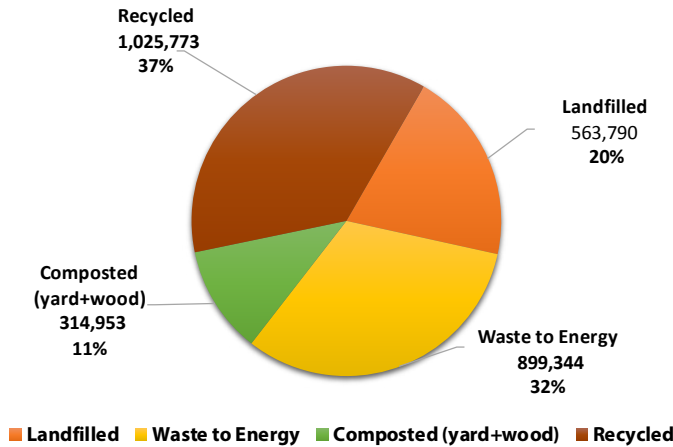


Northern Virginia Waste Report: Trends, Challenges, and Opportunities

2016 Processing Northern Virginia MSW (Tons)



2016	Northern Virginia	Virginia	Nova % of State
Tons Landfilled	559,890	4,803,223	12%
Tons Waste to Energy	903,245	1,675,770	54%
Tons PRM Recycled	1,025,773	4,738,150	22%
Population	2,461,620	8,411,808	29%
Population Density people/mile ²	1192	54 to 464	
DEQ Reported Recycle Rate	45.9%	42.6%	
Per Capita Waste lbs./day/person	6.24	7.45	
Per Capita Diversion lbs./day/person	2.98	3.23	

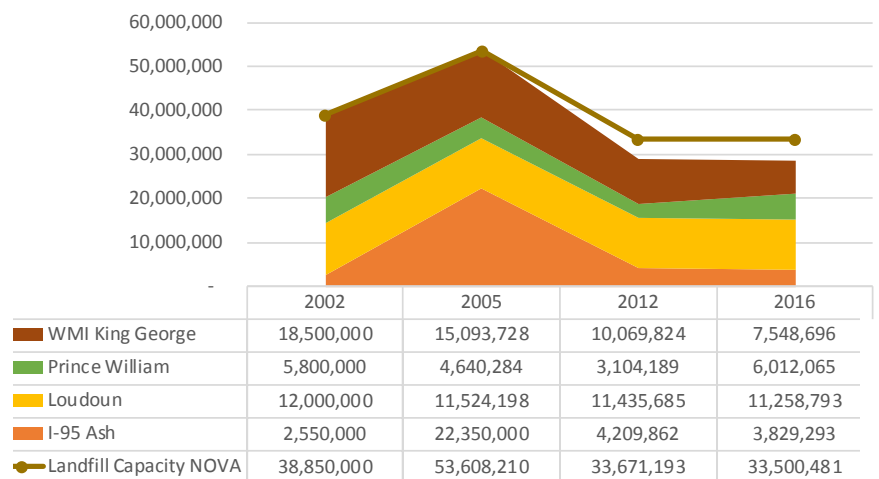
Solid waste disposal and recycling provides the region with a range of challenges and opportunities, according to a new report, *Public Solid Waste Services in the Washington Metropolitan Region*. Released in May 2018, the report relies mainly on the latest 2016 and 2017 data from 14 jurisdictions, with a particular focus on Northern Virginia.

Trends

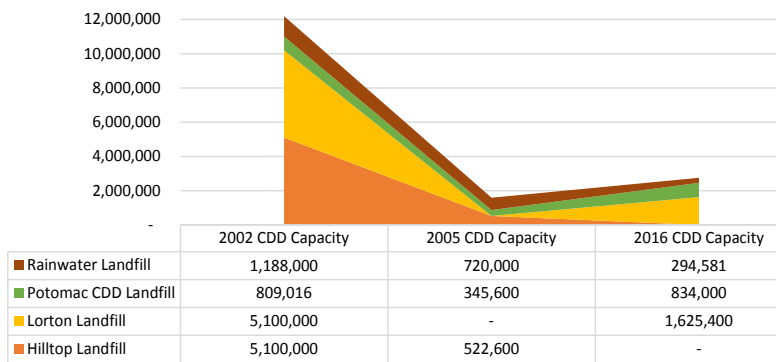
- In 2016, **Northern Virginia disposed of 1.47 million tons of municipal waste**, 70,000 tons more than in 2014. Per person, residents generated 6.24 lbs. per day -- or 2.28 tons per year.
- Despite increased use of private resources, **local governments remain the regulatory authority** for all commercial and residential solid waste management.
- Most disposal and yard waste is managed locally**, despite continued urban land use pressures. Local governments provide direct services to fewer residents, as commercial, multifamily, and homeowner associations increase and privately contract waste services.
- Jurisdictions report that **businesses create a majority of the region's waste**. Several jurisdictions report commercial (business) tonnages comprising 63-72 percent of the waste stream.
- Population and urbanization create challenges**. Population continues to increase, with steady disposal rates, while land use pressures limit opportunities for solid waste management. Nonetheless, Northern Virginia has ably managed regional waste disposal through landfills in Loudoun and Prince William, and two WTE plants, a 3000 T/day (1.095 MT/Y) facility in the Lorton area of Fairfax County, and a 975 T/day (365 KT/Y) facility in the Eisenhower Avenue facilities.

- Municipal solid waste (MSW) and construction demolition debris (CDD) landfill capacity in Northern Virginia has diminished** according to Virginia DEQ solid waste report (SWIA) data. In the region, Alexandria and Fairfax WTE facilities provide a majority of disposal. (This analysis predates the 2017 fire at the Covanta Fairfax facility, which resulted in an almost a yearlong closure and diversion of waste to King George and other landfills.)
- Fairfax and Alexandria/Arlington Waste to Energy facility agreements** end in 2031 and 2038, respectively. This change may affect regional disposal markets. Landfills exist in other portions of the state, but their use would create greater truck traffic on congested roads, and the export of materials currently disposed of within the region.

Municipal Solid Waste Landfill Capacity in Northern Virginia



Construction Debris Landfill Capacity in Northern Virginia



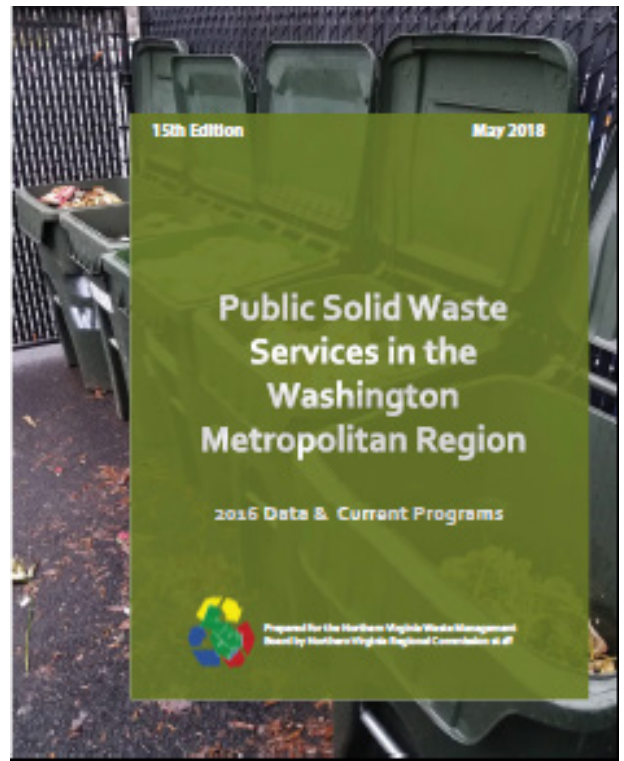
Recycling and Solid Waste Challenges

Jurisdictions in the densely populated Washington, DC region face a slew of interrelated challenges regarding public solid waste handling: the sheer amount of trash; the scarcity of effective infrastructure to recover and recycle elements of value back into manufacturing; reliance on foreign markets, and the subsequent dwindling of regional landfill capacity.

Approximately 35 percent of all recyclables collected in the U.S. are exported to overseas markets for use as raw materials in manufacturing, with China serving as the largest importer. The export of recyclables, however, has become more challenging due to a new Chinese policy that would ban some recycled materials imports and establish more stringent contamination thresholds for recycled materials. Achieving these goals may slow recyclable processing and essentially reduce capacity. The two recycled materials most affected are mixed paper and lower-grade plastics.

Challenges faced by jurisdictions include:

- **The disconnect between packaging and other materials that enter the recycling stream and their exit as products for reuse.** Most items are not designed for recycling. Single stream collection processing further mixes materials, which can contaminate recyclables and reduce or eliminate reprocessing value.
- **Contamination by improperly disposed hazardous materials, batteries, electronics, and trash creates a growing safety hazard, fire hazard, and damages system operations.** The overall waste handling and recycling system is impacted by both international market factors.
- **“Wishful” recycling** (when participants place incorrect materials into their recycling bins with the expectation that they will be sorted at the processing facilities) presents an additional challenge. The continuing evolution of the packaging stream – especially plastics – can also confuse participants about what is recyclable.



Opportunities

Reducing waste, and increasing diversion will help disposal capacity, increase jobs, and could reduce the local volatility and dependence on international markets. The NVWMB also recommends:

1. Virginia jurisdictions and stakeholders work together to enhance the Commonwealth’s resiliency to market volatility and to increase the state’s processing and manufacturing infrastructure;
2. Clarify and increase public education, with a focus on ending “wishful recycling”;
3. Both Product Stewardship and end-of-life design must be adopted broadly to shift and reduce the burden for local jurisdictions.

To view full report, please visit <http://www.novaregion.org/DocumentCenter/View/11950/2018-waste-report-final>. For further information, please contact NVRC Senior Environmental Planner Debbie Spiliotopoulos at dspilio@novaregion.org.