



Department of  
Environmental  
Conservation

# New York's TMDL Strategies to Protect Downstream Waters

2023 National Training Workshop on Water Quality Data, Assessment, and Plans  
June 23, 2023

# Nutrient TMDLs in NY

- Historically focused on phosphorus in ponded waters with small watersheds
- Interstate TMDLs
- Have recently been using strategies from interstate TMDLs protecting downstream waters to develop larger watershed TMDLs in NY

# Examples of whole watershed approaches

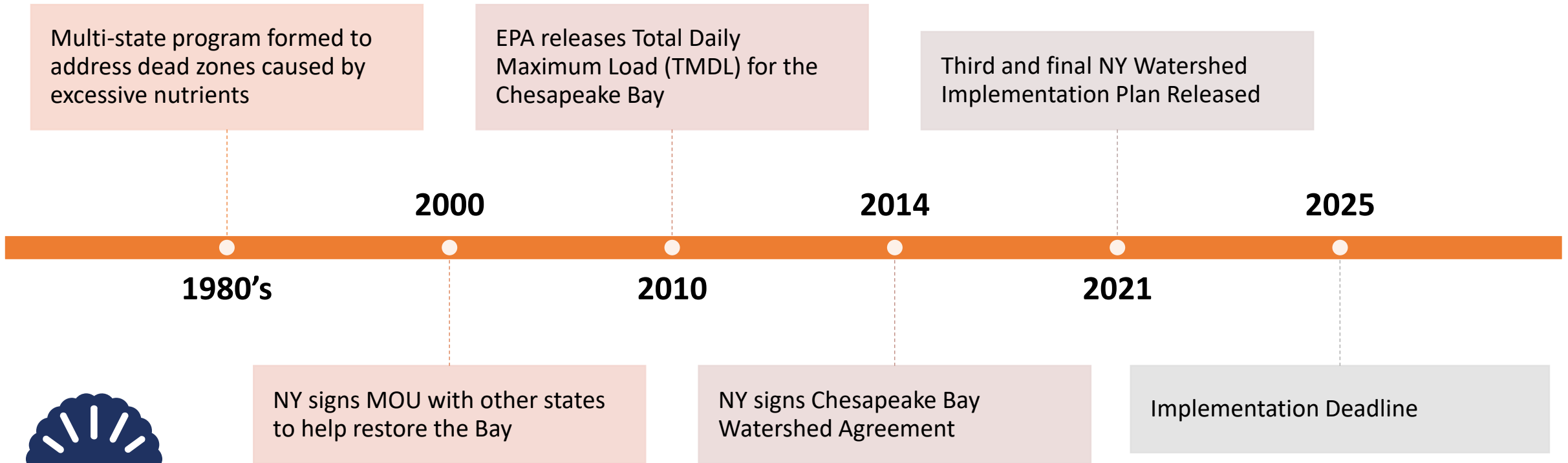
1. Interstate TMDLs – Chesapeake Bay
2. Protect flowing drinking waters at the mouth of a large watershed – Mohawk River\*
3. Flowing upstream waters and receiving ponded water – Wallkill River\*

# Chesapeake Bay TMDL

- Susquehanna and Chemung Rivers are the northern headwaters of the Bay
- Portions of 19 counties in NY are within the watershed boundary
- NY assigned targets for nutrients delivered annually to the Bay by 2025:
  - TN: 11.79 million lbs
    - Reduction of 1.04 million
  - TP: 0.476 million lbs
    - Reduction of 0.072 million

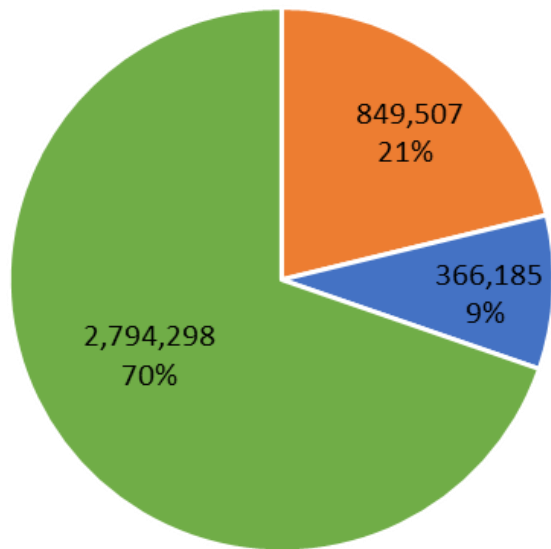


# History of Water Quality Issues



# NY's Water Quality

Acres of Land



■ Agriculture ■ Developed ■ Natural

## Total Nitrogen per Acre Loads and Trends: 2011-2020

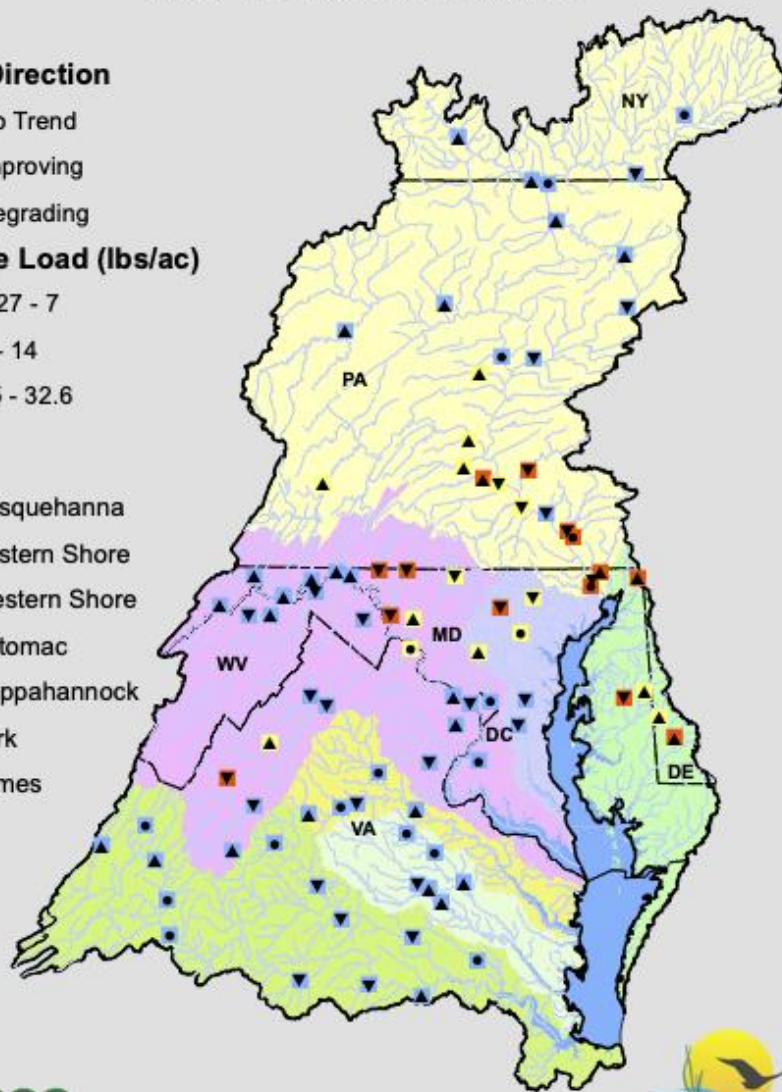
### Trend Direction

- No Trend
- ▼ Improving
- ▲ Degrading

### Average Load (lbs/ac)

- 1.27 - 7
- 8 - 14
- 15 - 32.6

- Susquehanna
- Eastern Shore
- Western Shore
- Potomac
- Rappahannock
- York
- James



## Total Phosphorus per Acre Loads and Trends: 2011-2020

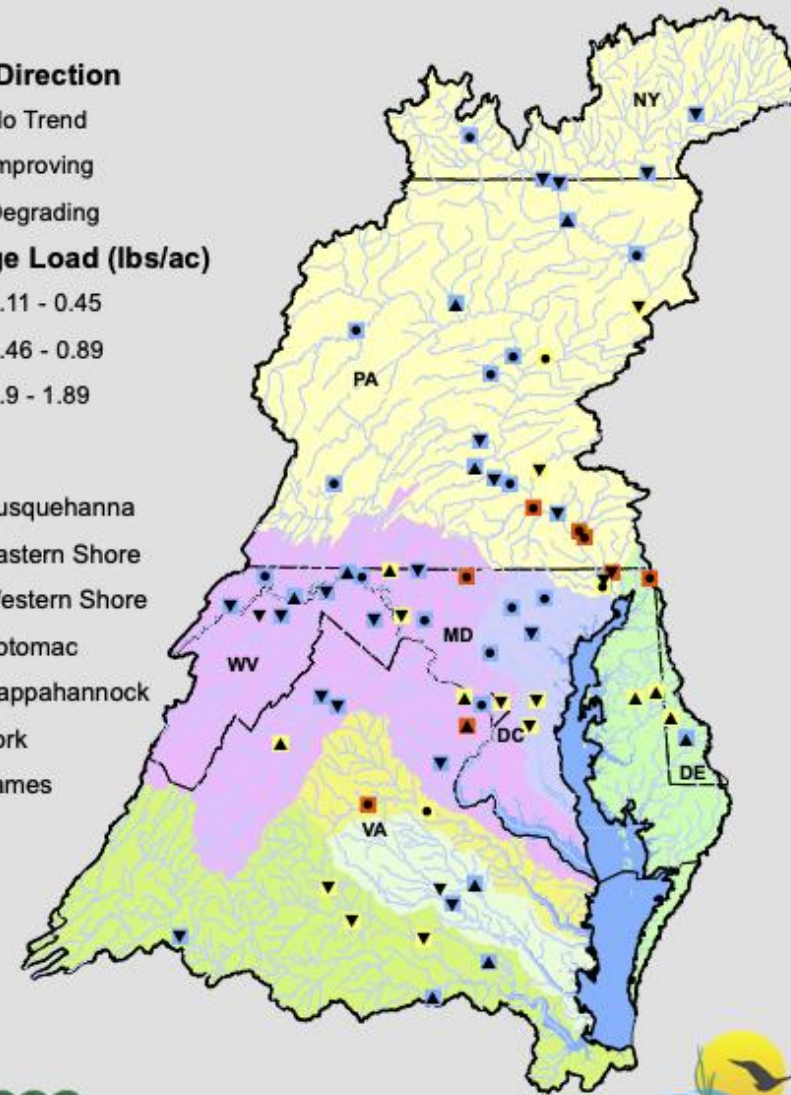
### Trend Direction

- No Trend
- ▼ Improving
- ▲ Degrading

### Average Load (lbs/ac)

- 0.11 - 0.45
- 0.46 - 0.89
- 0.9 - 1.89

- Susquehanna
- Eastern Shore
- Western Shore
- Potomac
- Rappahannock
- York
- James





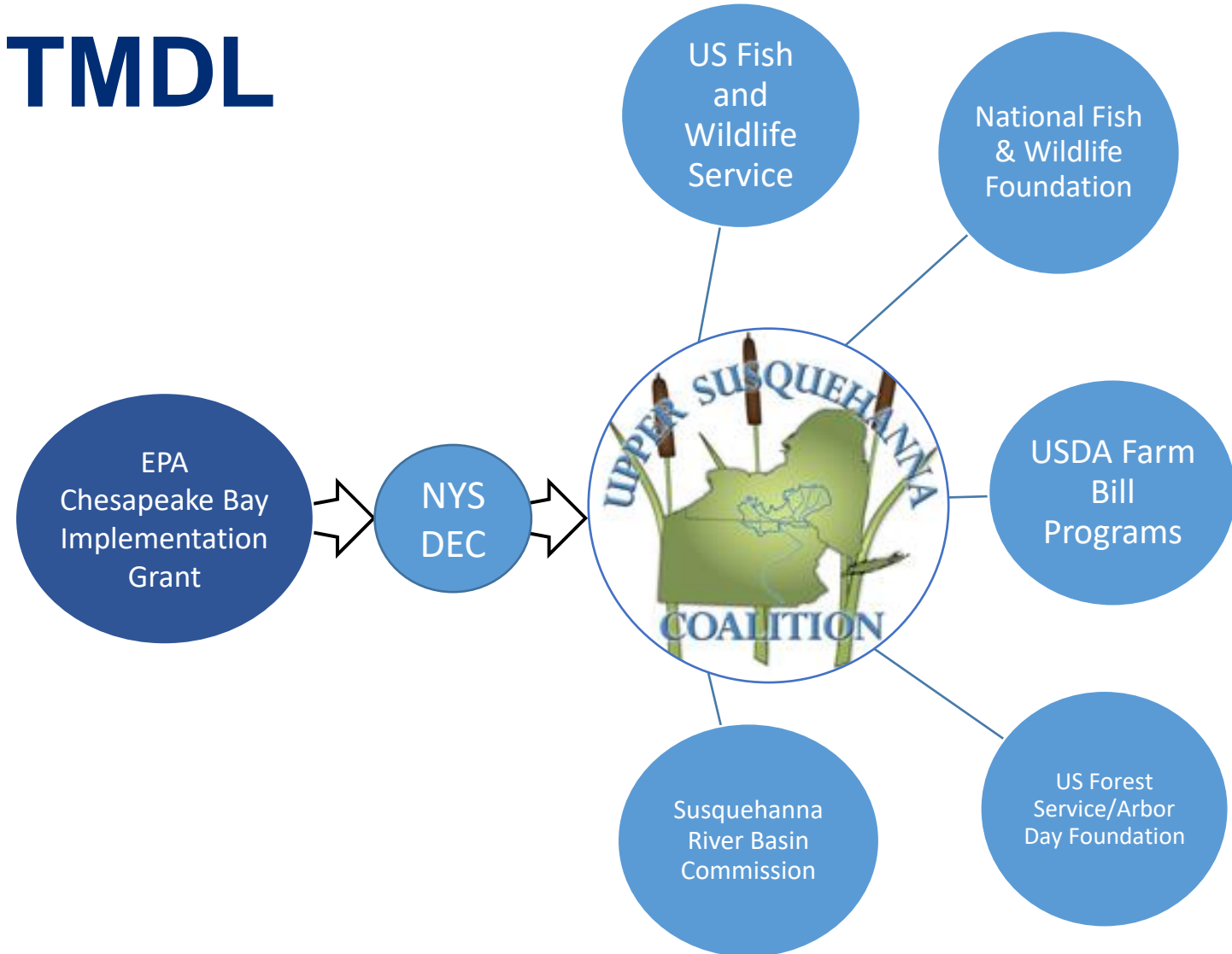
# Implementation of TMDL

## NY Water Quality Grant Programs

- Wastewater upgrades
- Agricultural BMP systems
- Green Infrastructure/ Urban Stormwater projects

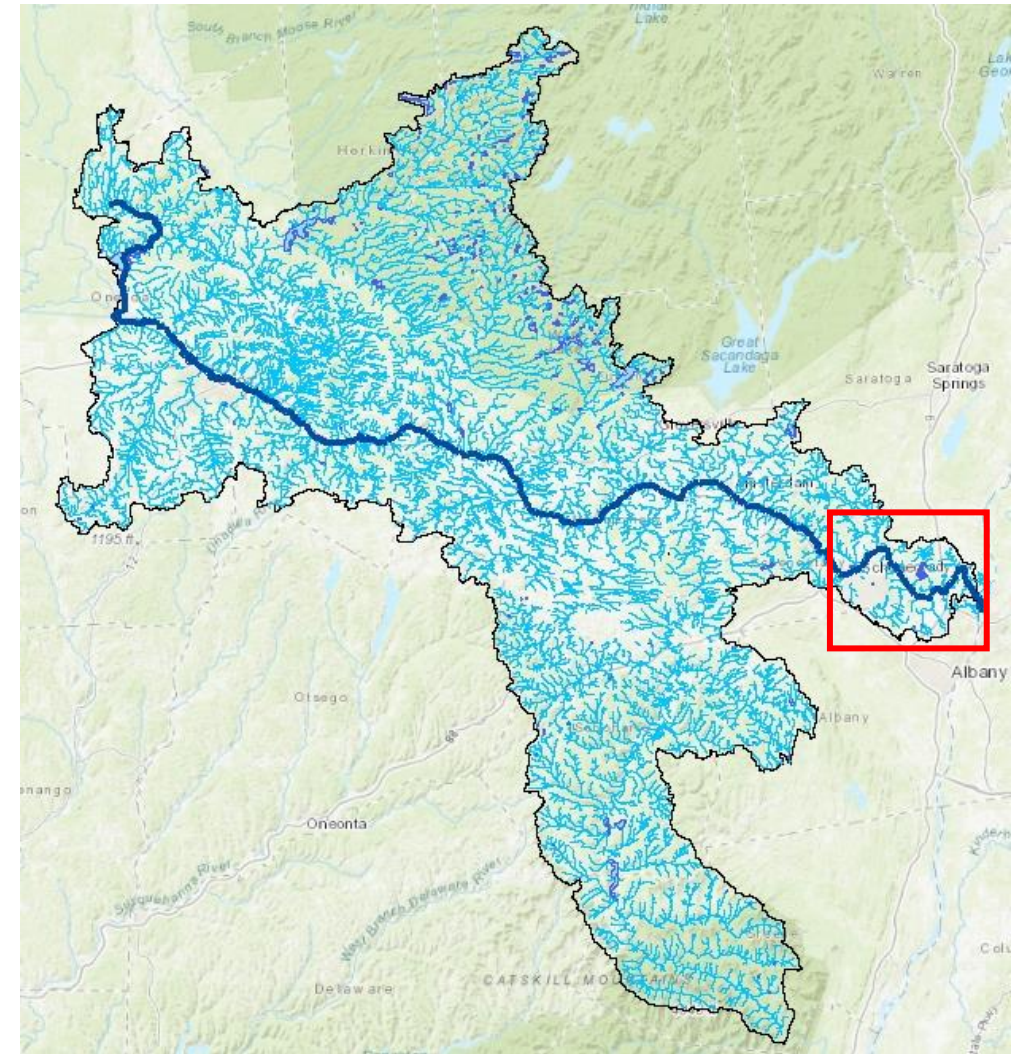
## Capacity building through Upper Susquehanna Coalition

- 19 Soil and Water Conservation Districts
- Agriculture, Riparian Buffer, Stream Restoration, and Wetland Teams



# Mohawk River TMDL - Proposed Approach

- Set site specific targets for protection of drinking water segments
- Base targets upon relationships between TP, organic material, and formation potential of disinfection byproducts
- Implementation and funding will be expected to occur watershed-wide





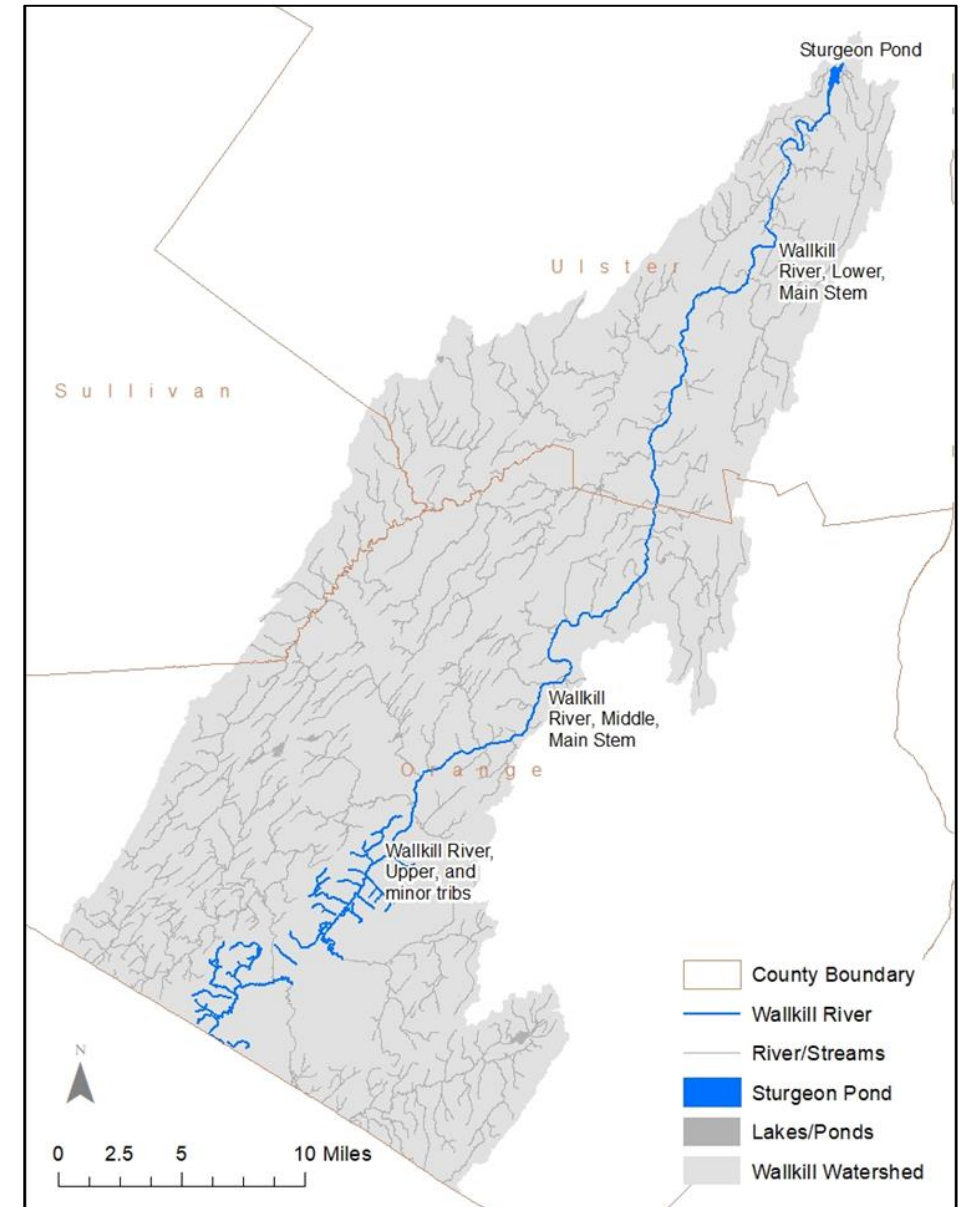
# Wallkill River Watershed – Proposed Approach

4 segments with highest best uses of primary or secondary recreation

Ultimate basin is an impaired ponded water

3 flowing water segments impaired based on downstream impairment

Develop targets based on downstream ponded water



# Thank You

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