



**Northeast Waste Management Officials’
Association ([NEWMOA](#))**

**Municipal Solid Waste (MSW) Interstate Flow in 2012
March 27, 2015**

Prepared by the [NEWMOA Solid Waste Metrics Workgroup](#)

State environmental agencies in the Northeast have a responsibility to monitor and manage municipal solid waste (MSW) disposal capacity. To fulfill this responsibility, they gather data from the MSW facilities that they regulate on their waste imports, and most collect data on waste shipped out-of-state (exports). This information helps them assess disposal capacity and measure recycling and other waste diversion activities. Starting in 2000, NEWMOA’s members began to share data and prepare reports to characterize the flow of MSW for disposal to validate their information and inform state MSW policy and program development. For the purposes of this analysis, MSW includes non-hazardous waste generated by residential and commercial sources and does not include construction and demolition debris or non-hazardous industrial by-products. This data presentation covers MSW that is disposed of in landfills or waste-to-energy facilities, and does not include MSW that is diverted from disposal for composting, reuse or recycling.

Most MSW collection and disposal facilities in the northeast are owned and/or operated by private haulers and waste management companies. A small number are owned by municipal or county level government. When a disposal facility is publically-owned it can limit the geographic area from which it accepts MSW, and in certain situations can mandate that the MSW generated within that area be managed at that facility (these restrictions are known as “flow control”). With the exception of MSW generated in flow control areas, MSW functions as a commodity with disposal markets that can vary year-to-year depending on tipping fees, transportation costs, and contract arrangements. State governments do not direct where disposal of MSW occurs.

The figures displayed below present available state and regional MSW disposal information for calendar year 2012 along with comparisons to [previous years](#). NEWMOA performed this analysis annually from 1999 to 2006. In 2006, NEWMOA decided to collect and analyze the data every other year. The figures below compare 2012 data with data from 2000, 2002, 2004, 2006, 2008, and 2010.

Solid Waste Metrics Workgroup

State solid waste program directors appoint representatives to serve on NEWMOA’s [Solid Waste Metrics Workgroup](#). The purpose of this Workgroup is to oversee NEWMOA’s MSW data collection and analysis and the development of this presentation. By working together since 2000, the Workgroup members have improved the accuracy of their state data.

Data Analysis Methodology

NEWMOA's Workgroup members start developing this presentation by sharing summaries of the MSW data they collect from facilities. The NEWMOA staff reviews the data and prepares draft figures using Microsoft Excel. The Workgroup reviews a draft of the data, figures, and text and provides comments and corrections. After the NEWMOA staff makes recommended corrections, a revised draft is shared with the NEWMOA Board of Directors and the Solid Waste Steering Committee for their review and approval prior to publication online. To prepare this material, NEWMOA followed the data quality assurance procedures in its EPA-approved [Quality Management Plan](#).

Data Caveats & Notes

This presentation focuses on the flow of MSW in the Northeast U.S., so waste imports from and exports to non-NEWMOA states and/or Canadian provinces are aggregated into the "non-NEWMOA" or "Other" category in the figures.

Workgroup members resolve discrepancies that arise once NEWMOA has compiled the MSW data. A typical discrepancy involves a situation where the waste data from transfer facilities in one state disagrees with the data from disposal facilities in another state. Unless otherwise noted below¹, the figures are based on information from the disposal facilities, since the Workgroup considers their data to be more accurate. As a result, the figures might vary from information published by individual states for two primary reasons:

- If MSW is hauled directly from the pick-up route to an out-of-state disposal facility or transfer station, the MSW does not pass through a regulated facility in the state of origin (called the generating state) and, therefore, that state does not receive a report on it. (The exception to this is New Jersey, which collects data from haulers on where waste is transported.)
- If waste is transported to an out-of-state transfer station and then to a disposal facility in a third state (referred to as "pass through" in the footnote below); the disposal facility records the MSW as imported from the transfer station state rather than the generating state.

By examining the MSW data, the Workgroup adjusts for these situations, and the figures reflect these corrections. A factor that affects the comparison of the amount of MSW disposal between states is how material that cannot be recycled by a MSW materials recovery facility (MRF) is accounted for. In some states the non-recyclable residue from these facilities is included in the MSW disposal data provided to NEWMOA and in some states it is not. This report presents the data provided by states to NEWMOA and the Workgroup does not believe the MRF residue

¹ Data Notes:

- a) 2012 disposal facility data was supplemented by data provided by CT for MA imports from CT and NY imports from CT
- b) MA imports from RI were reduced to account for 52,826 tons pass-through (MA to RI back to MA)
- c) For exports to states and provinces outside the region: 2012 data reported by the exporting state was used for MSW disposal in KY, OH and WV because it was determined to be more reliable. Imports to KY, OH, PA and WV from NJ were reduced to account for pass-through from NY (at total of 379,767 tons) – and imports to those states from NY were increased by the pass-through amounts.
- d) For New York: for some or all years prior to 2006, there might be data quality issues for in-state disposal of in-state generated MSW that might overstate disposal.

quantities significantly affect the results. However, NEWMOA's Workgroup is discussing how to address these differences in future presentations.

Observations

Since it began to publish these presentations in 2000, NEWMOA has found that all of the Northeast states export MSW to facilities in other NEWMOA states for disposal, and with the exception of Rhode Island and Vermont, disposal facilities in all of the NEWMOA states import MSW from other NEWMOA states. Other key observations about 2012 MSW flow in the Northeast include:

- Approximately 29.7 million tons of MSW was generated in the region and disposed of in 2012, a reduction of approximately 2 percent from 2010, and a reduction of 19 percent from the high of 36.6 million tons in 2002. The amount of MSW requiring disposal is affected by economic activity and trends and the availability of reuse, recycling, and composting markets and infrastructure:
 - Region-wide, 71 percent remained in the state of origin for disposal, ranging from a high of 95 percent for Maine to a low of 62 percent for New York and 63 percent for New Jersey;
 - Region-wide, 6 percent was exported from the state of origin to another state within the region for disposal, ranging from a high of 26 percent for Rhode Island to a low of 2 percent for New Jersey; and
 - Region-wide, 23 percent was exported to disposal facilities outside of the region, ranging from a high of 35 percent for New Jersey and 34 percent for New York to a low of zero for New Hampshire and Vermont.
- Region-wide, 0.7 tons per person of MSW was generated and disposed of in 2012; with the rate ranging from 0.52 tons per person for New Hampshire to 0.91 tons per person for Rhode Island.²
- Figure 4 shows a relatively steady state or general decline since 2000 in the amount of MSW generated and disposed of within the same state.
- Figure 5 shows the large year-to-year changes in waste shipment patterns that can occur. With the exception of Connecticut and Massachusetts, imports of MSW for disposal from other NEWMOA states declined between 2010 and 2012. Imports to facilities in Connecticut increased by approximately 30,000 tons (42 percent), and imports to facilities in Massachusetts increased approximately 50,000 tons (7 percent).
- Figure 6 also shows large year-to-year changes. In 2012, waste facilities in Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, and Vermont exported less MSW for disposal to facilities in other NEWMOA states than they did in 2010, while New York and Rhode Island exported more MSW to the other NEWMOA States.
- Figure 7 shows a decline in the quantity of MSW exported for disposal from each of the Northeast states to states and provinces outside of the region since 2004, as well as an overall region-wide decline from a high of approximately 10.5 million tons in 2002 to approximately 6.8 million tons in 2012 – a 35 percent reduction.

Funding awarded by EPA Region 1 provided support for this project and NEWMOA appreciates their support.

² Per capita estimates were calculated using 2010 US Census population data.

About NEWMOA

The Northeast Waste Management Officials' Association ([NEWMOA](#)) is a non-profit, non-partisan interstate association whose membership is composed of the state environmental agency directors of the hazardous waste, solid waste, waste site cleanup, emergency response, pollution prevention, and underground storage tank programs in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

NEWMOA's mission is to develop, lead, and sustain an effective partnership of states that helps achieve a clean, healthy, and sustainable environment by exploring, developing, promoting, and implementing environmentally sound solutions for:

- Reducing materials use and preventing pollution and waste;
- Properly reusing and recycling discarded materials that have value;
- Safely managing solid and hazardous wastes; and
- Remediating contaminated sites.

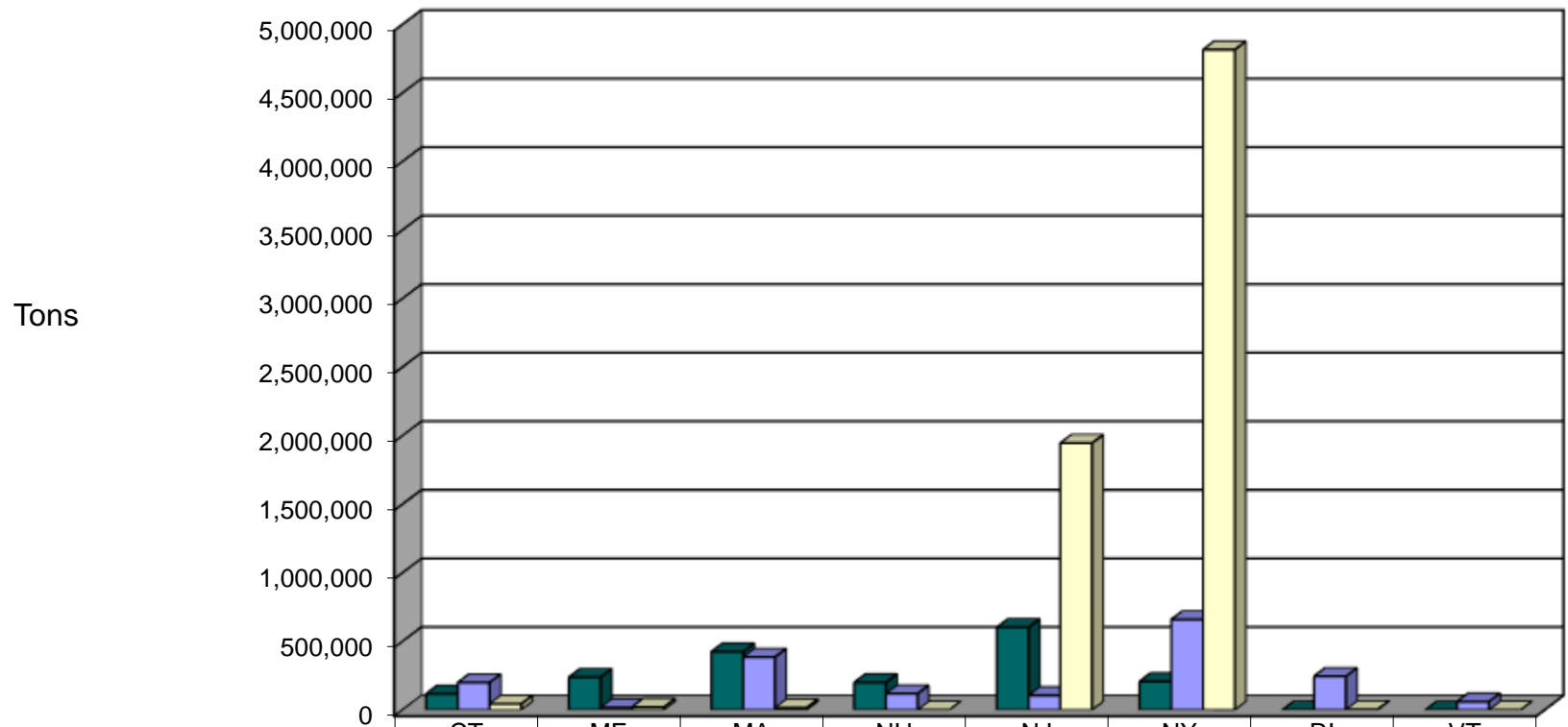
The group achieves its goals by:

- Managing and sharing information and data;
- Facilitating state and federal agency interaction;
- Providing training and assistance;
- Supporting regulatory development and program implementation; and
- Conducting research.

Disclaimer

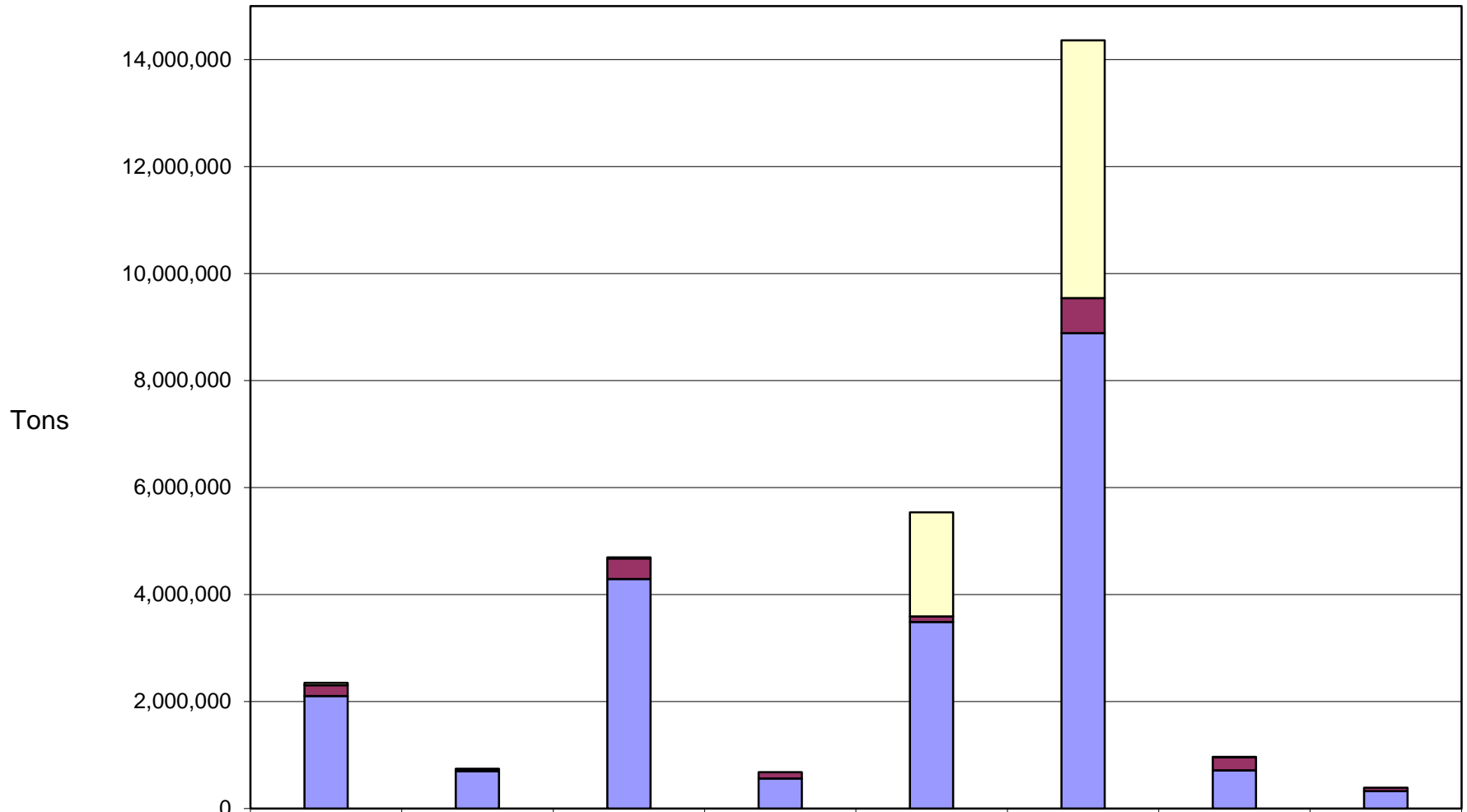
The views expressed in this presentation do not necessarily reflect those of each of the NEWMOA-member states or the U.S. Environmental Protection Agency (US EPA). Mention of any company, process, or product name should not be considered an endorsement by NEWMOA, NEWMOA-member states, or the U.S. EPA.

Figure 1: 2012 MSW Imports & Exports for Disposal (Tons)



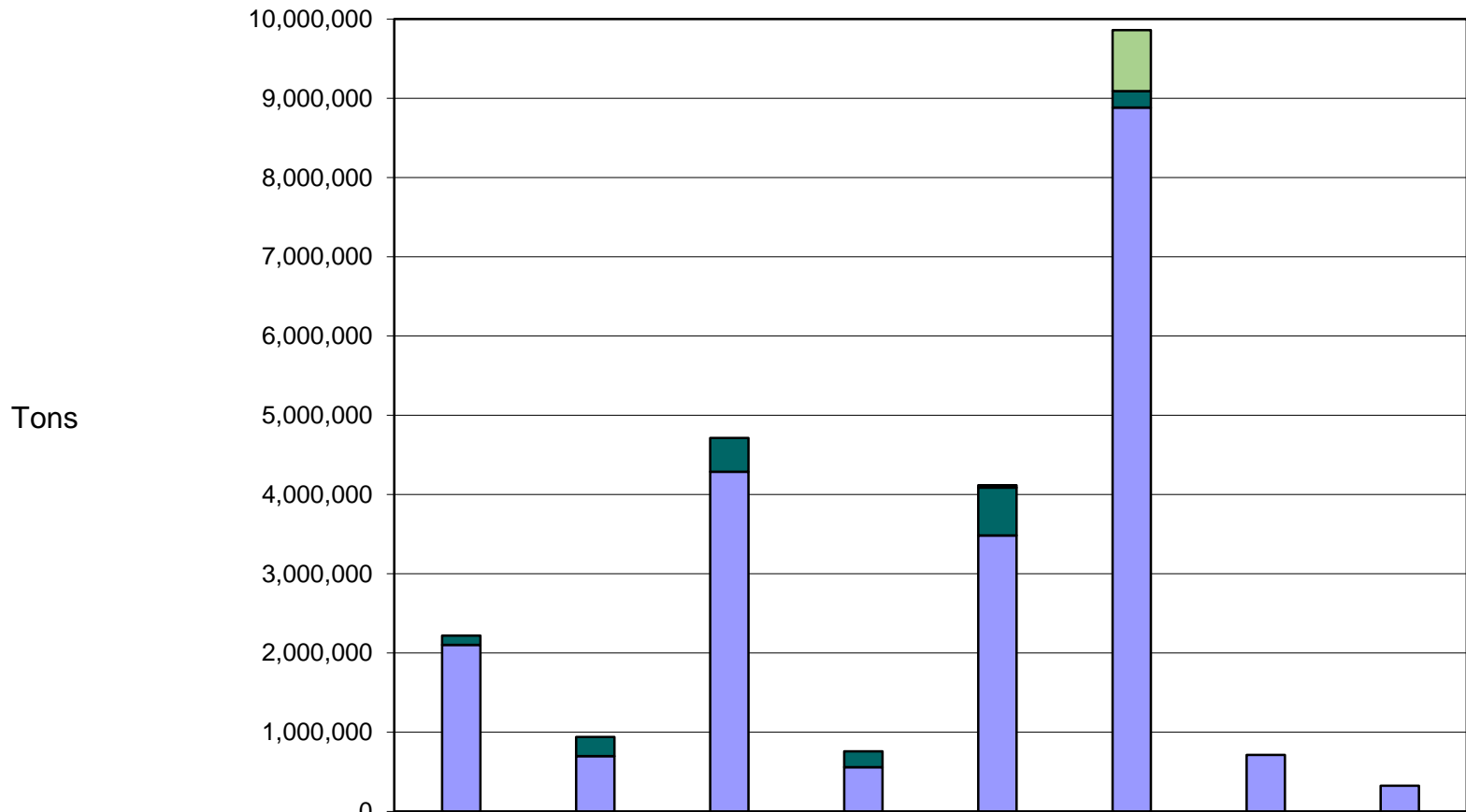
	CT	ME	MA	NH	NJ	NY	RI	VT
■ Imports from NEWMOA States	116,985	238,312	424,638	200,472	603,073	208,007	0	0
■ Exports to NEWMOA States	199,399	18,220	385,512	118,989	106,086	659,073	245,250	60,161
■ Exports to Non-NEWMOA States & Provinces	44,438	21,629	16,067	0	1,945,544	4,815,829	3,558	0

Figure 2: 2012 MSW Generated by State & Disposed (Tons)



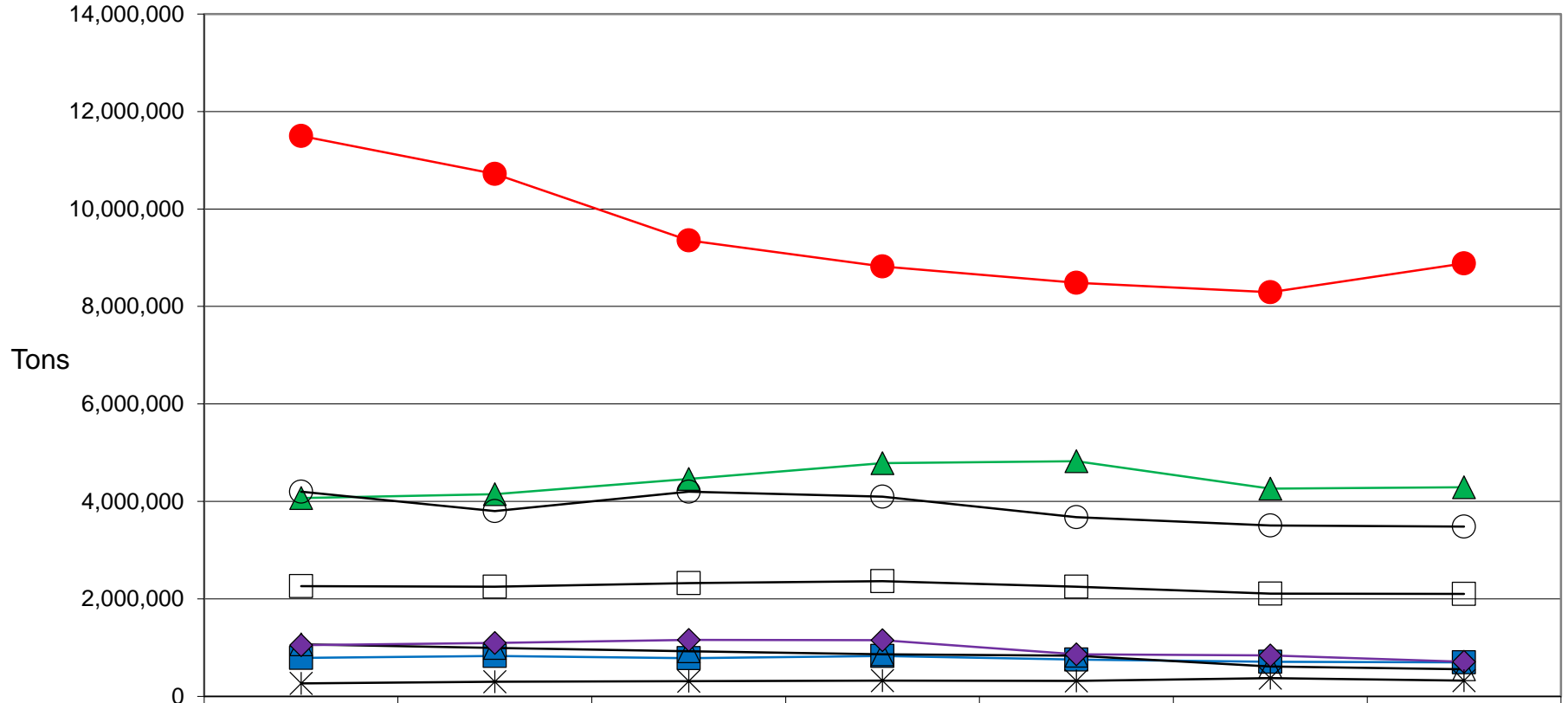
	CT	ME	MA	NH	NJ	NY	RI	VT
Exports to Non-NEWMOA	44,438	21,629	16,067	-	1,945,544	4,815,829	3,558	0
Exports to NEWMOA States	199,399	18,220	385,512	118,989	106,086	659,073	245,250	60,161
Disposed In-state	2,103,750	699,986	4,289,036	559,348	3,484,107	8,882,858	713,263	325,460

Figure 3: 2012 Total Quantity of MSW Disposed of In-State (Tons)



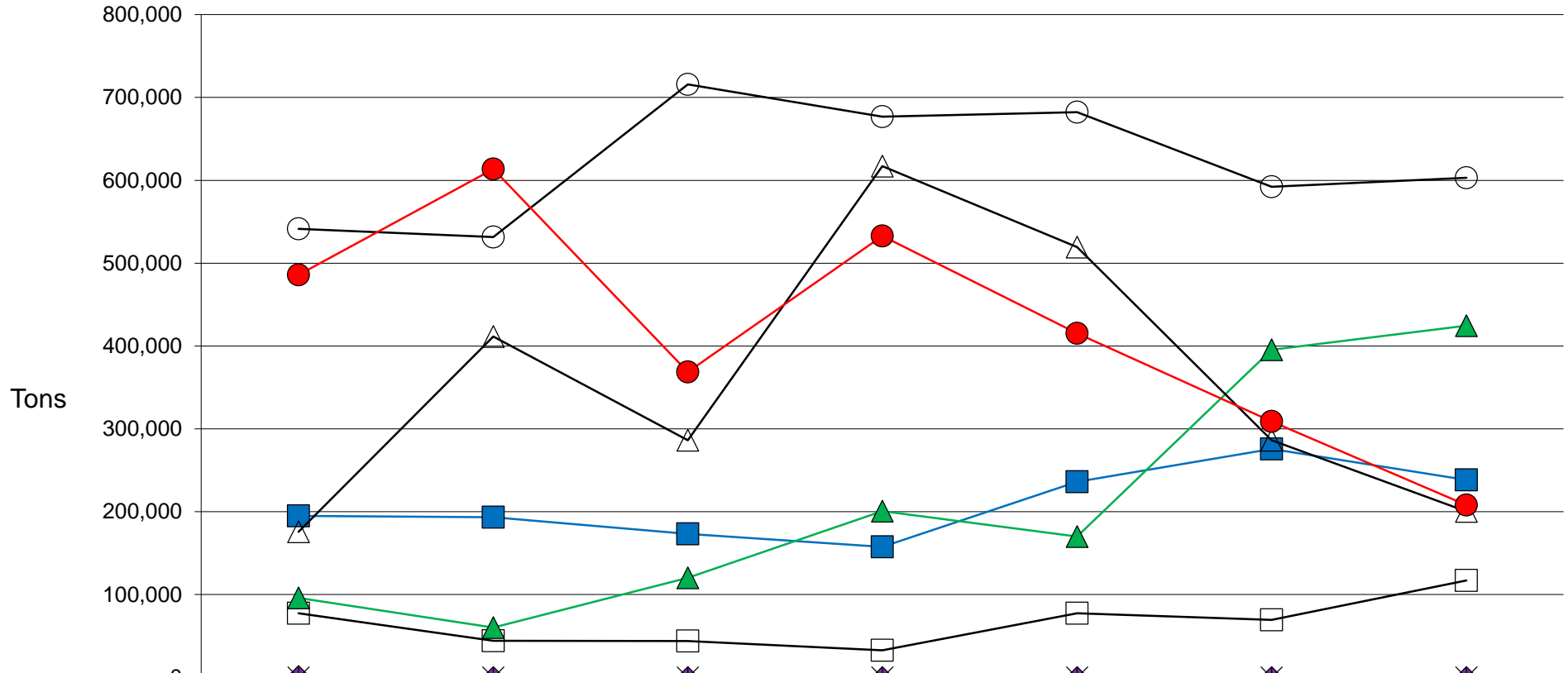
	CT	ME	MA	NH	NJ	NY	RI	VT
Imports from Non-NEWMOA States	0	0	0	0	28,672	770,553	0	0
Imports from NEWMOA States	116,985	238,312	424,638	200,472	603,073	208,007	0	0
In-state Generated Waste	2,103,750	699,986	4,289,036	559,348	3,484,107	8,882,858	713,263	325,460

Figure 4: In-State Disposal of MSW Generated In-State: 2000 through 2012 (Tons)



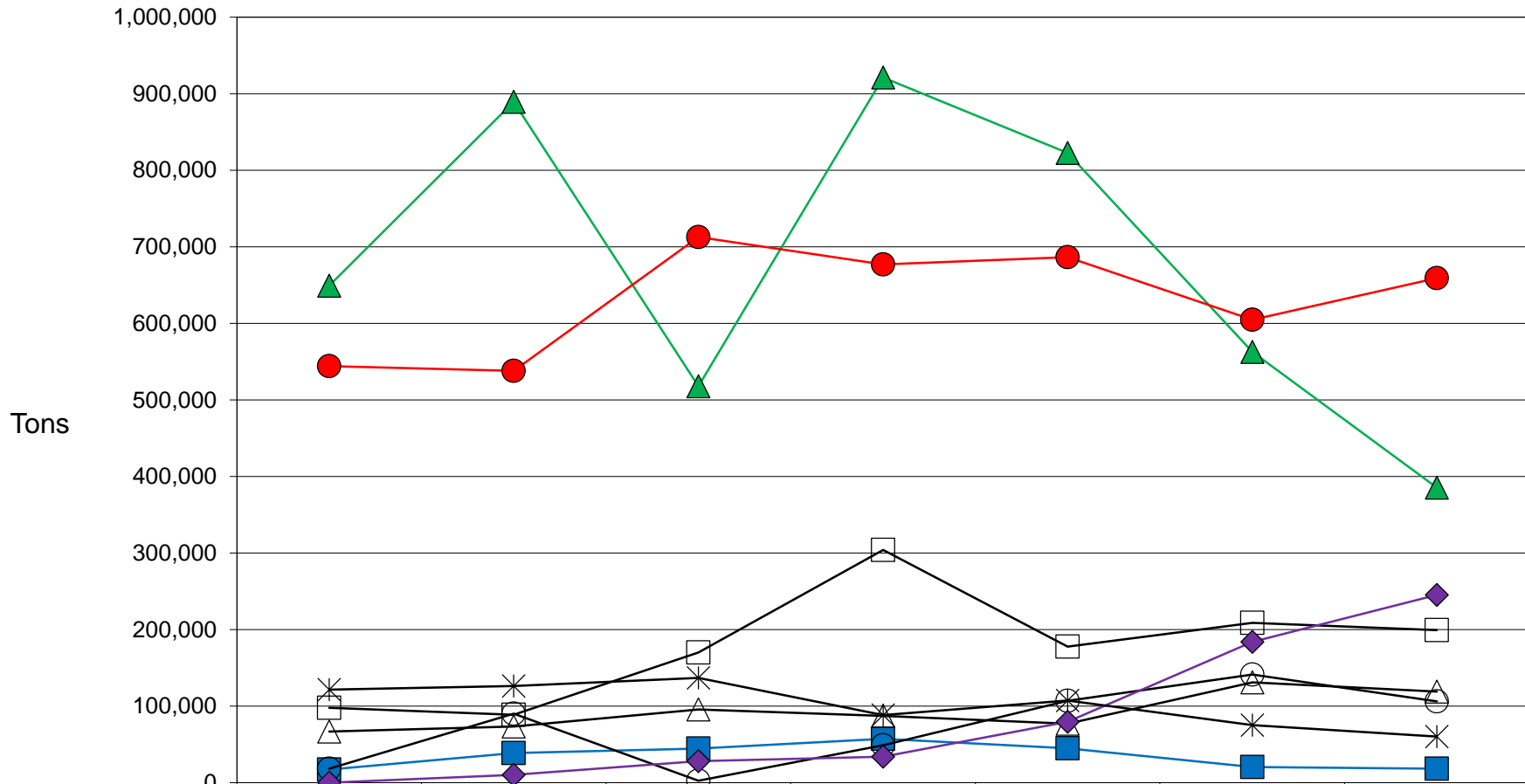
	2000	2002	2004	2006	2008	2010	2012
□ CT	2,262,487	2,253,755	2,327,500	2,367,467	2,251,048	2,108,857	2,103,750
■ ME	792,047	829,409	787,617	830,497	755,086	713,677	699,986
▲ MA	4,069,137	4,147,413	4,459,730	4,785,491	4,823,591	4,262,599	4,289,036
△ NH	1,067,926	998,000	926,018	866,020	838,589	617,068	559,348
○ NJ	4,200,000	3,800,000	4,200,000	4,100,000	3,675,821	3,507,127	3,484,107
● NY	11,495,198	10,719,418	9,354,935	8,822,340	8,483,761	8,294,539	8,882,858
◆ RI	1,054,290	1,097,452	1,158,991	1,153,080	866,084	844,124	713,263
* VT	265,850	301,971	313,412	326,333	319,425	374,576	325,460

**Figure 5: MSW Imports from NEWMOA States: 2000 through 2012
(Tons)**



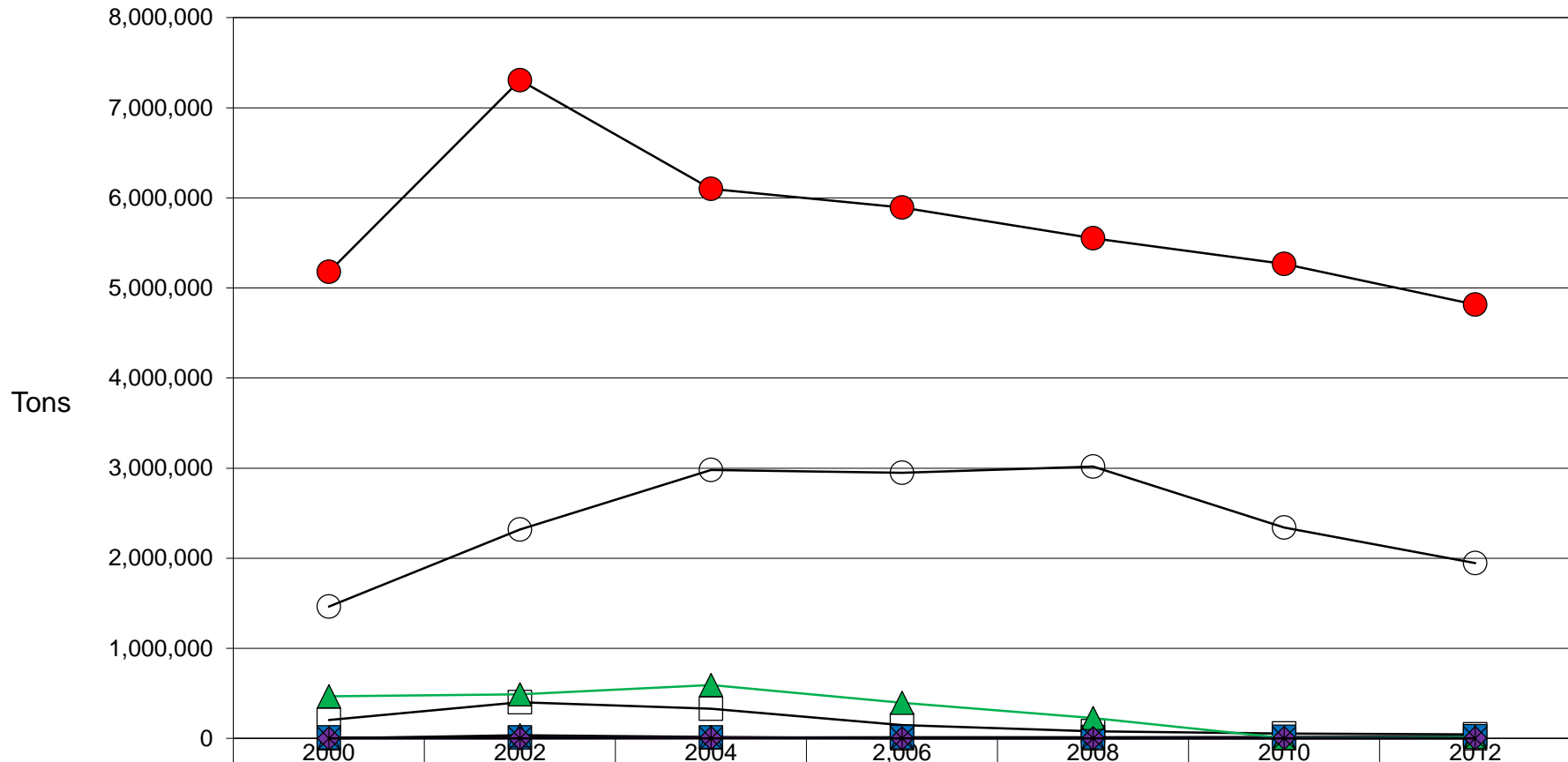
	2000	2002	2004	2006	2008	2010	2012
□ CT	77,510	44,200	44,068	32,930	77,334	69,455	116,985
■ ME	195,108	193,338	173,402	157,607	236,102	275,755	238,312
▲ MA	95,883	60,384	120,367	200,613	170,122	395,630	424,638
△ NH	175,974	411,450	286,199	617,204	519,541	286,187	200,472
○ NJ	541,291	531,568	715,835	676,879	682,256	592,051	603,073
● NY	485,802	613,678	368,535	532,689	415,326	308,999	208,007
◆ RI	1,028	0	0	0	0	0	0
* VT	0	0	0	0	0	0	0

**Figure 6: MSW Exports to NEWMOA States: 2000 through 2012
(Tons)**



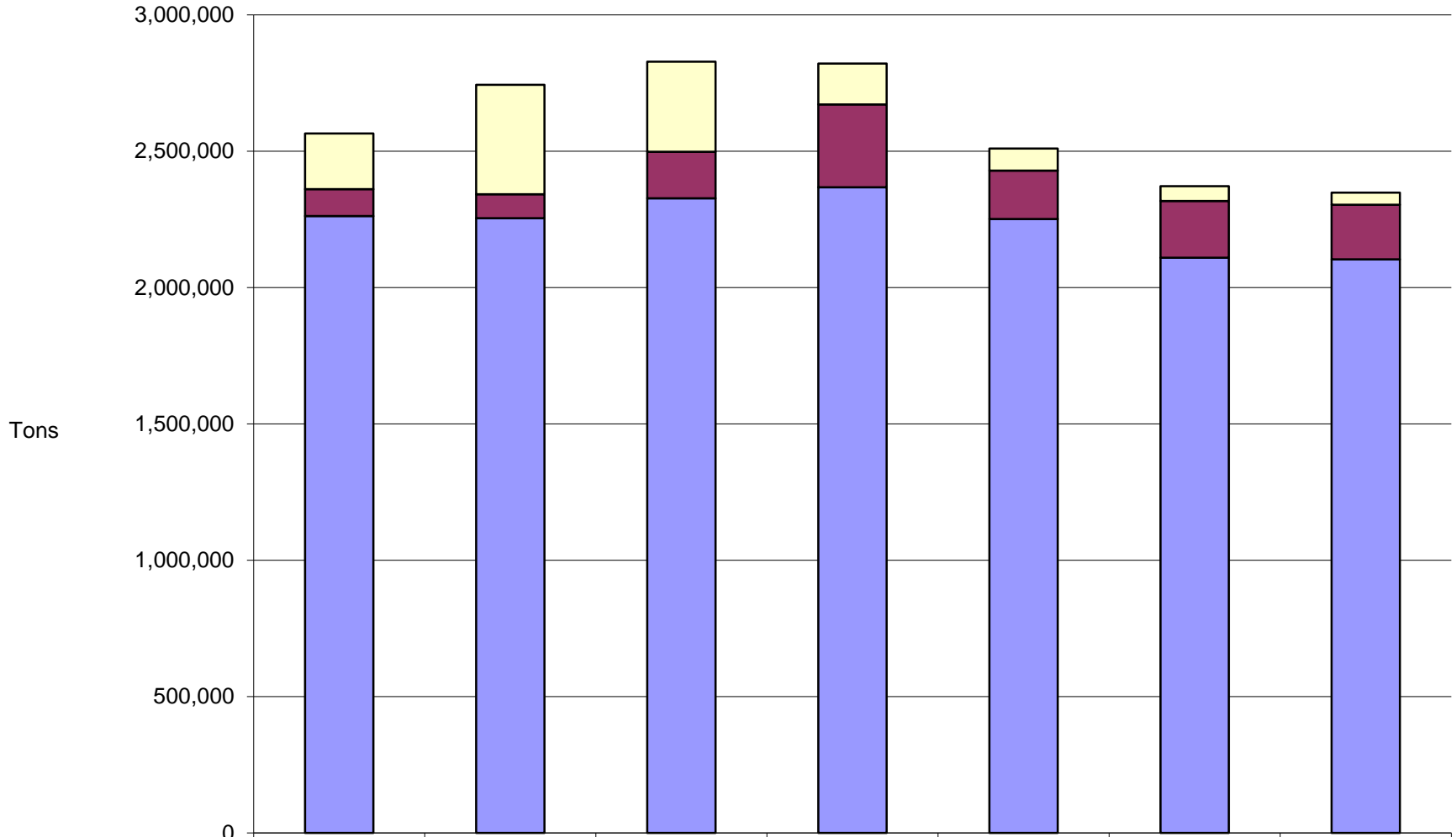
	2000	2002	2004	2,006	2008	2010	2012
□ CT	97,788	88,633	169,963	303,970	177,752	208,927	199,399
■ ME	17,057	38,643	44,346	57,142	45,025	20,375	18,220
▲ MA	649,476	889,635	517,812	921,115	822,837	562,658	385,512
△ NH	66,688	73,404	95,756	87,344	77,125	130,960	118,989
○ NJ	18,312	90,008	2,414	48,866	106,930	141,413	106,086
● NY	544,181	537,838	712,979	677,051	686,707	604,663	659,073
◆ RI	0	10,101	28,266	34,061	79,562	183,996	245,250
* VT	121,546	126,256	136,870	88,373	107,337	75,085	60,161

Figure 7: MSW Exports to Non-NEWMOA States & Provinces 2000 through 2012 (Tons)



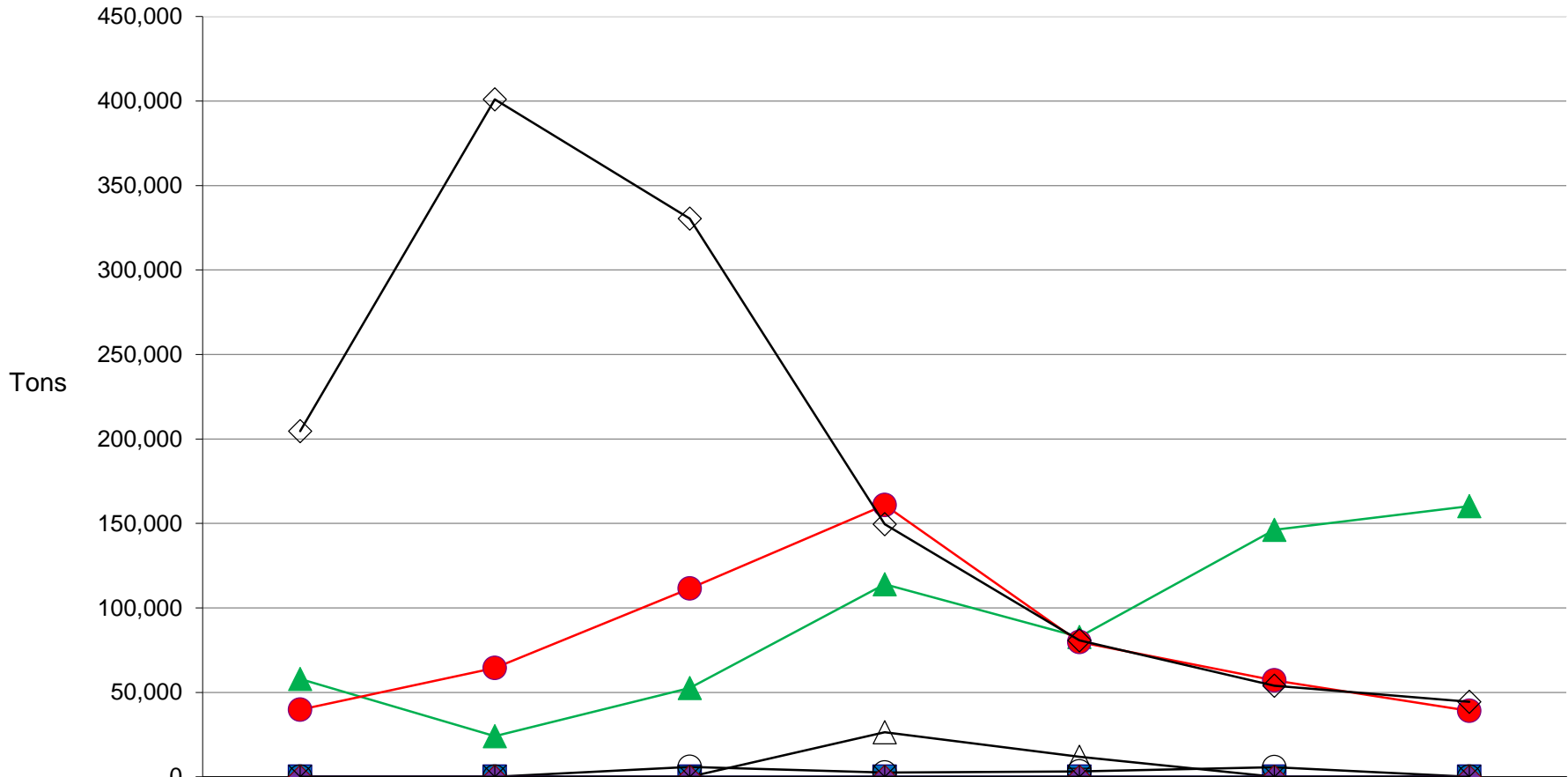
	2000	2002	2004	2006	2008	2010	2012
□ CT	204,701	401,024	330,431	149,485	80,726	53,983	44,438
■ ME	11,568	11,225	11,069	13,958	13,054	17,224	21,629
▲ MA	468,895	490,772	592,953	394,798	225,496	5,499	16,067
△ NH	0	36,609	17,322	0	0	0	0
○ NJ	1,462,761	2,320,195	2,978,768	2,947,913	3,017,298	2,340,148	1,945,544
● NY	5,180,000	7,306,122	6,099,291	5,893,420	5,552,650	5,266,639	4,815,829
◆ RI	0	0	3,558	0	1,489	2,960	3,558
* VT	0	0	0	0	0	0	0

**Figure 8: MSW Generated in Connecticut & Disposed of: 2000 through 2012
(Tons)**



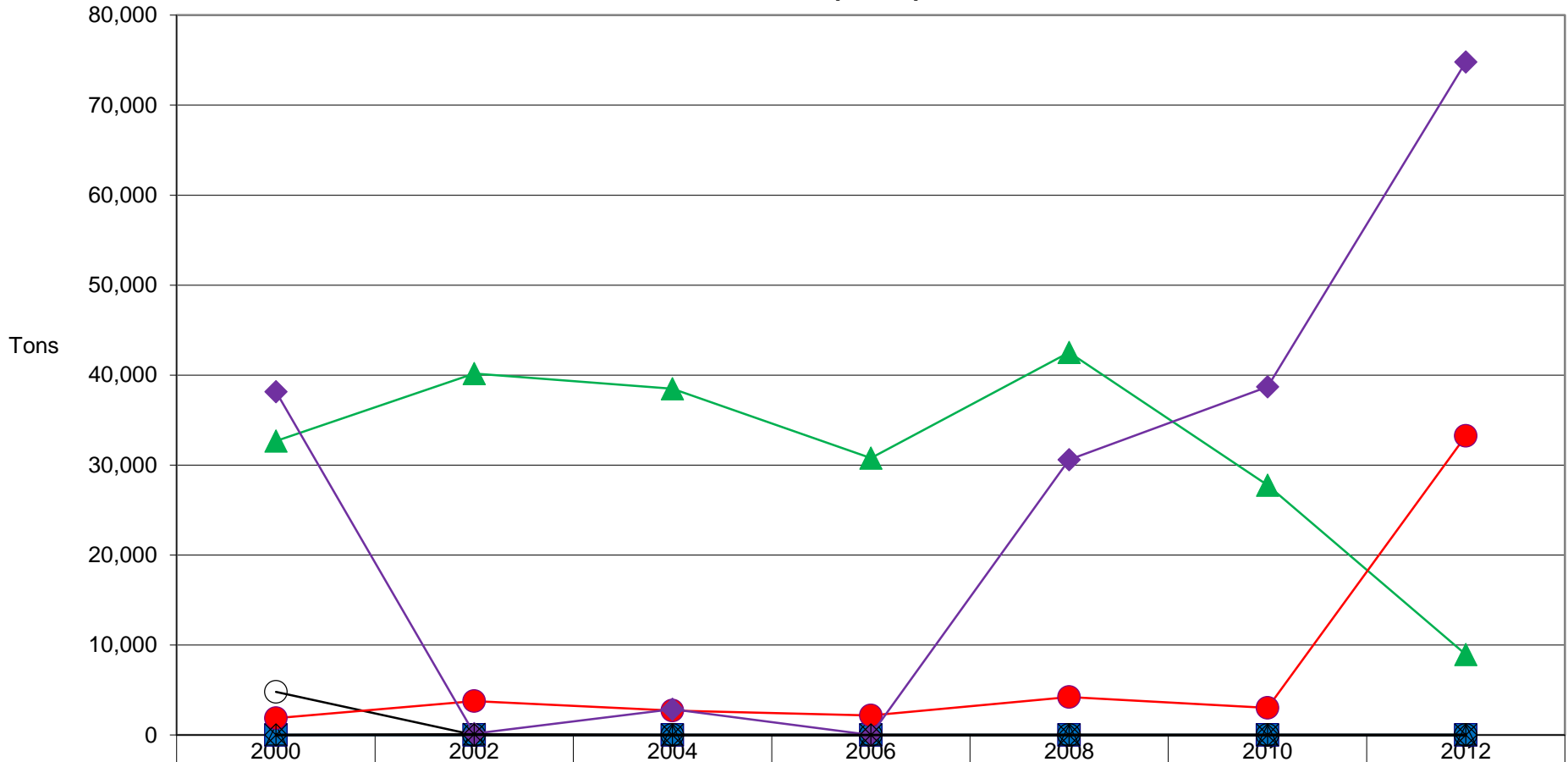
	2000	2002	2004	2006	2008	2010	2012
Exported to Non-NEWMOA	204,701	401,024	330,431	149,485	80,726	53,983	44,438
Exported to NEWMOA	97,788	88,633	169,963	303,970	177,752	208,927	199,399
Disposed In State	2,262,487	2,253,756	2,327,500	2,367,467	2,251,048	2,108,857	2,103,750

**Figure 9: MSW Exports from Connecticut: 2000 through 2012
(Tons)**



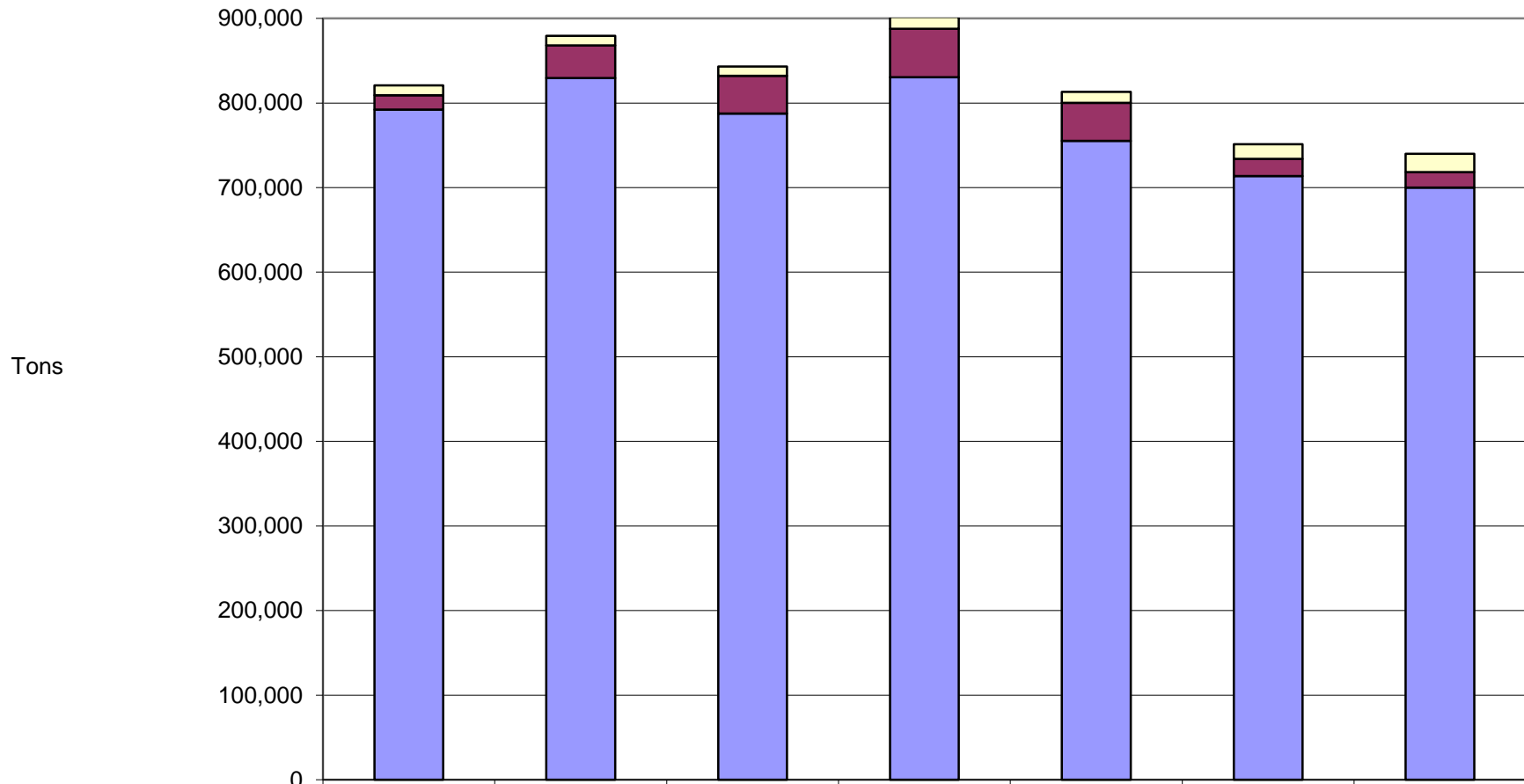
	2000	2002	2004	2006	2008	2010	2012
ME	0	0	0	0	0	0	0
MA	58,019	24,155	52,680	113,980	82,861	146,190	160,299
NH	77	0	0	26,474	11,845	0	0
NJ	0	7	5,804	2,571	3,213	5,671	87
NY	39,685	64,471	111,479	160,945	79,833	57,066	39,013
RI	7	0	0	0	0	0	0
VT	0	0	0	0	0	0	0
Other	204,701	401,024	330,431	149,485	80,726	53,983	44,438

**Figure 10: MSW Imports to Connecticut: 1999 through 2012
(Tons)**



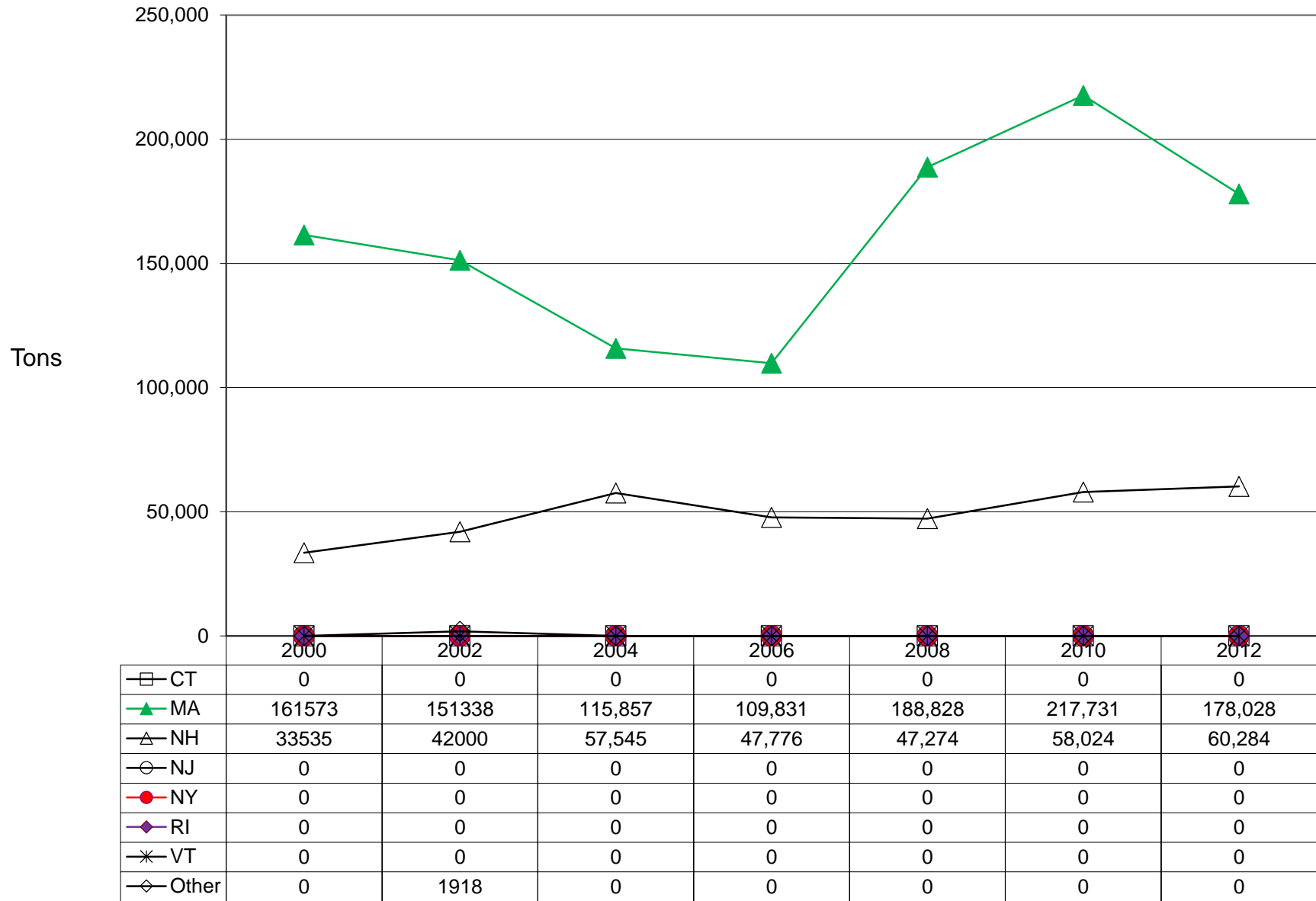
■ ME	0	0	0	0	0	0	0	0
▲ MA	32,682	40,168	38,479	30,767	42,517	27,756	8,956	
△ NH	0	0	0	0	0	0	0	
○ NJ	4,795	8	0	0	0	0	0	
● NY	1,881	3,760	2,712	2,163	4,219	3,008	33,233	
◆ RI	38,151	167	2,877	0	30,598	38,691	74,796	
* VT	0	97	0	0	0	0	0	
◇ Other	0	0	5	3	0	0	0	

**Figure 11: MSW Generated in Maine & Disposed of: 2000 through 2012
(Tons)**

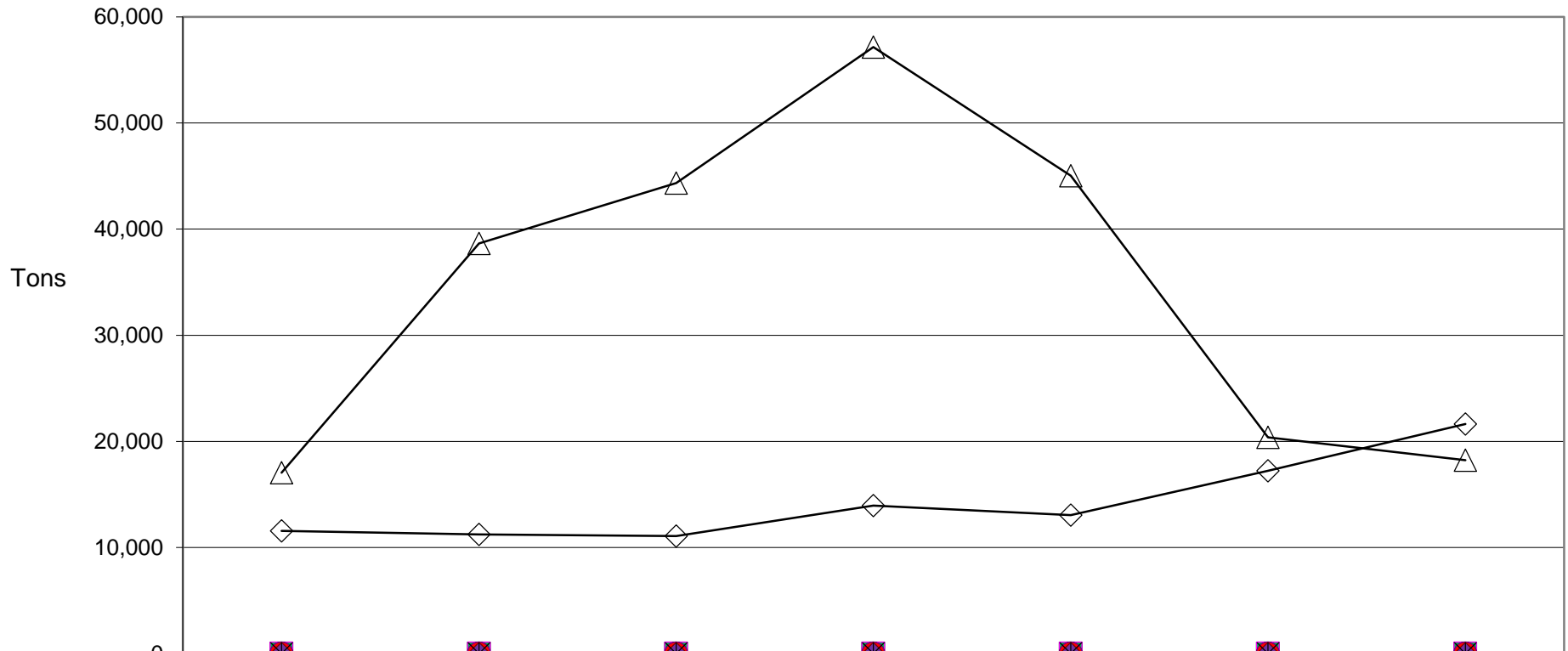


	2000	2002	2004	2006	2008	2010	2012
Exported to Non-NEWMOA	11,568	11,225	11,069	13,958	13,054	17224	21,629
Exported to NEWMOA	17,057	38,643	44,346	57,142	45,025	20375	18,220
Disposed In State	792,047	829,409	787,617	830,497	755,086	713677	699,986

**Figure 12: MSW Imports to Maine: 2000 through 2012
(Tons)**

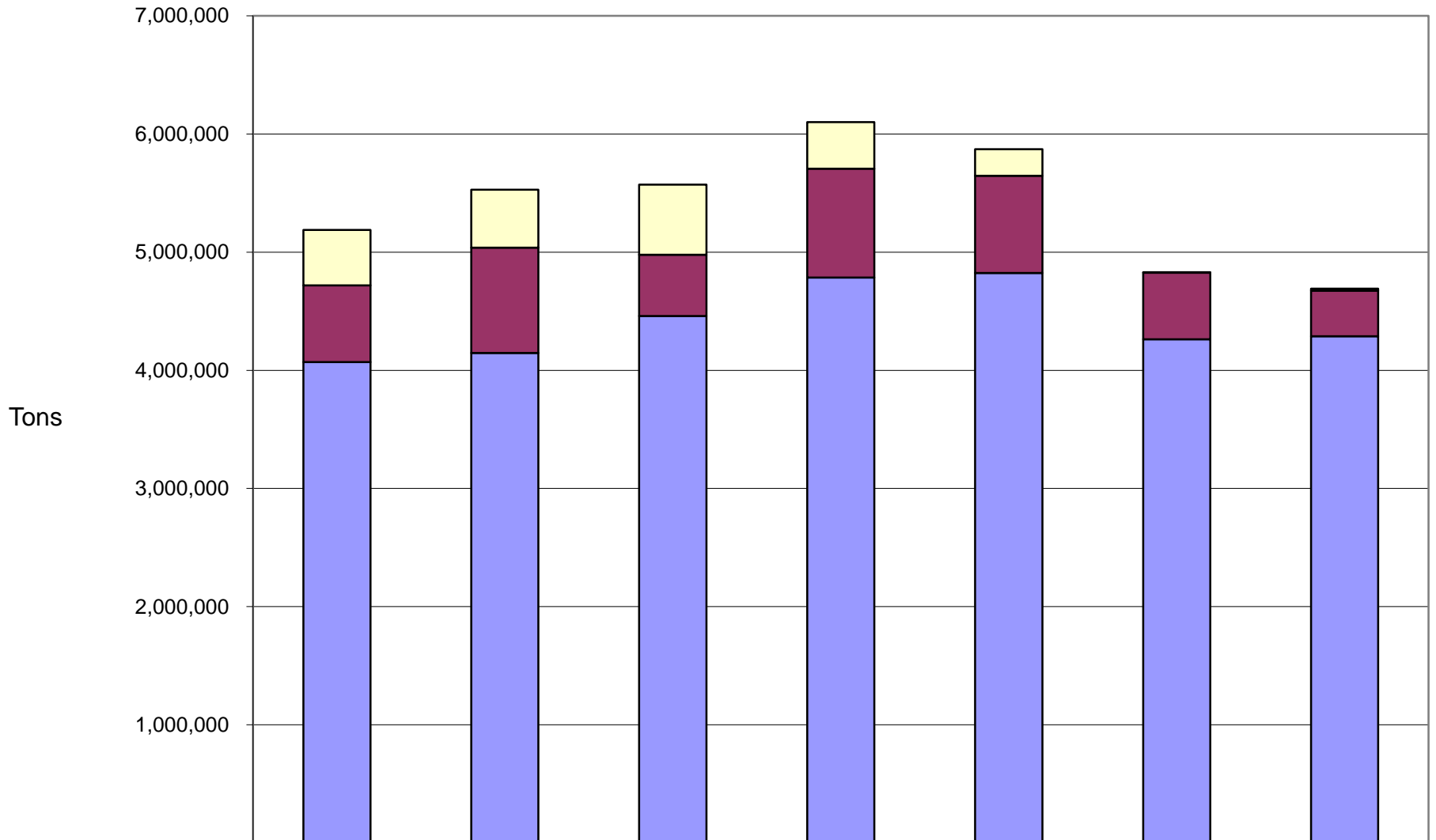


**Figure 13: MSW Exports from Maine: 2000 through 2012
(Tons)**



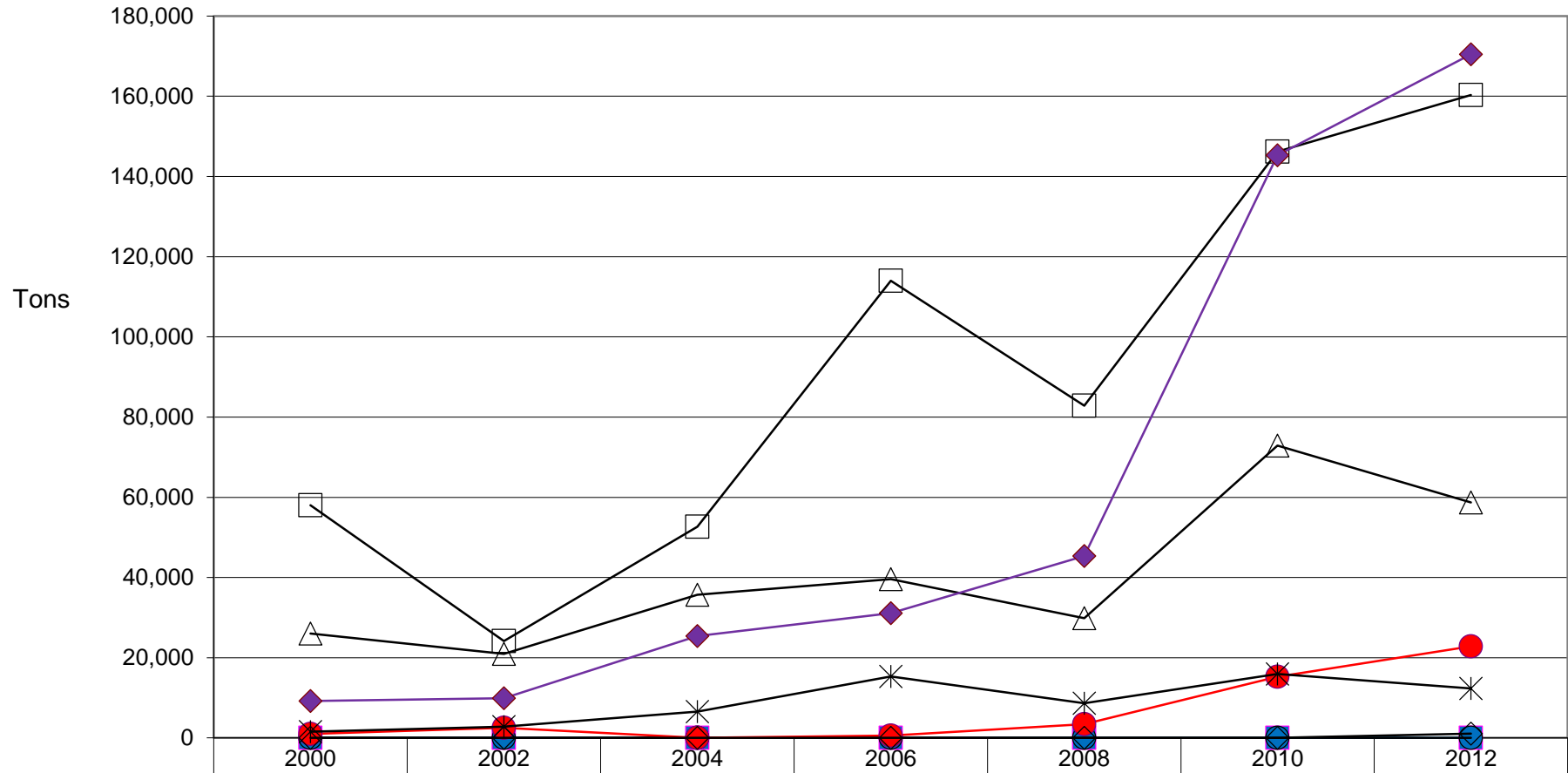
	2000	2002	2004	2006	2008	2010	2012
□ CT	0	0	0	0	0	0	0
■ MA	0	0	0	0	0	0	0
△ NH	17,057	38,643	44,346	57,142	45,025	20,375	18,220
○ NJ	0	0	0	0	0	0	0
● NY	0	0	0	0	0	0	0
◆ RI	0	0	0	0	0	0	0
* VT	0	0	0	0	0	0	0
◇ Other	11,567	11,224	11,069	13,958	13,054	17,224	21,629

Figure 14: MSW Generated in Massachusetts & Disposed of: 2000 through 2012 (Tons)



	2000	2002	2004	2006	2008	2010	2012
Exported to Non-NEWMOA	468,895	490,772	592,953	394,798	225,496	5499	16,067
Exported to NEWMOA	649,476	889,635	517,812	921,115	822,837	562658	385,512
Disposed In State	4,069,137	4,147,413	4,459,730	4,785,491	4,823,591	4262599	4,289,036

**Figure 15: MSW Imports to Massachusetts: 2000 through 2012
(Tons)**



□	CT	58,019	24,155	52,680	113,980	82,861	146,190	160,299
■	ME	0	0	0	0	0	0	0
△	NH	26,047	20,952	35,705	39,568	29,851	72,920	58,705
○	NJ	0	0	0	0	0	0	0
●	NY	1,009	2,517	41	580	3,445	15,275	22,854
◆	RI	9,231	9,934	25,389	31,127	45,333	145,301	170,454
*	VT	1,576	2,826	6,552	15,358	8,632	15,944	12,326
◇	Other	0	0	0	0	0	0	1,094

**Figure 16: MSW Exports from Massachusetts: 2000 through 2012
(Tons)**

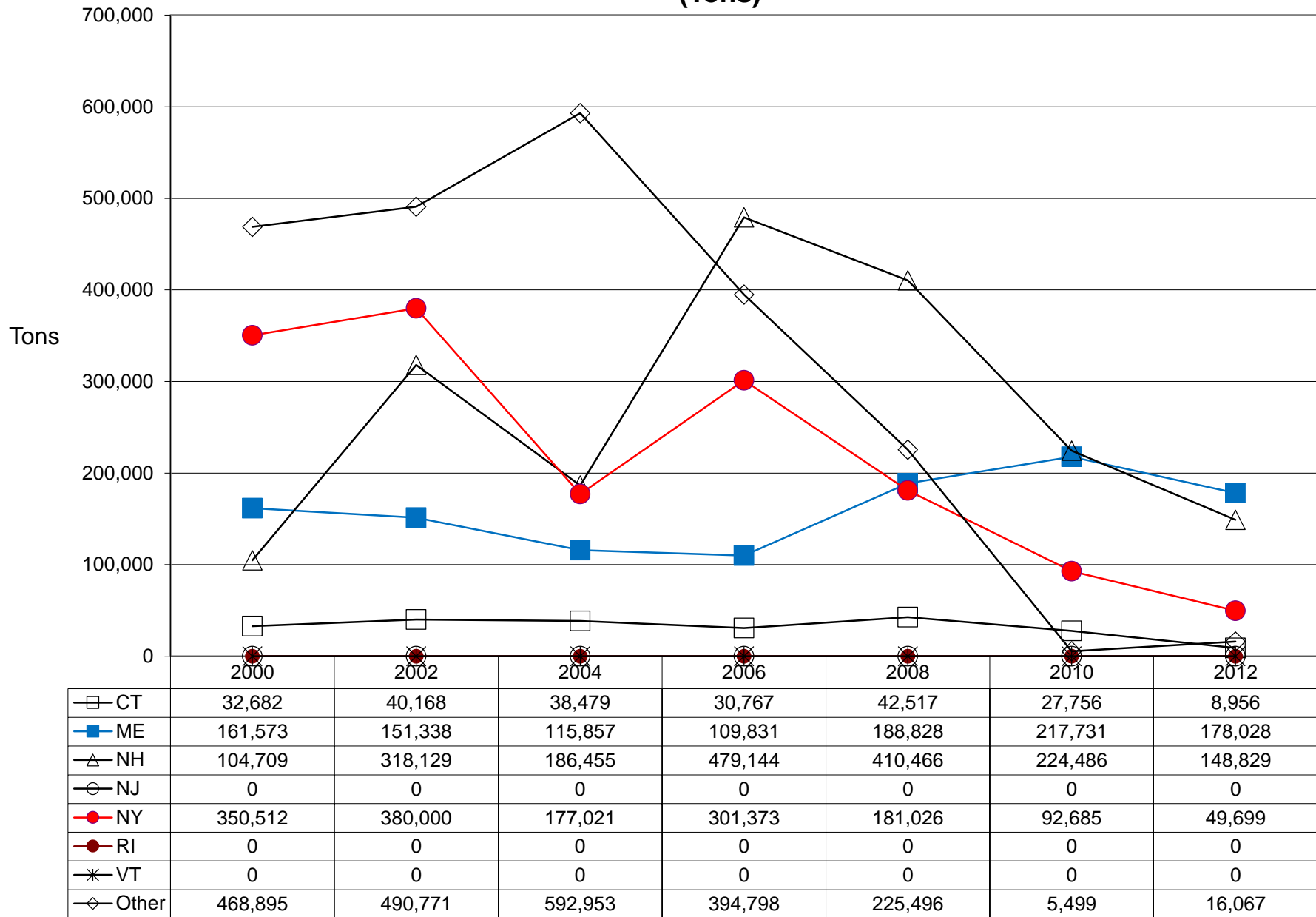
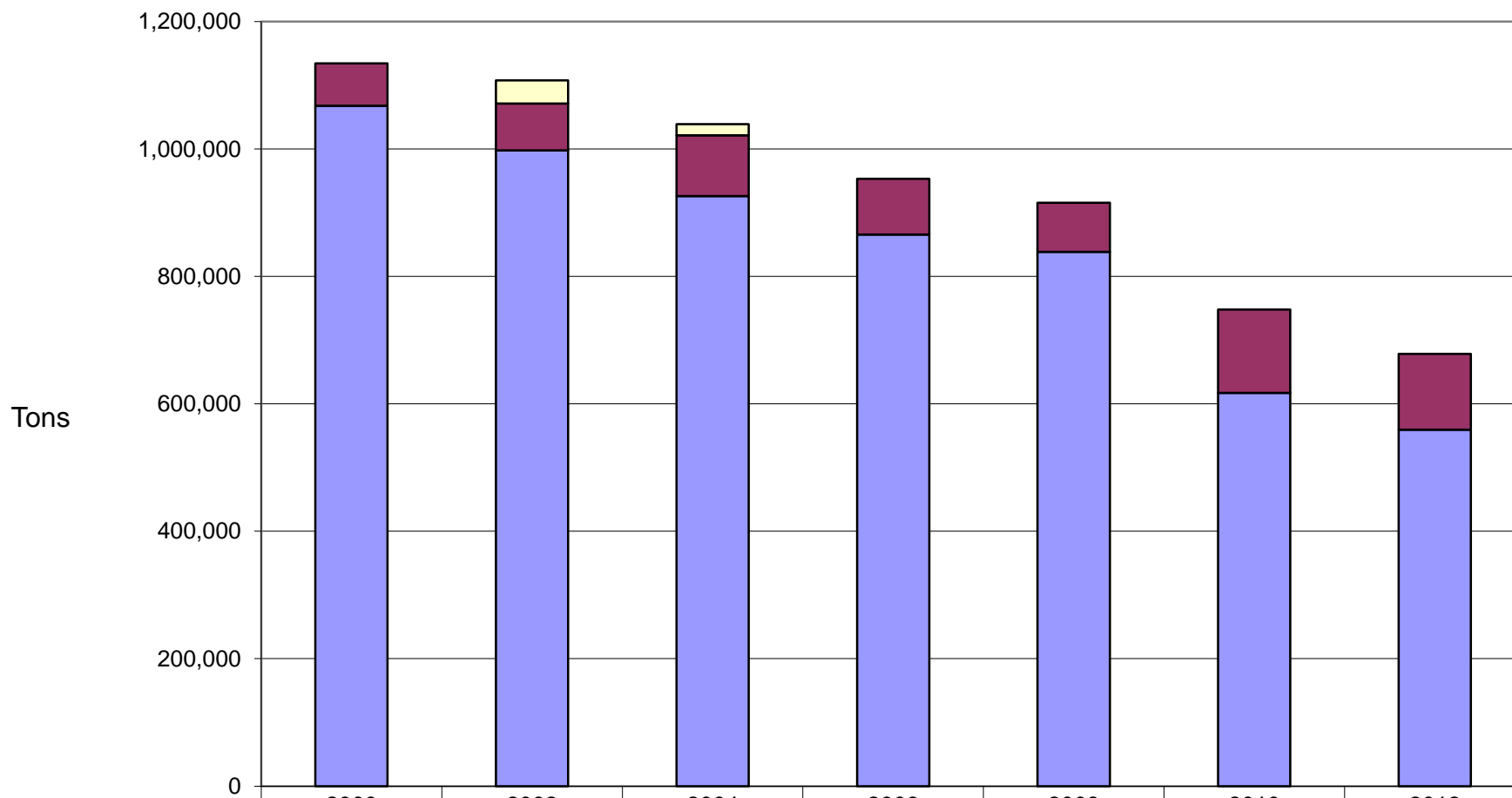
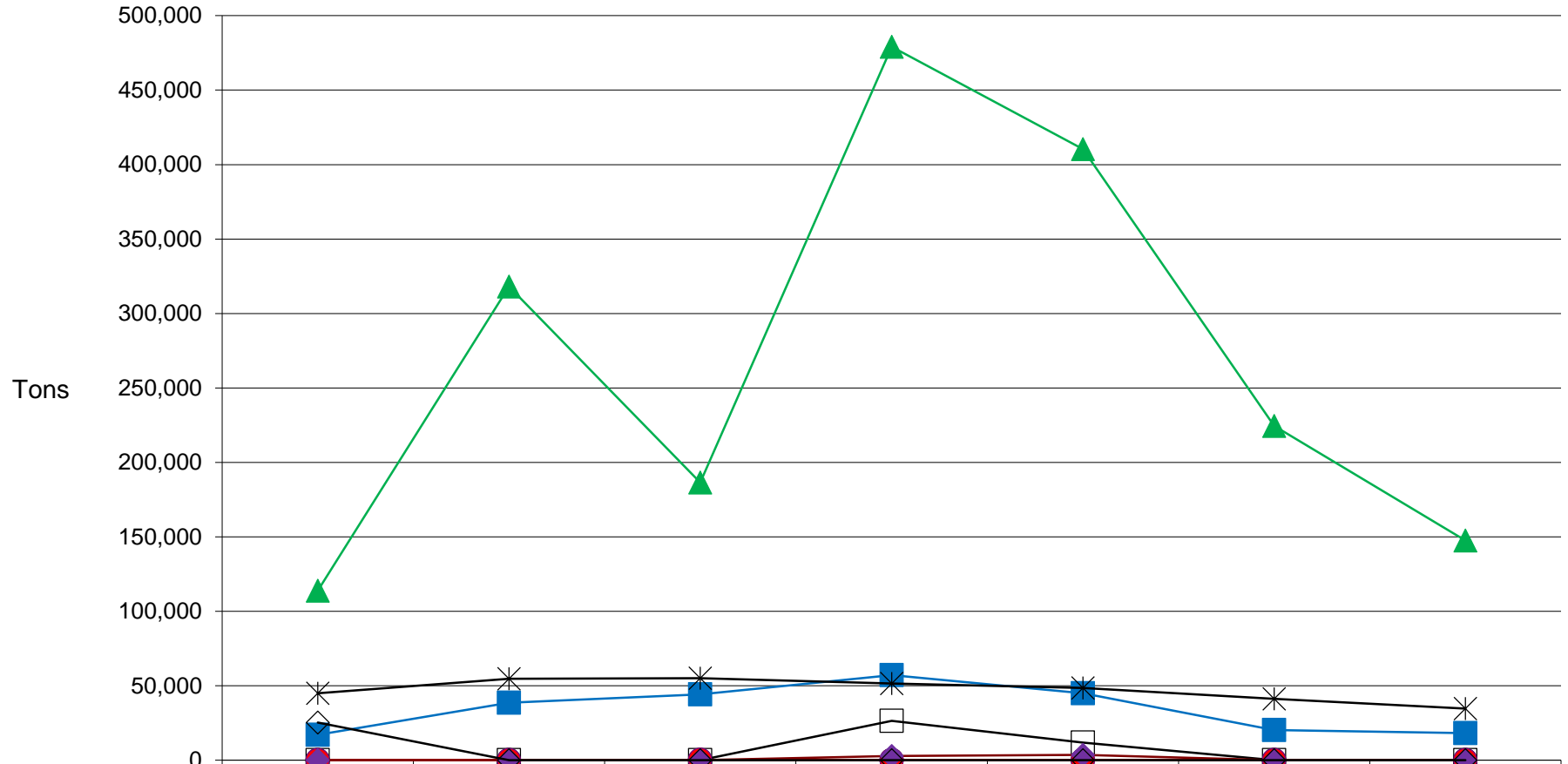


Figure 17: MSW Generated in New Hampshire & Disposed of: 2000 through 2012 (Tons)



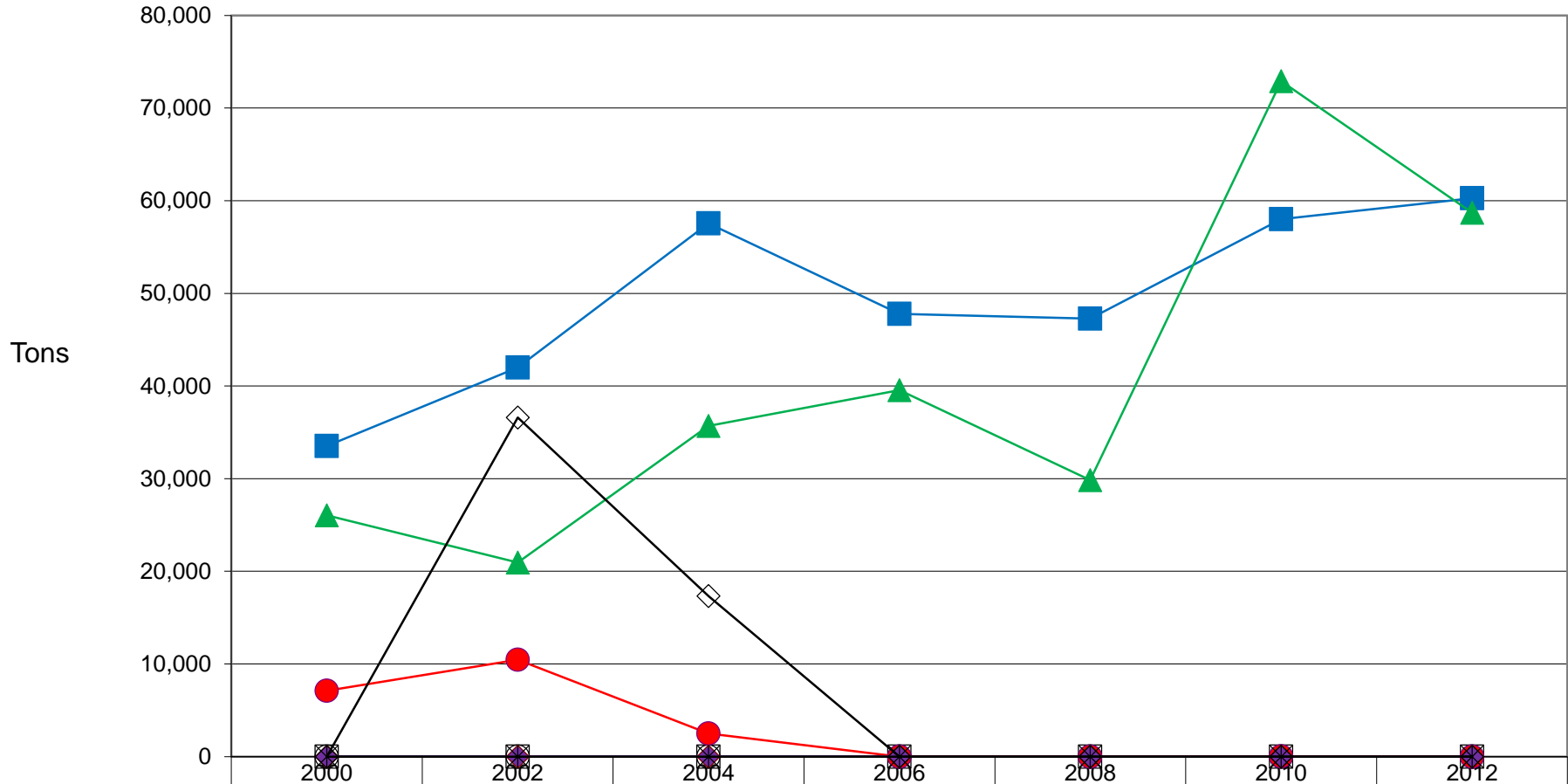
	2000	2002	2004	2006	2008	2010	2012
Exported to Non-NEWMOA	0	36,609	17,322	0	0	0	0
Exported to NEWMOA	66,688	73,404	95,756	87,344	77,125	130,960	118,989
Disposed In State	1,067,926	998,000	926,018	866,020	838,589	617,068	559,348

**Figure 18: MSW Imports to New Hampshire: 2000 through 2012
(Tons)**



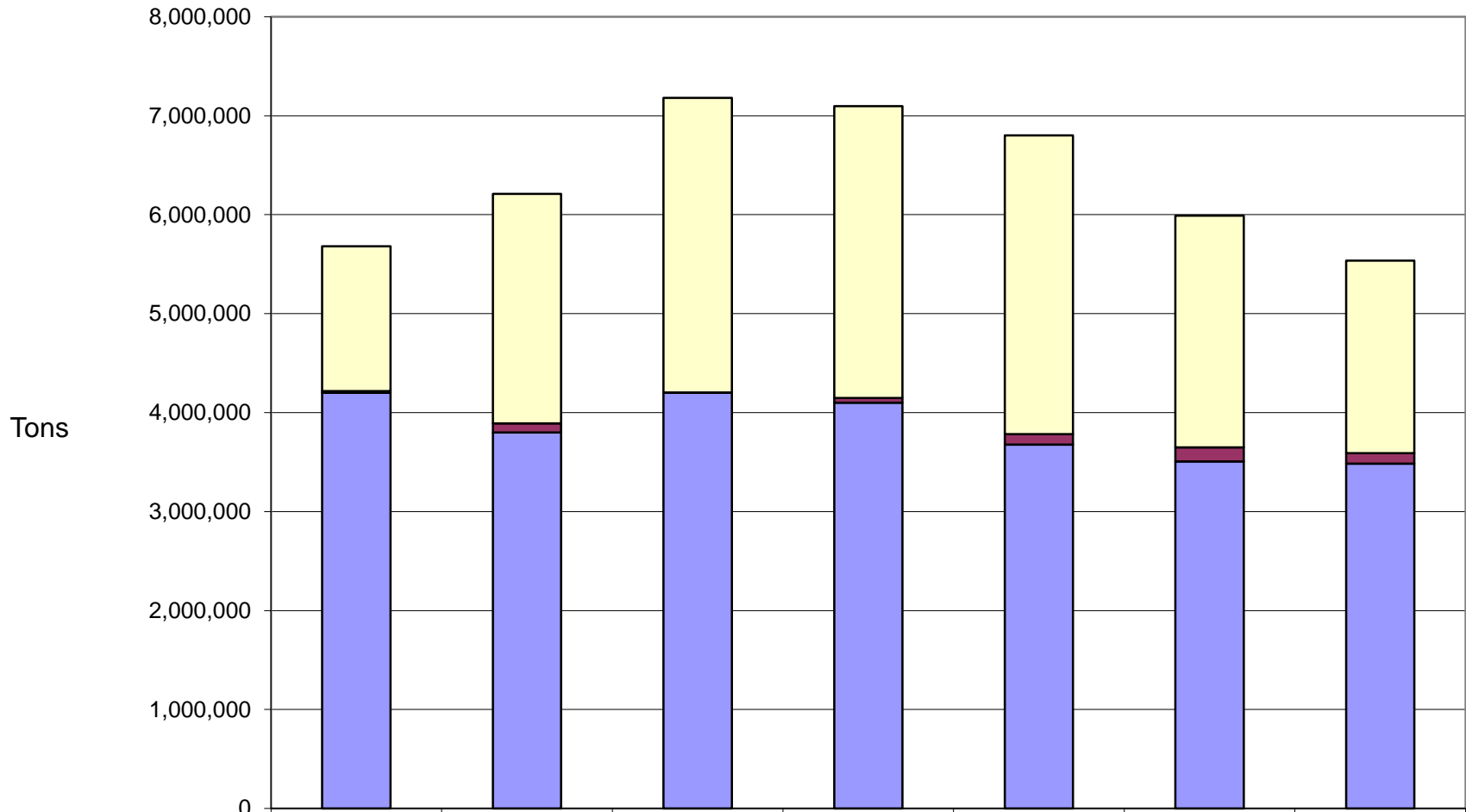
□ CT	77	0	0	26,474	11,845	0	0
■ ME	17,057	38,643	44,346	57,142	45,025	20,375	18,220
▲ MA	113,852	318,129	186,455	479,144	410,466	224,486	147,626
○ NJ	0	0	0	0	0	0	0
● NY	0	0	195	0	0	0	0
◆ RI	0	0	0	2,934	3,631	4	0
* VT	44,988	54,678	55,203	51,510	48,574	41,322	34,626
◇ Other	25,424	0	0	0	0	124	0

**Figure 19: MSW Exports from New Hampshire: 2000 through 2012
(Tons)**



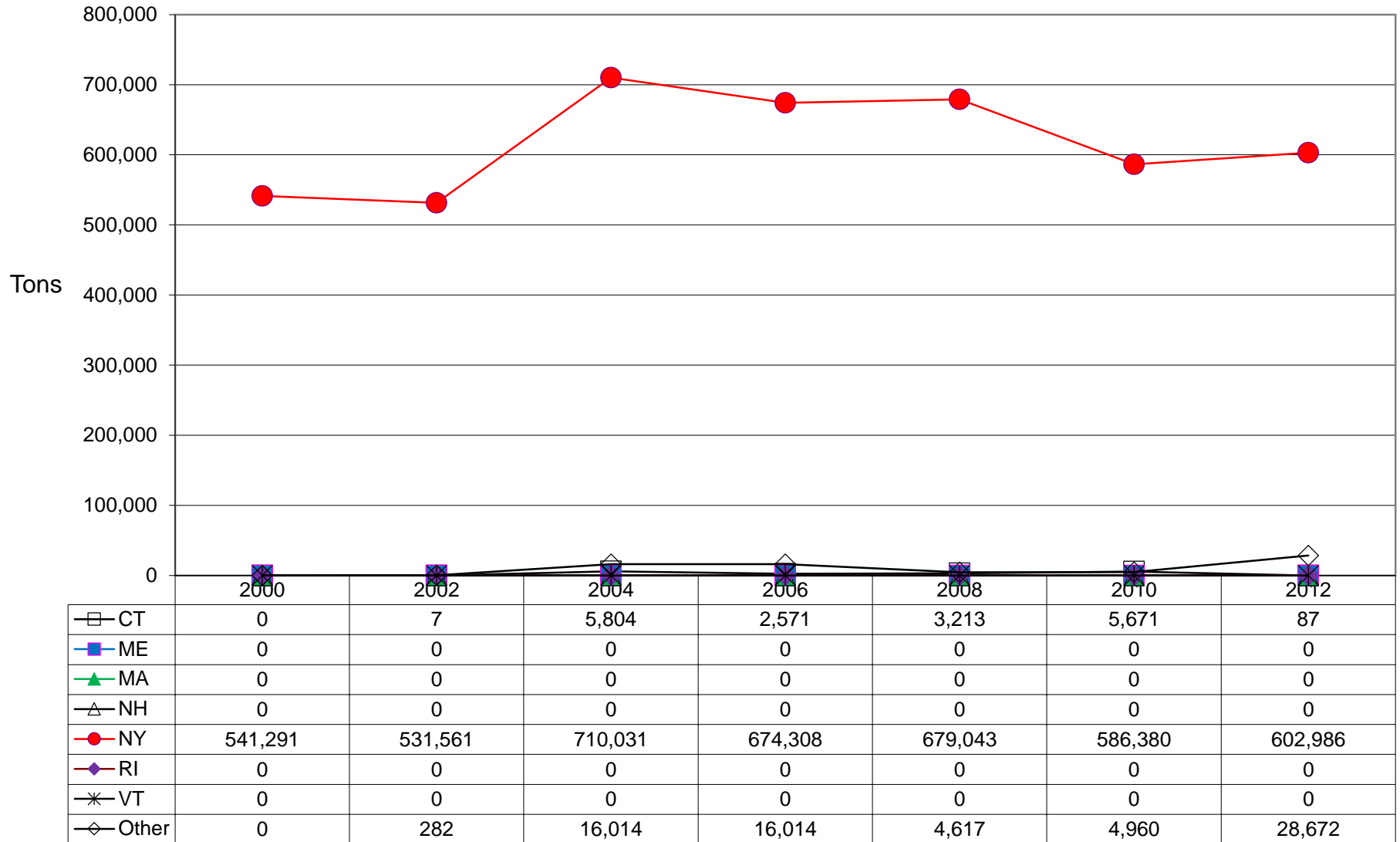
	2000	2002	2004	2006	2008	2010	2012
—□— CT	0	0	0	0	0	0	0
—■— ME	33,534	42,000	57,545	47,776	47,274	58,024	60,284
—▲— MA	26,047	20,952	35,705	39,568	29,851	72,920	58,705
—○— NJ	0	0	0	0	0	0	0
—●— NY	7,106	10,452	2,506	0	0	16	0
—◆— RI	0	0	0	0	0	0	0
—✱— VT	0	0	0	0	0	0	0
—◇— Other	0	36,608	17,322	0	0	0	0

Figure 20: MSW Generated in New Jersey & Disposed of: 2000 through 2012 (Tons)

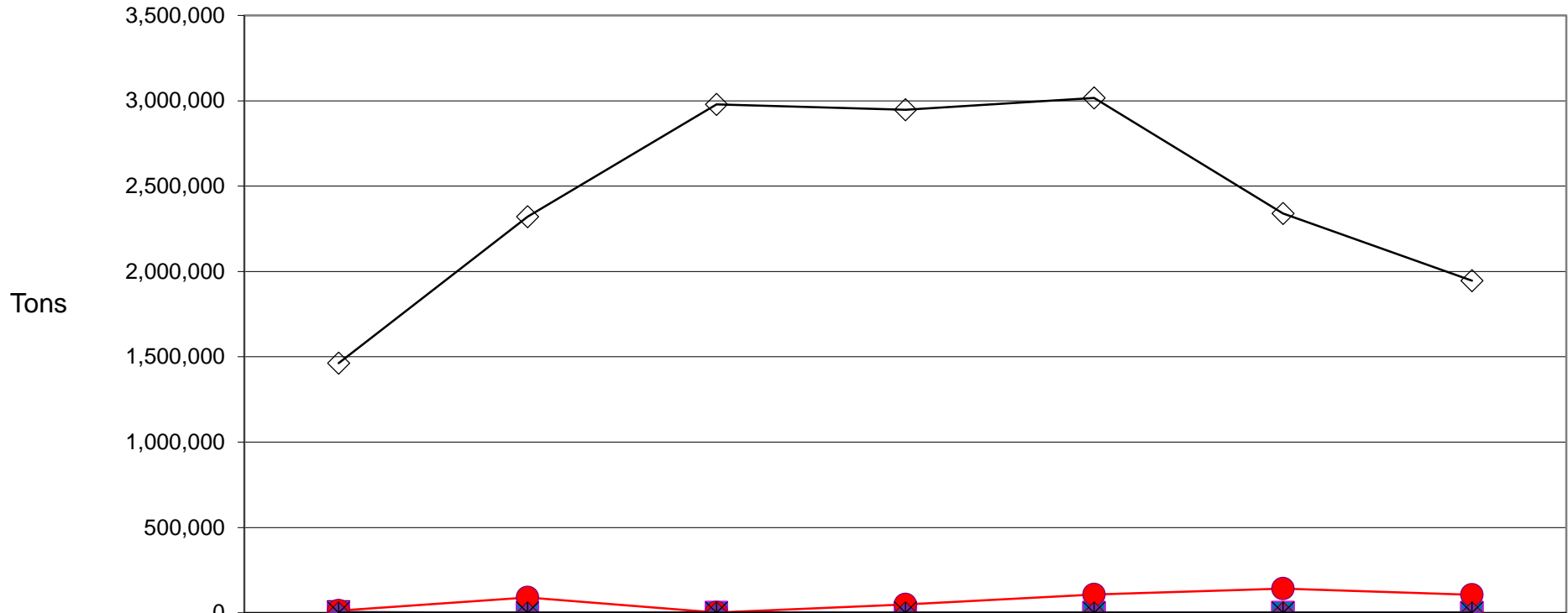


	2000	2002	2004	2006	2008	2010	2012
Exported to Non-NEWMOA	1,462,761	2,320,195	2,978,768	2,947,913	3,017,298	2340148	1,945,544
Exported to NEWMOA	18,266	90,000	2,414	48,866	106,930	141413	106,086
Disposed In State	4,200,000	3,800,000	4,200,000	4,100,000	3,675,821	3507127	3,484,107

**Figure 21: MSW Imports to New Jersey: 2000 through 2012
(Tons)**



**Figure 22: MSW Exports from New Jersey: 2000 through 2012
(Tons)**



	2000	2002	2004	2006	2008	2010	2012
□ CT	4,795	8	0	0	0	0	0
■ ME	0	0	0	0	0	0	0
▲ MA	0	0	0	0	0	0	0
△ NH	0	0	0	0	0	0	0
● NY	13,471	90,000	2,414	48,866	106,930	141,413	106,086
◆ RI	0	0	0	0	0	0	0
* VT	0	0	0	0	0	0	0
◇ Other	1,462,761	2,320,195	2,978,768	2,947,913	3,017,298	2,340,148	1,945,544

Figure 23: MSW Generated in New York & Disposed of: 2000 through 2012 (Tons)

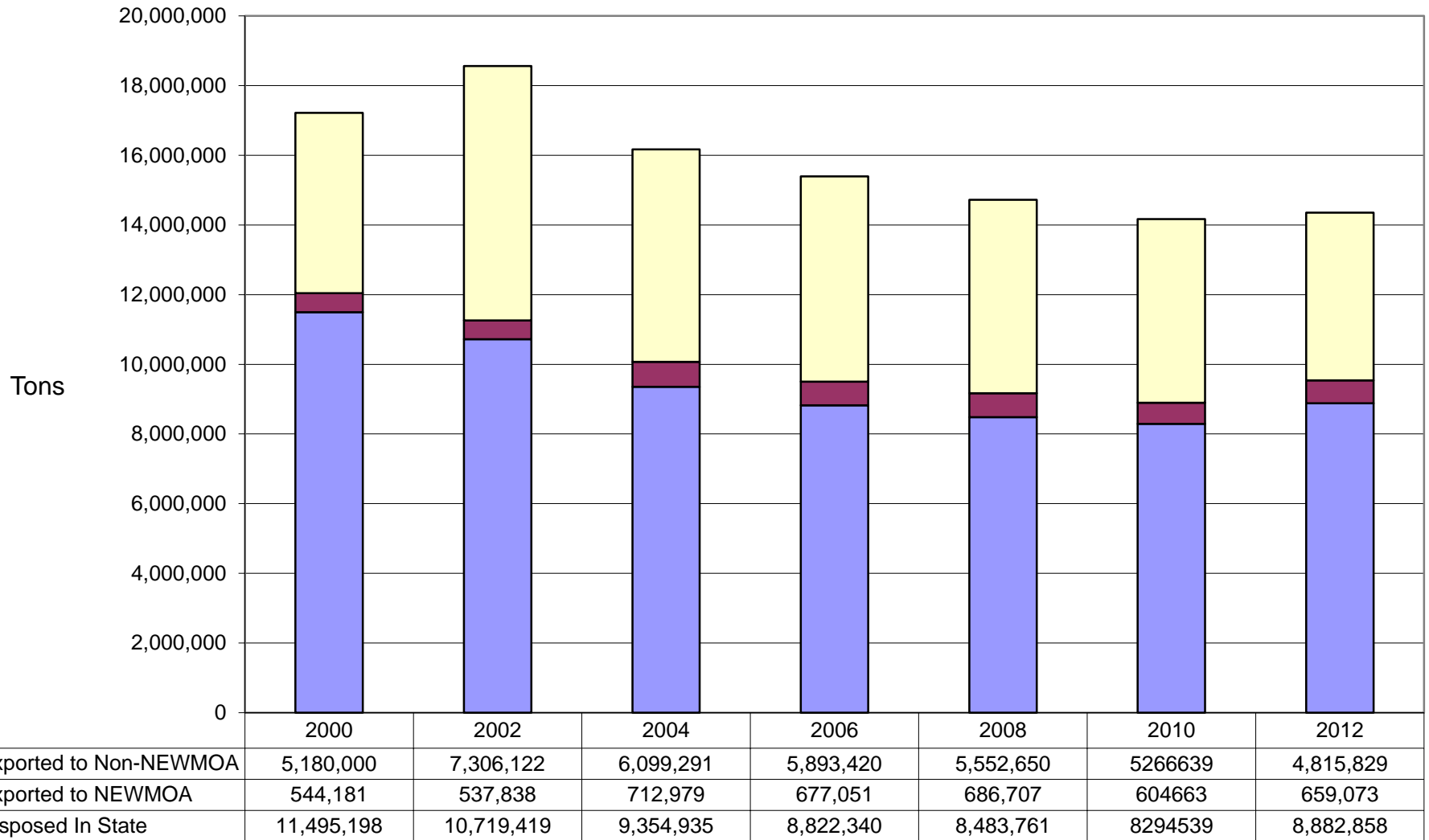
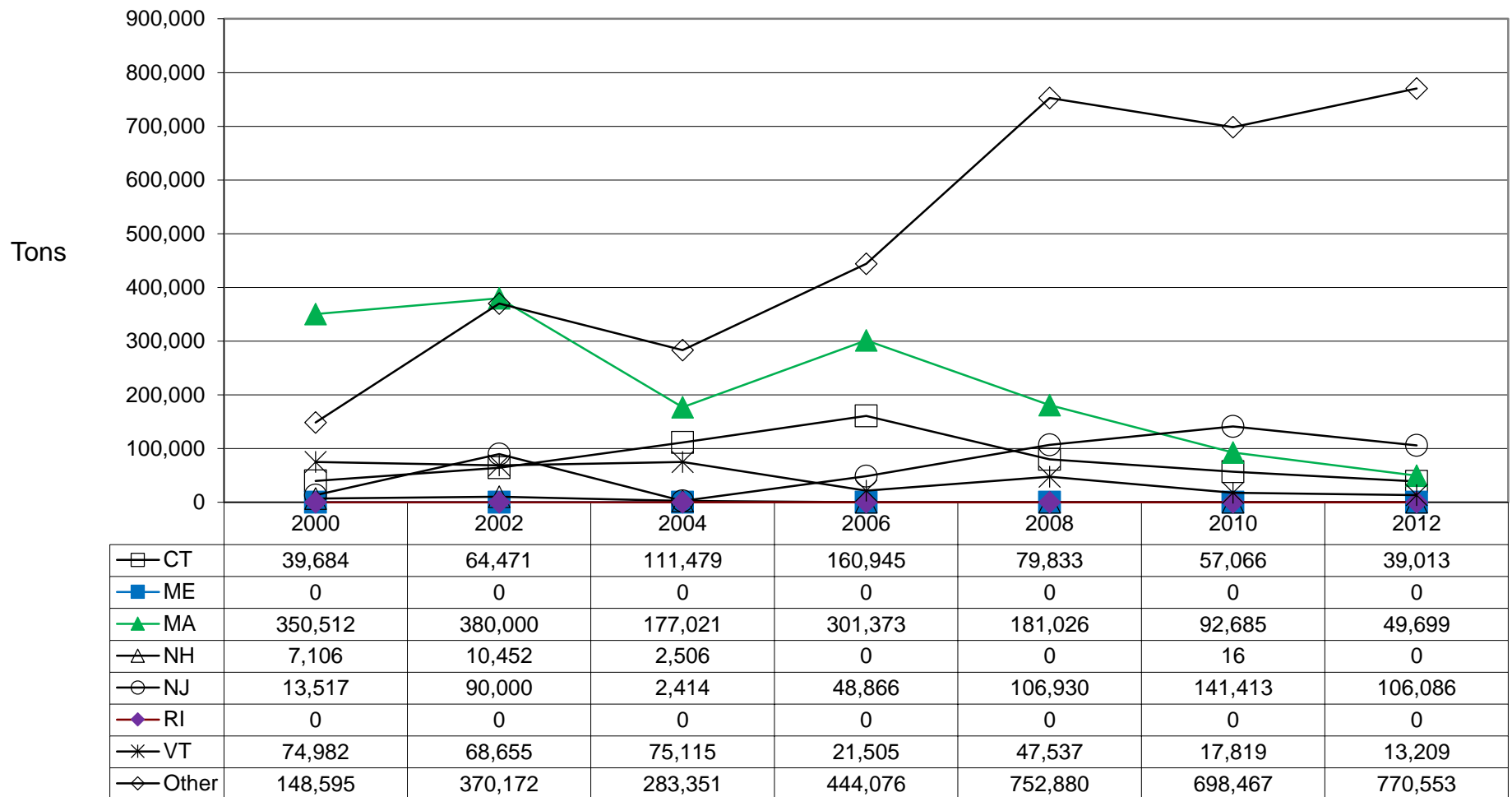
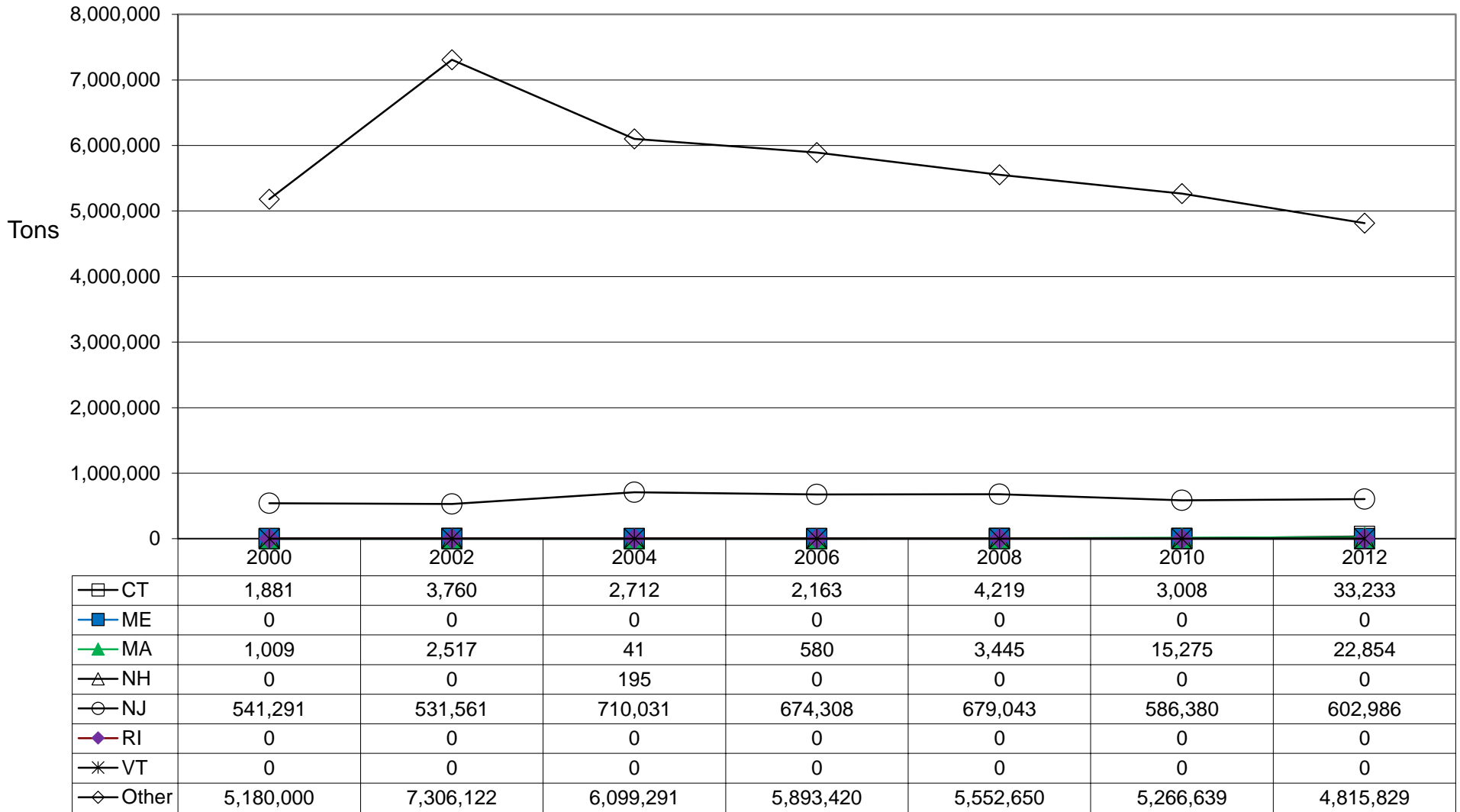


Figure 24: MSW Imports to New York: 2000 through 2012 (Tons)



**Figure 25: MSW Exports from New York: 2000 through 2012
(Tons)**



**Figure 25: MSW Exports from New York: 2000 through 2012
(Tons)**

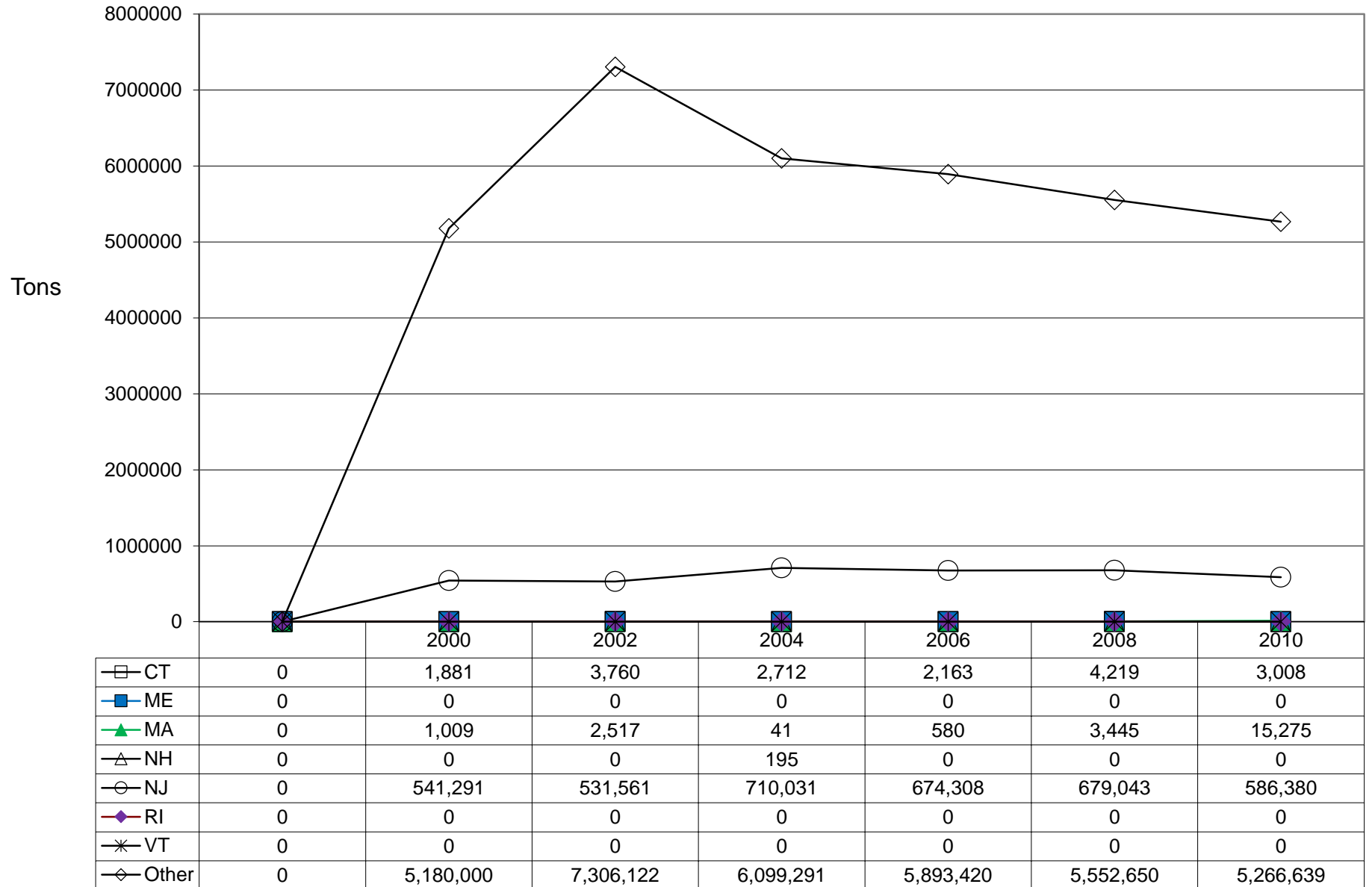
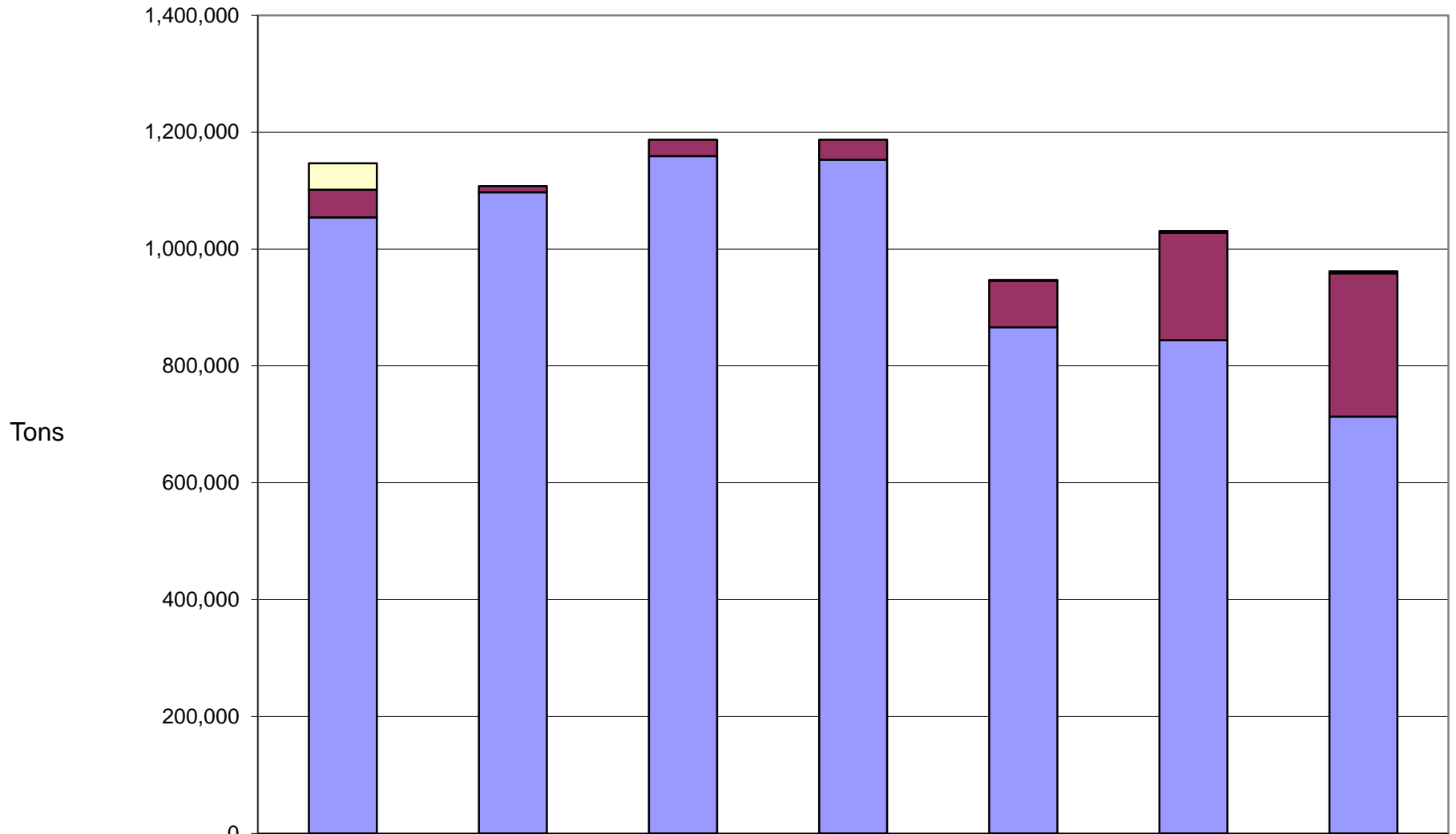
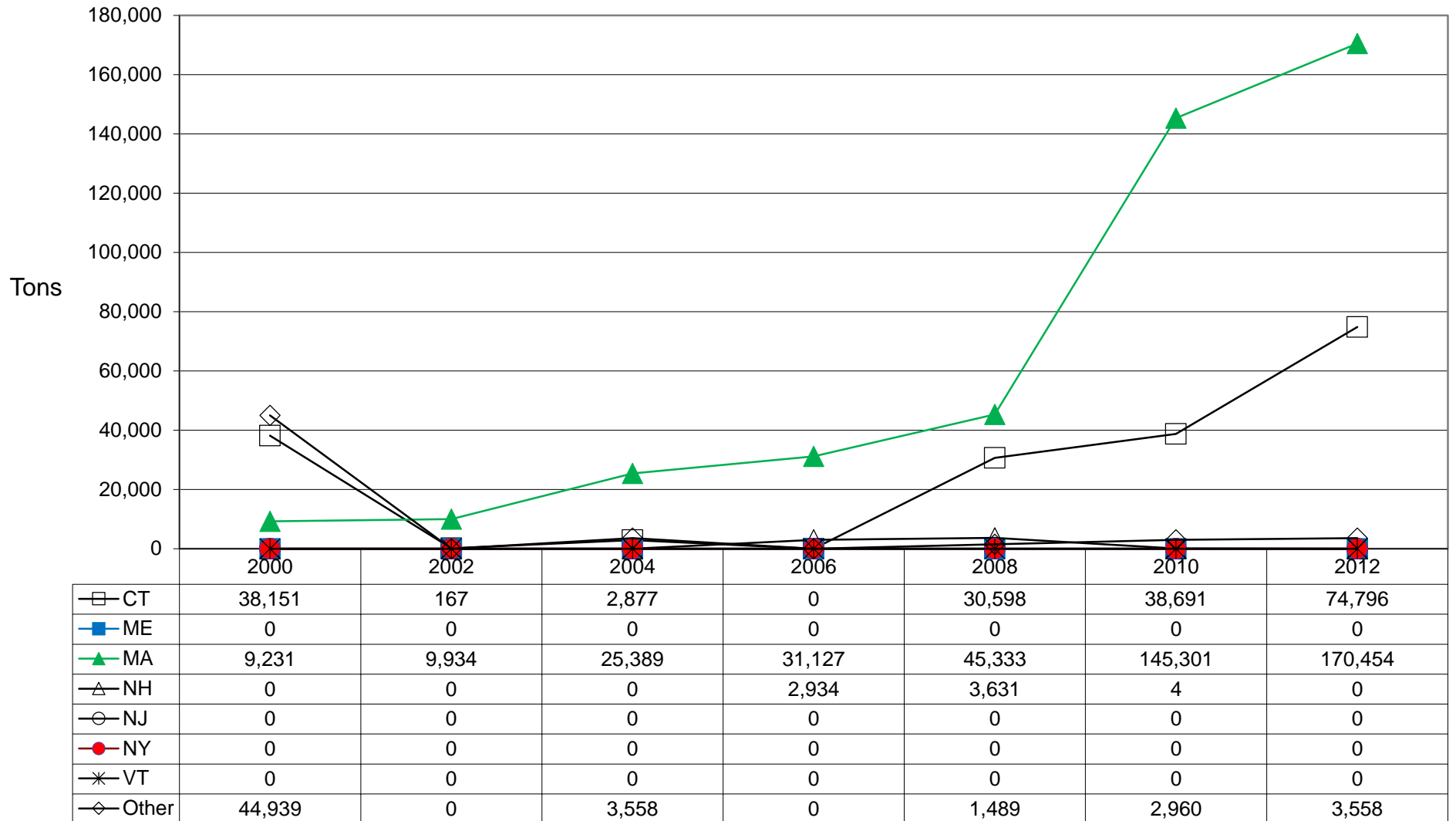


Figure 26: MSW Generated in Rhode Island & Disposed of: 2000 through 2012 (Tons)

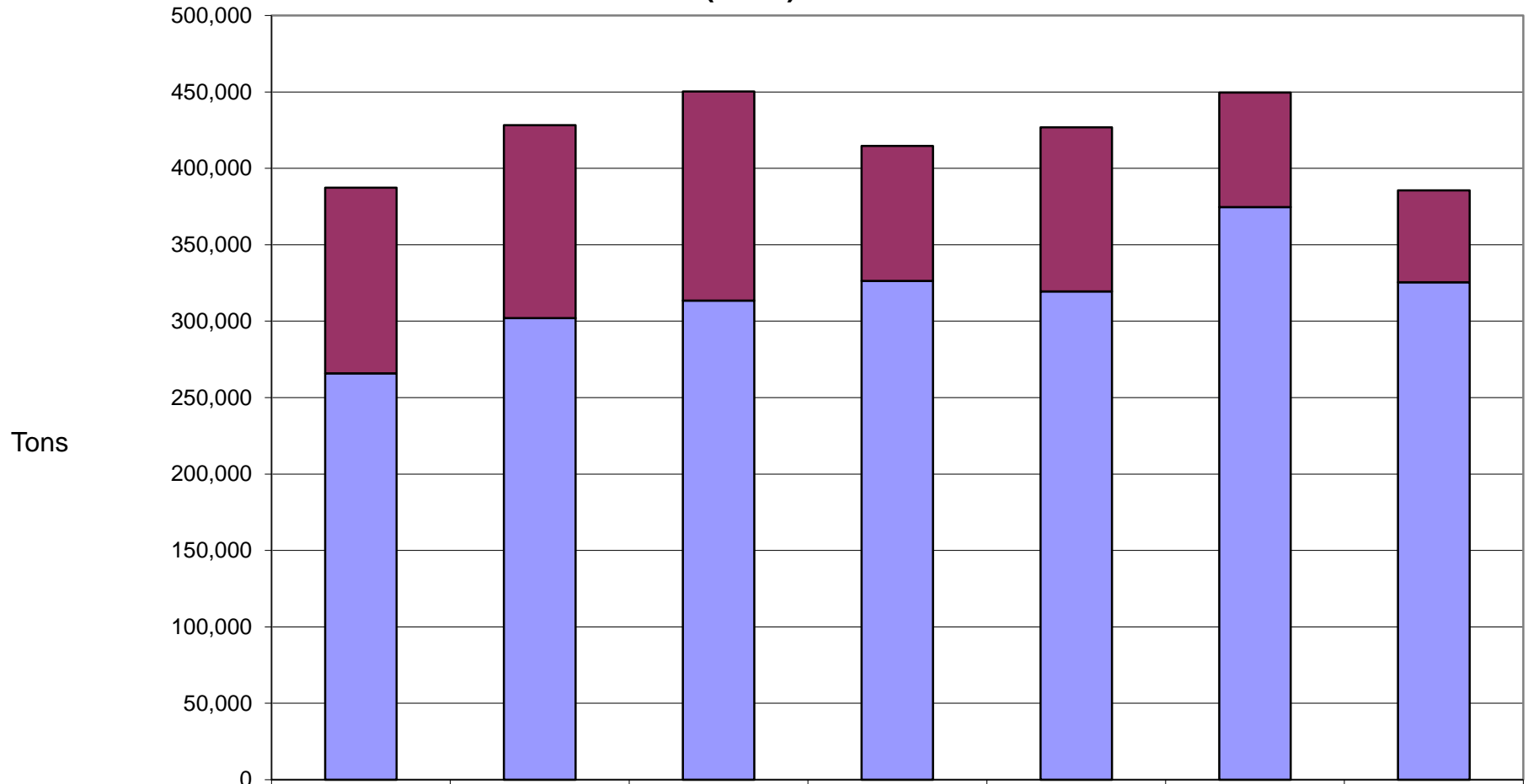


	2000	2002	2004	2006	2008	2010	2012
Exported to Non-NEWMOA	44,939	0	0	0	1,489	2960	3,558
Exported to NEWMOA	47,383	10,101	28,266	34,061	79,562	183996	245,250
Disposed In State	1,054,290	1,097,452	1,158,991	1,153,080	866,084	844124	713,263

**Figure 27: MSW Exports from Rhode Island: 2000 through 2012
(Tons)**



**Figure 28: MSW Generated in Vermont & Disposed of: 2000 through 2012
(Tons)**



	2000	2002	2004	2006	2008	2010	2012
Exported to Non-NEWMOA	0	0	0	0	0	0	0
Exported to NEWMOA	121,546	126,256	136,870	88,373	107,337	75,085	60,161
Disposed In State	265,850	301,971	313,412	326,333	319,425	374,576	325,460

**Figure 29: MSW Exports from Vermont: 2000 through 2012
(Tons)**

