

Solid Waste Management

LOB #357:

TRANSFER STATION OPERATIONS

Purpose

Approximately 70 percent of the municipal solid waste collected in the County for disposal is delivered to the I-66 Transfer Station. The Transfer Station consolidates waste delivered by individual residents, businesses, and privately-owned and County collection vehicles into large transfer trailers. These trailers are hauled over the road to a final disposal site, primarily to the Energy/Resource Recovery Facility (E/RRF). Primary benefits from this type of transfer system are a reduction in the number of vehicles traversing the County to reach the final disposal point and reduced operating costs for the solid waste management system as a whole.

Description

The main role of the I-66 Transfer Station is to move waste collected in the northern and western parts of the county to the E/RRF in the south for final disposal. The SWMP also uses private trucking companies to augment its transportation fleet to move waste from the Transfer Station to its final disposal destination which is the E/RRF.

The Transfer Station is a large structure with 21 different bays and high ceilings into which a vehicle is guided in order to empty. The actual floor onto which wastes are deposited is situated on a level above the bottom floor of the Transfer Station. Vehicles dump their loads onto the floor of the Transfer Station. Loads are pushed towards the back wall of the structure where there is an opening to the level below the main operating floor. Trucks are stationed below the opening and wastes are pushed with a front-end loader into the opening where it falls into the truck. Trucks are equipped with lids or covers which are closed before transporting the material to the E/RRF or other disposal location.

The following activities are also conducted at the transfer station:

- Household Hazardous Waste Program;
- Electronics Recycling Program;
- Used Motor Oil, Antifreeze and Cooking Oil Recycling Program;
- Latex Paint Recycling Program;
- Automotive Battery Recycling Program;
- Scrap metal/appliance recycling Program;
- Emergency response activities for debris management/removal during emergencies/disasters;
- Operation of the Recycling and Disposal Centers;
- Brush grinding operations that make mulch available to County residents at no charge; and
- Operation of landfill gas and groundwater monitoring systems to meet environmental requirements.

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The County vehicle fleet, including the transfer trucks at the Transfer Station, now uses ultra-low-sulfur diesel fuel and exhaust after-treatment systems. These changes reduce air emissions attributable to the transportation of waste. An automated truck wash system was installed in the truck wash building. The state-of-the-art system better recovers and recycles water, discharging minimal amounts to the sewer while reducing manpower requirements to wash large vehicles. Other county vehicles, including waste collection vehicles, are washed at this location.

In addition to the activities dedicated to helping both residents and businesses either recycle or dispose of their wastes, the I-66 Transfer Station is the location of the I-66 landfill where County wastes were disposed of from 1962 to 1982. As such, the SWMP is responsible for managing landfill gas generated by decomposition of wastes and impacts to groundwater attributed to waste disposal. These activities are conducted according to regulations administered by the VDEQ.

The SWMP completed a project to convert space heaters at the West Ox Bus Garage Department of Vehicle Services facility to use landfill gas rather than natural gas from the local supplier. In FY 2012, landfill gas lines were extended to a nearby bus garage owned by the Washington Metropolitan Area Transit Authority (WMATA) and a repair shop related to the Transfer Station. The landfill gas is also used to heat the I-66 Operations Center at the Transfer Station, which was completed in November 2011. This results in a savings to the County of approximately \$107,000 annually.

Benefits

Benefits of the operation of the I-66 Transfer Station include:

- Significant reductions in truck traffic due to the consolidation of loads and associated air pollution;
- Reductions to wear and tear of County roads;
- The ability for refuse and recyclables collection companies to dispose of wastes collected in the northern and western parts of the County without the need to drive to Lorton to the E/RRF. The location of the Transfer Station allows privately-owned collection companies to efficiently and economically collect and finish their collection routes without the need to travel to Lorton;
- Provides residents with a “one stop shop” for all of their disposal needs, including household hazardous waste;
- The opportunity to obtain ground wood mulch at no charge; and,
- Conducts prudent use of landfill gas to fulfill energy needs while reducing energy costs.

Equipment and staff used at this location is used to respond to emergencies such as flooding, storm events and other natural or man-made disasters in the county. Staff coordinate with FRD and FCPD during emergency events to provide assistance such as roadway clearing and winter weather events.

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Mandates

There is no mandate requiring jurisdictions in Virginia to provide a disposal facility for the management of municipal solid waste generated within their borders. However, jurisdictions in Virginia are required to have 20-Year Solid Waste Management plans that identify where the jurisdiction will dispose of wastes generated within its borders for the 20-year term.

Fairfax County committed to managing its own wastes as a way to finance the system many decades ago. The Code of Virginia (§ 15.2-815 below) allows jurisdictions to require wastes generated within its borders to be disposed of at the disposal facility that it designates. Article 7 of the Fairfax County solid waste ordinance, Chapter 109.1, identifies disposal facilities designated for the disposal of wastes. As wastes are delivered to either of the disposal facilities, fees are collected from the generator of the waste for the disposal service. These fees support the SWMP, including the salaries and benefits of over 300 full-time employees.

Code of Virginia § 15.2-815. Regulation of garbage, trash and refuse pickup and disposal services; contracting for such services in certain counties.

The board may adopt an ordinance requiring the delivery of all or any portion of the garbage, trash and refuse generated or disposed of within such county to waste disposal facilities located therein or to waste disposal facilities located outside of such county if the county has contracted for capacity at or service from such facilities.

Trends and Challenges

Trends

- Residents continue to demand a variety of disposal services, several of which have no direct funding source; and,
- Equipment and staff used at this location is used to respond to emergencies such as flooding, storm events and other natural or man-made disasters in the County.

Challenges

- Fairfax County's initial contract with the operator of the E/RRF ends in the beginning of 2016. The County will not deliver as many tons to the facility resulting in a reduction of revenue. The SWMP has embarked on a program designed to reduce operating costs in order for revenues collected to continue to cover the costs of programs that are provided at no charge to the public. Those programs include household hazardous waste, electronics recycling and document shredding;
- The costs of household hazardous waste, electronics recycling and document shredding continue to increase, fees for these services may need to be implemented.

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Resources

Category	FY 2014 Actual	FY 2015 Actual	FY 2016 Adopted
LOB #357: Transfer Station Operations			
FUNDING			
<u>Expenditures:</u>			
Compensation	\$9,120,857	\$9,430,971	\$9,729,937
Operating Expenses	29,722,136	29,971,703	32,067,453
Work Performed for Others	(674,678)	(1,054,122)	(1,878,941)
Capital Equipment	1,426,991	1,634,544	2,109,409
Total Expenditures	\$39,595,306	\$39,983,096	\$42,027,858
<u>Transfers Out:</u>			
Transfer Out to General Fund	\$535,000	\$535,000	\$577,000
Total Transfers Out	\$535,000	\$535,000	\$577,000
Total Revenue	\$40,243,533	\$41,024,481	\$40,886,864
POSITIONS			
Authorized Positions/Full-Time Equivalents (FTEs)			
<u>Positions:</u>			
Regular	120 / 120	118 / 118	118 / 118
Total Positions	120 / 120	118 / 118	118 / 118

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Metrics

Metric Indicator	FY 2013 Actual	FY 2014 Actual	FY 2015 Actual	FY 2016 Estimate	FY 2017 Estimate
Tons of material processes at I-66 Transfer Station	537,483	540,487	556,592	557,000	560,000
Fee per ton of material processed at the I-66 Transfer Station	\$53	\$54	\$54	\$56	\$58
Number of satisfactory State DEQ ratings at the I-66 Transfer Station	2	2	2	3	2
State DEQ inspection rating - percent satisfactory	100%	100%	100%	100%	100%

Tons of Material Processed at I-66 Transfer Station

FY 2015 saw tonnage processed at the I-66 Transfer Station increase by 3 percent due primarily to the diversion of trash from the Covanta Fairfax, Inc. (CFI) facility at the I-95 Landfill Complex. The diversion occurred because CFI was operating at reduced capacity while repairs were being made at their facility. It is anticipated that tonnages at the I-66 Transfer Station will remain relatively stable. Commercial haulers who service central and western parts of the County prefer to deliver their waste and recycling to the I-66 Transfer Station because its centralized location makes it more convenient and cost effective than driving their collection trucks to the I-95 Landfill Complex in Lorton, Virginia. Potentially, there could be some possible decrease if private haulers elect to contract with CFI and deliver out-of-county refuse directly to the facility.

Fee per Ton of Material Processed at I-66 Transfer Station

Fairfax County increased its fee per ton by \$2 in both FY 2016 and in FY 2017. This rate will be closely monitored and could be increased in the future if market conditions and program costs warrant such action.

State DEQ Inspection Rating

This metric shows the I-66 Transfer Station facility has passed all of its VDEQ inspections and is in compliance with applicable environmental rules and regulations. This trend is anticipated to continue.