



Moonachie, NJ

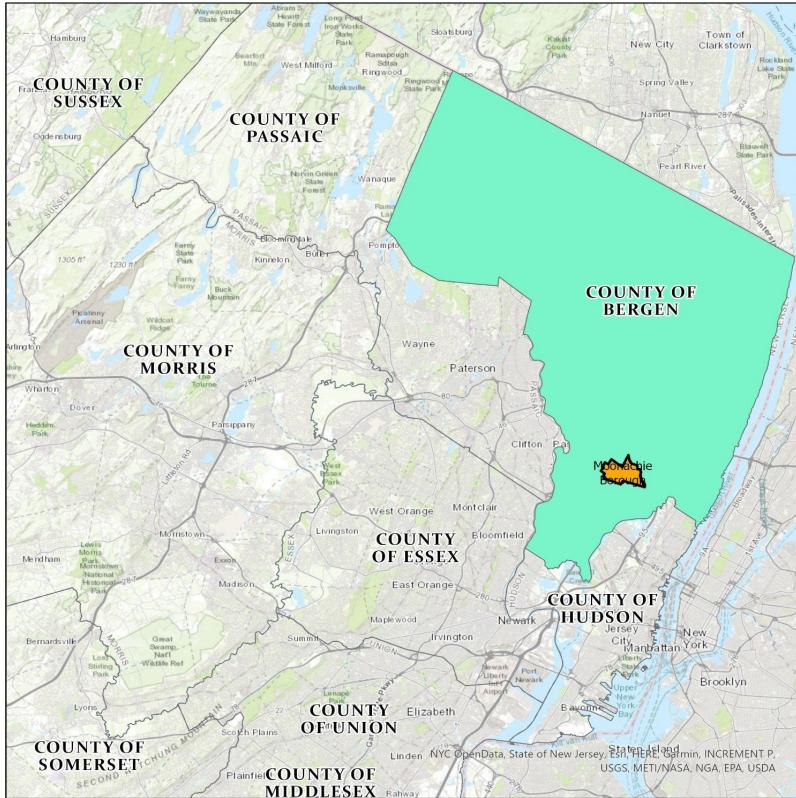
GIS Senior Final Project

Christian Cifuentes

Methods

Creation of Maps:

- All maps were made with ArcGIS Pro
- Source(s) of data:
 - Clipping or selection using a definition query to show certain areas from large dataset
- Maps were published to ArcGIS Online (ESRI)
- Projection Coordinate system: NAD 1983 (2011) StatePlane New Jersey FIPS 2900 (US Feet),
Datum: D NAD 1983 2011



MOONACHIE

Bergen County
New Jersey

Map #1: STATE/ COUNTY MAP

- █ moonache_BND
- BergenCounty
- County Boundaries



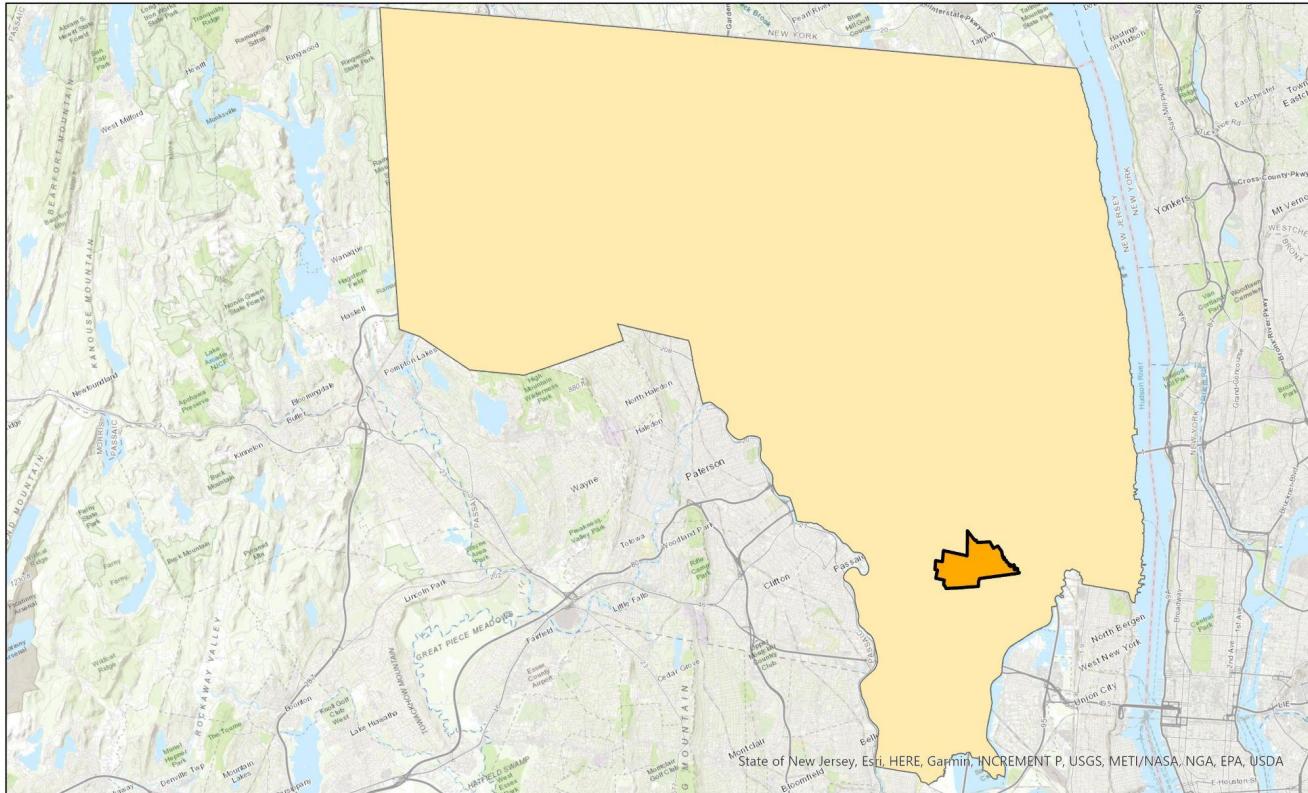
MAP 1

- Map featuring town boundary of Moonachie, and also the boundary of Bergen County which this town is in.
- Counties near Bergen are also labeled, but unhighlighted. Clipping only the data showing Bergen, from the “njCounties” dataset allowed us to select it alone, but all the data is still there in the contents so we could add the other names without highlighting them
- Geometry type: Polygon
- Symbology Type: Single Symbol

MAP 2

City Outline

- Zoomed in visual outlining Moonachie within Bergen County.
- Geometry type: Polygon
- Symbology Type: Single Symbol



MOONACHIE

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Map #2: COUNTY MAP

■ moonache_BND

■ BergenCounty



0 1 2 4 6 8 Miles

MAP 3

- This map shows the Moonachie boundary only: yellow border outline
- Applied the basemap “Imagery”
- Geometry type: Polygon
- Symbology Type: Single Symbol



MOONACHIE

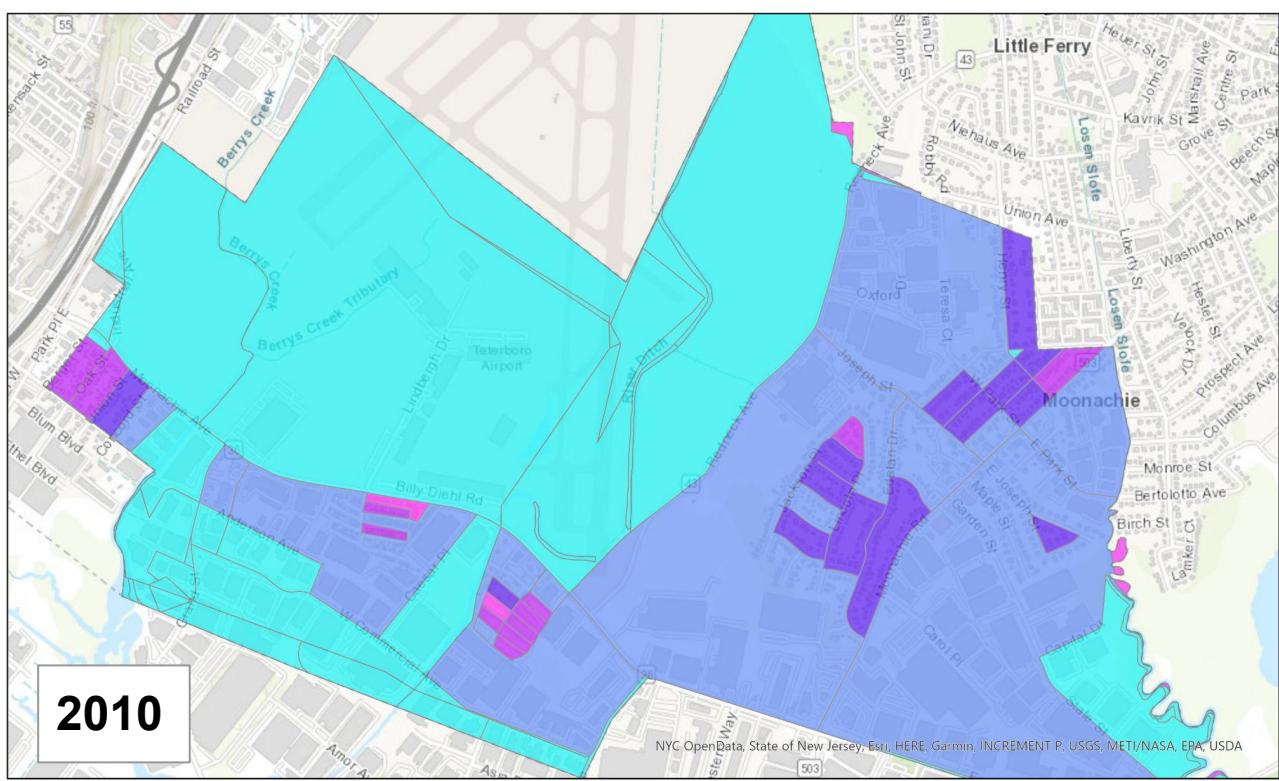
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New Jersey

Map #3: AERIAL MAP / MAP IMAGERY

moonache_BND



0 0.07 0.15 0.3 0.45 0.6 Miles

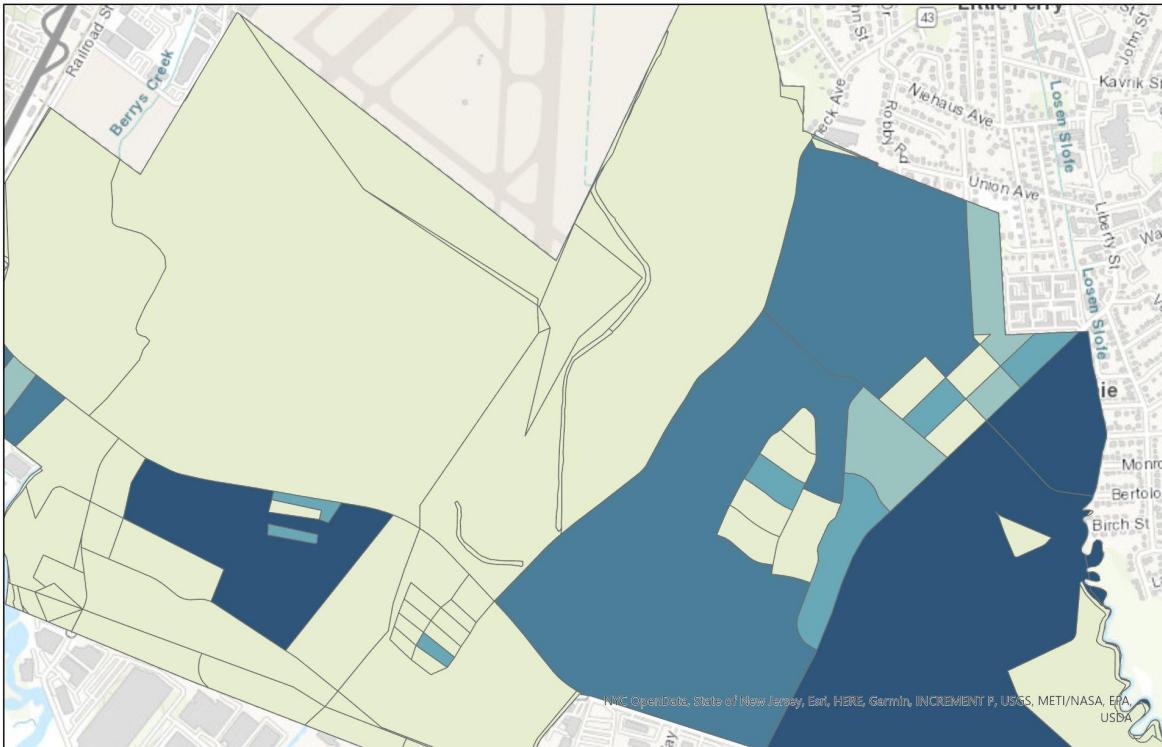


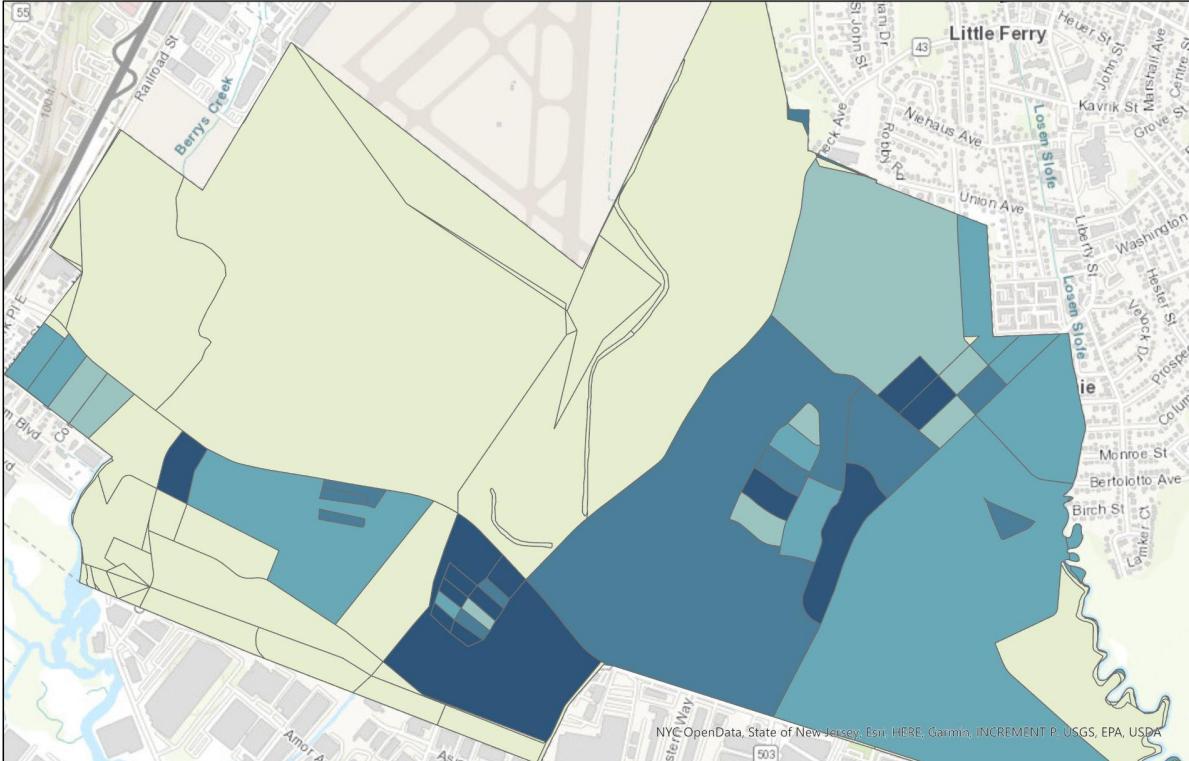
MAP 4

- This map represents the 2010 population density and distribution in the town.
- Moonachie has a low population density, most of which is on eastern/southeast side
- Total pop: 2,708
- All cyan has 0 people per acre
- Majority of that is wetlands, but some of it is urban, but industrial sites, so the population is 0 since no one is residing in that area.
- Geometry type: Polygon
- Symbology Type: Unique Values

MAP 5

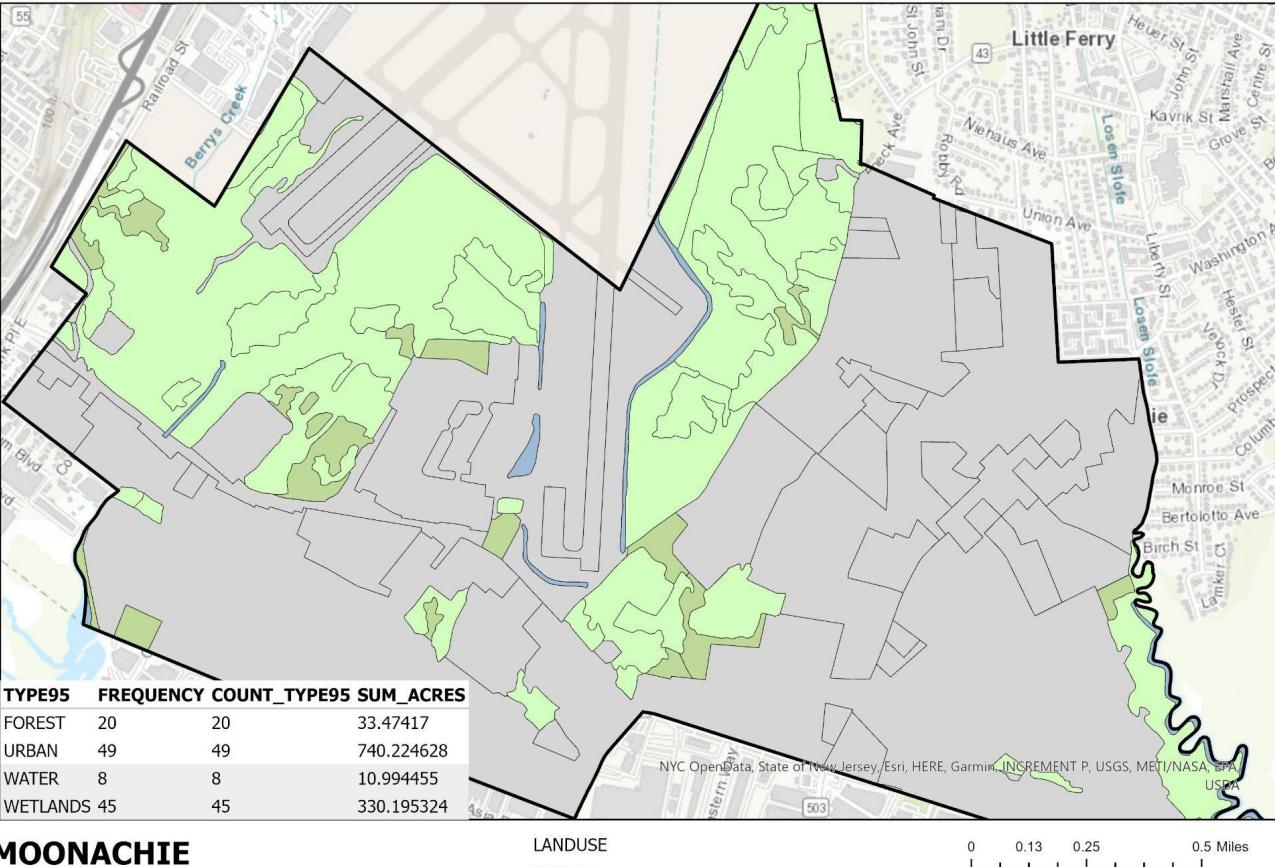
- This map is showing the population distribution of people in the category of "multi-race" in the data.
- This is 2010 data
- They mostly line up with where the most populated areas are overall, for the total population
- Geometry type: Polygon
- Symbology Type: Unique Values





MAP 6

- This map is showing the population distribution of people in the category of “median age male and female” in the data.
- This is 2010 data
- The distribution is somewhat different than that of the “multi-race”, with the greatest density being located in the Southern region of Moonachie.
- Geometry type: Polygon
- Symbology Type: Unique Values

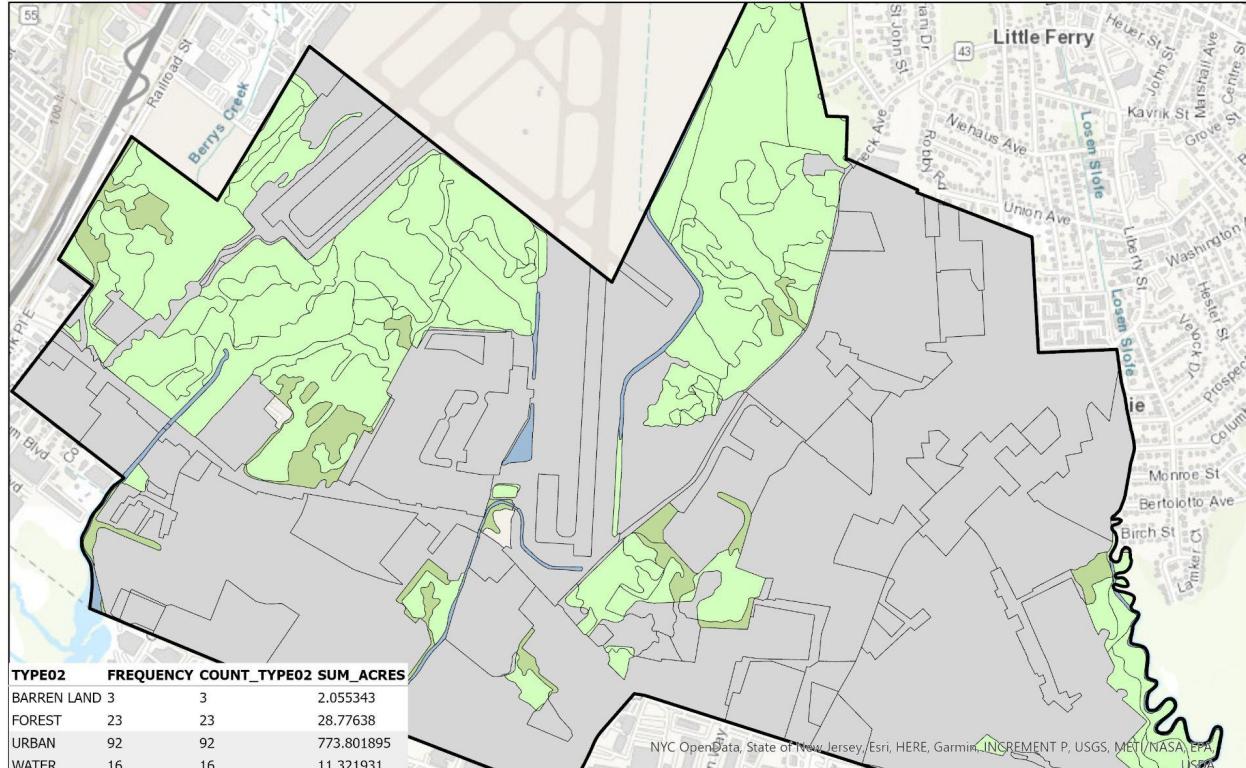


MAP 7

- This is a land use map with 1995 data
- Largest is Urban (almost 40%), Second is Wetlands (~37%)
- Map 4 shows 0 population in some areas marked urban here, because those areas are industrial.
- Majority of the non-urbanized land is composed of wetlands, and a little is forested and the lowest is water.
- Geometry type: Polygon
- Symbology Type: Unique Values

MAP 8

- Land use for 2002 (7 yrs later than Map 7)
- Largest two are still Urban and Wetlands. Not too much change, but wetlands have decreased.
- Geometry type: Polygon
- Symbology Type: Unique Values



MOONACHIE

Bergen County
New Jersey

MAP #8: LAND USE/LAND COVER - 2002

TYPE02

FOREST

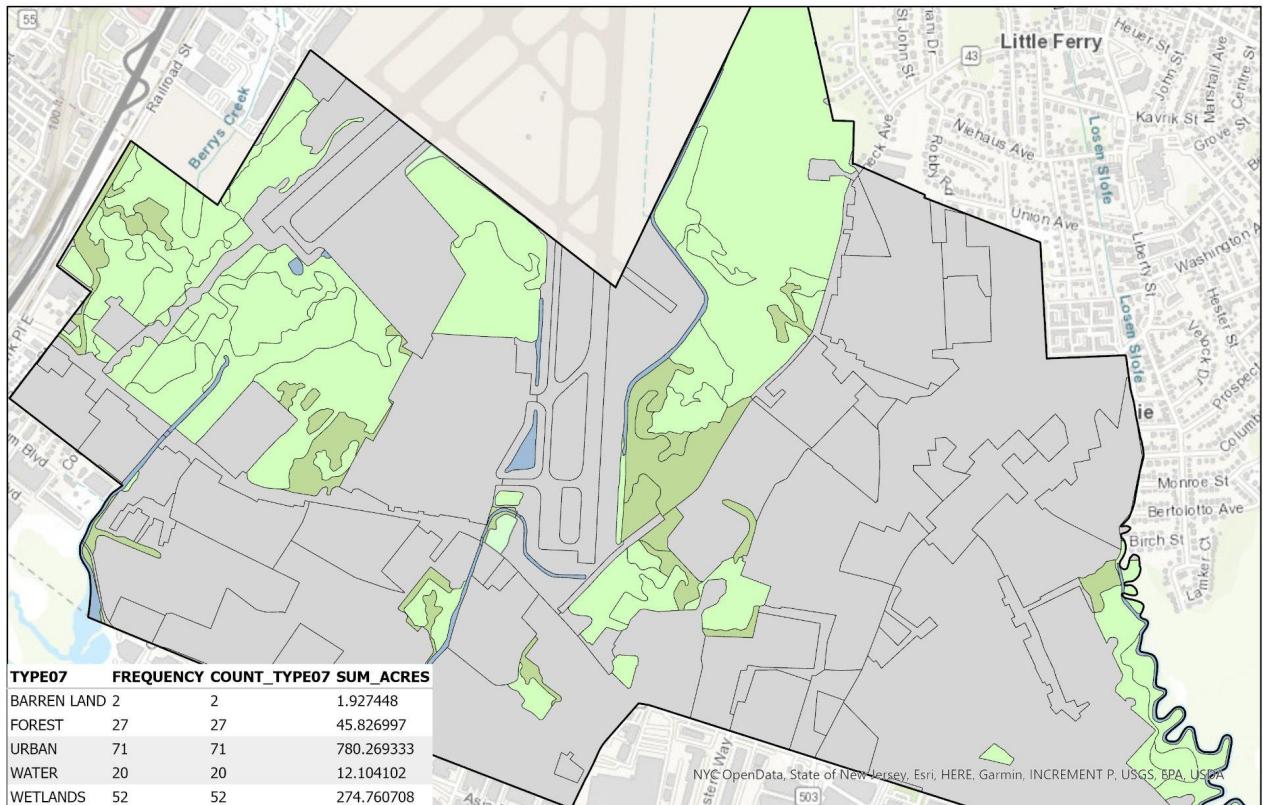
URBAN

WATER

WETLANDS

N

MAP 9



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MAP #9: LAND USE/LAND COVER - 2007

- BARREN LAND
- FOREST
- URBAN
- WATER
- WETLANDS

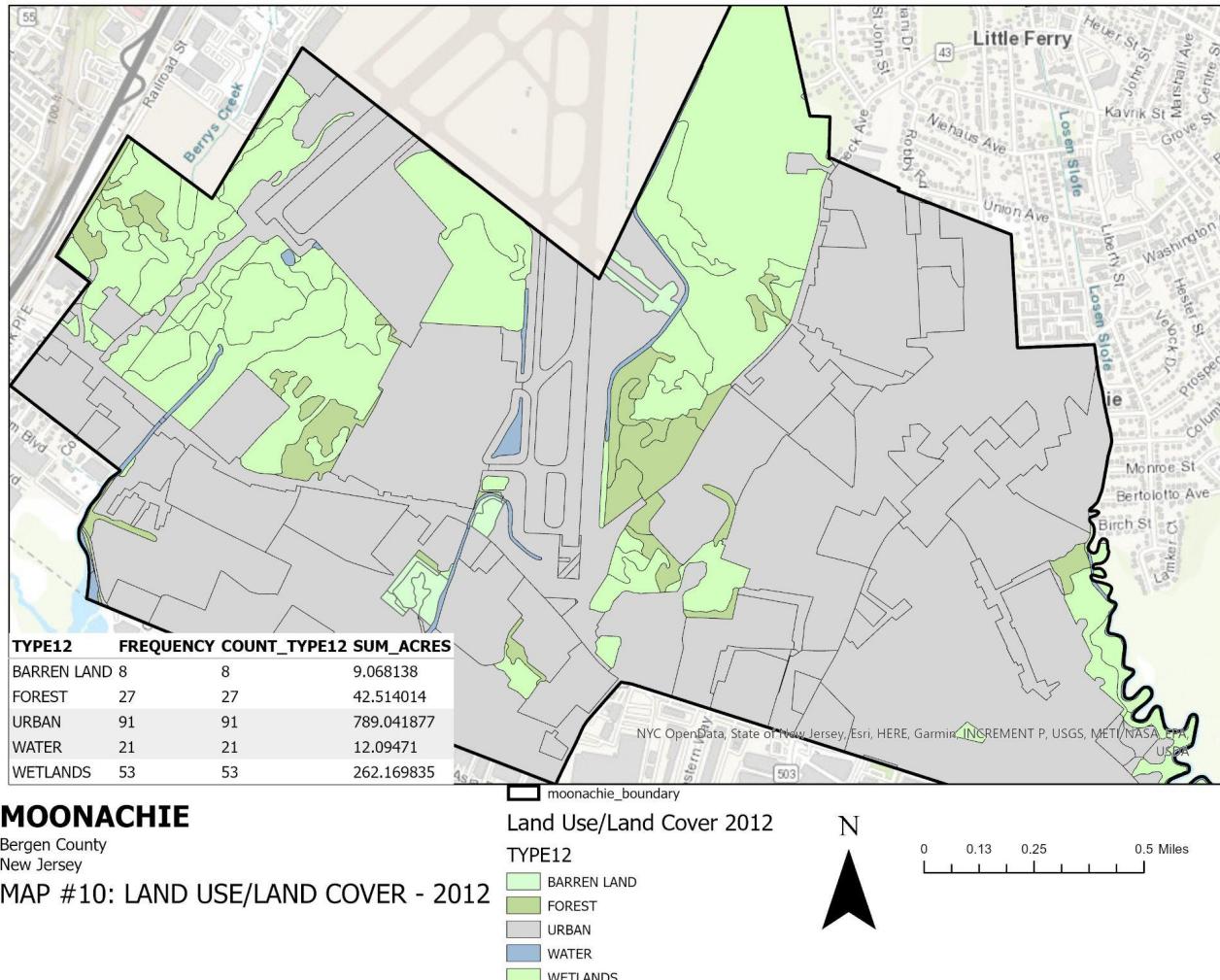


0 0.1 0.2 0.4 Miles

- Land use map of Moonachie in 2007 (5 years after Map 8)
- Notably more forest (towards center of township).
- Slightly less wetlands
- Small amount of new “barren lands” section
- Geometry type: Polygon
- Symbology Type: Unique Values

MAP 10

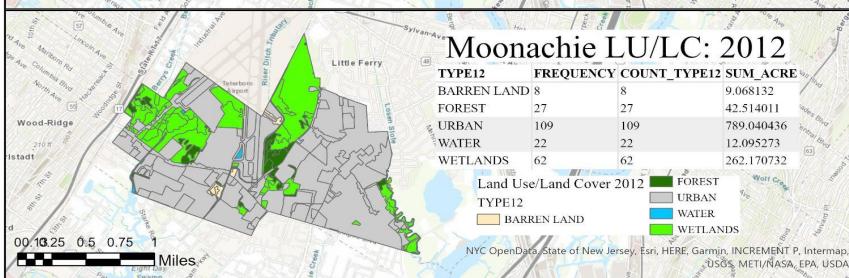
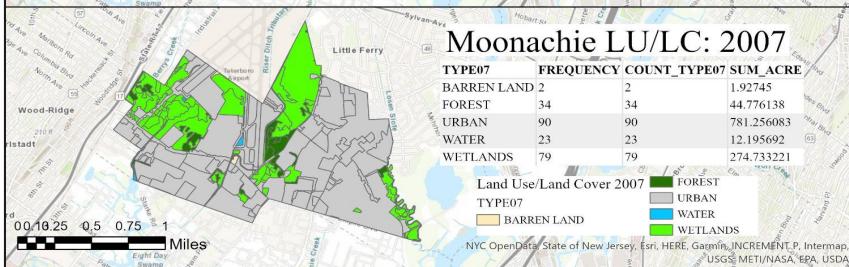
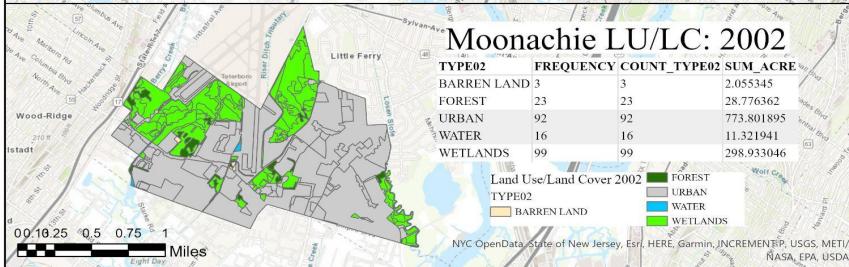
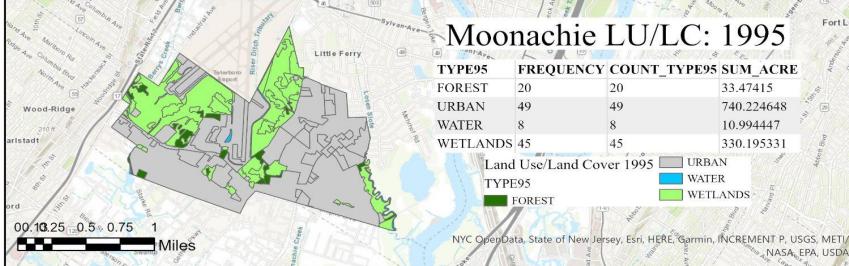
- Land use map of Moonachie in 2012 (5 years after Map 9)
- Notably more forest (towards center of township).
- Slightly less wetlands
- Geometry type: Polygon
- Symbology Type: Unique Values



MAP 11

Moonachie Land Use/Land Cover Change

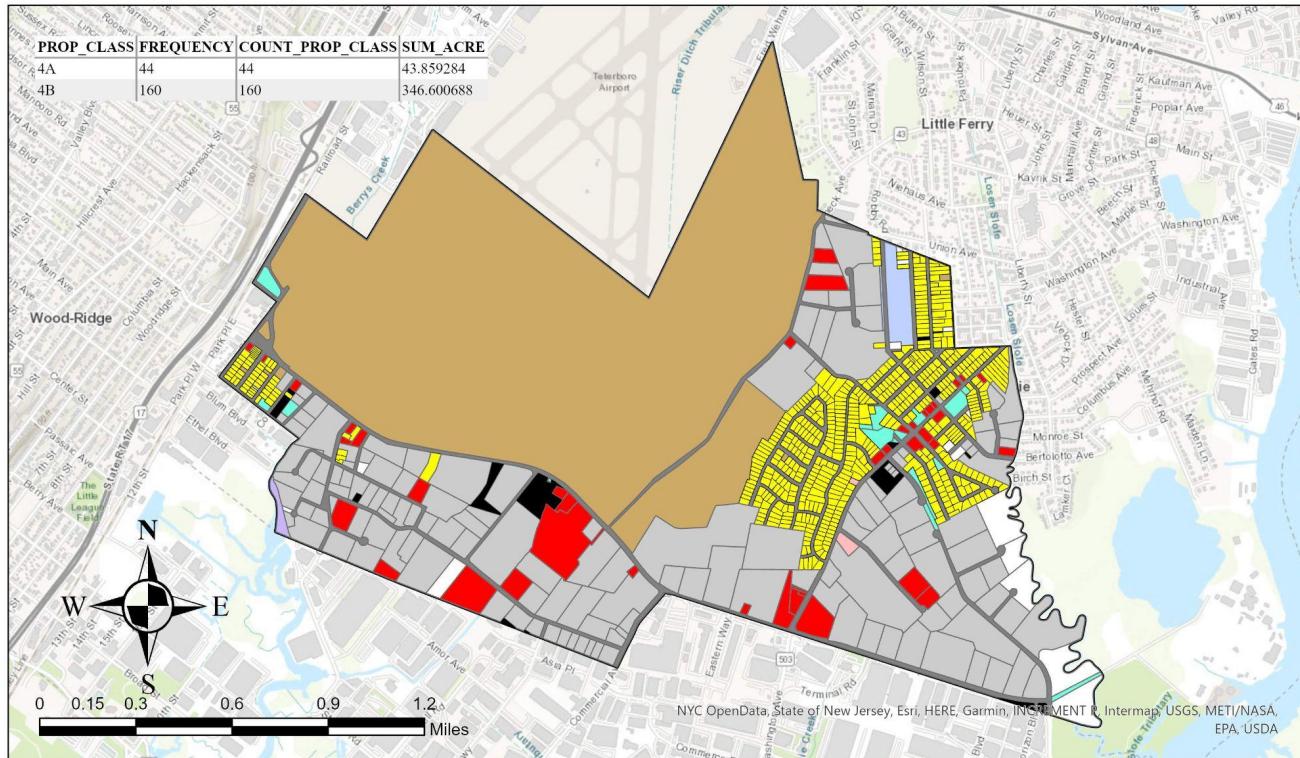
- Steady increase in urban land development and acreage. URBAN:
 - 1995: ~740 acres
 - 2012: ~789 acres
- Steady decrease in WETLANDS.
 - 1995: ~330 acres
 - 2012: ~262 acres
- Increase in frequencies of WATER, URBAN, and FOREST land types.



MAP 12

Moonachie Borough Land Use by Parcel with Property Class

- Table containing total acreages of commercial and industrial land use.
- Property Classification
- Geometry type: Polygon
- Symbology Type: Unique Values



Moonachie

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New Jersey

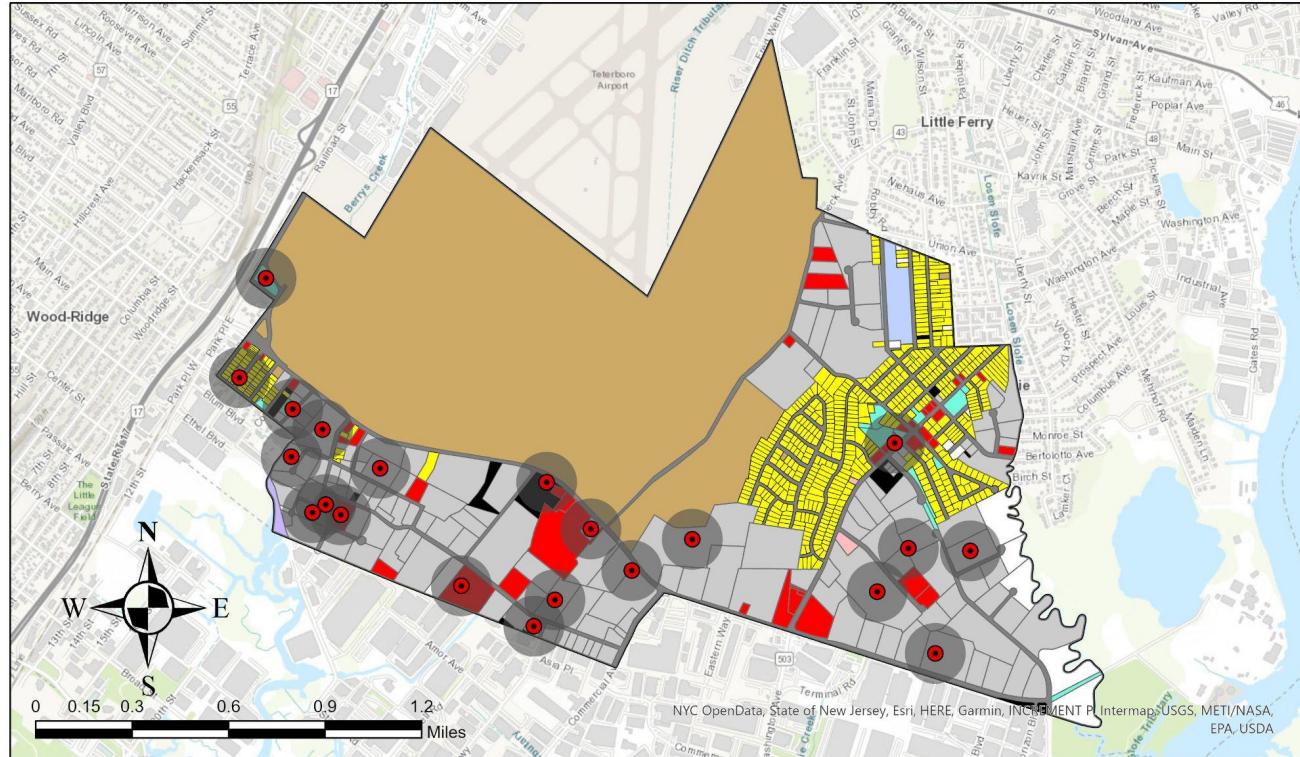
MAP #12: Moonachie Land Use by Parcel with Property Class

PROP_CLASS	FREQUENCY	COUNT_PROP_CLASS	SUM_ACRE
	34	1	9.967349
	1	23	77.098524
15A	2	2	7.951022
15C	17	17	9.333861
15D	2	2	1.131151
15F	8	8	493.057592
2	596	596	98.465118
4A	44	44	43.859284
4B	160	160	346.600688
5A	2	2	1.442448

MAP 13

Known Contamination Sites in Moonachie Borough

- 500 ft buffer around 21 known contamination sites in Moonachie Borough.
- 2 KCS nearest to large residential areas:
 - 1) Moonachie Road Pump Station. C1. LSRP.
 - 2) 11 Oak St. Oil Spill. C2. LSRP.
- Property Classification
- Geometry type: Polygon
- Symbology Type: Unique Values



Moonachie

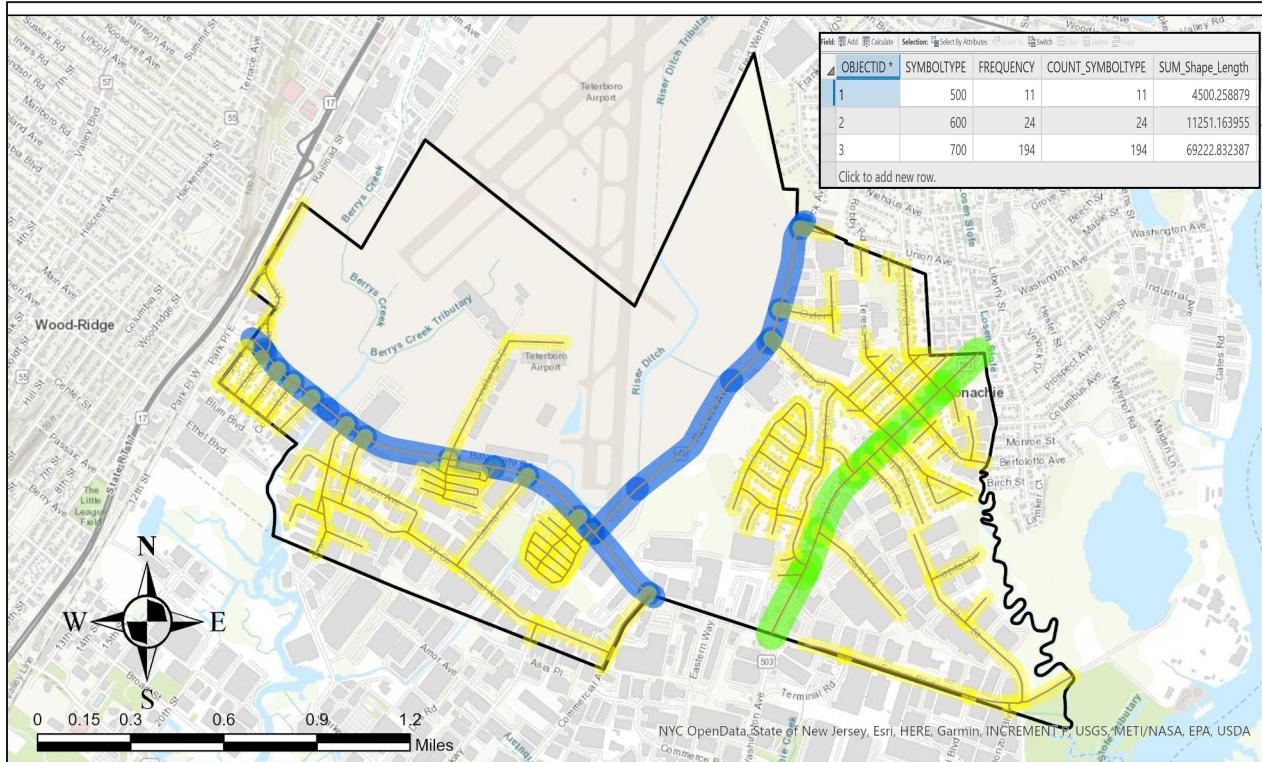
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MAP #13: Known Contamination Sites in Moonachie

contaminatedMoonachie	15D - CHURCH & CHARITABLE PROPERTIES
contaminatedMoonachie_Buffer	15F - OTHER EXEMPT FROM TAXES
moonboroMuni	2 - RESIDENTIAL PROPERTY
Moonachie_Parcels_UNION	4A - COMMERCIAL PROPERTY
PROP_CLASS	4B - INDUSTRIAL PROPERTY
1 - VACANT LAND	5A - RAILROAD
15A - PUBLIC SCHOOL	UNKNOWN
15C - PUBLIC PROPERTY	<all other values>

MAP 14

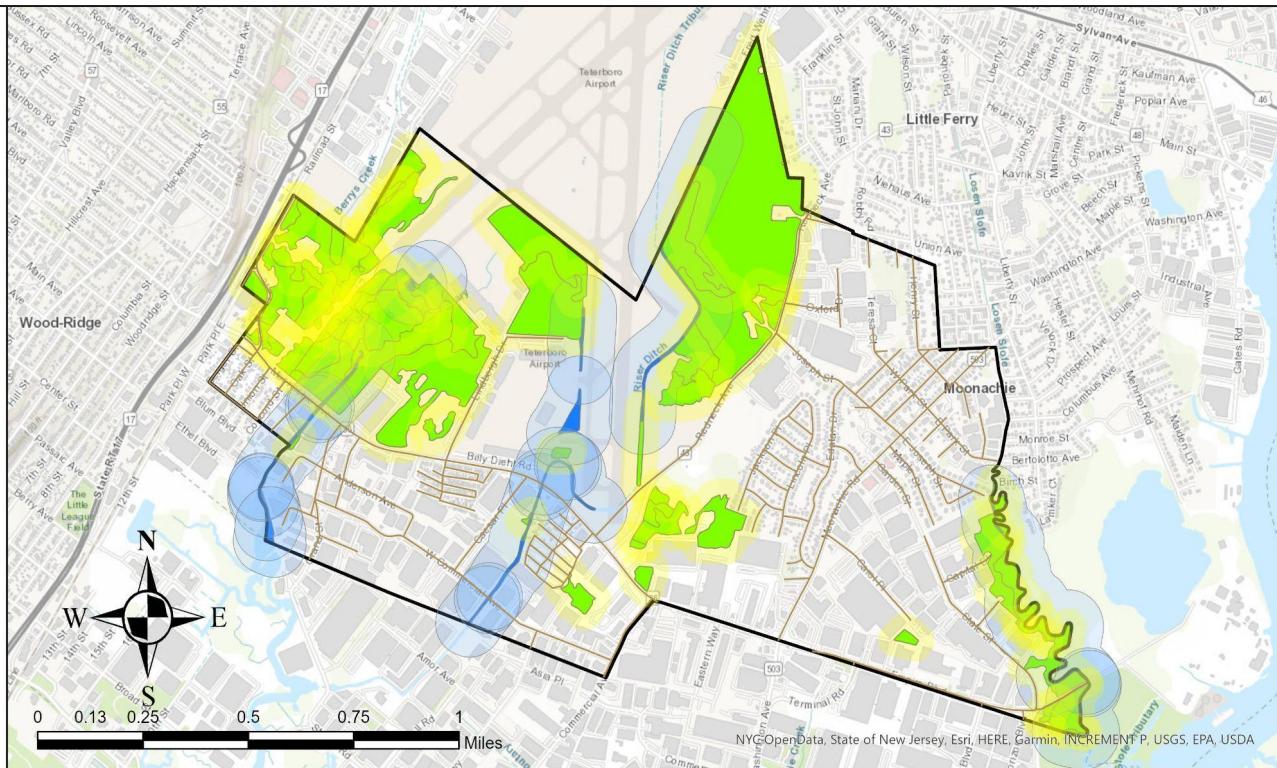
- This map shows road buffer boundaries (100, 150, & 200 ft respectively) in Moonachie Township
- SYMBOLTYPES:
 - 500 : County Roads
 - 200 Distance buffer
 - 600 : Primary Roads (not limited access)
 - 150 Distance buffer
 - 700 : Secondary & Connecting Roads
 - 100 Distance buffer
- Geometry type: Polygon
- Symbology Type: Unique Values



MAP 15

Waterbody & Wetland Buffer Zones (w/ Roads)

- Buffer Zones (200 & 400 ft respectively) of Wetlands and Waterbodies with roads in Moonachie.
- Close proximity to roads.
- Geometry type: Polygon
- Symbology Type: Unique Values



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MAP #15 (EXTRA): Waterbody & Wetland Buffer Zones with Roads