

2015 Solid Waste Management Plan Update

Prepared for Submittal to the Virginia Department of Environmental Quality

March 2015



County of Fairfax, Virginia
Department of Public Works and Environmental Services
Solid Waste Management Program
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Attachments

- A 2015 SWMP Update Research and Analysis. Prepared by ARCADIS US, Inc. September 2015.
- B Public Participation Materials
- C Board of Supervisors Resolution Adopting 2015 SWMP Update

1. Introduction

The Virginia Department of Environmental Quality (VDEQ) approved the County's current Solid Waste Management Plan (SWMP) on April 20, 2005 (the 2004 SWMP). The County's first five-year review of the 2004 Plan was approved by VDEQ on June 24, 2010. This report presents the second five-year review (the 2015 SWMP Update), developed in accordance with 9VAC20-130-120. Generally, the analysis and projections prepared for the 2004 SWMP remain current as reflected in the five-year review submitted in 2010; however, there are several trends, described herein, that warrant further comment. The appended report, 2015 SWMP Update Research and Analysis, provides a detailed presentation of the study conducted in preparation of this 2015 SWMP update.

This 2015 SWMP Update was made available to the public for review and comment from December 4, 2014 through March 3, 2015. The Fairfax County Board of Supervisors held a public hearing on the 2015 SWMP Update on March 3, 2015. The Board of Supervisors approved the motion to adopt the 2015 SWMP Update.

2. Plan Update Elements

This 2015 SWMP Update addresses the following topics:

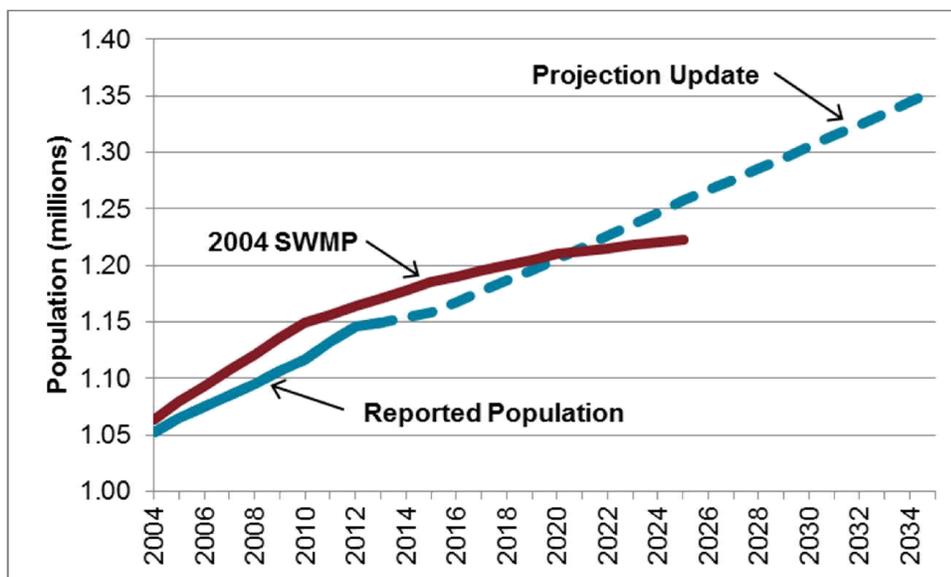
- Populations/Demographics
- Waste Generation
- Waste Projections
- Recycling
- Construction and Demolition Debris (CDD)
- Solid Waste Management Facilities
 - MSW Facilities
 - Recycling Facilities
 - CDD Facilities
- Facility Permit Status Changes
- Highlights of Current Plan Elements
- Future Planning Considerations
- Public Participation Efforts in support of the 2015 SWMP Update

The following sections discuss those elements of the 2004 SWMP that based on this five-year review, warrant further comment. Each section is cross-referenced with the relevant section of the 2004 SWMP.

3. Updates to the 2004 SWMP

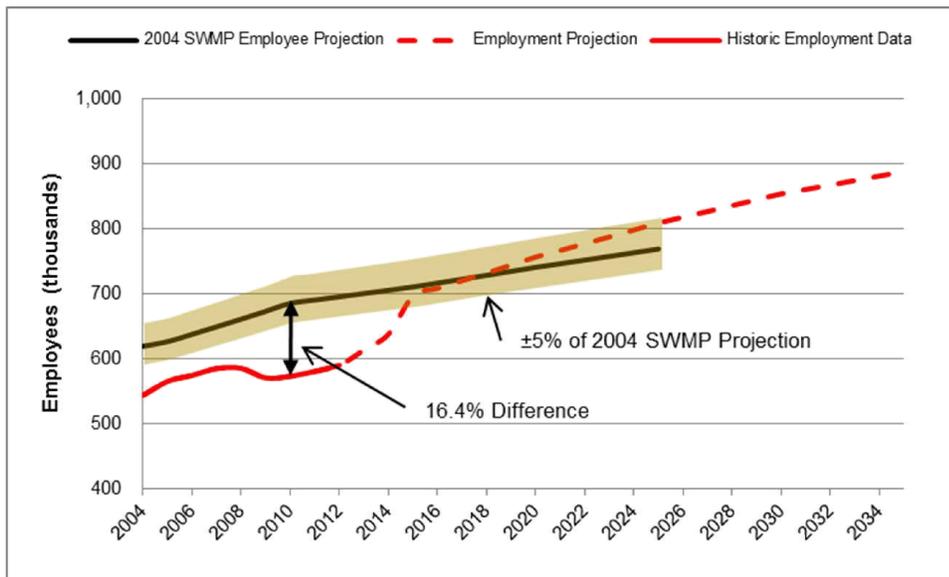
3.1 Population/Demographics (*Chap. 2 of 2004 SWMP; Population, p. 2-4; Population Forecasts, p. 2-5; Employment, p. 2-9*)

Population. For the five-year review, population projections were developed using demographic information available from the Fairfax County Department of Neighborhood and Community Services and the U.S. Census Bureau. U.S. Census population data for Fairfax County were reviewed for consistency with County population projections. As the 2004 SWMP covered the geographic footprint of the County, including Cities and Towns, U.S. Census data were used to incorporate the populations of Cities of Fairfax and Falls Church. The population projection from our five-year review, including reported actual populations from 2004 to 2013, was compared to the population projection used in the 2004 SWMP as shown below. The updated population projection is within $\pm 3\%$ of the 2004 SWMP.



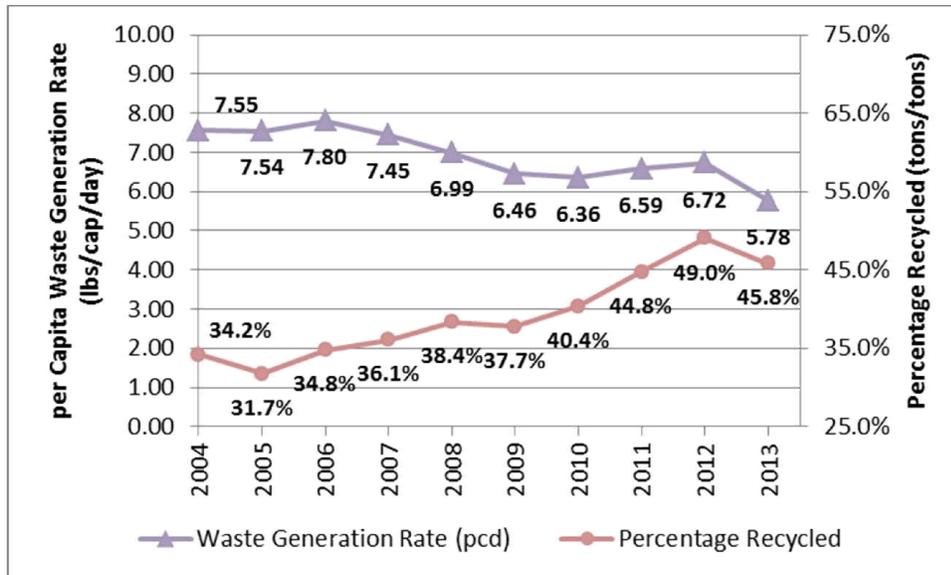
Employment. Employment data was reviewed as a secondary means to support the evaluation of actual waste generation to that projected in the 2004 SWMP. Employment projections were developed based on data available from the U.S. Census and the Metropolitan Washington Council of Governments (MWCOC).

As shown below, historic employment lagged the 2004 SWMP projection beginning in 2004 (-12.2%), and reached a maximum difference in 2010 (-16.4%), consistent with the recent economic downturn. Reported employment in the County has shown recovery since 2010, although remaining significantly below the 2004 SWMP projection. Employment levels in the County likely contributed in the observed decline in waste generation, discussed in Section 2.2, below. Current employment projections anticipate a steady increase in employment in the County, reaching and exceeding the 2004 SWMP projection by 2018.



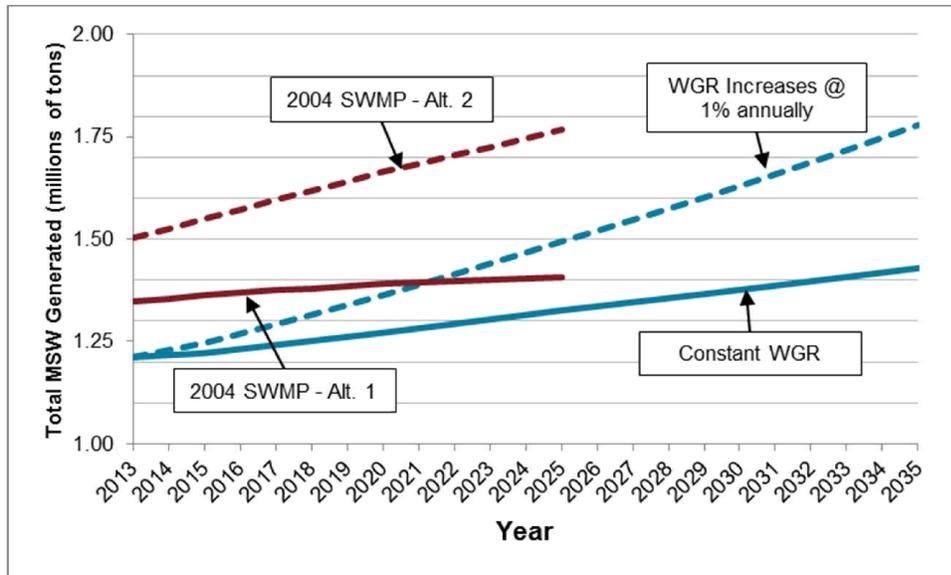
3.2 Waste Generation (Chap. 2 of 2004 SWMP; Solid Waste Generation Projections, p. 2-24)

Historical Waste Generation Rates (WGRs). For the five-year review, updated waste projections were developed based on population and per-capita WGRs. WGRs were determined using historical MSW disposal and recovered recyclables data for the years 2004 through 2013, inclusive of the County and Cities and Towns. As shown below, WGRs have declined over the period 2004- 2013, from a peak WGR of 7.80 pounds per capita per day (lbs/cap/day) in 2006 to a low of 5.78 lbs/cap/day in 2013. Over the same period, the percentage recycled has steadily increased. In terms of total MSW generated (MSW disposed and recyclables recovered), annual tonnages have been somewhat variable.



Waste Projections. Two alternatives were developed for the five-year review to conservatively estimate total MSW generation: (1) constant WGR using 2013 data (intended to present a lower expected bound); and (2) annual growth in WGR of one percent (intended to present an expected upper bound). The second alternative was developed in part to account for potential over-conservatism regarding 2013 data, as discussed above.

The Total MSW generation is projected below the 2004 SWMP Alternative 1 projection (baseline projection) by varying amounts (as much as 10 percent between 2014 and 2016) (p. 2-27 of the 2004 SWMP). Both of the updated projections remain below the 2004 SWMP Alt. 1 until 2022, at which time the upper bound scenario (WGR increasing at an annual rate of one percent) surpasses the 2004 SWMP lower bound (Alt. 1). The updated MSW generation projection based on a constant WGR remains more than 5% below the 2004 Plan lower bound (Alt. 1) through 2025. Overall, the updated projections are similar, although somewhat lower, than the total MSW projections presented by Alt.1 and Alt. 2 of the 2004 SWMP. These projections are illustrated in the following figure that compares these results with the 2004 SWMP.



3.3 Recycling (Chap. 2 of 2004 SWMP; Waste Generation Projections, p. 2-14)

For the five-year review, the County created projections for recycling over the planning period using three scenarios.

- Scenario 1 – The percent recycled was set to equal the maximum percent recycled experienced since the implementation of single-stream recycling and implementation of the distribution of larger recycling bins (49.0%)
- Scenario 2 – The percent recycled was set to increase at the annual rate of change in the County's recycling rate for the 5-year period from 2009-2013 (1.5%). To address the potential for over-estimation, as this timeframe includes program improvements known to yield short-term increases in recovered recyclables a maximum percent recycled of 60% was incorporated, a maximum attained (by projection) in 2032.
- Scenario 3 – Recycling tonnage was adjusted based on population, mirroring the total MSW generation projections. The average of recovered recyclables for the three-year period from 2011 to 2013 was used as the basis for this projection (50.2%). This scenario includes principal recyclable materials as well as supplemental recyclable materials.

The results of the analysis are shown in the table below. The three scenarios project a recycling rate of between 49% and 60% by 2035, which is greater than the historical rate in 2013 of 45.8%. The 2004 SWMP showed a recycling rate of 32% in 2002 (Chap. 2 of the 2004 SWMP, p. 2-15)

Recycling Scenario Projections										
Year	Scenario 1			Scenario 2			Scenario 3			
	Percentage Recycled	Recycled Tonnage		Percentage Recycled	Recycled Tonnage		Recycled Tonnage	Percentage Recycled	Recycled Tonnage	
		Alternative 1 – Constant WGR	Alternative 2 -WGR Increase @ 1%/yr		Alternative 1 - Constant WGR	Alternative 2 -WGR Increase @ 1%/yr			Alternative 1 – Constant WGR	Alternative 2 -WGR Increase @ 1%/yr
2013	45.8%	555,664	555,664	45.8%	555,664	555,664	555,664	45.8%	555,664	555,664
2014	49.0%	596,296	602,258	46.5%	566,293	571,956	610,398	50.2%	610,398	616,502
2015	49.0%	598,744	610,779	47.2%	577,117	588,717	612,904	50.2%	612,904	625,224
2020	49.0%	623,041	667,984	50.9%	646,777	693,432	637,776	50.2%	637,776	683,782
2025	49.0%	649,799	732,209	54.8%	726,493	818,631	665,166	50.2%	665,166	749,526
2030	49.0%	674,407	798,703	59.0%	812,063	961,730	690,357	50.2%	690,357	817,593
2035	49.0%	700,363	871,754	60.0%	857,588	1,067,453	716,927	50.2%	716,927	892,370

3.4 Construction and Demolition Debris (*Chap. 2 of 2004 SWMP; CDD, p. 2-15*)

The County does not track and record CDD generation and management data (CDD facilities are not required to report in-County generation to the County or to state regulating agencies). Therefore, a population-based estimating method was used for this five-year review. State agency annual waste management reports were reviewed to determine the total CDD generated in Virginia. This method is conservative, as VDEQ reports CDD generation specifically by state and does not include Virginia-generated CDD exported out-of-state. According to the VDEQ reports, CDD generated and managed in Virginia was 3,351,168 tons and 3,216,230 tons in 2012 and 2013, respectively. On a per-capita basis, the corresponding CDD generation rate was 0.41 tons/person/year in 2012 and 0.39 tons/person/year in 2013, or an average for both years of 0.40 tons/person/year (2.2 lbs/person/day).

For our analysis, a range of CDD generation was developed using Fairfax County projected population and: (a) the average CDD generation for Virginia, based on available 2012 and 2013 data (2.2 lbs/capita/day); and (b) the USEPA's estimated generation rate of 2.93 lbs/capita/day. The table shown below summarizes the range of projections. It is noted the projected CDD generation rates are lower than estimates in the 2004 SWMP, which calculated an average CCD generation for the period 1998-2002 of 4.14 lbs/capita/day (Chap. 2 of 2004 SWMP; Table 2-6, p. 2-16).

Fairfax County Estimated CDD Generation (tons)		
Year	CDD Generation Rate (lbs/person/year)	
	2.2	2.93
2013	459,640	609,024
2014	461,535	611,534
2015	463,430	614,045
2020	482,236	638,962
2025	502,946	666,404
2030	521,993	691,641
2035	542,084	718,261

3.5 Solid Waste Facilities (Chap. 5 of 2004 SWMP)

MSW Facilities. The County's solid waste management system utilizes a number of facilities for the management, processing and disposal of recyclables and MSW. Primary facilities include the I-66 Transfer Station and the Covanta Energy/Resource Recovery Facility (E/RRF) located at the I-95 Landfill Complex. Approximately 75% of MSW generated and collected in the County is delivered to the I-66 Transfer Station Complex, where post-recycling MSW is directed to various facilities for processing and disposal. The balance of the MSW generated and collected in the County is delivered directly to the Covanta E/RRF, which from 2009 through 2013 has accepted and processed over 90% of the County's MSW.^{1,2} Secondary facilities include the Prince William

¹ The County recently negotiated a Waste Disposal Agreement with Covanta that provides the County a maximum processing capacity guarantee of 682,500 tons on an annual basis beginning February 2, 2016, upon the expiration of the current Service Agreement. The Waste Disposal Agreement is for a five-year period, with options for two five-year extensions. The Waste Disposal Agreement further provides the County the ability to deliver MSW in excess of 682,500 tons per year to the E/RRF, subject to mutual agreement between the County and Covanta.

² Covanta's property lease with the County for the Covanta E/RRF expires in 2031.

County Landfill and the King George Landfill, where the County transfers MSW at various times including periods of peak MSW generation and periods when processing capacity at the Covanta E/RRF is constrained due to maintenance. Ash residue generated from MSW processing at the Covanta E/RRF is disposed in the County's I-95 Landfill (Area III).

Sufficient MSW disposal capacity exists for County waste through the planning period. The table below lists MSW facilities currently utilized by or potentially available to Fairfax County for the transfer and disposal of MSW.

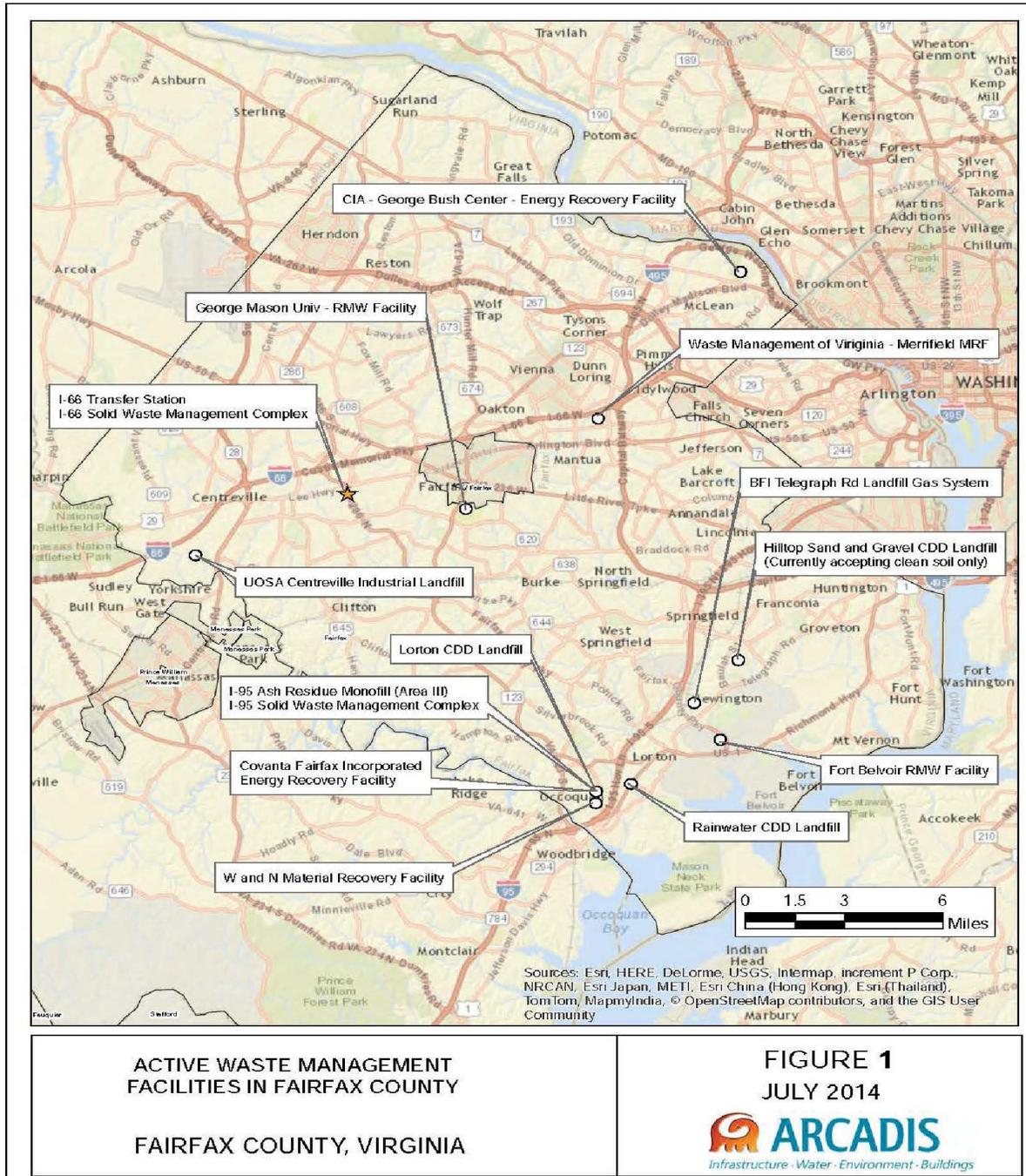
MSW Facilities used by or potentially available to Fairfax County				
Facility	Location	Use	Remaining Capacity⁽¹⁾	Remaining Useful Life⁽¹⁾
I-66 Transfer Station*	Fairfax, VA	MSW Transfer	3,000 TPD	>20 years
Covanta E/RRF*	Lorton, VA	MSW Disposal	3,000 TPD (~1.2 million TPY)	>20 years
I-95 Landfill (Area III)*	Lorton, VA	Ash Residue Disposal	4,209,861	32
Prince William County Landfill*	Manassas, VA	MSW Disposal	2,814,870	12
King George Landfill* ⁽²⁾	King George, VA	MSW Disposal	9,519,264	14.6
King and Queen Landfill	Little Plymouth, VA	MSW Disposal	9,441,589	29.8
Atlantic Waste Disposal	Waverly, VA	MSW Disposal	40,808,523	71.6
Old Dominion Landfill	Richmond, VA	MSW Disposal	2,546,103	6.2
Shoosmith Sanitary Landfill	Chester, VA	MSW Disposal	7,500,000	12

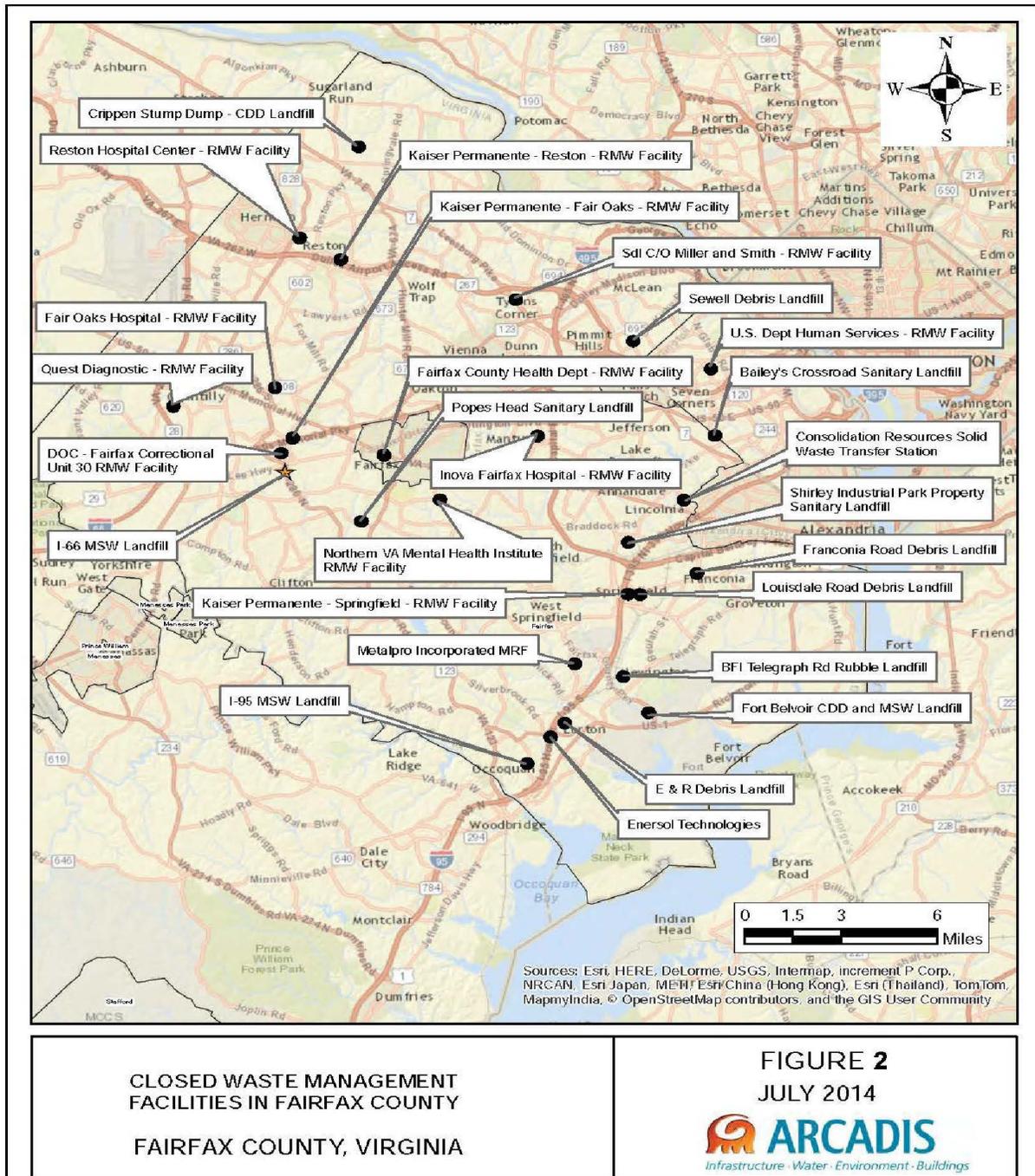
Notes:

1. Source: VDEQ Solid Waste Managed in Virginia During Calendar Year 2013. Reported current permitted capacity listed. Tons per day - TPD. Tons per year – TPY.
2. It has been reported the King George Landfill is currently planning a vertical expansion that would extend the facility's useful life by 15 years.

* Facility currently utilized by Fairfax County.

Figure 1 shows active waste management facilities in the County and the table below contains information about the facilities currently used by the County for MSW disposal or that are potentially available should additional capacity be required. Figure 2 shows those facilities in the County that are now closed.





CLOSED WASTE MANAGEMENT FACILITIES IN FAIRFAX COUNTY
FAIRFAX COUNTY, VIRGINIA

FIGURE 2
JULY 2014



Recycling Facilities. The County recycling program is comprehensive, providing several avenues for residents and businesses to recycle. Curbside, single-stream recycling has been implemented Countywide. In addition, the County's offers drop-off services for principal (i.e., paper, plastic, metal, glass, yard waste) and supplemental recyclable materials (i.e., Special Waste and Household Hazardous Waste (HHW)) at both the I-66 Transfer Station Complex and the I-95 Landfill Complex. The program is serviced by the private sector, with numerous outlets used for the range of recyclables recovered both curbside and at the I-66 and I-95 complexes. Capacity of the private sector recycling infrastructure servicing the County is expected to be sufficient for the County's needs through the planning period.

CDD Facilities. Limited CDD is accepted by the County at the I-66 Transfer Station Complex and the I-95 Landfill Complex (30,000-40,000 tons per year). At the time of the preparation of the 2004 SWMP, CDD generated in the County was managed largely by the private sector with disposal provided at six facilities: Hilltop Debris Landfill, Lorton CDD Landfill, Rainwater Conc. Company Landfill, Potomac Landfill, Corral Farm Landfill and the Waste Management Manassas Transfer Station.

The table below lists CDD facilities located in Fairfax County and out of County expected to be utilized by the County (or CDD generators within the County) for management of CDD. The Ritchie Land Rubble Landfill (owned by Environmental Alternatives, Inc., the parent company of C&D Recovery II, a CDD processing/transfer station located in Manassas) is included as it is expected that CDD generated in Fairfax County is likely captured by this nearby facility.

CDD Facilities Accessible by Fairfax County CDD Generators ⁽¹⁾							
Facility	Year					Estimated Remaining Capacity (tons, as of 12/2013)	Expected Remaining Life (years)
	2009	2010	2011	2012	2013		
	Tons Accepted						
Hilltop Sand & Gravel Company	59,296	173,820	76,524	68,031	35,277	Currently accepting clean fill only.	
Lorton CDD Landfill ⁽²⁾	675,708	672,697	1,183,348	844,986	1,065,426	4,351,506	~ 3
Rainwater Landfill	40,049	21,095	29,365	23,855	28,802	402,408	15.8
Potomac CDD Landfill ⁽³⁾	54,156	50,322	62,608	69,833	102,790	611,400	15.0
Corral Farm CDD Recycling	41,341	20,458	14,943	14,026	15,974	Facility reports cessation of waste acceptance in June 2103.	
CDD Disposal/Facilities not reflected in 2004 SWMP							
Broad Run Recycling*	156,500	156,500	156,500	156,500	156,500	156,500	
Ritchie Land Rubble Landfill ⁽⁴⁾	183,444	199,796	276,921	261,342	Not Available	6,085,287	27.5

Notes:

1. Source: Unless otherwise noted, VDEQ and Maryland DEQ annual solid waste reports. Fauquier County's Corral Farm data from facility.
2. The remaining life of the Lorton Landfill is approximately three years as of the date of this report as the facility is scheduled to close on or before December 31, 2018.
3. The Potomac CDD Landfill's Part A Application for expansion is on hold pending review of expansion alternatives.
4. Ritchie Land Rubble Landfill – 2013 data not available. Estimated remaining capacity assumes 2013 tonnages equivalent to 2012. In addition, daily truck trip restrictions limits CDD acceptance.

* Facilities currently utilized by Fairfax County.

In addition to the facilities listed above, there are several CDD processing, recycling or transfer facilities in the region providing capacity for CDD generated in the County. These facilities include:

- CFP, LLC (C&D Recycling, LLC), Manassas VA: reported daily operating capacity: 189 tons per day (TPD);
- Potomac Landfill Inc. CDD MRF, Alexandria VA: reported daily operating capacity: 221 TPD;
- Waste Management, Inc., Merrifield VA (transfer station): reported daily operating capacity: 721 TPD;
- Waste Management, Inc., Sterling VA (transfer station): reported daily operating capacity: 522 TPD;
- Waste Management, Inc., Leesburg VA (transfer station): reported daily operating capacity: 750 TPD; and
- W&N Material Recovery Facility, Lorton, VA (CDD materials recovery and processing facility): permitted operating capacity: 33 cubic yards (CY) per day.

While it is noted that CDD can be accepted for disposal at MSW landfills and the additional regulatory requirements for MSW landfills are expected to result in increased disposal costs, it is anticipated the private sector will address gaps in supply and demand and continue to provide for the management and disposal of CDD.

3.6 Facility Permit Status Changes

As part of the County's five-year review, we reviewed regulatory permitting data and facility information for MSW management and CDD management facilities to determine permit status/changes that could affect the County's ability to manage its solid waste. The primary source of information for this review was VDEQ's permits database:³

MSW Management Facilities:

- INOVA Fairfax Hospital is listed as a closed facility in the VDEQ database. -
- Metalpro is listed as a closed facility in the VDEQ database. -
- Vanguard Research, Inc., Plasma Energy Pyrolysis System is listed as a closed facility in - the VDEQ database.

³<http://www.deq.virginia.gov/Programs/LandProtectionRevitalization/PermittingCompliance/ActivePermits.aspx>

CDD Management Facilities:

- County Waste, a transfer station in Fredericksburg, VA with a reported capacity of 600 TPD, is listed as a closed facility in the VDEQ database.
- Alex Transfer, a transfer station in Alexandria, VA with a reported capacity of 1,000 TPD, is listed as a closed facility in the VDEQ database.
- The Hill Top Sand and Gravel Company reports accepting clean soil only.
- W&N Material Recovery Facility, located across the street from the Lorton CDD Landfill in Lorton, VA, received a permit in 2010 to process CDD materials. The facility has a permitted capacity of 200 CY per week, which is equivalent to 33 CY per day.

VDEQ reported planned or pending MSW or CDD permit applications:⁴

- BFI Old Dominion Landfill, Richmond, VA. Permit 553 – VDEQ Part A Application for a new facility;
- Potomac CDD Landfill, Dumfries, VA, Permit 441 – VDEQ Part A Application for an expansion;⁵
- East End Landfill, Richmond, VA, Permit 524 – VDEQ Part A Application for an expansion; and
- Dominion Virginia Power, located in Chester, VA. Permit 609 – VDEQ Part B Application for a new facility. (Discussions with VDEQ indicate this application relates to coal ash impoundments proposed to be managed under VDEQ solid waste management regulations.)

For the purposes of the 2015 SWMP Update, none of the above facilities contributes significantly to the management of the County's solid waste.

⁴Public reports indicate the King George Landfill is planning to submit a permit application for a vertical expansion, adding approximately 15 years of additional capacity.

⁵ Potomac Recycling indicates the Part an Application for expansion is on hold pending review of facility expansion alternatives.

3.7 Highlights of Current Plan Elements

Consistent with the 2004 SWMP, the table below summarizes elements of the County's SWMP for source reduction and reuse, recycling, disposal, collection, and waste transfer, including the objectives and future initiatives under consideration for the County's system.

	Objectives	Future Solid Waste Management System
Source Reduction and Reuse	<ul style="list-style-type: none"> Expand source reduction and reuse programs in Fairfax County to minimize waste generation Increase public awareness to increase participation in source reduction and reuse initiatives Promote public/private partnerships to increase program efficiency and minimize County costs 	<ul style="list-style-type: none"> Increase public outreach and education to promote source reduction and reuse Promote yard waste composting and/or grasscycling programs Develop a regional approach to source reduction and reuse with MWCOG and others Implement County internal source reduction and reuse programs
Recycling	<ul style="list-style-type: none"> Increase overall recycling quantities in Fairfax County to minimize waste disposal Promote the provision of facilities for the sanitary, efficient and economical management of recyclables Increase general public and business sector awareness, to increase participation in recycling initiatives 	<ul style="list-style-type: none"> Promote public/private recycling programs Improve public and business-targeted outreach and education to promote recycling Investigate viability of expanding recycling, on a voluntary or regulatory basis Address suitable recycling alternatives for multi-unit buildings Continue current yard waste recycling system; contract with out-of-county composting facilities for dedicated capacity Explore VDOT use of recyclable materials in road construction Support expansion of the capacity of existing material recovery facilities (MRFs), if quantities of recyclable materials warrant expansion Continue using the current special wastes management system
Disposal	<ul style="list-style-type: none"> Provide for the operation of sanitary waste disposal facilities, using the most economically viable and environmentally acceptable methods available 	<ul style="list-style-type: none"> Continue use of the current disposal system with Covanta Fairfax, Inc. (as the preferred alternative) Foster regional initiatives regarding CDD management and disposal Improve public outreach and education, specifically for CDD management and disposal

	Objectives	Future Solid Waste Management System
Collection	<ul style="list-style-type: none"> • Improve service • Reduce collection truck traffic impacts, including impacts on air quality • Promote a more homogenous service level to support unified recycling and collection messages 	<ul style="list-style-type: none"> • Partner with private waste collection companies and community stakeholders to improve residential collection services • Continue current vacuum leaf collection system • Improve public outreach and education, specifically education for CDD collection alternatives • Consider programs to establish best management practices for CDD generators and haulers • Promote use of special fuels, filters, and special vehicles for collection • Improve operational efficiency • Generate revenue to defray cost of recycling and community benefit programs
Transfer	<ul style="list-style-type: none"> • Provide disposal capacity for County-generated waste at reasonable costs • Continue to accept waste generated in the County at the I-66 Transfer Station or other location. 	<ul style="list-style-type: none"> • Add transfer capabilities to the I-95 Landfill Complex, should increases in transfer quantities or otherwise required to effectively manage solid wastes generated in the County • Improve public outreach and education to promote SWMP transfer actions

3.8 Future Planning Considerations

The County remains committed to providing efficient and cost-effective solid waste management services to residents and business. The County administers its diverse program respective of future industry trends to maintain an awareness of opportunities to advance the program. Collecting information and data from these and other routine County activities, the County's future planning considerations focus on three areas:

- Using public education and outreach to:
 - increase public awareness of the benefits of waste reduction, reuse and recycling;
 - promote recycling;
 - promote proper management of special wastes; and
 - improve participation in the County's various waste management programs.
- Using technology to:
 - improve system efficiency, performance and cost-effectiveness;
 - improve recovery of materials that can be recycled or reused; and
 - access new markets for materials in the waste stream.
- Using cooperative approaches to:

- where appropriate, develop programs to address challenging issues on a more regional basis to achieve necessary levels of efficiency and cost-effectiveness; and
- attract private sector interest to invest locally in the County's solid waste management program.

4. Public Participation

4.1 Strategy and Planning

The 2004 SWMP provides strategies and processes for managing solid waste for the 20-year planning period (through 2035). Objectives for the facilities and programs within Fairfax County to help protect public health and safety, guard the environment, and maintain the quality of life for residents of Fairfax County are established. This is accomplished through environmentally responsible collection, transfer and disposal of solid waste, while recycling materials that help to reduce the waste stream generated by County residents and businesses.

Although much of the management of solid waste is the responsibility of County government, over 80% of the solid waste services necessary currently are provided by private companies and organizations. Examples include hazardous waste disposal, handling of regulated medical waste, hauling and disposal of CDD, waste disposal, recyclables processing, waste transportation and collection of waste from about 90% of the County households.

In order to determine public opinion about how waste should be managed during the planning period, a public outreach and education campaign was implemented as part of the development of the 2015 SWMP Update. Public participation activities are described below.

4.2 Public Outreach Activities

County staff prepared a presentation addressing the requirements for the development of the 2015 SWMP Update identifying how the County currently handles solid waste and exploring issues anticipated to arise during the planning period. The major themes of the presentation were asking citizens to participate in the development of the 2015 SWMP Update and explaining how to become involved. This presentation was used as one communication tool throughout the public participation program described below.

Advertising and Social Media – The County used various methods to raise awareness of the SWMP and the 2015 update process, including:

- A dedicated web page (<http://www.fairfaxcounty.gov/dpwes/trashplan2015/>) to inform the public of the 2015 SWMP update, the update process and schedule for community

meetings. The web page included the option for the public to subscribe to the County's electronic notification systems for alerts regarding the 2015 SWMP update program.

- The advertisement flyer **What Would You Do with a Million Tons of Trash?** to use in public meetings. The flyer was distributed at the **Celebrate Fairfax** and **Fall for Fairfax** venues and other community meetings. The flyer's objective was to direct interested residents to the online survey accessible through the County's website and promote public involvement.

Community Meetings - The County held nine community meetings, one in each magisterial district, to offer residents and businesses an opportunity to comment about the direction of the integrated solid waste management program during the planning period. Community meetings are listed below:

- July 17, 2014 – North County Governmental Center, 12000 Bowman Towne Drive, Reston
- July 21, 2014 – Oakton Library, 10304 Lynnhaven Place, Oakton
- July 23, 2014 – Mason Governmental Center, 6507 Columbia Pike, Annandale
- July 28, 2014 – Dolley Madison Library, 1244 Oak Ridge Avenue, McLean
- July 31, 2014 – Braddock District Office, 9002 Burke Lake Road, Burke
- August 5, 2014 – Mount Vernon Governmental Center, 2511 Parkers Lane, Alexandria
- August 12, 2014 – Franconia Governmental Center, 6121 Franconia Road, Alexandria
- August 18, 2014 – West Springfield Governmental Center, 6140 Rolling Road, Springfield
- August 26, 2014 – Sully District Governmental Center, 4900 Stonecroft Boulevard, Chantilly

Approximately 40 residents offered suggestions and ideas for how the system could meet its future needs. Comments included:

- A desire to have construction/demolition/debris disposal in the County;
- Multiple trash trucks on community streets is not an efficient or effective way to collect waste if we want to reduce carbon emissions, or address other goals;
- Concern about whether the County has sufficient capacity in the I-95 Landfill (Area III) for ash placement during the next 20 years;
- Questions regarding the County's intended use of the Covanta E/RRF during the planning period; and
- Desire to increase recycling of materials to include food waste composting.

Online Survey and Comments - The online survey, accessible through the County's dedicated web page for the 2015 SWMP update, was posted in July 2014 and was open for 90 days. The survey was also available in printed form at community meetings. Seventy-five residents offered their thoughts and comments on a variety of topics. Survey responses indicate:

- Waste sent for disposal should be reduced as much as possible through waste reduction, recycling and reuse efforts;
- Special Waste recycling programs are valuable;
- Residents and businesses have a responsibility to recycle;
- The County should maintain responsibility for the management of MSW and recyclables; and
- Environmental responsibility and compliance should be a high priority of waste - management. -

Fairfax County Federation of Citizens Associations - In July-August 2014, the Fairfax County Federation of Citizens Associations concurrently offered a survey to 1,800 homeowner associations in the County asking for their suggestions for legislation and planning initiatives for the year. The ideas encompassed:

- Increased recycling, especially for organic residuals, and requirements for business to recycle;
- Meeting CDD recycling needs after closing of the Lorton CDD Landfill before 2019;
- The desire for the Commonwealth of Virginia to pass bottle bill and legislation directed at reducing the use of plastic bags;
- Continued encouragement for builders to achieve LEED certification for new - construction; and -
- Installation of solar energy at locations under the control of the Solid Waste Management Program, where practical.

Meeting with EQAC - The Environmental Quality Advisory Committee is a Board of Supervisors appointed volunteer action committee whose mission is to advise the Board of Supervisors on environmental matters through ongoing review of the quality of the County's physical environment and to advocate and promote environmental preservation, protection, and enhancement. County staff met with EQAC on August 13, 2014 to gather comments and direction for the SWMP update. Comments included:

- Increased recycling, especially for organic residuals
- Recommendations for the County to request container deposit legislation from the Virginia General Assembly
- Recommendation for the County to investigate eliminating glass from the materials collected for recycling due to its deleterious effect on the other recyclables and the fact that recycled glass from non-bottle bill states is not remade into containers
- The desire to consolidate residential waste and recycling collection routes into specified geographic areas to reduce traffic and negative impacts to roads while improving road safety

Meeting with Solid Waste Collectors - Solid waste collectors meet quarterly with County staff to discuss topics of interest to the industry. Ten companies attended the August 7, 2014 meeting in

person or online, plus a guest from the National Waste and Recycling Association. Comments received include:

- Support for the County's current approach of public-private partnerships for waste management;
- Opportunities for waste and recycling collection less than once per week; and
- General support for recycling programs for businesses and residents.

Other Outreach Efforts - County staff met several times with individual members of the Board of Supervisors throughout the planning and preparation of the 2015 SWMP Update to obtain guidance from the Board. County staff formally briefed the Board of Supervisors through the Environmental Subcommittee in May of 2013 and September of 2014. This assistance was invaluable in identifying key individuals and groups within the County to be engaged in the update process.

Other outreach efforts accessed the broader business community through the Chamber of Commerce, the Northern Virginia Builders Association and NAIOP (National Association for Industrial and Office Parks). These organizations voices themes similar to those listed above, including (1) support for public-private partnerships for additional waste management services and capacity and (2) the need for additional CDD recycling/disposal services.

Additionally, the draft 2105 SWMP Update was made available, in ADA-accessible format, for public review and comment through the County's web page from December 4, 2014 through March 3, 2015.

4.3 Public Participation Summary

The public outreach program returned public opinion on several aspects of solid waste management. Public input indicated the following:

- The County should maintain responsibility for the management of MSW and recyclables.
- Recycling programs are important and is a responsibility shared by both residents and businesses. Special waste programs are valuable. New legislation may be needed to support new programs.
- Services, whether provided by the County or the private sector, should instill a high priority on environmental responsibility, compliance and efficiency.
- CDD recycling/disposal capacity should be investigated.
- The County should continue to strive for an efficient, cost-effective system that provides value to residents and businesses.

In our review of input from the public, the 2015 SWMP Update addresses public opinion.