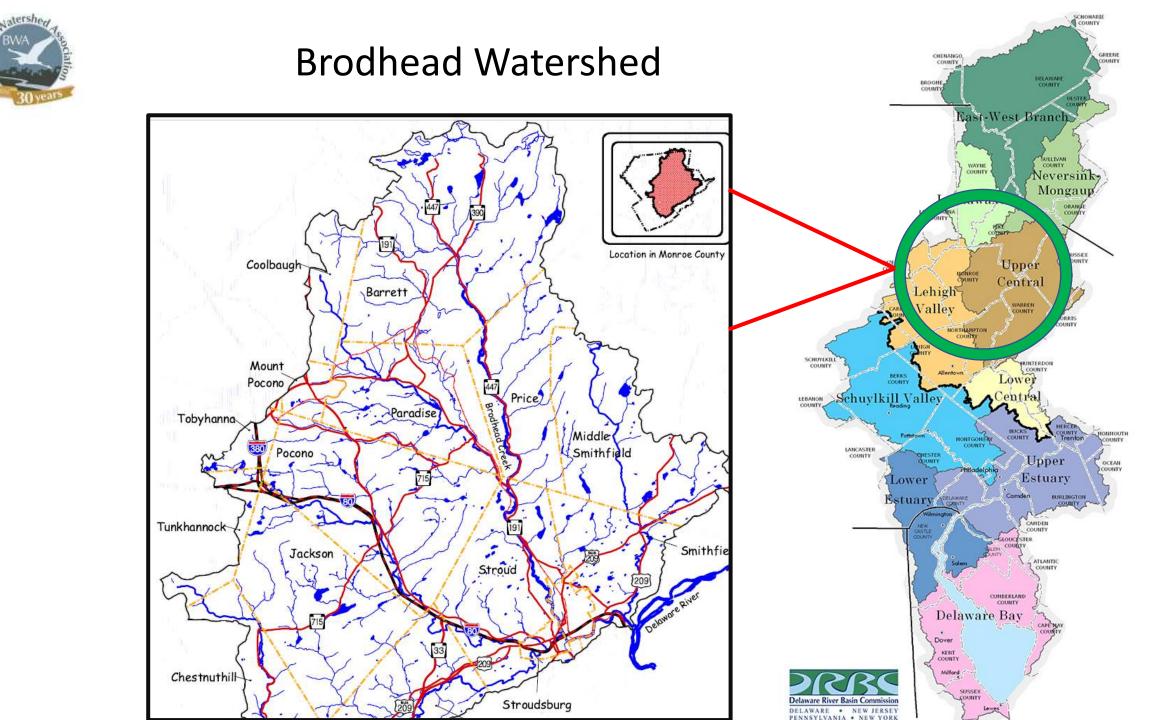
Monitoring the Pocono Mountain Special Protection Waters



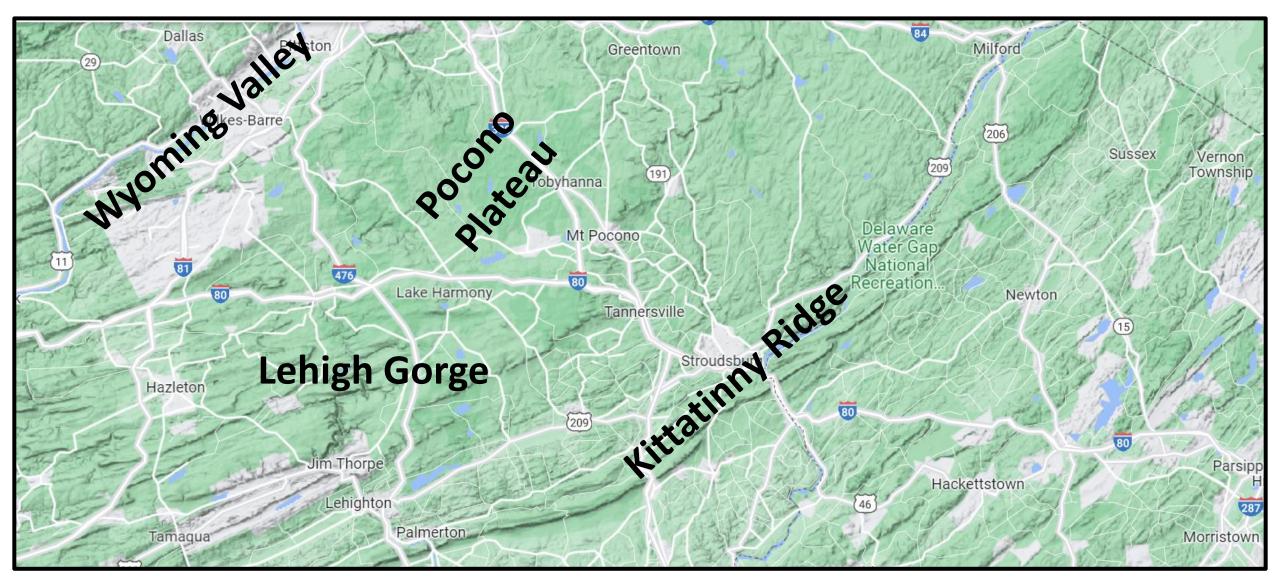
TOBYHANNA CREEK TUNKHANNOCK CREEK WATERSHED ASSOCIATION



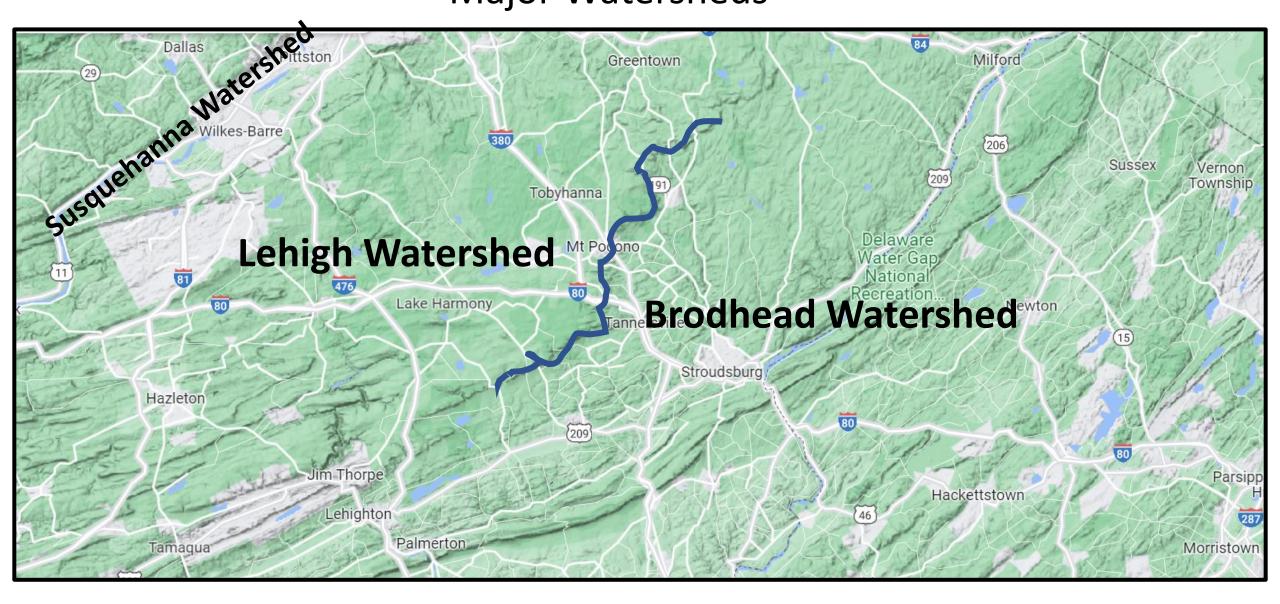




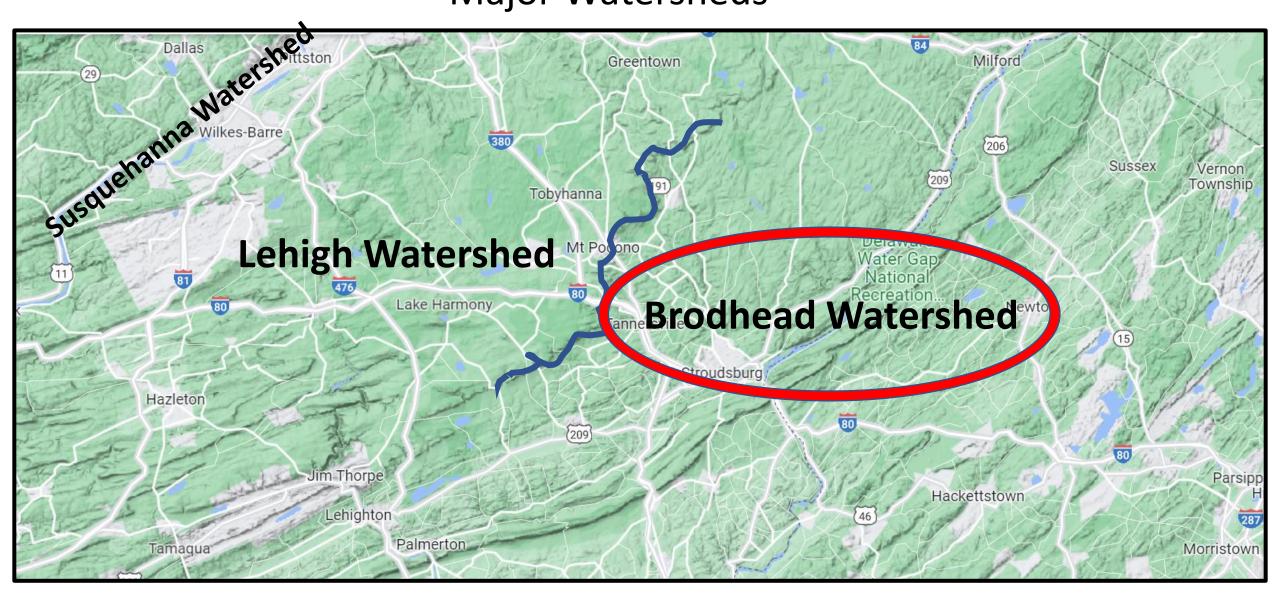
Pocono Topographic Features

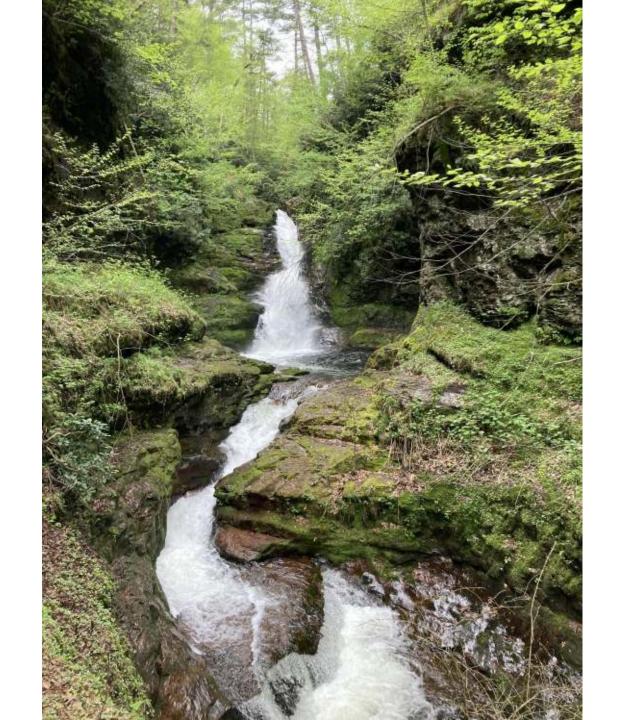


Major Watersheds



Major Watersheds

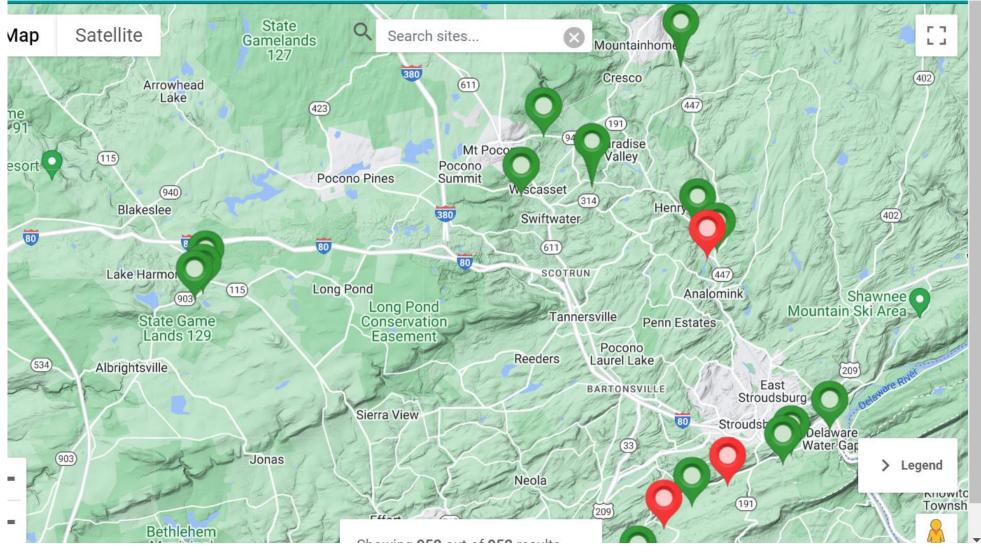




Key Features of the Brodhead Watershed

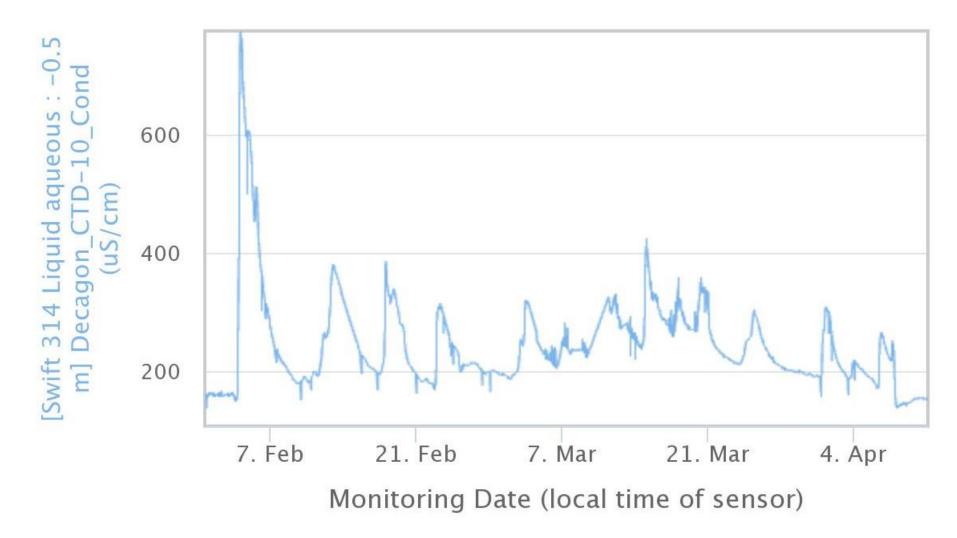
- 312 square miles, with few impoundments between Delaware River and Headwaters
- Multiple Exceptional value (EV) tributaries & all Special Protection Waters
- Headwaters do not extend into the Pocono Plateau many Escarpment groundwater Seeps or from Bog Springs
- Locally Reproducing Brook & Brown Trout

Monitoring Sites Located on Headwater Tributaries

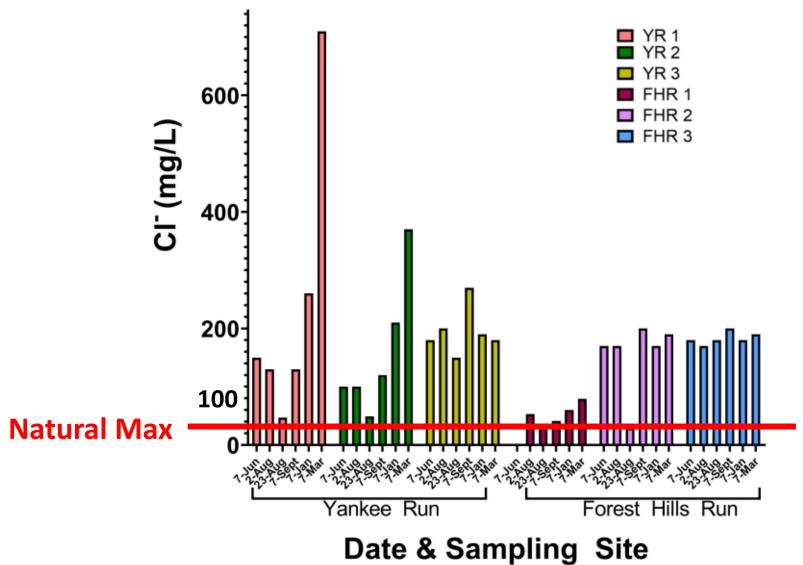




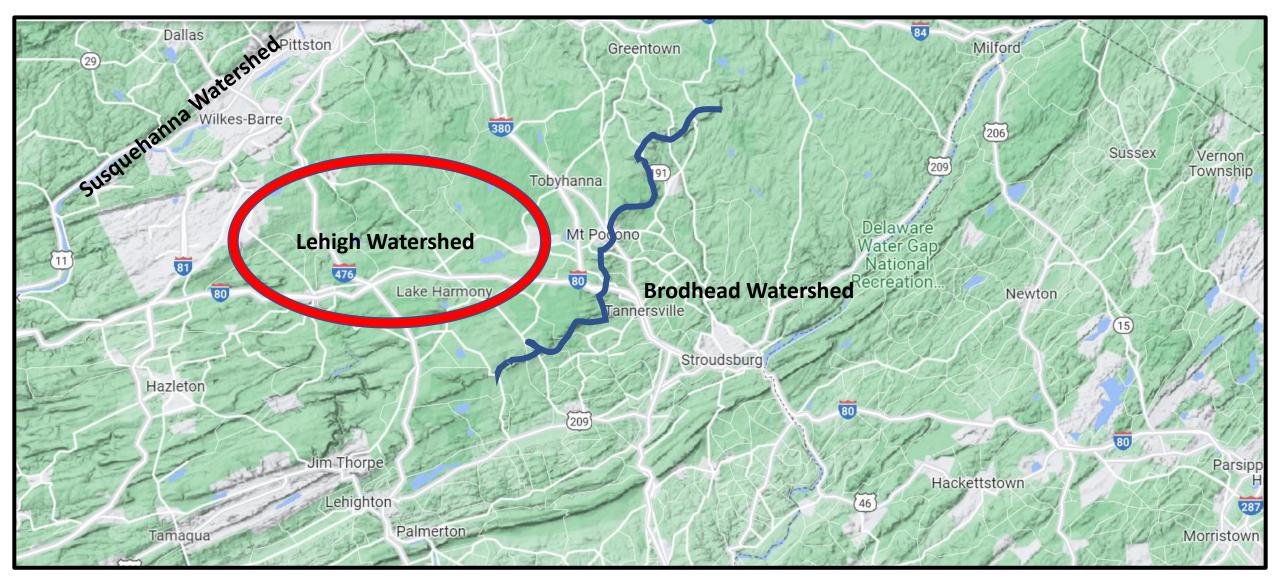
Electrical Conductivity Peaks with Snowmelt Events



Dissolved Chloride is chronically elevated in 2 urbanized headwater tributaries in Mt Pocono



Overview of the Tunkhannock Creek Watershed



Tobyhanna/Tunkhannock Watershed

Brodhead Watershed

© Develope toy Ci

Glacial Moraine Habitat

A 190,2

Mesic Till Barrens Habitat

Mixed Hardwood/ Conserved Ag Land

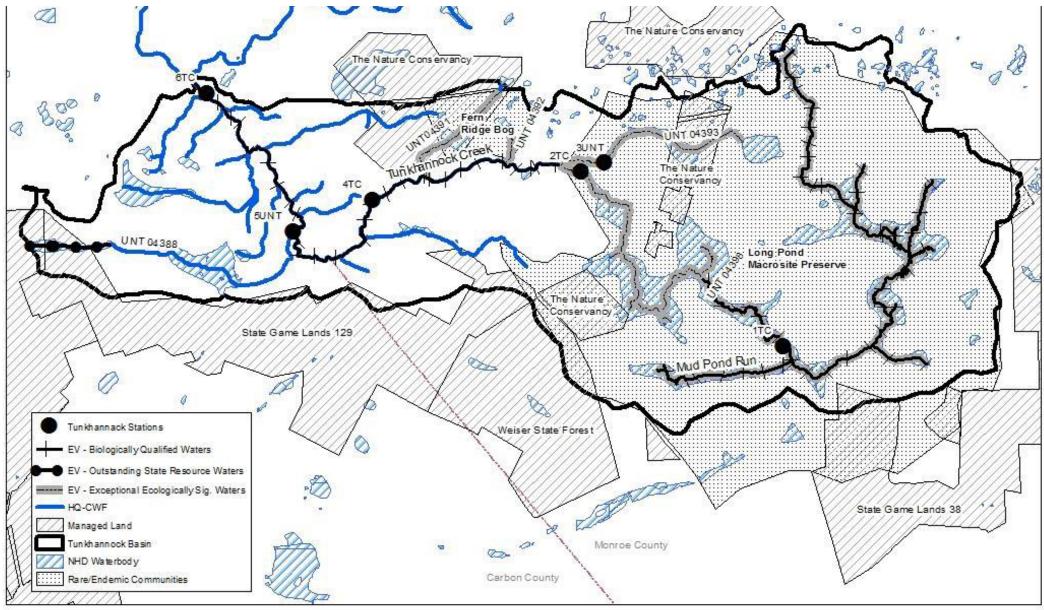
Over 1,500 Acres of Wetlands

myn, l



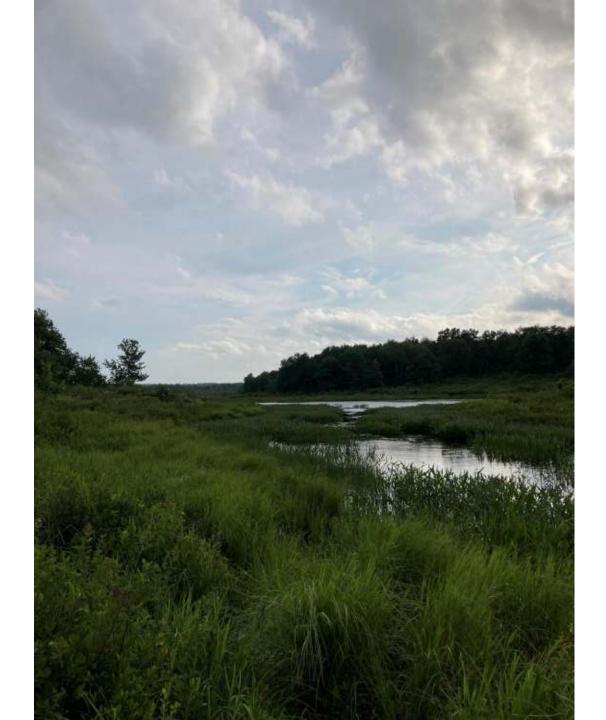
TOBYHANNA CREEK TUNKHANNOCK CREEK WATERSHED ASSOCIATION





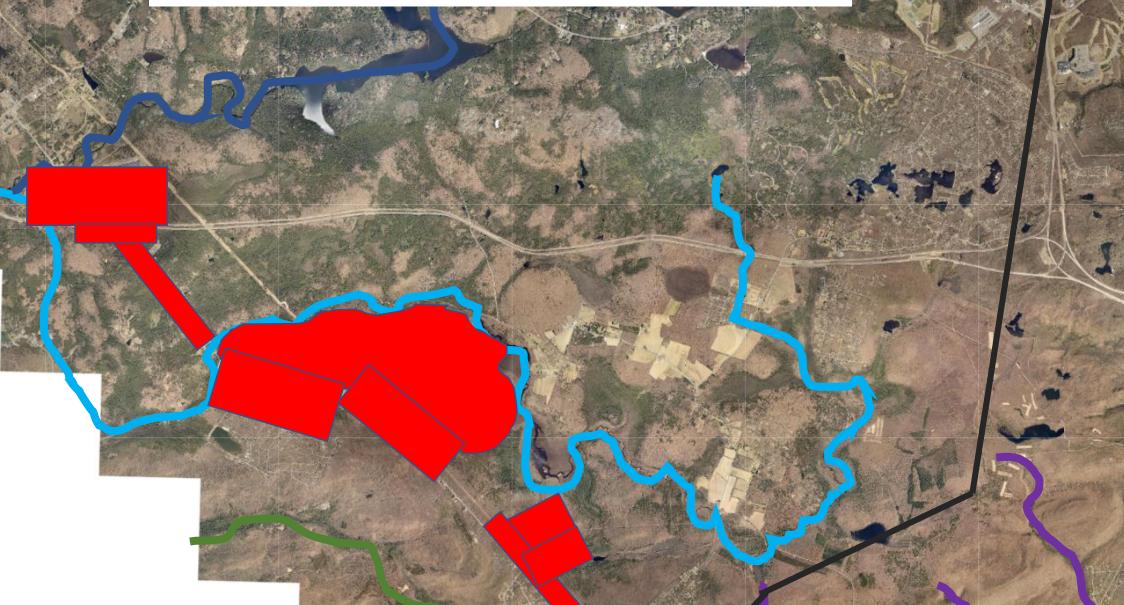
Source: The Nature Conservancy 1991, updated 1999.



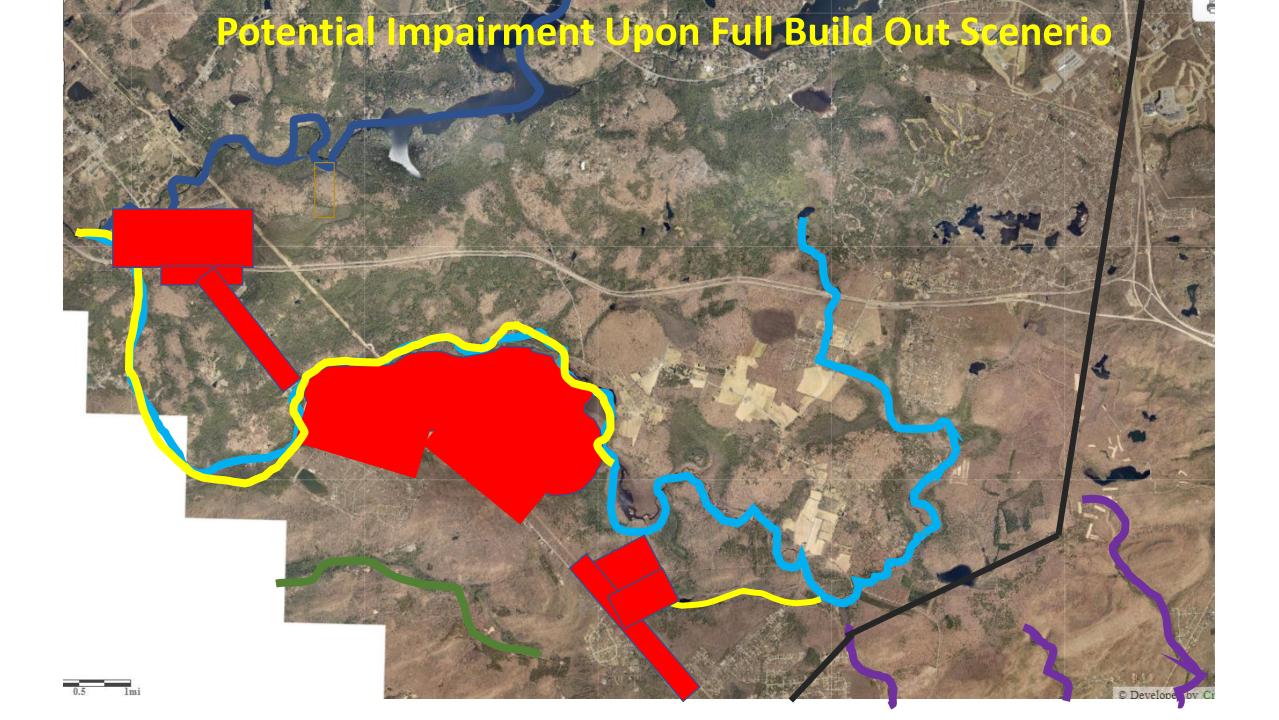




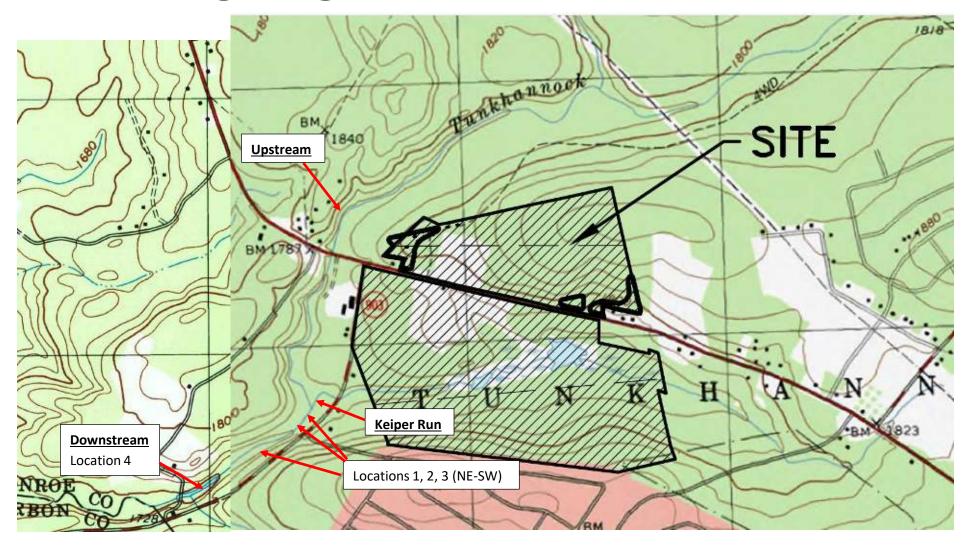
Over 1,000 Acres of Commercial Zoned land



© Develope tov Ci



Designing the Sensor network



Downstream Location 1

Date	Time	Temperature (°C)	Specific Conductance (μS/cm)	Total Dissolved Solids (mg/L)	рН
5/19/2022	14:08:25	13.1	65	42.222	5.71
5/19/2022	14:09:51	13.1	60.9	39.574	5.66
5/19/2022	14:11:25	13.1	50.9	33.090	5.52
5/19/2022	14:12:31	13.1	48.5	31.519	5.47
5/19/2022	14:13:22	13.1	48.4	31.434	5.47
Measurements read from right bank to left bank, facing upstream. Location: 41° 03' 08.1", -75° 33' 17.3"					

Downstream Location 2

Date	Time	Temperature (°C)	Specific Conductance (μS/cm)	Total Dissolved Solids (mg/L)	рН
5/19/2022	14:25:36	13.1	63.0	40.975	5.93
5/19/2022	14:26:14	13.1	62.0	40.325	5.92
5/19/2022	14:27:40	13.1	56.5	36.705	5.84
5/19/2022	14:28:37	13.1	49.5	32.190	5.71
5/19/2022	14:29:23	13.1	48.3	31.406	5.68

Measurements read from right bank to left bank, facing upstream.

Location: 41° 03' 07.3", -75° 33' 18.8"

Downstream Location 3

Date	Time	Temperature (°C)	Specific Conductance (μS/cm)	Total Dissolved Solids (mg/L)	рН
5/19/2022	15:17:45	13.3	50.4	32.757	5.95
5/19/2022	15:18:51	13.4	50.9	33.079	5.95
5/19/2022	15:19:47	13.4	53.8	35.000	5.98
5/19/2022	15:20:55	13.4	56.8	36.917	6.00
5/19/2022	15:22:04	13.4	57.3	37.275	6.01
Measurements read from right bank to left bank, facing unstream					

Measurements read from right bank to left bank, facing upstream.

Location: 41° 03' 04.3", -75° 33' 27.5"

Downstream Location 4 (selected)

Date	Time	Temperature (°C)	Specific Conductance (µS/cm)	Total Dissolved Solids (mg/L)	рН
5/19/2022	15:35:52	13.5	53.0	34.419	6.06
5/19/2022	15:36:43	13.5	53.2	34.564	6.04
5/19/2022	15:37:55	13.5	53.5	34.782	6.05
5/19/2022	15:37:55	13.6	54.0	35.108	6.06
Measurements read from left bank to right bank, facing upstream.					

Location: 41° 03' 00.6", -75° 33' 33.7"



