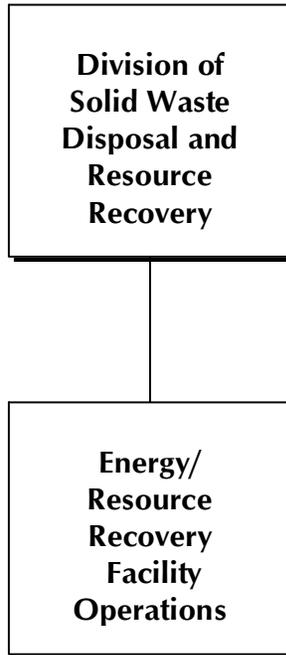


Fund 112

Energy/Resource Recovery Facility



Mission

To serve Fairfax County citizens by providing effective and environmentally-sound solid waste disposal by converting waste-to-energy; by reducing the need for landfill space through volume reduction of solid waste; by reducing the greenhouse gas emissions both by not landfilling waste and by generating renewal energy; and by managing the operational contract in the best interests of the citizens.

Focus

Fund 112 provides for the management of the contract for the I-95 Energy/Resource Recovery Facility (E/RRF), owned and



Aerial view of the I-95 Energy/Resource Recovery Facility

operated by Covanta Fairfax, Inc. (CFI). Under the terms of the Service Agreement, the County delivers municipal solid waste (MSW) for which it pays a disposal fee to CFI. The E/RRF currently produces over 80 megawatts of electricity, enough to power about 75,000 homes. Pursuant to an agreement between Dominion Virginia Power and CFI signed in 1987 and amended in 1996, Dominion Virginia Power began purchasing electricity from CFI at a lower rate starting in May 2005. As a result, CFI may receive lower electricity revenues until the end of the power purchase agreement in 2015.

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The E/RRF is rated for 1,095,000 tons of solid waste, but has the flexibility to operate above that level FY 2008 represented the third year that Fairfax County generated all of the waste required to meet the County's commitment under the Service Agreement. The County also accepts additional MSW from other regional jurisdictions through the Supplemental Waste program. Refuse is exchanged with Prince William County under a mutually beneficial agreement. These efforts continue to maximize revenues through providing additional MSW to keep disposal rates low for County customers.

The County charges a disposal fee to all users of the E/RRF, and subsequently pays the contractual disposal fee to CFI. Revenues from the sale of electricity, recycled ferrous and nonferrous metals, and supplemental waste are used to offset the cost of the disposal fee paid to CFI. When the E/RRF is not able to handle the amount of waste available, some waste is diverted to Virginia landfills. Staff must be constantly vigilant in balancing waste as a commodity to ensure that it is disposed of efficiently, cost-effectively and with few environmental consequences.

Careful management of the Service Agreement with CFI and increasing revenues from both electricity sales and metal recycling has allowed the County to hold down disposal fee charges from Fund 112 to other solid waste funds and other users. The rate is proposed to be reduced from \$32 to \$31 per ton for FY 2010. Funding from the Rate Stabilization Reserve is used, if necessary, to supplement any difference between this revenue and the actual payments to CFI.

The June 2008 annual stack test indicated that the overall air emissions reductions from the E/RRF, resulting from the Clean Air Act retrofits in 2000, remained well below permit limits:

Energy/Resource Recovery Facility Emissions Results		
June, 2008		
Constituent	Permit Limit	Average E/RRF Result
Sulfur Dioxide (SO ₂)	29 ppm	7.5 ppm
Carbon Monoxide (CO)	100 ppm	6.25 ppm
Nitrogen Oxides (NO _x)	205 ppm	193 ppm
Hydrochloric Acid (HCL)	29 ppm	4.86 ppm
Particulate Matter (PM)	27 mg/dscm	2.65 mg/dscm
Mercury (Hg)	0.080 mg/dscm	0.0022475 mg/dscm

ppm = parts per million

mg = milligram

ng = nanogram

Dscm = dry standard cubic meter

The E/RRF has helped reduce the overall Fairfax County waste system carbon emissions by about one ton of carbon for every ton of waste processed. This calculation includes the reduction in overall carbon dioxide generated by the waste management system, due to emission reductions that are realized by not transporting waste to a landfill, the actual carbon dioxide that would be generated at the landfill as well as the carbon dioxide that would be emitted to produce electricity using a fossil fuel.

The ash conditioning system that was added to the E/RRF in FY 2005 is providing the anticipated ash stabilization for ash that is placed in the I-95 Landfill. Ash tests, performed by an independent laboratory, Life Science Laboratories, Inc. of East Syracuse, NY, during the period May 21-30, 2008, characterized the ash from the E/RRF as non-hazardous waste.

CFI and the County continue to investigate the costs and technical feasibility of innovative projects. One of these could result in the E/RRF providing emergency backup power to the Griffith Water Treatment Plant and the Noman Cole Wastewater Treatment Plant in the event that electricity is not available through regular distribution from Dominion Virginia Power. Another project could allow the E/RRF to use the tertiary water from the Noman Cole Wastewater Treatment Plant as the cooling water at the E/RRF, saving millions of gallons of potable water. The County is always exploring new technology to ensure that the E/RRF continues to provide the required environmental service of waste processing while having the least environmental impact possible.

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Fairfax County and Covanta Fairfax, Inc. continue to discuss a Service Agreement amendment that will provide for continued use of the E/RRF beyond the timeframe of the existing agreement, as recommended in the County's Solid Waste Management Plan.

Execution of the Solid Waste Management Plan initiatives has increased recycling and removed additional amounts of cardboard, paper and metals from the waste stream. Future increased recycling is needed so that the capacity at the E/RRF can be maintained for waste that cannot be easily recycled. Continued operation of the Household Hazardous Waste (HHW) and Conditionally Exempt Small Quality Generator programs has removed materials with hazardous properties from the waste stream of the E/RRF.

Agency accomplishments, new initiatives and performance measures for Solid Waste are displayed at a program-wide level. Please refer to the Solid Waste Management Program Overview in Volume 2 of the FY 2010 Baseline Budget for those items.

Budget and Staff Resources

Agency Summary				
Category	FY 2008 Actual	FY 2009 Adopted Budget Plan	FY 2009 Revised Budget Plan	FY 2010 Baseline Budget
Authorized Positions/Staff Years				
Regular	9/ 9	9/ 9	9/ 9	9/ 9
Expenditures:				
Personnel Services	\$723,972	\$696,377	\$696,377	\$726,543
Operating Expenses	32,874,927	36,717,183	38,365,756	35,608,917
Capital Equipment	0	400,000	400,000	0
Total Expenditures	\$33,598,899	\$37,813,560	\$39,462,133	\$36,335,460

Position Summary				
1 Management Analyst III	1 Heavy Equipment Operator	3 Weighmasters		
1 Management Analyst II	1 Administrative Assistant IV			
1 Engineering Technician II	1 Administrative Assistant II			
TOTAL POSITIONS				
9 Positions / 9.0 Staff Years				

FY 2010 Funding Adjustments

The following funding adjustments from the FY 2009 Revised Budget Plan are necessary to support the FY 2010 program:

- ◆ **Employee Compensation** **\$30,166**
An increase of \$30,166 in Personnel Services is associated with salary adjustments necessary to support the County's compensation program.
- ◆ **Contractor Compensation** **(\$1,108,266)**
A net decrease of \$1,108,266 in Contractor Compensation for the operation of the E/RRF, based on contractor-projected tipping fees for FY 2010 that permit a \$489,258 decrease from the current budget level, as well as a \$619,008 decrease for Other Consultant/Contractor payments based on the renegotiation of the Covanta Service Agreement.
- ◆ **Carryover Adjustment** **(\$1,648,573)**
A decrease of \$1,648,573 primarily due to \$89,024 in one time Operating Expenses and \$1,559,549 for the FY 2009 costs of the Covanta Inc. tax liability payment. The FY 2009 Covanta tax liability payment will not be budgeted until the FY 2009 Carryover Review.

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Changes to FY 2009 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2009 Revised Budget Plan since passage of the FY 2009 Adopted Budget Plan. Included are all adjustments made as part of the FY 2008 Carryover Review and all other approved changes through September 15, 2008:

- ◆ **Carryover Adjustments** **\$1,648,573**
As part of the 2008 Carryover Review the Board of Supervisors approved an increase of \$1,648,573 primarily due to encumbered carryover of \$89,024 in Operating Expenses and an administrative adjustment of \$1,559,549 for the costs of the Covanta Inc. tax liability payment, not previously budgeted and funded with a General Fund Transfer.

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FUND STATEMENT

Fund Type G10, Special Revenue Funds Fund 112, Energy/Resource Recovery Facility (E/RRF)

	FY 2008 Actual	FY 2009 Adopted Budget Plan	FY 2009 Revised Budget Plan	FY 2010 Baseline Budget
Beginning Balance	\$26,087,297	\$23,781,704	\$27,829,829	\$25,969,488
Revenue:				
Disposal Revenue	\$32,341,822	\$35,129,254	\$35,129,254	\$34,860,173
Other Revenue:				
Interest on Investments	\$1,042,926	\$762,989	\$762,989	\$506,405
Miscellaneous ¹	465,521	150,000	150,000	450,000
Subtotal Other Revenue	\$1,508,447	\$912,989	\$912,989	\$956,405
Total Revenue	\$33,850,269	\$36,042,243	\$36,042,243	\$35,816,578
Transfers In:				
General Fund (001) ²	\$1,491,162	\$0	\$1,559,549	\$0
Total Transfers In	\$1,491,162	\$0	\$1,559,549	\$0
Total Available	\$61,428,728	\$59,823,947	\$65,431,621	\$61,786,066
Expenditures:				
Personnel Services	\$723,972	\$696,377	\$696,377	\$726,543
Operating Expenses ³	32,874,927	36,717,183	38,365,756	35,608,917
Capital Equipment	0	400,000	400,000	0
Total Expenditures	\$33,598,899	\$37,813,560	\$39,462,133	\$36,335,460
Total Disbursements	\$33,598,899	\$37,813,560	\$39,462,133	\$36,335,460
Ending Balance	\$27,829,829	\$22,010,387	\$25,969,488	\$25,450,606
Tipping Fee Reserve ⁴	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000
Rate Stabilization Reserve ⁵	10,232,099	9,867,252	9,867,252	10,000,000
Operations and Maintenance Reserve ⁶	16,097,730	10,643,135	14,602,236	13,950,606
Unreserved Ending Balance	\$0	\$0	\$0	\$0
Disposal Rate/Ton ⁷	\$33/Ton	\$32/ton	\$32/ton	\$31/ton

¹ Miscellaneous Revenue is generated by the excess amount that Covanta Fairfax, Inc. (CFI) charges for the disposal of Supplemental Waste.

² The General Fund Transfer offsets Covanta's tax liability to Fairfax County. This expenditure and the offsetting General Fund Transfer support will be funded for FY 2010 as part of the *FY 2009 Carryover Review*.

³ The contract fee to CFI has not escalated as earlier anticipated. The FY 2010 contractor compensation amount is estimated to be greater than the FY 2008 actual but lower than the FY 2009 estimate. In addition, the FY 2010 budget does not yet include an estimated \$1.5 million for the Covanta tax liability expenditure. This expenditure will be funded for FY 2010 as part of the *FY 2009 Carryover Review*.

⁴ The Tipping Fee Reserve is used to buffer against sharp annual changes in tip fees. Potentially sharp changes could result from issues such as tax changes regarding energy sales, power deregulation, state or EPA environmental fees, and/or contract changes.

⁵ The Rate Stabilization Reserve is used to buffer against a long term adjustment to tip fees.

⁶ The Operations and Maintenance Reserve is maintained for ongoing improvements and enhancements to the E/RRF including emissions control efforts. Future projects may include additional retrofits to the air pollution control systems for reductions in nitrogen oxides. The reserve will fund the County's share of the initial capital expenditures of the improvements.

⁷ Careful management of the Service Agreement with CFI and increasing revenues from both electricity sales and metal recycling has allowed the proposed rate to decrease \$1 from the FY 2009 rate of \$32 per ton to \$31 per ton for FY 2010.