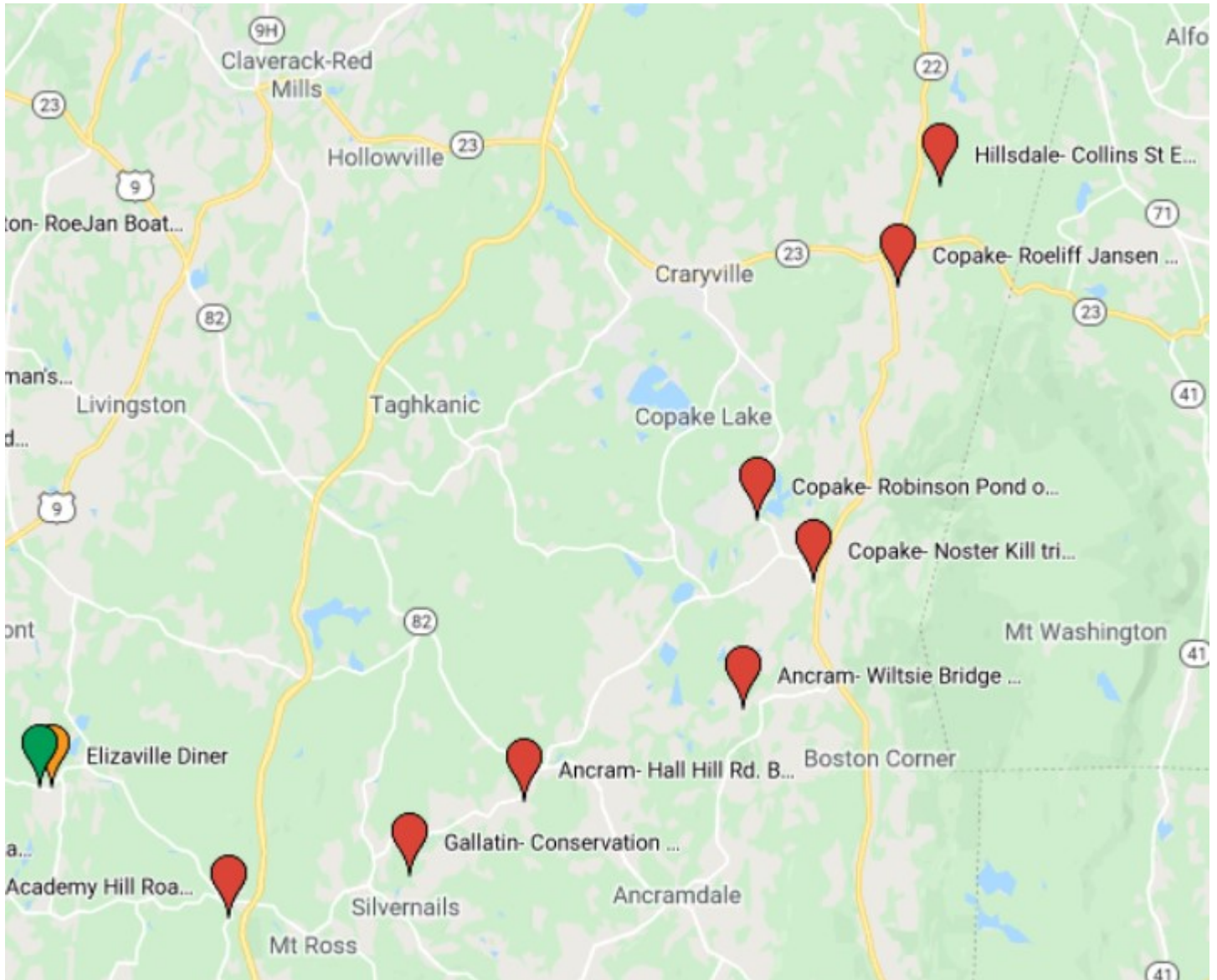




Upstream Sampling Guide

ROEL WATERSHED AN COMMUNITY

Upstream Sampling Map



<— Bard College, about 20 minutes west.

SUPPLIES AND GEAR

Sampling Gear:

- In the Kit from Bard:
 - Sterile sample containers, one per site plus a few extra
 - Rubber gloves, a pair per site plus a few extra. (If both team members use gloves at each site, you will run out.)
 - Cooler
 - YSI Sampling meter and probe
 - Dipper, in a protective bag, keep dipper covered when not in use
 - Upstream Only: Bucket (for sampling from a bridge), in a protective bag, keep bucket covered when not in use; put nothing but water in the bucket
 - Upstream Only: 2 Safety vests (for sampling from a bridge)
- You need to supply:
 - Ice for the cooler
 - Watch or phone to tell time
 - Smartphone, GPS or Map for navigation
 - Contact info for downstream sampling crew
- Good to have:
 - Permanent marker (sharpie) and good pen
 - Clean cloth or dishtowel to clean up after each collection

STEPS TO FOLLOW WHEN COLLECTING WATER

1. Write the time in the sampling log
2. If not already connected, connect the YSI probe to the meter, ensuring the twist lock is tight. Don't use force, it fits together smoothly.
3. Turn on the YSI meter.
4. **Put rubber gloves on both hands at the outset, before handling bottle. Only handle bottle with gloved hands.**
5. No matter how you are sampling, **look for clear moving water, and collect water coming towards you.**
6. Place your observations in the log book, such as cloudy water, tide ebb/flow on Hudson shoreline sites, or anything else of note.

Wade out to moving water	Sample from shore with the Dipper	Sample with the Bucket from a Bridge
		You need 18" or more of depth. If too shallow, sample with dipper or by wading out.
Find a safe place to wade into the stream. Try not to disturb sediment, face upstream, wait for sediment to dissipate. Uncap the bottle.	Find good footing on the streambank, within 3-4' of clear running water. Uncap the bottle.	<u>Both samplers should wear the safety vest.</u> Watch for oncoming traffic. Have your partner slow traffic. Use the line on the handle to raise lower the bucket, and the line on the bottom to tilt. You can see the bucket better on the downstream side of the bridge.
Submerge the bottle upside-down. While still underwater, tilt the bottle upwards until air escapes, with opening facing upstream. Repeat 3X, discarding the first two fills and then keeping the 3rd one.	Rinse the dipper at least 3X in the running water. Don't touch the bottom. Dip water from beneath the surface, pour into bottle, and repeat 3X, discarding the first two fills and then keeping the 3rd one.	Rinse bucket in running water. Fill and dump. Fill and bring up, and set it down. Place YSI probe into water to the top of the strain relief, wait for the readings to stabilize, then have partner write conductivity (top) and temperature in the
Leave air in neck of bottle, cap and place on ice.	Leave air in neck of bottle, cap and place on ice.	Lower bucket, rinse again, bring it up again and set it down. Dip bottle in bucket and discard, dip again and discard, dip and keep. <u>Collect from fresh water; do not collect water contaminated by the probe.</u>
Place YSI probe into water to the top of the strain relief, wait for the reading to stabilize, then have partner write conductivity (top) and temperature in the log.	Loop YSI cable loosely around hook on the end of the dipper, lower it into the water to the top of the strain relief, wait for the reading to stabilize, then have partner write conductivity (top) and	Leave air in neck of bottle, cap and place on ice.
Turn off meter. Discard gloves	Turn off meter. Put dipper in protective bag. Discard gloves.	Turn off meter. Put bucket in protective bag. Discard gloves.

RJ-43.30 Hillsdale- Collins Street Extension

This site is located about six miles downstream of the headwaters of the Roe Jan Kill. Between the stream's source and this site, much of the riparian area is cleared for agricultural use.

GPS: 1040 Collins St Ext Hillsdale

Parking & Access: There is pull-off on the south side of the road just west of the bridge. Be sure to sample at the bridge on Collins St. *Extension*, not at Collins St.

Note: Sample from bridge using the bucket..

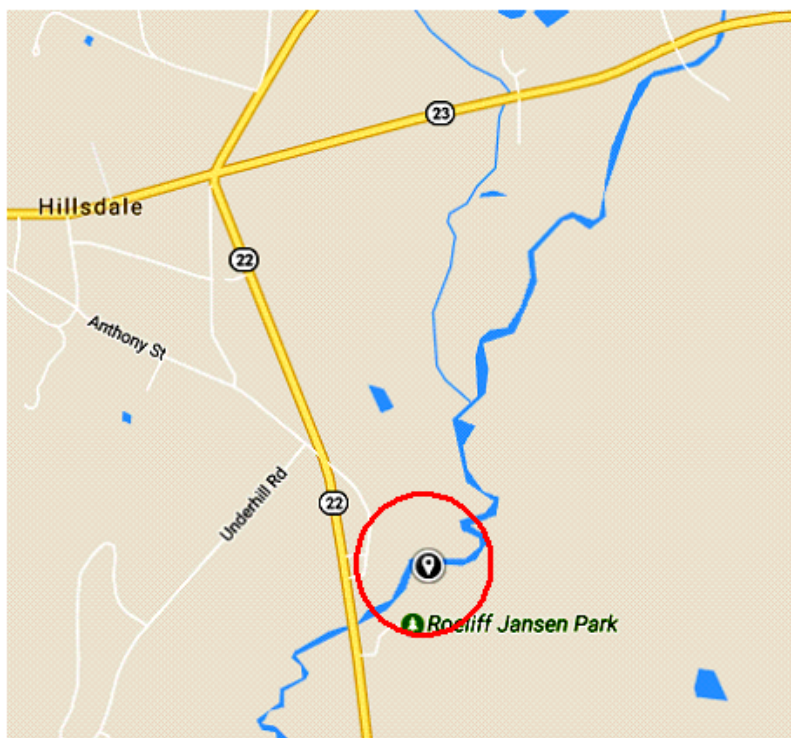


RJ-40.78 Copake- Roeliff Jansen Park stream access

This sampling site is located in an area where NYS DEC and the Columbia County DOH have noted water quality impacts due to septic systems since at least 1993.

GPS: Roe Jan Park Copake

Parking & Access: There is a parking lot at the site. Walk north about 200 yards from the parking area, going past the children's play area and the fenced in garden, to the grassy area along the river.



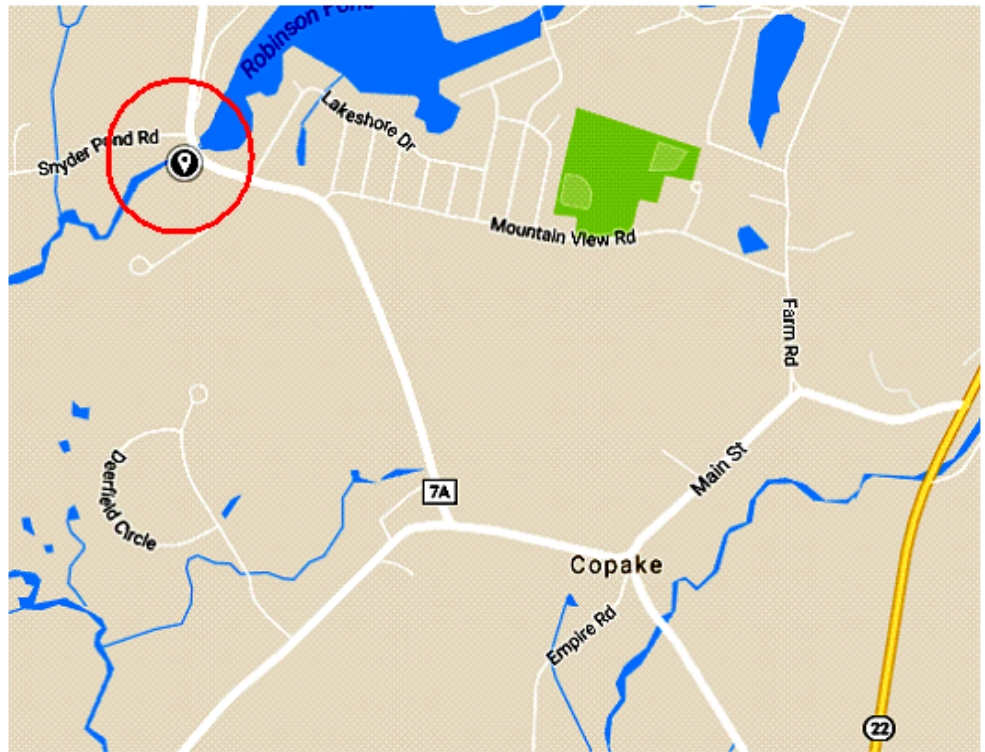
RJ-37.58 Ancram- Robinson Pond outlet

This sampling point is located in the main stem of the Roe Jan, upstream of the confluence of the Bash Bish Brook, at the outlet of Robinson Pond. Onsite septic systems are thought to be sources of nutrient pollution in Robinson Pond. This is a fishing access location.

GPS: County Route 7A & Snyder Pond Rd, Copake

Parking & Access: There is limited parking behind the guardrail south of the road, near the bridge.

Note: Even though there is a bridge, sampling is easier by walking down to the stream at the end of the parking area, using the dipper.



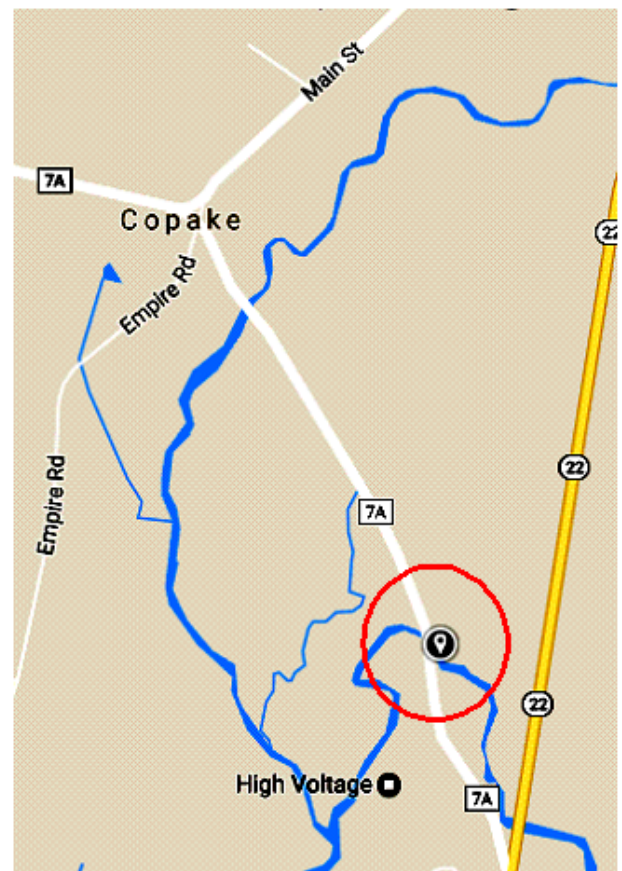
RJ-NK-0.30 Copake- Noster Kill tributary at Route 7A

This sampling site is located in the Noster Kill, a tributary to the Roe Jan that is a designated trout spawning stream.

Map: Find 7A and Rt 22, go N on 7a to the small bridge over the RJ.

GPS: "Jim's auto body Copake", then about 500 ft south on 7A to a closed garage/car-wash at a small bridge over the Noster Kill.

Parking & Access: Park in front of the closed garage/car wash. Sample from the bridge, paying attention to traffic.



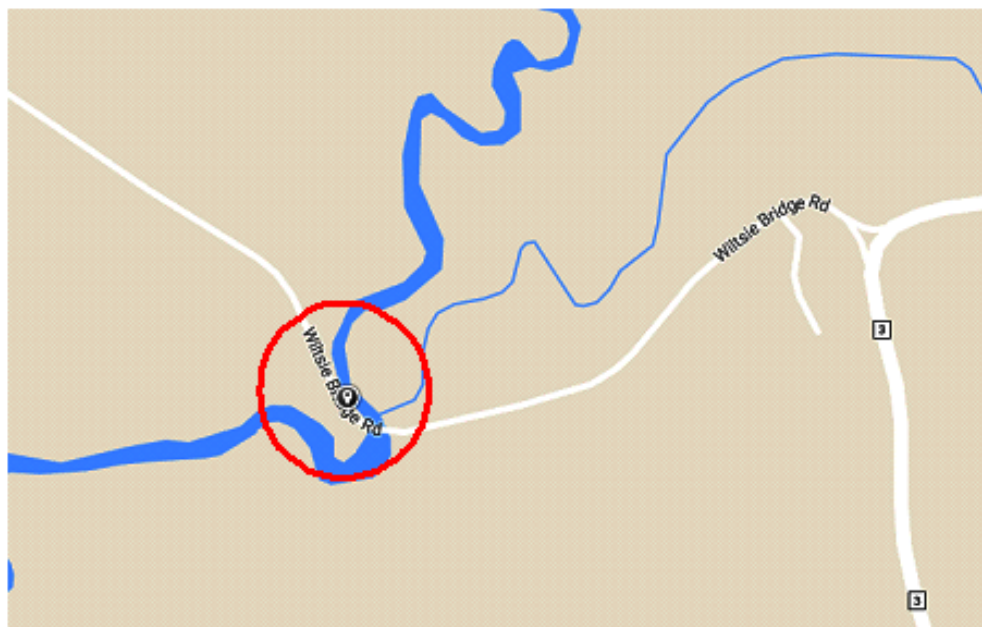
RJ-31.26 Ancram- Wiltsie Bridge Road fishing access

This DEC fishing access location sits between the Bash Bish Brook (upstream of here) and the Punch Brook (downstream of here), two of the Roe Jan's major tributaries. There are agricultural operations near this sampling point.

GPS: Herondale Farm Ancram

Parking & Access: Park on the south side of Wiltsie Bridge Rd.

Note: Sample from bridge using the rope and bucket.



RJ-25.22 Ancram- Hall Hill Road Bridge

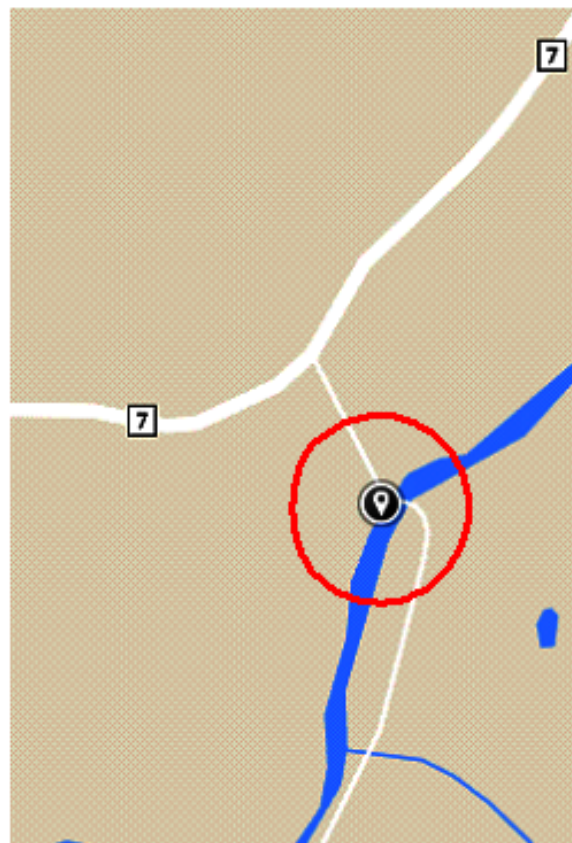
Two wastewater treatment plant outfalls (both privately owned) are located less than one mile upstream of this sampling site.

Map: Find the intersection of Hall Hill Rd and 7. Go south on Hall Hill Rd. a few hundred yards to the bridge.

GPS: "County Rt 7 & Hall Hill Rd Ancram", and then down Hall Hill Rd. about 200 yards to the bridge.

Parking & Access: Park near the bridge where there is a small shoulder near the farm road.

Note: Sample from bridge using the rope and bucket.

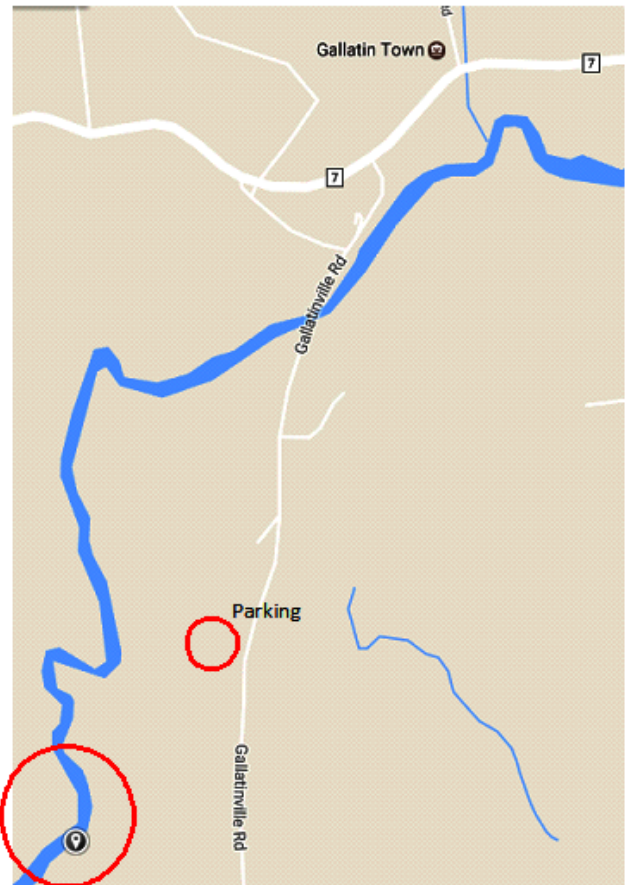


RJ-22.44 Gallatin Conservation Area

Map: Find Gallatinville Rd and Rt 7. Go south on Gallatinville till you see the parking area marked “fishing” on the right.

GPS: “119 Gallatinville Rd”, then right into parking area marked for “fishing”

Parking & Access: Park at the small unpaved lot, and then walk south past the gate into a large downward sloping field along a path that is usually mowed. Near the treeline at the bottom, bear right on a smaller path leading into the woods, leading to the Roe Jan. The Roe Jan bank is steep, find a safe way down and sample with the dipper.

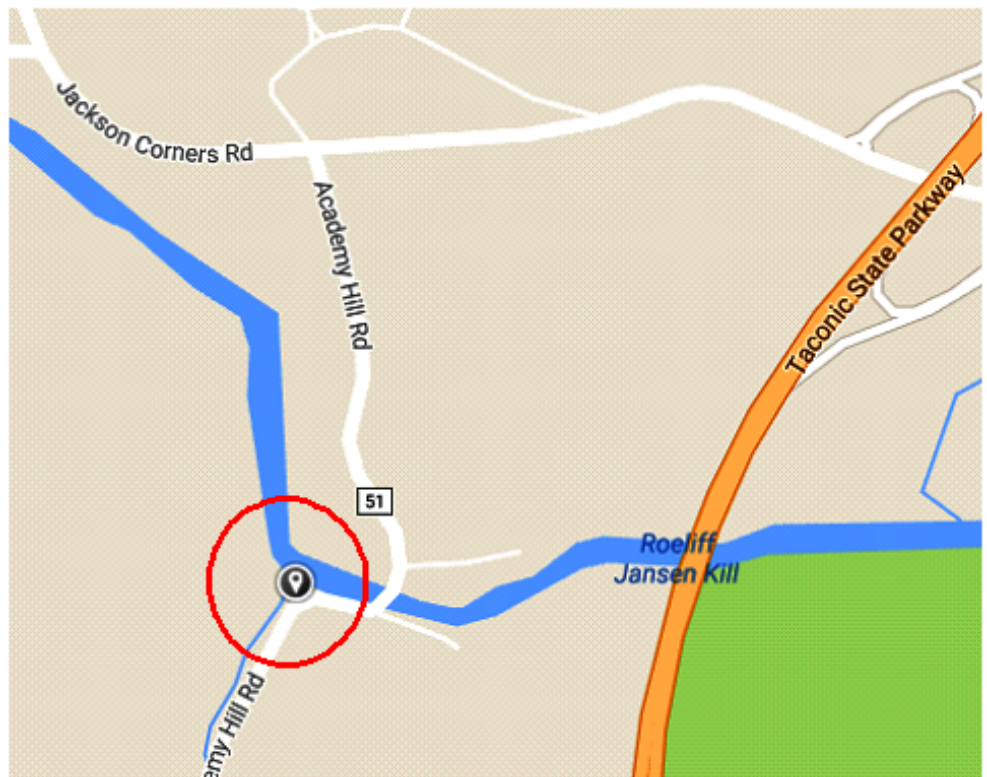


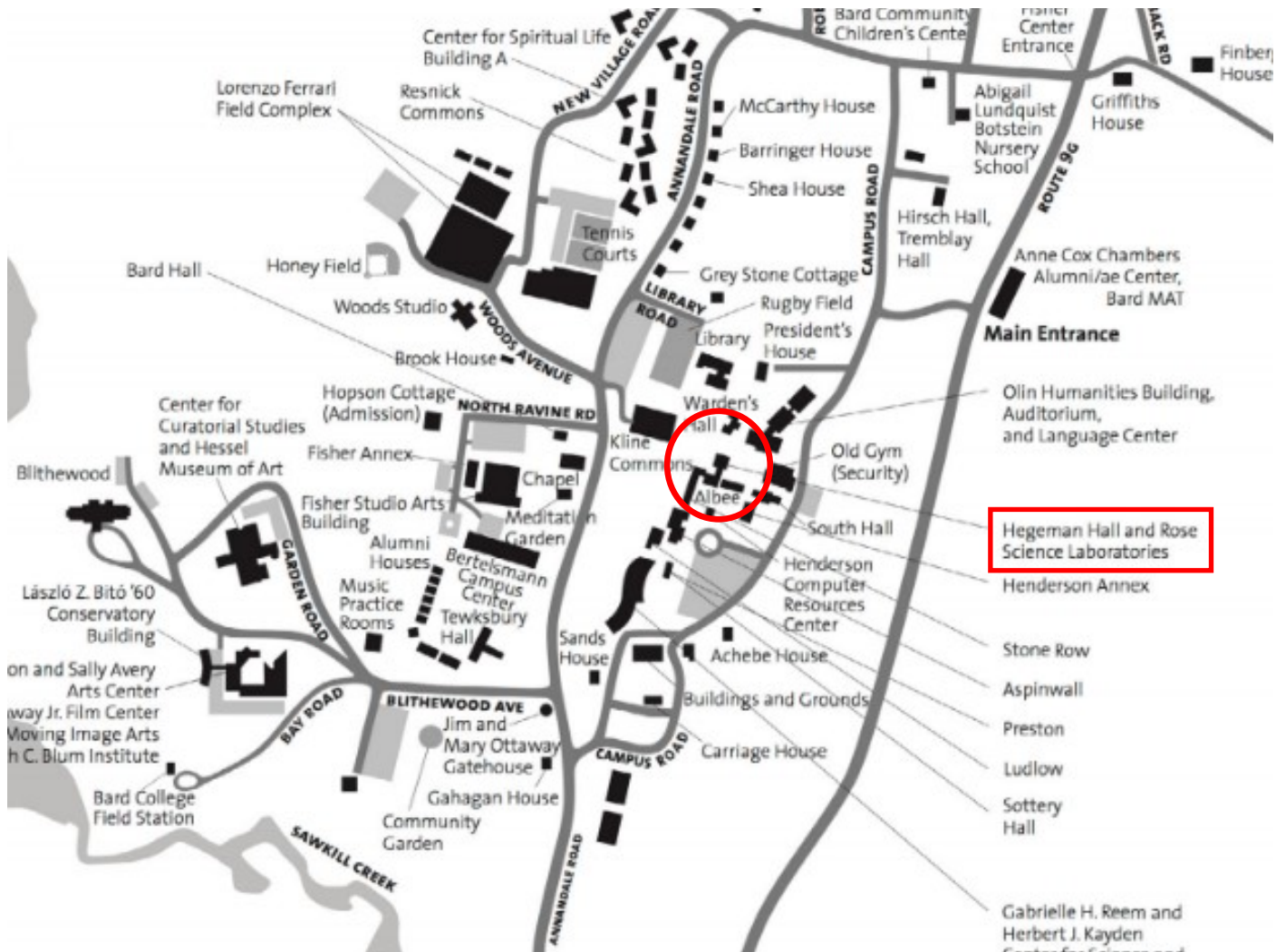
RJ-17.94 Milan- Academy Hill Road Bridge fishing access

This sampling site is a DEC fishing access site near the Taconic State Parkway. Land cover surrounding this portion of the Roe Jan is forest.

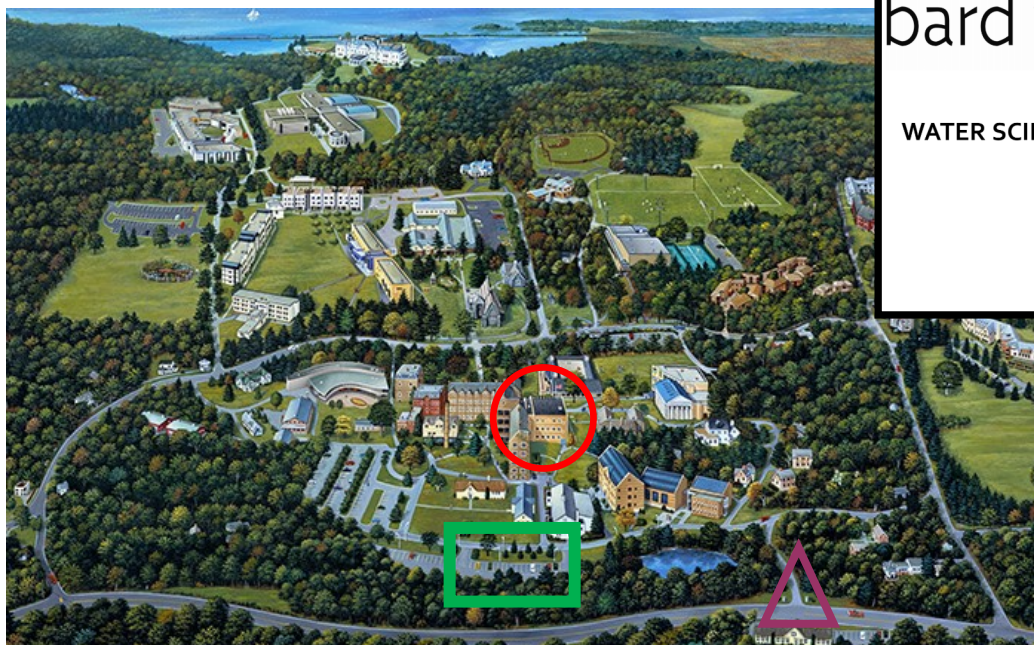
GPS: “Jackson Corners Rd & Academy Hill Rd” then south on Academy Hill Rd just over a quarter mile, past the bridge to the pullout area on the left.


Parking & Access: There is a rough parking area about 100 yards past (south) the bridge. Walk down the path on the north side of the road. Be careful to sample Roe Jan water flowing from right to left (east to west), not the joining Academy Creek water, coming from the south.





FOLLOW THE SIGNS:



bard water lab


WATER SCIENCE FOR WATER COMMUNITIES

ROSE 306

CENTER FOR THE STUDY OF LAND, AIR, AND WATER

Purple triangle—Campus entrance from 9G
 Green Square—Parking Red circle—Rose Hall