

3.4.3 Exposure Analysis

This Section in Chapter 3.4 remains unchanged from the 2008 Hazard Mitigation Plan update. Even though the data has not been updated to reflect newer mapping and additional properties that now may lie within the 100 year flood plain it still provides an excellent general indication of the extent and distribution of a community's flood risk that is useful for mitigation planning

Figure 3-29

100-Year Floodplain Property Exposure Analysis

A major effort of the 2008 State Hazard Mitigation Plan – Risk Assessment has been the GIS-based analysis of property within a 100-year floodplain. Using the NYS Real Property System (RPS) GIS layer of property parcel center points and FEMA's "Q3" digital flood maps, the total number, type and estimated value of property within a 100-year floodplain was calculated and summarized for 1002 New York State municipalities (based on availability of RPS and Q3 data). While this information provides only property exposure as opposed to flood damage or estimated dollar losses, it nonetheless provides a general indication of the extent and distribution of a community's flood risk that is useful for mitigation planning. The below example shows property parcel center points in an area of Troy, NY that fall in or out of the 100-year floodplain. The sample parcel record shows the property to be owned by the Troy Industrial Development Authority (IDA). The property class is 464 (Commercial – Office Building). The estimated property value is \$5,285,029 based on an assessed value of \$924,880 (CUR_TOT_A) divided by 0.175 (RATE_FRAC) from the State Equalization Rate for the City of Troy of 17.5%.

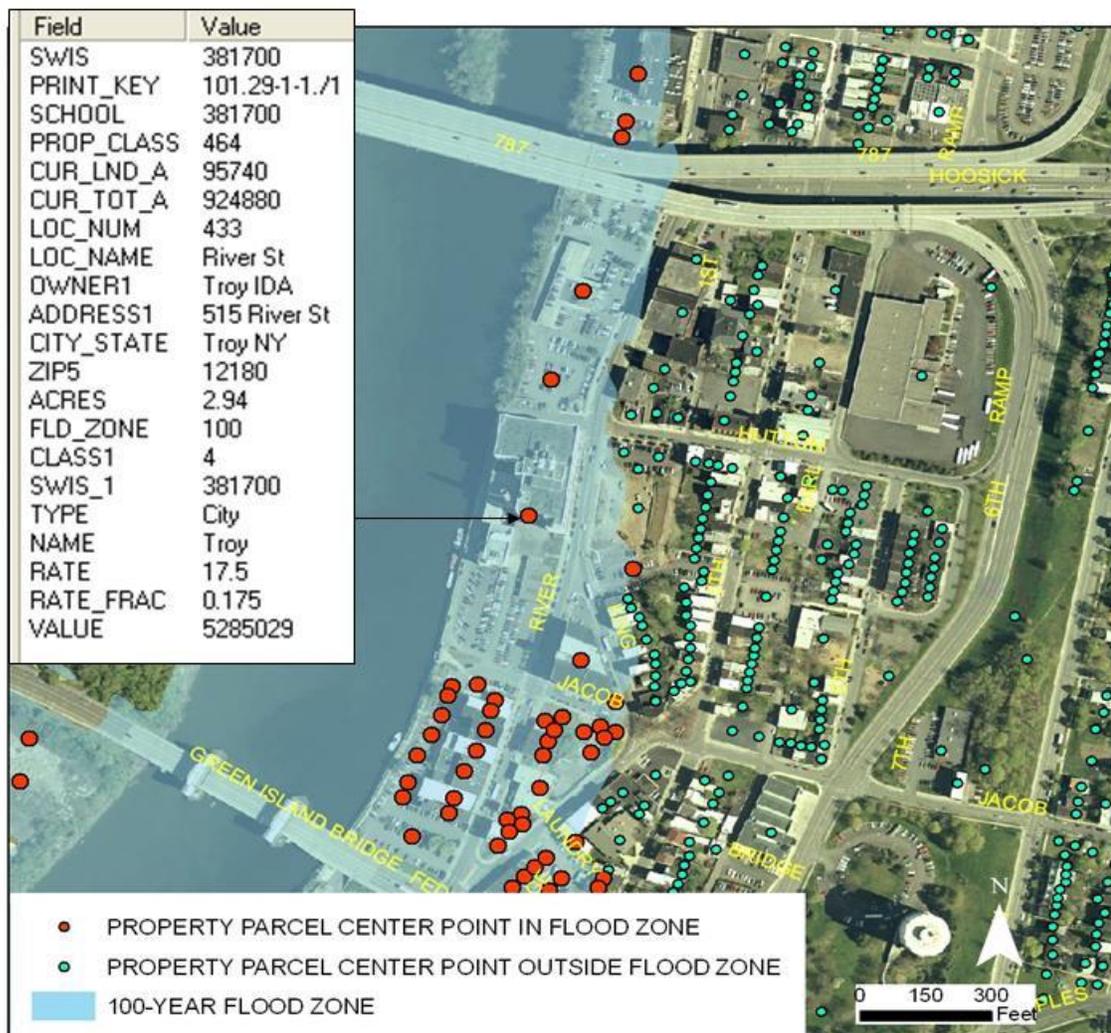
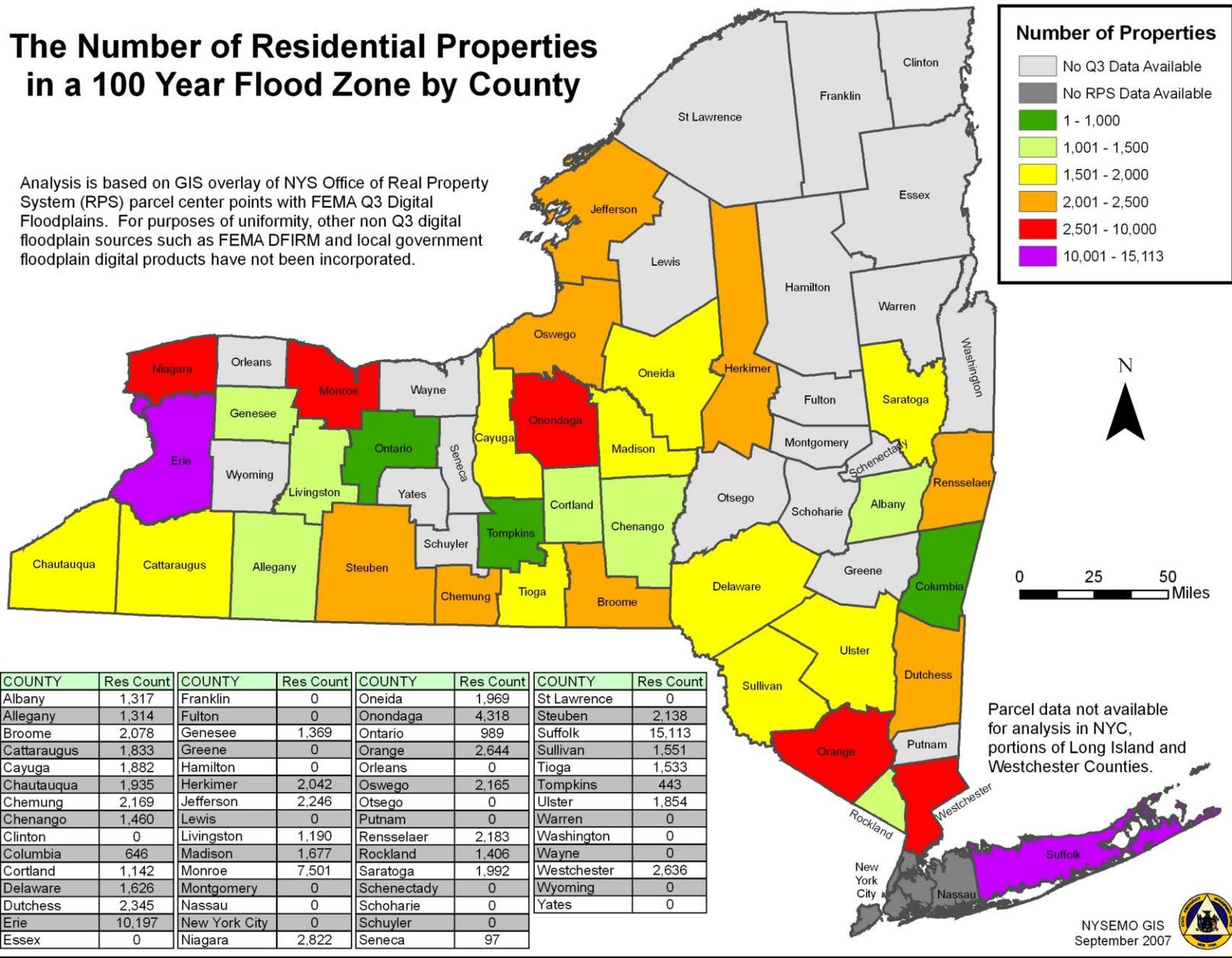
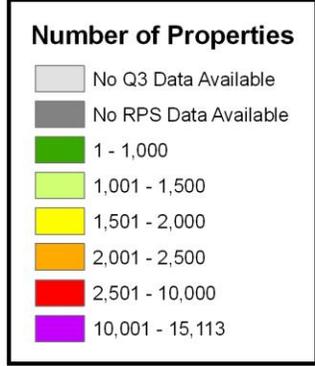


Figure 3-30

The Number of Residential Properties in a 100 Year Flood Zone by County

Analysis is based on GIS overlay of NYS Office of Real Property System (RPS) parcel center points with FEMA Q3 Digital Floodplains. For purposes of uniformity, other non Q3 digital floodplain sources such as FEMA DFIRM and local government floodplain digital products have not been incorporated.



COUNTY	Res Count	COUNTY	Res Count	COUNTY	Res Count	COUNTY	Res Count
Albany	1,317	Franklin	0	Oneida	1,969	St Lawrence	0
Allegany	1,314	Fulton	0	Onondaga	4,318	Steuben	2,138
Broome	2,078	Genesee	1,369	Ontario	989	Suffolk	15,113
Cattaraugus	1,833	Greene	0	Orange	2,644	Sullivan	1,551
Cayuga	1,882	Hamilton	0	Orleans	0	Tioga	1,533
Chautauqua	1,935	Herkimer	2,042	Oswego	2,165	Tompkins	443
Chemung	2,169	Jefferson	2,246	Otsego	0	Ulster	1,854
Chenango	1,460	Lewis	0	Putnam	0	Warren	0
Clinton	0	Livingston	1,190	Rensselaer	2,183	Washington	0
Columbia	646	Madison	1,677	Rockland	1,406	Wayne	0
Cortland	1,142	Monroe	7,501	Saratoga	1,992	Westchester	2,636
Delaware	1,626	Montgomery	0	Schenectady	0	Wyoming	0
Dutchess	2,345	Nassau	0	Schoharie	0	Yates	0
Erie	10,197	New York City	0	Schuyler	0		
Essex	0	Niagara	2,822	Seneca	97		

Parcel data not available for analysis in NYC, portions of Long Island and Westchester Counties.

Figure 3-31

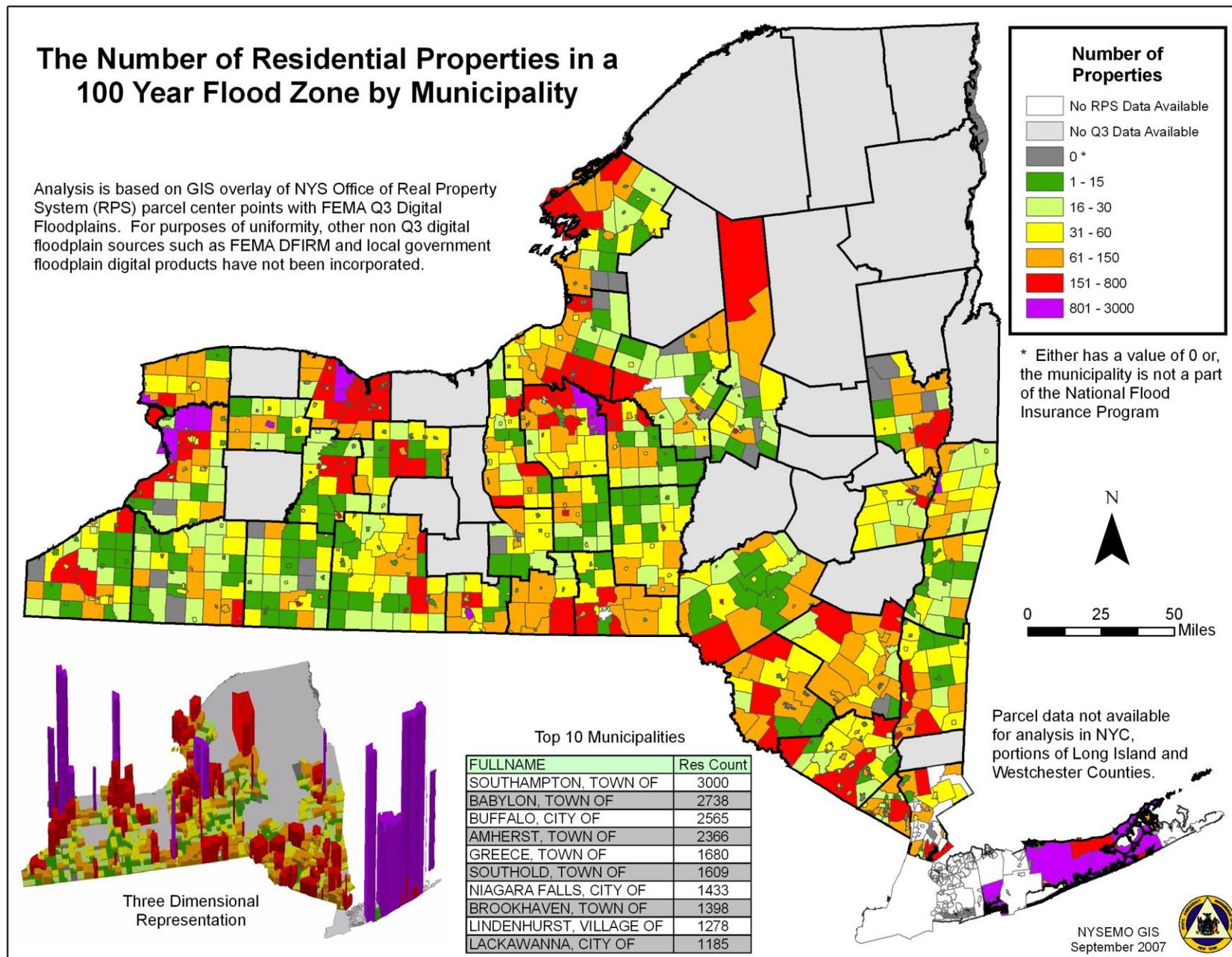
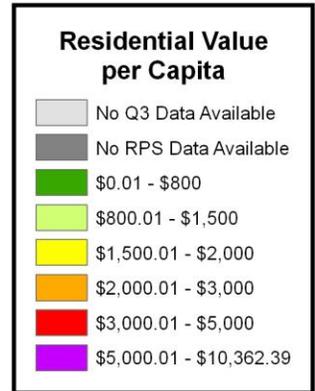


Figure 3-32

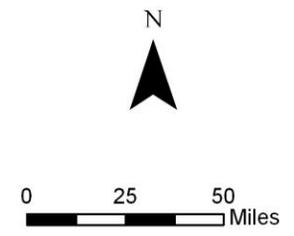
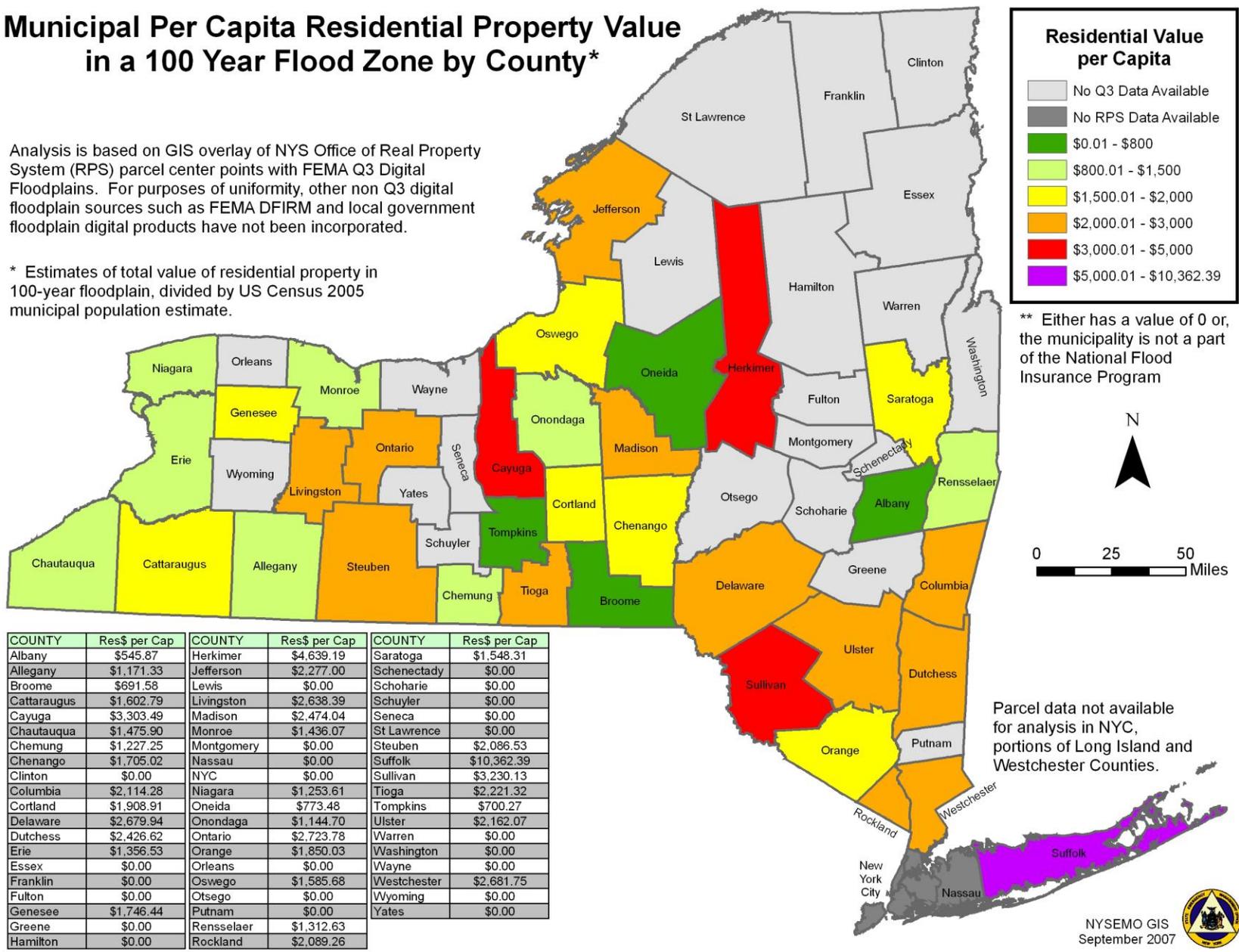
Municipal Per Capita Residential Property Value in a 100 Year Flood Zone by County*

Analysis is based on GIS overlay of NYS Office of Real Property System (RPS) parcel center points with FEMA Q3 Digital Floodplains. For purposes of uniformity, other non Q3 digital floodplain sources such as FEMA DFIRM and local government floodplain digital products have not been incorporated.

* Estimates of total value of residential property in 100-year floodplain, divided by US Census 2005 municipal population estimate.



** Either has a value of 0 or, the municipality is not a part of the National Flood Insurance Program



COUNTY	Res\$ per Cap	COUNTY	Res\$ per Cap	COUNTY	Res\$ per Cap
Albany	\$545.87	Herkimer	\$4,639.19	Saratoga	\$1,548.31
Allghany	\$1,171.33	Jefferson	\$2,277.00	Schenectady	\$0.00
Broome	\$691.58	Lewis	\$0.00	Schoharie	\$0.00
Cattaraugus	\$1,602.79	Livingston	\$2,638.39	Schuyler	\$0.00
Cayuga	\$3,303.49	Madison	\$2,474.04	Seneca	\$0.00
Chautauqua	\$1,475.90	Monroe	\$1,436.07	St Lawrence	\$0.00
Chemung	\$1,227.25	Montgomery	\$0.00	Steuben	\$2,086.53
Chenango	\$1,705.02	Nassau	\$0.00	Suffolk	\$10,362.39
Clinton	\$0.00	NYC	\$0.00	Sullivan	\$3,230.13
Columbia	\$2,114.28	Niagara	\$1,253.61	Tioga	\$2,221.32
Cortland	\$1,908.91	Oneida	\$773.48	Tompkins	\$700.27
Delaware	\$2,679.94	Onondaga	\$1,144.70	Ulster	\$2,162.07
Dutchess	\$2,426.62	Ontario	\$2,723.78	Warren	\$0.00
Erie	\$1,356.53	Orange	\$1,850.03	Washington	\$0.00
Essex	\$0.00	Orleans	\$0.00	Wayne	\$0.00
Franklin	\$0.00	Oswego	\$1,585.68	Westchester	\$2,681.75
Fulton	\$0.00	Otsego	\$0.00	Wyoming	\$0.00
Genesee	\$1,746.44	Putnam	\$0.00	Yates	\$0.00
Greene	\$0.00	Rensselaer	\$1,312.63		
Hamilton	\$0.00	Rockland	\$2,089.26		

Parcel data not available for analysis in NYC, portions of Long Island and Westchester Counties.

Figure 3-33

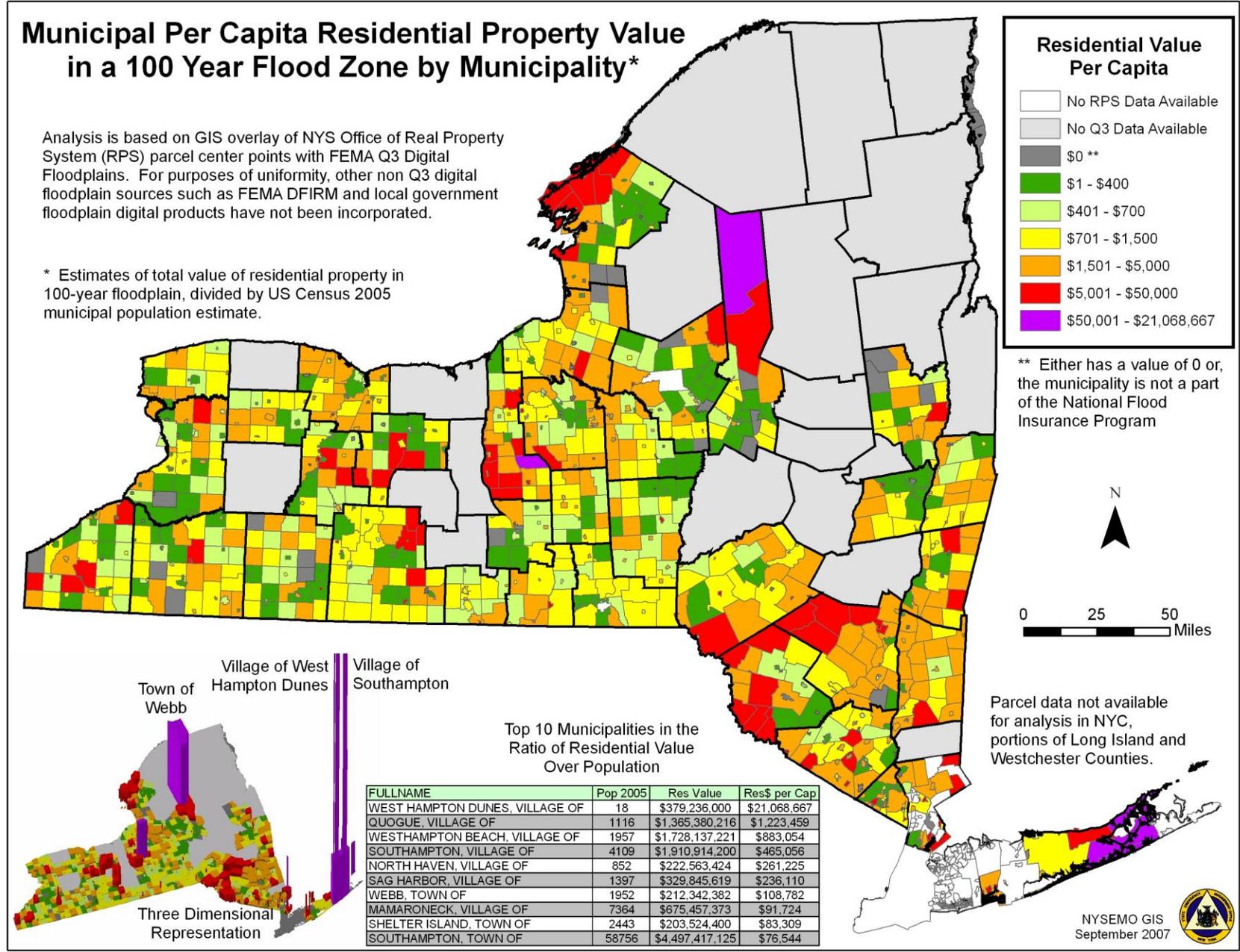
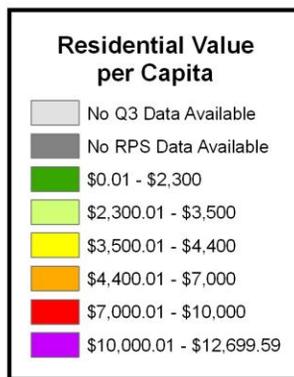


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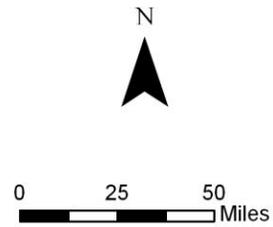
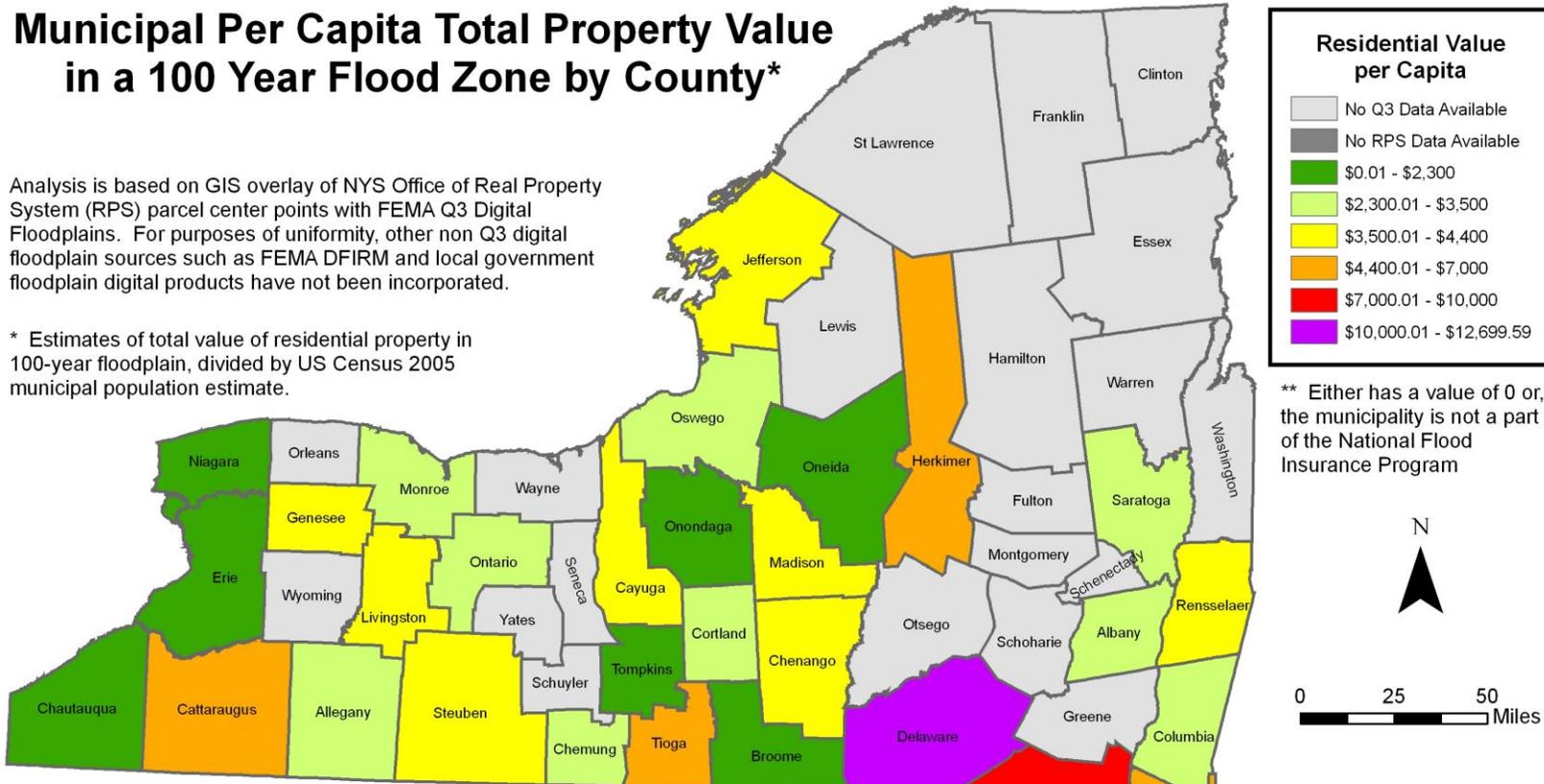
Municipal Per Capita Total Property Value in a 100 Year Flood Zone by County*

Analysis is based on GIS overlay of NYS Office of Real Property System (RPS) parcel center points with FEMA Q3 Digital Floodplains. For purposes of uniformity, other non Q3 digital floodplain sources such as FEMA DFIRM and local government floodplain digital products have not been incorporated.

* Estimates of total value of residential property in 100-year floodplain, divided by US Census 2005 municipal population estimate.



** Either has a value of 0 or, the municipality is not a part of the National Flood Insurance Program



COUNTY	Val per Cap	COUNTY	Val per Cap	COUNTY	Val per Cap
Albany	\$3,040.99	Herkimer	\$6,894.85	Saratoga	\$2,913.21
Allegany	\$2,624.78	Jefferson	\$3,940.91	Schenectady	\$0.00
Broome	\$1,962.61	Lewis	\$0.00	Schoharie	\$0.00
Cattaraugus	\$5,033.69	Livingston	\$4,000.07	Schuyler	\$0.00
Cayuga	\$4,267.29	Madison	\$4,352.82	Seneca	\$0.00
Chautauque	\$2,273.30	Monroe	\$2,696.86	St Lawrence	\$0.00
Chemung	\$3,340.13	Montgomery	\$0.00	Steuben	\$4,124.67
Chenango	\$4,063.10	Nassau	\$0.00	Suffolk	\$12,699.59
Clinton	\$0.00	New York City	\$0.00	Sullivan	\$6,722.95
Columbia	\$3,171.34	Niagara	\$1,535.66	Tioga	\$6,893.78
Cortland	\$3,499.01	Oneida	\$1,273.02	Tompkins	\$1,907.55
Delaware	\$11,565.91	Onondaga	\$2,035.40	Ulster	\$9,229.02
Dutchess	\$5,300.14	Ontario	\$3,481.89	Warren	\$0.00
Erie	\$2,079.74	Orange	\$4,299.67	Washington	\$0.00
Essex	\$0.00	Orleans	\$0.00	Wayne	\$0.00
Franklin	\$0.00	Oswego	\$3,169.73	Westchester	\$6,061.47
Fulton	\$0.00	Otsego	\$0.00	Wyoming	\$0.00
Genesee	\$3,527.33	Putnam	\$0.00	Yates	\$0.00
Greene	\$0.00	Rensselaer	\$4,348.94		
Hamilton	\$0.00	Rockland	\$8,246.93		

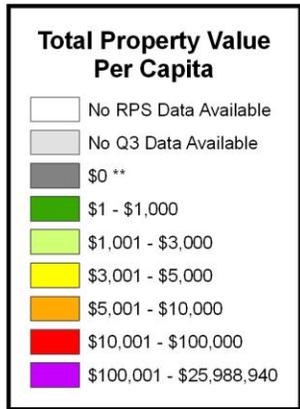
Parcel data not available for analysis in NYC, portions of Long Island and Westchester Counties.

Figure 3-35

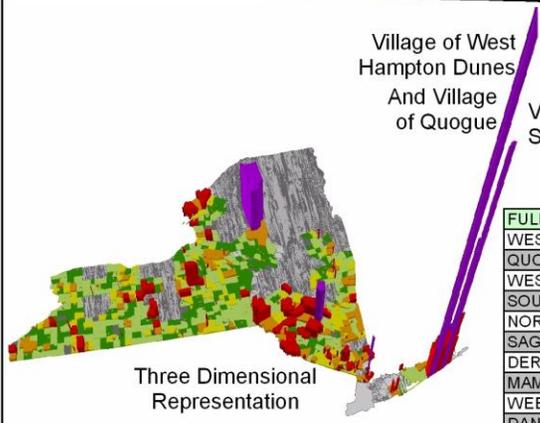
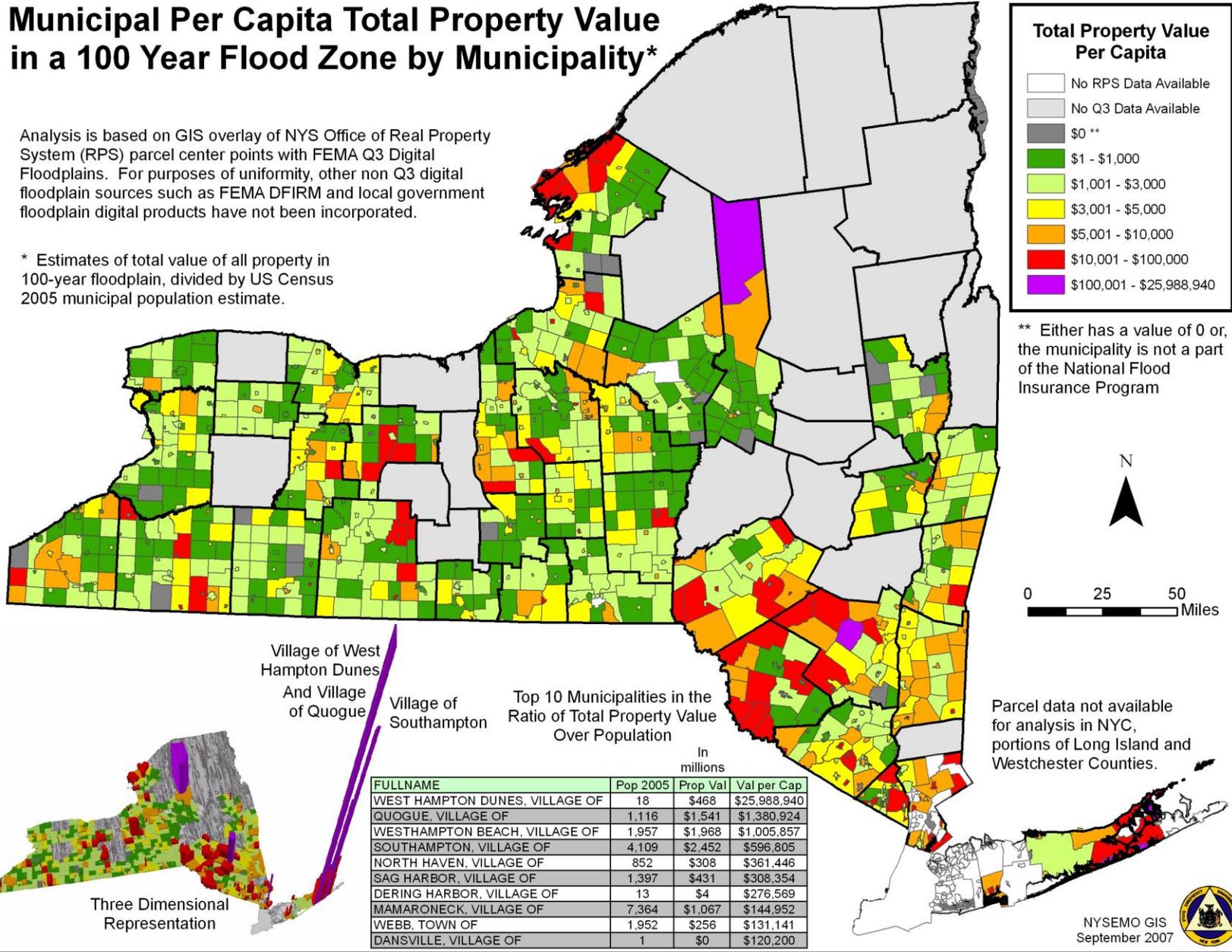
Municipal Per Capita Total Property Value in a 100 Year Flood Zone by Municipality*

Analysis is based on GIS overlay of NYS Office of Real Property System (RPS) parcel center points with FEMA Q3 Digital Floodplains. For purposes of uniformity, other non Q3 digital floodplain sources such as FEMA DFIRM and local government floodplain digital products have not been incorporated.

* Estimates of total value of all property in 100-year floodplain, divided by US Census 2005 municipal population estimate.



** Either has a value of 0 or, the municipality is not a part of the National Flood Insurance Program



Top 10 Municipalities in the Ratio of Total Property Value Over Population

In millions

FULLNAME	Pop 2005	Prop Val	Val per Cap
WEST HAMPTON DUNES, VILLAGE OF	18	\$468	\$25,988,940
QUOGUE, VILLAGE OF	1,116	\$1,541	\$1,380,924
WESTHAMPTON BEACH, VILLAGE OF	1,957	\$1,968	\$1,005,857
SOUTHAMPTON, VILLAGE OF	4,109	\$2,452	\$596,805
NORTH HAVEN, VILLAGE OF	852	\$308	\$361,446
SAG HARBOR, VILLAGE OF	1,397	\$431	\$308,354
DERING HARBOR, VILLAGE OF	13	\$4	\$276,569
MAMARONECK, VILLAGE OF	7,364	\$1,067	\$144,952
WEBB, TOWN OF	1,952	\$256	\$131,141
DANSVILLE, VILLAGE OF	1	\$0	\$120,200

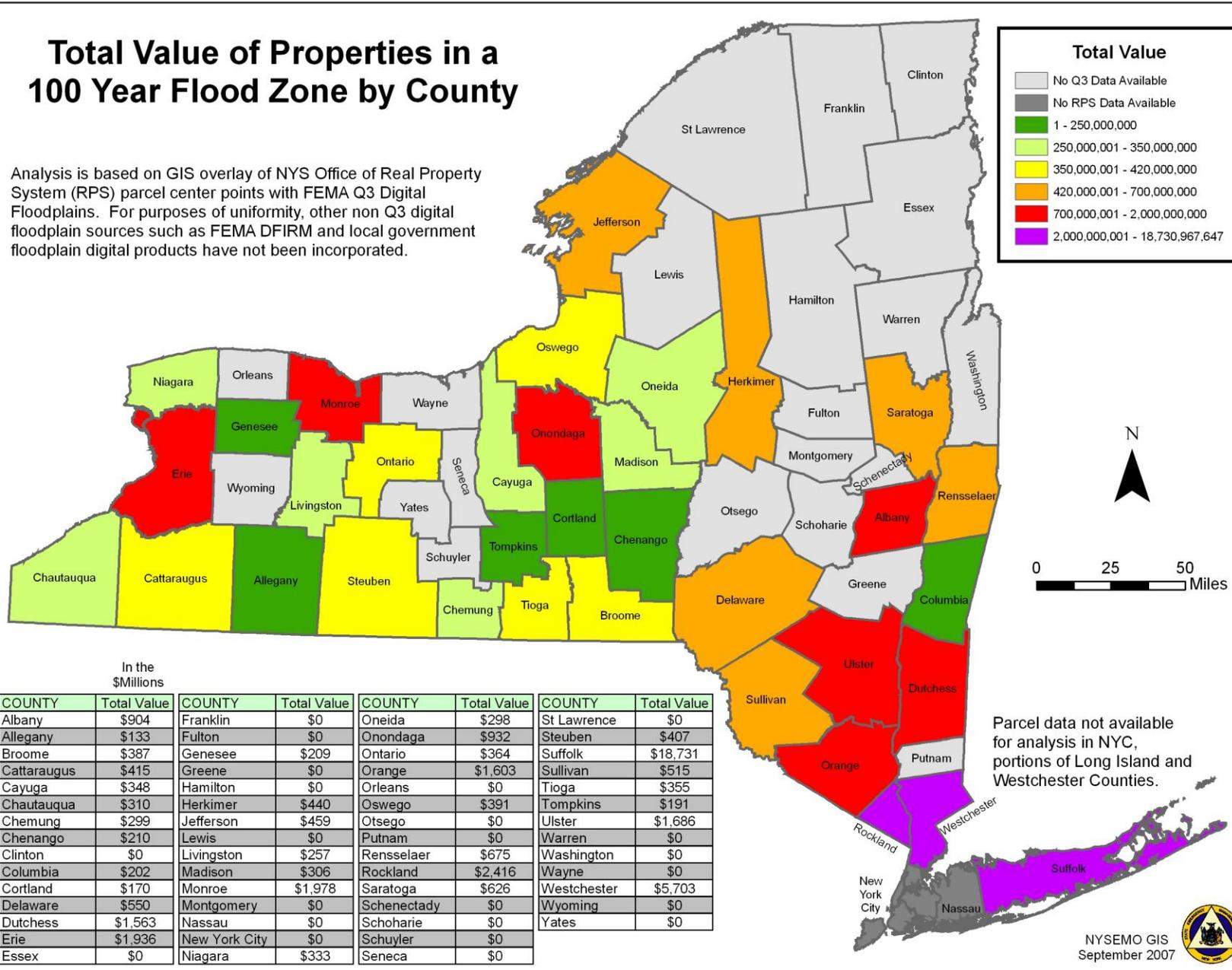
Parcel data not available for analysis in NYC, portions of Long Island and Westchester Counties.



Figure 3-36

Total Value of Properties in a 100 Year Flood Zone by County

Analysis is based on GIS overlay of NYS Office of Real Property System (RPS) parcel center points with FEMA Q3 Digital Floodplains. For purposes of uniformity, other non Q3 digital floodplain sources such as FEMA DFIRM and local government floodplain digital products have not been incorporated.



In the \$Millions		COUNTY		COUNTY		COUNTY	
COUNTY	Total Value	COUNTY	Total Value	COUNTY	Total Value	COUNTY	Total Value
Albany	\$904	Franklin	\$0	Oneida	\$298	St Lawrence	\$0
Allegany	\$133	Fulton	\$0	Onondaga	\$932	Steuben	\$407
Broome	\$387	Genesee	\$209	Ontario	\$364	Suffolk	\$18,731
Cattaraugus	\$415	Greene	\$0	Orange	\$1,603	Sullivan	\$515
Cayuga	\$348	Hamilton	\$0	Orleans	\$0	Tioga	\$355
Chautauqua	\$310	Herkimer	\$440	Oswego	\$391	Tompkins	\$191
Chemung	\$299	Jefferson	\$459	Otsego	\$0	Ulster	\$1,686
Chenango	\$210	Lewis	\$0	Putnam	\$0	Warren	\$0
Clinton	\$0	Livingston	\$257	Rensselaer	\$675	Washington	\$0
Columbia	\$202	Madison	\$306	Rockland	\$2,416	Wayne	\$0
Cortland	\$170	Monroe	\$1,978	Saratoga	\$626	Westchester	\$5,703
Delaware	\$550	Montgomery	\$0	Schenectady	\$0	Wyoming	\$0
Dutchess	\$1,563	Nassau	\$0	Schoharie	\$0	Yates	\$0
Erie	\$1,936	New York City	\$0	Schuyler	\$0		
Essex	\$0	Niagara	\$333	Seneca	\$0		

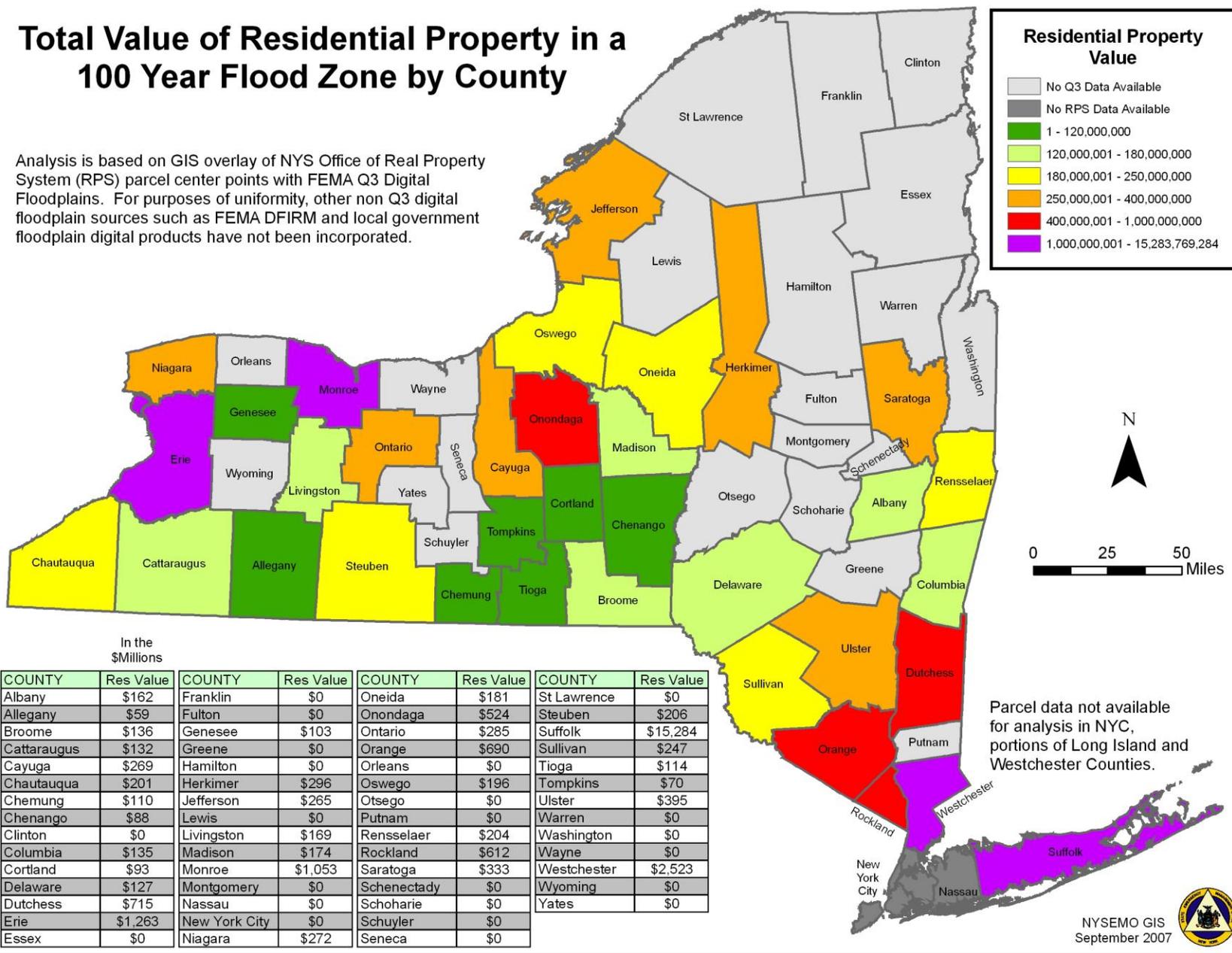
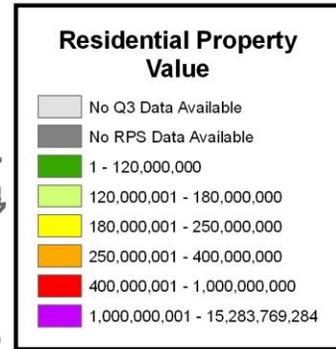
NYSEMO GIS
September 2007



Figure 3-37

Total Value of Residential Property in a 100 Year Flood Zone by County

Analysis is based on GIS overlay of NYS Office of Real Property System (RPS) parcel center points with FEMA Q3 Digital Floodplains. For purposes of uniformity, other non Q3 digital floodplain sources such as FEMA DFIRM and local government floodplain digital products have not been incorporated.



In the \$Millions		COUNTY		Res Value	COUNTY		Res Value
COUNTY	Res Value	COUNTY	Res Value	COUNTY	Res Value	COUNTY	Res Value
Albany	\$162	Franklin	\$0	Oneida	\$181	St Lawrence	\$0
Allegany	\$59	Fulton	\$0	Onondaga	\$524	Steuben	\$206
Broome	\$136	Genesee	\$103	Ontario	\$285	Suffolk	\$15,284
Cattaraugus	\$132	Greene	\$0	Orange	\$690	Sullivan	\$247
Cayuga	\$269	Hamilton	\$0	Orleans	\$0	Tioga	\$114
Chautauqua	\$201	Herkimer	\$296	Oswego	\$196	Tompkins	\$70
Chemung	\$110	Jefferson	\$265	Otsego	\$0	Ulster	\$395
Chenango	\$88	Lewis	\$0	Putnam	\$0	Warren	\$0
Clinton	\$0	Livingston	\$169	Rensselaer	\$204	Washington	\$0
Columbia	\$135	Madison	\$174	Rockland	\$612	Wayne	\$0
Cortland	\$93	Monroe	\$1,053	Saratoga	\$333	Westchester	\$2,523
Delaware	\$127	Montgomery	\$0	Schenectady	\$0	Wyoming	\$0
Dutchess	\$715	Nassau	\$0	Schoharie	\$0	Yates	\$0
Erie	\$1,263	New York City	\$0	Schuyler	\$0		
Essex	\$0	Niagara	\$272	Seneca	\$0		

Parcel data not available for analysis in NYC, portions of Long Island and Westchester Counties.



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September 2007

Figure 3-38

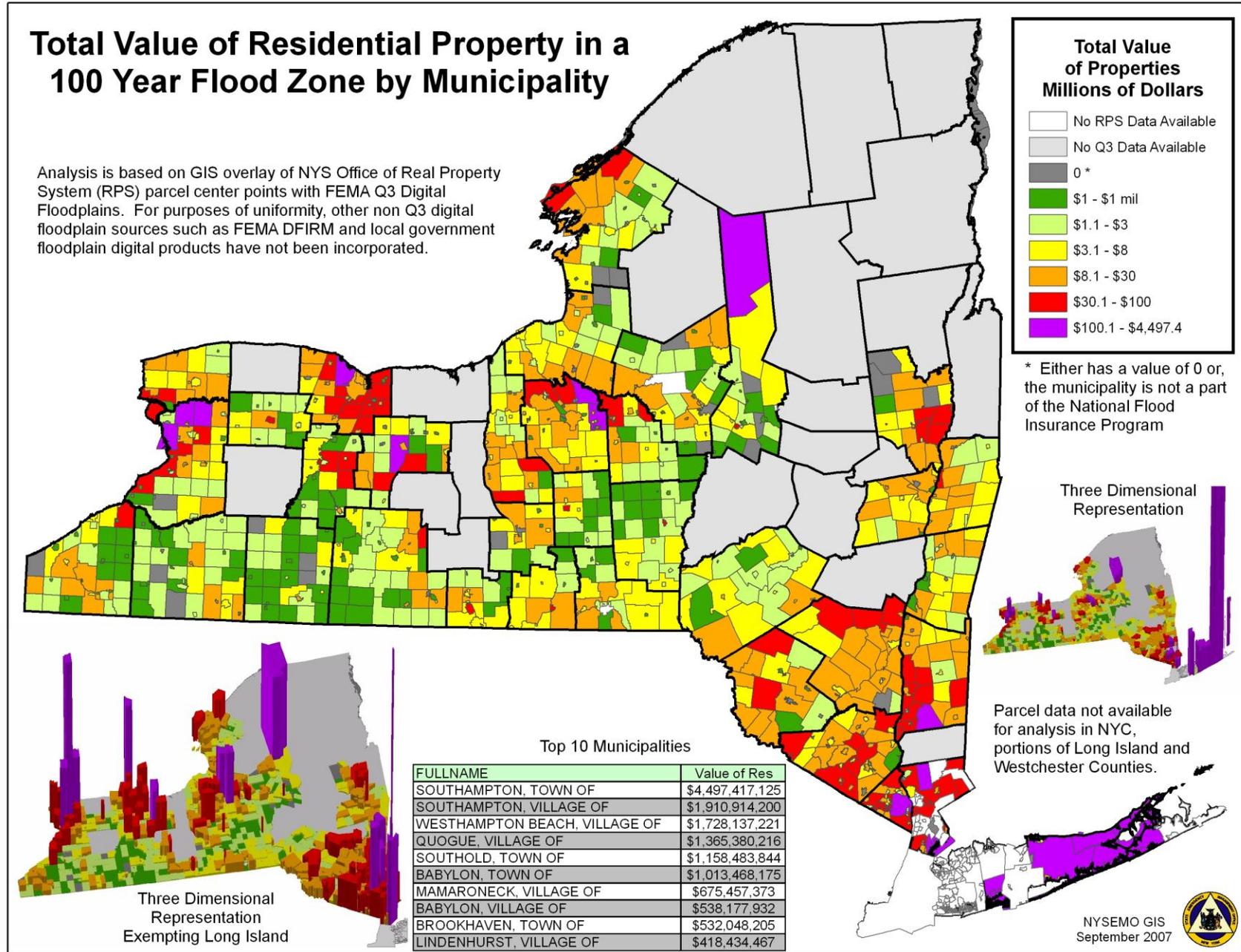
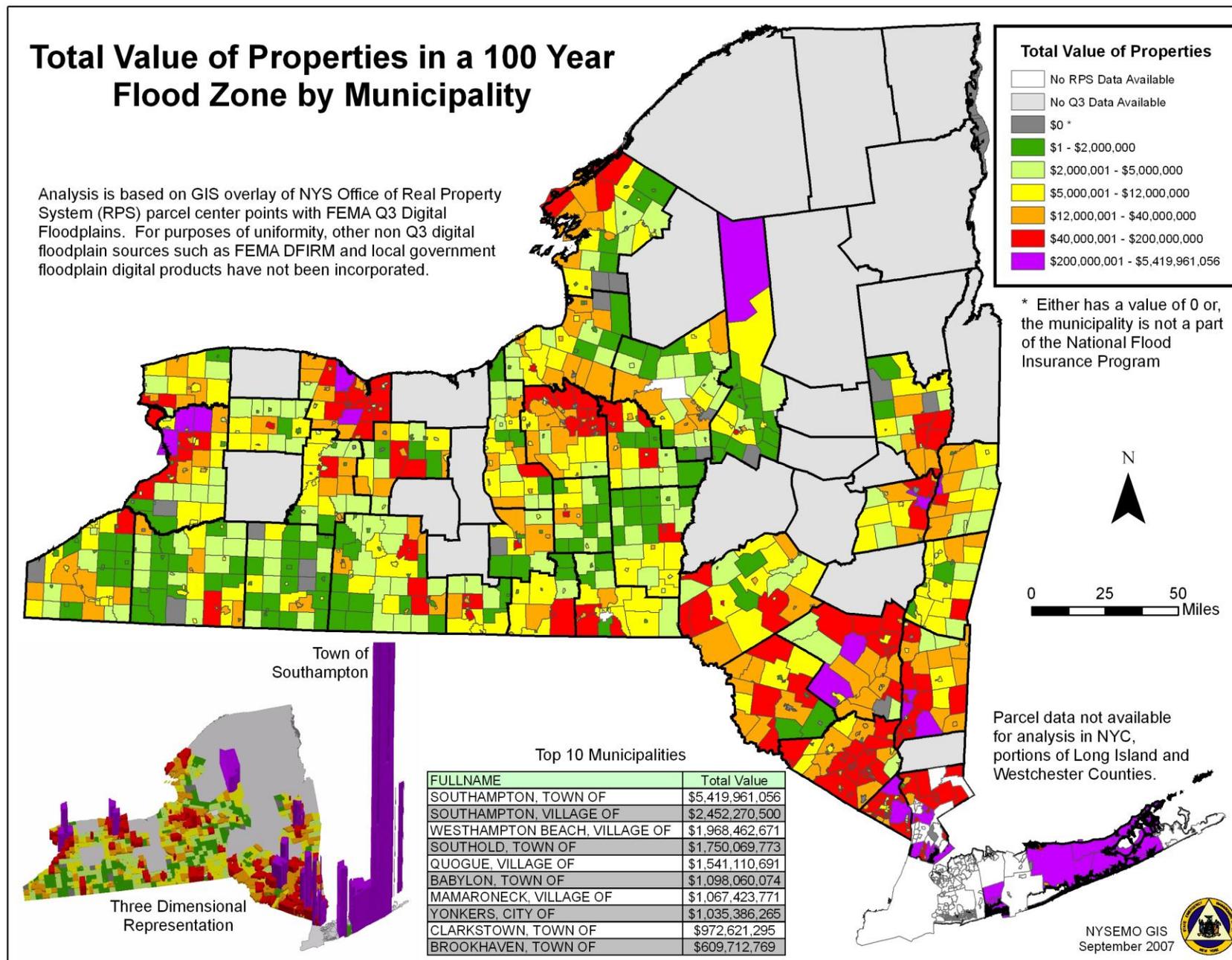


Figure 3-39



County 100 Year Floodplain Analysis

The following maps display the geographic distribution and value of real property stock within the 100-year floodplain for the 35 Counties across the State where FEMA Q3 data and NYS Office of Real Property Services, property parcel data coexists. These maps, which are summarized by Municipality, are the result of a GIS analysis of real property parcel center points falling within the 100 year flood zone. The data listed on these maps for individual communities across NYS results from “overlying” the Q3 floodplain maps (where they exist) with the data found in the RPS data base.

Figure 3-40

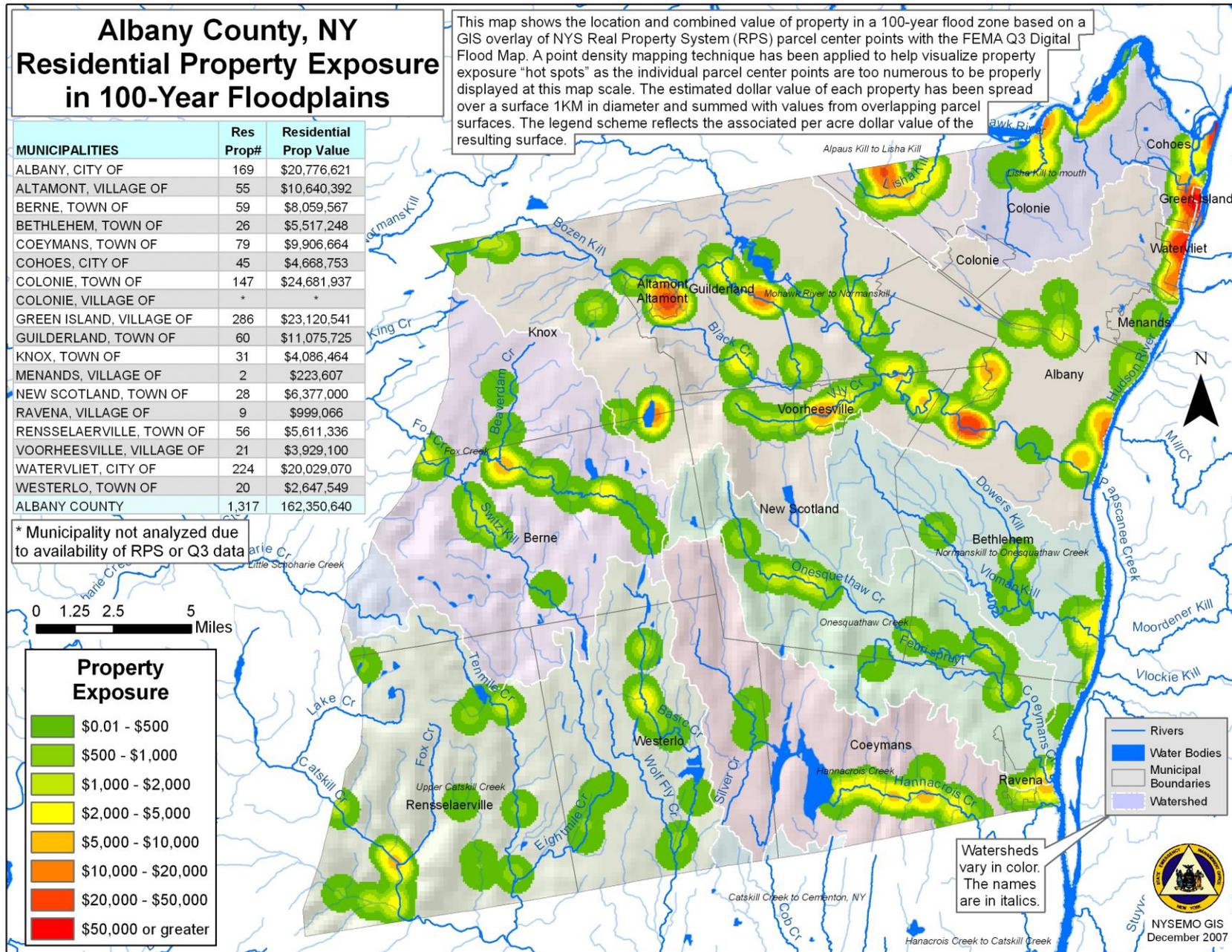


Figure 3-41

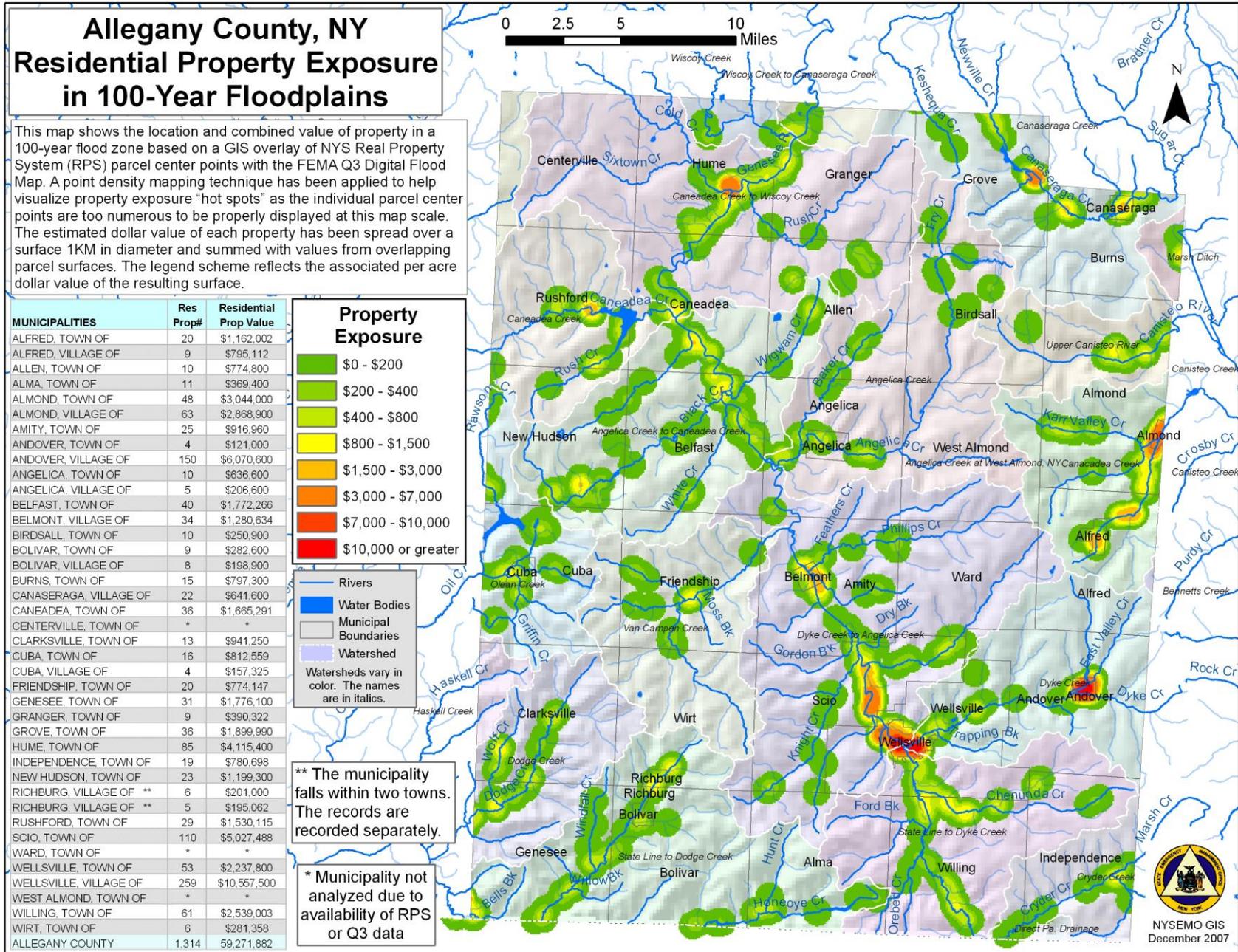


Figure 3-42

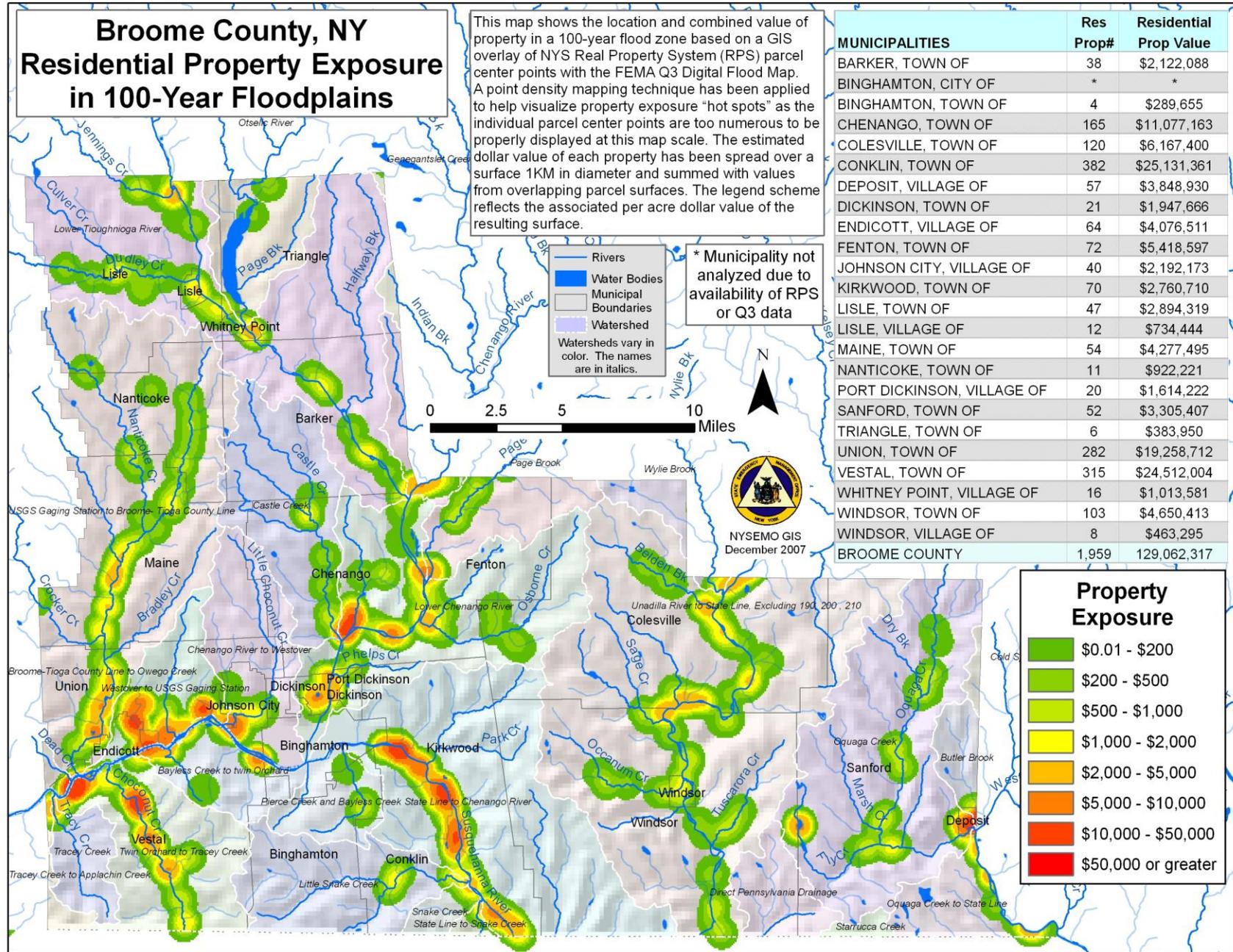


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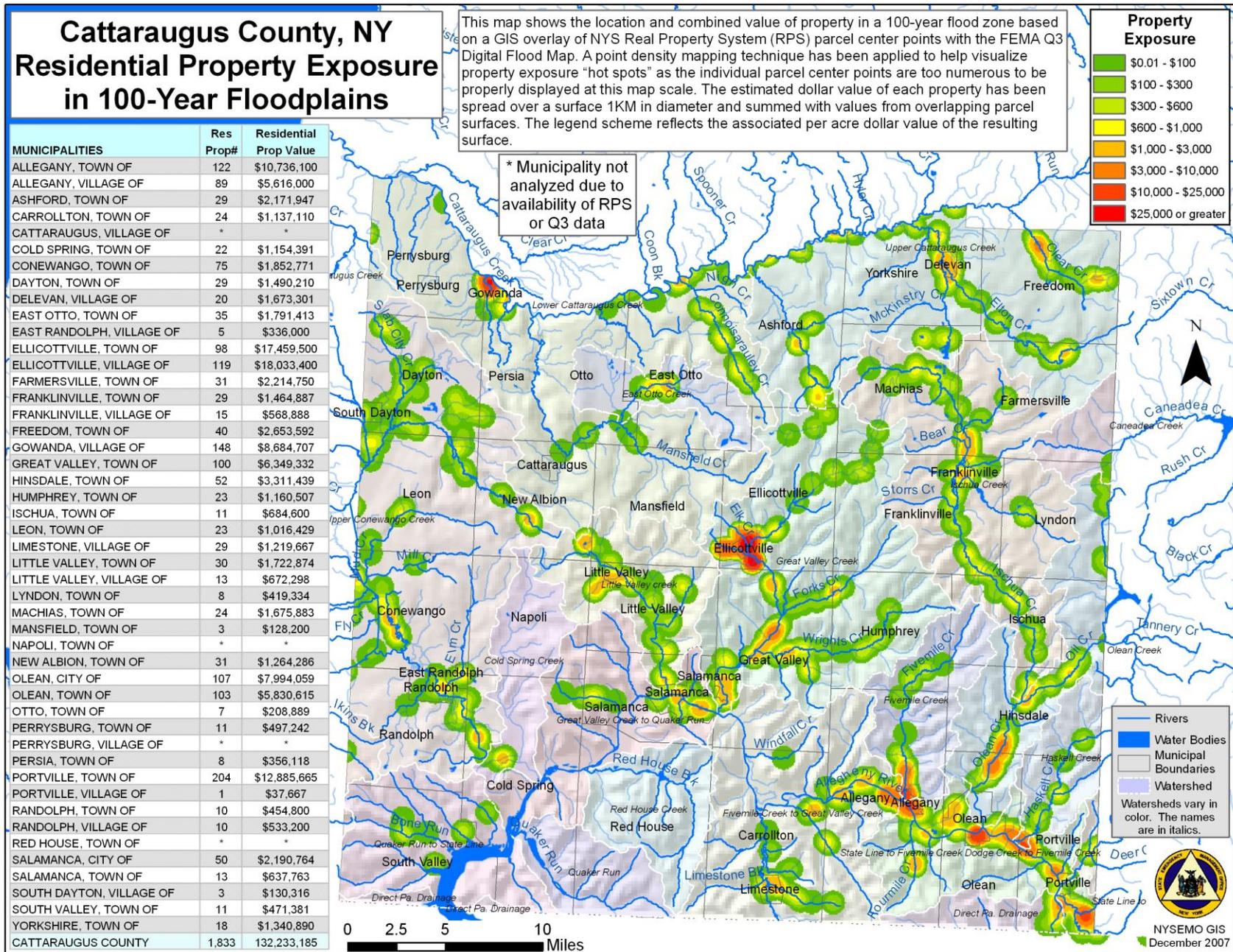


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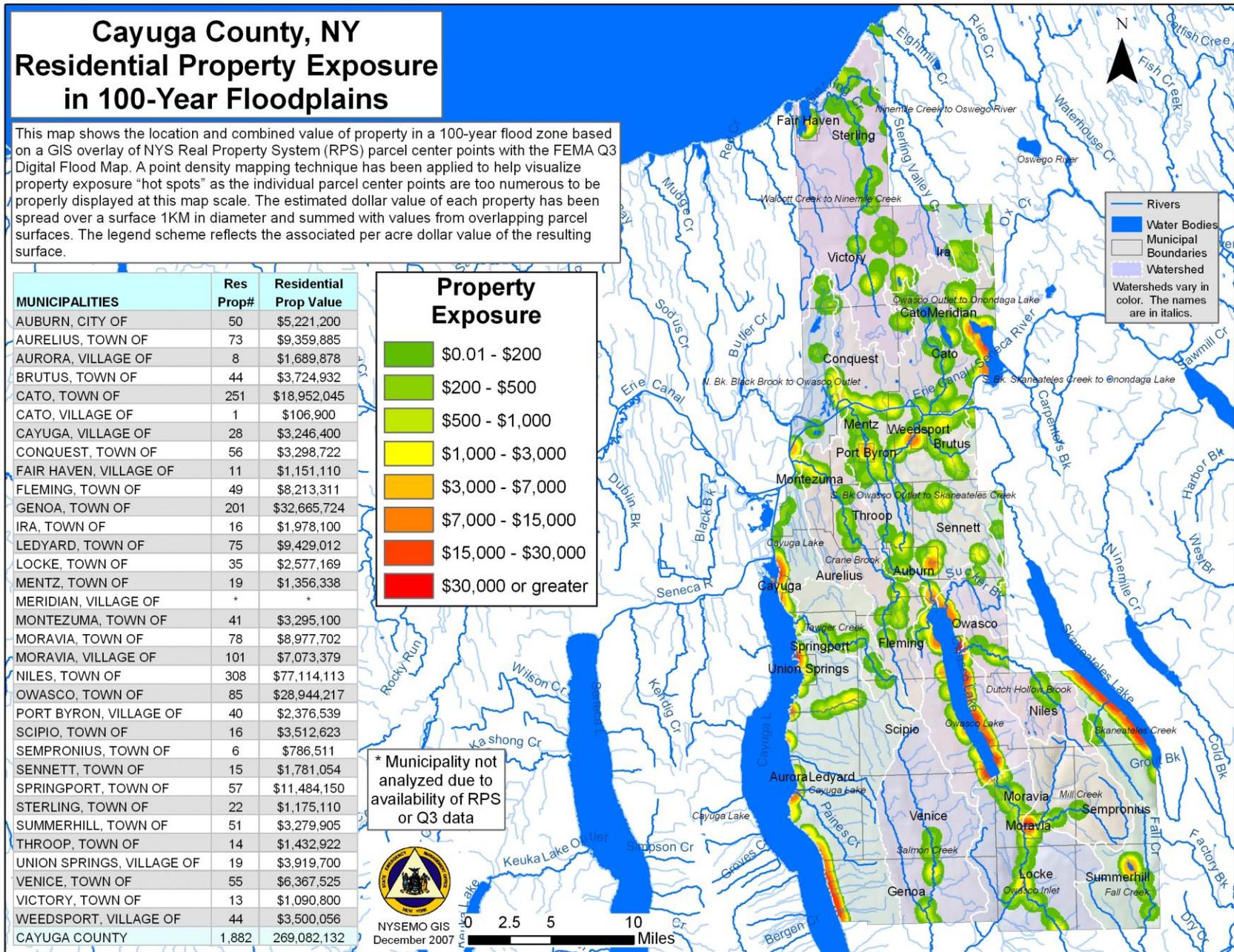


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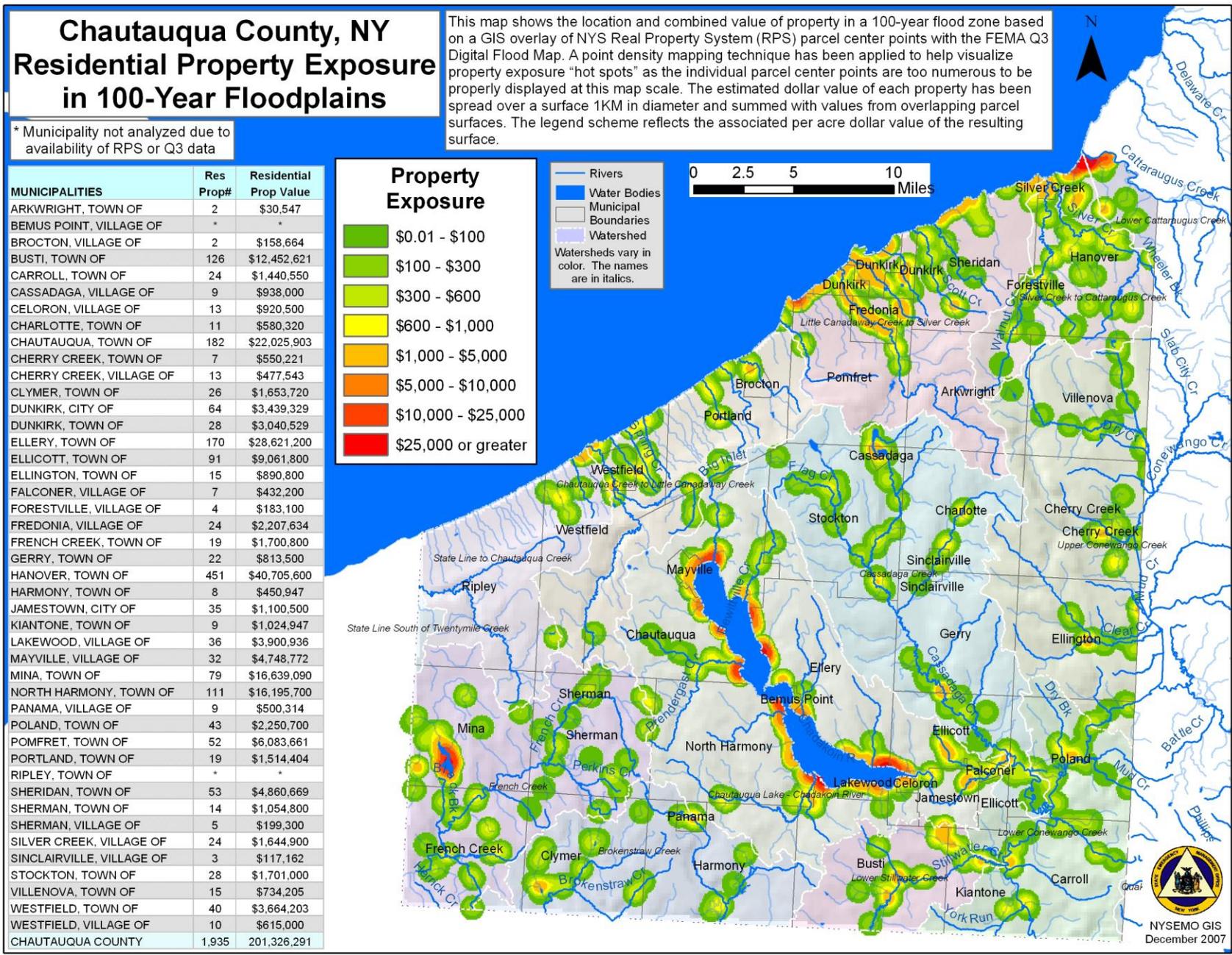


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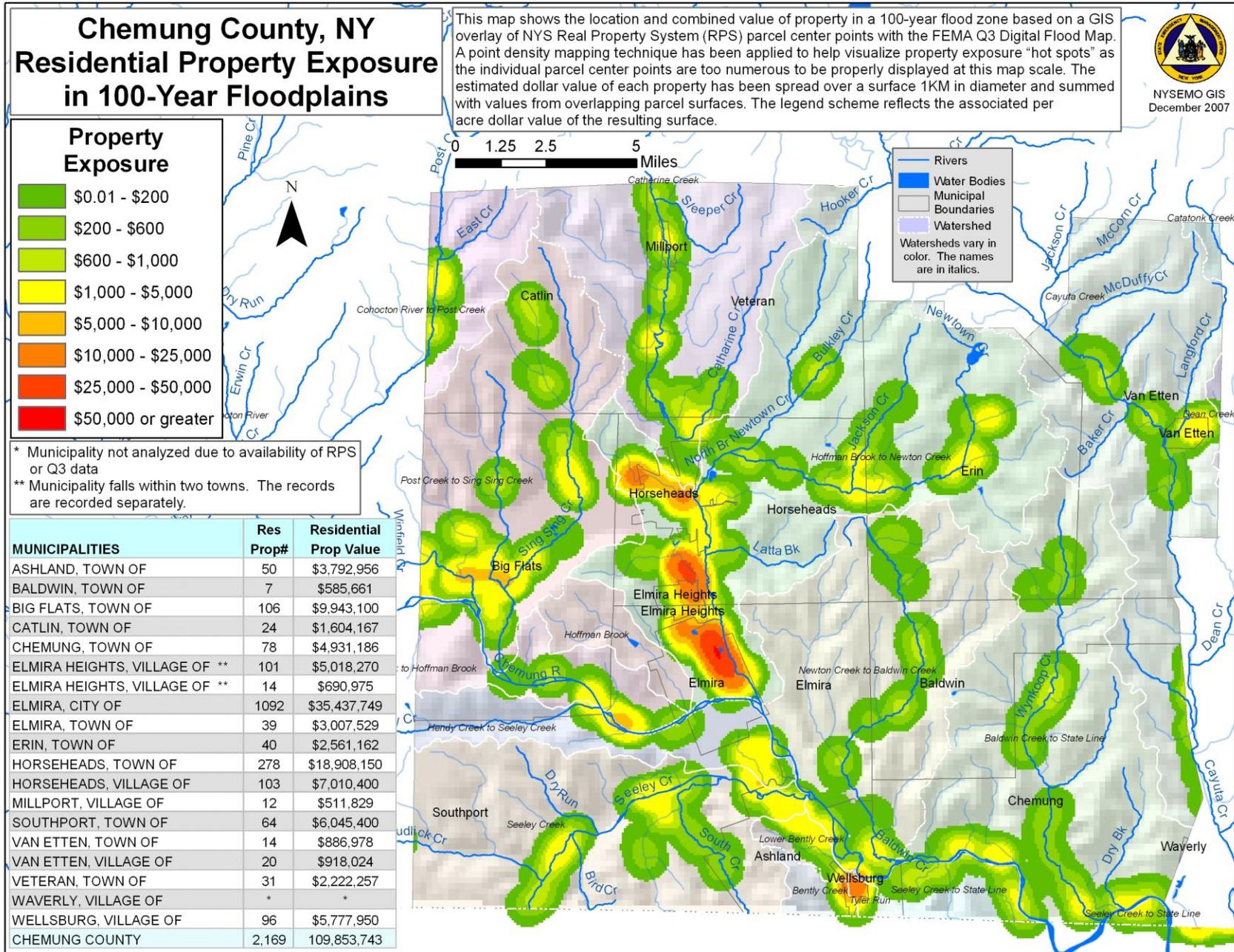


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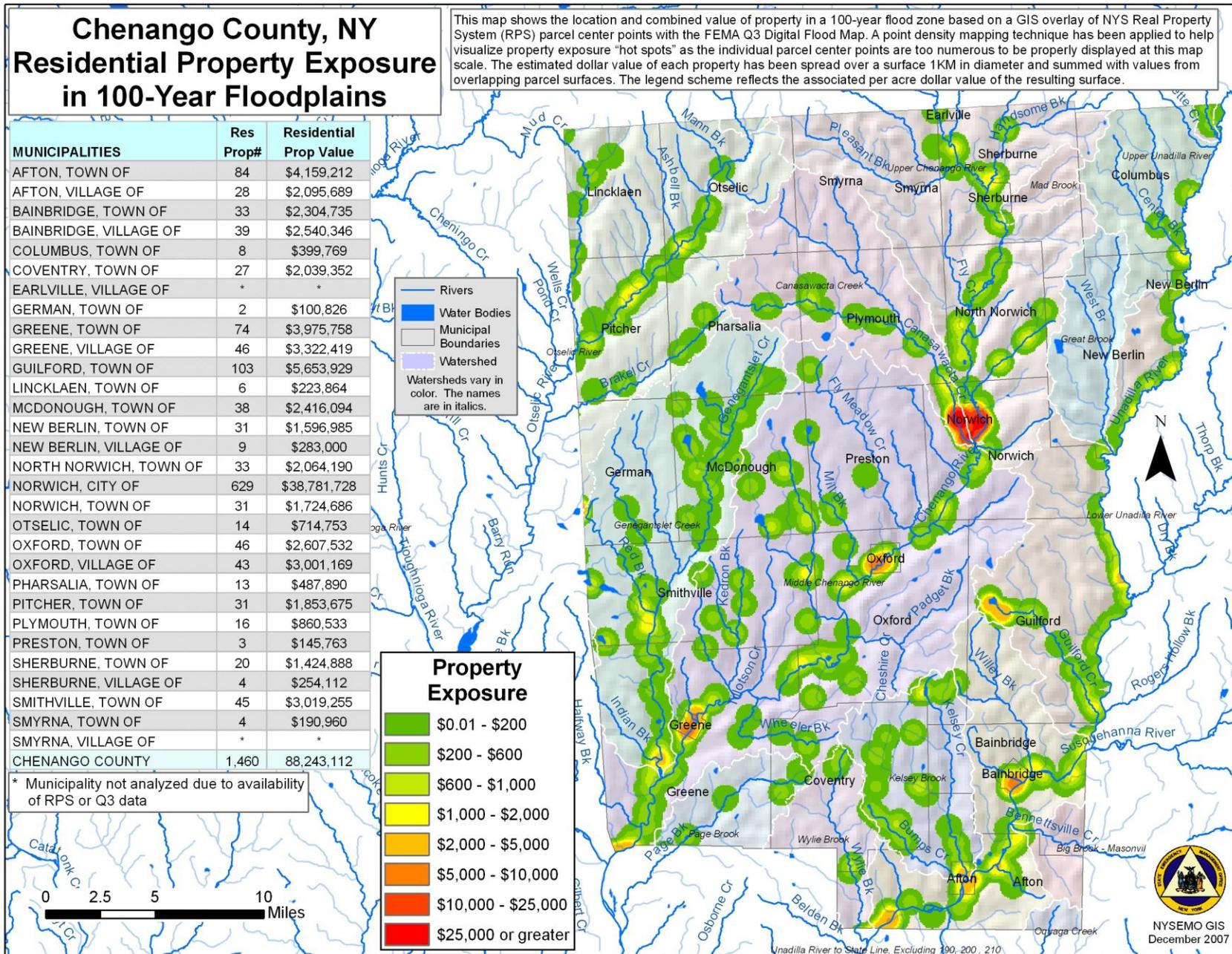


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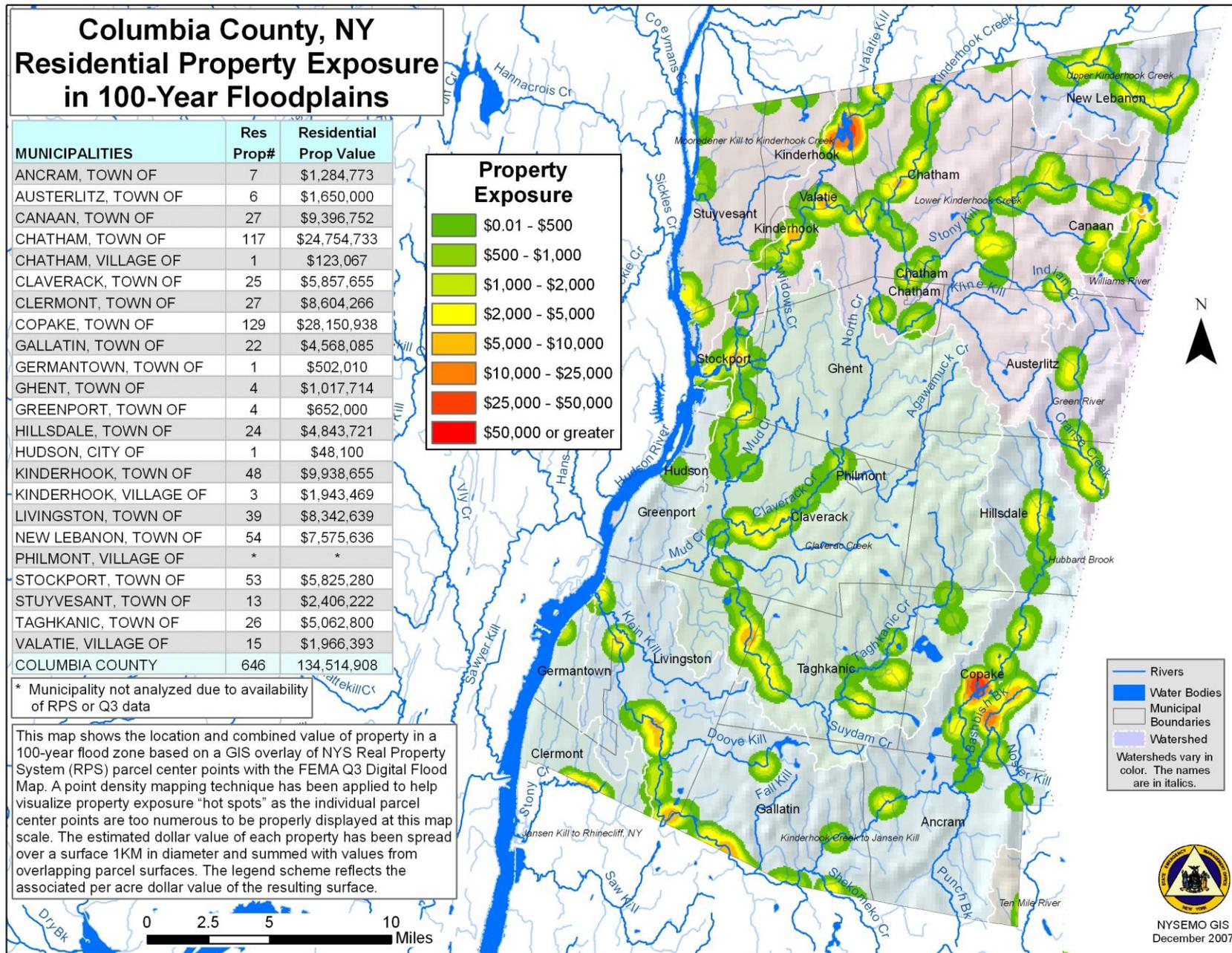


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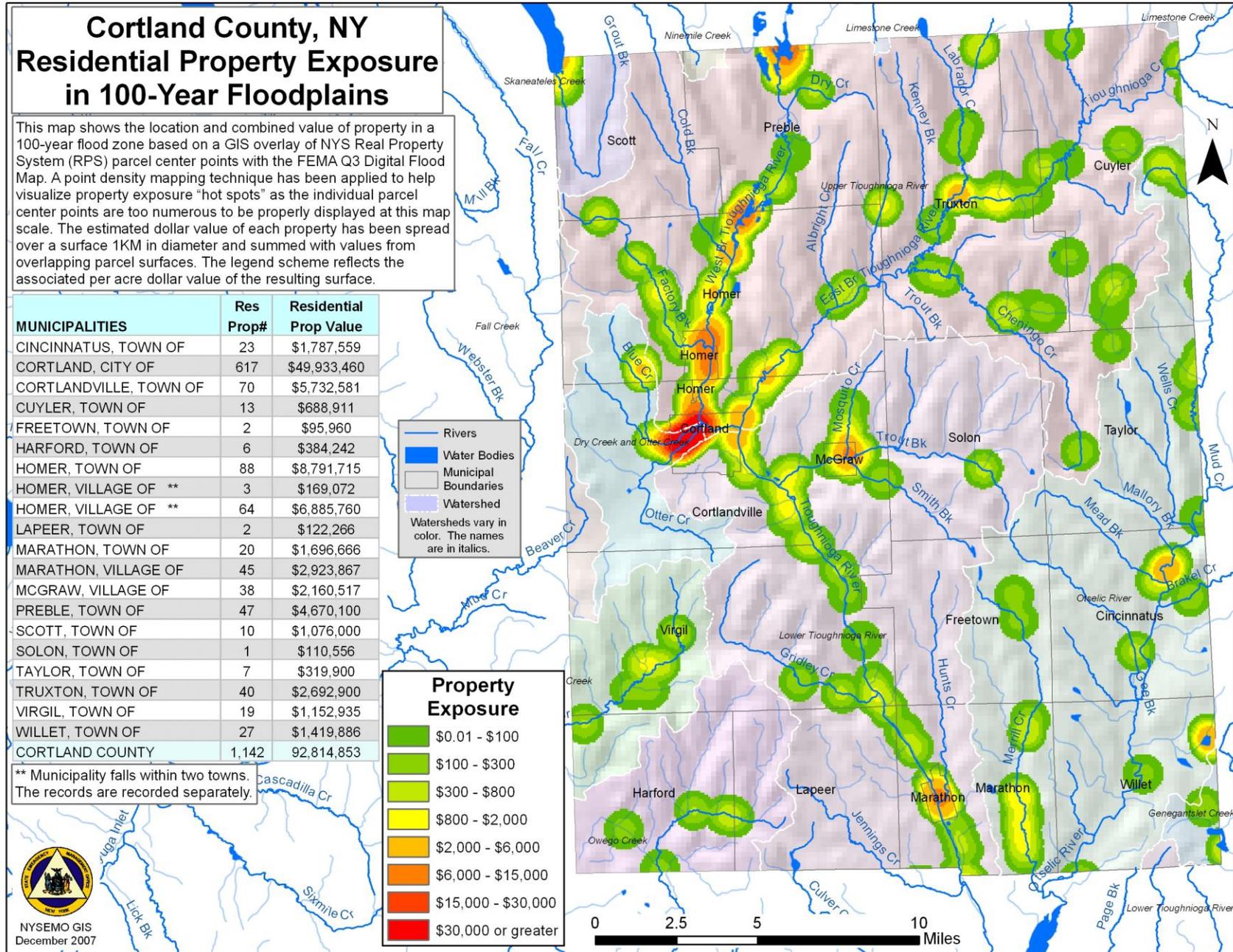


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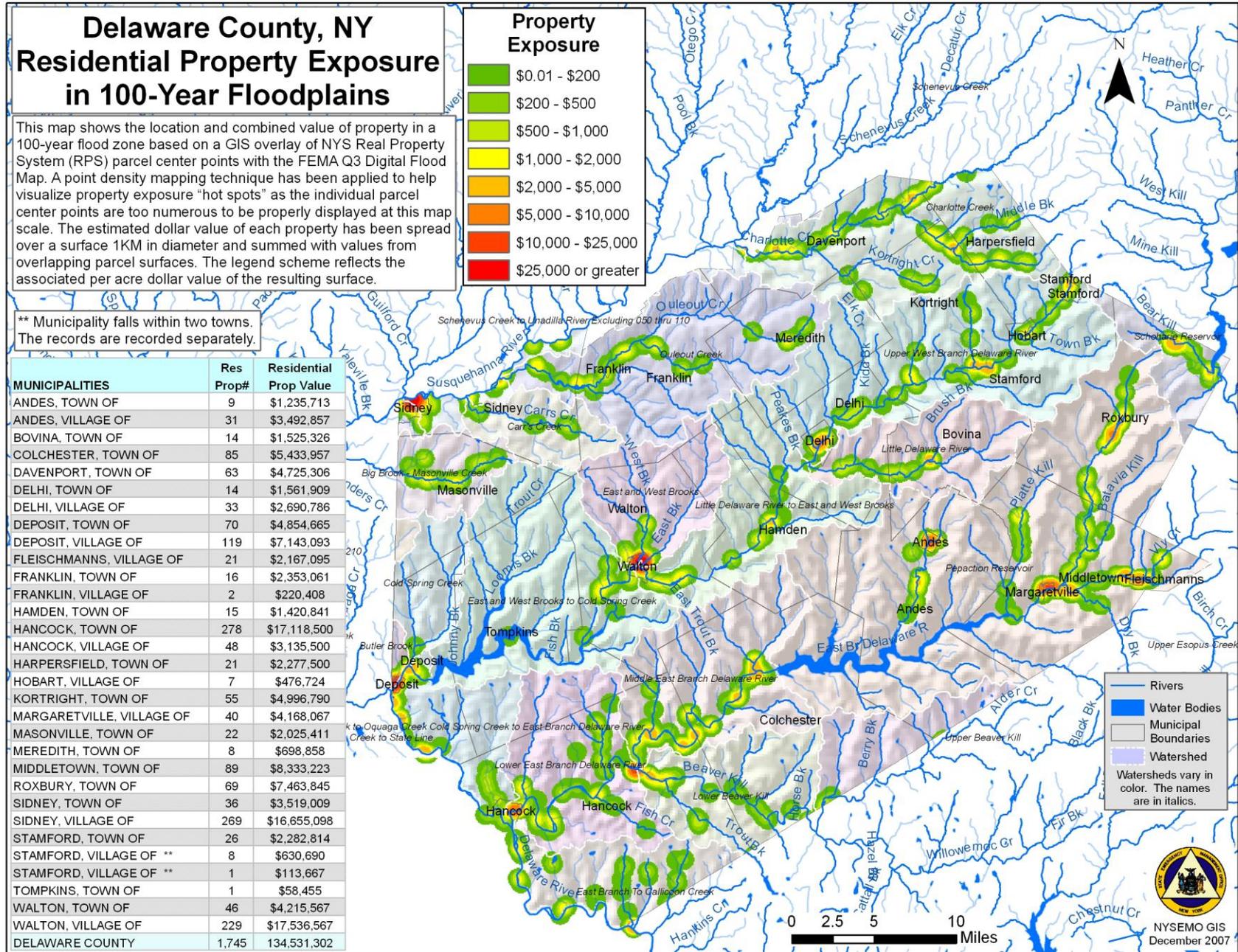


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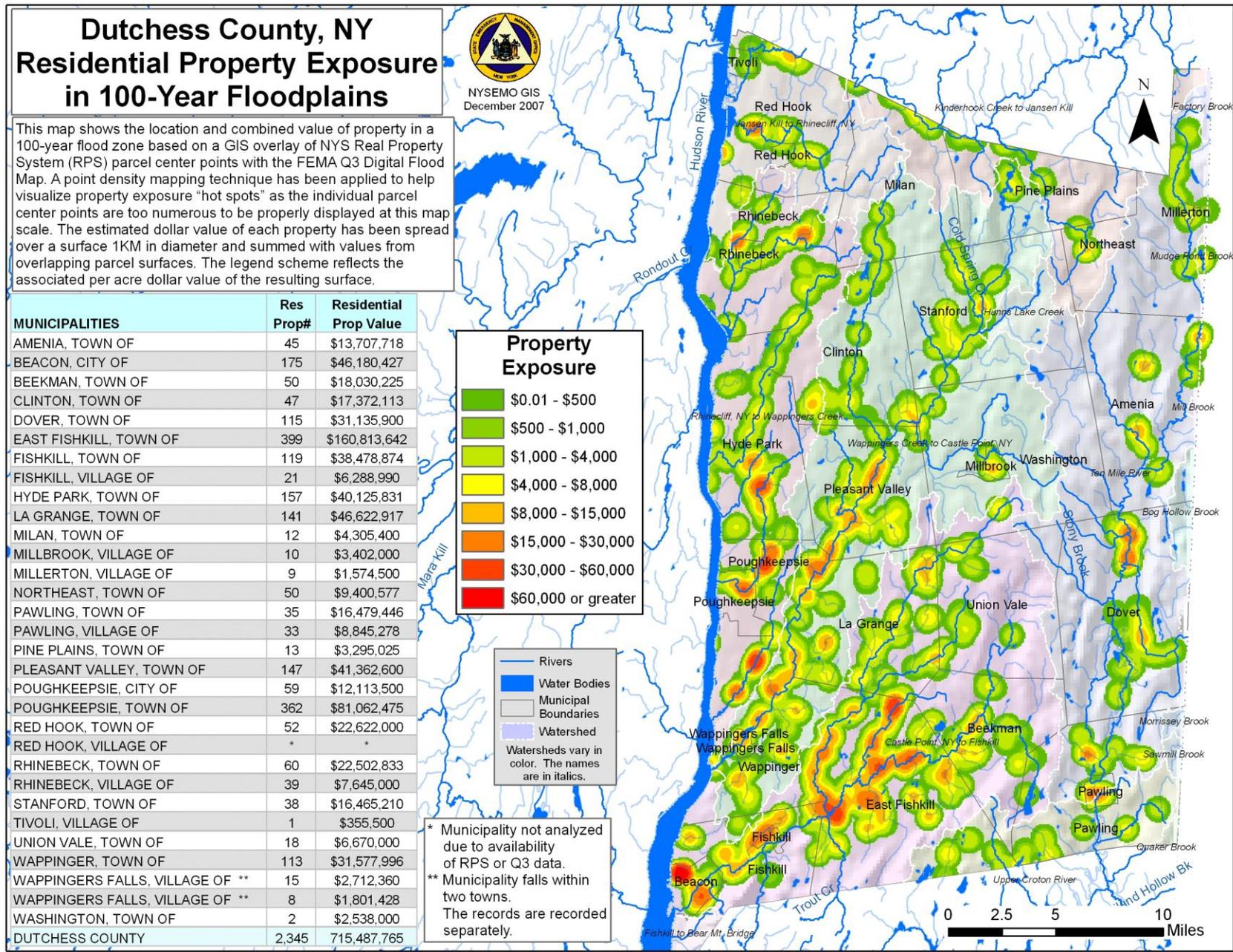


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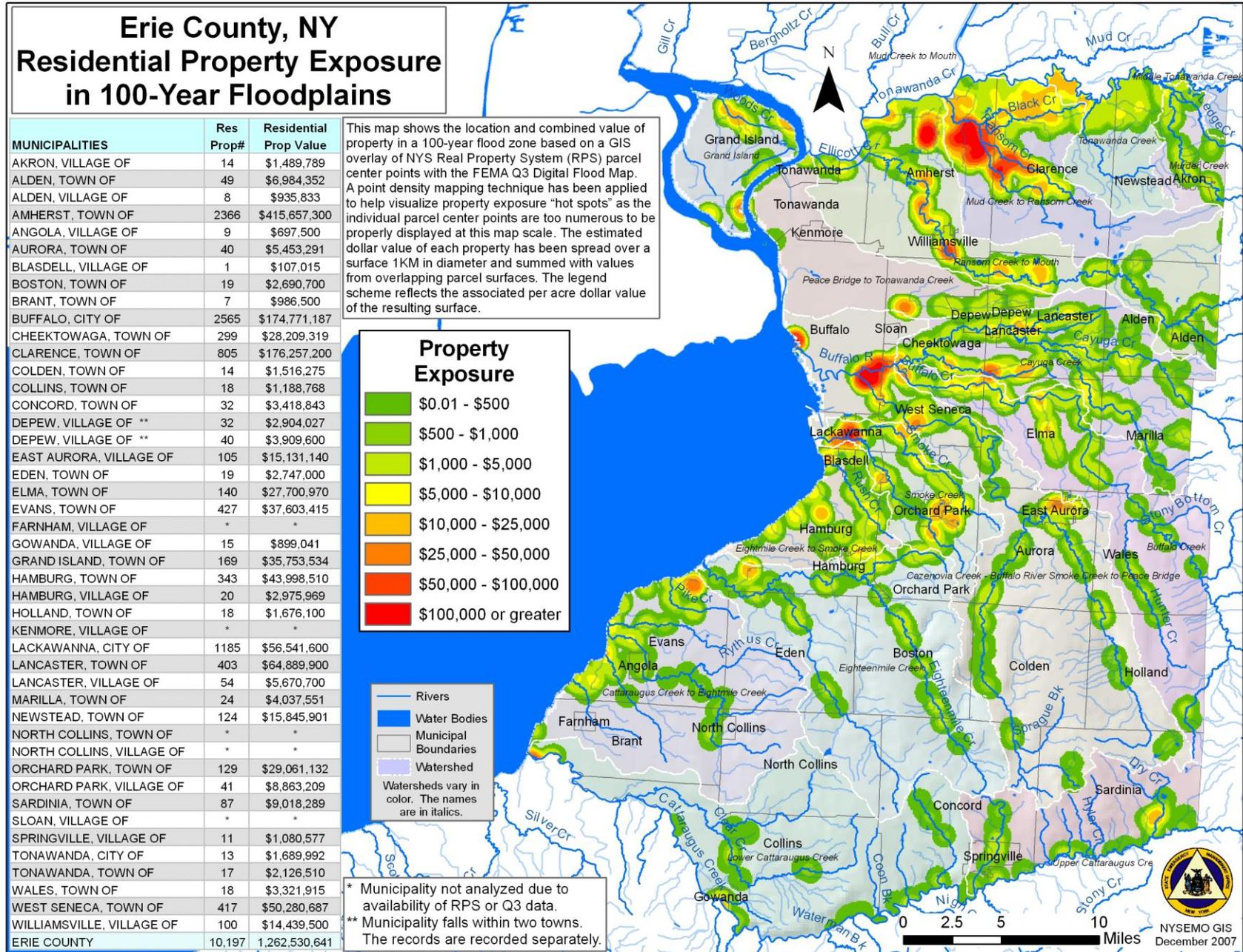


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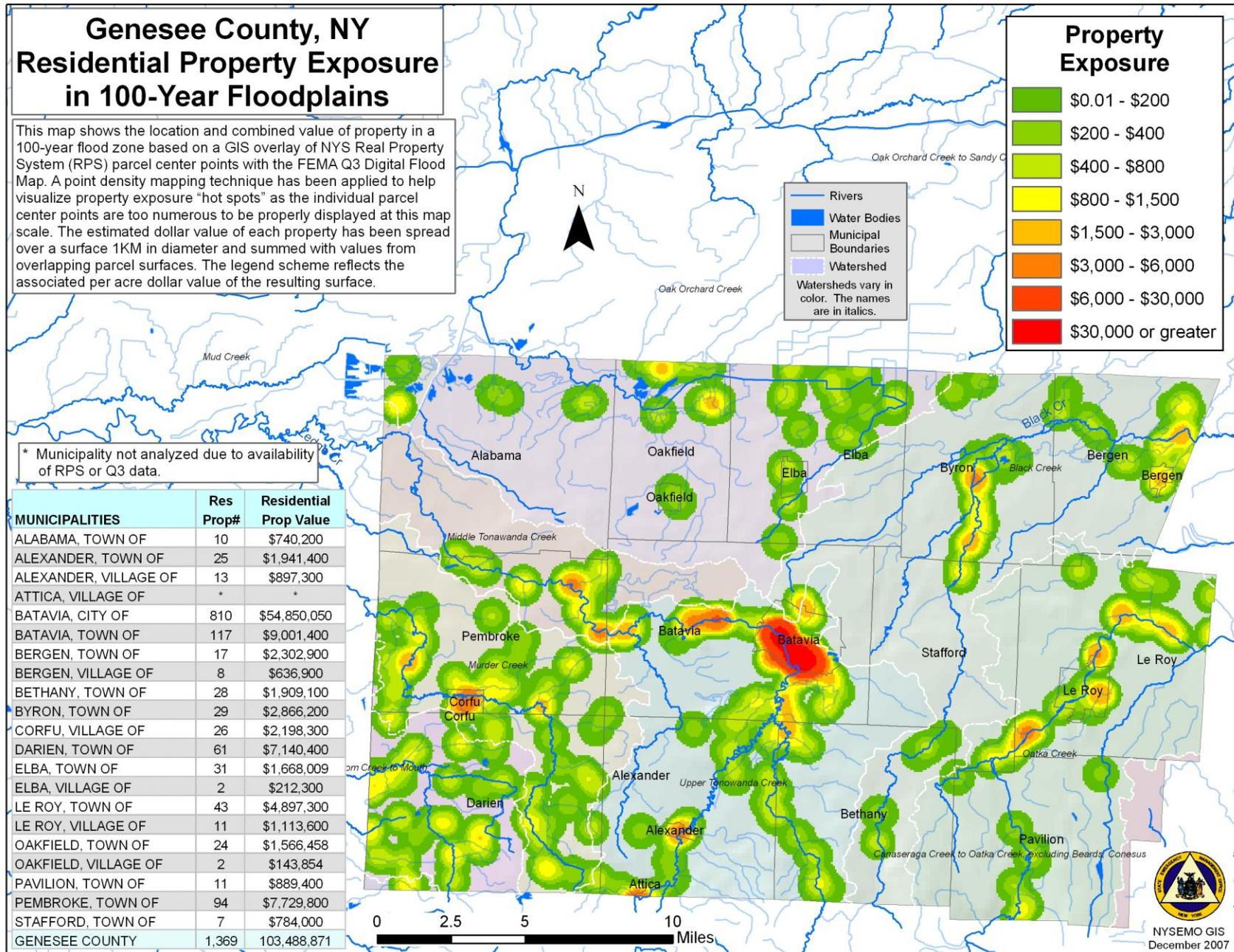


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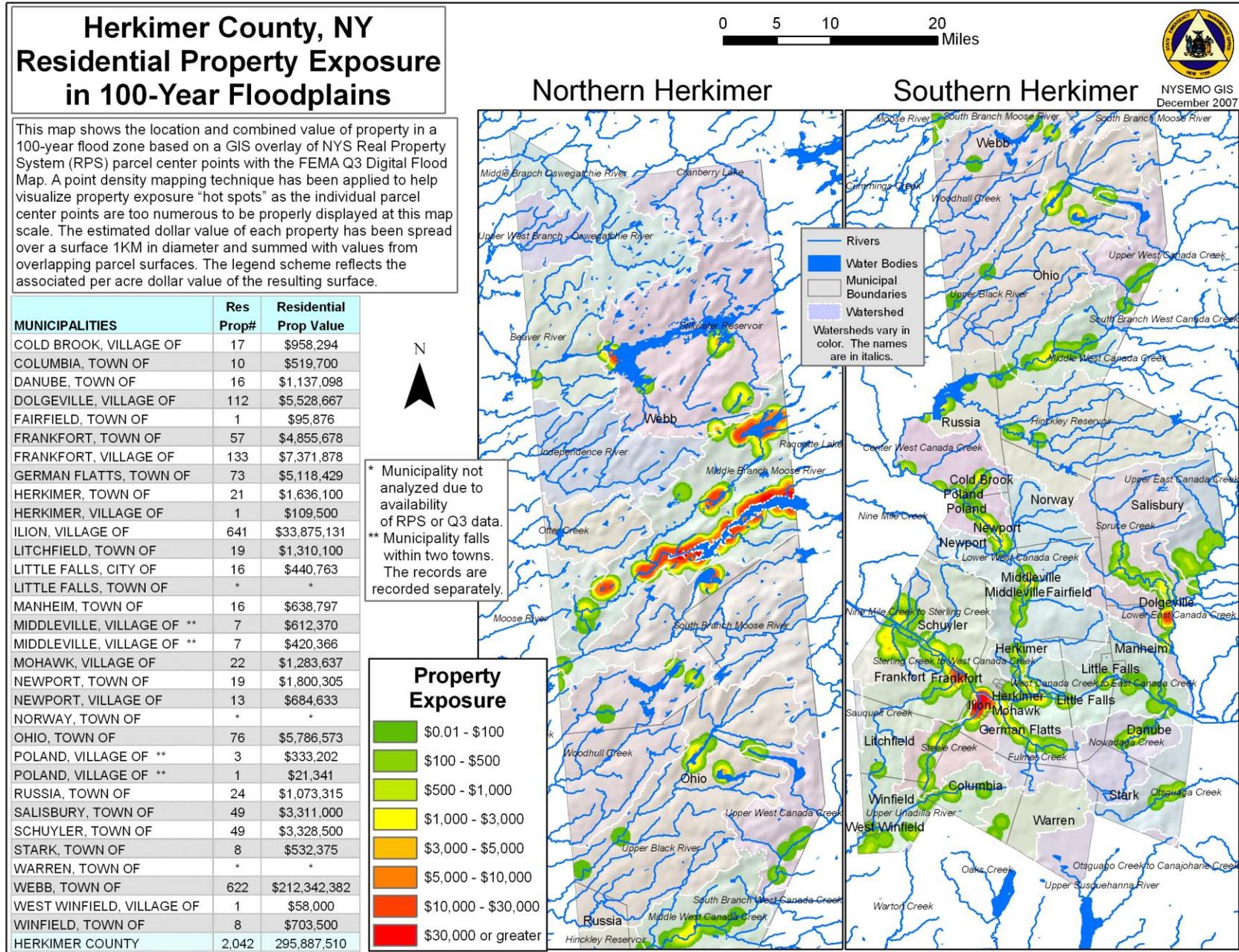


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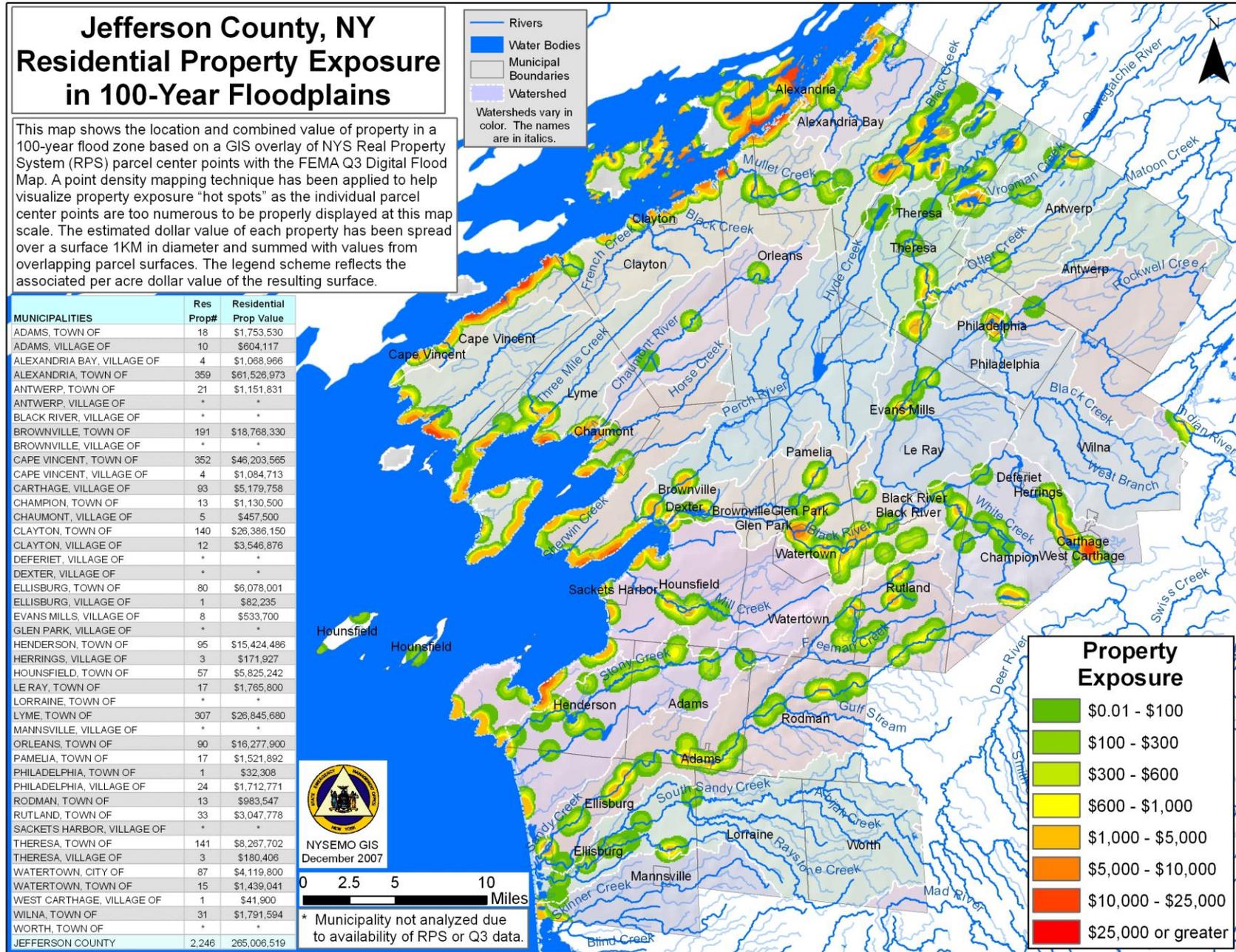


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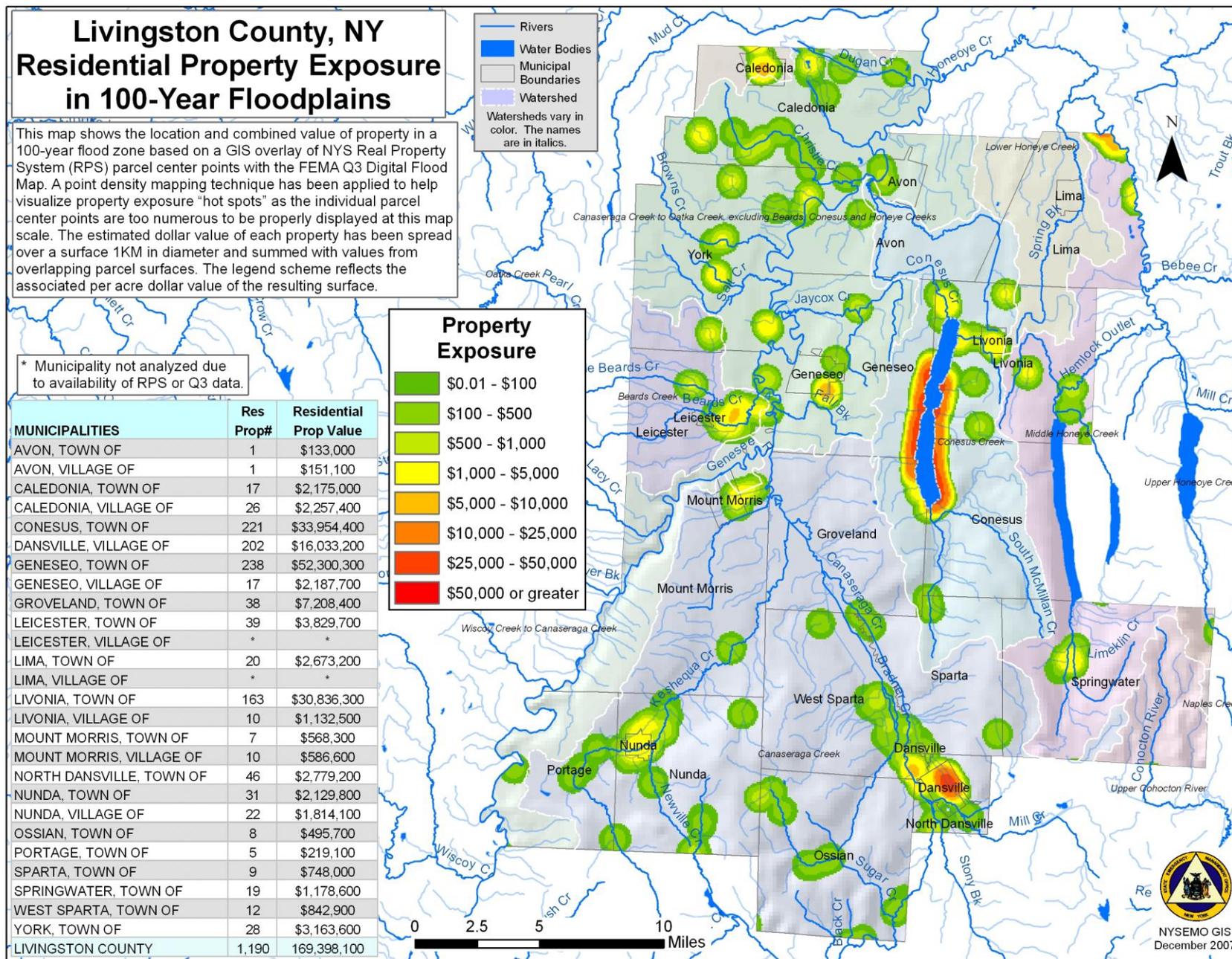


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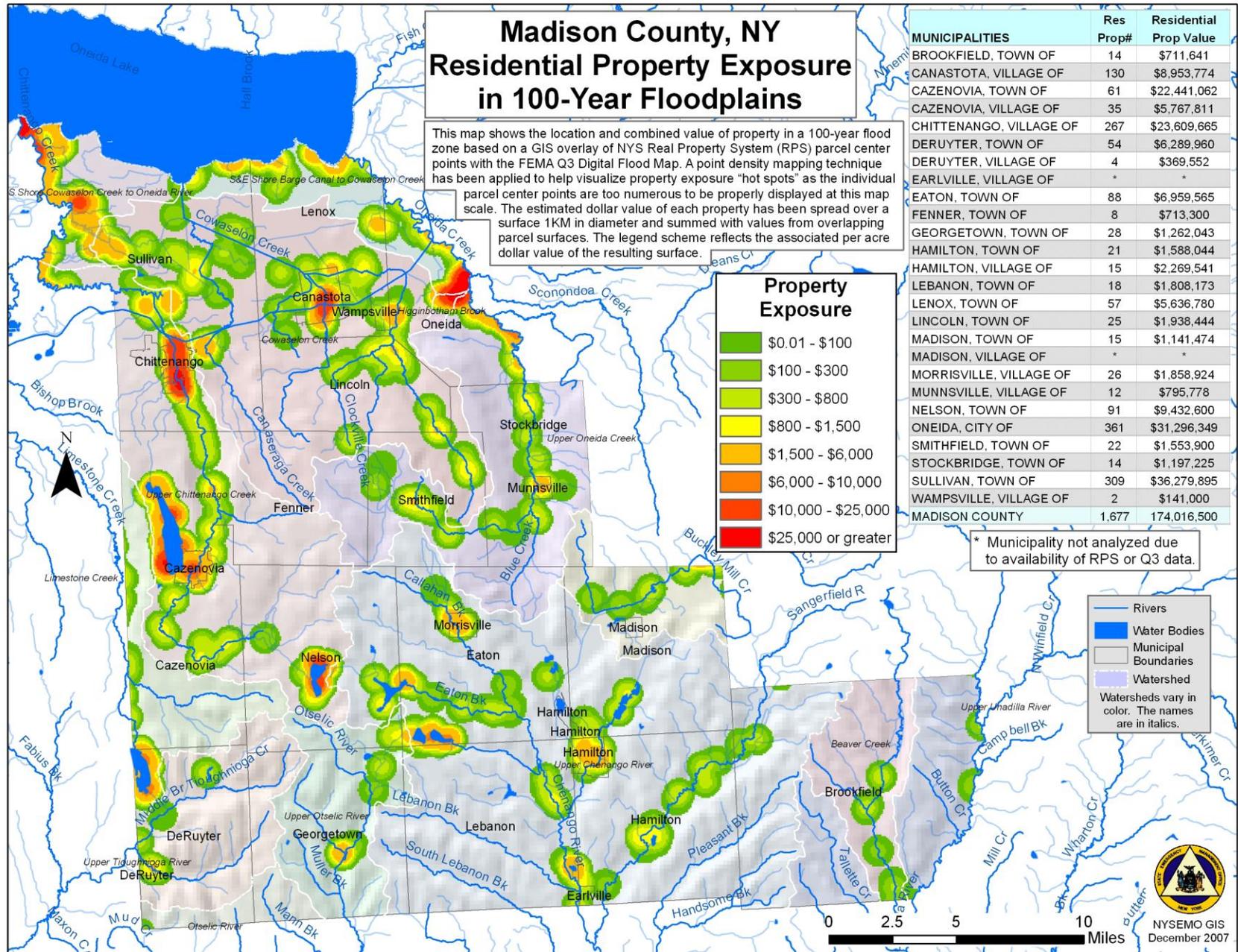


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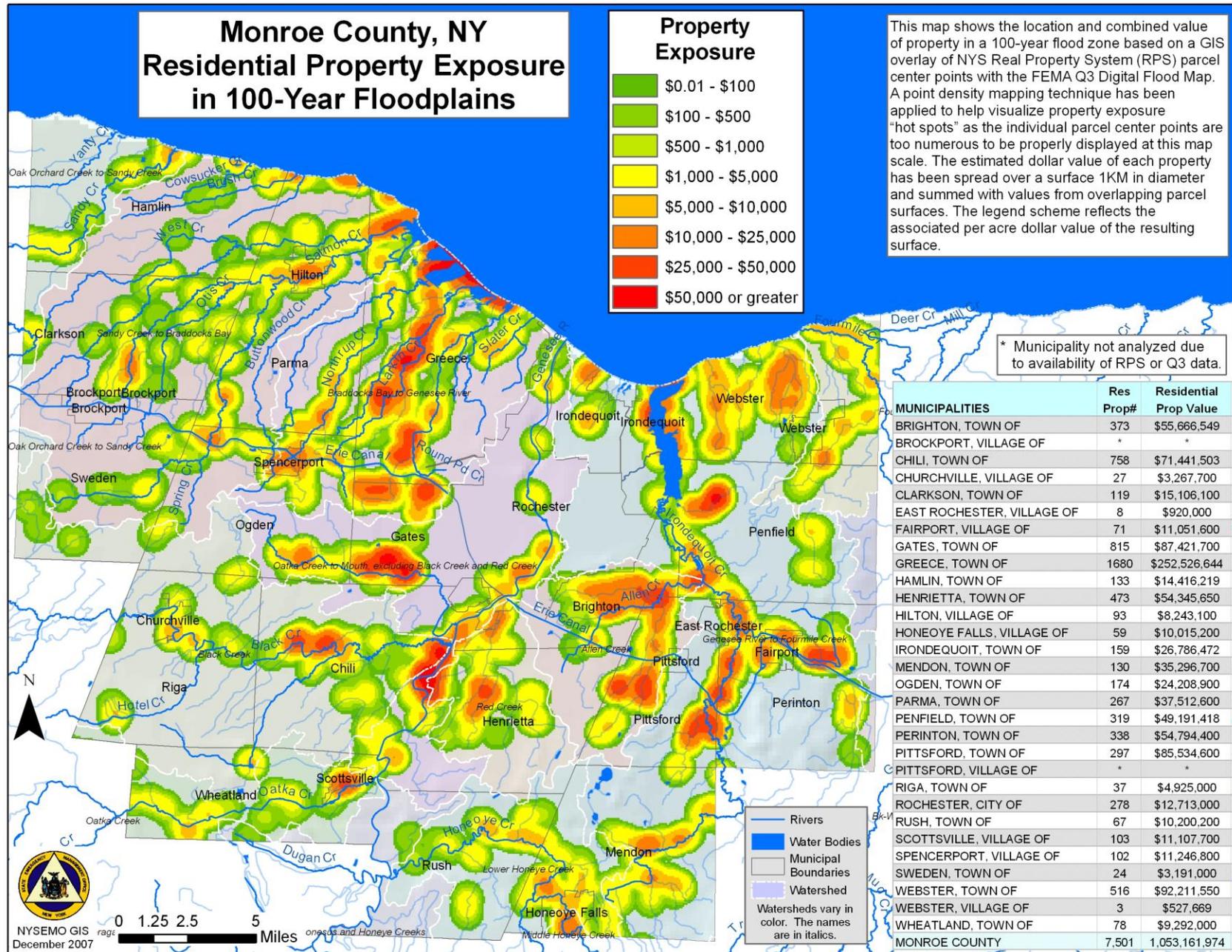


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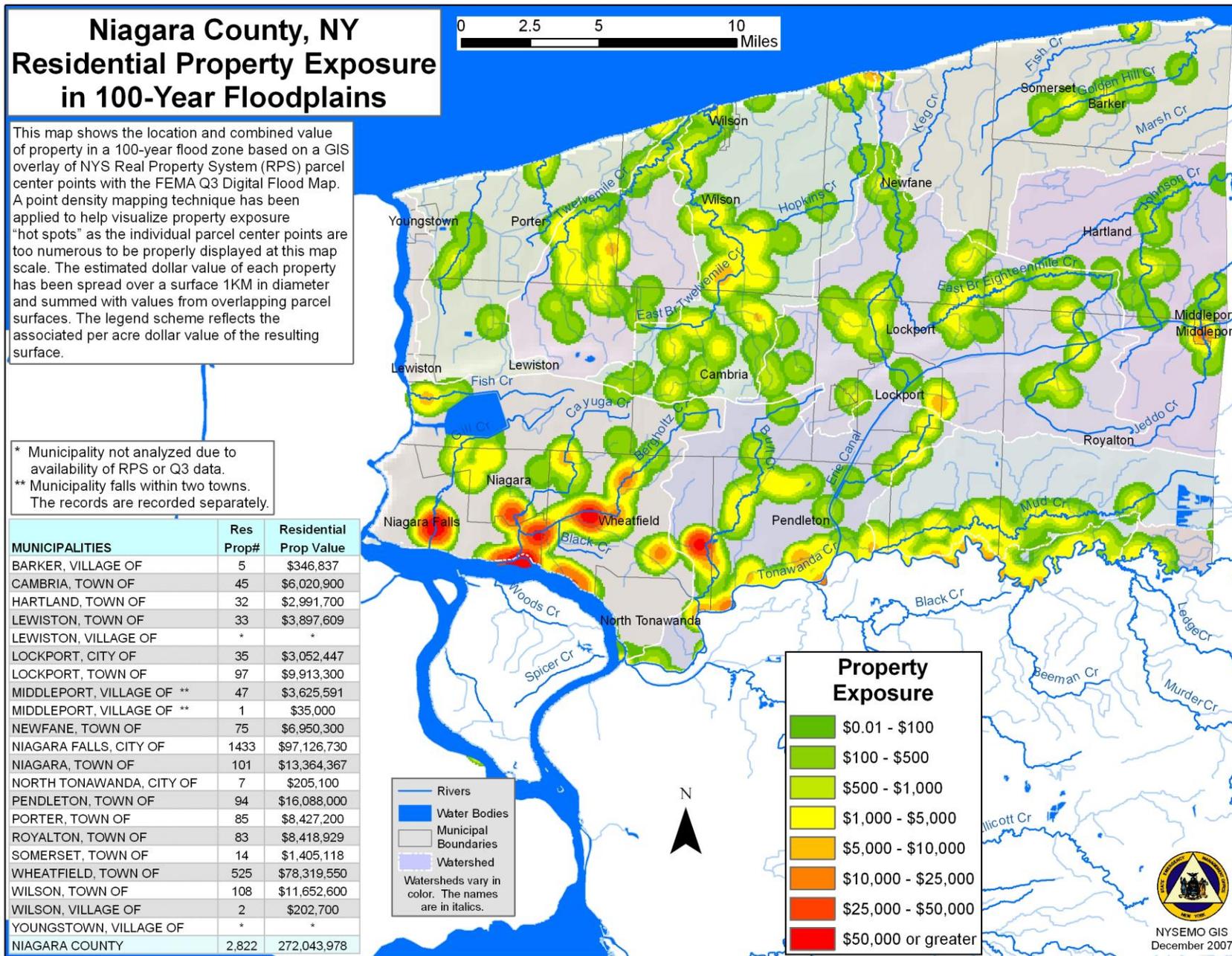


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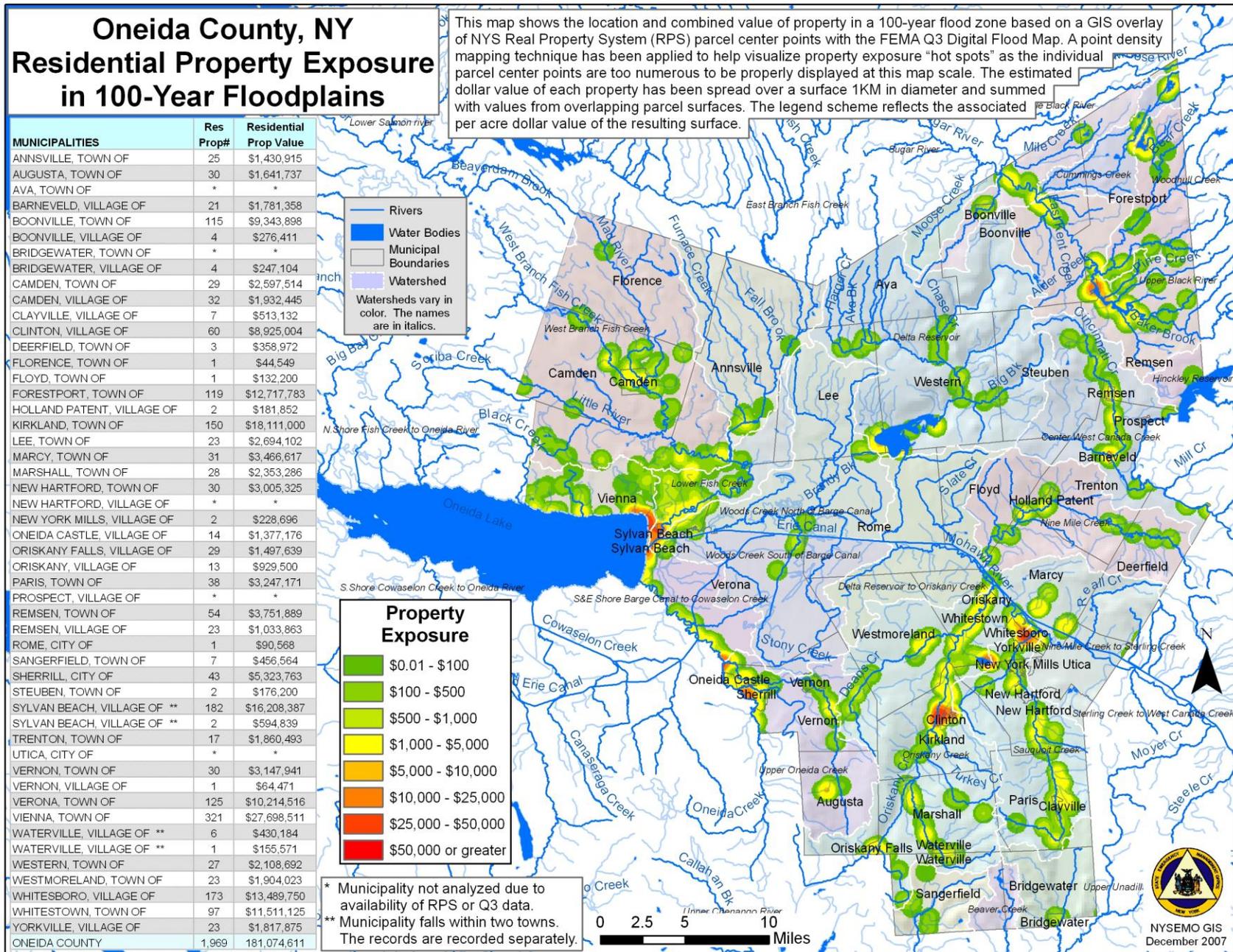


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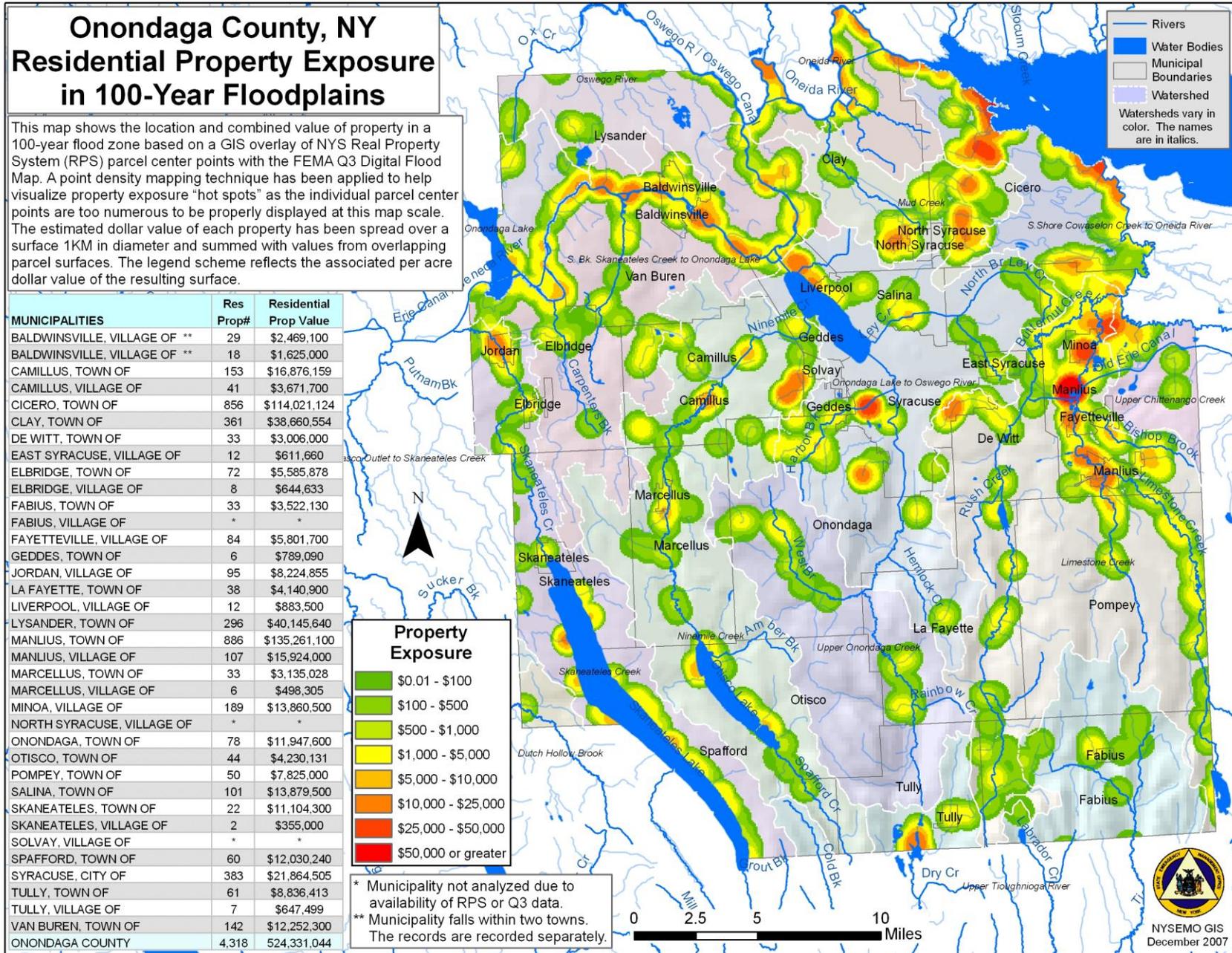


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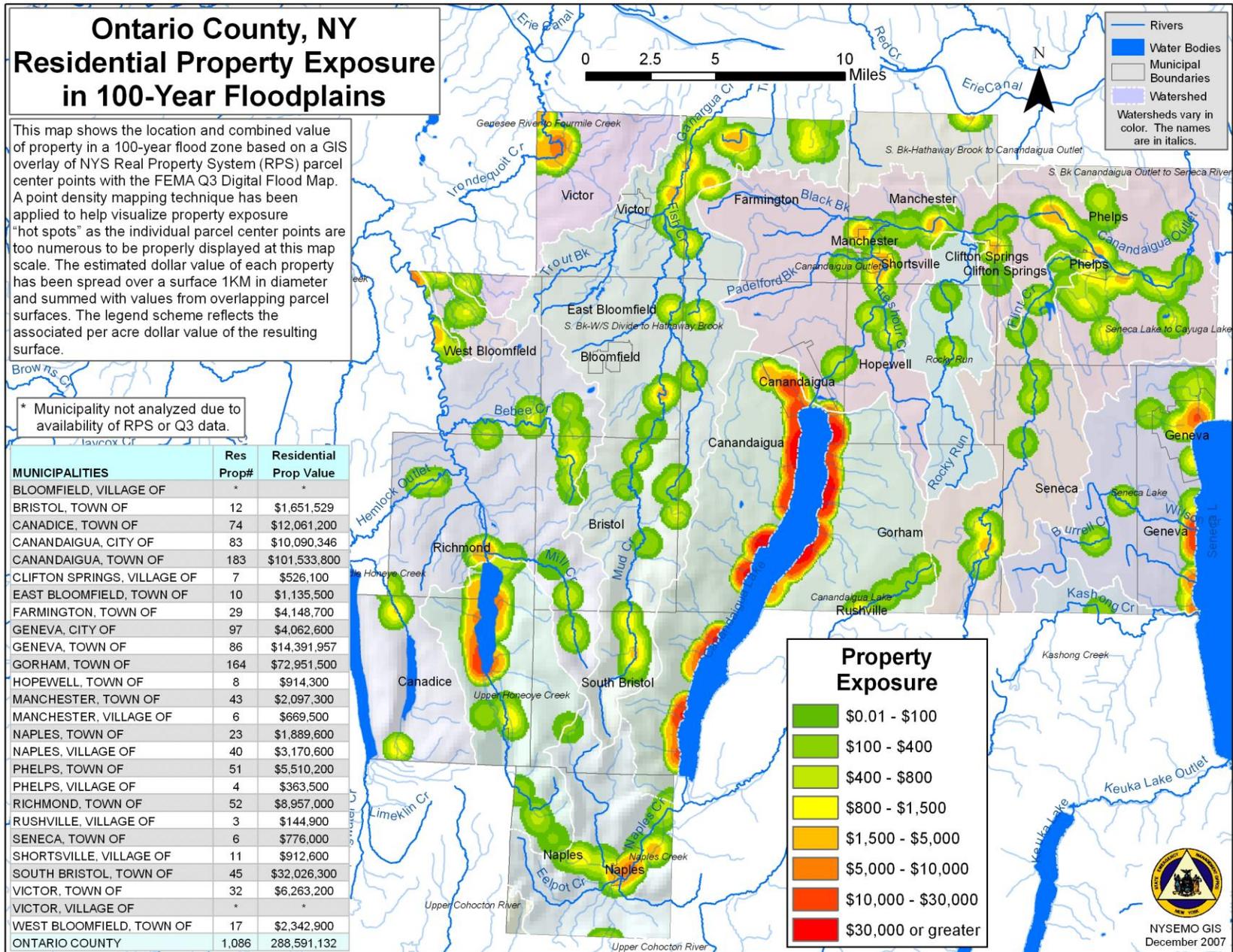


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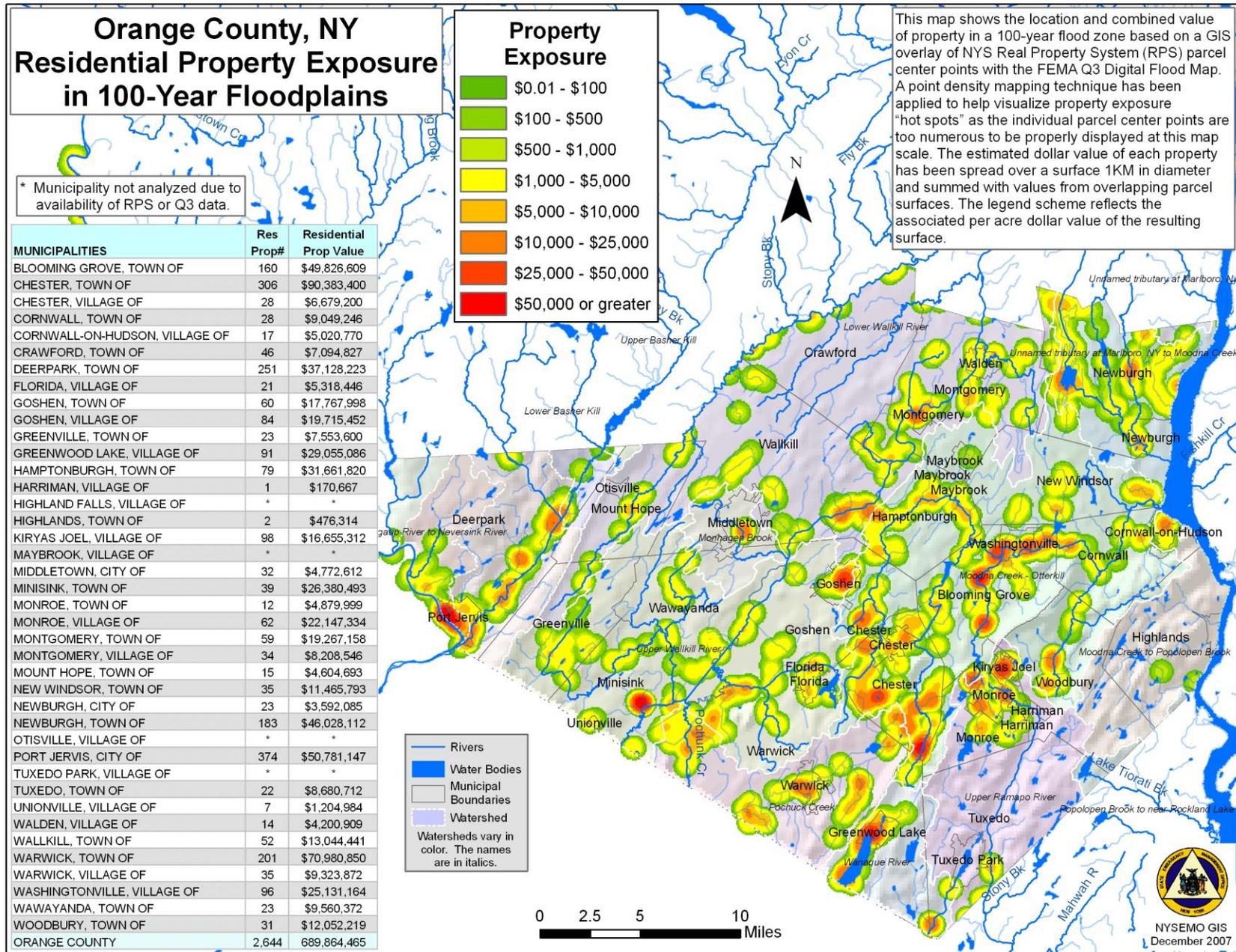


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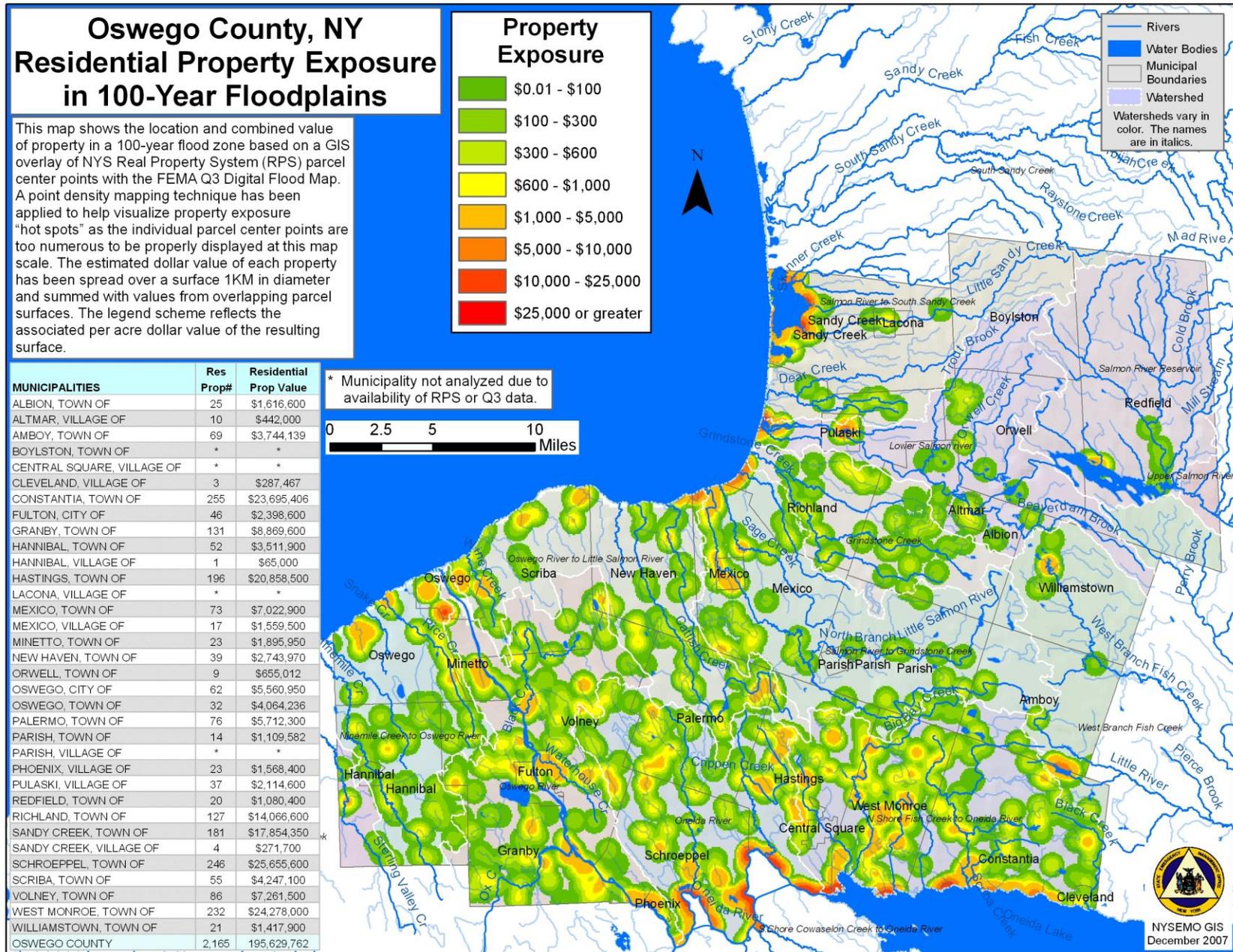


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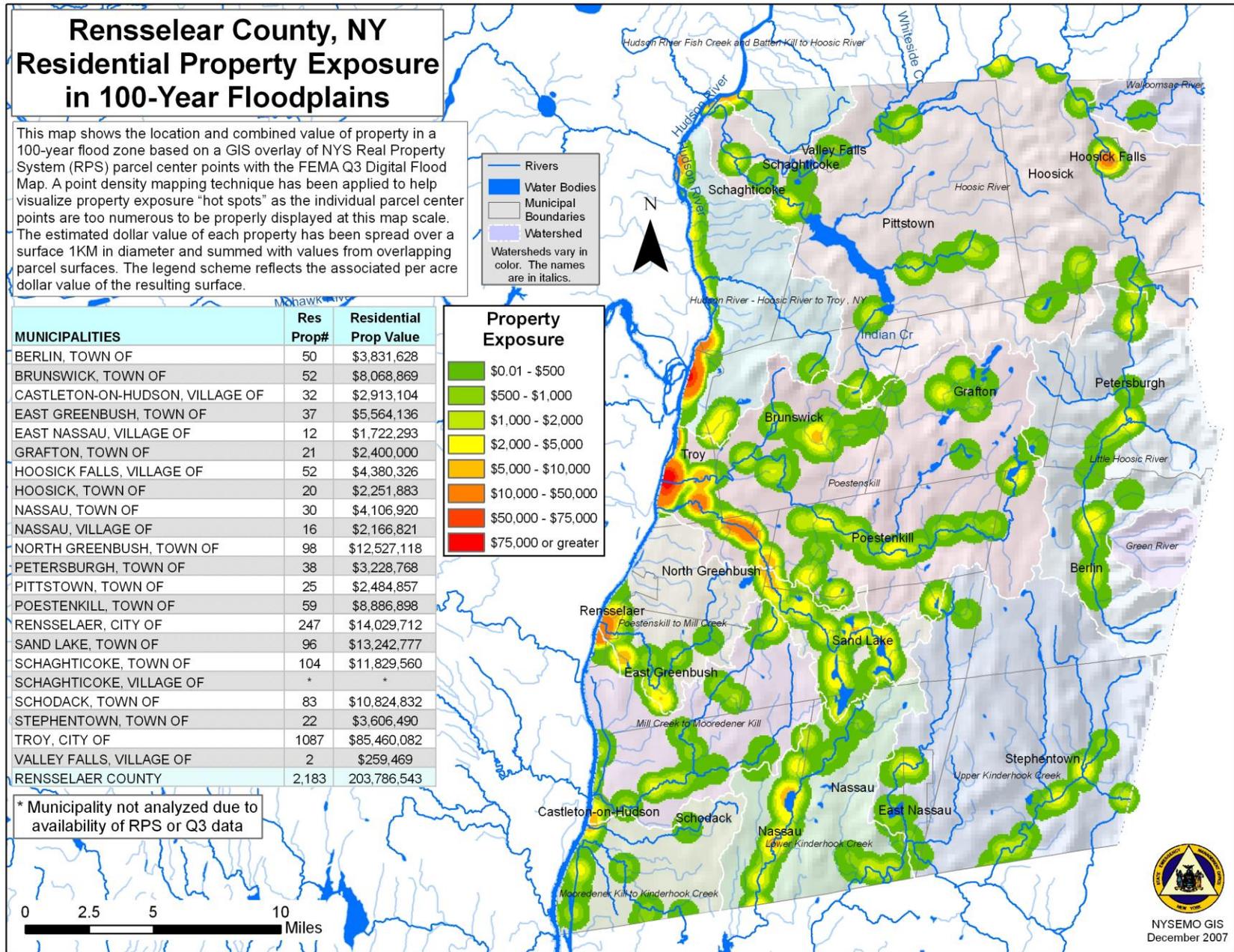


Figure 3-66

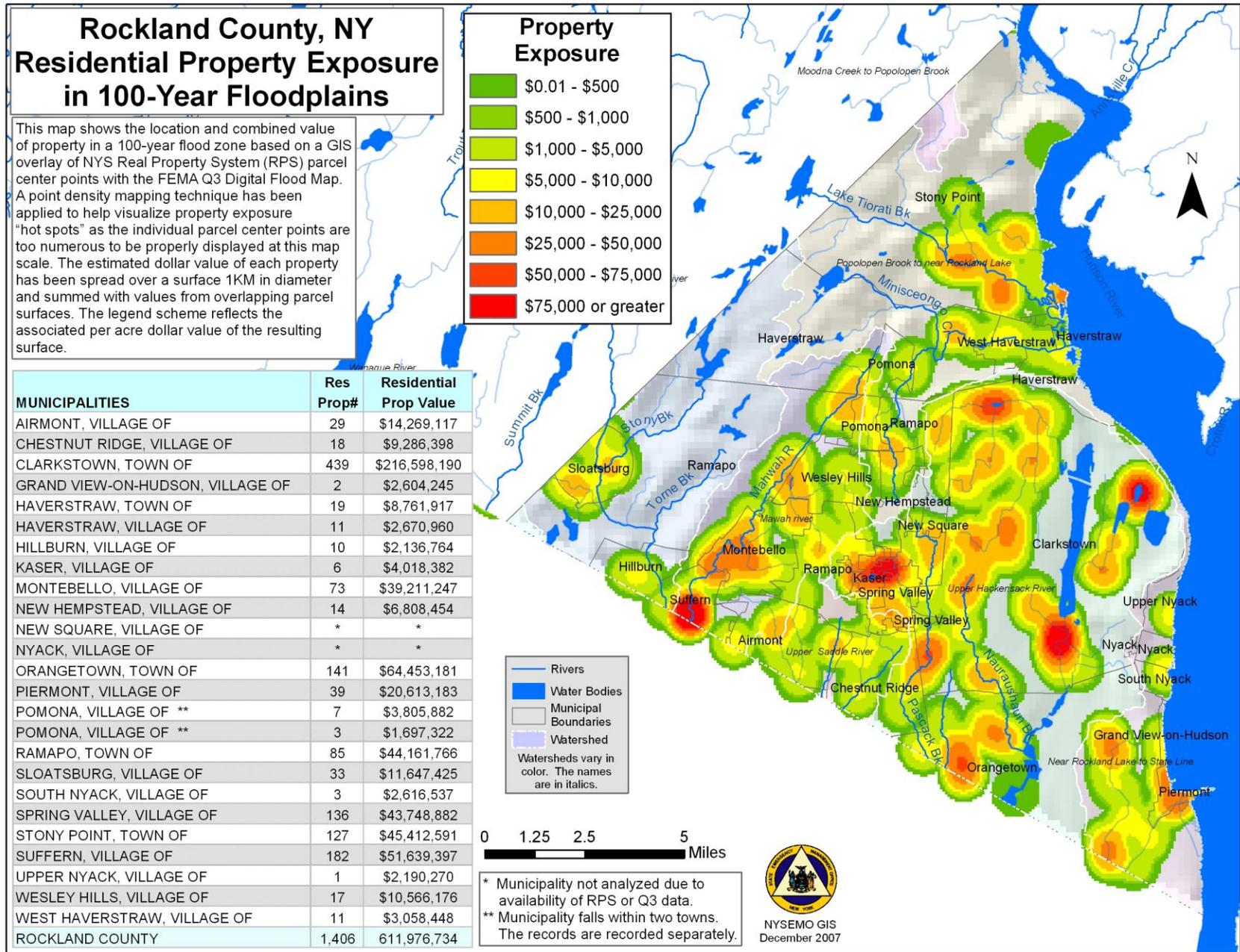


Figure 3-67

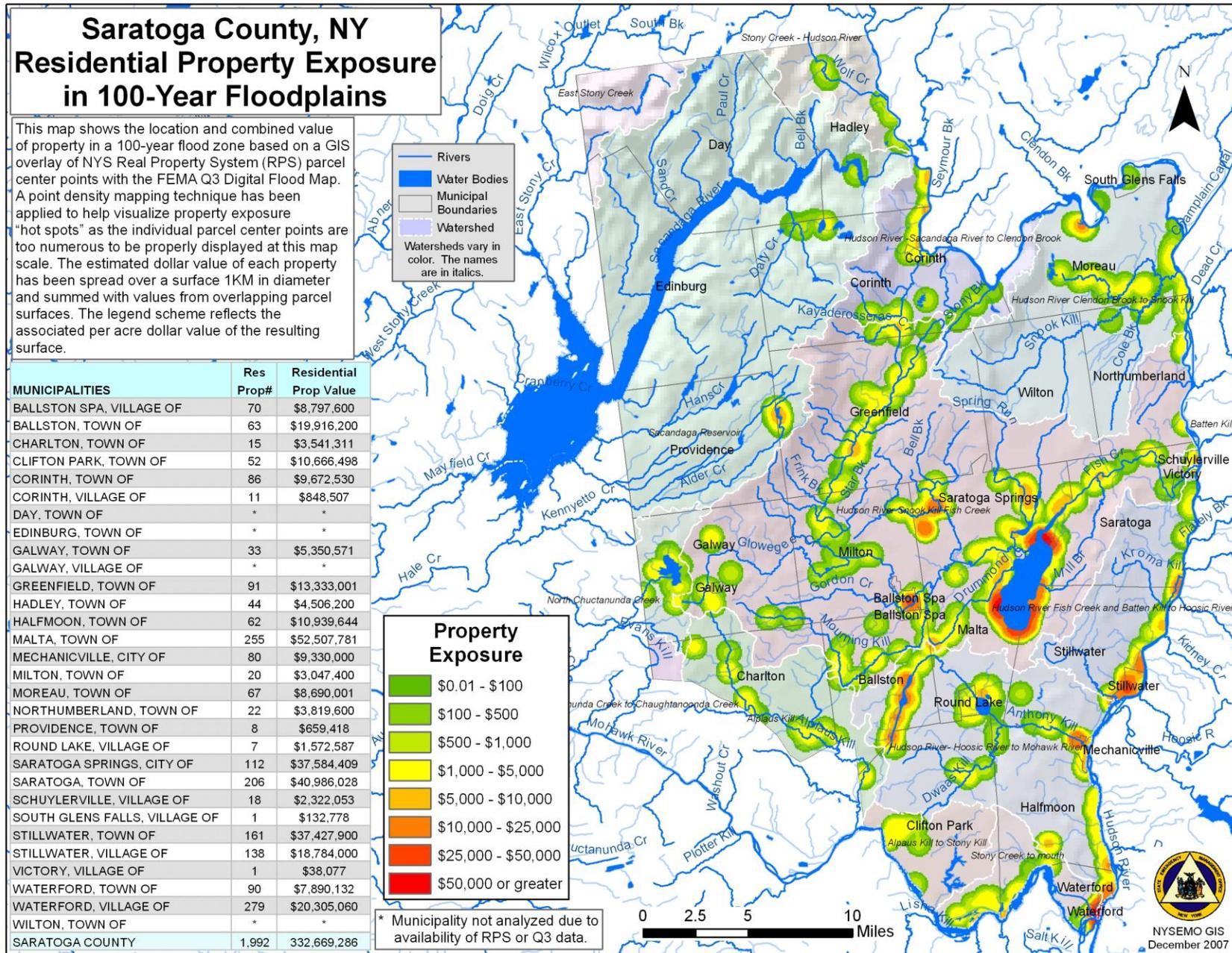


Figure 3-68

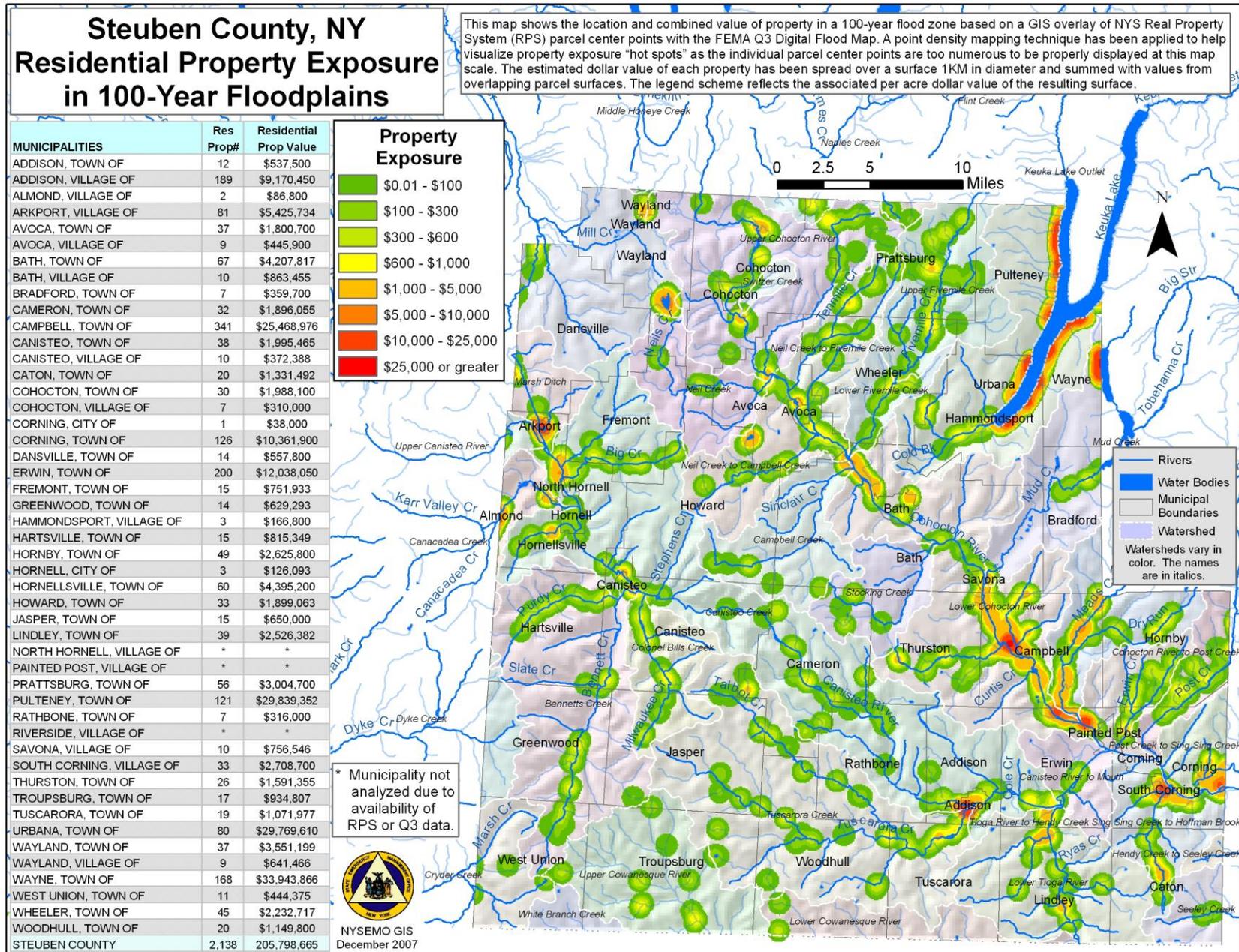


Figure 3-69

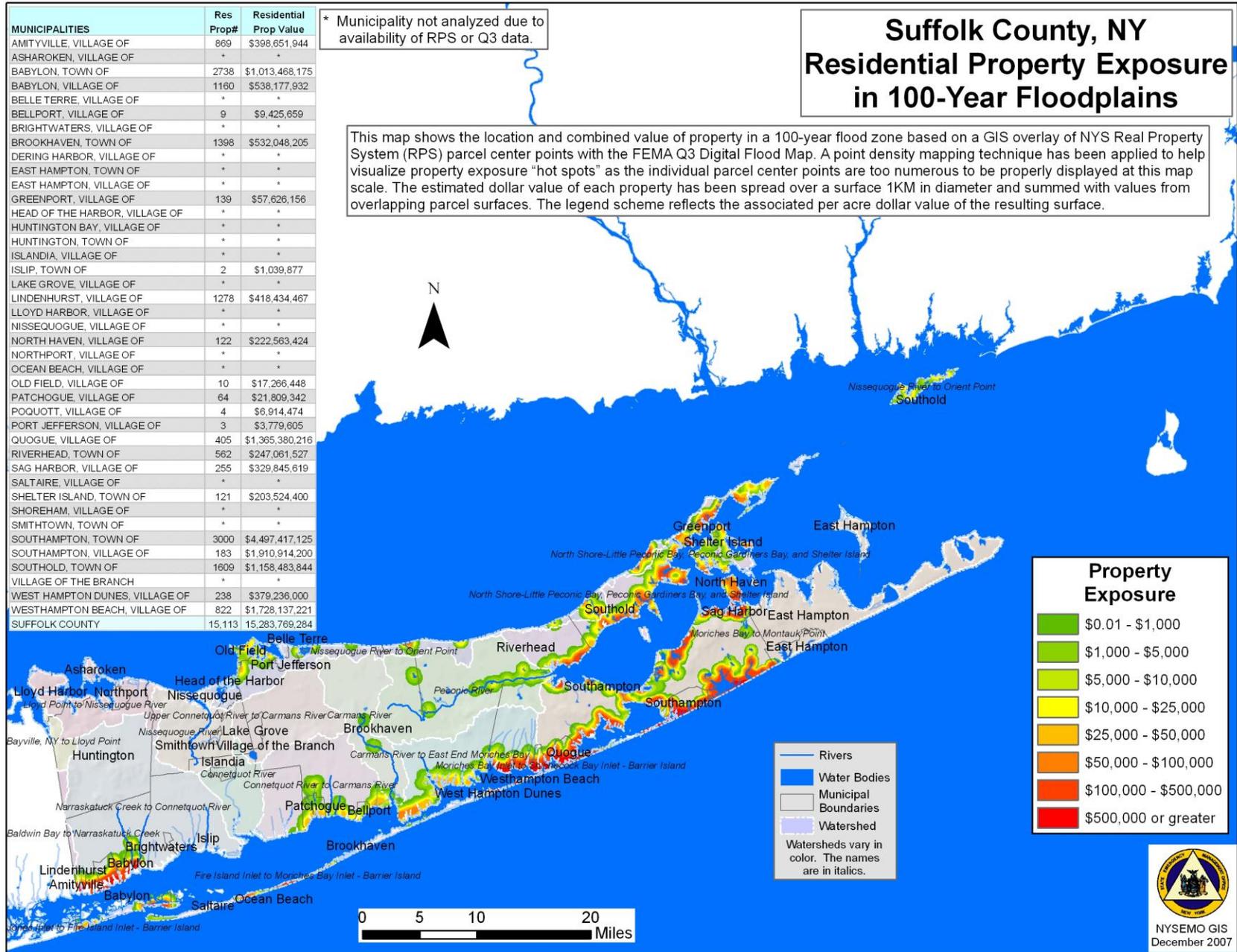


Figure 3-70

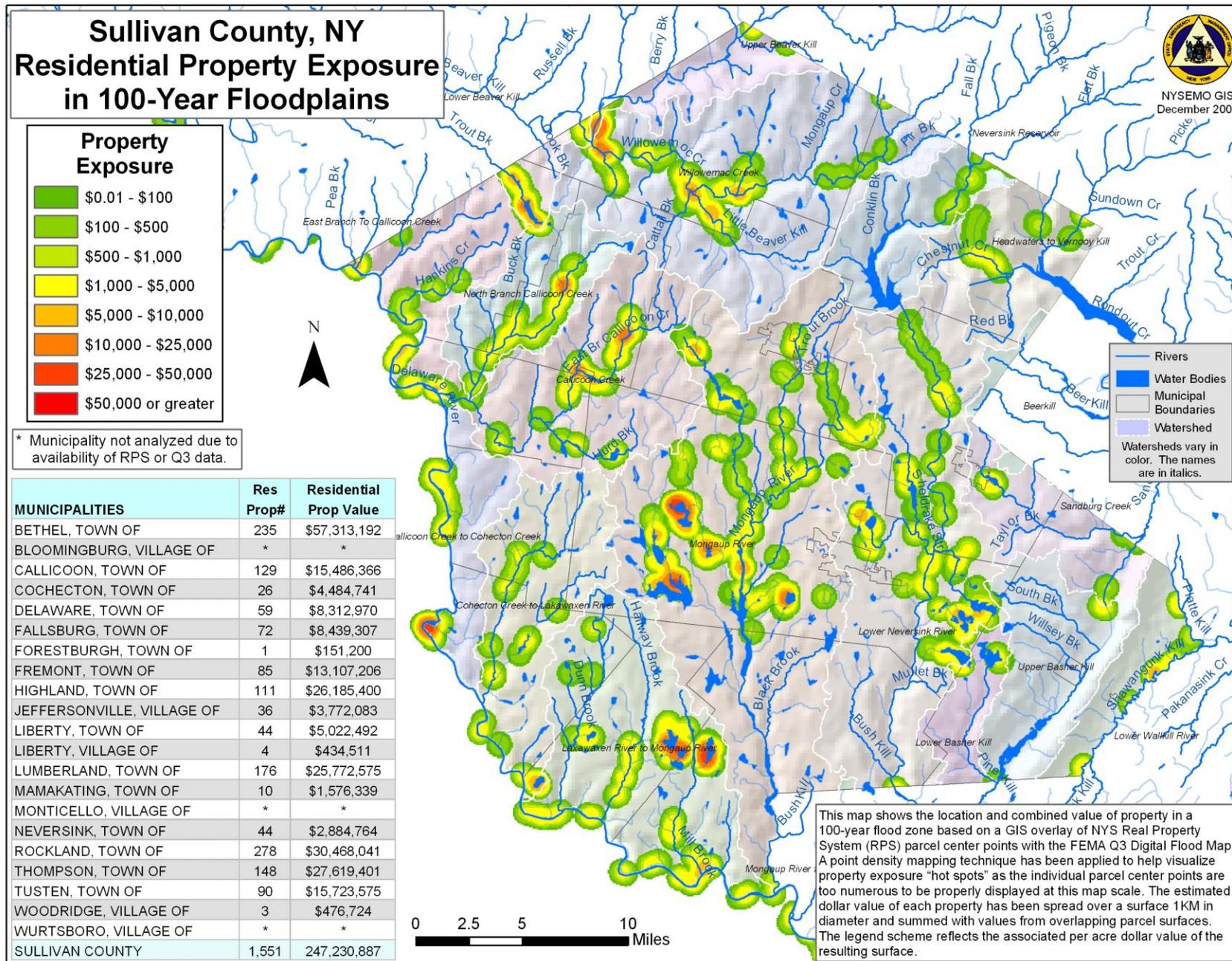


Figure 3-71

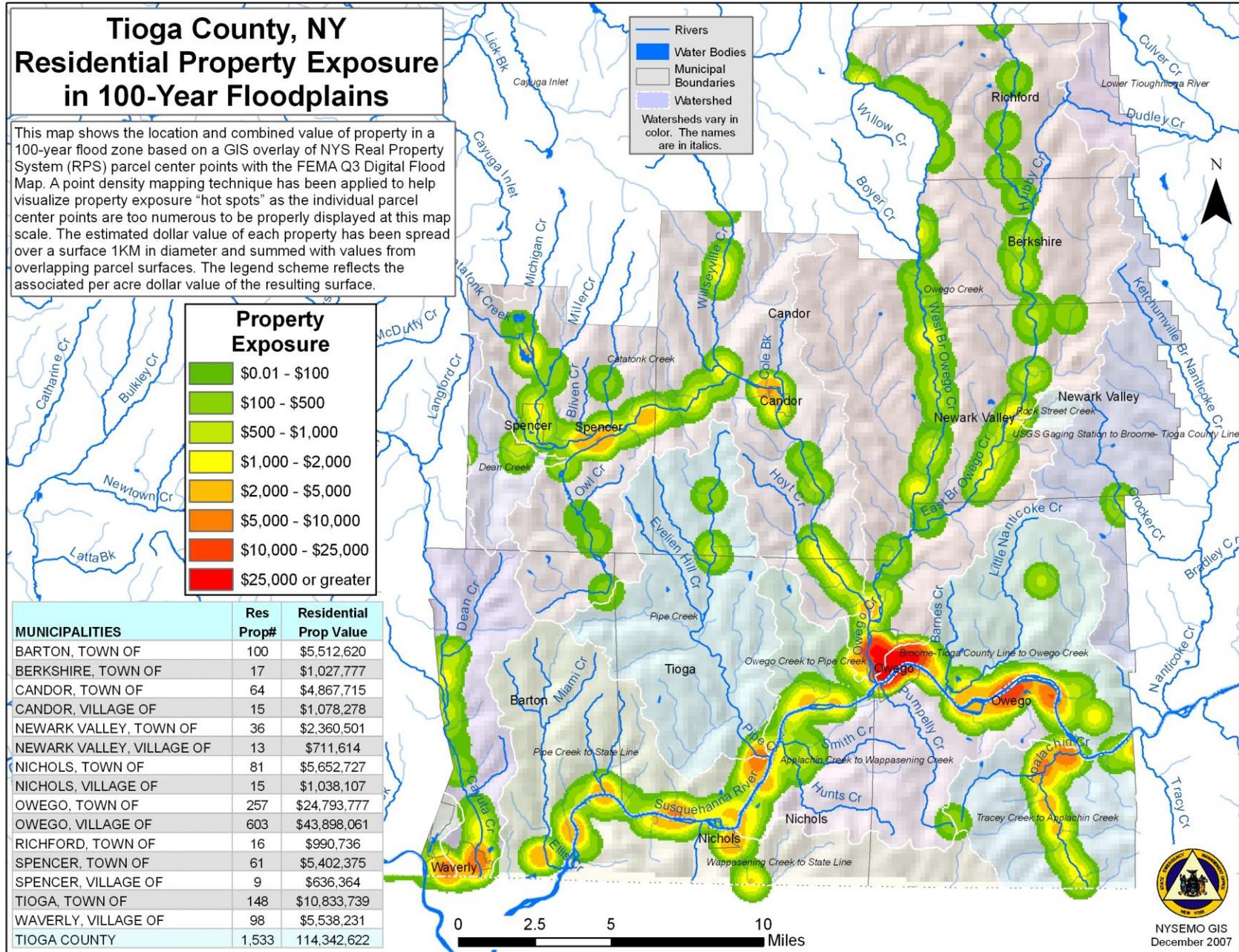


Figure 3-72

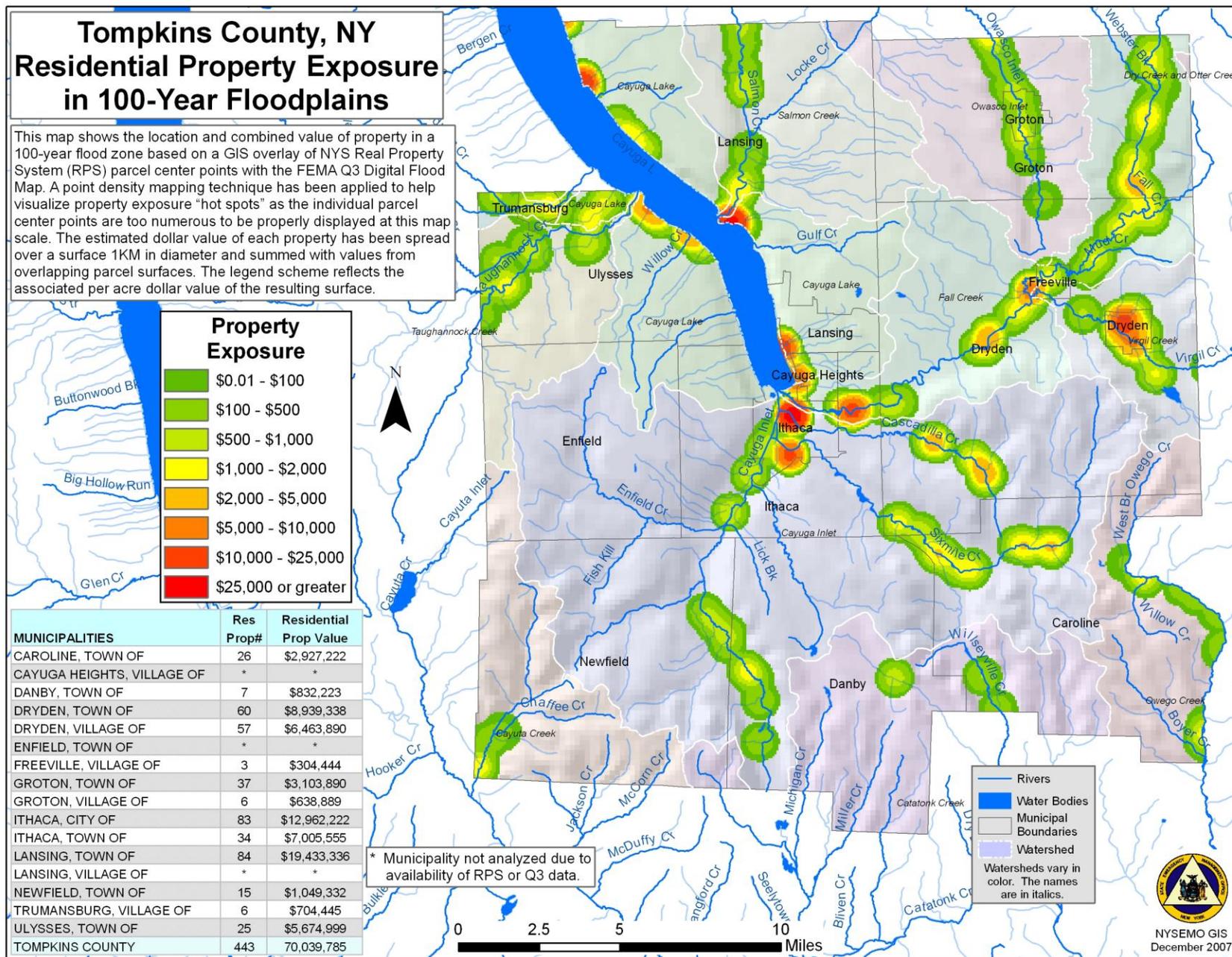


Figure 3-73

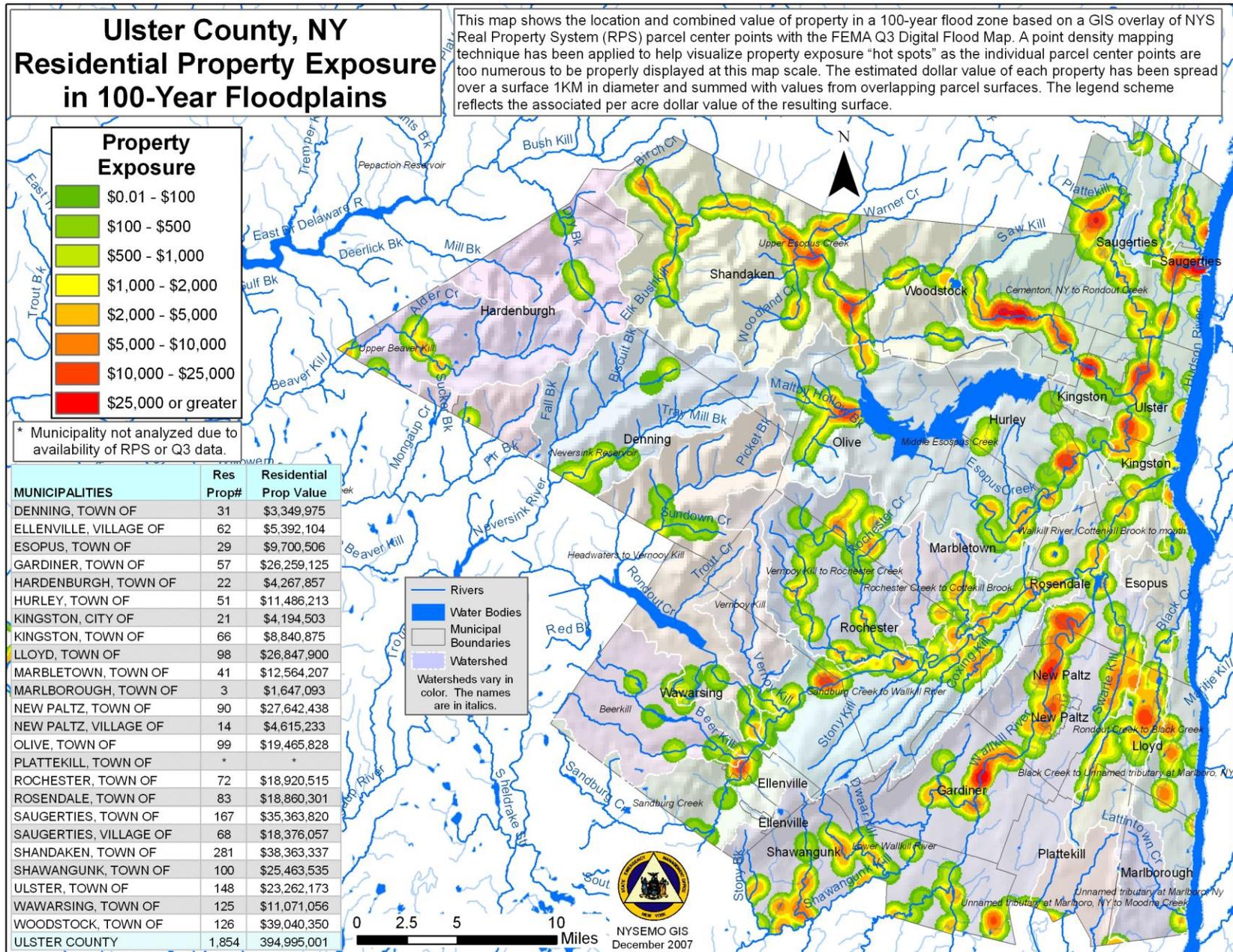
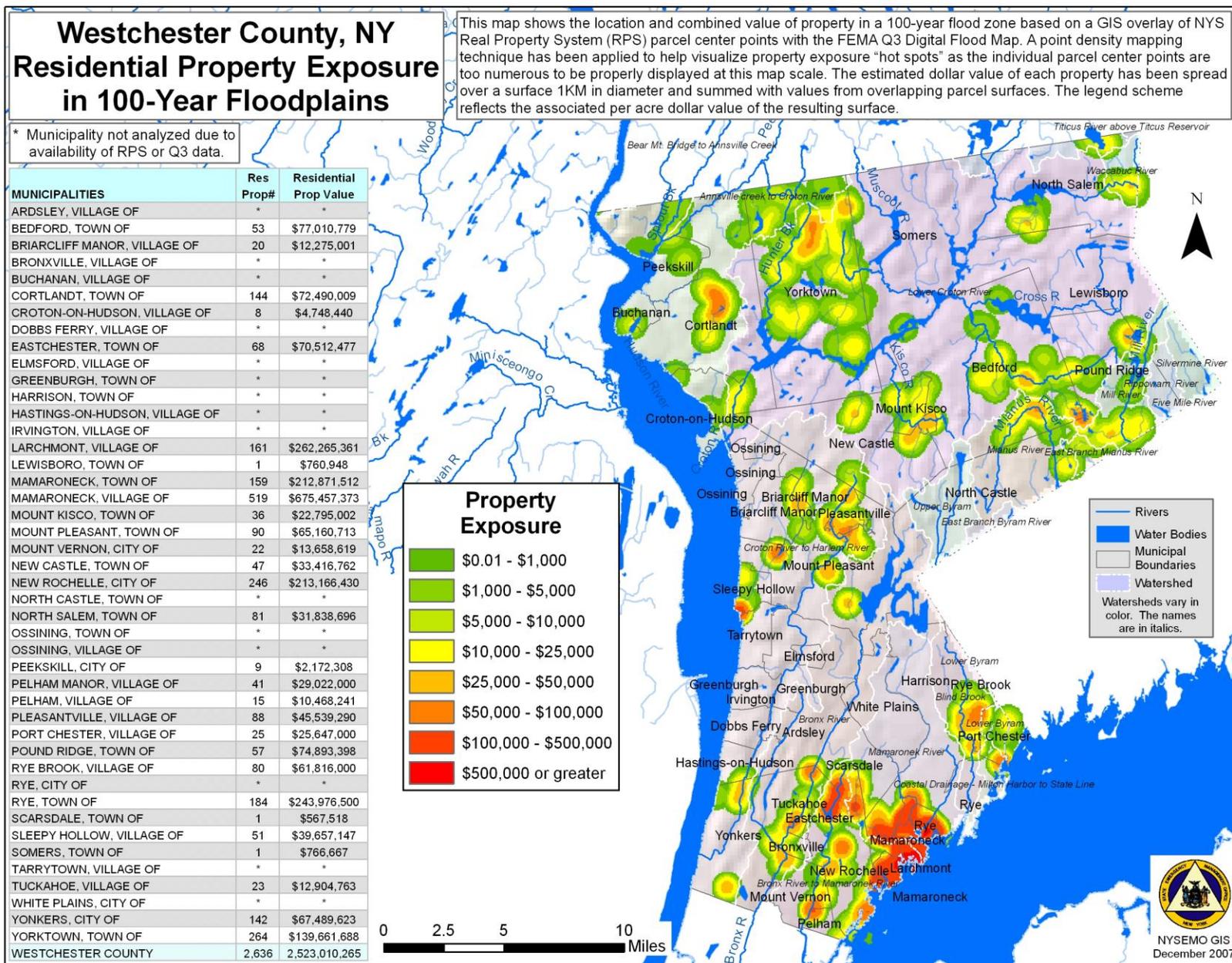


Figure 3-74



Please see the Real Property System (RPS) Spreadsheet in Appendix 1