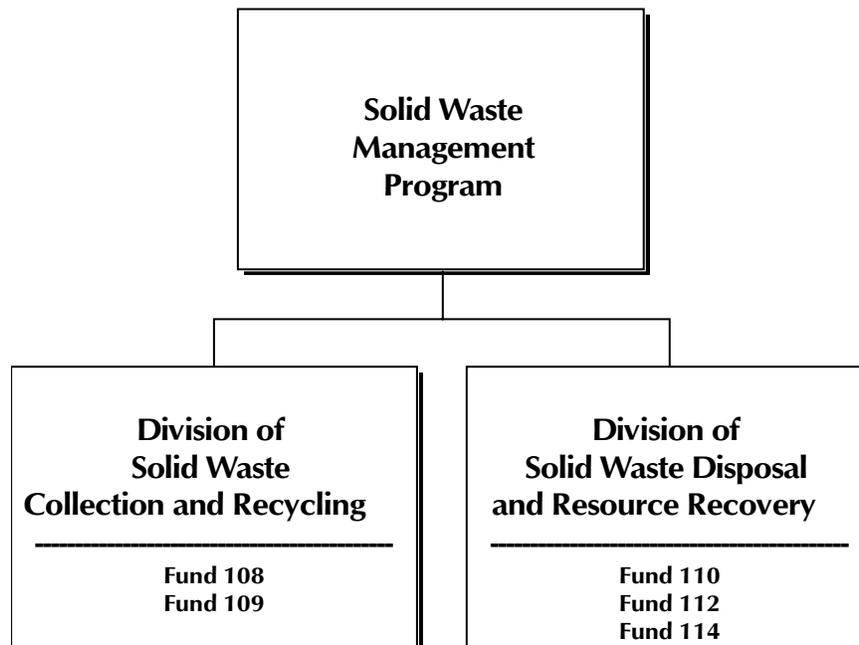


Solid Waste Management Program



Mission

To protect the public interest through solid waste management planning and regulatory oversight of the County's refuse ordinances by providing efficient and effective collection, recycling, and disposal of solid waste for customers in an environmentally responsible manner.

Focus

The Solid Waste Management Program is responsible for the management and long-range planning for all refuse and recycling within the County and is comprised of a County-owned and operated refuse transfer station, an Energy/Resource Recovery Facility (E/RRF), a regional municipal landfill operated by the County, two citizens' disposal facilities, eight drop-off sites for recyclable materials, and equipment and facilities for refuse collection, disposal, and recycling operations. The operation of the Solid Waste Management Program is achieved through the Division of Solid Waste Collection and Recycling and the Division of Solid Waste Disposal and Resource Recovery in the Department of Public Works and Environmental Services.

Division of Solid Waste Collection and Recycling

The Division of Solid Waste Collection and Recycling manages two funds including Fund 108, Leaf Collection, which provides for the collection and disposal of leaves within leaf collection sanitary districts, and Fund 109, Refuse Collection and Recycling Operations, which provides staff and administration for Funds 108 and 109; the collection and disposal of refuse from sanitary districts within the County, County Agency Routes (CAR) and the overall management and operation of the County's recycling programs. Fund 109 also provides the management and operational control for the Solid Waste General Fund (DSW-GF) Programs for services provided on behalf of the County. The DSW-GF Programs consist of Community Cleanup, Court/Board Directed Cleanups, Evictions, and Health Department Referral operations. Collection programs in Fund 109 have been impacted by higher disposal charges and increasing operating expenses such as labor and fuel requiring a rate change in the fund.

THINKING STRATEGICALLY

Strategic issues for the Department include:

- Maintaining and enhancing an integrated solid waste management system;
- Achieving financial viability through sound financial practices;
- Maintaining and improving internal management systems;
- Providing excellent customer service; and
- Enhancing the community and protecting the environment.

Solid Waste Management Program

Fund 108, Leaf Collection, is responsible for the collection of leaves within Fairfax County's 32 approved leaf collection districts which include 20,328 households. Revenue is derived from a levy charged to homeowners within leaf collection districts. The FY 2006 leaf collection levy will remain at the FY 2005 rate of \$0.015 per \$100 of assessed real estate value which will generate \$1,581,117 in revenue.

Fund 109, Refuse Collection and Recycling Operations, is responsible for collection of refuse, as well as coordination of curbside recycling operations, from 43,400 household units within Fairfax County's 74 approved sanitary districts. Revenue to support operations is derived from the refuse collection fee. Similar to the leaf collection program, refuse collection services have seen an increase in petitions from citizens to receive refuse and recycling services from the County. This growth, increased disposal costs charged by Fund 110, Refuse Disposal, and the cost (over and above FEMA reimbursed amount) associated with the hurricane Isabel cleanup has significantly decreased the fund balance. A fee increase is necessary to meet expenditures due to rising personnel cost and disposal charges.

To meet operating expenditures, the fund has relied on fund balance which has decreased from \$14,507,813 in FY 2001 to \$3,375,603 in FY 2005 (based on *FY 2005 Revised Budget Plan*). The FY 2006 estimated refuse collection fee levy of \$270, an increase of \$30 over the FY 2005 fee of \$240, will again not meet budgeted expenditures; however, the proposed fee change will allow a positive fund balance to be maintained through FY 2006. It should be noted that the agency anticipates that at projected expenditure levels, another fee increase may be necessary in FY 2007.

Division of Solid Waste Disposal and Resource Recovery

The Division of Solid Waste Disposal and Resource Recovery manages three funds. Fund 110, Refuse Disposal, is responsible for delivering refuse collected throughout Fairfax County to the E/RRF, the Prince William County Facility, or an appropriate landfill; transferring yard waste to compost facilities; coordinating the facility use agreement between Fairfax and Prince William Counties; operating the County's Battery, White Goods and Household Hazardous Waste programs; managing the Citizens' Disposal Facilities; and providing brush mulching services. Fund 112, Energy/Resource Recovery Facility, oversees the disposal of refuse at the E/RRF. Fund 114, I-95 Refuse Disposal, provides management and operational control at the I-95 Landfill for all regional participants. Fund 110 and Fund 112 continue to face significant financial pressures that result from adverse legal decisions against flow control and requirements pursuant to the agreement for the operation of the County's waste-to-energy incinerator, the Energy/Resource Recovery Facility (E/RRF). Both funds require rate changes in FY 2006 and Fund 110 requires a supplemental General Fund transfer.

Fund 110, Refuse Disposal has the primary responsibility for channeling refuse collected throughout Fairfax County to either the E/RRF, a private landfill, or to a Prince William County facility, as well as channeling yard debris to composting facilities. The County's solid waste disposal program has come under significant financial pressure due to a number of factors, most notably the adverse 1994 United States Supreme Court decision affecting solid waste flow control which allows waste to be hauled out of the County for disposal, as well as the development of several large landfills within Virginia and in neighboring states which are less expensive disposal options than those offered by the County.

Under the current industry environment, the County has implemented a competitive pricing system. The pricing has proved to be sufficient to cover a majority of disposal costs, however public interest and non-revenue generating programs must be funded through a General Fund transfer to subsidize the fund. In FY 2006, the system disposal charge is set at \$48 per ton, as in FY 2005. A contractual disposal rate for FY 2006 will be negotiated with private waste haulers but is anticipated to be \$44.95 per ton, an increase of \$2.50 over the \$42.45 per ton total in FY 2005. Revenue increases are therefore projected based on this disposal charge increase.

Programs including the County's Recycling Program, the Household Hazardous Waste Program, closed landfill maintenance and the Code Enforcement Program do not generate revenues. The net cost of these programs is \$3.10 million in FY 2006. In order to meet FY 2006 expenditure requirements, a General Fund transfer of \$2,500,000 is required, the same as the FY 2005 transfer level. The transfer is necessary based on operating expense increases and to build up the Construction Reserve Fund for needed projects at the I-66 Complex.

Solid Waste Management Program

In addition to the challenges faced by Fund 110, Fund 112, Energy/Resource Recovery Facility faces challenges as it funds the County's waste-to-energy incinerator which annually converts approximately 1.1 million tons of waste into approximately 80 megawatts of electricity. Expenditures in this fund are comprised primarily of a contractual payment made to Covanta Fairfax, Incorporated (CFI) who operates the E/RRF on behalf of the County. The formula-driven contract between the County and CFI establishes a yearly per-ton estimate/tip fee that the County pays to CFI that is based on support requirements for incinerator operations. The yearly estimate is based on variables including credits derived from the sale of electricity to Dominion Virginia Power, plant operating costs, bond retirement payments and other pass through costs such as landfilling ash and utilities.

Pursuant to the agreement signed in 1987 and amended in 1996 between CFI and Dominion Virginia Power, Dominion Virginia Power will begin purchasing electricity from CFI at a lower per-kilowatt rate in May 2005. As a result, CFI will see decreased revenues of about \$4,500,000 in FY 2006. Since the County's agreement with CFI requires the County to cover any shortfall arising from decreased electricity revenues, the County will be charged more for the operation of the plant. The County charges a tipping fee to all users of the E/RRF and subsequently pays the contractual disposal fee to Covanta from these revenues. In FY 2006, the payment to Covanta Fairfax is estimated to be \$33 million.

Due to the increasing charges paid by the County, the tipping fee is projected to be \$33 per ton in FY 2006, an increase of \$1 per ton over the FY 2005 level. It should be noted that the agency anticipates future increases in the E/RRF tipping fee to continue to meet expenditure requirements related to the contract with CFI and increased consultant expenses as the negotiations of the new Service Agreement continue through FY 2011. Changes in the equipment and pollution control systems may be necessary since the County is located in a severe ozone non-attainment area and would need to meet any new Environmental Protection Agency standards.

Specific description, discussion, and funding requirements for each fund of the Solid Waste Management Program can be found in the subsequent pages.

OPERATIONAL FEE STRUCTURE

Solid Waste Operations Fee Structure¹

	Fund 108, Leaf Collection	Fund 109, Refuse Collection and Recycling Operations	Fund 110, Refuse Disposal	Fund 112, E/RRF	Fund 114, I-95 Refuse Disposal
FY 2006 Fee	\$0.015/\$100 Assessed Property Value	\$270 Curbside	\$48/Ton, System Fee \$44.95 Estimate To be negotiated Contract/Discount \$55/Ton, Citizens Disposal Facilities	\$33/Ton	\$11.50/Ton
FY 2005 Fee	\$0.015/\$100 Assessed Property Value	\$240 Curbside	\$48/Ton, System Fee \$42.45 Negotiated Contract/Discount \$55/Ton, Citizens Disposal Facilities	\$32/Ton	\$11.50/Ton
Who Pays	Leaf District Residents	Sanitary District Residents	Private Collectors, Citizens and County Agencies through Fund 109	The County through Fund 110	E/RRF, Fund 110, and Participating Jurisdictions

¹ There are numerous special rates that have been negotiated and implemented as the need has risen which are not reflected in the structure above. Examples include varying miscellaneous charges for yard debris (brush, grass, and leaves), tires, and others.

Solid Waste Management Program

New Initiatives and Recent Accomplishments in Support of the Fairfax County Vision

 Maintaining Safe and Caring Communities	Recent Success	FY 2006 Initiative	Fund
Maintain and improve the established response rate to County agencies, and community and civic groups for refuse collection and disposal support requests and improve the response rate in support of the Office of the Sheriff for evictions.	✓	✓	General Fund
Continue coordinating and cooperating with local emergency agencies to assist the community during disaster events.	✓	✓	109, 110
Continue to engage three independent engineering firms to consult about the operations of the E/RRF to protect the public and ensure that best industry practices are applied at the facility.	✓	✓	112
Continue to implement the IFP for Debris Management in order to provide necessary planning, policies and procedures that enable the Solid Waste Management Program to execute its primary debris management mission and to remove 2 million cubic yards of disaster-generated debris under Fairfax County's Emergency Operations Plan.	✓	✓	109, 110
 Connecting People and Places	Recent Success	FY 2006 Initiative	Fund
Continue to provide updated leaf collection schedule information to customers via the County's website.	✓	✓	108
Implemented an e-notification system to update 43,000 Refuse Collection Customers on last minute schedule changes via an e-mail list server.	✓		109
Continue creating new web content to explain and clarify any program changes undertaken as part of the approved Fairfax County Solid Waste Management Plan.	✓	✓	109, 110
 Practicing Environmental Stewardship	Recent Success	FY 2006 Initiative	Fund
Partnered with the National Recycling Coalition and Nike® and collected 6,000 pairs of old athletic shoes to be recycled and made into Nike Grind® material for the construction of sport surfaces.	✓		109
The Fairfax County/Service Source <u>Keep It Green</u> Program has recycled over 350 tons of electronics while providing valuable employment opportunities to citizens with disabilities	✓		109

Solid Waste Management Program

 Practicing Environmental Stewardship	Recent Success	FY 2006 Initiative	Fund
Continue executing the Solid Waste Management plan which outlines a countywide, environmentally responsible plan for handling increasing amounts of wastes and recyclables. Plan was approved in May 2004. Initiatives will continue during the 20-year planning horizon.	☑	☑	109, 110
Conduct environmental education outreach through the SCRAP program (School/County Recycling Action Partnership). The program includes an annual catalog of environmental education and resources available through the County, contest to promote recycling awareness, the Recycle Guys mascots, and a Junior Recycling Ambassador peer education/volunteer program.		☑	109
In early FY 2004, the Division completed the criteria to become E-2 compliant for the Virginia Department of Environmental Quality (DEQ). E-2 represents Environmental Excellence and is a voluntary program for environmental commitment.	☑		109, 110, 114
Obtain E-3 (Exemplary Environmental Enterprise) from the Virginia DEQ. The E-3 level is for organizations with a fully-implemented environmental management, pollution prevention programs, and demonstrated performance towards those goals.		☑	109, 110, 114
Continue a presentation to the public describing the reductions in air emissions following the Clean Air Act retrofits. This public awareness program helps residents understand the minimal impact of the E/RRF on the environment as compared with coal fired or other methods of producing electricity.	☑	☑	112
Continue to implement a treatment program for direct discharge of cooling water into Mills Branch which will result in less water being sent through the wastewater system thereby saving money while ensuring the water discharged will have no impact on Mills Branch. Savings estimated are 90,400 gallons per day of cooling water that will not have to be processed through the wastewater system.	☑	☑	112
Installed a dolomitic ash conditioning system to maintain the pH levels in the ash, so that the components of the ash will remain chemically bound within the ash and not leach when placed in a landfill. This system helps insure that the ash remains non-hazardous.	☑		112
Continue to process landfill gas for our energy partner, Michigan Cogeneration Systems. This allows for electricity to be generated from a byproduct of the landfill.	☑	☑	114
Continuing multi-year project to provide the final cap on the raw waste portion of the I-95 Landfill, while saving money by partnering with private vendors for local road construction.	☑	☑	114

Solid Waste Management Program

 Creating a Culture of Engagement	Recent Success	FY 2006 Initiative	Fund
Continue execution of the Solid Waste Management Plan (SWMP) via the Solid Waste Management Task Force and community meetings throughout the County to develop tactical plans to implement the approved recommendations in the SWMP.	✓	✓	All
Continue to implement the Community Recycling Road Show as an annual event to collect materials for recycling that are not recycled in the curbside program such as wireless telephones, computers, bicycles, eyeglasses and tennis shoes.	✓	✓	109
Continue the monthly outreach program to residents of the Lorton community, whereby residents meet with staff representing the Division to discuss topics of mutual community/County interest.	✓	✓	110, 114
 Exercising Corporate Stewardship	Recent Success	FY 2006 Initiative	Fund
Continue to monitor the performance of E/RRF operator Covanta Fairfax, Inc., including its bankruptcy proceedings to ensure that the County's interests are preserved, as well as begin review of options for waste disposal when the Service Agreement with Covanta Fairfax, Inc. ends in 2011.	✓	✓	110, 112 112/E/RRF
Staff partnered with local road building contractors to obtain clay for landfill closure. Through this partnership, the County was able to acquire clay – a critical component in landfill closure – at virtually no cost, thereby saving millions of dollars.	✓		114

Key Performance Measures – Division of Solid Waste Collection and Recycling Operations

Objectives

- ◆ To remove at least 95 percent of the leaves placed at the curb by citizens, within each leaf collection district, during the specified leaf collection period.
- ◆ To provide high quality refuse collection services ensuring the removal of trash in County sanitary districts while maintaining a customer service rating of good or better at 95 percent or above.
- ◆ To provide high quality refuse collection services to designated Fairfax County agencies while limiting program cost increases where possible in FY 2006.
- ◆ To continue to exceed the state-mandated recycling rate of 25 percent by at least 5 percent.

Solid Waste Management Program

Indicator	Prior Year Actuals			Current Estimate	Future Estimate
	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate/Actual	FY 2005	FY 2006
Output:					
Tons of leaves collected	9,697	8,006	9,854 / 6,309	9,854	9,854
Tons of refuse collected from residential customers	68,085	70,437	81,246 / 83,797	74,288	78,001
Tons of refuse collected from County agencies	9,730	9,614	10,707 / 10,953	9,979	10,538
Total tons recycled	401,368	386,019	400,000 / 514,220	400,000	433,869
Efficiency:					
Net cost per home for leaf collection	\$58.88	\$64.64	\$65.99 / \$53.81	\$77.85	\$77.73
Net cost per home per year for residential refuse collection	\$188.73	\$178.73	\$243.88 / \$256.64	\$268.74	\$275.59
Net cost per ton for refuse collected from County agencies	\$106.20	\$99.18	\$111.72 / \$89.60	\$101.49	\$109.92
Net cost per home per year for residential recycling collection	\$35.52	\$35.17	\$39.23 / \$34.78	\$35.25	\$36.71
Service Quality:					
Percent of leaf customers rating service good or better	83.0%	58.0%	80.0% / 68.3%	75.0%	75.0%
Percent of residential refuse customers rating service good or better	95.3%	94.0%	95.0% / 93.0%	94.0%	95.0%
Percent of County agencies rating services good or better	100.0%	NA	95.0% / 100.0%	95.0%	95.0%
Percent of residential recycling customers rating services good or better	91.2%	91.0%	95.0% / 89.0%	95.0%	95.0%
Outcome:					
Percent of customers' leaves removed from curb	95.0%	95.0%	95.0% / 95.0%	100.0%	100.0%
Percent change in residential refuse customers rating services good or better	(0.2%)	(1.3%)	1.1% / (1.0%)	1.0%	1.0%
Percent change in cost per ton for County agencies	0.91%	3.80%	1.30% / (9.70%)	13.30%	8.30%
Total County recycling rate (1)	34.2%	37.0%	34.0% / 37.0%	37.0%	37.0%

(1) The tonnage recycled by private haulers is only reportable on a calendar year basis. Therefore, the actual year reported is the calendar year preceding the fiscal year; that is, the FY 2003 actual reflects CY 2002 data. The total County recycling rate reported is consistent with the private hauler tonnage data.

Solid Waste Management Program

Performance Measurement Results

The net cost per home for leaf collection fluctuates due to changes in investment revenue received by the agency, operating expenditure increases and changes in capital equipment expenditures incurred by the agency. In FY 2004 the net cost per home for leaf collection decreased by \$10.83 per home from FY 2003. The net cost per home decreased because of a shorter than anticipated leaf collection season, resulting in a significant cost savings. The favorable weather conditions caused early and quick leaf fall and the agency was able to perform leaf collection efficiently.

In FY 2004, 68.31 percent customers rated the service good or better, this is an increase of 10.3 percent points from FY 2003. The division continues to strive for an 80 percent customer satisfaction rating.

The net cost per ton of refuse collected in FY 2004 from the County Agency Routes decreased by \$9.58 and is primarily due to a better than anticipated rebate from recyclables which offset the total cost.

Key Performance Measures – Division of Solid Waste Disposal and Resource Recovery

Objectives

- ◆ To provide a sanitary facility for receiving, loading and transporting commercial and residential refuse by the most feasible and economical method available, while maintaining a 100 percent satisfactory rating from state inspections at the I-66 Transfer Station.
- ◆ To deliver no less than the Guaranteed Annual Tonnage (GAT) amount of 930,750 tons of municipal solid waste to the E/RRF as required under the contractual obligations of the Service Agreement between Covanta Fairfax, Inc. and Fairfax County.
- ◆ To manage the I-95 Landfill in an efficient, environmentally safe manner, meeting 100 percent of the regulatory standards; and to provide a permitted site where ash resulting from the E/RRF and other participating jurisdictions can be properly disposed.

Indicator	Prior Year Actuals			Current Estimate	Future Estimate
	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate/Actual	FY 2005	FY 2006
Output:					
Tons of material processed at the I-66 Transfer Station (1)	797,823	814,621	872,167 / 902,922	923,827	958,866
Tons of material delivered to the E/RRF	1,027,648	1,093,215	1,084,360 / 1,084,712	1,050,000	1,085,000
Tons of ash disposed at the I-95 Landfill	373,935	380,435	383,182 / 368,585	380,562	380,562
Efficiency:					
Cost per ton of material processed at the I-66 Transfer Station	\$11.71	\$13.87	\$15.74 / \$14.87	\$15.65	\$15.34
Cost per ton of material processed at the E/RRF	\$31.67	\$26.83	\$32.51 / \$31.49	\$32.71	\$33.56
Cost per ton to dispose ash at the I-95 Landfill (2)	\$11.50	\$11.50	\$11.50 / \$11.50	\$11.50	\$11.50

Solid Waste Management Program

Indicator	Prior Year Actuals			Current Estimate	Future Estimate
	FY 2002 Actual	FY 2003 Actual	FY 2004 Estimate/Actual	FY 2005	FY 2006
Service Quality:					
Number of satisfactory DEQ ratings at the I-66 Transfer Station	4	4	4 / 4	4	4
Tons delivered to the E/RRF in excess of GAT	96,898	162,465	139,250 / 153,962	119,250	154,250
Number of satisfactory DEQ ratings at the I-95 Landfill	12	6	6 / 6	6	6
Outcome:					
Percent satisfactory DEQ inspection ratings at the I-66 Transfer Station	100%	100%	100% / 100%	100%	100%
Percent of GAT met	110.41%	117.45%	116.50% / 116.54%	112.81%	116.57%
Percent satisfactory DEQ inspection ratings at the I-95 Landfill	100%	100%	100% / 100%	100%	100%

(1) Material includes combustible waste, yard waste, white goods, tires, debris and brush.

(2) Calculation includes operational cost of landfill and estimated cost necessary for landfill closure.

Performance Measurement Results

The I-66 Complex (Fund 110) received satisfactory ratings, the highest possible, from the Virginia Department of Environmental Quality (DEQ) for all inspections conducted during FY 2004. The facility is in compliance with all provisions of the operating permits and the Virginia Solid Waste Management Regulations. The tonnage processed through the I-66 Complex increased steadily from 797,823 tons in FY 2002 to 814,621 tons in FY 2003, and surged to 902,922 tons in FY 2004 due to tonnage increase from customers and effects from hurricane Isabel. With the current trend, the estimate for FY 2005 is 923,827 tons, and for FY 2006 is 958,866 tons. The cost per ton of solid waste processed through the I-66 Transfer Station was \$14.87 in FY 2004, compared to the budgeted amount of \$15.74. The estimated cost per ton processed is \$15.65 in FY 2005 and \$15.34 in FY 2006.

In FY 2004, the tonnage delivered to the Energy/Resource Recovery Facility (Fund 112) exceeded the Guaranteed Annual Tonnage (GAT) of 930,750 tons by 153,962 tons to 1,084,712 tons, or 16.5 percent above the requirement. The extra tonnage resulted in a saving of \$2.15 per ton for all the waste processed at the E/RRF site. The estimated tonnage delivery to the E/RRF is 1,050,000 tons for FY 2005, and 1,085,000 for FY 2006. The corresponding estimated cost to process waste is \$32.71 per ton for FY 2005 and \$33.56 per ton for FY 2006.

The I-95 Landfill (Fund 114) disposed of 368,585 tons of ash during FY 2004, a decrease of 11,850 tons below FY 2003. In July 2000, the ash disposal rate was reduced from \$14 per ton to \$11.50 per ton. The FY 2006 recommended rate remains at \$11.50 per ton. The I-95 Landfill also received the highest satisfactory ratings by DEQ for all inspections conducted during FY 2004. It should be noted that DEQ reduced the number of inspections from 12 times per year to 6 times per year, four of which are waste facility inspections and two are air quality inspections.

Solid Waste Management Program

