



# Environmental Resources and Interagency Coordination

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# Discussion Topics

- Environmental Resources
- PWS Assistance Environmental Review Process
- Interagency Coordination
- ATP Environmental Screening Process







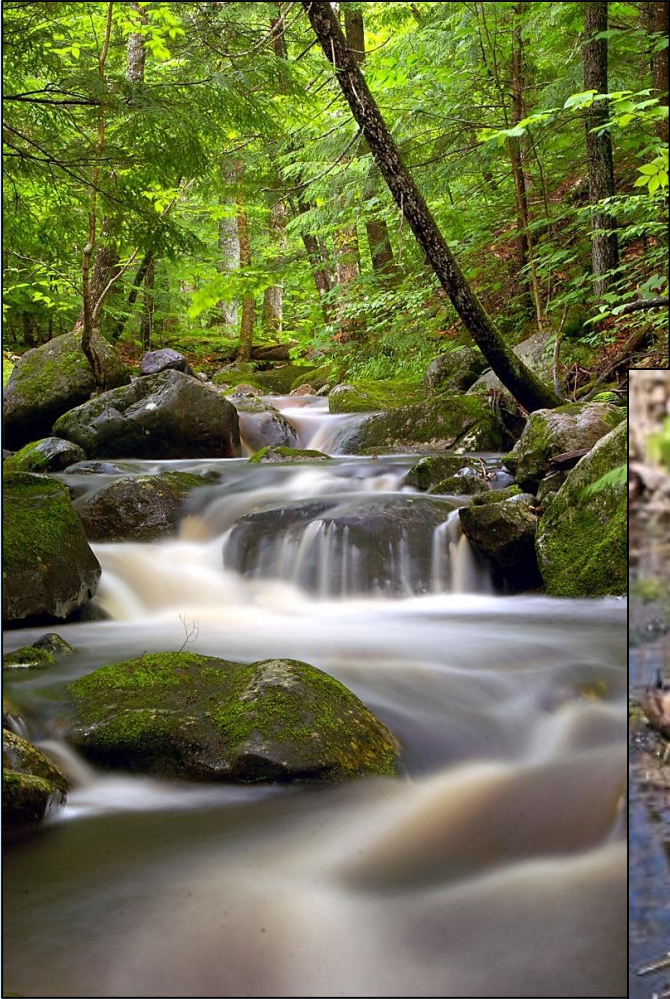








# Environmental Resources









# Wetlands

- Swamps, marshes, bogs, and similar areas
  - Saturated by surface or ground water
  - Support distinctive vegetation
  - Saturated soil conditions
- Serve as natural habitat for many species of plants and animals
- Improve water quality by absorbing pollutants and reducing turbidity
- Wetlands often serve as groundwater discharge sites and recharge sites















# New York State Wetlands

- Tidal wetlands and freshwater wetlands found on river and lake floodplains across the state
- The State Legislature passed The Freshwater Wetlands Act in 1975 with the intent to preserve, protect and conserve freshwater wetlands and their benefits
- Wetlands >12.4 acres (5 hectares or larger)
- Around every wetland is an 'adjacent area' of 100 feet that is also regulated to provide protection for the wetland
- The Act requires NYSDEC to rank wetlands in classes based on the benefits and values provided by each wetland
  - Class I to Class IV. Defined in NY Code
- A permit is required to conduct any regulated activity in a protected wetland or its adjacent area















# Surface Water Resources

- Rivers, streams, lakes and ponds
- Drinking and bathing; agricultural, commercial and industrial uses; and fish and wildlife habitat
- Streams and rivers can support wild trout
- Certain human activities can adversely affect, even destroy the delicate ecological balance of these important areas, impairing the uses of these waters



# New York State Protection of Waters Regulatory Program

- Policy of New York State; set forth in Title 5 of Article 15 of the Environmental Conservation Law
- Certain waters of the state are protected on the basis of their classification
- Standard of (T) or (TS) are collectively referred to as "protected streams," and are subject to the stream protection provisions of the Protection of Waters regulations
  - A Protection Of Waters Permit is required for disturbing the bed or banks of a stream with a classification of AA, A or B, or with a classification of C with a standard of (T) or (TS) (disturbance may be either temporary or permanent in nature)



# Headwater Streams

- Headwaters in the Susquehanna River Basin are the most vulnerable to potential impacts from withdrawals due to their extremely small drainage area size (<10 mi<sup>2</sup>)
- Highest quality surface waters in terms of water quality, designated and existing uses, and ability to support multiple ecological functions
- The biotic communities commonly occurring in headwater streams are often comprised of native species and are structurally and functionally intact









**Bog turtle**



**Timber  
Rattlesnake**



**Northern long-  
eared bat**



# RTE Species

- Rare (special concern), Threatened, or Endangered Species
  - Animals listed as RTE are under authority of Article 11, plants Article 9, of Environmental Conservation Law and state regulations (New York Code Part 182)
- If the project is within or near an area with a sensitive animal, a permit may be required if the species is listed as endangered or threatened AND the NYSDEC determines the action may be harmful to the species or its habitat
- If the project is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed by the NYSDEC







# Natural Communities

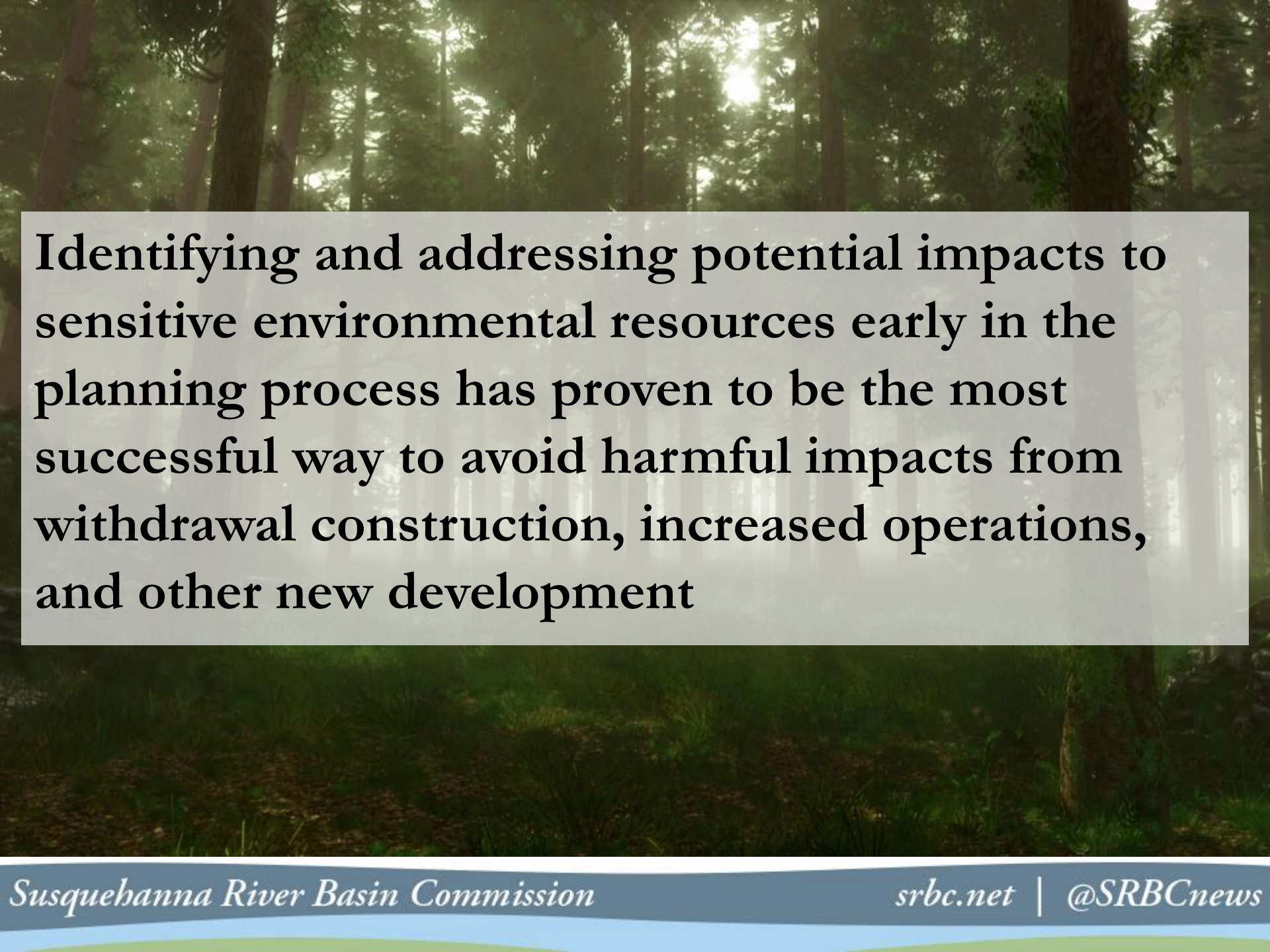
- New York Natural Heritage Program's Biodiversity Databases
- Rare natural communities or a common natural community of high quality
- Serve as habitat for a wide range of plants and animals
- Provide ecological value and services
- Examples include:
  - Deep emergent marsh, red maple-hardwood swamp, dwarf shrub bog, and hemlock-northern hardwood forest
- Threats are not typically hydrologically derived and are often related to development



# Wells and the Natural Environment

- Wells have often been constructed in close proximity to sensitive environmental resources
- Many environmental resources require special protections from state and federal agencies
- Sensitive animal species can be dynamic
- Balance between meeting system demands while avoiding adverse impacts to environmental resources
- Renewal, modification, and/or new withdrawal project applications require a comprehensive environmental review which satisfies the resource regulatory requirements of the Commission and the Commission's partner agencies





Identifying and addressing potential impacts to sensitive environmental resources early in the planning process has proven to be the most successful way to avoid harmful impacts from withdrawal construction, increased operations, and other new development



# Environmental Review Process for PWS Assistance Projects

- The Commission provides technical assistance to public water supply systems that will be seeking to have their Commission approvals renewed in the near future
  - Development of an Action Plan that the supplier can implement to collect additional data, as needed, to support a renewal application
- The Commission performs an environmental review to determine if sensitive environmental resources are present in the vicinity of the withdrawal(s)
  - The Commission uses the results of the environmental review to determine if any data gaps exist
  - Identify how additional data collection can be completed to support the renewal application
  - The additional data collection could range from:
    - Completing a new aquifer test
    - Conducting operational testing
    - Collecting no additional information

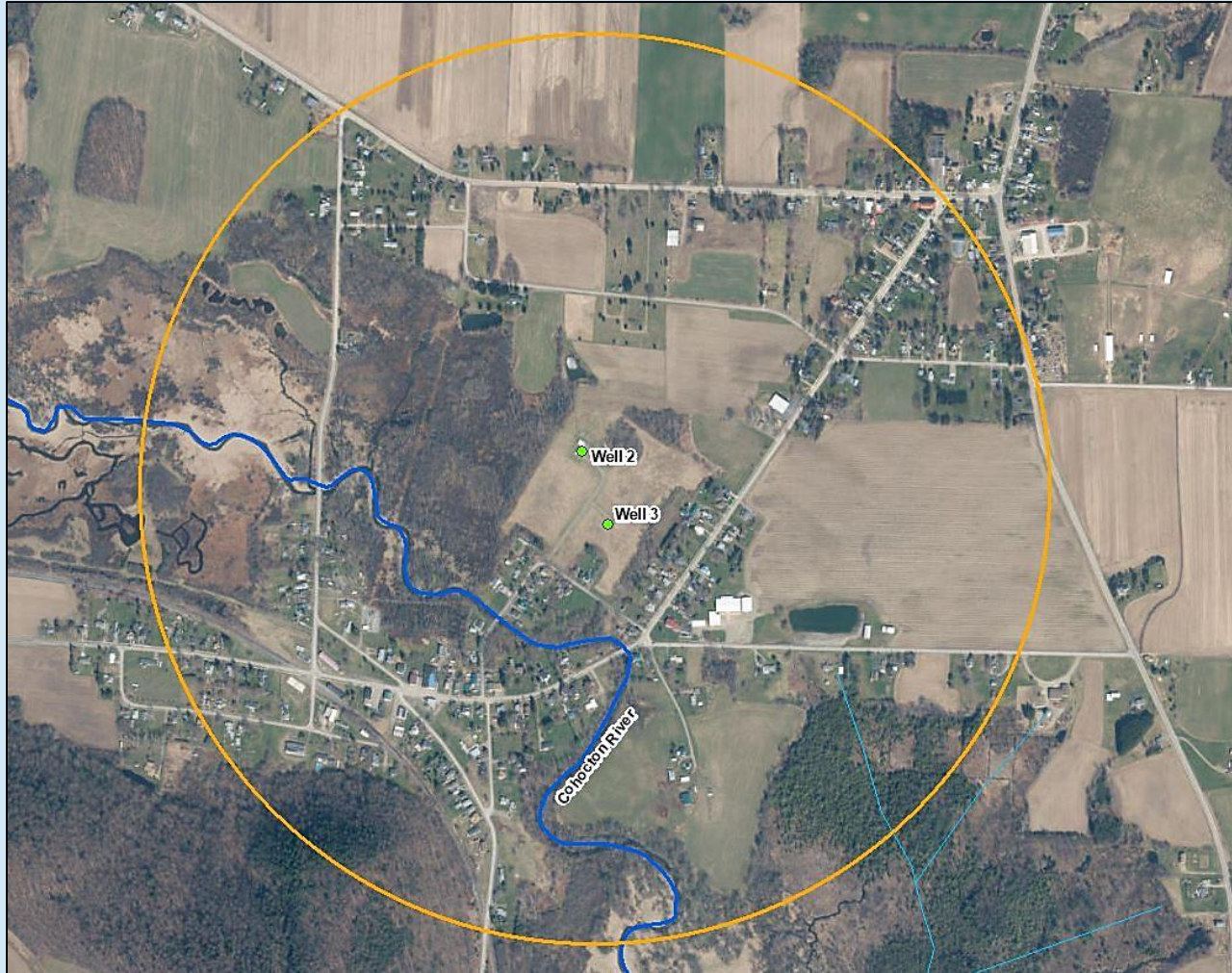


# PWSAP ENVIRONMENTAL SCREENING

- Inventory of environmental resources
- Preliminary, data gathering review
- Desktop Review – GIS and online map tool based
  - Identify adjacent SW classifications
  - Identify mapped wetlands
  - Identify significant natural communities
  - Identify RTE species
- Coordinate findings with partner resource agencies
- Present technical considerations and recommendations to project sponsor



# Project Environmental Review Buffer

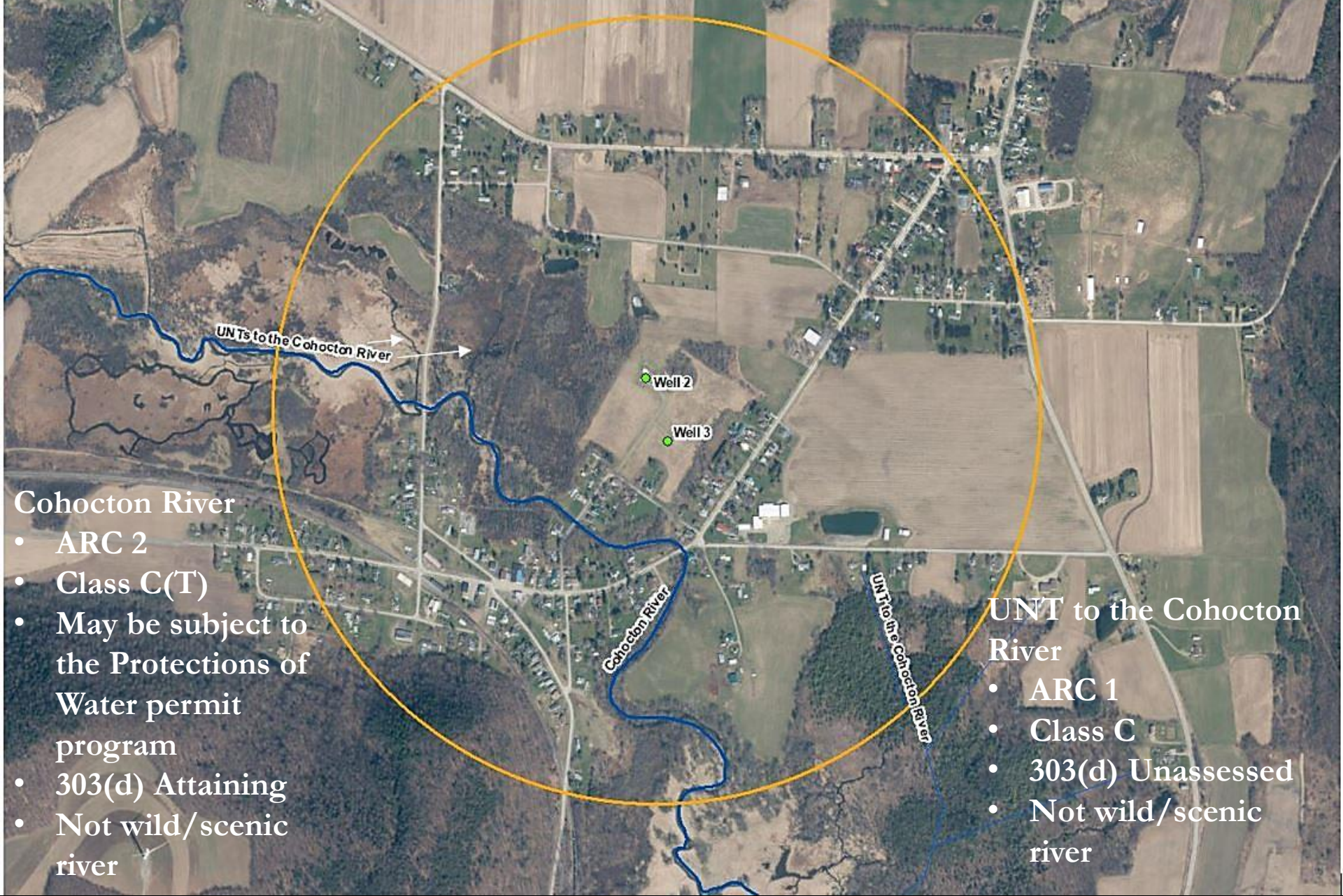




# SW Classifications

- Identify SW features within or adjacent to the environmental review buffer
- ARC Class (drainage area)
- NYSDEC Water Quality Classification
- Support trout (T) or spawning trout (TS) populations?
  - Subject to special protections of the NYSDEC Protection of Waters Program?
- 303(d) List Status (Attainment or Non-Attainment /Impairment)
- State/Federal Wild or Scenic River (National Rivers Inventory)





- Cohocton River**
- ARC 2
  - Class C(T)
  - May be subject to the Protections of Water permit program
  - 303(d) Attaining
  - Not wild/scenic river

- UNT to the Cohocton River**
- ARC 1
  - Class C
  - 303(d) Unassessed
  - Not wild/scenic river

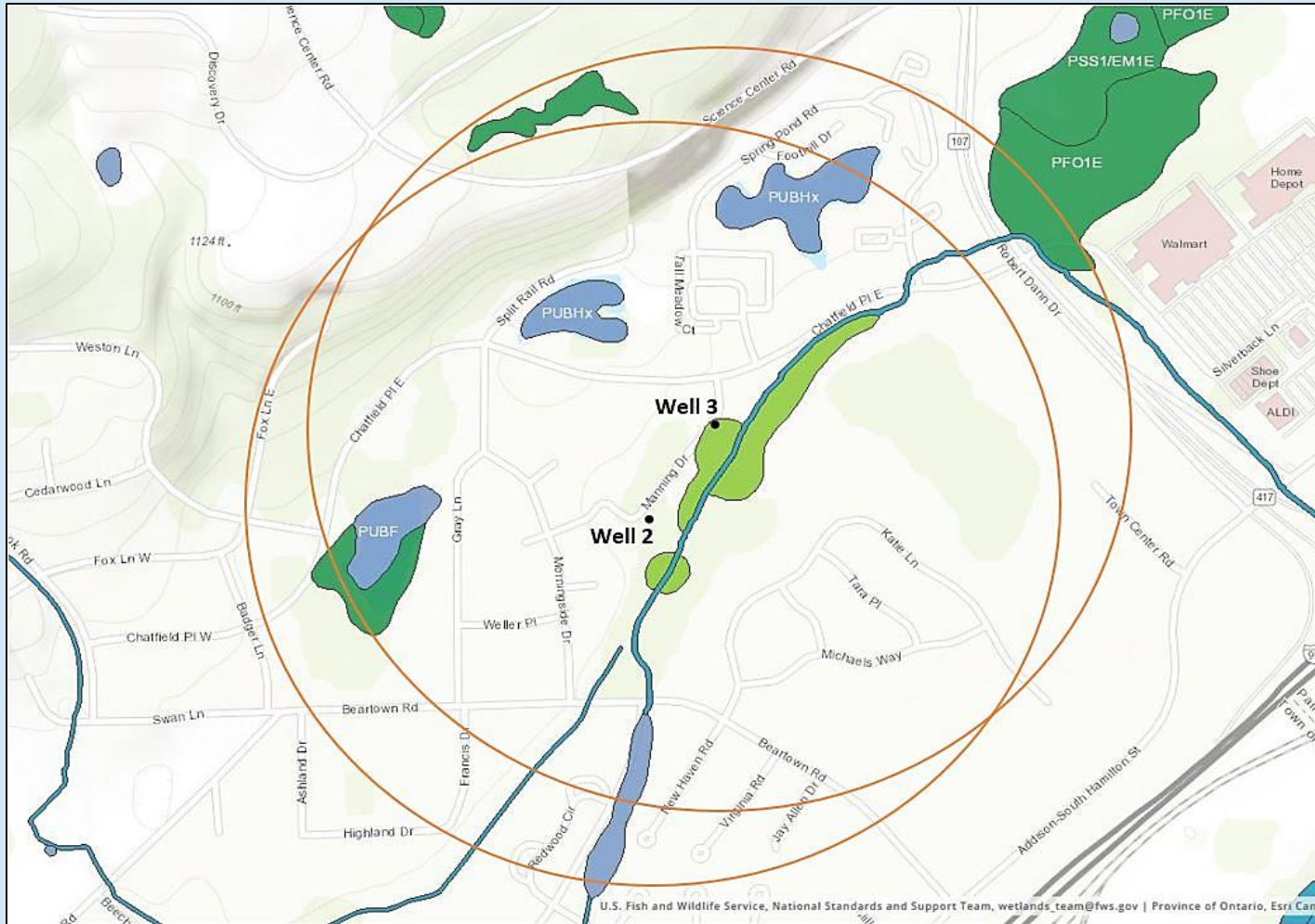


# Wetlands

- Are there wetlands mapped within the environmental review area?
- Commission staff utilize:
  - USFWS' National Wetland Inventory (NWI)
  - NYSDEC's Environmental Resource Mapper
- Identify if the wetland(s) may be regulated under the Freshwater Wetlands Act (Article 24)
  - Class I – Class IV
  - Regulated wetland check zone

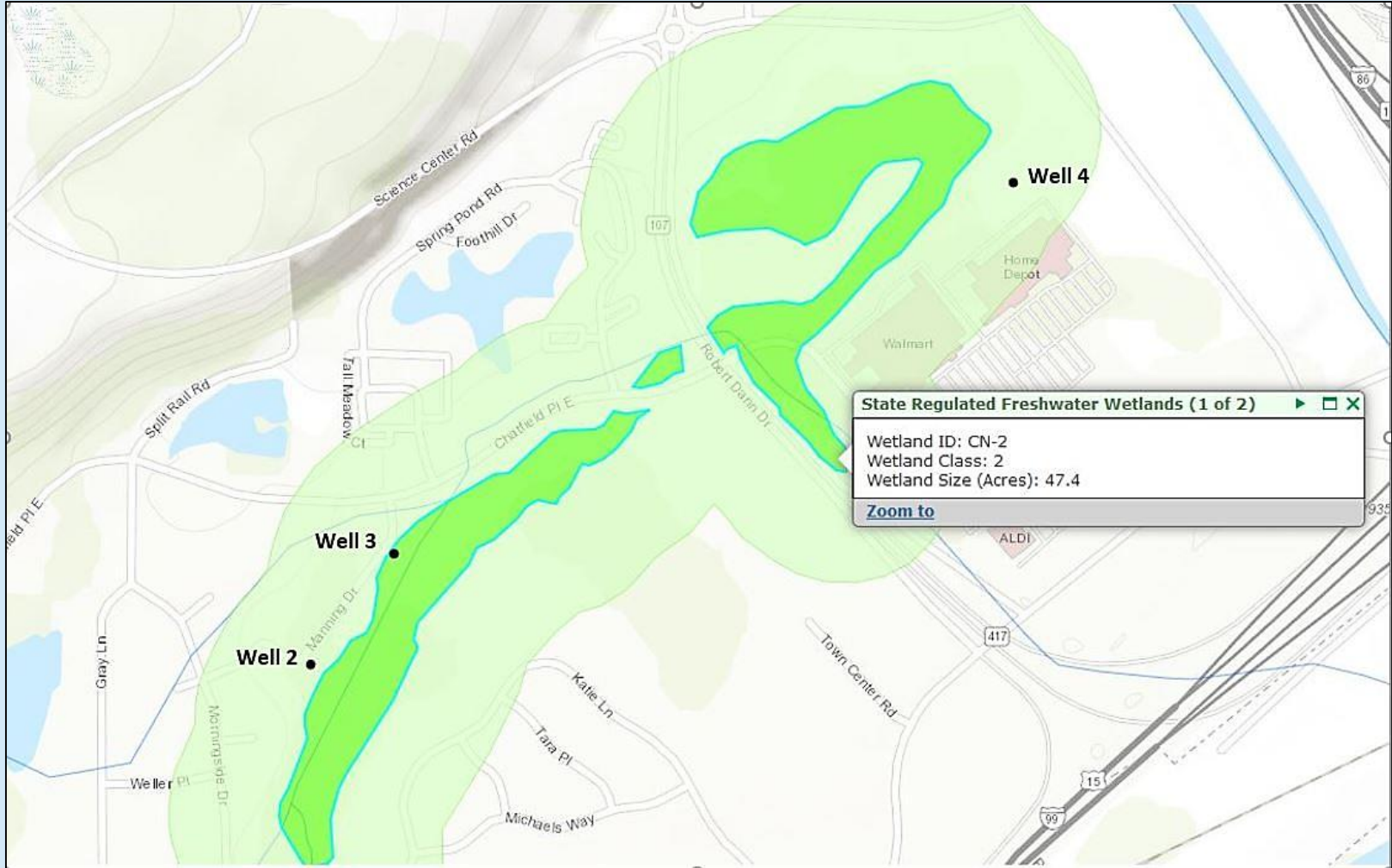


# NWI





# Environmental Resource Mapper



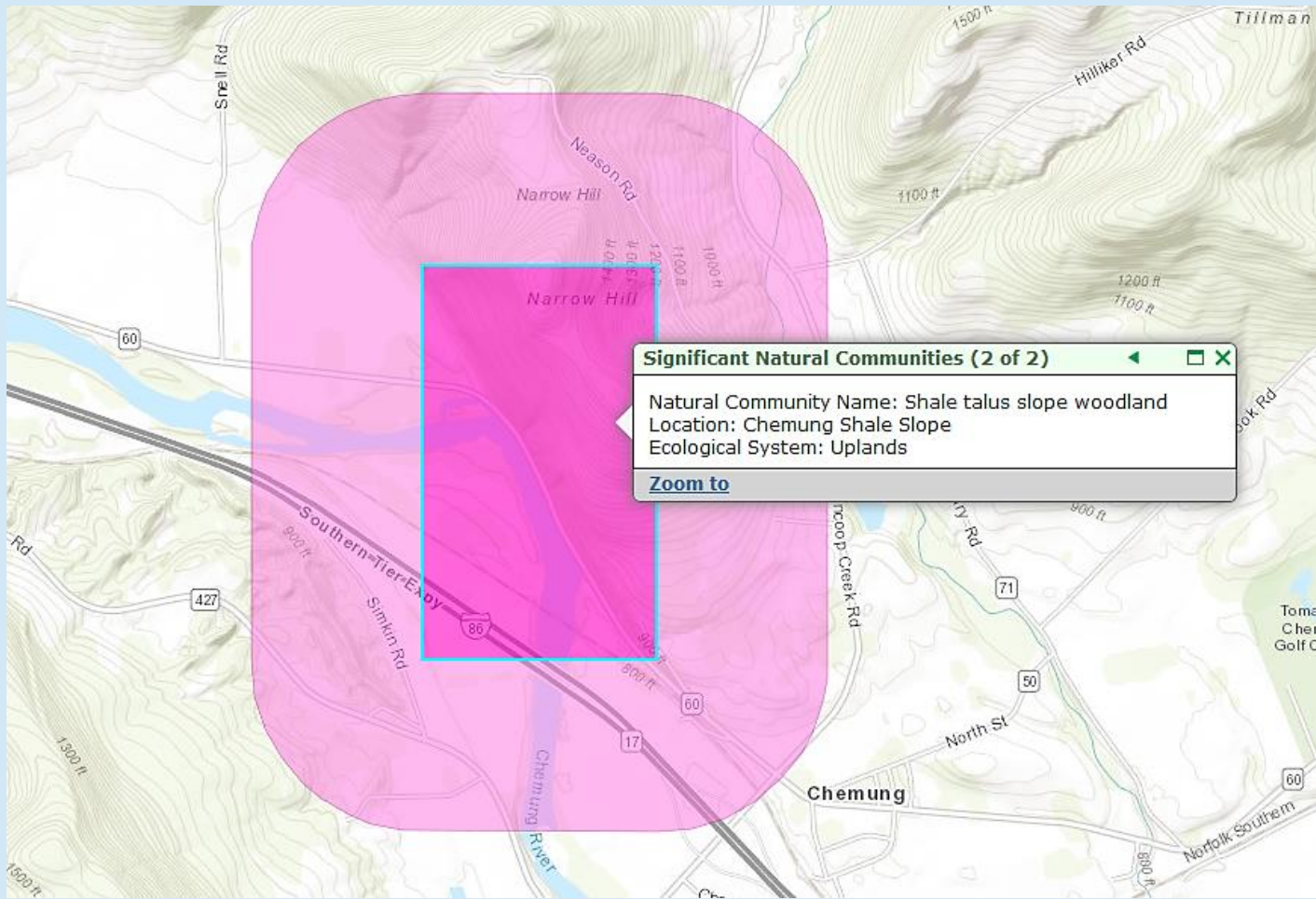


# Natural Communities

- Are there any significant natural communities or important ecological resources within the environmental review area?
  - Rare or high-quality forests, quality wetlands, and other habitat types
- Staff utilize:
  - NYSDEC's Environmental Resource Mapper
  - Significant natural communities (from the databases of the New York Natural Heritage Program, ongoing)
  - Significant Natural communities are buffered by a 1/2 mile



# Environmental Resource Mapper





# RTE Species

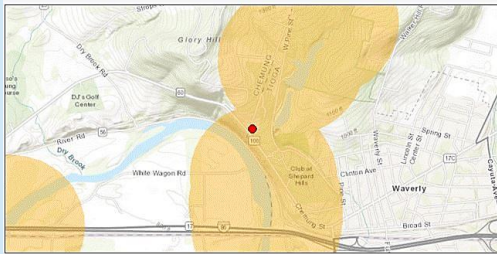
- Are there any rare, threatened, or endangered species within the vicinity of the well(s) environmental review area?
- Staff utilize:
  - NYSDEC's Environmental Resource Mapper
  - NYSDEC's Nature Explorer Tool
    - **Rare animals, rare plants, and significant natural communities** (from the databases of the New York Natural Heritage Program, ongoing)
    - **Birds:** county lists only (from the 2<sup>nd</sup> NYS Breeding Bird Atlas, 2000-2005)
    - **Reptiles and amphibians:** county lists only (from the NYS Herp Atlas, 1990-1999)



# RTE Screening Tools

## Environmental Resource Mapper

### Environmental Resource Mapper



The coordinates of the point you clicked on are:

UTM 18      Easting: 370825.653      Northing: 4652195.505

Longitude/Latitude      Longitude: -76.560      Latitude: 42.011

The approximate address of the point you clicked on is:  
2-8 CR-60, Waverly, New York, 14892

County: Tioga, Chemung  
Town: Chemung, Barton  
USGS Quad: WAVERLY

DEC Region

Region 7:  
(Central New York) Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga and Tompkins counties. For more information visit <http://www.dec.ny.gov/about/615.html>

Region 8:  
(Western Finger Lakes) Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne and Yates counties. For more information visit <http://www.dec.ny.gov/about/617.html>.

Rare Plants and Rare Animals

This location is in the vicinity of Mussels Listed as Endangered or Threatened - Contact NYSDEC Regional Office

If your project or action is within or near an area with a rare animal, a permit may be required if the species is listed as endangered or threatened and the department determines the action may be harmful to the species or its habitat.

If your project or action is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed.

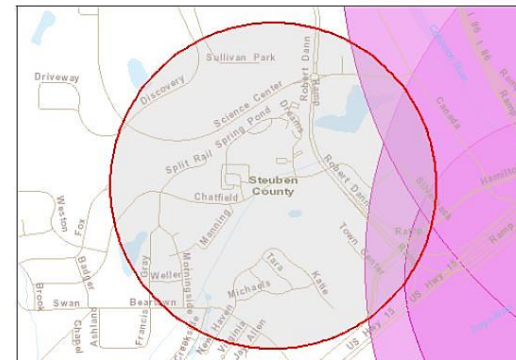
The presence of a unique geological feature or landform near a project, unto itself, does not trigger a requirement for a NYS DEC permit. Readers are advised, however, that there is the chance that a unique feature may also show in an area. Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

## Nature Explorer

<http://www.dec.ny.gov/natureexplorer/>

### New York Nature Explorer User Defined Results Report

Criteria: Selected Map Area



Common Name	Subgroup	Distribution Status	Year Last Documented	Protection Status State	Federal	Conservation Rank State	Global
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Animal: Mussels and Clams

Yellow Lampmussel	Freshwater Mussels	Recently Confirmed	2017			53	0304
<i>Lampis cariosa</i>							


Note: Restricted plants and animals may also have also been documented in one or more of the Towns or Cities in which your user-defined area is located, but are not listed in these results. This application does not provide information at the level of Town or City on state-listed animals and on other sensitive animals and plants. A list of the restricted animals and plants documented at the corresponding county level can be obtained via the County link(s) on the original User Defined Search Results page. Any individual plant or animal on this county's restricted list may or may not occur in this particular user-defined area.

This list only includes records of rare species and significant natural communities from the databases of the NY Natural Heritage Program. This list is not a definitive statement about the presence or absence of all plants and animals, including rare or state-listed species, or of all significant natural communities. For most areas, comprehensive field surveys have not been conducted, and this list should not be considered a substitute for on-site surveys.

New York State Department of Environmental Conservation  
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A photograph of a lush green forest. In the foreground, there is a stream with water reflecting the surrounding trees. The banks are covered in tall, dry grasses and various green plants. The background is filled with dense green foliage and trees, creating a vibrant and natural setting.

**What happens when an environmental screening identifies sensitive natural resources at or adjacent to a water withdrawal project?**



# Environmental Coordination with Partner Resource Agencies:

- Commission staff coordinate sensitive environmental resources at or near the withdrawal sites that were identified in the environmental screening with partner resource agencies
- Provide resolution, identify data gaps
  - NYSDEC is primary and predominate coordination partner
  - Coordination with USFWS can occur as well
  - Regional permit administrator for NYSDEC Region 7 and NYSDEC Region 8
  - USFWS Field Office in Cortland, NY





# Results of Agency Coordination

- The NYSDEC may determine that:
  - The sensitive natural resource is located in the vicinity of the existing withdrawal
  - The RTE species or regulated wetland is not located in the vicinity of concern for the withdrawal
  - Potential for adverse impacts to the natural resource
  - Recommendations and considerations should future operational changes be proposed
  - On-site surveys may be warranted or required



# Incorporate Responses

- Following agency coordination, staff incorporate any recommendations and considerations into Action Plan
  - Identify if additional data collection is recommended to support the renewal application
    - Conducting an aquifer test, operational testing, or no additional information



# PWSAP Site Visits

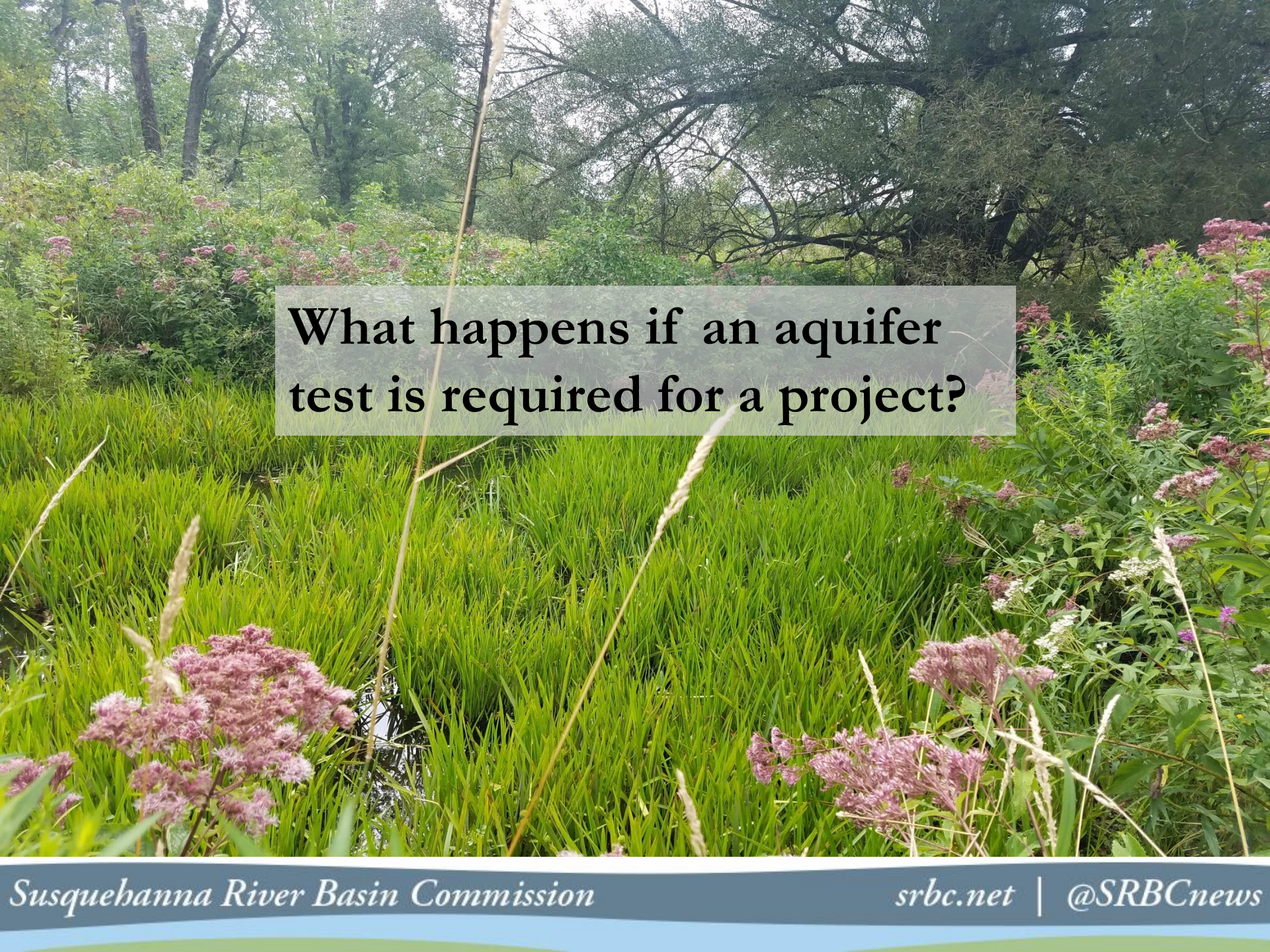




# Significant parts of Environmental Review Assistance

- 1. Identifying a project site's environmental resources,
- 2. Coordinating with partner resource agencies...
- 3. Listing partner resource agency recommendations and considerations into an Action Plan





**What happens if an aquifer  
test is required for a project?**



# Environmental Review – Aquifer Test Plan

## Why do we review them?

To assist technical review staff with evaluating the withdrawal project site's natural resources & identify what should be monitored for impacts during the aquifer test

## What do we do?

Desktop environmental screening to assess mapped natural resources & review the project sponsor's proposed monitoring network

Site visit to assess on-the-ground natural resources & proposed monitoring network, and determine if additional or different monitoring is needed



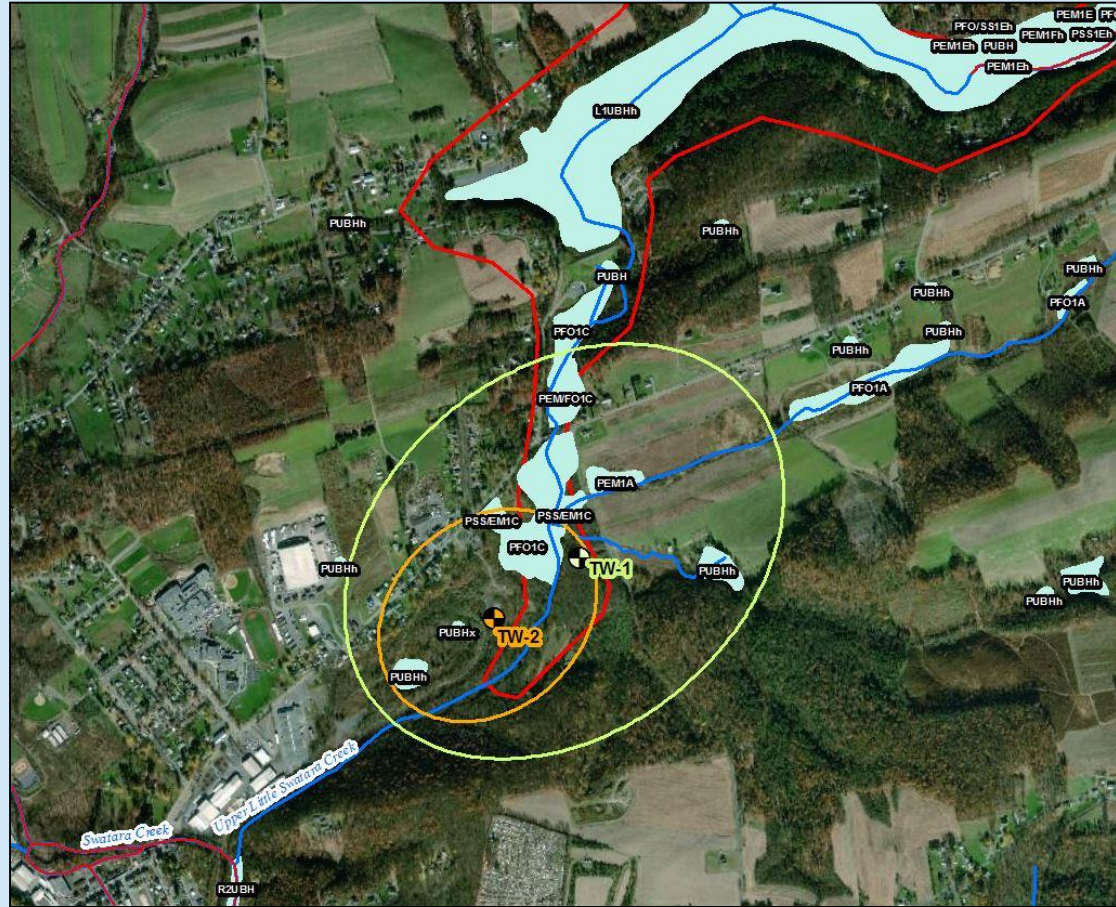


# Desktop Environmental Screening

## What to review for?

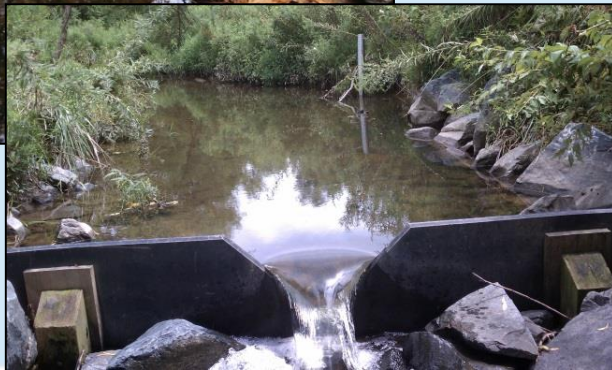
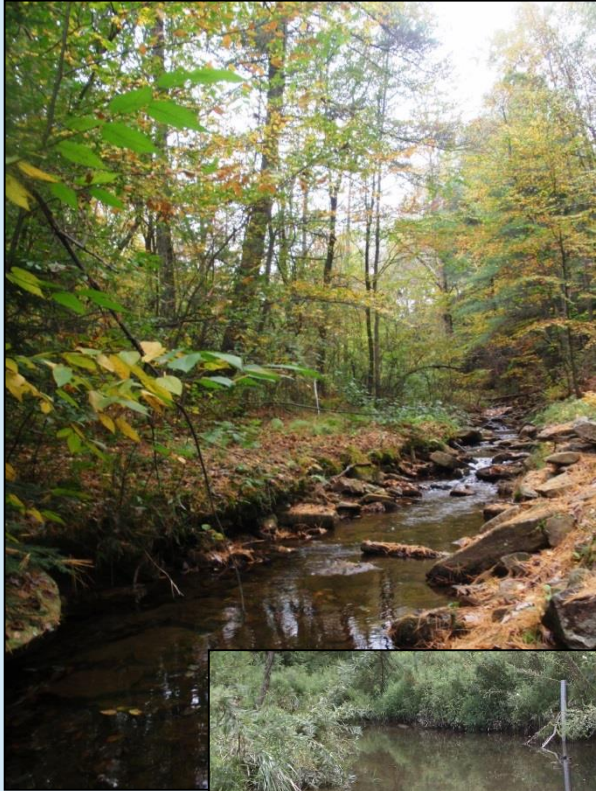
Does the well's estimated area of influence / environmental review area include any...?

- Naturally reproducing (wild) trout streams
- NYSDEC Regulated Wetlands (Class I-IV)
- RTE species
- Natural Communities





If yes, should we recommend monitoring those features for impacts?





# Agency Coordination





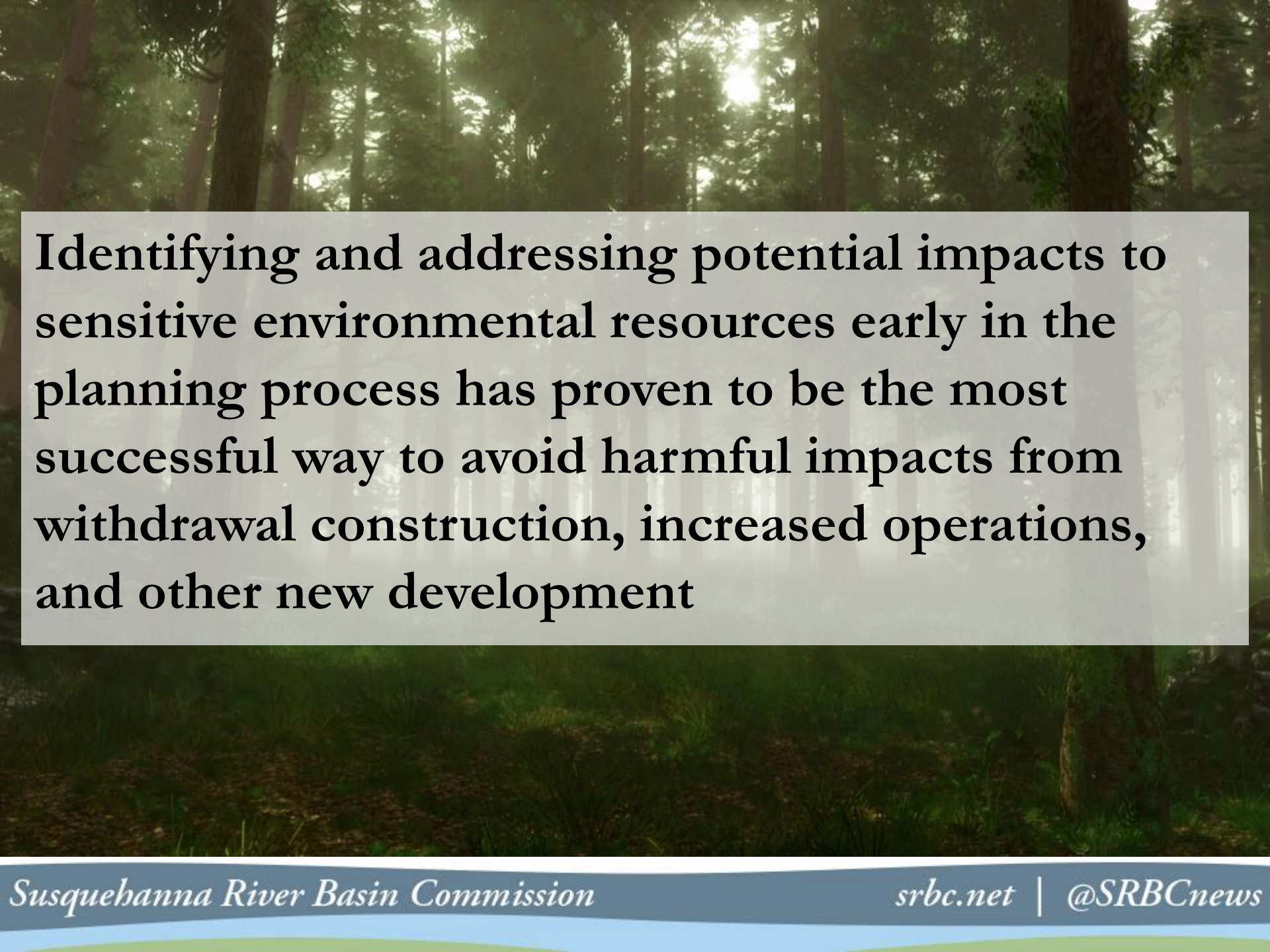
# Site Visit



1. Ground-truth the desktop screening results
2. Review the project sponsor's proposed monitoring locations
3. Determine if additional or different monitoring should occur

\*Through our coordination efforts, partner resource agency staff may attend





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# Questions?