

APPENDIX J –

ADDITIONAL INFORMATION

This appendix includes various mapping needed to address FEMA Region 2's minimum requirements for a hazard mitigation plan (as of May 2010).

100-Yr Residential Property Exposure Mapping from the NY State Hazard Mitigation Plan

Exposure Mapping (see subsequent pages of this appendix): The New York State Hazard Mitigation Plan (January 2008) contains detailed tables of residential property values located in the high risk (1% annual chance) floodplain, as defined by FEMA Q3 data, using a methodology for which 100% of the value of residential property was deemed to be in the floodplain if the parcel centroid was located within the floodplain boundary, and 0% was deemed to be in the floodplain if the parcel centroid was located outside of the floodplain boundary. FEMA has recommended that this data should be directly incorporated into the Plan. After consideration of this recommendation, the 100 year floodplain exposure information from the State Plan was not incorporated into the main text directly, because it was deemed more prudent to conduct a similar analysis using more recent data and an alternative methodology. There were three main factors contributing to this decision. First, the GIS parcel/assessed value data provided by the County for this plan, along with the latest equalization rates provided by the New York State Office of Real Property Services, provides more recent property values. Second, the most recent parcel/assessed value data available for the County planning project has been used to quantify exposure to other delineable hazards, therefore consistent use of this data in the flood hazard profile, as well, allows for more meaningful comparisons between profiled hazards. Finally, the County Plan's approach involves an analysis of improvements within the 100 year floodplain using an alternate methodology for which a percentage of improved property within the floodplain was calculated as a percentage of parcel area covered by the floodplain (i.e., if the floodplain was found to cover 20% of the parcel area, then it was estimated that 20% of the value of all improved property on the parcel was also exposed to the flood hazard – differing from the State Plan which used older data and a methodology which assumed an “all or nothing” approach to exposure). This was done to account for uncertainties in the location of improvements in relation to the parcel centroids. These different methodologies have been used for several other NYS plans, often showing a fairly strong correlation. However, in this case, the same cannot be said. The total value of residential property in the 100-year floodplain calculated for this plan varies from that calculated for the State Plan by about 75% (\$785,887,538 versus \$203,786,543). It should be noted that one contributing factor to this difference (albeit a small one) is the fact that the Village of Schaghticoke was not analyzed in the State Plan due to stated data availability issues from the New York State Real Property System or FEMA Q3. While the individual results are not altogether consistent between one another, when one looks at the percentage of improved property value in the floodplain as compared to the value of all improved property countywide, one finds that even though the two results differ substantially on county-wide basis dollar for dollar, the high value of improved property county wide diminishes the effects of this difference. When one compares the percentage of improved property in the floodplain, using a total value of improvements of \$12,433,183,925, the percentages are 6% and 2%, respectively – a fairly consistent result for planning purposes, considering that the two analyses used different approaches and possibly different assessed values and equalization rates, the overall results are fairly consistent, as the table on the next page shows.

Implications to the Participating Jurisdictions: While Participating jurisdictions have used the exposure tables presented in Appendix A in their evaluation of risks and in their consideration of future projects, and while the dollar values in this Appendix J represents data which is superseded by other more recent

data used for this planning project, in conjunction with an alternate methodology to calculate exposure, it does provide a handy visual when used to supplement information already included in the Main Text Section 3 and Appendix A.

Comparison of Exposed Improved Property Values (100-year Floodplain): Rensselaer County Plan versus NY State Hazard Mitigation Plan		
Municipality	Rensselaer County Plan	NYSEMO
	Estimated Residential 100-year Exposure (Market Value, calculated using Year 2008 Equalization Rates and estimating exposure as a percentage of parcel area covered by the floodplain)	Estimated Residential 100-year Exposure (Market Value, calculated using Year 2006 Equalization Rates and estimating exposure as 100% where centroid is in floodplain and 0% where centroid is outside of floodplain)
Berlin, Town of	\$7,360,983	\$3,831,628
Brunswick, Town of	\$41,246,252	\$8,068,869
Castleton-on-Hudson, Village of	\$42,107,756	\$2,913,104
East Greenbush, Town of	\$40,485,331	\$5,564,136
East Nassau, Village of	\$3,574,931	\$1,722,293
Grafton, Town of	\$4,706,800	\$2,400,000
Hoosick, Town of	\$6,462,770	\$2,251,883
Hoosick Falls, Village of	\$16,069,381	\$4,380,326
Nassau, Town of	\$6,404,721	\$4,106,920
Nassau, Village of	\$6,880,164	\$2,166,821
North Greenbush, Town of	\$54,158,943	\$12,527,118
Petersburgh, Town of	\$5,892,023	\$3,228,768
Pittstown, Town of	\$9,976,431	\$2,484,857
Poestenkill, Town of	\$17,127,575	\$8,886,898
Rensselaer, City of	\$123,812,754	\$14,029,712
Sand Lake, Town of	\$33,867,439	\$13,242,777
Schaghticoke, Town of	\$16,952,644	\$11,829,560
Schaghticoke, Village of	\$990,359	*
Schodack, Town of	\$18,401,402	\$10,824,832
Stephentown, Town of	\$5,411,373	\$3,606,490
Troy, City of	\$323,453,520	\$85,460,082
Valley Falls, Village of	\$543,986	\$259,469
<i>Rensselaer County Totals:</i>	<i>\$785,887,538</i>	<i>\$203,786,543</i>
Estimated value of all improvements Countywide:	\$12,433,183,925	
Percentage of improvements in the floodplain, county-wide:	6%	2%

* = Not Analyzed by NYSEMO due to stated data availability issues from the New York State Real Property System or FEMA Q3

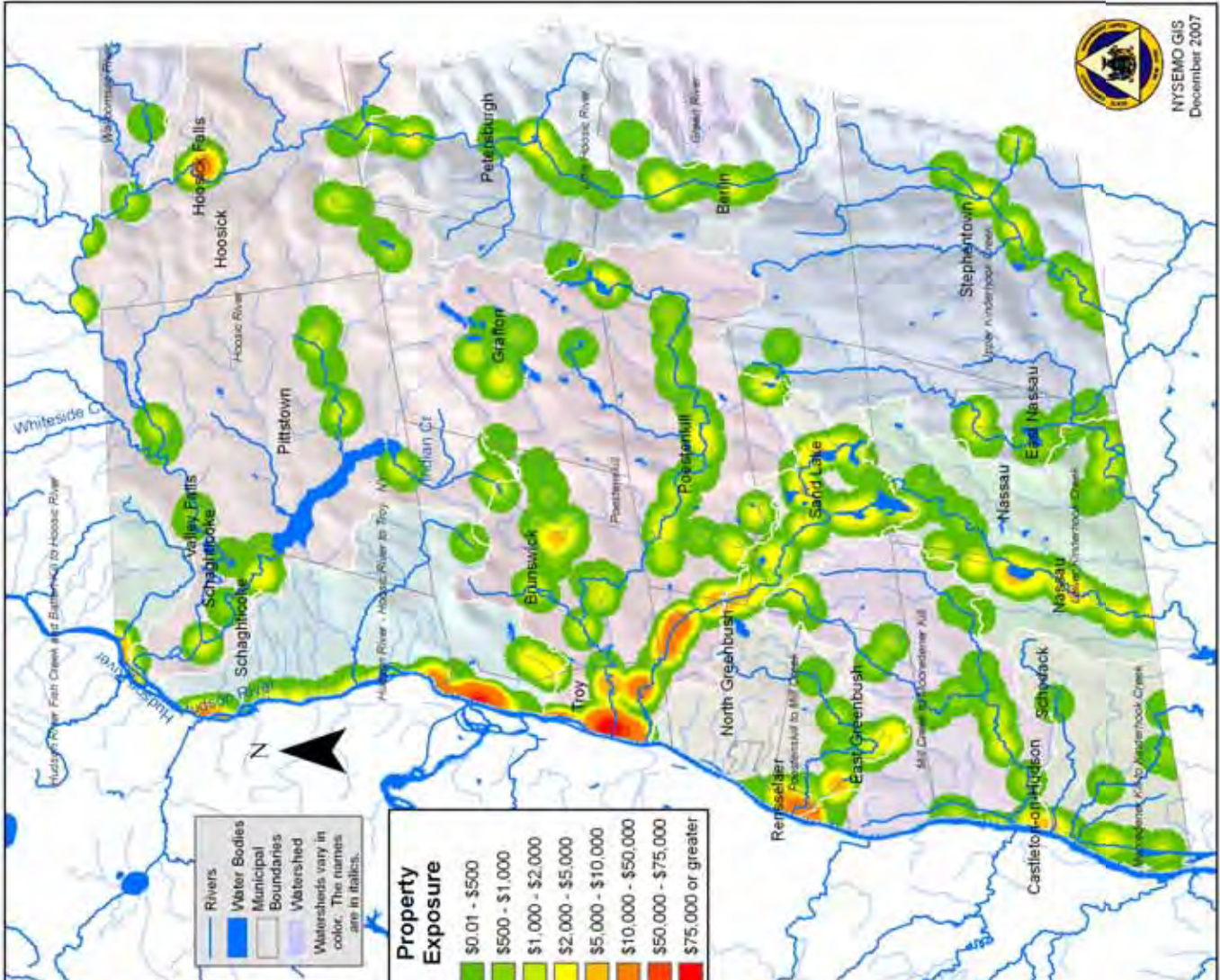
Rensselaer County, NY Residential Property Exposure in 100-Year Flood Plains

This map shows the location and combined value of property in a 100-year flood zone based on a GIS overlay of NYS Real Property System (RPS) parcel center points with the FEMA Q3 Digital Flood Map. A point density mapping technique has been applied to help visualize property exposure "hot spots" as the individual parcel center points are too numerous to be properly displayed at this map scale. The estimated dollar value of each property has been spread over a surface 1KM in diameter and summed with values from overlapping parcel surfaces. The legend scheme reflects the associated per acre dollar value of the resulting surface.



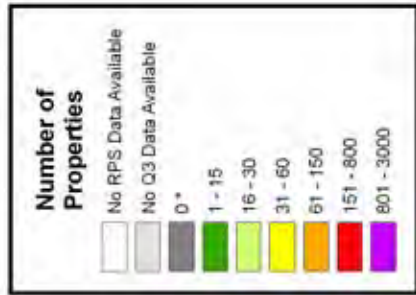
MUNICIPALITIES	Res Prop#	Residential Prop Value
BERLIN, TOWN OF	50	\$3,831,628
BRUNSWICK, TOWN OF	52	\$8,068,869
CASTLETON-ON-HUDSON, VILLAGE OF	32	\$2,913,104
EAST GREENBUSH, TOWN OF	37	\$5,564,136
EAST NASSAU, VILLAGE OF	12	\$1,722,293
GRAFTON, TOWN OF	21	\$2,400,000
HOOSICK FALLS, VILLAGE OF	52	\$4,380,326
HOOSICK, TOWN OF	20	\$2,251,883
NASSAU, TOWN OF	30	\$4,106,920
NASSAU, VILLAGE OF	16	\$2,166,821
NORTH GREENBUSH, TOWN OF	98	\$12,527,118
PETERSBURGH, TOWN OF	38	\$3,228,768
PITTSVILLE, TOWN OF	25	\$2,484,857
POESTENKILL, TOWN OF	59	\$8,896,898
RENSELAER, CITY OF	247	\$14,029,712
SAND LAKE, TOWN OF	96	\$13,242,777
SCHAGHTICOKE, TOWN OF	104	\$11,829,560
SCHAGHTICOKE, VILLAGE OF	.	.
SCHODACK, TOWN OF	83	\$10,824,832
STEPHENTOWN, TOWN OF	22	\$3,606,490
TROY, CITY OF	1087	\$95,450,082
VALLEY FALLS, VILLAGE OF	2	\$259,469
RENSELAER COUNTY	2,183	203,786,543

* Municipality not analyzed due to availability of RPS or Q3 data

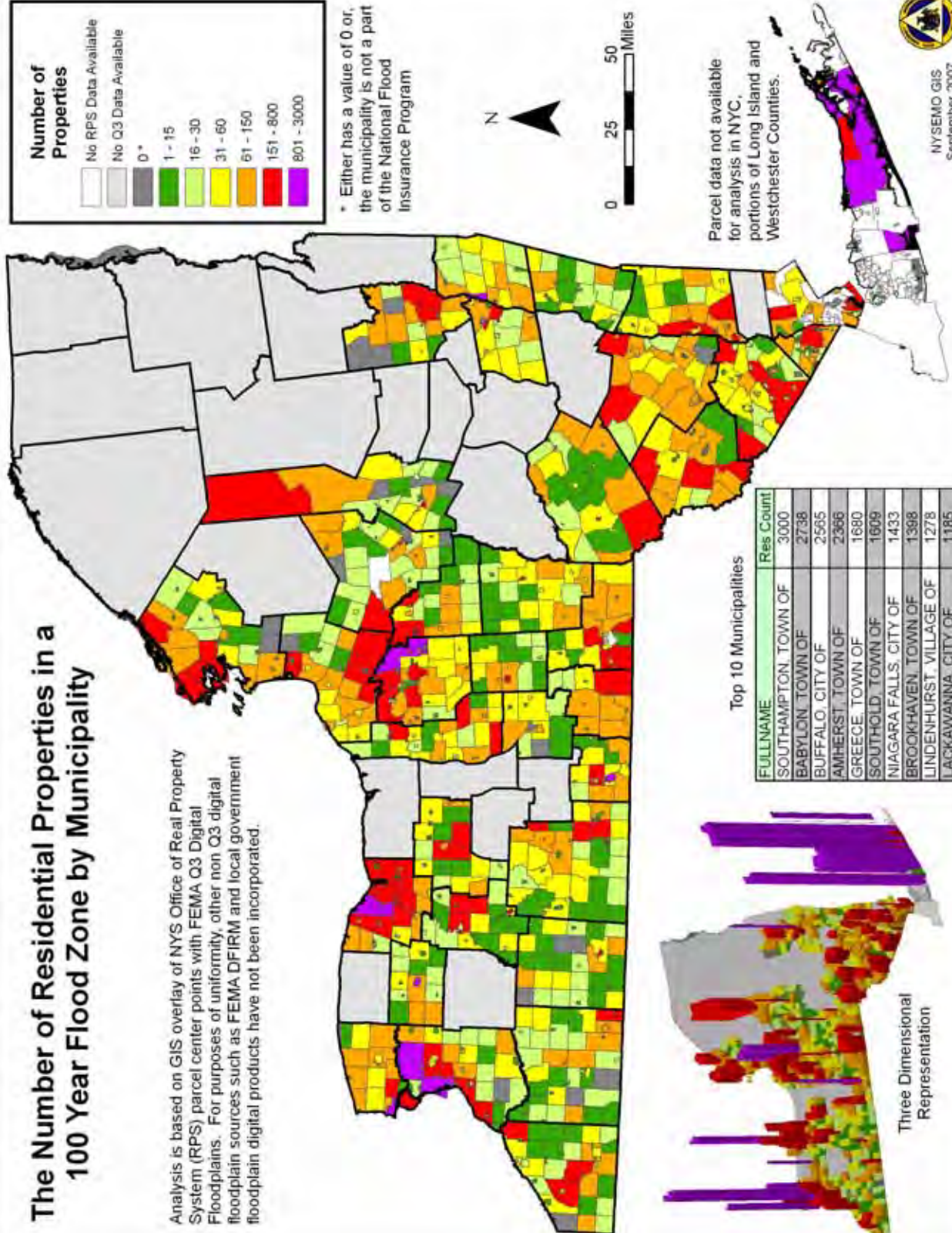


The Number of Residential Properties in a 100 Year Flood Zone by Municipality

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.



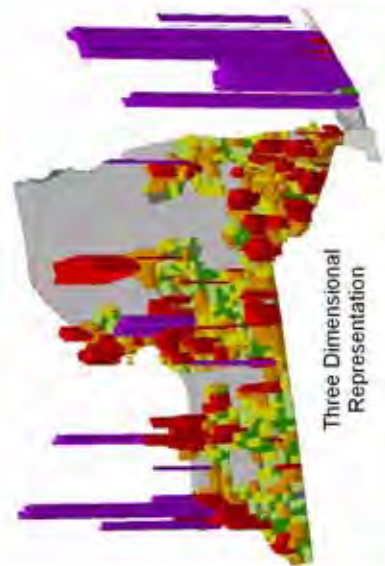
* Either has a value of 0 or, the municipality is not a part of the National Flood Insurance Program



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

Top 10 Municipalities

FULLNAME	Res Count
SOUTHAMPTON, TOWN OF	3000
BABYLON, TOWN OF	2738
BUFFALO, CITY OF	2565
AMHERST, TOWN OF	2366
GREECE, TOWN OF	1680
SOUTHOLD, TOWN OF	1609
NIAGARA FALLS, CITY OF	1433
BROOKHAVEN, TOWN OF	1398
LINDENHURST, VILLAGE OF	1278
LACKAWANNA, CITY OF	1185



Three Dimensional Representation

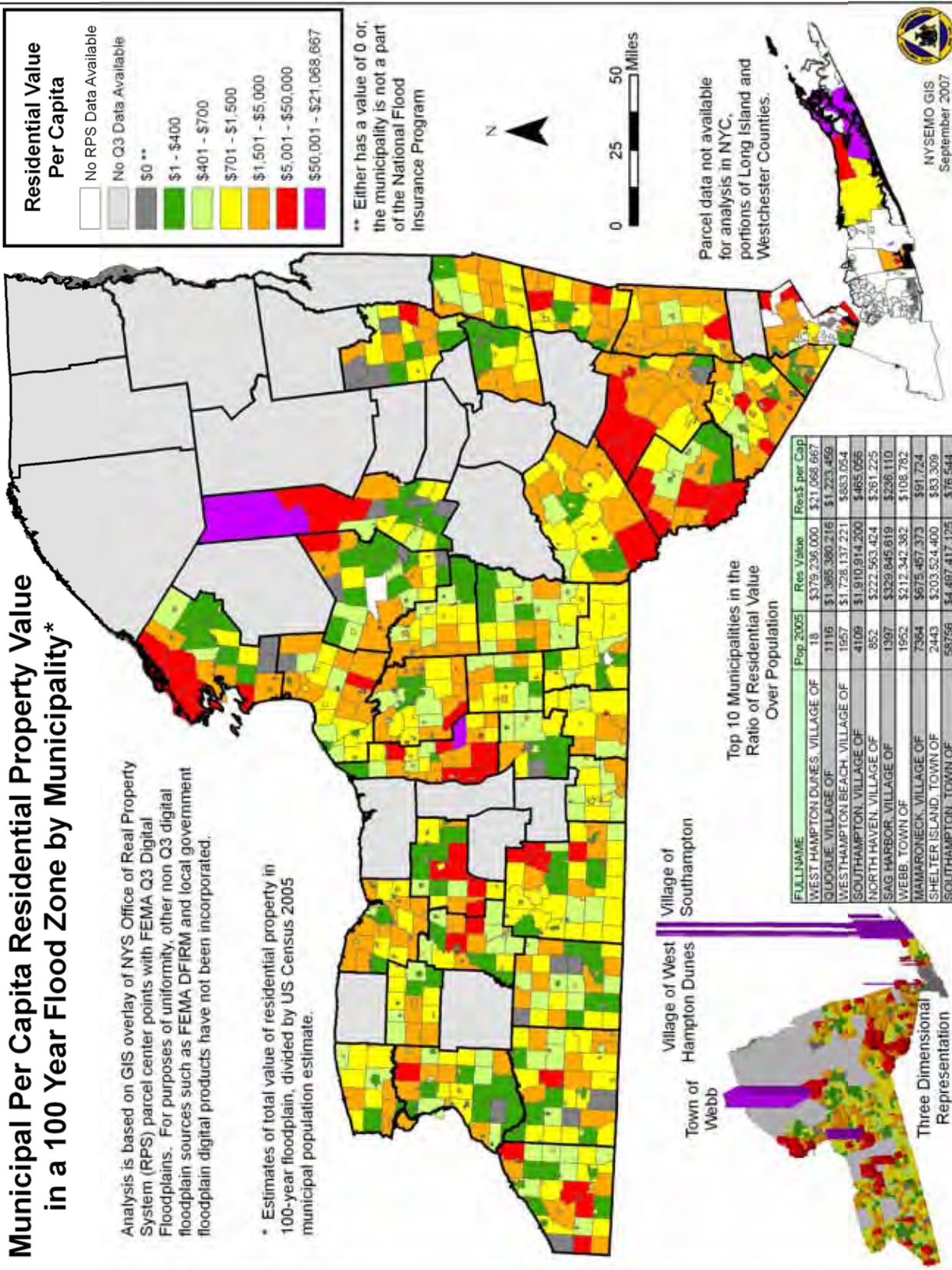


NYSEMO GIS
September 2007

Municipal Per Capita Residential 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 residential property in 100-year floodplain, divided by US Census 2005 municipal population estimate.



Residential Value Per Capita

- No RPS Data Available
- No Q3 Data Available
- \$0 **
- \$1 - \$400
- \$401 - \$700
- \$701 - \$1,500
- \$1,501 - \$5,000
- \$5,001 - \$50,000
- \$50,001 - \$21,068,667

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



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NYSEMO GIS
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Top 10 Municipalities in the Ratio of Residential Value Over Population

FULLNAME	Pop 2005	Res Value	Res\$ per Cap
WEST HAMPTON DUNES, VILLAGE OF	18	\$379,236,000	\$21,068,667
QUOGUE, VILLAGE OF	1116	\$1,395,390,216	\$1,223,459
WESTHAMPTON BEACH, VILLAGE OF	1957	\$1,728,137,221	\$883,054
SOUTHAMPTON, VILLAGE OF	4109	\$1,910,914,200	\$465,056
NORTH HAVEN, VILLAGE OF	852	\$222,563,424	\$261,225
SAG HARBOR, VILLAGE OF	1987	\$329,845,819	\$226,110
WEBB, TOWN OF	1952	\$212,342,382	\$108,782
MAMARONECK, VILLAGE OF	7364	\$675,467,373	\$91,724
SHELTER ISLAND, TOWN OF	2443	\$203,524,400	\$83,309
SOUTHAMPTON, TOWN OF	58756	\$4,487,417,125	\$76,544

Village of West Hampton Dunes
Village of South Hampton
Town of Webb

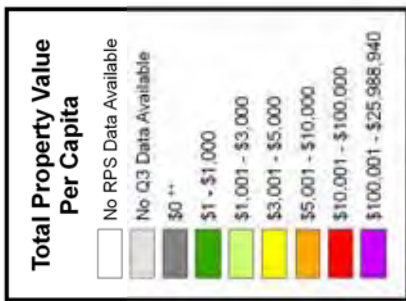


Three Dimensional Representation

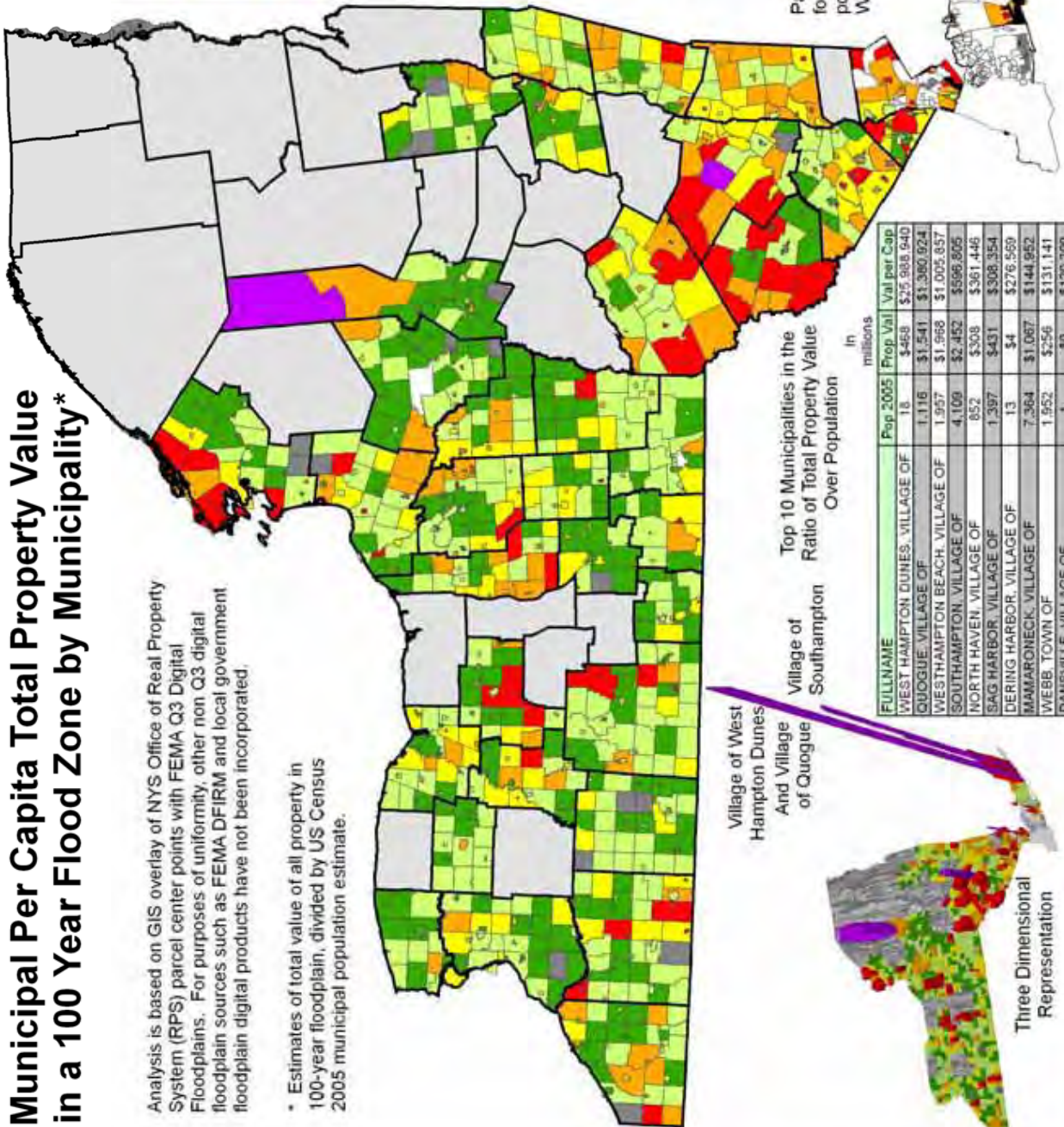
Municipal Per Capita Total Property Value in a 100 Year Flood Zone by Municipality*

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

FULLNAME	In millions		
	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
DANVILLE, VILLAGE OF	1	\$0	\$120,200

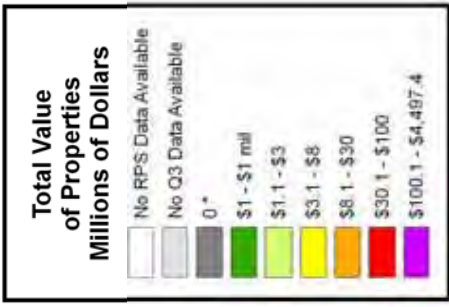
Village of West Hampton Dunes And Village of Quogue



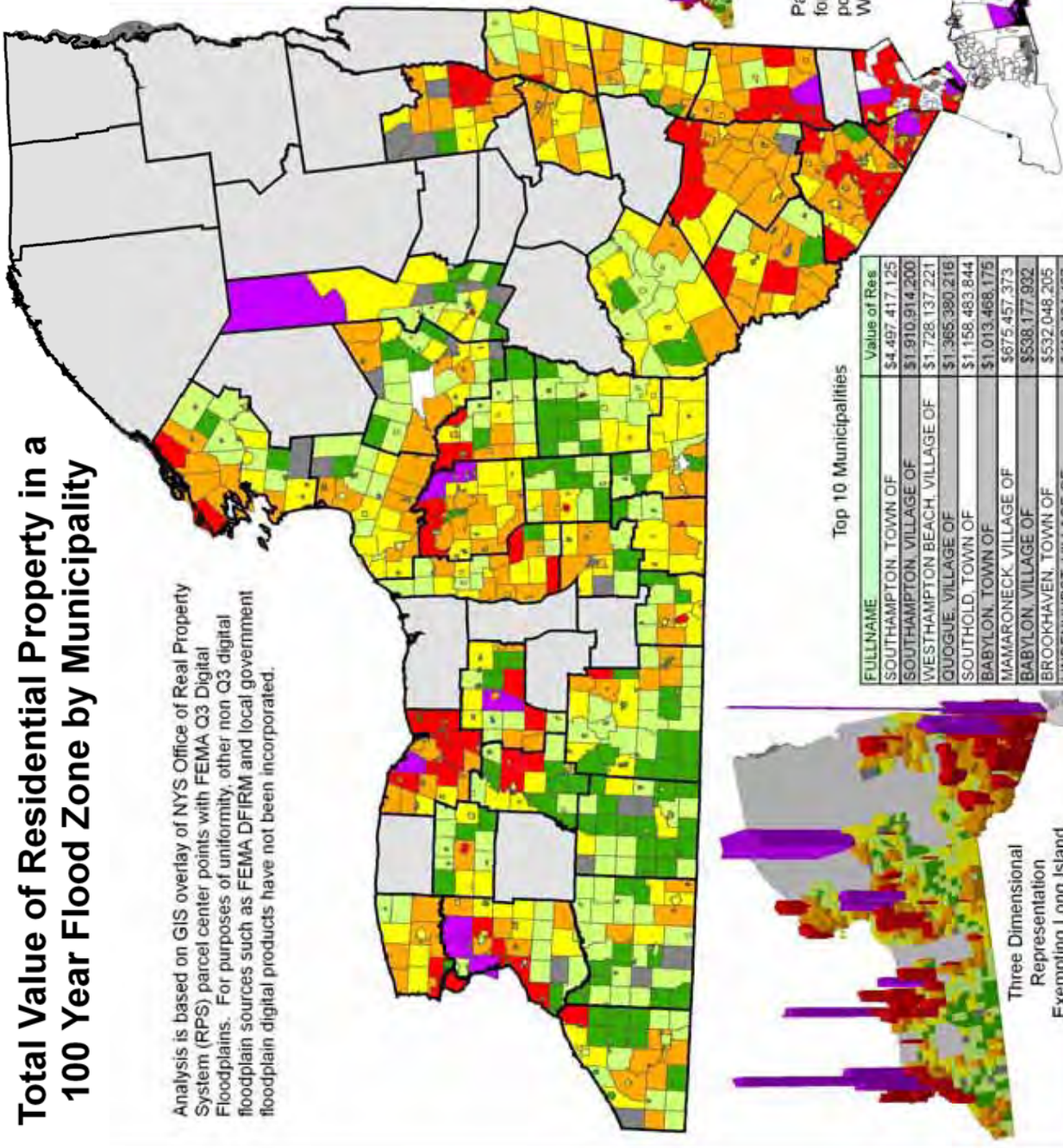
Three Dimensional Representation

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

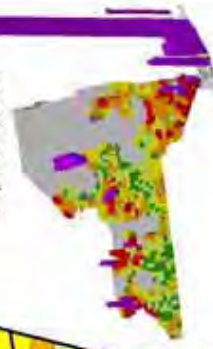
Analysis is based on GIS overlay of NYS Office of Real Property System (RPS) parcel center points with FEMA Q3 Digital Floodplains. For purposes of uniformity, other non Q3 digital floodplain sources such as FEMA DFIRM and local government floodplain digital products have not been incorporated.



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Three Dimensional Representation

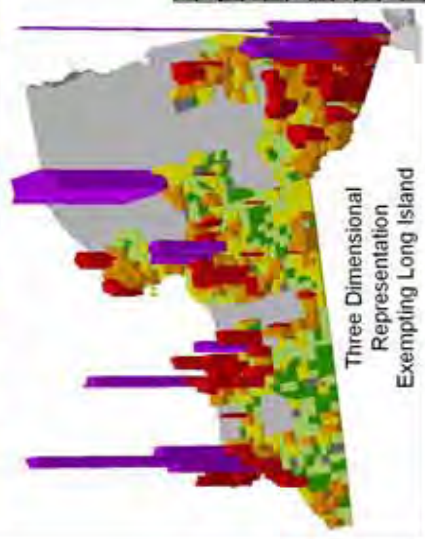


Parcel data not available for analysis in NYC, portions of Long Island and Westchester Counties.

Top 10 Municipalities

FULLNAME	Value of Res
SOUTHAMPTON, TOWN OF	\$4,497,417,125
SOUTHAMPTON, VILLAGE OF	\$1,910,914,200
WESTHAMPTON BEACH, VILLAGE OF	\$1,728,137,221
GUOGUE, VILLAGE OF	\$1,365,380,216
SOUTHOLD, TOWN OF	\$1,158,483,844
BABYLON, TOWN OF	\$1,013,468,175
MAMARONECK, VILLAGE OF	\$675,457,373
BABYLON, VILLAGE OF	\$538,177,932
BROOKHAVEN, TOWN OF	\$532,046,205
LINDENHURST, VILLAGE OF	\$418,434,467

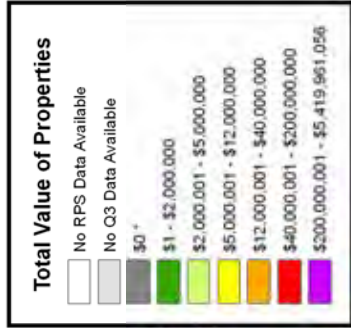
Three Dimensional Representation Exempting Long Island



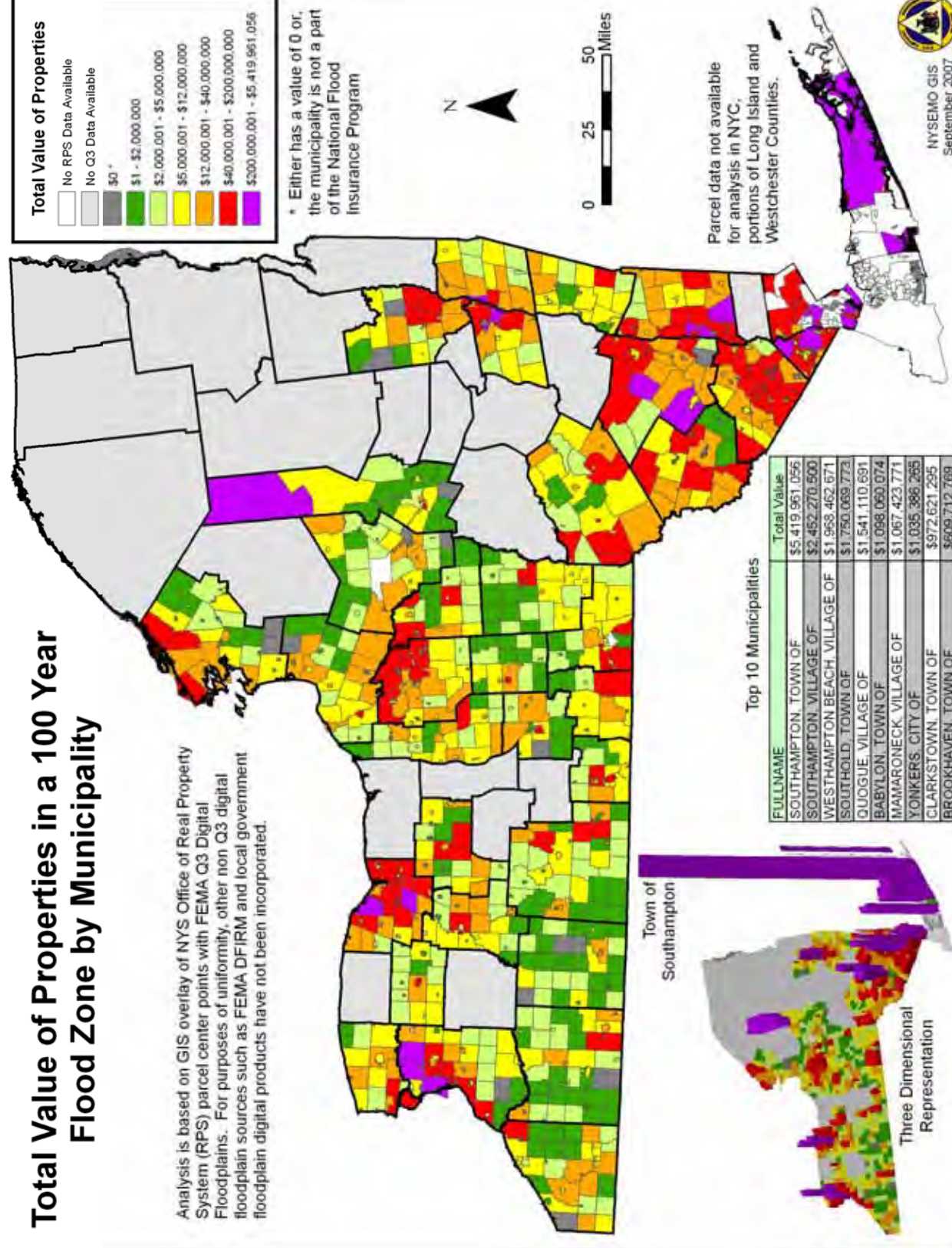
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Total Value of Properties in a 100 Year Flood Zone by Municipality

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.



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



Top 10 Municipalities

FULLNAME	Total Value
SOUTHAMPTON, TOWN OF	\$5,419,961,056
SOUTHAMPTON, VILLAGE OF	\$2,452,270,500
WESTHAMPTON BEACH, VILLAGE OF	\$1,958,462,671
SOUTHOLD, TOWN OF	\$1,750,069,773
QUOGUE, VILLAGE OF	\$1,541,110,691
BABYLON, TOWN OF	\$1,098,060,074
MAMARONECK, VILLAGE OF	\$1,067,423,771
YONKERS, CITY OF	\$1,035,386,265
CLARKSTOWN, TOWN OF	\$972,621,295
BROOKHAVEN, TOWN OF	\$609,712,769

