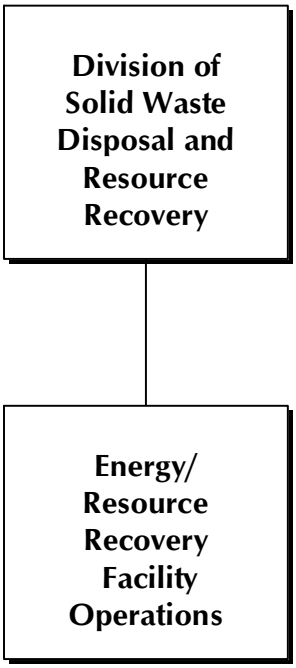
Fund 112
Energy/Resource Recovery Facility



Mission

To serve Fairfax County residents 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 recovering ferrous and non-ferrous metal from the ash and recycling them; and by managing the operational contract in the best interests of the residents.

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

Focus

Fund 112 supports the management of the contract for the I-95 Energy/Resource Recovery Facility (E/RRF), owned and 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. With the approval of its Title V (Air) Permit in January 2007, the facility has the flexibility to operate at a level above its nameplate rating of 3000 tons per day. Pursuant to an agreement between Dominion Virginia Power and CFI, signed in 1987 and amended in 1996, Dominion Virginia Power purchased up to 80 megawatts of electricity, enough to power about 75,000 homes. An amendment in FY 2008 allows CFI to generate and sell additional electricity over 80 megawatts; this additional electricity sale brings more revenue to the Fund.

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With the slowdown in the economy and increased emphasis on recycling in Fairfax County, the tons of waste generated in the County declined in FY 2010 to its lowest level since FY 1999. While this is a significant issue, there remained sufficient waste in the system for Fairfax County to easily meet its Guaranteed Annual Tonnage (GAT) requirements under the Service Agreement with CFI. The facility accepts MSW from other regional jurisdictions such as the District of Columbia and 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 and recycled ferrous metals are used to offset the cost of the disposal fee charged by CFI. When the E/RRF is not able to handle the amount of waste available, some waste is diverted to Virginia landfills; in FY 2010 there were 17,127 tons of diverted waste. The County also receives a host fee for certain merchant waste processed by CFI when capacity is available. County 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, increasing revenues from electricity sales and metal recycling, and final payment of the construction bonds have allowed the County to hold down disposal fees charged to customers. In FY 2011, the rate was reduced to $29 per ton and will remain the same for FY 2012. Funding from the Rate Stabilization Reserve will be used to buffer against any long term adjustments to the tip fee.

The June 2010 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 and nitrogen oxides were reduced almost 10 percent from the previous year:

Energy/Resource Recovery Facility Emissions Results[1] -- June 2010		
Constituent	**Permit Limit**	**Average E/RRF Result**
Sulfur Dioxide (SO2)	29 ppm	2.50 ppm
Carbon Monoxide (CO)	100 ppm	5.00 ppm
Nitrogen Oxides (NOx)	205 ppm	174 ppm
Hydrochloric Acid (HCL)	29 ppm	4.96 ppm
Particulate Matter (PM)	27 mg/dscm	3.67 mg/dscm
Mercury (Hg)	0.080 mg/dscm	0.0028 mg/dscm
Lead (Pb)	0.44 mg/dscm	0.0087 mg/dscm

ppm = parts per million mg = milligram ng = nanogram
Dscm = dry standard cubic meter

[1] Covanta Fairfax Inc. Annual Determination of Compliance with Permitted Emission Limits and 40 CFR, Subpart Cb Report, (COV Report No. 3547 Volumes 1-4), pages17-20 for testing conducted June 1-8, 2010.

Ash testing, performed by an independent laboratory during June 2010, characterized the ash from the E/RRF as non-hazardous waste. This means that the ash can continue to be disposed at the I-95 Ashfill under its permit for non-hazardous materials. The ash conditioning system that was added to the E/RRF in FY 2005 is providing the stabilization for ash that is placed in the I-95 Ashfill.

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.

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CFI and the County have negotiated an innovative project that allows the E/RRF to use reclaimed water from the Noman Cole Wastewater Treatment Plant as the cooling water at the E/RRF, saving millions of gallons of potable water each year. The project will become operational in FY 2012. 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.

Fairfax County and Covanta Fairfax, Inc. continue to discuss ways for the County to use the E/RRF beyond the timeframe of the existing Service Agreement, as recommended in the County's Solid Waste Management Plan.

In addition, it should be noted that the Household Hazardous Waste (HHW) program, the Conditionally Exempt Small Quality Generator program, rechargeable battery collection, "Electric Sundays," and other programs continue to remove materials with hazardous properties from the waste stream of the E/RRF.

Budget and Staff Resources

Agency Summary				
Category	FY 2010 Actual	FY 2011 Adopted Budget Plan	FY 2011 Revised Budget Plan	FY 2012 Advertised Budget Plan
Authorized Positions/Staff Years				
Regular	9/ 9	9/ 9	12/ 12	12/ 12
Expenditures:				
Personnel Services	$714,619	$734,811	$734,811	$736,968
Operating Expenses	36,787,311	31,204,598	33,008,205	15,706,345
Capital Equipment	0	36,500	36,500	0
Total Expenditures	**$37,501,930**	**$31,975,909**	**$33,779,516**	**$16,443,313**

Position Summary					
1	Management Analyst III	1	Heavy Equipment Operator	5	Weighmasters
1	Management Analyst II	1	Administrative Assistant IV		
1	Engineering Technician II	2	Administrative Assistants II		
TOTAL POSITIONS					
12 Positions / 12.0 Staff Years					

FY 2012 Funding Adjustments

The following funding adjustments from the FY 2011 Adopted Budget Plan are necessary to support the FY 2012 program:

- **Employee Compensation** **$0**
  It should be noted that no funding is included for pay for performance or market rate adjustments in FY 2012.

- **Other Post-Employment Benefits** **$2,157**
  An increase of $2,157 is required to reflect increased costs associated with providing Other Post-Employment Benefits (OPEBs) to retirees, including the Retiree Health Benefits Subsidy. Before FY 2011, costs related to these benefits were paid solely by the General Fund; however, these annual costs are now spread across funds in order to more appropriately reflect benefit-related expenses for the employees within each fund. For more information on Other Post-Employment Benefits, please refer to Fund 603, OPEB Trust Fund, in Volume 2 of the FY 2012 Advertised Budget Plan.

- **Reduced Contractor Costs** **($15,498,253)**
  A decrease of $15,498,253 in Operating Expenses is primarily due to a reduction of $15,910,054 in Contractor Compensation for the disposal fees at the E/RRF. This expenditure is reduced because the construction bonds will be paid in full in FY 2011. The reduction is partially offset by an increase of $411,801 primarily for professional and legal consultants as well as slight increases in other operating costs.

Changes to FY 2011 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2011 Revised Budget Plan since passage of the FY 2011 Adopted Budget Plan. Included are all adjustments made as part of the FY 2010 Carryover Review, and all other approved changes through December 31, 2010:

- **Carryover Adjustments** **$1,803,607**
  As part of the *FY 2010 Carryover Review*, the Board of Supervisors approved encumbered funding of $58,101 in Operating Expenses and an administrative adjustment of $1,745,506 for the costs of the Covanta Inc. tax liability payment, not previously budgeted and funded with a General Fund Transfer.

- **Position Changes** **$0**
  As part of the FY 2011 review of County position categories, a conversion of 3/3.0 SYE positions has been made. The status of limited term positions was reviewed in light of recent changes to federal regulations related to health care and other federal tax requirements. As a result of this review a number of existing limited term positions have been converted to Merit Regular status.

A Fund Statement and a Summary of Capital Projects are provided on the following pages. The Summary of Capital Projects may include some projects without a Total Project Estimate amount. These projects are considered "continuing" projects or projects for which funding is necessary on an ongoing basis (e.g., a contingency or planning project).

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FUND STATEMENT

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

	FY 2010 Actual	FY 2011 Adopted Budget Plan	FY 2011 Revised Budget Plan	FY 2012 Advertised Budget Plan
Beginning Balance	**$26,787,307**	**$26,255,426**	**$21,578,204**	**$21,776,758**
Revenue:				
Disposal Revenue	$29,978,605	$33,635,000	$31,514,056	$31,191,182
Other Revenue:				
Interest on Investments	142,062	$218,508	218,508	$357,067
Miscellaneous[1]	449,252	500,000	500,000	500,000
Subtotal Other Revenue	$591,314	$718,508	$718,508	$857,067
Total Revenue	$30,569,919	$34,353,508	$32,232,564	$32,048,249
Transfers In:				
General Fund (001)[2]	$1,722,908	$0	$1,745,506	$0
Total Transfers In	$1,722,908	$0	$1,745,506	$0
Total Available	**$59,080,134**	**$60,608,934**	**$55,556,274**	**$53,825,007**
Expenditures:				
Personnel Services	$714,619	$734,811	$734,811	$736,968
Operating Expenses[3, 4]	36,787,311	31,204,598	33,008,205	15,706,345
Capital Equipment	0	36,500	36,500	0
Total Expenditures	$37,501,930	$31,975,909	$33,779,516	$16,443,313
Total Disbursements	**$37,501,930**	**$31,975,909**	**$33,779,516**	**$16,443,313**
Ending Balance[5]	**$21,578,204**	**$28,633,025**	**$21,776,758**	**$37,381,694**
Tipping Fee Reserve[6]	$1,500,000	$1,500,000	$1,500,000	$1,500,000
Rate Stabilization Reserve[7]	10,000,000	10,000,000	10,000,000	25,881,694
Operations and Maintenance Reserve[8]	10,078,204	17,133,025	10,276,758	10,000,000
Unreserved Ending Balance	**$0**	**$0**	**$0**	**$0**
Disposal Rate/Ton	$31/ton	$31/ton	$29/ton	$29/ton

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[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. An expenditure increase and the offsetting General Fund Transfer were funded for FY 2011 as part of the *FY 2010 Carryover Review* .

[3] In order to account for revenues and expenditures in the proper fiscal year, an audit adjustment in the amount of $3,248,440.82 has been reflected as an increase to FY 2010 expenditures to reflect the accrual of expenditures associated with the reimbursement of tipping fees from Covanta. The audit adjustment has been included in the FY 2010 Comprehensive Annual Financial Report (CAFR). Details of the audit adjustments will be included in the FY 2011 Third Quarter package.

[4] In FY 2012, payments to Covanta Fairfax are significantly reduced due to construction bonds being paid off in FY 2011.

[5] Ending balance fluctuations are a result of operating and revenue requirements that change annually. Funding is carried forward each fiscal year to provide flexibility given the uncertainty of market conditions, tipping fee negotiations, and expenditure requirements.

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

[7]The Rate Stabilization Reserve (RSR) is used to buffer against a long term adjustment to tip fees. It should be noted that as the FY 2012 budget is being prepared, the long-term arrangement for solid waste disposal is still being determined. The current disposal arrangement with Covanta extends until 2016. The County is currently exploring an option it has, through its agreement with Covanta, to purchase the facility. Other long term options include the extension of the current agreement for use of the ERRF or pursuit of alternate disposal options. The budget was prepared assuming the current contract arrangement which provides for a below market disposal rate through 2016. Extending the current agreement or use of alternate disposal arrangements may result in a significant increase in disposal fees (up to 175 percent), once the current agreement expires. In order to buffer the impact to customers if a transition to market rates occurs in 2016, the disposal fee is being kept at its current rate, with savings generated being transferred to the RSR for future use. This is what is causing the substantial increase in the RSR balance betwen FY 2011 and FY 2012.

[8] 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 on the improvements.