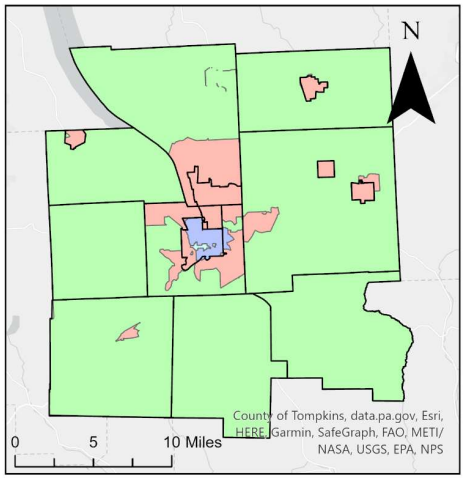
Map 1: Tompkins County Traffic

River Strumwasser
9/19/23

Map of Tompkins County, by type of traffic analysis zone.
PCS: NAD 1983 StatePlane New York Central FIPS 3102 Feet
Map Data from ArcPro online & Cornell CRP 4080 Lab 4 data



Tompkins County Municipalities

Area Type

- Close in Community
- LD/Rural
- Suburban
- Urban Core

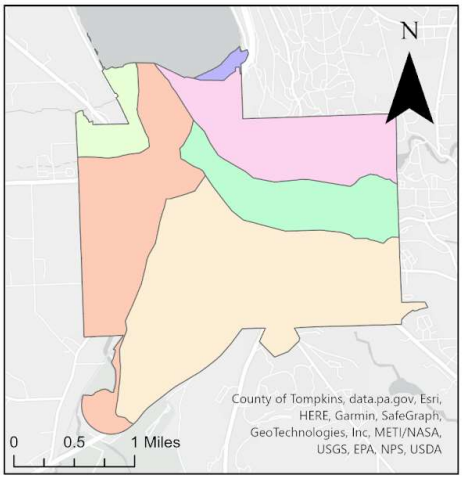
Area Type	% of Land
Close in Community	0.96
LD/Rural	90
Suburban	8.8
Urban Core	0.073

Map 2: City of Ithaca Watersheds

River Strumwasser

9/19/23

Map of the City of Ithaca, by watershed.
PCS: NAD 1983 StatePlane New York Central FIPS 3102 Feet
Map Data from ArcPro online & Cornell CRP 4080 Lab 4 data



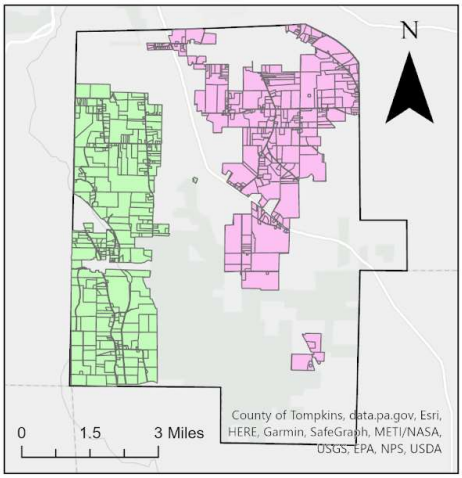
Watershed
- Cascadilla Creek
- Cayuga Inlet
- East Cayuga Lakeshore So.
- Fall Creek
- Six Mile Creek
- West Cayuga Lakeshore So.

Watershed Name	Acres in City of Ithaca	% of Area
Fall Creek	620	16.88
West Cayuga Lakeshore So.	160	4.45
East Cayuga Lakeshore So.	31	0.83
Cayuga Inlet	830	22.8
Six Mile Creek	1600	42.41
Cascadilla Creek	460	12.64

Map 3: Agricultural Districts in Town of Danby

River Strumwasser
9/19/23

Map of the Agricultural District 1 & 2 in the Town of Danby.
PCS: NAD 1983 StatePlane New York Central FIPS 3102 Feet
Map Data from ArcPro online & Cornell CRP 4080 Lab 4 data



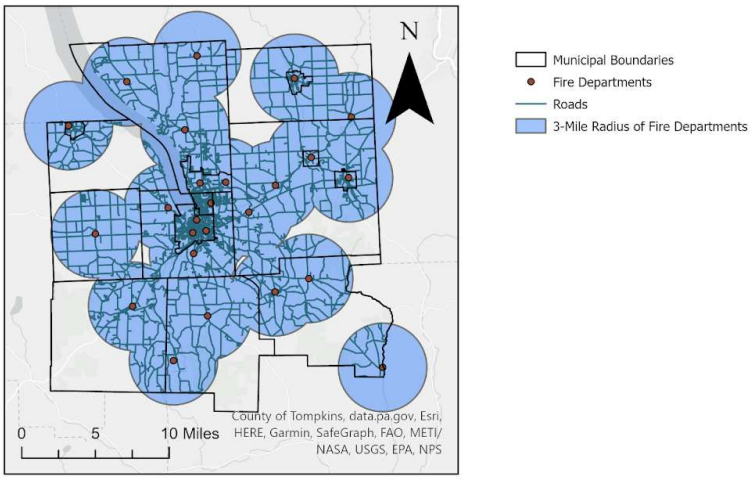
Agricultural District 1
Agricultural District 2
Town of Danby

District	# of Tax Parcels	Total Acreage
1	463	9600
2	401	9200

Map 4: Fire Department Access in Tompkins County

River Strumwasser
9/19/23

Map of the Fire Stations in Tompkins County, and roads accessing them in a 3-mile radius.
PCS: NAD 1983 StatePlane New York Central FIPS 3102 Feet
Map Data from ArcPro online & Cornell CRP 4080 Lab 4 data



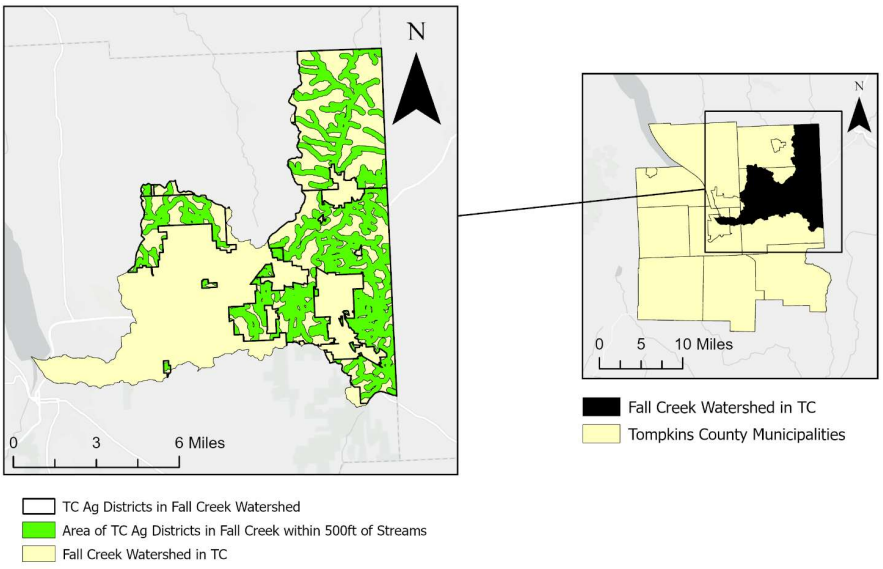
Part 7: Spatial Join

Try both the ‘one to many’ or ‘one to one’ option. Does it matter in this instance if you chose ‘one to many’ or ‘one to one’? Why or why not? Hint: note that the ‘one to many’ join contains an attribute entitled ‘Join_Count’. What does this reflect?

Yes, it does matter. Since there are multiple landmarks in each municipality (instead of before, where each landmark was only located inside one municipality), the two options differ. The ‘one to one’ option combines all landmarks within a municipality into the data of said single municipality (one object), while the ‘one to many’ option splits municipalities into multiple objects, each with a different landmark’s data joined to it. The Join_Count reflects the number of landmarks joined to each layer, since ‘one to one’ combines them all, Join_Count is equal to the number of landmarks in a given municipality. Since ‘one to many’ separates them all out, Join_Count is equal to one for all of them, corresponding to one landmark per municipality.

Map 5: Agriculture in Fall Creek Watershed River Strumwasser
9/21/23

Map of areas within 500 feet of a streams, in an Agricultural District of Tompkins County, in the Fall Creek Watershed.
PCS: NAD 1983 StatePlane New York Central FIPS 3102 Feet
Map Data from ArcPro online & Cornell CRP 4080 Lab 4 data



Identify all areas within the Fall Creek watershed that lie within 500 feet of streams and lie within an Agricultural District. Include a short write up of the steps you followed to complete this task.

First, I made a 500 foot buffer around the hydrology layer to satisfy the condition that the area must be within 500 feet of a stream. Then, I separated out the Fall Creek watershed, since we're only looking at it rather than the entirety of Tompkins County. I then clipped Agricultural Districts by the borders of the Fall Creek Watershed, and then clipped the hydrology buffer by the borders of the agricultural districts in Fall Creek Watershed, which I isolated in my first clip. I then dissolved the new clipped hydrology buffer, to get a single layer representing the areas within the Fall Creek watershed within 500 feet of streams, within an agricultural district.