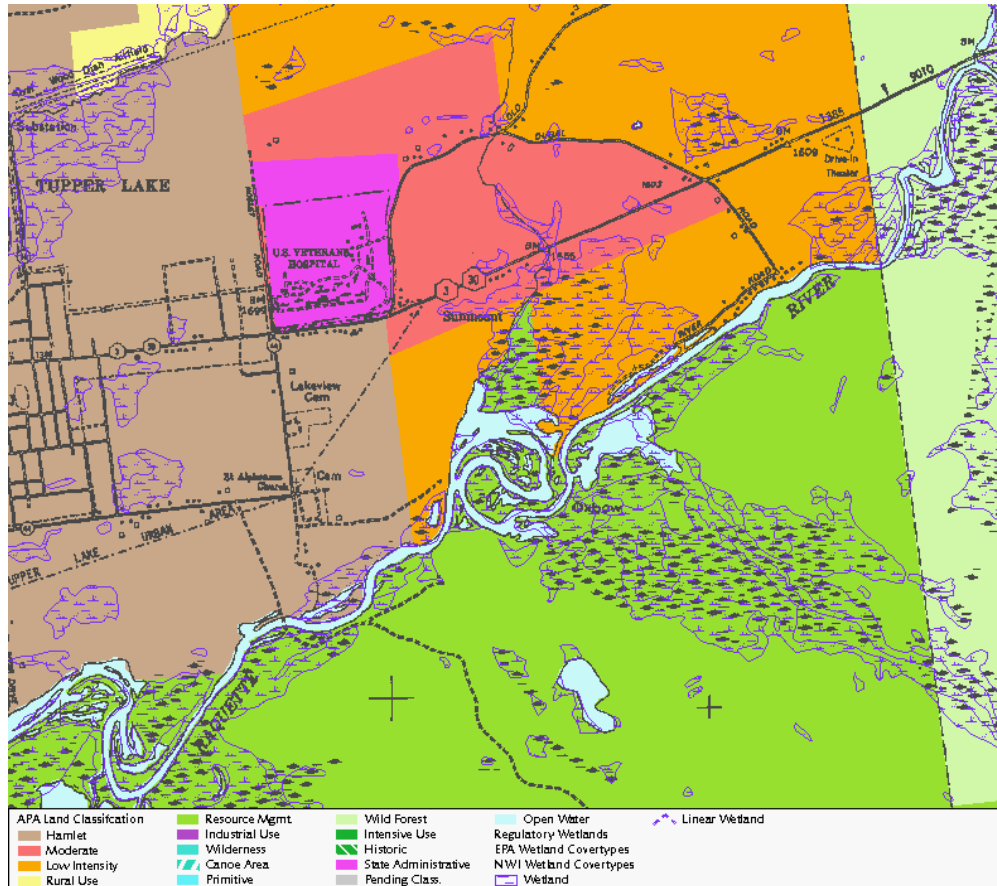
Illustrates various wetland covertypes on a variety of base maps.

## NOTE:

- Water body classifications on NYSDEC Environmental Resource Mapper.
- Waters regulated by NYSDEC in Adirondack Park.

# Regulation of Aquatic Resources

## APA - Wetlands



### Adirondack Park Agency Wetland Mapping

- Maps are for reference only
- On-site delineation required to determine wetland boundaries relative to project
- If a jurisdictional wetland does not appear on the map, it is still subject to Agency regulation if it is >1 acre or associated with a waterbody
- Waterbodies with submerged aquatic vegetation are regulated as wetlands under Article 24 within the park.





# Regulation of Aquatic Resources

## APA - Wetlands



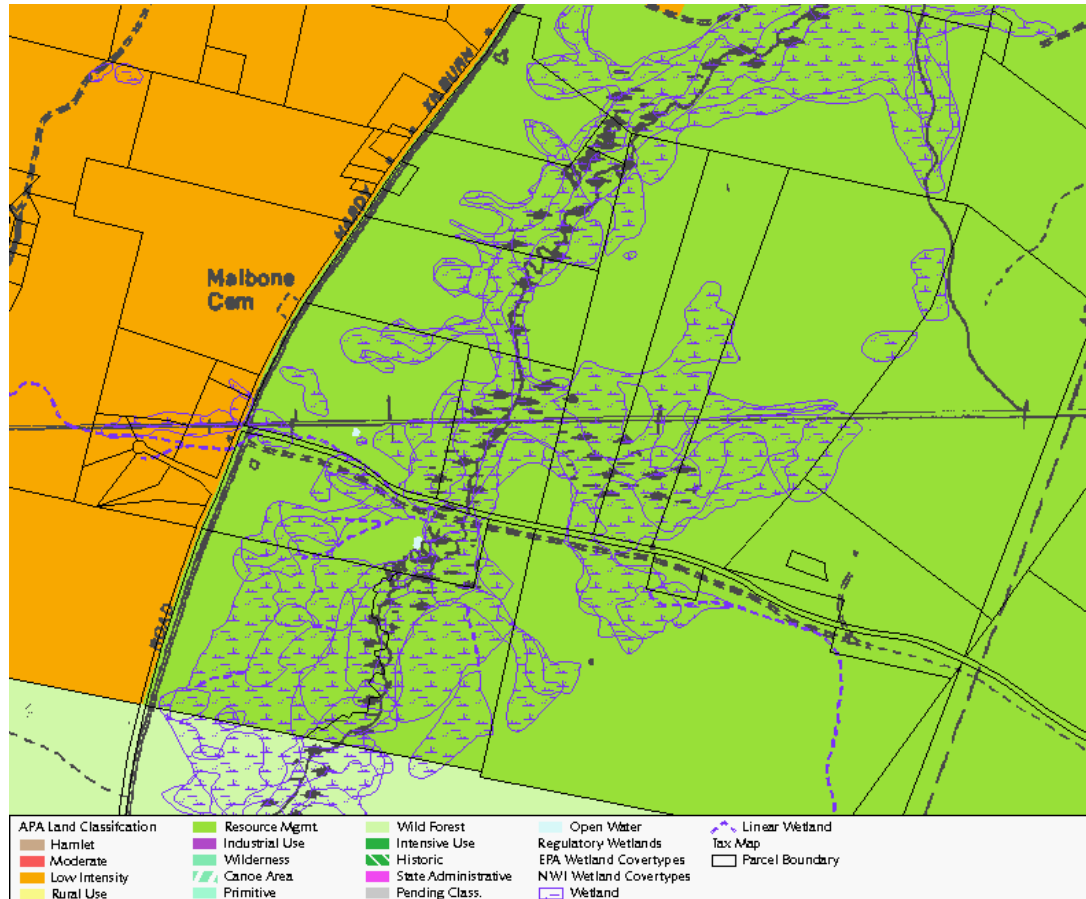
**An APA permit is needed for:**

- **Filling, draining and dredging**
- **Excavating**
- **Structures in a wetland**
- **Leach field within 100 feet of a wetland**
- **Subdivision**
- **Clearcutting 3 or more acres**
- **Any pollution which drains into a wetland**
- **Creating a pond out of a wetland**
- **Anything else that affects a wetland**



# Regulation of Aquatic Resources

## APA - Wetlands



### How Does the APA Review Wetland Projects?

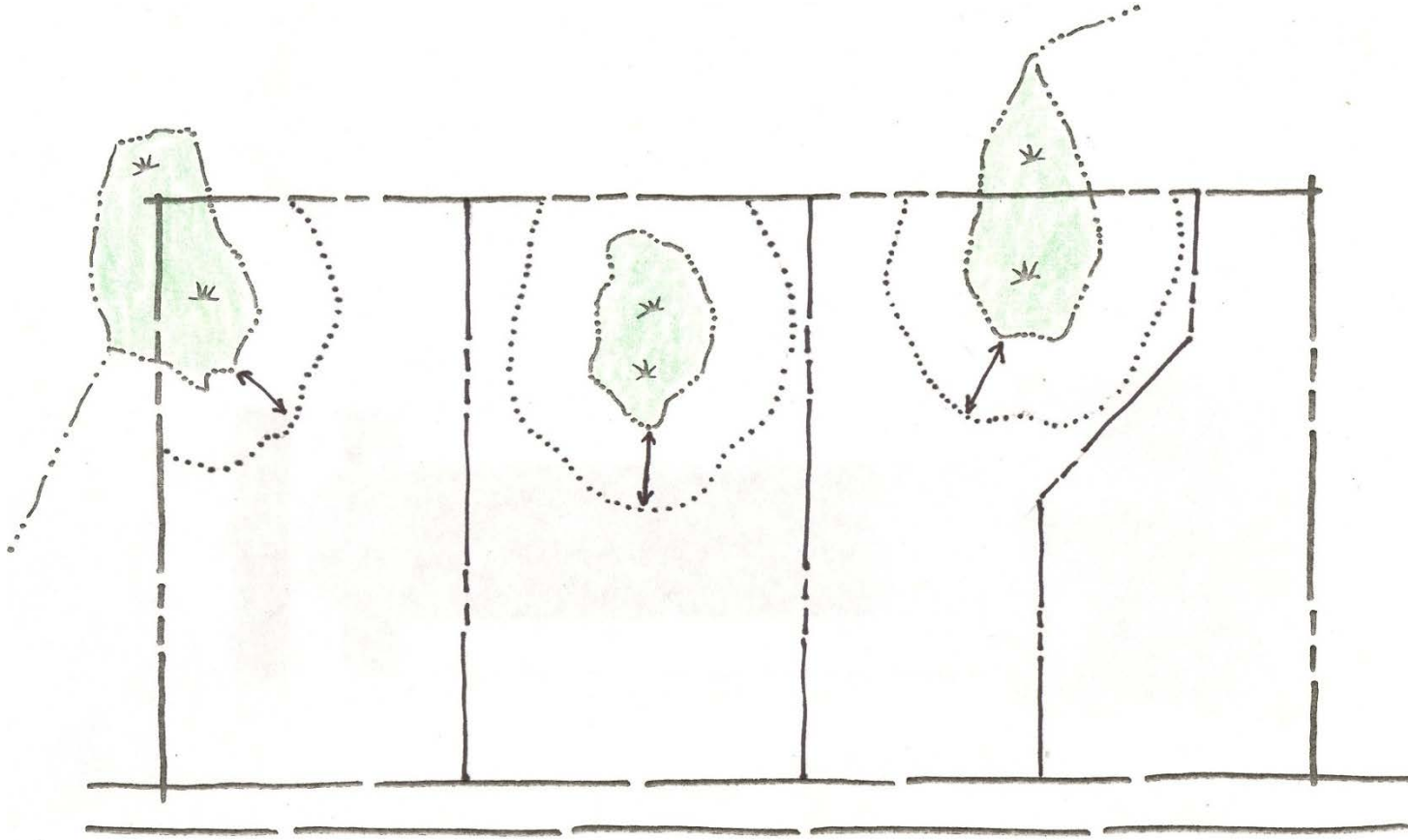
#### Avoid, Minimize, Mitigate

This is the number one rule in planning wetlands projects.

Here is an example of a few lots where wetland avoidance would probably dictate the placement of development. Some of these have building sites near the road that would likely have to be utilized in order to avoid wetland impacts. Minimization and mitigation would need to be employed to develop the one that has wetlands extending up to the roadside. To develop this lot, the driveway would need to be as narrow as possible (~8 feet) and mitigation would need to be done to make up for the loss of wetlands.

# Regulation of Aquatic Resources

## APA - Wetlands



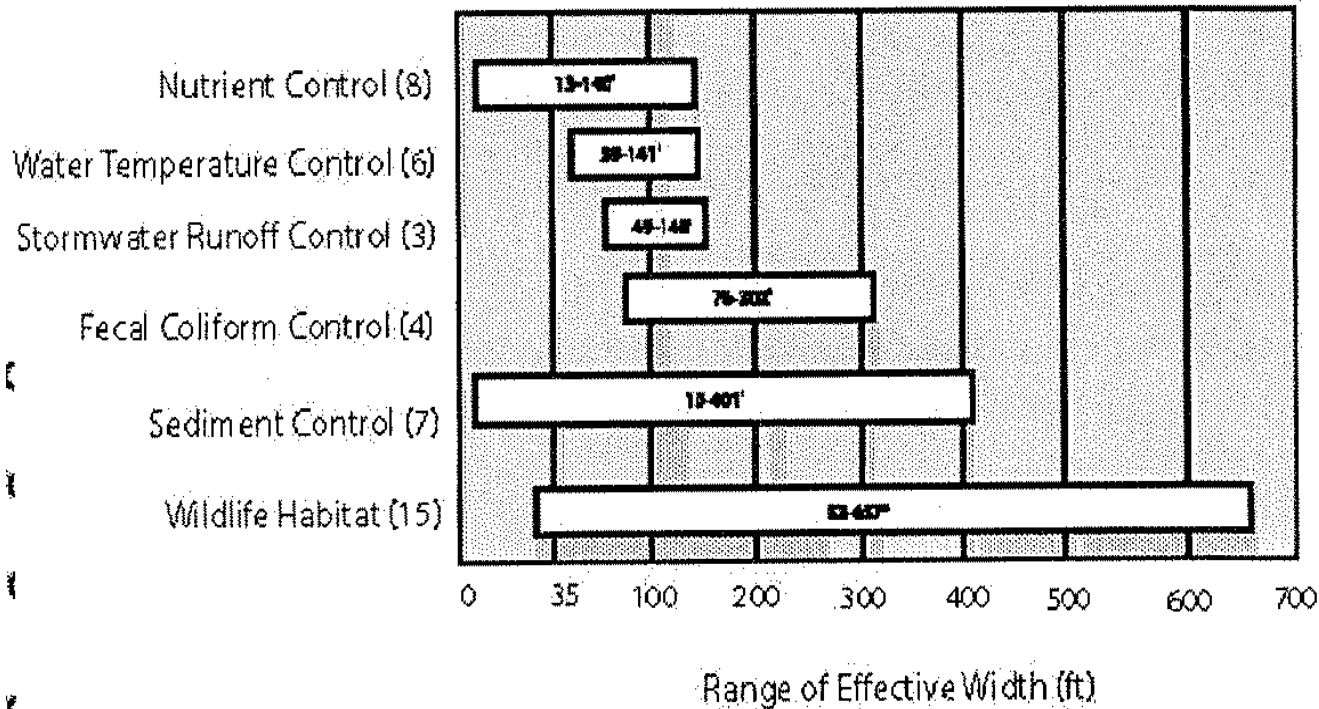
*New Rules: No lot requires a permit*

*Designed around the wetlands so...*  
*new lot lines are*  
*200 feet from*  
*wetlands*

# Regulation of Aquatic Resources

## APA - Wetlands

Figure 1. Recommended Shoreline Buffer Widths  
Based on (x) Studies



### MAINTENANCE OF BUFFERS

Best case:

- Wetlands are avoided.
- Adequate buffers maintained.
- Silt fence used to prevent erosion and sedimentation into a wetland. (Temporary for construction).
- A permanent multi-layered vegetated buffer, consisting of trees, shrubs and herbaceous plants is a more permanent and effective tool to prevent E+S.
- Grass alone is not an effective buffer, as it is shallow rooted, providing little erosion prevention.



# Regulation of Aquatic Resources

## APA - Wetlands



### BRIDGES AND CULVERTS ACROSS STREAMS WITH WETLANDS

- Minimize the amount of fill associated with them.
- For footbridges, boardwalks are preferred over fill.
- For roads/bridges, use the minimum volume of fill and rip-rap.
- Project  $\leq 300$  square feet of wetland impact may qualify for a general permit.
- Project  $\geq 300$  square feet of wetland impact may require full permitting and wetland mitigation.

# Regulation of Aquatic Resources

## APA - Wetlands



### DOCKS AND STRUCTURES OVER DEEP WATER MARSHES

- For projects affecting areas of deepwater marsh
- Minimize wetland impacts by raising docks above the surface of the wetland
- Light can penetrate = aquatic vegetation survives.





# Regulation of Aquatic Resources

## Compensatory Mitigation

Not “Build Wetland Here to Replace Wetland There”

Sequential – Avoid, Minimize, Mitigate

Difficult to do successfully



Is creation, restoration, enhancement of wetlands to compensate for lost wetland area and functions. Needs to mimic the wetland being impacted.

NYSDEC and APA require on-site in-kind mitigation.

Enlarge existing wetland or create entirely new wetland.

Corps allows for purchase of wetland credits from a mitigation bank or in-lieu fee program (limited coverage over NYS) or development of wetland mitigation. Typically replaced on 1.5 to 1 to 2.0 to 1 ratio.

It needs to be designed by a professional and monitored for a number of years to ensure proper function.



# Regulation of Aquatic Resources

## Violations and Enforcement



You buy it – You may own it.

Impacting streams or wetlands without a permit can result in enforcement actions from the Corps, NYSDEC, APA.

Area of impact is evaluated based on aerial photographs, conditions below the fill, existing wetlands/resources in vicinity.

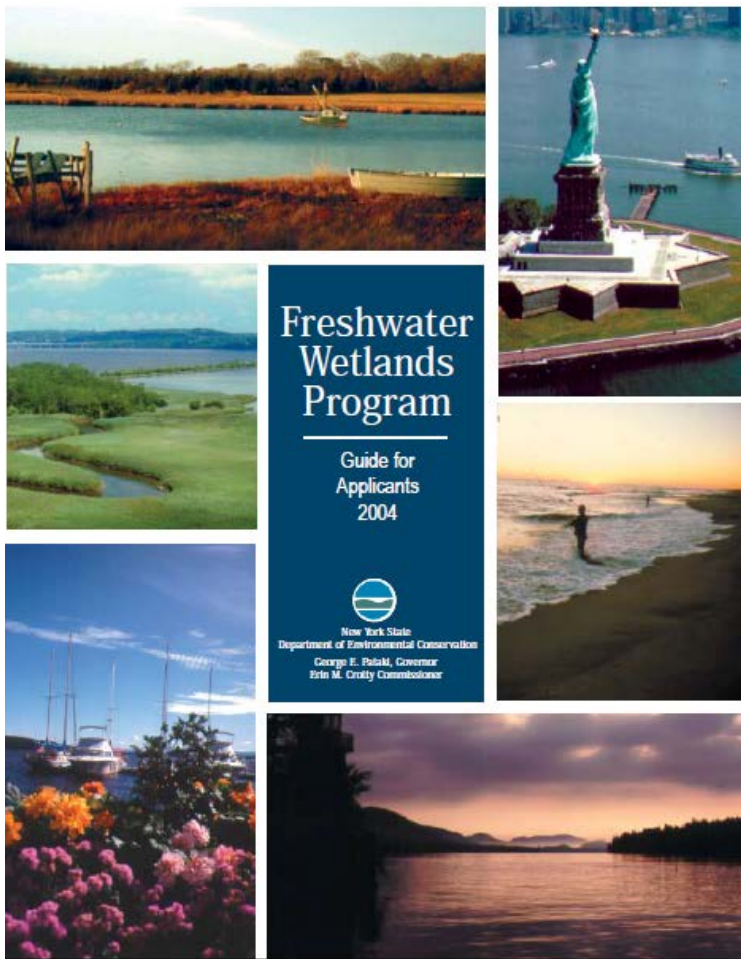
Typically required to stop work, remove some area of fill to bring back into compliance, complete permitting, mitigation.

May include fines.

Knowing and flagrant violators = criminal offense.

# Where do I find HELP????

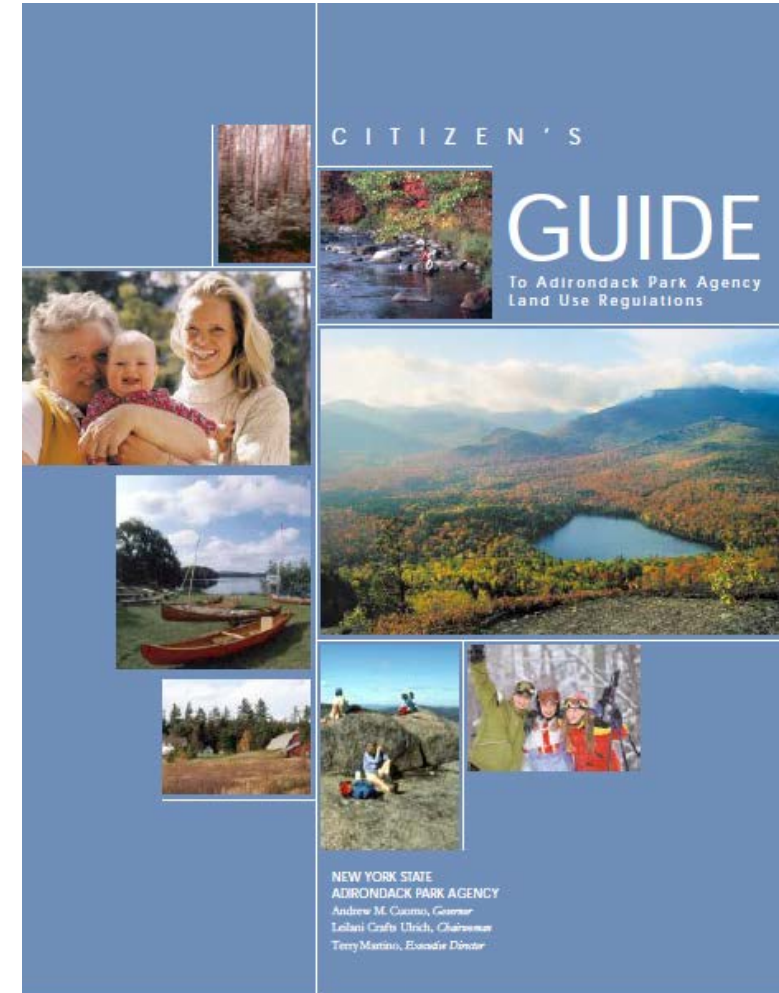
- Similar resources suggested under Identifying Wetlands Section
- Guides for Applicants



United States Army Corps of Engineers  
New York District

## Regulatory Program Applicant Information Guide

FY 2014



# Regulation of Aquatic Resources

## QUESTIONS AND DISCUSSION



# Floodplains and FEMA

# Floodplains and FEMA

## Why Are They Protected and Regulated?

### § 91-1. Findings.

The Town Board of the Town of Queensbury finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Queensbury and that such damages may include destruction or loss of private and public housing; damage to public facilities, both publicly and privately owned; and injury to and loss of human life. In order to minimize the threat of such damages and to achieve the purposes and objectives hereinafter set forth, this chapter is adopted.

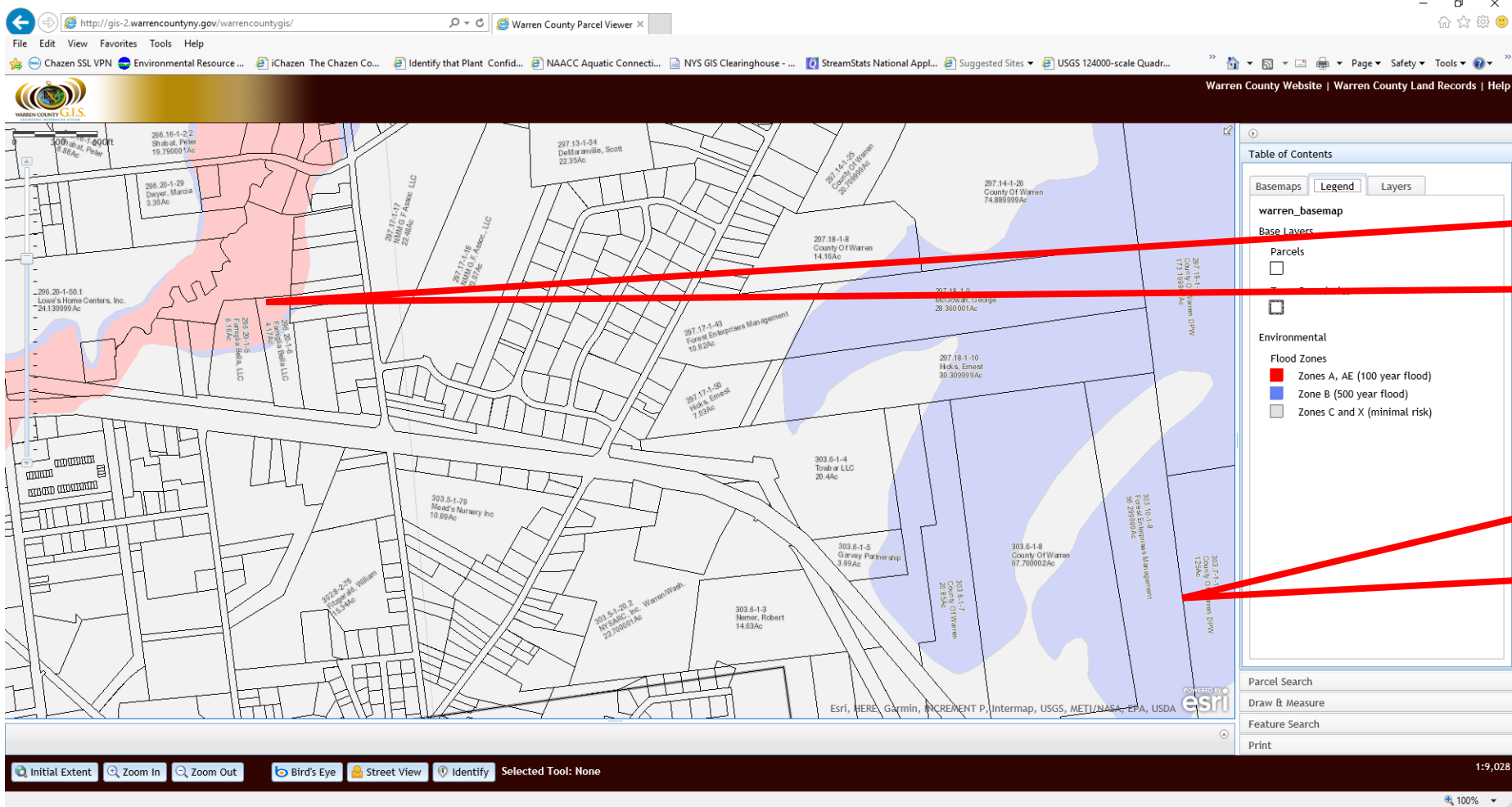
### § 91-3. Objectives.

The objectives of this chapter are to:

- A. Protect human life and health.
- B. Minimize expenditure of public money for costly flood control projects.
- C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.
- D. Minimize prolonged business interruptions.
- E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard.
- F. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas.
- G. Provide that developers are notified that property is in an area of special flood hazard.
- H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.



# Floodplains and FEMA



**FEMA 100 YEAR  
Flood Zone**, with or  
without base  
elevation

**FEMA 500 YEAR  
Flood Zone**

Warren County GIS Parcel Data



# Floodplains and FEMA

https://msc.fema.gov/portal

Federal Emergency Man... FEMA Flood Map Service C...

File Edit View Favorites Tools Help

Chazen SSL VPN Environmental Resource ... iChazen The Chazen Co... Identify that Plant Confid... NAACC Aquatic Connecti... NYS GIS Clearinghouse ... StreamStats National Appl... Suggested Sites USGS 124000-scale Quadr...

Page Safety Tools

**FEMA**

Navigation

Search

Languages

MSC Home

MSC Search by Address

MSC Search All Products

MSC Products and Tools

Hazard

LOMC Batch Files

Product Availability

MSC Frequently Asked Questions (FAQs)

MSC Email Subscriptions

Contact MSC Help

## FEMA Flood Map Service Center: Welcome!

Looking for a Flood Map?

Enter an address, a place, or longitude/latitude coordinate

Queensbury, NY

**Search**

Looking for more than just a current flood map?

Visit [Search All Products](#) to access the full range of flood risk products for your community.

**About Flood Map Service Center**

The FEMA Flood Map Service Center (MSC) is the official public source for flood hazard information produced in support of the National Flood Insurance Program (NFIP). Use the MSC to find your official flood map, access a range of other flood hazard products, and take advantage of tools for better understanding flood risk.

FEMA flood maps are continually updated through a variety of processes. Effective information that you download or print from this site may change or become superseded by new maps over time. For additional information, please see the [Flood Hazard Mapping Updates Overview Fact Sheet](#).

**Announcements**

**Hazus 4.0 (Tsunami) Now Available:** The Hazus Team has deployed Hazus 4.0 - Tsunami Module. The software can be downloaded for free on the FEMA Flood Map Service Center (MSC) [Hazus Download page](#). Hazus 4.0 is supported on ArcGIS 10.4 and Windows 10 64-bit, with continued support for Windows 8.1 and 7 (64-bit only).

**NOTE:** You must uninstall any existing versions of Hazus and all Microsoft SQL components from your computer before

## Search Results—Products for QUEENSBURY, TOWN OF

The flood map for the selected area is number **3608790027B**, effective on **07/16/1984**



Show **all products** for this area

## Letters of Map Change

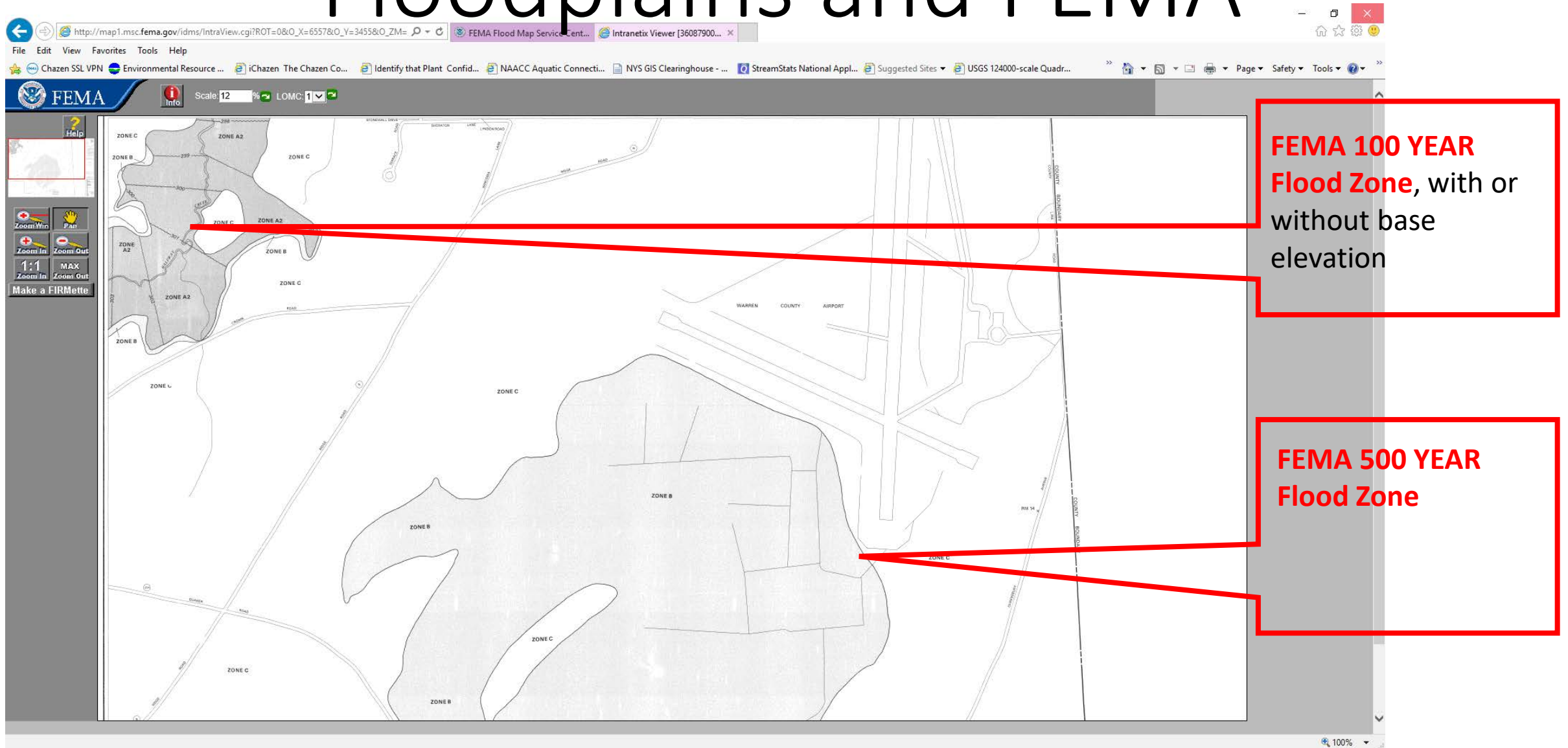
- Revisions (0)
- Amendments (1)
- Revalidations (0)

## Locator Map

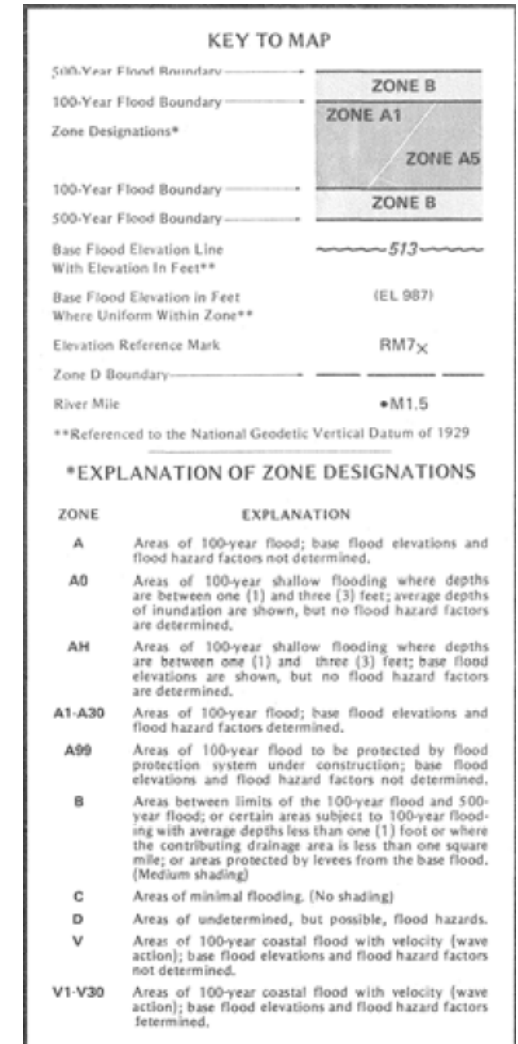
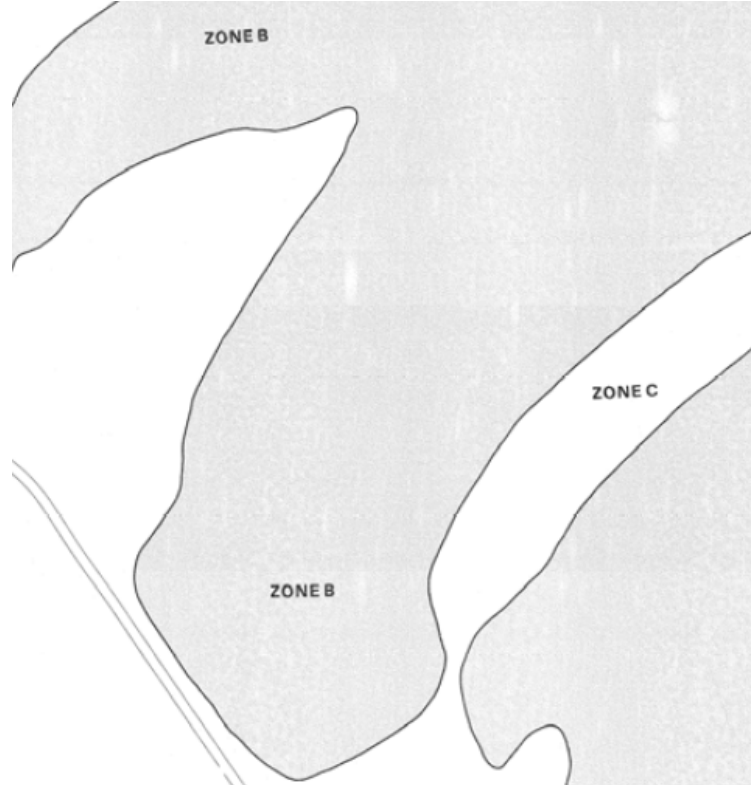
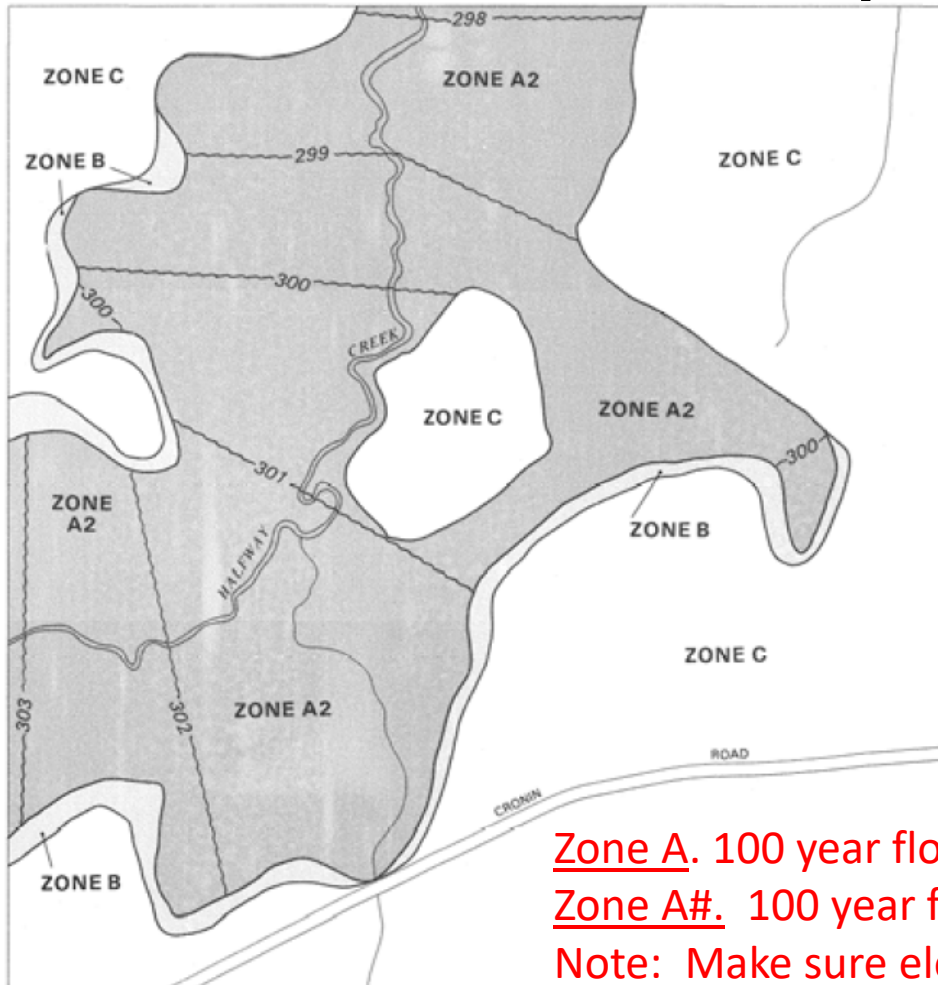


Google “FEMA Floodplain Mapping”

# Floodplains and FEMA



# Floodplains and FEMA



Zone A. 100 year flood

Zone A#. 100 year flood elevation is calculated to particular height

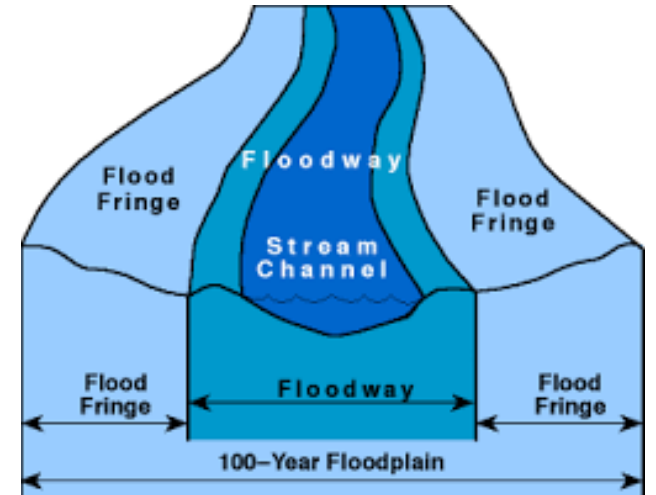
Note: Make sure elevation datum of survey map is same as FEMA.

Zone B. Between 100 and 500 year flood boundary.

Floodway. Not show here – often present on larger creeks



# Floodplains and FEMA



Floodway. present on larger creeks

Zone A. 100 year flood

Zone A# or AE. 100 year flood elevation calculated to particular height

Note: Make sure elevation datum of your survey map is same as FEMA elevation datum.

Zone B. Between 100 and 500 year flood boundary.

Updated Maps coming to many areas.

**FEMA Website**

# Floodplains and FEMA

Often regulated by Municipality. If not, then by NYSDEC.

Floodplain Insurance available at discounted rates for properties in a municipality based on proper regulation of development in floodplains by that Municipality.

For example, regulated by Town of Queensbury.

*Town of Queensbury, NY  
Thursday, March 23, 2017*

## Chapter 91. Flood Damage Prevention

[HISTORY: Adopted by the Town Board of the Town of Queensbury 8-12-1996 by L.L. No. 2-1996.<sup>[1]</sup>  
Amendments noted where applicable.]

# Floodplains and FEMA

Typical Requirements Summarized –

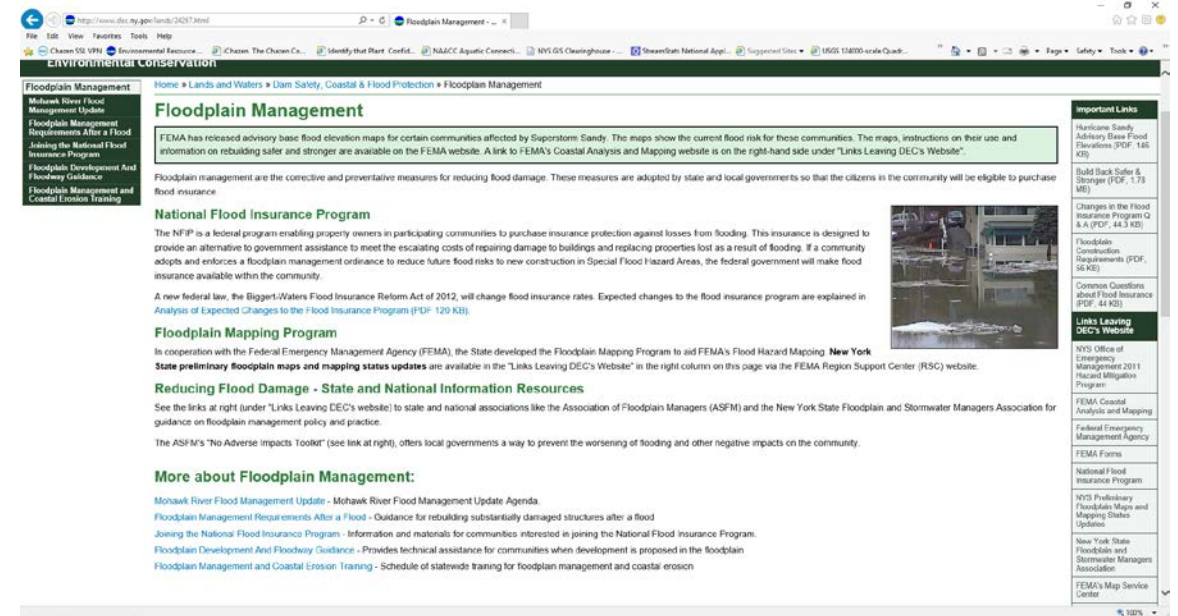
Actual legal wording and requirements may be different

- Requires floodplain development permit from floodplain administrator for construction in any special flood hazard. (Review project to ensure compliance).
- Very stringent requirements for development in floodways.
- In 100-year floodplains, buildings/improvements be engineered/designed and constructed to flood ordinance requirements.
  - Bottom floor elevations of living spaces must be certain height above floodplain elevation.
  - Walls, utilities, other infrastructure must be engineered to withstand flooding.
- Requires no additional fill volume in floodplain, or if fill added, engineering study to demonstrate no significant impact (less than 1 foot increase) to flood elevations.



# Where Do I Find Help?

- Local Municipal Floodplain Administrator
- NYSDEC Regional Office
- Consulting Engineers
- Consulting Floodplain Managers



# Obligations as Realtors™

A real estate broker who becomes an agent of a seller or buyer, either intentionally through the execution of a written agreement, or unintentionally by a course of conduct, will be deemed to be a fiduciary. Fiduciary duties are the highest duties known to the law. Classic examples of fiduciaries are trustees, executors, and guardians. As a fiduciary, a real estate broker will be held under the law to owe certain specific duties to his principal, in addition to any duties or obligations set forth in a listing agreement or other contract of employment. These specific fiduciary duties include:

Loyalty ▪ Confidentiality ▪ Disclosure  
Obedience ▪ Reasonable care and diligence ▪ Accounting

Risk Management & License Law Forum  
May 15, 2013

## Fiduciary Duties

# Obligations as Realtors™

## Disclosure

An agent is obligated to disclose to his principal all relevant and material information that the agent knows and that pertains to the scope of the agency. The duty of disclosure obligates a real estate broker representing a seller to reveal to the seller:

- All offers to purchase the seller's property.
- The identity of all potential purchasers.
- Any facts affecting the value of the property.
- Information concerning the ability or willingness of the buyer to complete the sale or to offer a higher price.
- The broker's relationship to, or interest in, a prospective buyer.
- A buyer's intention to subdivide or resell the property for a profit.
- Any other information that might affect the seller's ability to obtain the highest price and best terms in the sale of his property.

Risk Management & License Law Forum  
May 15, 2013

## Fiduciary Duties



# Obligations as Realtors™

A real estate broker representing a buyer is obligated to reveal to the buyer:

- The willingness of the seller to accept a lower price.
- Any facts relating to the urgency of the seller's need to dispose of the property.
- The broker's relationship to, or interest in, the seller of the property for sale.
- Any facts affecting the value of the property.
- The length of time the property has been on the market and any other offers or counteroffers that have been made relating to the property.
- Any other information that would affect the buyer's ability to obtain the property at the lowest price and on the most favorable terms.

CAVEAT: An agent's duty of disclosure to his principal must not be confused with a real estate broker's duty to disclose to non-principals any known material facts concerning the value of the property. This duty to disclose known material facts is based upon a real estate broker's duty to treat all persons honestly and fairly. This duty of honesty and fairness does not depend on the existence of an agency relationship.

Risk Management & License Law Forum  
May 15, 2013

## Fiduciary Duties

# More Information/Questions

Barbara B. Beall, PWS, LEED®AP  
Principal  
Director, Natural Resource Service  
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Queensbury, NY 12804  
518-824-1934  
[bbeall@chazencompanies.com](mailto:bbeall@chazencompanies.com)