NEWMOA
NORTHEAST WASTE MANAGEMENT OFFICIALS' ASSOCIATION

Presentation on Municipal Solid Waste (MSW) Interstate Flow in the Northeast in 2018

September 22, 2021

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 waste diversion activities. Starting in 2000, NEWMOA's members began to share data and prepare reports to characterize the regional 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 (WTE) facilities and does not include MSW that is diverted from disposal for composting, anaerobic digestion, 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 publicly-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 government agencies do not direct where disposal of MSW occurs.[1]

The figures displayed below present available state and northeast MSW disposal information for calendar year 2018 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 2018 data with 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014, and 2016 data.

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

[1] Except in Rhode Island (RI) where the Rhode Island Resource Recovery Corporation (RIRRC) is enabled by law to control MSW generated in RI. (Reference: RI Law, TITLE 23, Health and Safety, CHAPTER 23-19, Rhode Island Resource Recovery Corporation, SECTION 23-19-13, § 23-19-13 Municipal participation in state program. (a)(1) Any person or municipality which intends to transfer, treat, or dispose of solid waste originating or collected within the state, or which intends to make arrangements to do so, shall utilize, exclusively, a system or facility designated by the corporation as provided under this chapter.)

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 followed the data quality assurance procedures in its EPA-approved Quality Management Plan (www.newmoa.org/about/2011QMP.pdf) to prepare this presentation. NEWMOA's Workgroup members start developing this presentation by sharing summaries of the MSW data they collect from facilities. Prior to sending NEWMOA their state's data, the Workgroup members conduct their own quality assurance review of it. The NEWMOA staff reviews the data and prepares draft figures using Microsoft Excel. If the staff has a question or concern about the data, they contact the appropriate Workgroup member to address the issue. The Workgroup members review a draft of the data, figures, and text and provide comments and corrections. After the NEWMOA staff makes the recommended corrections, a revised draft is shared with the NEWMOA Board of Directors and the Solid Waste and Sustainable Materials Management Steering Committee for their review and approval prior to publication online.

Data Caveats & Notes

This presentation focuses on the flow of MSW in the Northeast U.S., including Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. These are the states that are members of NEWMOA. 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 staff have compiled the MSW data. A typical discrepancy involves a situation where the waste data from transfer facilities in one state disagree with the data from disposal facilities in another state. Unless otherwise noted below[2], the graphs are based on information from the disposal facilities, since the Workgroup considers their data to be more accurate. Therefore, the numbers might vary from those 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.

[2] Data Notes:

a) Connecticut: A WTE did not report the state of origin for MSW received from out-of-state. Half the amount was attributed to MA and the other half to New York.
b) Massachusetts: to account for pass-through (MA to another state and back to MA for disposal) imports from CT, NY, and RI were reduced by 372 tons, 18,910 tons, and 35,192 tons, respectively. 54,474 tons was added to in-state disposal of in-state generated MSW. In addition, a WTE in MA did not report the state of origin for the MSW received and NEWMOA assumed the same percentage split as in 2016 (10 percent from NH and 90 percent from MA).
c) New Hampshire: for some or all years prior to 2010, NEWMOA staff determined that the import data might not have been limited to MSW and therefore, might overstate quantities generated in the exporting state and corresponding quantities disposed at NH facilities. For 2018, a WTE in NH did not report the state of origin for MSW received from out-of-state. A MA transfer station reported sending 10,065 tons to the NH WTE and the report reflects that amount.
d) New York: for some or all years prior to 2006, DEC reported that there might be data quality issues for in-state disposal of in-state generated MSW that might overstate disposal. In 2018, to account for pass-through, imports from CT were reduced by 4,741 tons.
e) Vermont: export data provided by VT DEC is used.
f) For exports to states and provinces outside the northeast: 2018 data reported by the exporting state was used for MSW disposal in OH because the Workgroup determined it to be more reliable. Imports to PA from NJ were reduced to account for pass-through from NY (a total of 246,323 tons in 2018); imports to PA from NY were increased by the pass-through quantity.

- 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 closely examining the states' MSW data, the Workgroup adjusts for these situations, and the figures reflect these types of corrections.

Observations

Since NEWMOA began publishing these presentations in 2000, the Workgroup 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 northeast states. Historically, Connecticut, Massachusetts, New Jersey, New York, Rhode Island, and Vermont all exported more MSW than they imported, and by a wide margin for some of these states. In the past, Maine and New Hampshire have imported significantly more MSW than they exported. However, starting in 2014, the quantity of MSW imports to Maine decreased significantly compared to prior years due to the closure of a waste-to-energy facility, and the quantity imported to Maine was similar to the quantity exported from Maine. Since 2014, New Hampshire is the only NEWMOA-state that imports more MSW for disposal than it exports.

Key observations about 2018 MSW flow in the Northeast include:

- Approximately 31.2 million tons of MSW was generated in the region and disposed of in 2018, about the same amount as in 2010 and an approximately 7 percent increase from 2016. The amount of MSW requiring disposal is affected by economic activity and trends and the availability of reuse, recycling, and organics diversion (including composting and anaerobic digestion) markets and infrastructure:
  - Region-wide, 70 percent remained in the state of origin for disposal, ranging from a high of 93 percent for Maine to a low of 50 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 18 percent for Rhode Island and 23 percent for Vermont, to a low of less than 1 percent for New Jersey
  - Region-wide, 24 percent was exported to disposal facilities outside of the region, ranging from a high of 50 percent for New Jersey to a low of zero, or nearly zero for Massachusetts, New Hampshire, Rhode Island, and Vermont
- Region-wide, 0.73 tons per person per year of MSW was generated and disposed of in 2018; with the rate ranging from 0.61 tons per person per year for New Hampshire to 0.87 tons per person per year for Rhode Island.[3]
- Figure 4 shows a relatively steady state in the amount of MSW generated and disposed of within the same state, with a recent increase in New York.
- Figure 5 reveals the large year-to-year changes in waste shipment patterns that can occur. Imports from other NEWMOA states in 2018 were similar to 2016 quantities, with the exception of the significant increase in imports to disposal facilities in New York and a smaller increase in New Hampshire.
- Figure 6 also shows large year-to-year changes in exports to other NEWMOA states. In 2018, waste facilities in Maine, New Hampshire, and Rhode Island exported somewhat less MSW for disposal to facilities in other NEWMOA states than they did in 2016; while Connecticut, and Vermont exported somewhat more MSW to other NEWMOA states in 2018 than in 2016. Larger changes occurred in Massachusetts and New Jersey. Exports from facilities in Massachusetts for disposal in other NEWMOA states have increased

[3] Per capita estimates were calculated using 2010 U.S. Census population data.

significantly since 2014 and exceeded 700,000 tons in 2018. Exports from facilities in New Jersey for disposal in other NEWMOA states decreased to almost zero in 2018.

- Figure 7 shows a general 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. Exports from Connecticut and Massachusetts to non-NEWMOA states have decreased significantly since their highs in 2002 and 2004, respectively. However, facilities in Connecticut significantly increased exports to states outside the NEWMOA region in 2018 compared to other recent years. Exports from facilities in New Jersey to states outside the region have been increasing since 2012. An overall region-wide decline has occurred from a high of approximately 10.6 million tons in 2002 to approximately 7.4 million tons in 2018 – a 30 percent reduction.

About NEWMOA

The Northeast Waste Management Officials' Association (NEWMOA) is a non-profit, non-partisan, interstate association whose membership is composed of the state environment agency programs that address pollution prevention, toxics use reduction, sustainability, materials management, hazardous waste, solid waste, emergency response, waste site cleanup, underground storage tanks, and related environmental challenges in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

NEWMOA provides a strategic forum for effectively solving environmental problems through collaborative regional initiatives that advance pollution prevention and sustainability, promote safer alternatives to toxic materials in products, identify and assess emerging contaminants, facilitate adaptation to climate change, mitigate greenhouse gas sources, promote reuse and recycling of wastes and diversion of organics, support proper management of hazardous and solid wastes, and facilitate clean-up of contaminant releases to the environment.

NEWMOA's long term goals are to:

- Support and strengthen state efforts to implement policies, regulations, and programs
- Promote interstate coordination and develop innovative strategies to solve critical and emerging environmental problems
- Develop and enhance the capabilities and knowledge of state officials so that they are well trained, able to adjust to rapid changes in technology, and respond effectively to emerging environmental challenges
- Articulate state program views on federal policy developments, programs, and rulemakings
- Cultivate and enhance relationships among member states, federal agencies, colleges and universities, and stakeholders
- Engage with and educate the regulated community and the public

For more information, visit www.newmoa.org.

Acknowledgements

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- Thomas Adamczyk, Massachusetts Department of Environmental Protection

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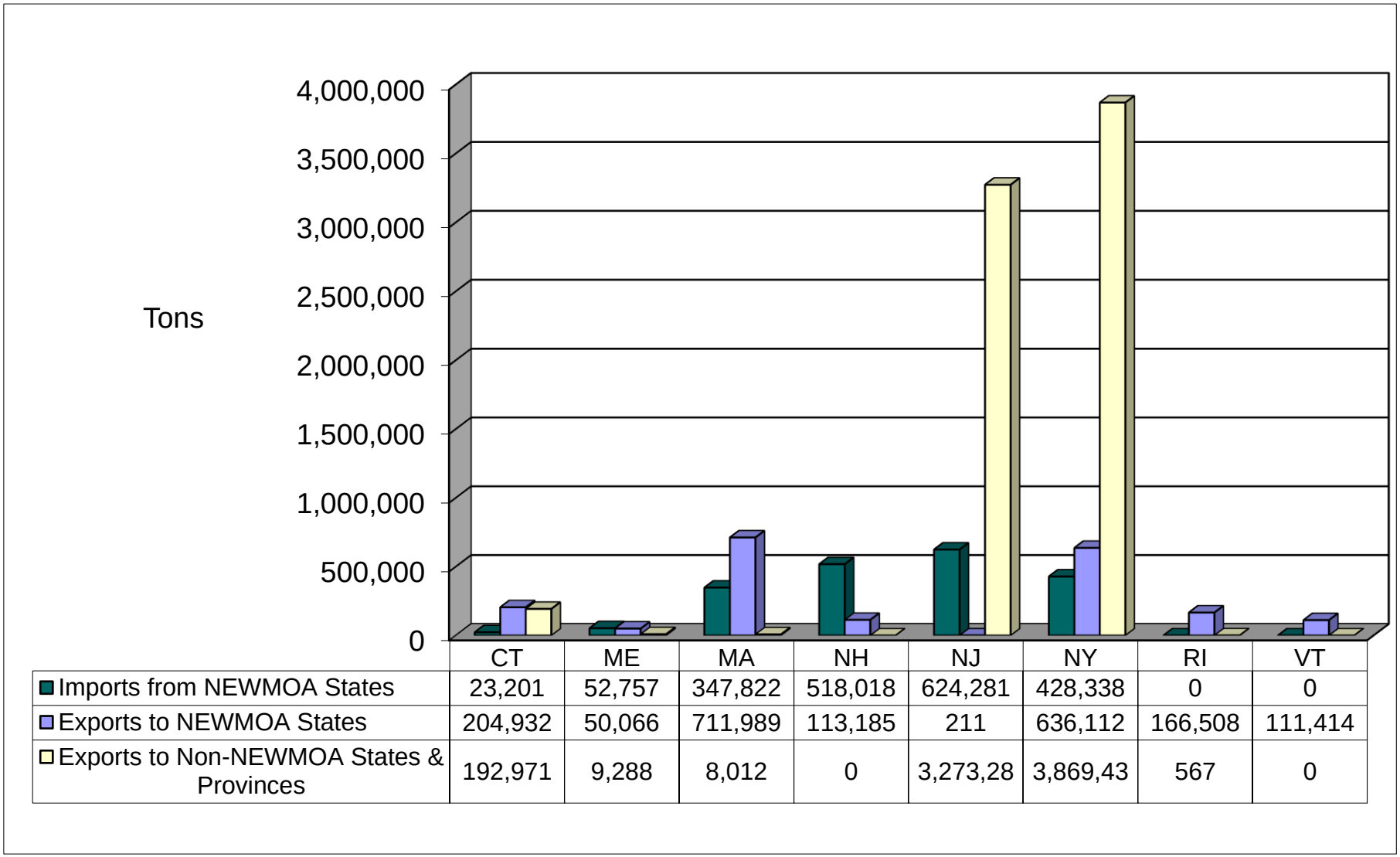
- Corey Dues and Kyle McHenry, New Jersey Department of Environmental Protection
- Jaime Lang and Steven Naukam, New York State Department of Environmental Conservation
- Kasandra McKenzie, Rhode Island Department of Environmental Management
- Kasey Kathan and Elyssa Eiklor, Vermont Department of Environmental Conservation

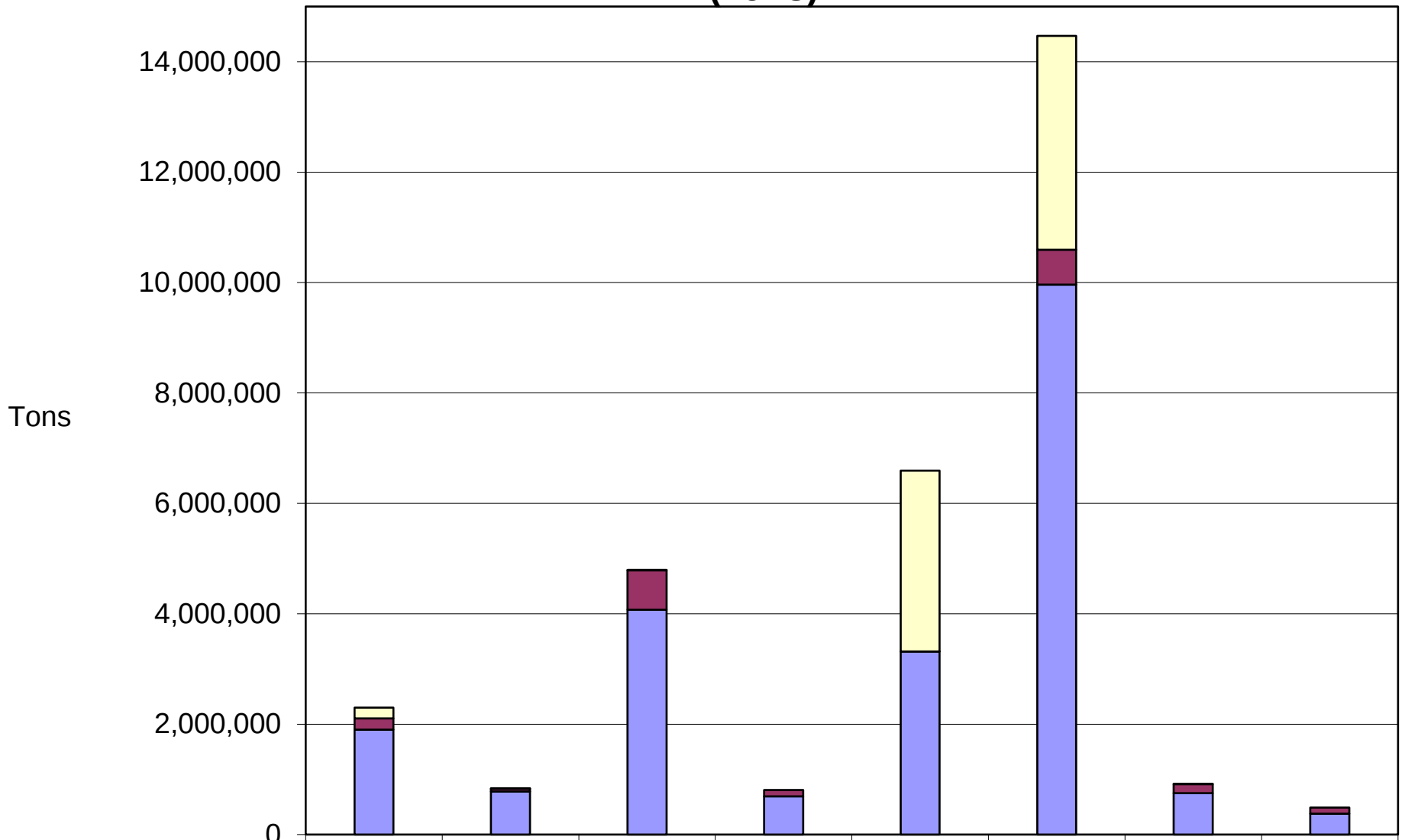
Jennifer Griffith, NEWMOA Project Manager led this project and compiled the spreadsheet and prepared the presentation. Terri Goldberg, NEWMOA Executive Director supervised the project.

Figure 1: 2018 MSW Imports & Exports for Disposal (Tons)



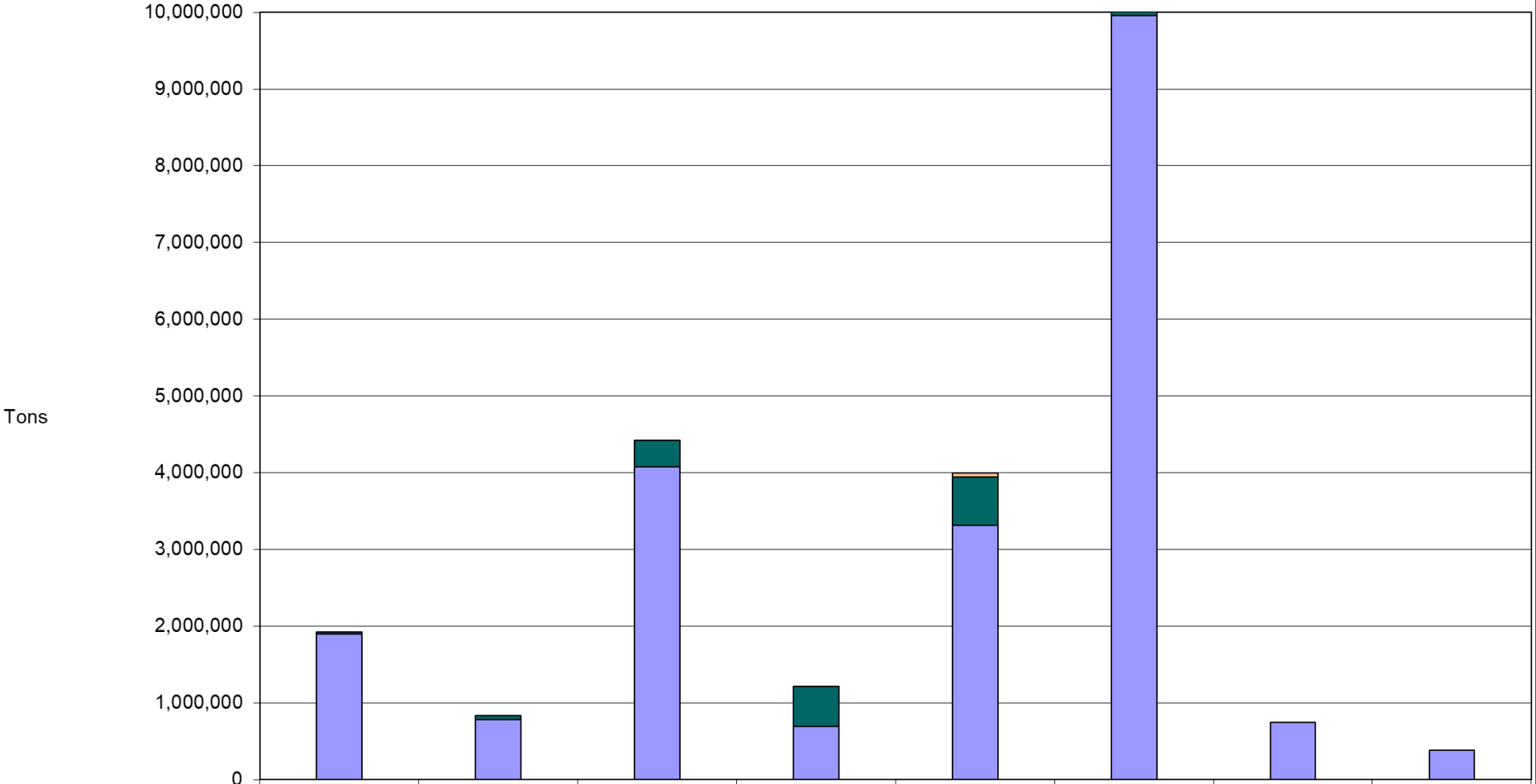
	CT	ME	MA	NH	NJ	NY	RI	VT
Imports from NEWMOA States	23,201	52,757	347,822	518,018	624,281	428,338	0	0
Exports to NEWMOA States	204,932	50,066	711,989	113,185	211	636,112	166,508	111,414
Exports to Non-NEWMOA States & Provinces	192,971	9,288	8,012	0	3,273,28	3,869,43	567	0

Figure 2: 2018 MSW Generated by State & Disposed (Tons)



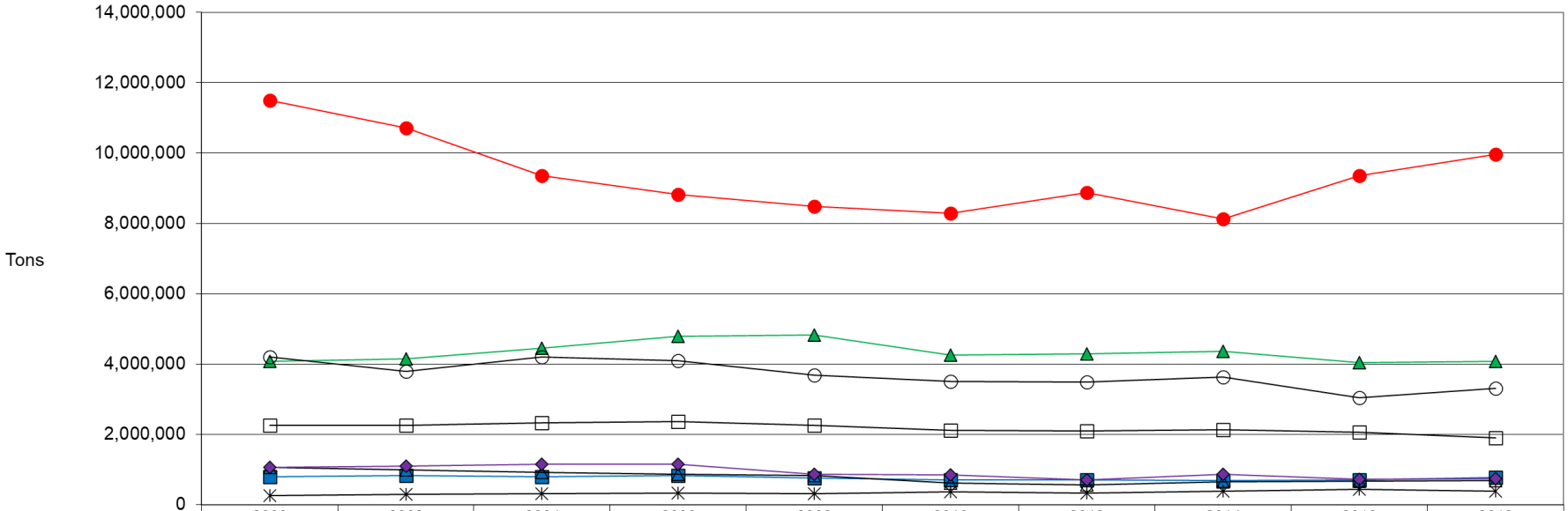
	CT	ME	MA	NH	NJ	NY	RI	VT
Exports to Non-NEWMOA	192,971	9,288	8,012	-	3,273,284	3,869,438	641	0
Exports to NEWMOA States	204,932	50,066	711,989	113,185	211	636,112	166,508	111,414
Disposed In-state	1,900,494	779,636	4,075,813	692,920	3,317,306	9,960,591	748,258	379,211

Figure 3: 2018 Total Quantity of MSW Disposed of In-State (Tons)



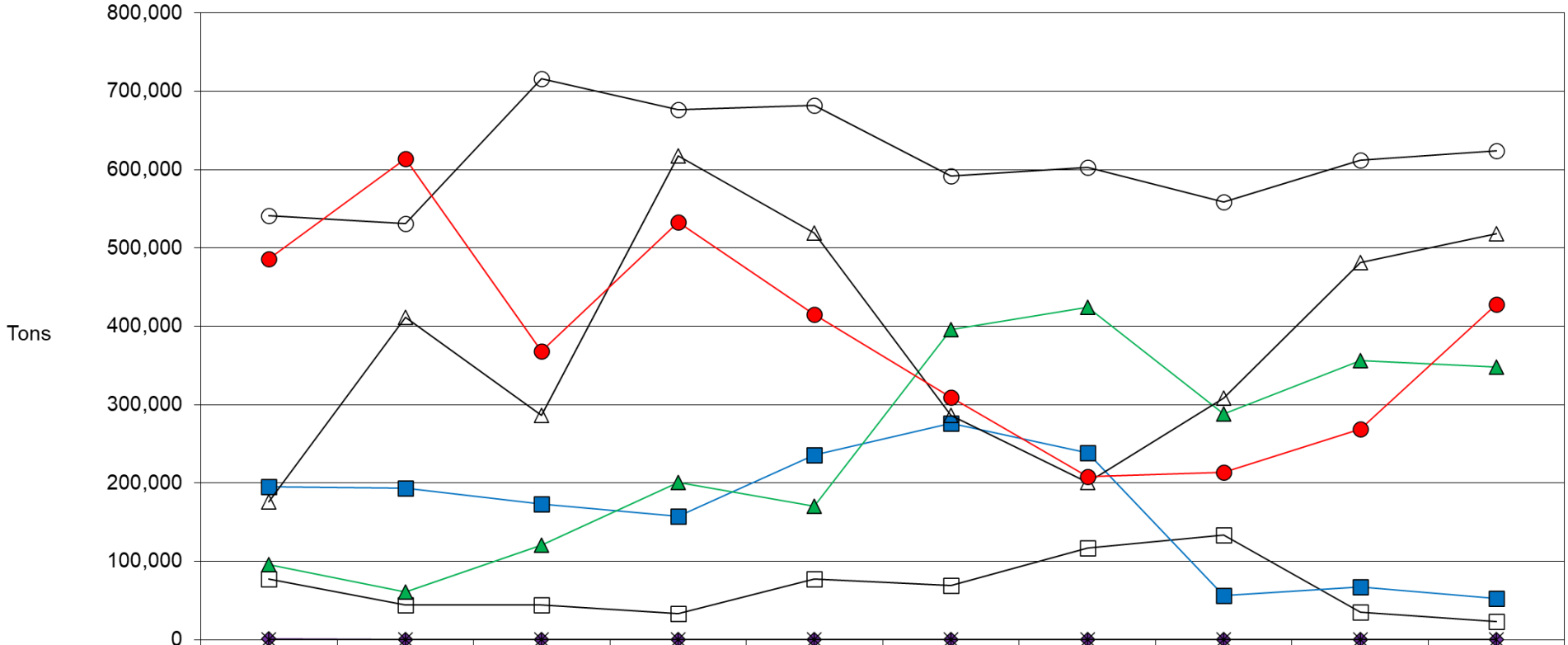
	CT	ME	MA	NH	NJ	NY	RI	VT
Imports from Non-NEWMOA States	0	0	0	0	55,467	339,931	0	0
Imports from NEWMOA States	23,201	52,757	347,822	518,018	624,281	428,338	0	0
In-state Generated Waste	1,900,494	779,636	4,075,813	692,920	3,317,306	9,960,591	748,258	379,211

Figure 4: In-State Disposal of MSW Generated In-State: 2000 through 2018 (Tons)



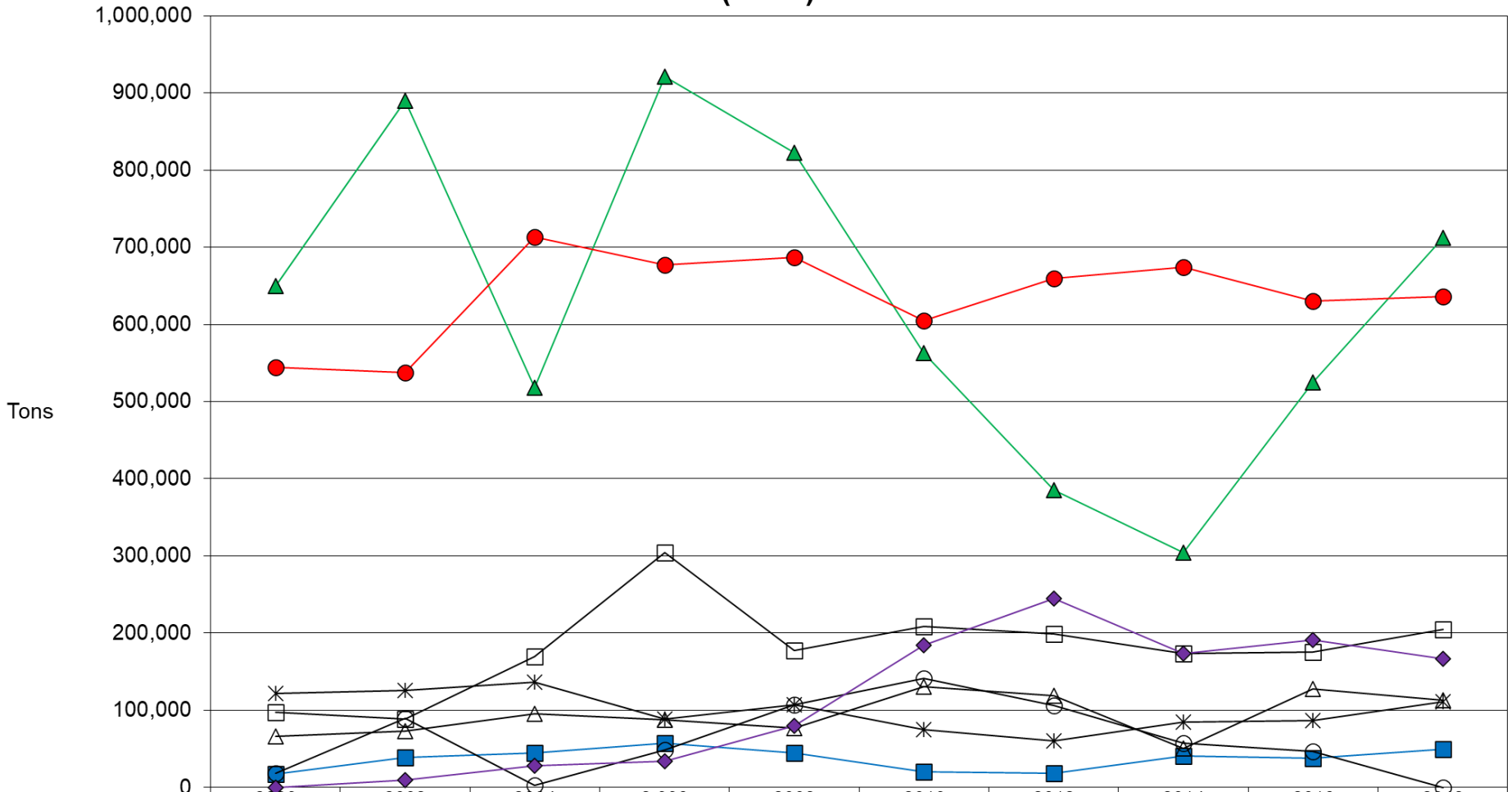
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
CT	2,262,487	2,253,755	2,327,500	2,367,467	2,251,048	2,108,857	2,103,750	2,132,192	2,052,807	1,900,494
ME	792,047	829,409	787,617	830,497	755,086	713,677	699,986	695,630	711,443	779,636
MA	4,069,137	4,147,413	4,459,730	4,785,491	4,823,591	4,262,599	4,289,036	4,369,825	4,040,989	4,075,813
NH	1,067,926	998,000	926,018	866,020	838,589	617,068	559,348	647,718	665,840	692,920
NJ	4,200,000	3,800,000	4,200,000	4,100,000	3,675,821	3,507,127	3,484,107	3,636,099	3,038,796	3,317,306
NY	11,495,198	10,719,418	9,354,935	8,822,340	8,483,761	8,294,539	8,882,858	8,134,115	9,361,587	9,960,591
RI	1,054,290	1,097,452	1,158,991	1,153,080	866,084	844,124	713,263	870,873	731,527	748,258
VT	265,850	301,971	313,412	326,333	319,425	374,576	325,460	382,250	432,041	379,211

Figure 5: MSW Imports from NEWMOA States: 2000 through 2018 (Tons)



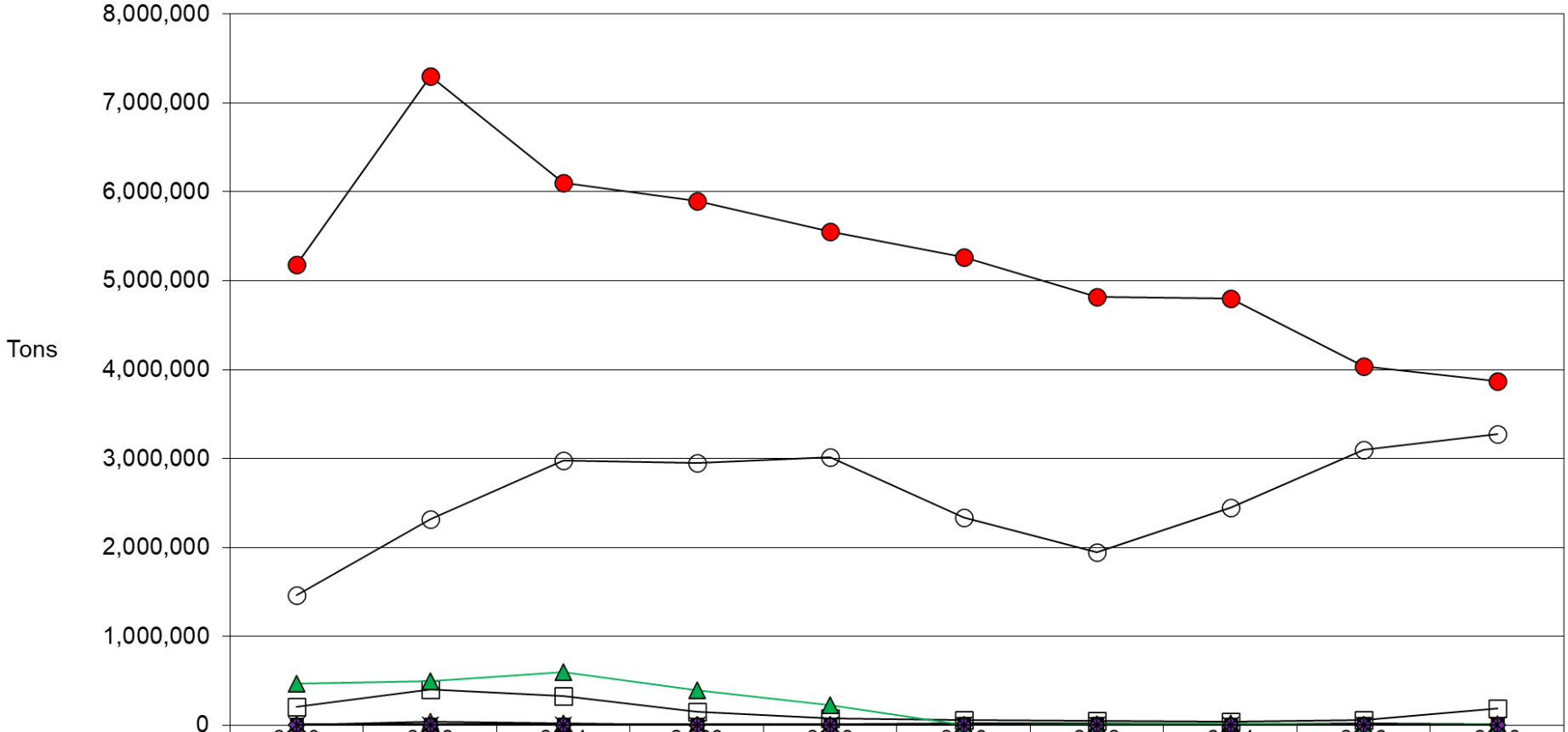
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
CT	77,510	44,200	44,068	32,930	77,334	69,455	116,985	133,439	34,869	23,201
ME	195,108	193,338	173,402	157,607	236,102	275,755	238,312	56,416	66,973	52,757
MA	95,883	60,384	120,367	200,613	170,122	395,630	424,638	288,344	356,605	347,822
NH	175,974	411,450	286,199	617,204	519,541	286,187	200,472	308,699	481,758	518,018
NJ	541,291	531,568	715,835	676,879	682,256	592,051	603,073	558,902	611,704	624,281
NY	485,802	613,678	368,535	532,689	415,326	308,999	208,007	213,768	268,598	428,338
RI	1,028	0	0	0	0	0	0	0	0	0
VT	0	0	0	0	0	0	0	0	0	0

Figure 6: MSW Exports to NEWMOA States: 2000 through 2018 (Tons)



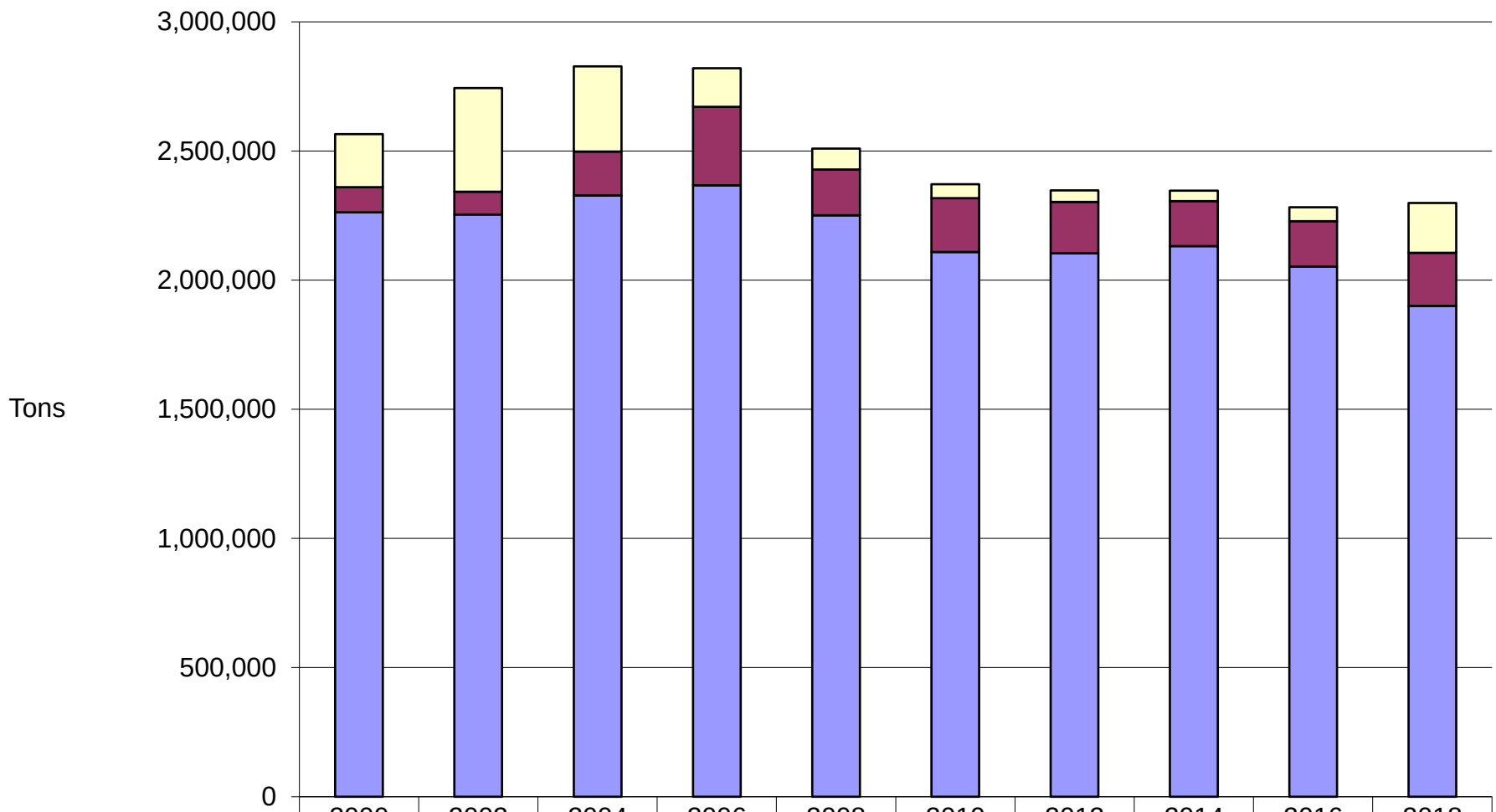
	2000	2002	2004	2,006	2008	2010	2012	2014	2016	2018
CT	97,788	88,633	169,963	303,970	177,752	208,927	199,399	173,740	175,321	204,932
ME	17,057	38,643	44,346	57,142	45,025	20,375	18,220	41,194	38,410	50,066
MA	649,476	889,635	517,812	921,115	822,837	562,658	385,512	304,211	524,557	711,989
NH	66,688	73,404	95,756	87,344	77,125	130,960	118,989	50,752	127,390	113,185
NJ	18,312	90,008	2,414	48,866	106,930	141,413	106,086	57,738	46,742	211
NY	544,181	537,838	712,979	677,051	686,707	604,663	659,073	673,718	630,362	636,112
RI	0	10,101	28,266	34,061	79,562	183,996	245,250	173,420	191,359	166,533
VT	121,546	126,256	136,870	88,373	107,337	75,085	60,161	84,668	86,366	111,414

Figure 7: MSW Exports to Non-NEWMOA States & Provinces 2000 through 2018 (Tons)



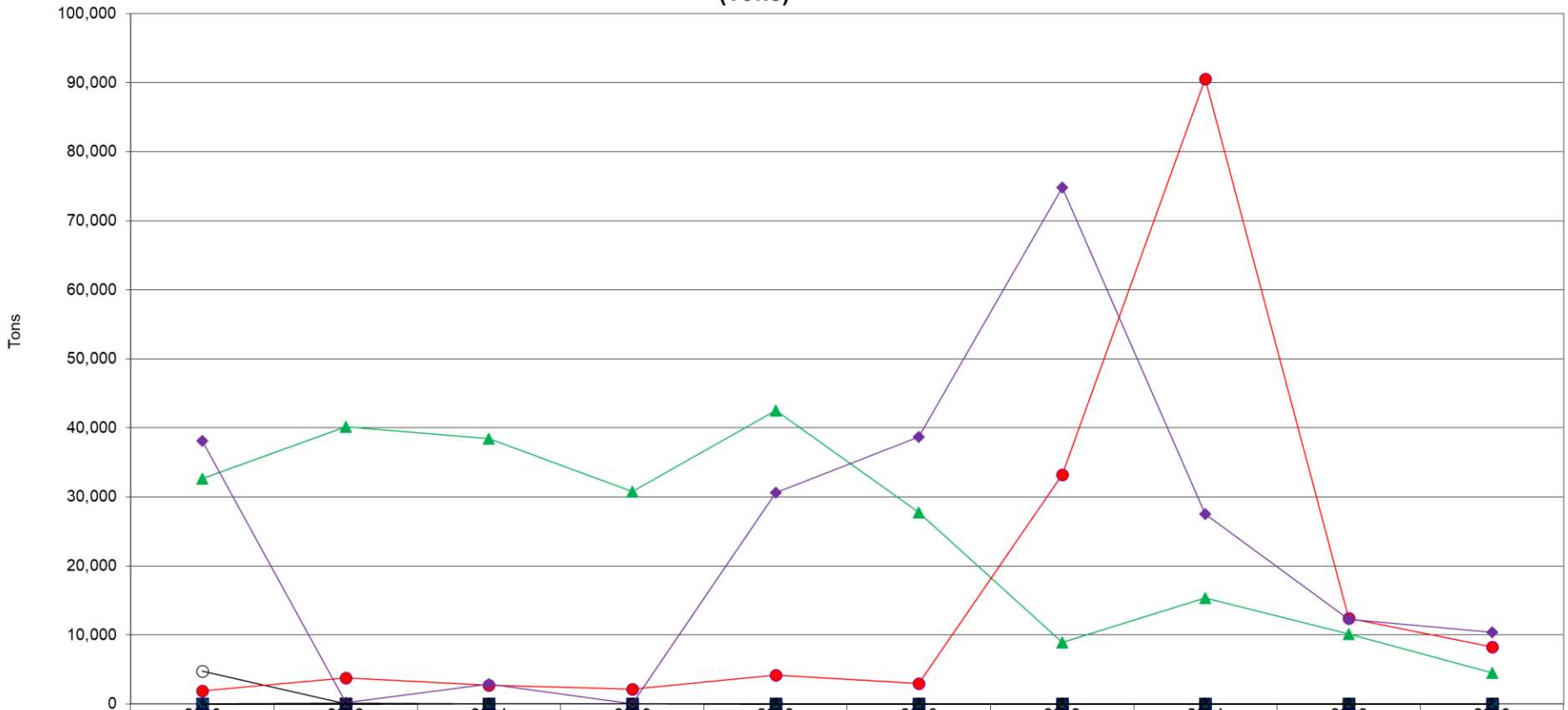
	2000	2002	2004	2,006	2008	2010	2012	2014	2016	2018
CT	204,701	401,024	330,431	149,485	80,726	53,983	44,438	40,882	54,562	192,971
ME	11,568	11,225	11,069	13,958	13,054	17,224	21,629	9,086	23,506	9,288
MA	468,895	490,772	592,953	394,798	225,496	5,499	16,067	18,268	5,733	8,012
NH	0	36,609	17,322	0	0	0	0	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	2,452,315	3,095,276	3,273,284
NY	5,180,000	7,306,122	6,099,291	5,893,420	5,552,650	5,266,639	4,815,829	4,802,879	4,039,678	3,869,438
RI	0	0	567	0	1,489	2,960	3,558	123	0	567
VT	0	0	0	0	0	0	0	0	0	0

Figure 8: MSW Generated in Connecticut & Disposed of: 2000 through 2018 (Tons)



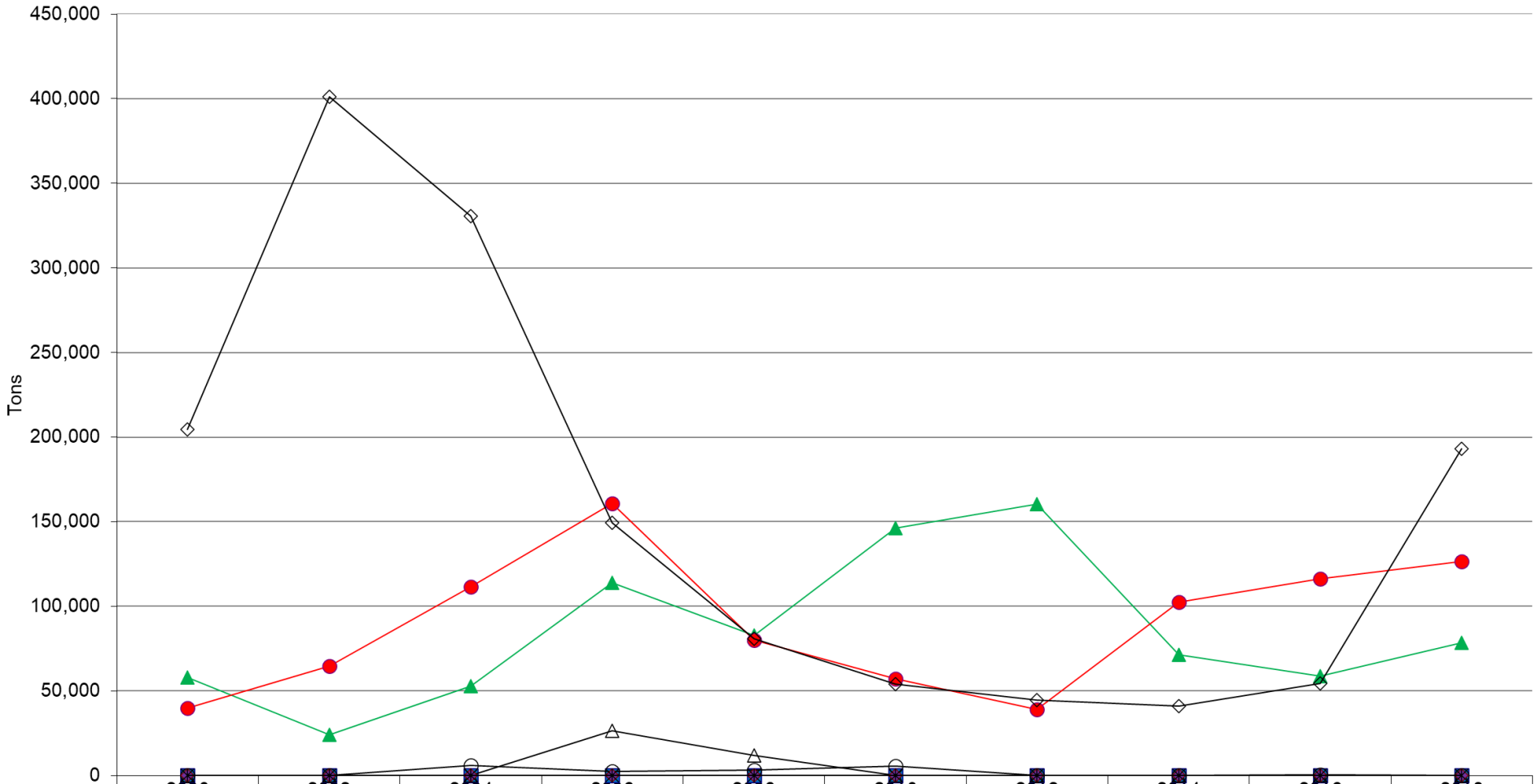
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
Exported to Non-NEWMOA	204,701	401,024	330,431	149,485	80,726	53,983	44,438	40,882	54,562	192,971
Exported to NEWMOA	97,788	88,633	169,963	303,970	177,752	208,927	199,399	173,740	175,321	204,932
Disposed In State	2,262,487	2,253,756	2,327,500	2,367,467	2,251,048	2,108,857	2,103,750	2,132,192	2,052,807	1,900,494

Figure 9: MSW Imports to Connecticut: 2000 through 2018 (Tons)



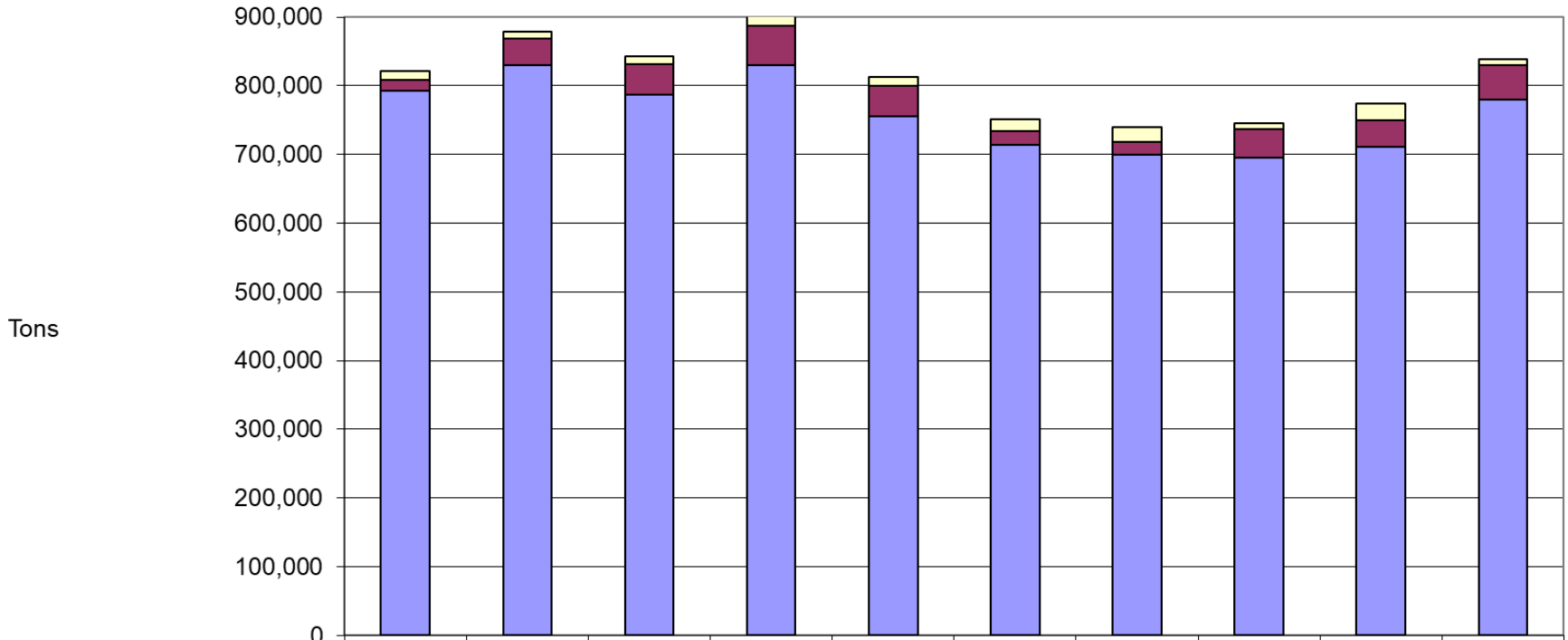
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
ME	0	0	0	0	0	0	0	0	0	0
MA	32,682	40,168	38,479	30,767	42,517	27,756	8,956	15,350	10,150	4,564
NH	0	0	0	0	0	0	0	0	0	0
NJ	4,795	8	0	0	0	0	0	0	0	0
NY	1,881	3,760	2,712	2,163	4,219	3,008	33,233	90,582	12,427	8,240
RI	38,151	167	2,877	0	30,598	38,691	74,796	27,507	12,292	10,397
VT	0	97	0	0	0	0	0	0	0	0
Other	0	0	5	3	0	0	0	0	0	0

Figure 10: MSW Exports from Connecticut: 2000 through 2018 (Tons)



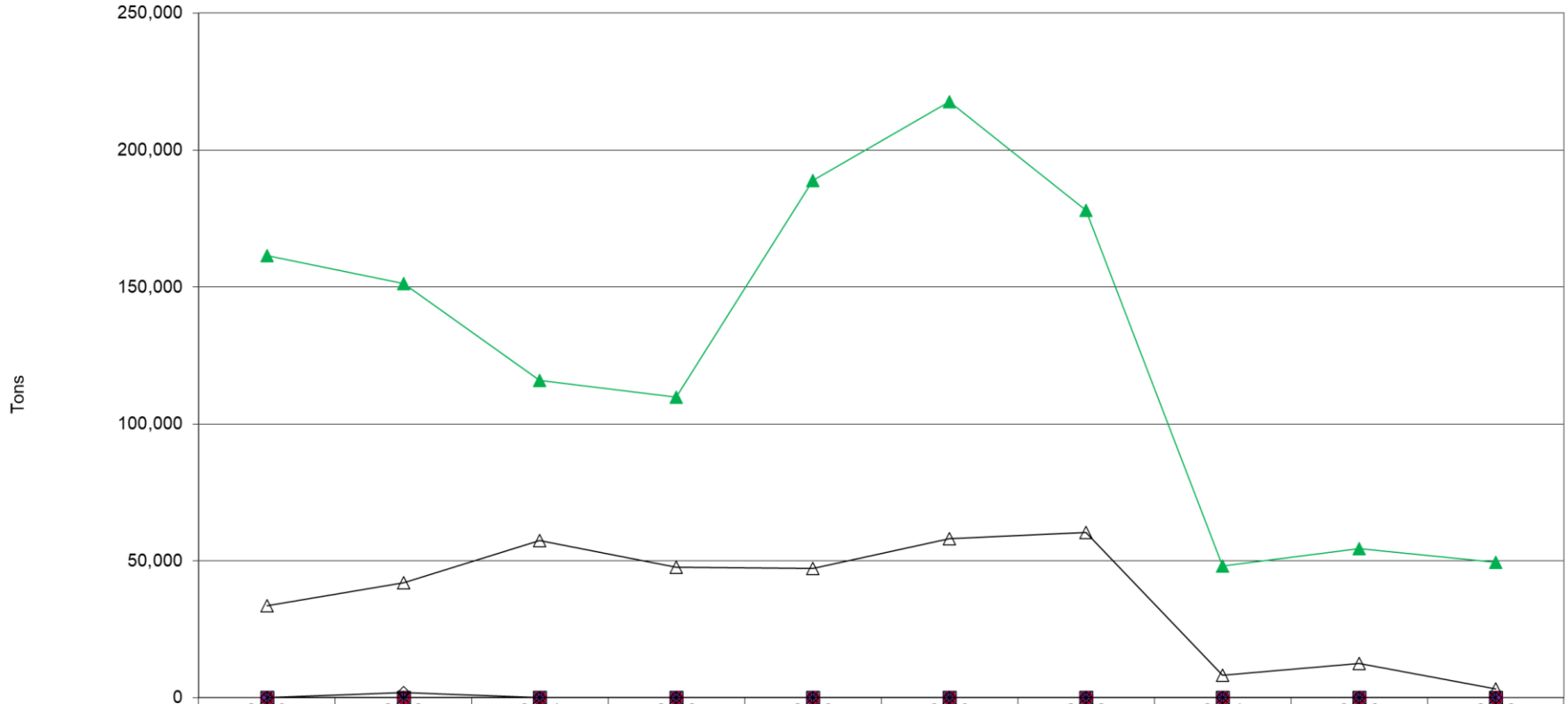
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
ME	0	0	0	0	0	0	0	0	0	0
MA	58,019	24,155	52,680	113,980	82,861	146,190	160,299	71,344	58,619	78,383
NH	77	0	0	26,474	11,845	0	0	0	0	0
NJ	0	7	5,804	2,571	3,213	5,671	87	4	242	0
NY	39,685	64,471	111,479	160,945	79,833	57,066	39,013	102,392	116,460	126,549
RI	7	0	0	0	0	0	0	0	0	0
VT	0	0	0	0	0	0	0	0	0	0
Other	204,701	401,024	330,431	149,485	80,726	53,983	44,438	40,882	54,562	192,971

Figure 11: MSW Generated in Maine & Disposed of: 2000 through 2018 (Tons)



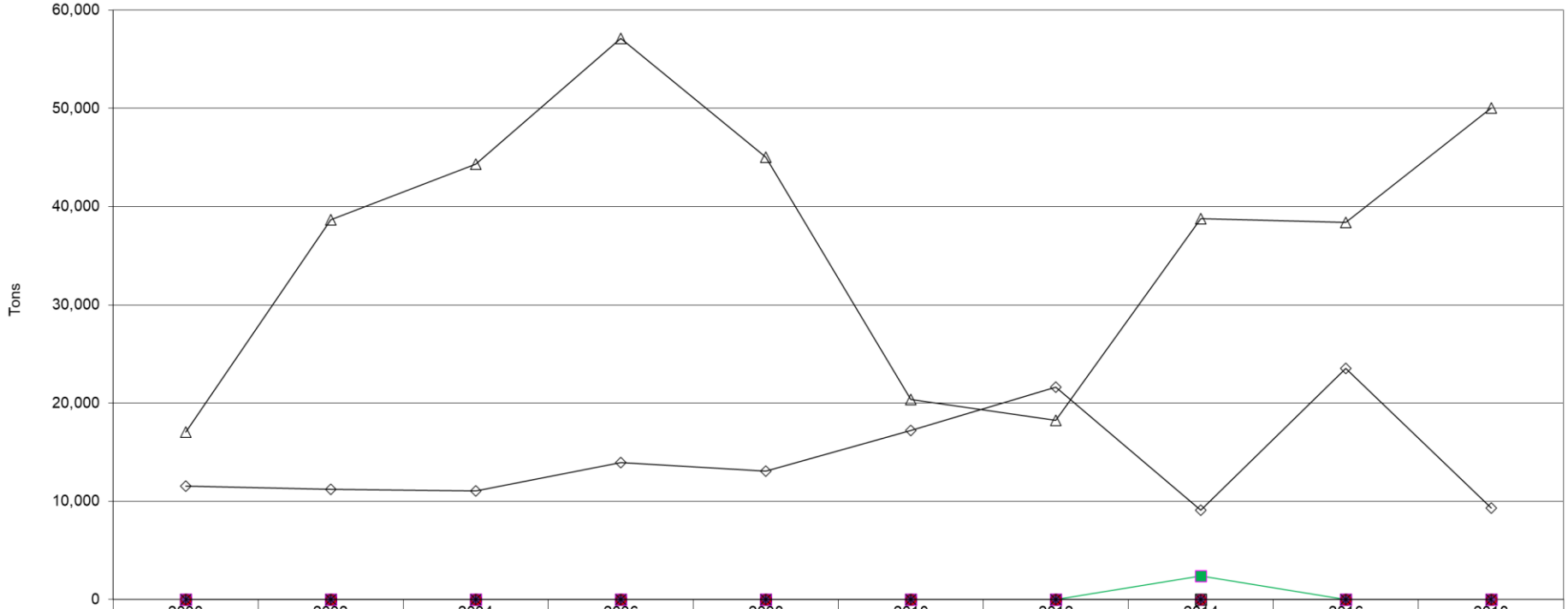
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
Exported to Non-NEWMOA	11,568	11,225	11,069	13,958	13,054	17,224	21,629	9,086	23,506	9,288
Exported to NEWMOA	17,057	38,643	44,346	57,142	45,025	20,375	18,220	41,194	38,410	50,066
Disposed In State	792,047	829,409	787,617	830,497	755,086	713,677	699,986	695,630	711,443	779,636

Figure 12: MSW Imports to Maine: 2000 through 2018
(Tons)



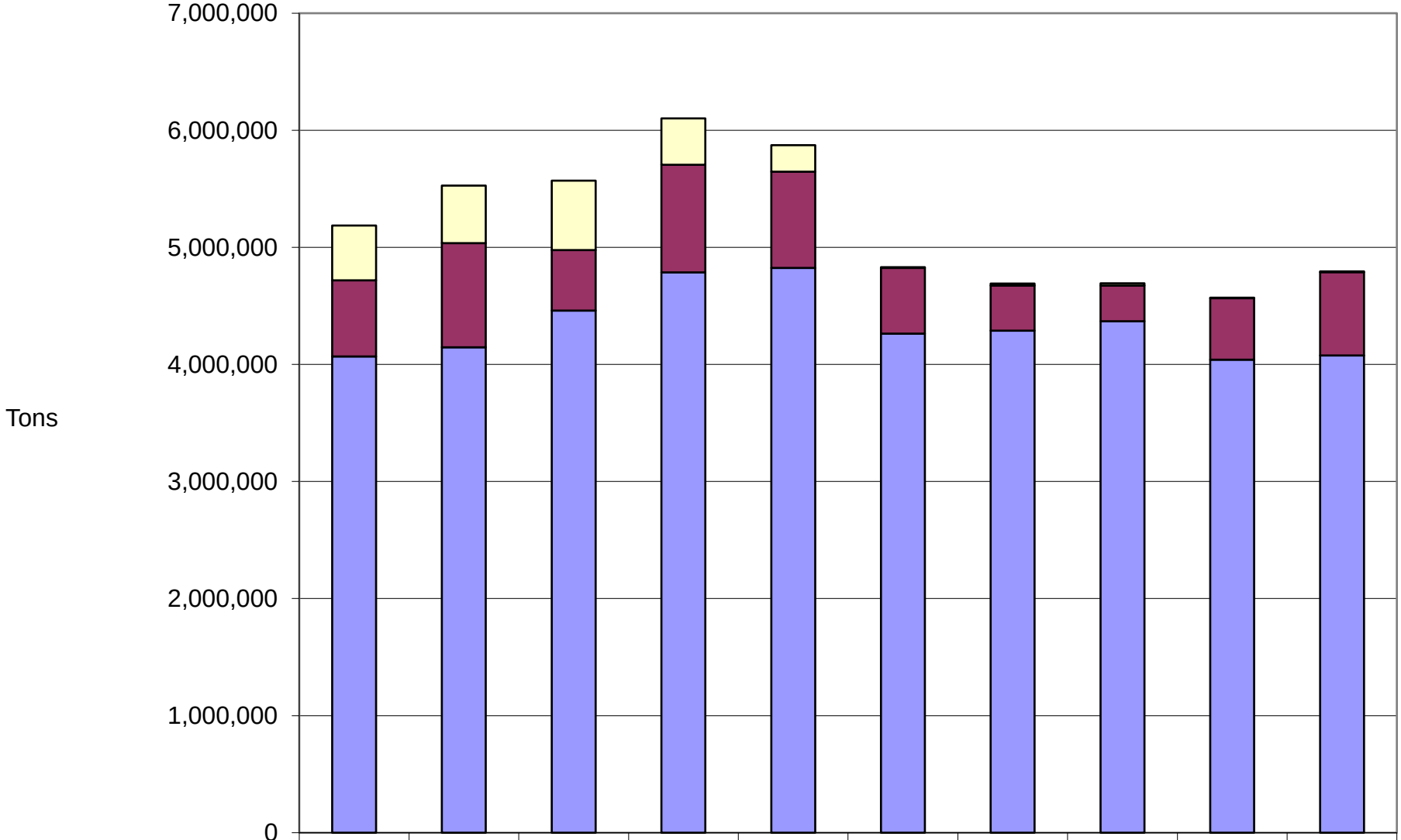
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
CT	0	0	0	0	0	0	0	0	0	0
MA	161573	151338	115,857	109,831	188,828	217,731	178,028	48,242	54,383	49,576
NH	33535	42000	57,545	47,776	47,274	58,024	60,284	8,174	12,590	3,181
NJ	0	0	0	0	0	0	0	0	0	0
NY	0	0	0	0	0	0	0	0	0	0
RI	0	0	0	0	0	0	0	0	0	0
VT	0	0	0	0	0	0	0	0	0	0
Other	0	1918	0	0	0	0	0	0	0	0

Figure 13: MSW Exports from Maine: 2000 through 2018
(Tons)



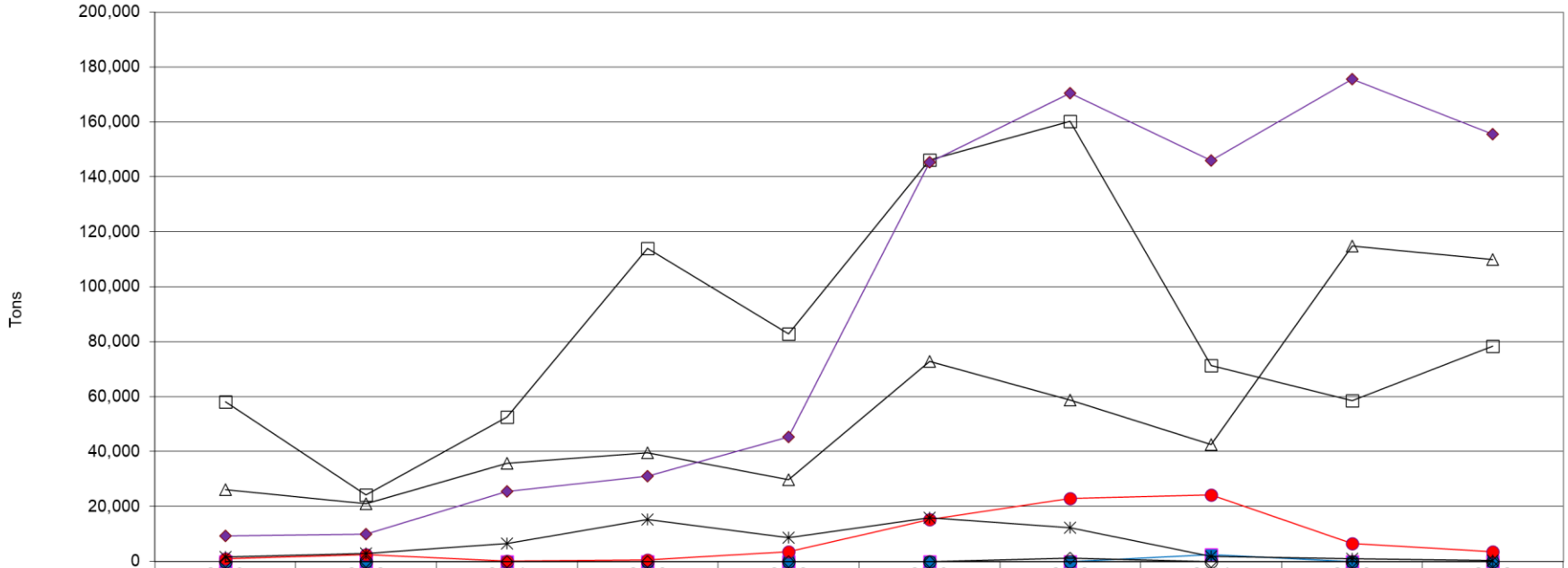
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
CT	0	0	0	0	0	0	0	0	0	0
MA	0	0	0	0	0	0	0	2,402	0	0
NH	17,057	38,643	44,346	57,142	45,025	20,375	18,220	38,792	38,410	50,066
NJ	0	0	0	0	0	0	0	0	0	0
NY	0	0	0	0	0	0	0	0	0	0
RI	0	0	0	0	0	0	0	0	0	0
VT	0	0	0	0	0	0	0	0	0	0
Other	11,567	11,224	11,069	13,958	13,054	17,224	21,629	9,086	23,506	9,288

Figure 14: MSW Generated in Massachusetts & Disposed of: 2000 through 2018 (Tons)



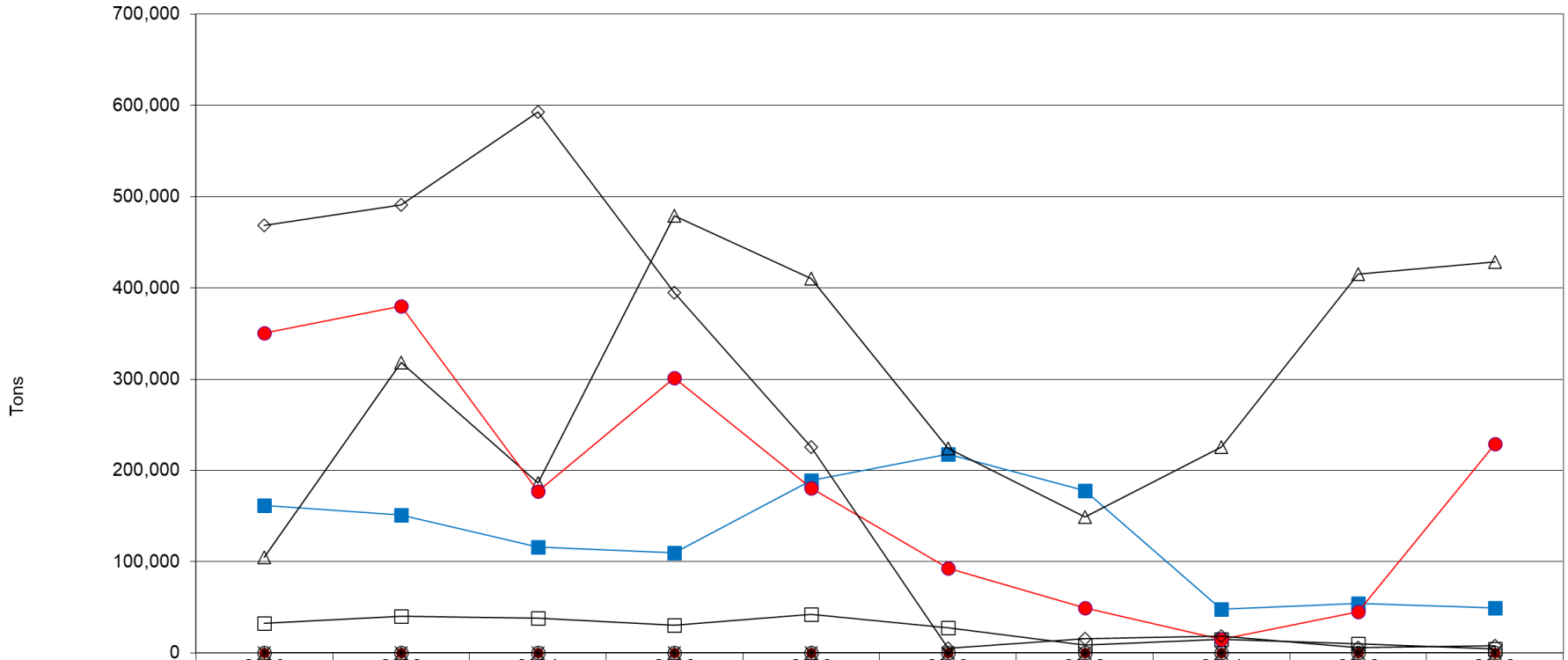
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
Exported to Non-NEWMOA	468,895	490,772	592,953	394,798	225,496	5,499	16,067	18,268	5,733	8,012
Exported to NEWMOA	649,476	889,635	517,812	921,115	822,837	562,658	385,512	304,211	524,557	711,989
Disposed In State	4,069,137	4,147,413	4,459,730	4,785,491	4,823,591	4,262,599	4,289,036	4,369,825	4,040,989	4,075,813

Figure 15: MSW Imports to Massachusetts: 2000 through 2018 (Tons)



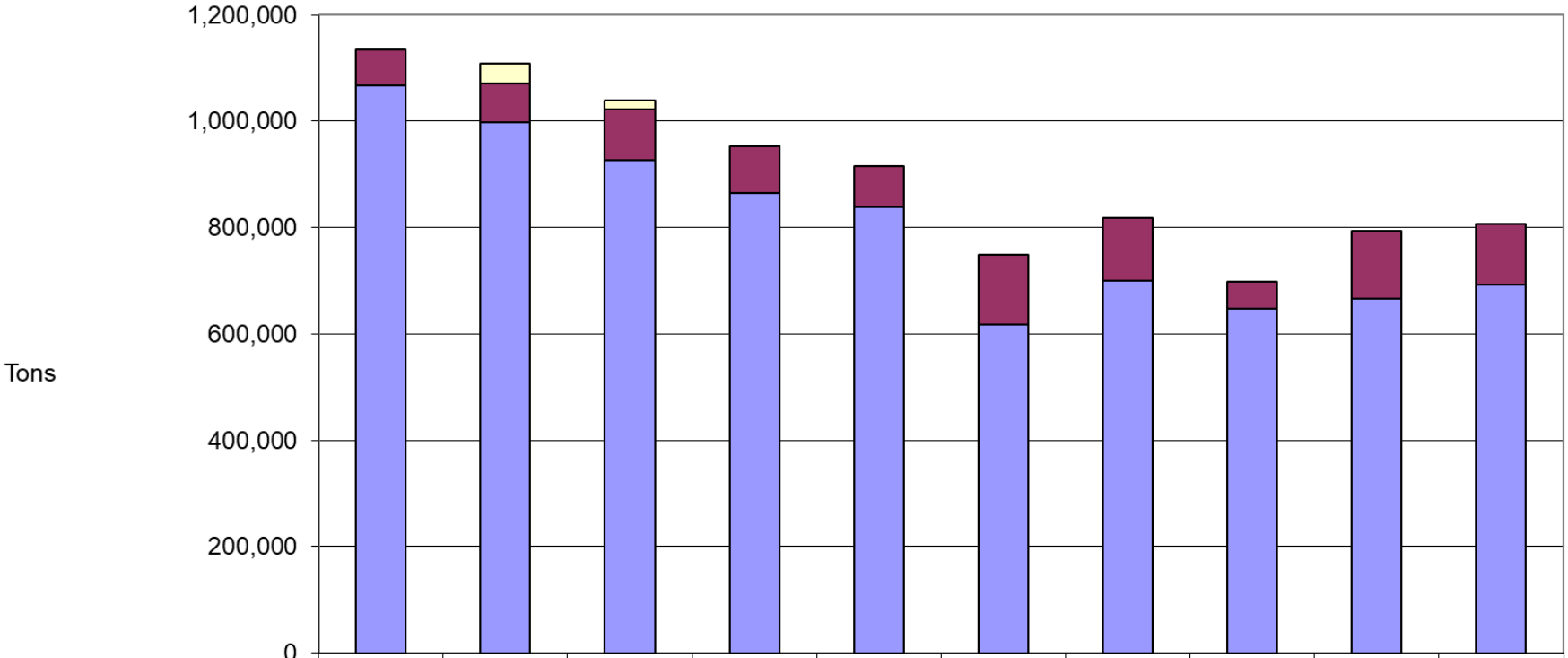
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
CT	58,019	24,155	52,680	113,980	82,861	146,190	160,299	71,344	58,619	78,383
ME	0	0	0	0	0	0	0	2,402	0	0
NH	26,047	20,952	35,705	39,568	29,851	72,920	58,705	42,578	114,800	110,004
NJ	0	0	0	0	0	0	0	0	0	0
NY	1,009	2,517	41	580	3,445	15,275	22,854	24,238	6,473	3,591
RI	9,231	9,934	25,389	31,127	45,333	145,301	170,454	145,909	175,636	155,492
VT	1,576	2,826	6,552	15,358	8,632	15,944	12,326	1,873	1,077	352
Other	0	0	0	0	0	0	1,094	0	0	0

Figure 16: MSW Exports from Massachusetts: 2000 through 2018 (Tons)



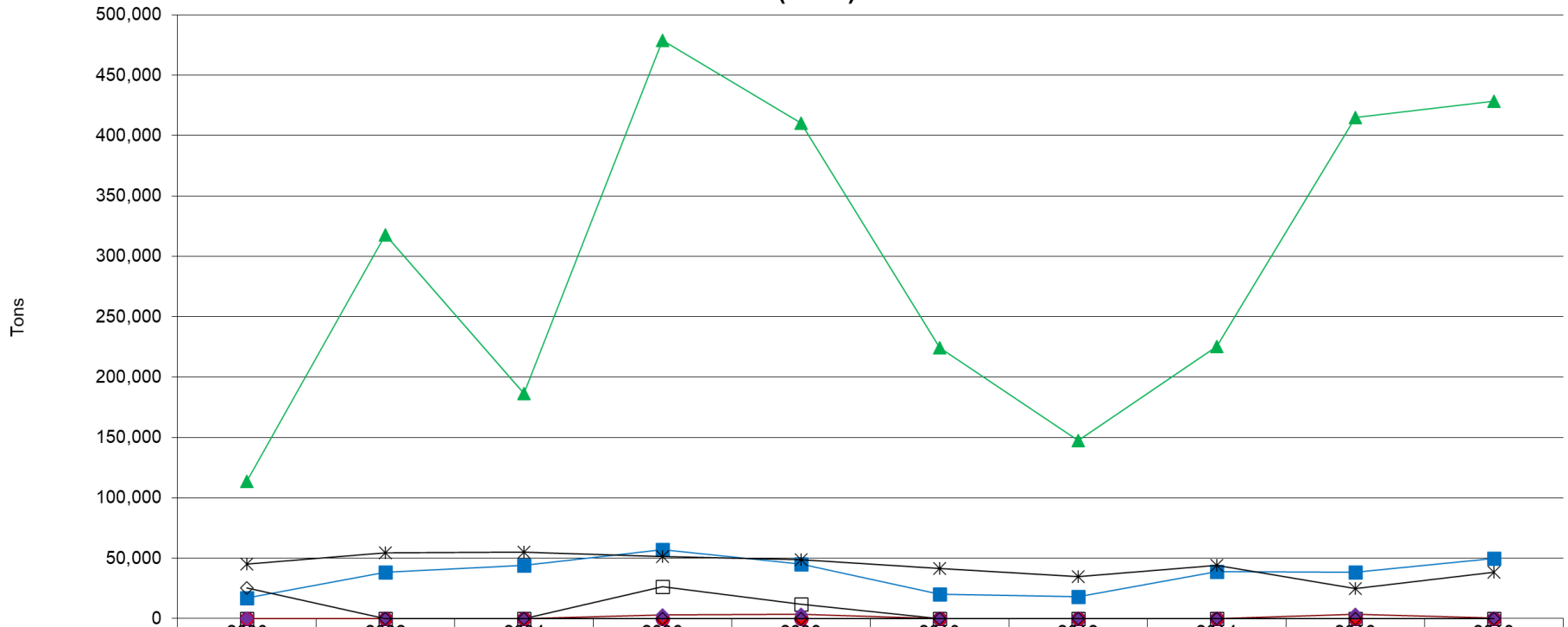
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
CT	32,682	40,168	38,479	30,767	42,517	27,756	8,956	15,350	10,150	4,564
ME	161,573	151,338	115,857	109,831	188,828	217,731	178,028	48,242	54,383	49,576
NH	104,709	318,129	186,455	479,144	410,466	224,486	148,829	225,683	414,944	428,734
NJ	0	0	0	0	0	0	0	0	0	0
NY	350,512	380,000	177,021	301,373	181,026	92,685	49,699	14,936	45,080	229,115
RI	0	0	0	0	0	0	0	0	0	0
VT	0	0	0	0	0	0	0	0	0	0
Other	468,895	490,771	592,953	394,798	225,496	5,499	16,067	18,268	5,733	8,012

Figure 17: MSW Generated in New Hampshire & Disposed of: 2000 through 2018 (Tons)



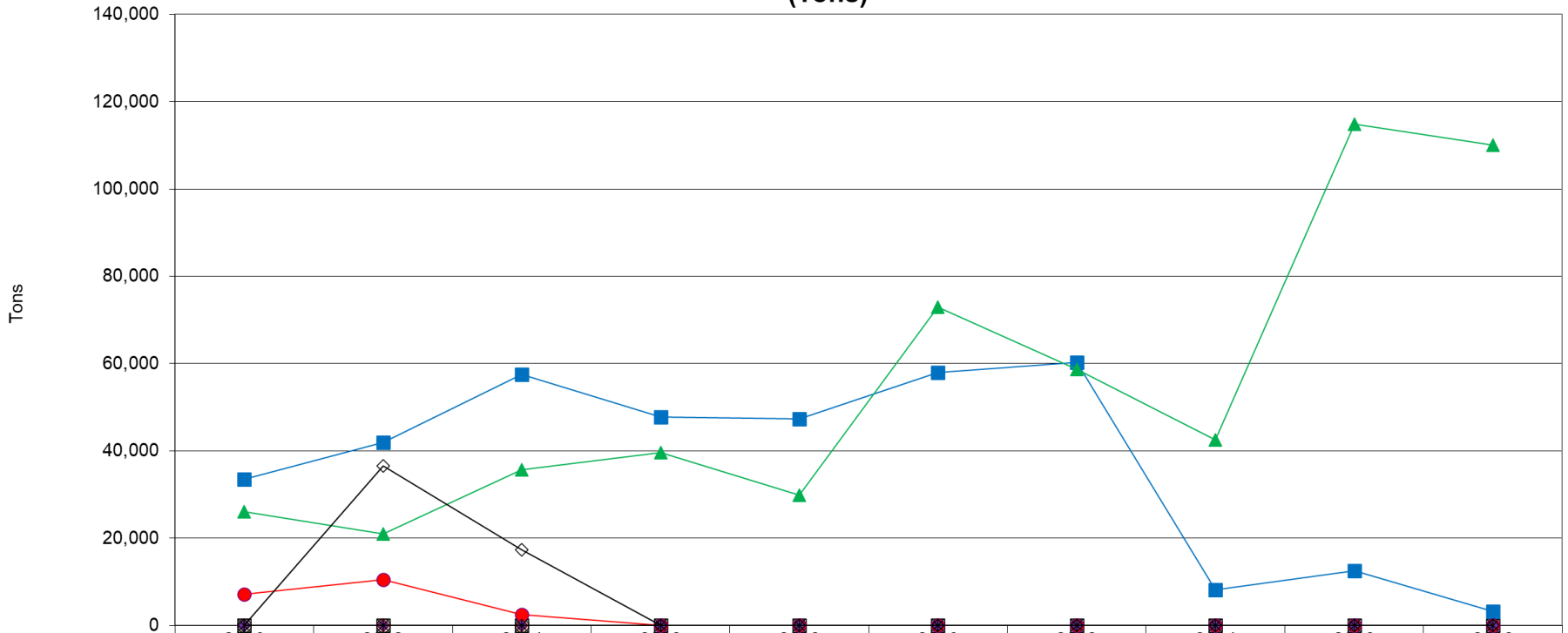
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
Exported to Non-NEWMOA	0	36,609	17,322	0	0	0	0	0	0	0
Exported to NEWMOA	66,688	73,404	95,756	87,344	77,125	130,960	118,989	50,752	127,390	113,185
Disposed In State	1,067,92	998,000	926,018	866,020	838,589	617,068	699,986	647,718	665,840	692,920

Figure 18: MSW Imports to New Hampshire: 2000 through 2018 (Tons)



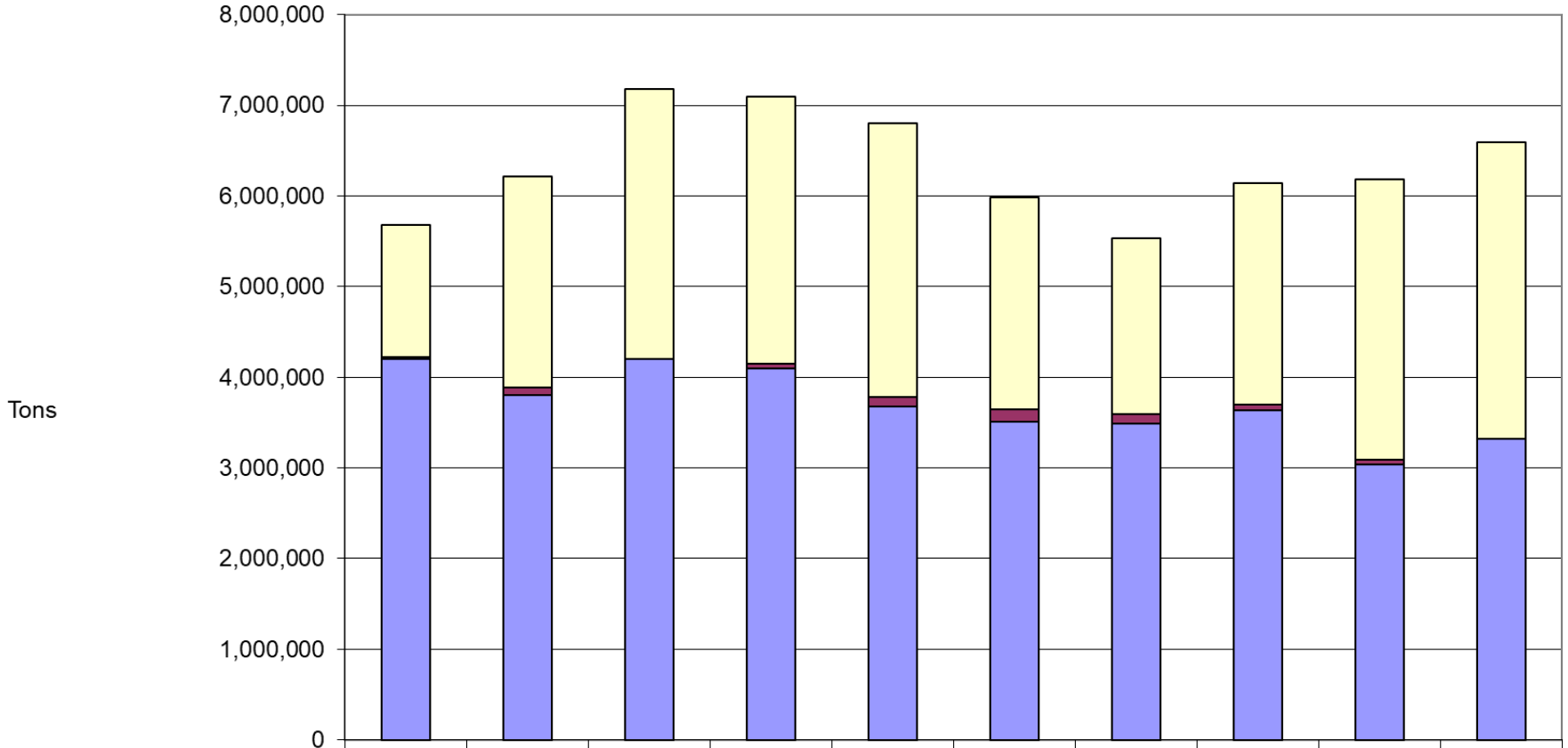
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
CT	77	0	0	26,474	11,845	0	0	0	0	0
ME	17,057	38,643	44,346	57,142	45,025	20,375	18,220	38,792	38,410	50,066
MA	113,852	318,129	186,455	479,144	410,466	224,486	147,626	225,683	414,944	428,734
NJ	0	0	0	0	0	0	0	0	0	0
NY	0	0	195	0	0	0	0	0	0	0
RI	0	0	0	2,934	3,631	4	0	4	3,431	619
VT	44,988	54,678	55,203	51,510	48,574	41,322	34,626	44,220	24,973	38,599
Other	25,424	0	0	0	0	124	0	0	0	0

Figure 19: MSW Exports from New Hampshire: 2000 through 2018 (Tons)



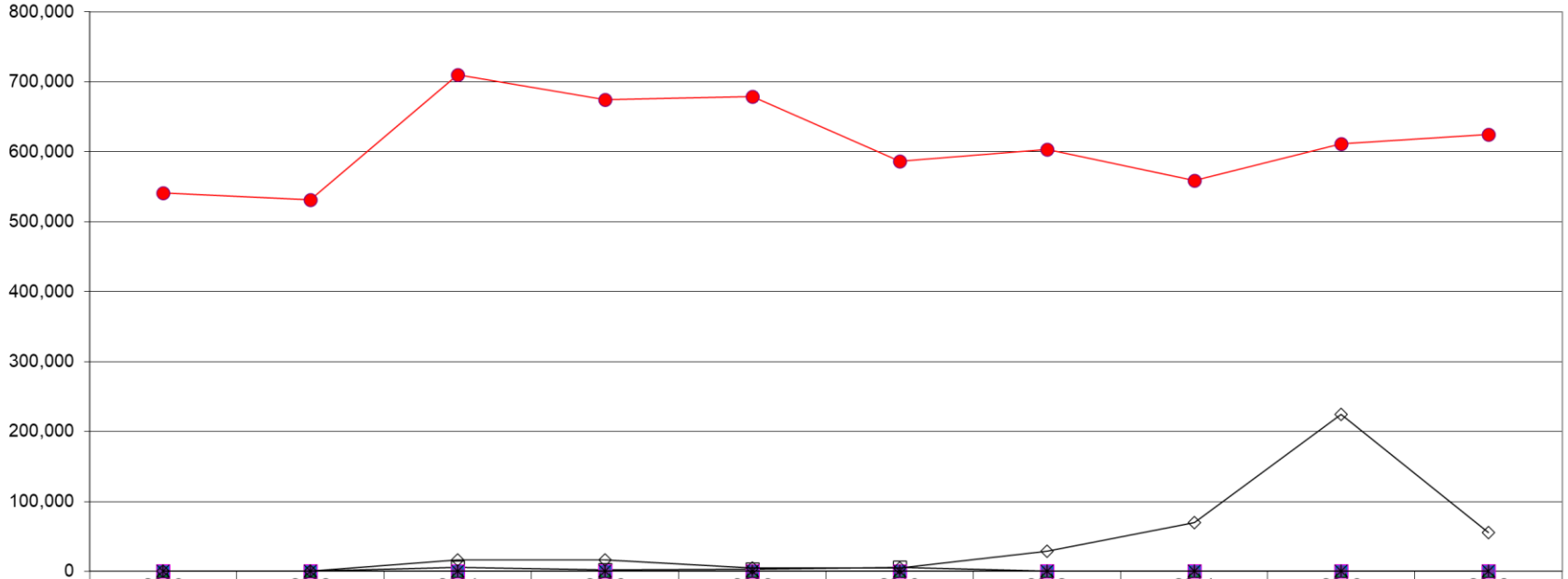
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
CT	0	0	0	0	0	0	0	0	0	0
ME	33,534	42,000	57,545	47,776	47,274	58,024	60,284	8,174	12,590	3,181
MA	26,047	20,952	35,705	39,568	29,851	72,920	58,705	42,578	114,800	110,004
NJ	0	0	0	0	0	0	0	0	0	0
NY	7,106	10,452	2,506	0	0	16	0	0	0	0
RI	0	0	0	0	0	0	0	0	0	0
VT	0	0	0	0	0	0	0	0	0	0
Other	0	36,608	17,322	0	0	0	0	0	0	0

Figure 20: MSW Generated in New Jersey & Disposed of: 2000 through 2018 (Tons)



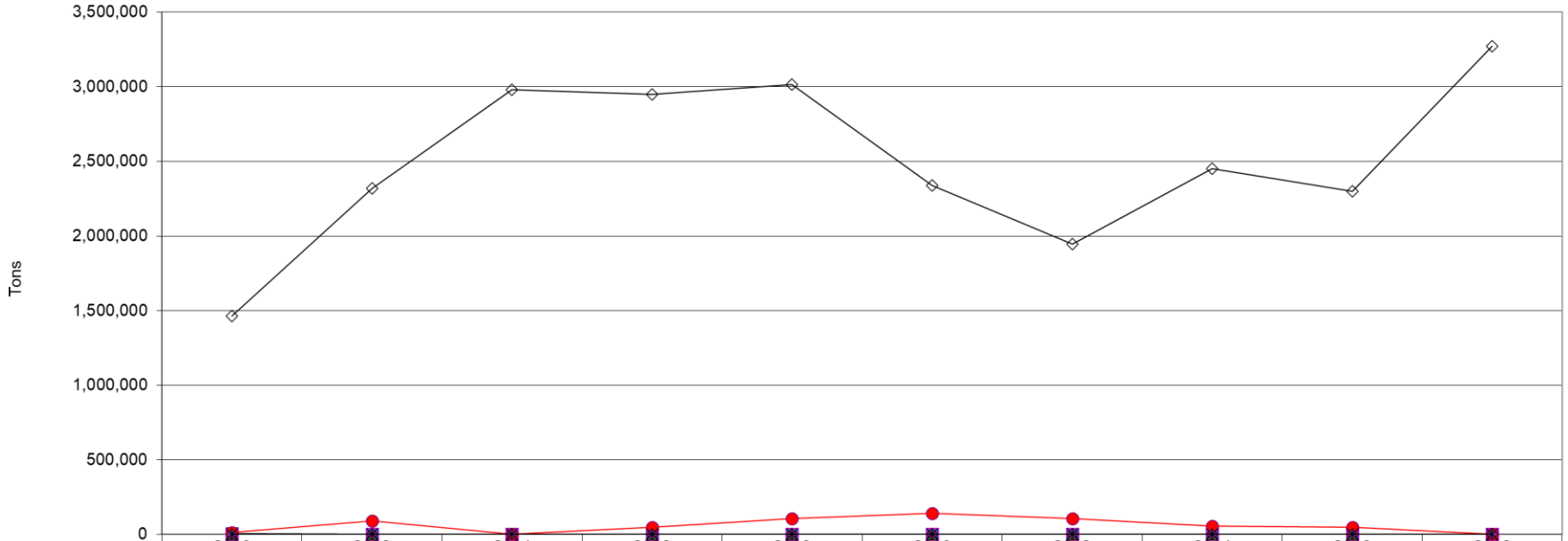
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
Exported to Non-NEWMOA	1,462,761	2,320,195	2,978,768	2,947,913	3,017,298	2,340,148	1,945,544	2,452,315	3,095,276	3,273,284
Exported to NEWMOA	18,266	90,000	2,414	48,866	106,930	141,413	106,086	57,738	46,742	211
Disposed In State	4,200,000	3,800,000	4,200,000	4,100,000	3,675,821	3,507,127	3,484,107	3,636,099	3,038,796	3,317,306

Figure 21: MSW Imports to New Jersey: 2000 through 2018 (Tons)



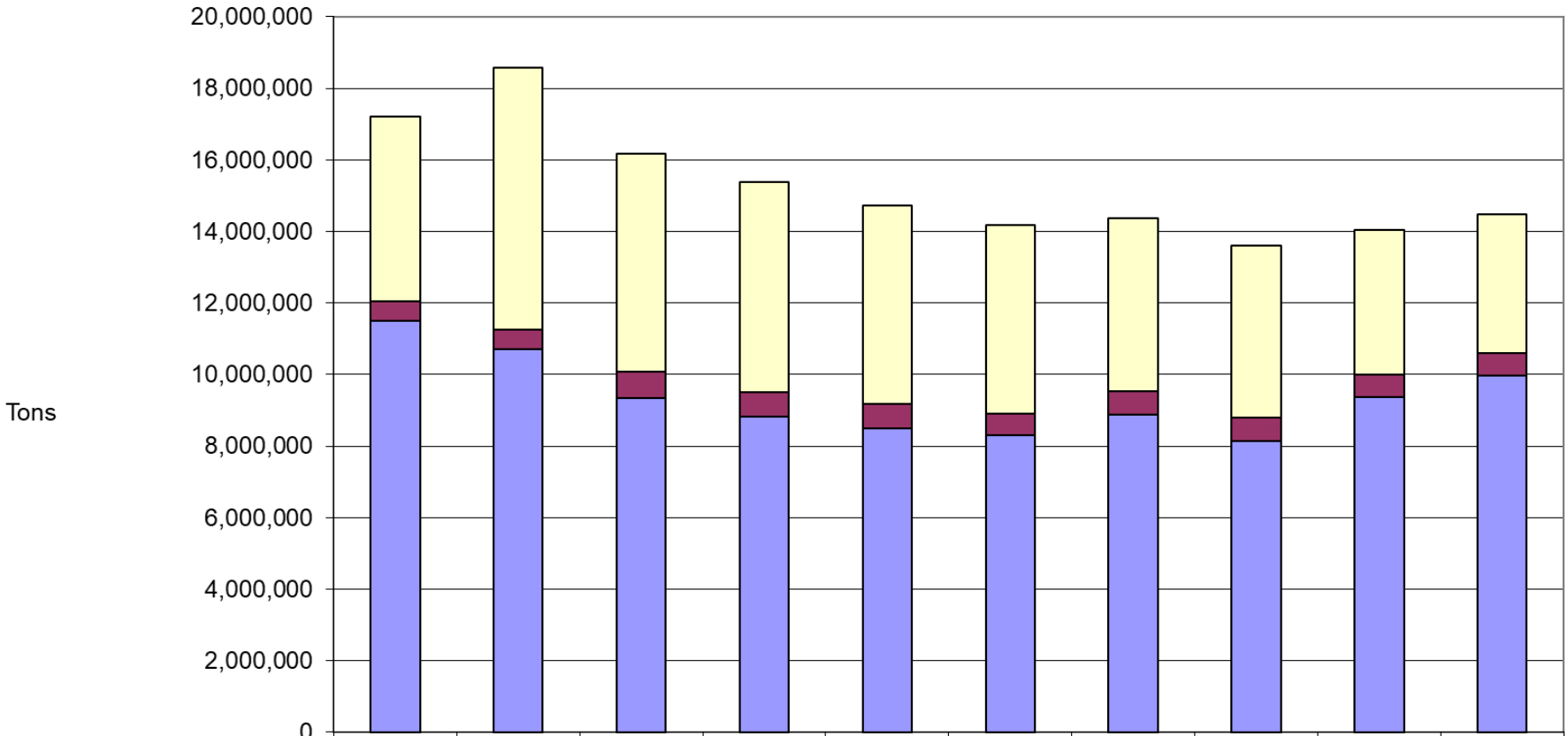
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
CT	0	7	5,804	2,571	3,213	5,671	87	4	242	0
ME	0	0	0	0	0	0	0	0	0	0
MA	0	0	0	0	0	0	0	0	0	0
NH	0	0	0	0	0	0	0	0	0	0
NY	541,291	531,561	710,031	674,308	679,043	586,380	602,986	558,898	611,462	624,281
RI	0	0	0	0	0	0	0	0	0	0
VT	0	0	0	0	0	0	0	0	0	0
Other	0	282	16,014	16,014	4,617	4,960	28,672	69,641	224,266	55,467

Figure 22: MSW Exports from New Jersey: 2000 through 2018 (Tons)



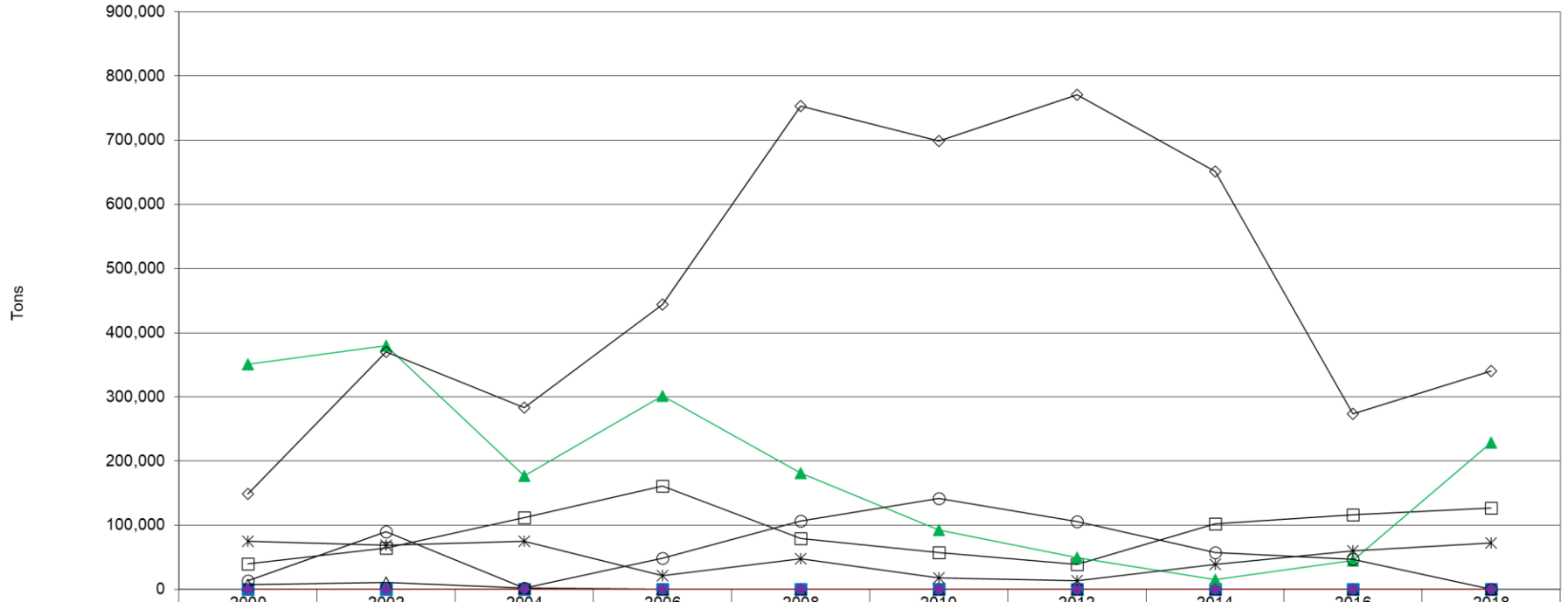
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
CT	4,795	8	0	0	0	0	0	0	0	0
ME	0	0	0	0	0	0	0	0	0	0
MA	0	0	0	0	0	0	0	0	0	0
NH	0	0	0	0	0	0	0	0	0	0
NY	13,471	90,000	2,414	48,866	106,930	141,413	106,086	57,738	46,742	211
RI	0	0	0	0	0	0	0	0	0	0
VT	0	0	0	0	0	0	0	0	0	0
Other	1,462,761	2,320,195	2,978,768	2,947,913	3,017,298	2,340,148	1,945,544	2,452,315	2,298,846	3,273,284

Figure 23: MSW Generated in New York & Disposed of: 2000 through 2018 (Tons)



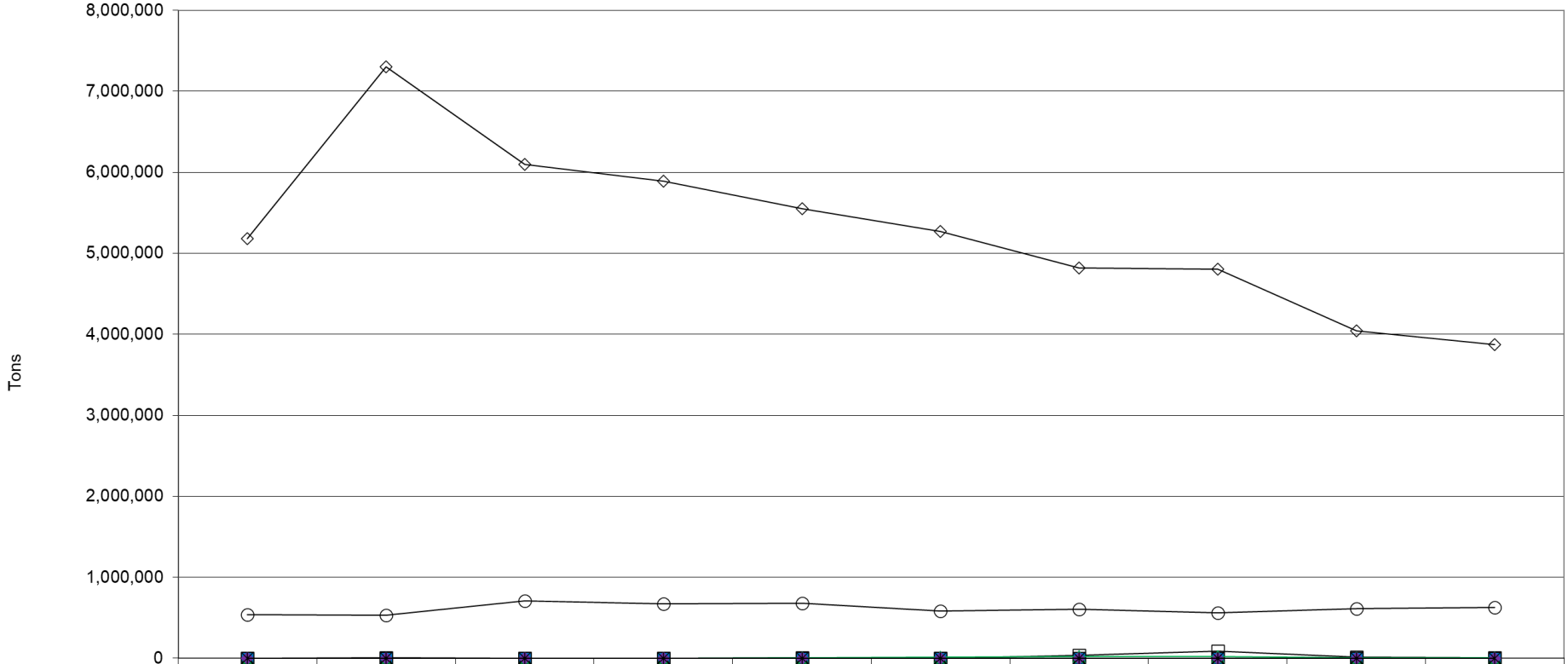
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
Exported to Non-NEWMOA	5,180,000	7,306,122	6,099,291	5,893,420	5,552,650	5,266,639	4,815,829	4,802,879	4,039,678	3,869,438
Exported to NEWMOA	544,181	537,838	712,979	677,051	686,707	604,663	659,073	673,718	630,362	636,112
Disposed In State	11,495,19	10,719,41	9,354,935	8,822,340	8,483,761	8,294,539	8,882,858	8,134,115	9,361,587	9,960,591

Figure 24: MSW Imports to New York: 2000 through 2018
(Tons)



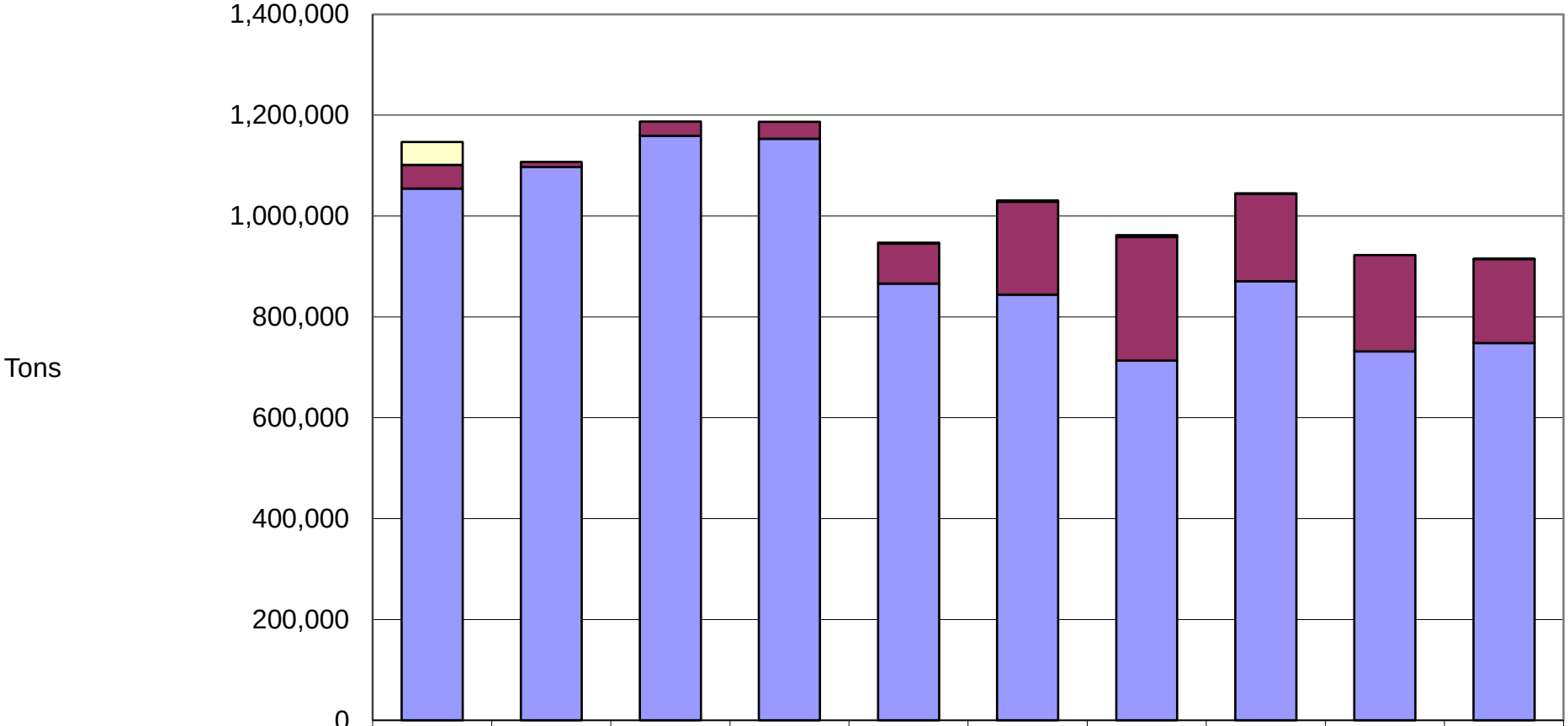
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
CT	39,684	64,471	111,479	160,945	79,833	57,066	39,013	102,392	116,460	126,549
ME	0	0	0	0	0	0	0	0	0	0
MA	350,512	380,000	177,021	301,373	181,026	92,685	49,699	14,936	45,080	229,115
NH	7,106	10,452	2,506	0	0	16	0	5	0	0
NJ	13,517	90,000	2,414	48,866	106,930	141,413	106,086	57,738	46,742	211
RI	0	0	0	0	0	0	0	0	0	0
VT	74,982	68,655	75,115	21,505	47,537	17,819	13,209	38,697	60,316	72,463
Other	148,595	370,172	283,351	444,076	752,880	698,467	770,553	650,975	273,510	339,931

Figure 25: MSW Exports from New York: 2000 through 2018 (Tons)



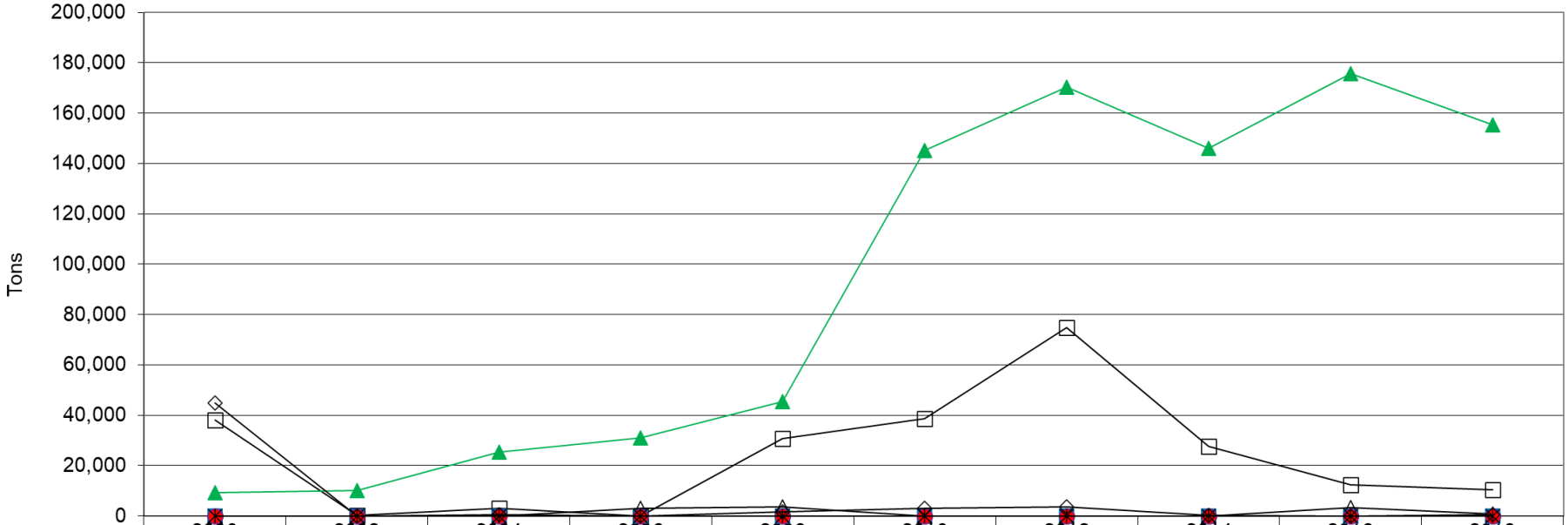
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
CT	1,881	3,760	2,712	2,163	4,219	3,008	33,233	90,582	12,427	8,240
ME	0	0	0	0	0	0	0	0	0	0
MA	1,009	2,517	41	580	3,445	15,275	22,854	24,238	6,473	3,591
NH	0	0	195	0	0	0	0	0	0	0
NJ	541,291	531,561	710,031	674,308	679,043	586,380	602,986	558,898	611,462	624,281
RI	0	0	0	0	0	0	0	0	0	0
VT	0	0	0	0	0	0	0	0	0	0
Other	5,180,000	7,306,122	6,099,291	5,893,420	5,552,650	5,266,639	4,815,829	4,802,879	4,039,678	3,869,438

Figure 26: MSW Generated in Rhode Island & Disposed of: 2000 through 2018 (Tons)



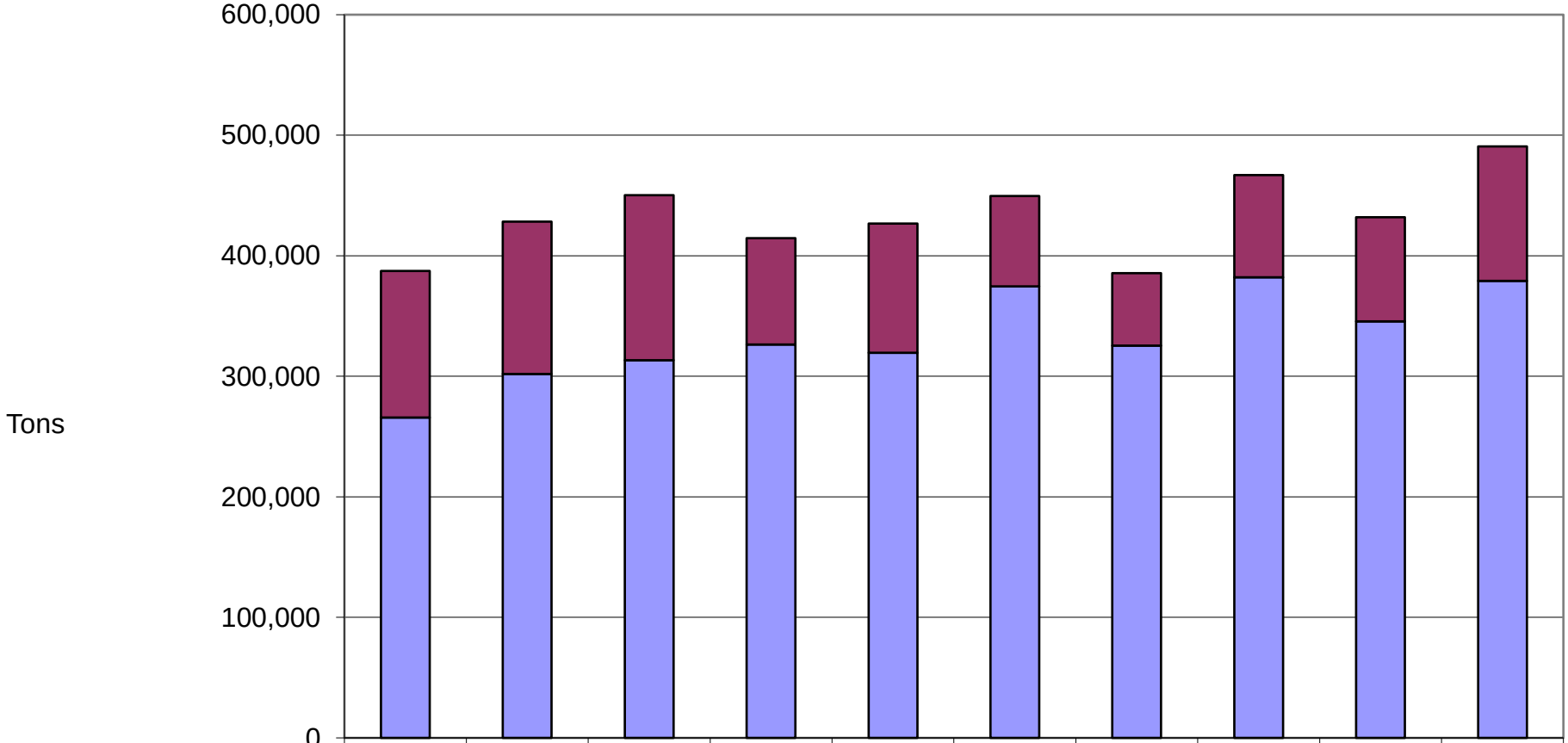
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
Exported to Non-NEWMOA	44,939	0	0	0	1,489	2,960	3,558	123	0	567
Exported to NEWMOA	47,383	10,101	28,266	34,061	79,562	183,996	245,250	173,420	191,359	166,508
Disposed In State	1,054,290	1,097,452	1,158,991	1,153,080	866,084	844,124	713,263	870,873	731,527	748,258

Figure 27: MSW Exports from Rhode Island: 2000 through 2018 (Tons)



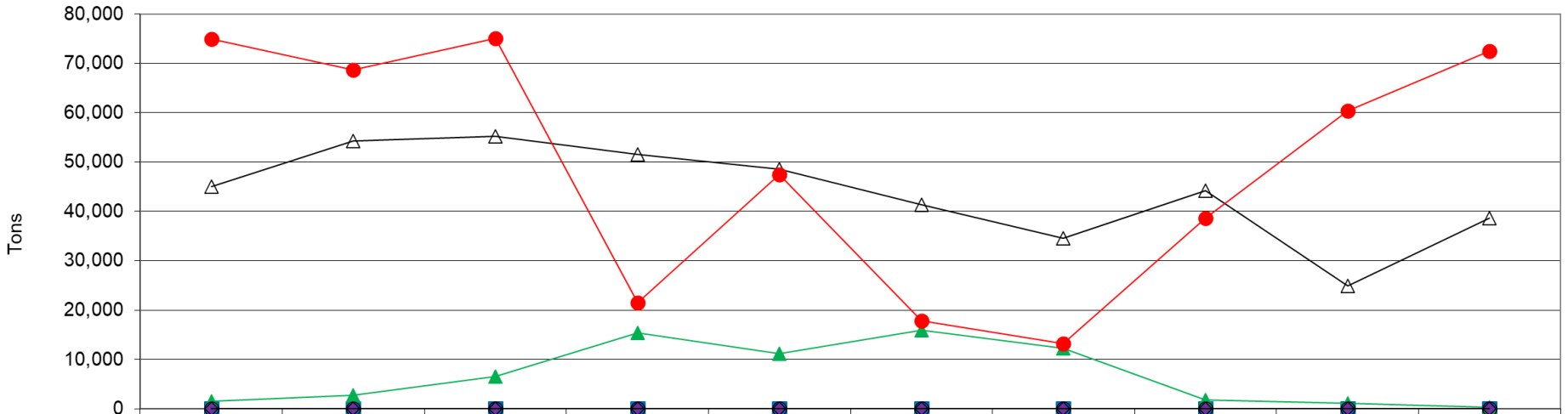
	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
CT	38,151	167	2,877	0	30,598	38,691	74,796	27,507	12,292	10,397
ME	0	0	0	0	0	0	0	0	0	0
MA	9,231	9,934	25,389	31,127	45,333	145,301	170,454	145,909	175,636	155,492
NH	0	0	0	2,934	3,631	4	0	4	3,431	619
NJ	0	0	0	0	0	0	0	0	0	0
NY	0	0	0	0	0	0	0	0	0	25
VT	0	0	0	0	0	0	0	0	0	0
Other	44,939	0	567	0	1,489	2,960	3,558	123	0	567

Figure 28: MSW Generated in Vermont & Disposed of: 2000 through 2018 (Tons)



	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
Exported to Non-NEWMOA	0	0	0	0	0	0	0	0	0	0
Exported to NEWMOA	121,546	126,256	136,870	88,373	107,337	75,085	60,161	84,668	86,366	111,414
Disposed In State	265,850	301,971	313,412	326,333	319,425	374,576	325,460	382,250	345,675	379,211

Figure 29: MSW Exports from Vermont: 2000 through 2018 (Tons)



	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018
CT	0	97	0	0	0	0	0	0	0	0
ME	0	0	0	0	0	0	0	0	0	0
MA	1,576	2,826	6,552	15,358	11,226	15,944	12,326	1,751	1,077	352
NH	44,988	54,268	55,203	51,510	48,574	41,322	34,626	44,220	24,973	38,599
NJ	0	0	0	0	0	0	0	0	0	0
NY	74,982	68,655	75,115	21,505	47,537	17,819	13,209	38,697	60,316	72,463
RI	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0