

Fairfax County Solid Waste Management Plan

EXECUTIVE SUMMARY

The Virginia Department of Environmental Quality (VDEQ) requires that all jurisdictions, including Fairfax County, prepare a 20-year integrated solid waste management plan (SWMP) and submit it by July 1, 2004. This executive summary presents an overview of that plan.

The county has designed its future solid waste management (SWM) system around the following strategic goals:

- Reduce the volume of the solid waste stream through the implementation of waste reduction and recycling programs.
- Maintain a balanced SWM system that benefits the community while following regulatory requirements.
- Provide efficient and economical refuse collection, recycling, and disposal services.
- Provide facilities for the sanitary, efficient and economical reception and transportation of solid waste generated in Fairfax County.
- Provide for the operation of sanitary waste disposal facilities, utilizing the most economically viable and environmentally acceptable methods available.
- Provide regulatory oversight of the county's ordinances regarding solid waste.

County staff, working with stakeholders throughout the SWM system, reviewed current waste activities and programs. After projecting the potential waste generation for the next 20 years, the county analyzed the waste management gaps between the current system and the future needs.

The significant gaps identified are as follows:

- The solid waste collection system is not currently unified; recyclables, waste collection services, and cost structures vary throughout the county.
- Municipal solid waste (MSW) disposal must be provided; after 2011, the county's contract with the waste-to-energy facility, the Energy/Resource Recovery Facility (E/RRF), will expire.
- Construction/demolition/debris (CDD) disposal capacity may be exhausted within seven years.
- Increased recycling will help reduce the burden on county transfer and disposal facilities.
- Programs for source reduction and reuse will help reduce the increasing amount of waste generated in the county.

Fairfax County selected SWMP actions that will close the gaps between its current SWM system and that required in the future. These actions include:

- *Expand the recyclable materials collected curbside to include mixed paper, plastic bottles, and cardboard.* This SWMP action will likely increase the residential recycling rate in the county and enable the county to simplify and standardize its countywide recycling message.
- *Increase business recycling by reducing commercial recycling thresholds.* By lowering the size of businesses that must recycle, Fairfax County can dramatically increase the business recycling rate and the overall county recycling rate.
- *Improve residential collection service.* Fairfax County staff will partner with private waste collection companies, customers, and other community stakeholders to improve residential collection service by:
 - (1) addressing collection issues identified in the preparation of the SWMP;
 - (2) revising and enforcing Fairfax County Code;
 - (3) coordinating waste collection planning for disaster and emergency response;
 - (4) evaluating the use of lower emission fuels for use in collection vehicles; and,
 - (5) developing public information and education messages about waste disposal and recycling that are applicable countywide.

- *Continue using the current disposal system.* The county will renegotiate the contract to extend the use of the E/RRF with Covanta Fairfax, Inc. when the current contract expires in 2011. The county projects that the E/RRF has sufficient capacity to handle future county MSW quantities. Fairfax County can help guarantee CDD disposal capacity over the SWMP planning period by contracting for capacity at out-of-county CDD landfills.
- *Promote CDD recycling at a county location.* Fairfax County will help reduce CDD disposal capacity issues by promoting the construction (by a private firm) of a CDD waste processing and recycling facility in the county.
- *Increase public outreach and education.* The county will unify its SWM program through a strong communications program.

Table ES-1 outlines Fairfax County's objectives and strategic vision for its integrated SWM system over the next 20 years. These strategies address the gaps identified in the system. All SWM facilities constructed or operated in the county must be in accordance with the contents of this SWMP.

Figures ES-1, ES-2, and ES-3 illustrate the projected range of MSW (not including yard waste), CDD, and yard waste (respectively) in Fairfax County's SWM system over the next 20 years and the projected ranges of waste generation, recycling, and disposal needed after implementing the county's future SWM system.

Figure ES-4 shows the projected range of waste processed by the E/RRF over the next 20 years; the county projects that the E/RRF has sufficient capacity to handle county-generated MSW over the SWMP planning period.

Figure ES-5 shows the projected range of MSW recyclables handled by existing privately operated material recovery facilities (MRFs) in the county over the next 20 years. The county projects that MSW recyclable quantities may exceed the capacity of the existing MRFs after 10 years. If necessary, the county will support private efforts to increase the capacity of MRFs to handle recyclables generated in the county.

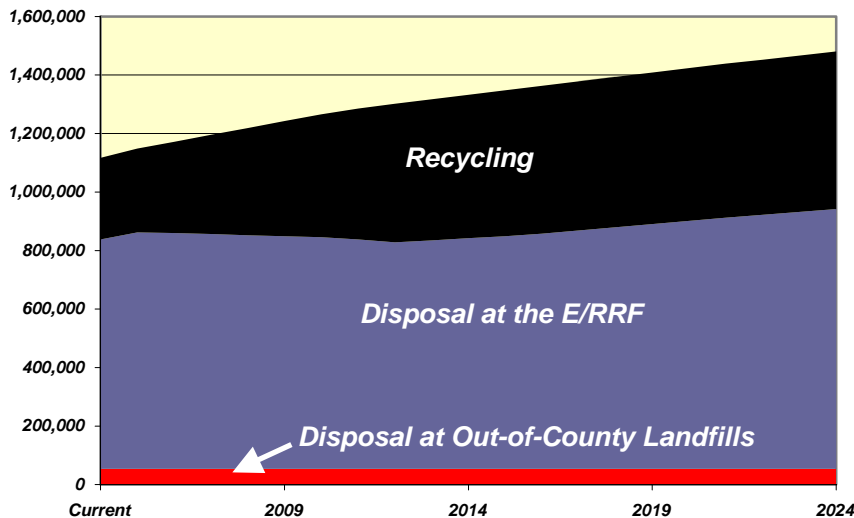
Table ES-1. Fairfax County SWM Objectives and Future System

	Objectives	Future 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 	<p>Improve public outreach and education to promote source reduction and reuse</p> <p>Promote public/private source reduction and reuse programs</p> <p>Promote a residential yard waste composting and/or grasscycling program</p> <p>Develop a regional approach to CDD source reduction and reuse with the MWCOG and others</p> <p>Implement county internal source reduction and reuse programs</p>
Recycling	<ul style="list-style-type: none"> - Increase overall recycling quantities in Fairfax County to minimize waste disposal - Expand types of materials collected and recycled to increase recycling quantities - Revise county ordinances to support increased recycling - Promote the provision of facilities for the sanitary, efficient and economical management of recyclables - Promote public/private partnerships to increase program efficiency and minimize county costs - Increase public awareness to increase participation in recycling initiatives 	<p>Promote public/private recycling programs</p> <p>Improve public outreach and education to promote recycling</p> <p>Increase business recycling by reducing commercial recycling thresholds</p> <p>Expand curbside recyclables collected to include mixed paper, plastic bottles, and cardboard</p> <p>Encourage increased CDD recycling by promoting CDD recycling at a county location</p> <p>Revise regulations to enhance recycling, including:</p> <ul style="list-style-type: none"> - Revise county code to require CDD recycling and/or recycling plans - Expand recyclables collected at government buildings - Encourage increased MSW recycling in county schools - Increase MSW recycling inspections <p>Address suitable recycling alternatives for multiunit buildings</p> <p>Continue current yard waste recycling system; contract with out-of-county composting facilities for dedicated capacity</p> <p>Explore additional waste exchange agreements to increase recycling</p> <p>Encourage VDOT to use recycled materials in road construction</p> <p>Support expansion of the capacity of existing MRFs, if quantities of recyclable materials warrant expansion</p> <p>Continue using the current special wastes management system</p>
Disposal	<ul style="list-style-type: none"> - Provide for the operation of sanitary waste disposal facilities, utilizing the most economically viable and environmentally acceptable methods available 	<p>Continue using the current disposal system (as the preferred alternative)</p> <ul style="list-style-type: none"> - E/RRF as the primary disposal facility with out-of-county landfills for overflow and emergencies - CDD landfills both in- and out-of-county; contract with CDD landfills for dedicated disposal capacity <p>If negotiations with Covanta Fairfax, Inc. are unsuccessful, the county will use only out-of-county landfills for MSW disposal</p> <p>Foster a regional approach for CDD disposal</p> <p>Improve public outreach and education, specifically for CDD disposal issues</p>

Table ES-1 (Continued).

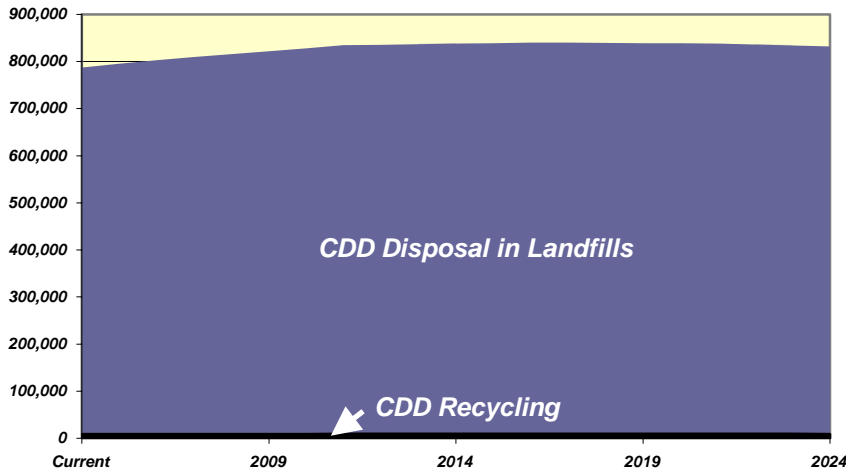
	Objectives	Future Solid Waste Management System
Collection	<ul style="list-style-type: none"> Improve service Reduce collection truck traffic impacts on county air quality Promote a more homogeneous service level to support unified recycling and collection messages 	<ul style="list-style-type: none"> Partner with private waste collection companies and community stakeholders to improve residential collection service Revise County Code to improve residential service Continue current vacuum leaf collection system Improve public outreach and education, specifically education for CDD collection options Consider program to promote best management practices for CDD haulers Promote use of special fuels, filters, and special vehicles for collection Implement a collection and disposal strategy for emergencies Expand special wastes collection
Transfer	<ul style="list-style-type: none"> Provide disposal capacity for county-generated waste at reasonable costs Continue to accept solid wastes generated in the county at the I-66 Transfer Station or other location Increase efficiency and safety by reconfiguring or constructing new waste handling areas 	<ul style="list-style-type: none"> Continue using the current transfer system Reconfigure or construct waste handling areas at the I-66 Transfer Station, including: <ul style="list-style-type: none"> Unloading areas for citizens and commercial cash customers (for increased safety and efficiency) Areas to handle increased CDD and/or yard waste Recycling center for CDD, if needed, at a county location Add transfer capabilities to the I-95 Landfill Complex, if increases in transfer quantities or waste exchange agreements require it Improve public outreach and education to promote SWMP transfer actions

Figure ES-1. Projected Quantities of MSW (Excluding Yard Waste) for the County's SWM System (Tons)



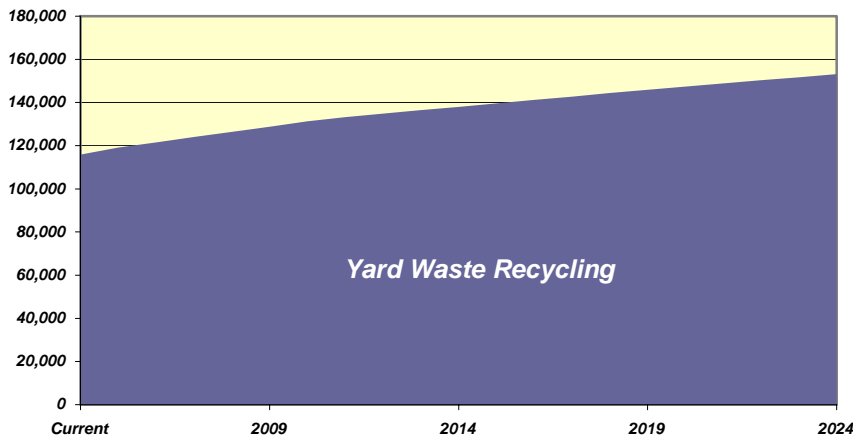
- Recycling quantities are projected to increase by 120,000 tons per year from implementation of SWMP actions
- The MSW collection system (excluding yard waste and special wastes) must handle an additional 139,000 to 500,000 tons per year by 2025.
- The I-66 Transfer Station must handle up to an additional 251,000 tons of MSW per year by 2025; existing capacity is sufficient
- MSW will not exceed the capacity of the E/RRF over the SWMP planning period

Figure ES-2. Projected Quantities of CDD for the County's SWM System (Tons)



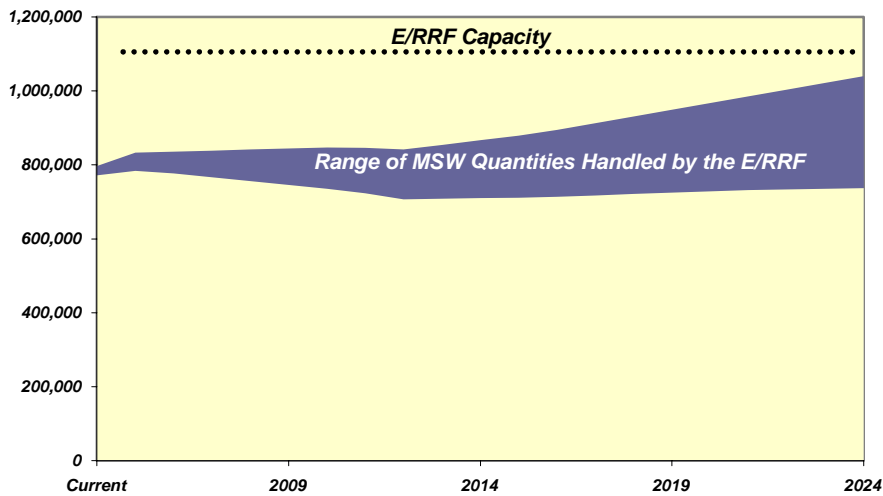
- The CDD collection system must handle up to an additional 133,000 tons per year by 2025.
- In-county CDD disposal capacity is projected to be exhausted in 7 to 10 years.
- The I-66 Transfer Station has sufficient transfer capacity to handle the projected increased quantities of CDD managed by the county; CDD disposal capacity concerns may increase the quantities managed at the transfer station.
- Disposal capacity concerns may trigger the construction of a CDD recycling facility in the county.

Figure ES-3. Projected Quantities of Yard Waste for the County's SWM System (Tons)



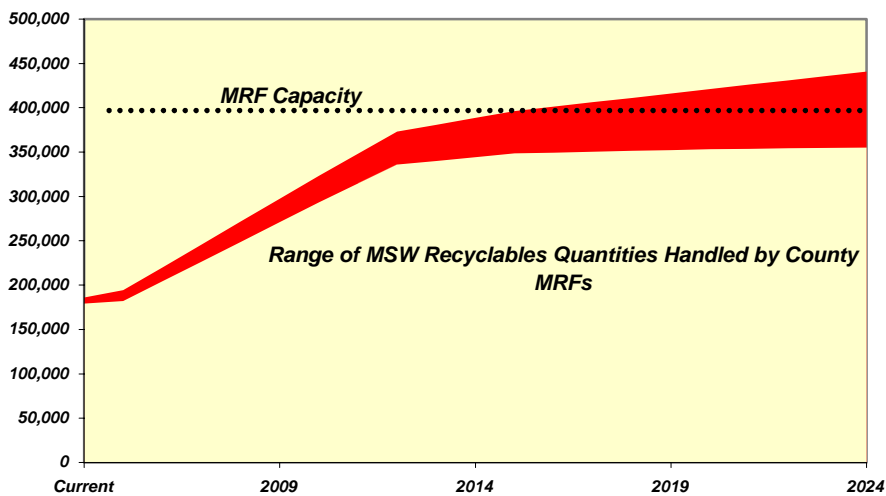
- Yard waste recycling will increase between 17,000 and 58,000 tons per year by 2025.
- Additional composting capacity will be needed; this capacity may be achieved through capacity contracts or new or enhanced waste exchange agreements with local jurisdictions.

Figure ES-4. Projected Quantities of MSW Refuse Handled by the E/RRF (Tons)



Fairfax County projects MSW disposal quantities will not exceed the capacity of the E/RRF by 2025.

Figure ES-5. Projected Quantities of MSW Refuse Handled by County MRFs (Tons)



Fairfax County projects MSW recyclable quantities may exceed the capacity of the existing privately operated MRFs in 10 years.

This SWMP was approved by the Board of Supervisors for submission to the Virginia Department of Environmental Quality at a Public Hearing held on May 10, 2004.

A task force comprised of private waste collection companies, customers, and other community stakeholders was formed to further review and address residential waste collection issues raised during the development of this Plan. Since the task force report is due within a year (by May 2005), additional implementation strategies and guidance are expected as the outcome of the task force's work.

Changes to this SWMP will occur through the process outlined by VDEQ in the Solid Waste Management Planning Regulations, Amendment 1 (9VAC20-130-175). Major amendments include: any addition, deletion, or cessation of operation of any solid waste facility; any increase in landfill capacity; any change that moves toward implementation of a waste management strategy that is lower in the waste management hierarchy; and any change to membership in the approved area. Minor amendments include any change that moves toward implementation of a waste management strategy that is higher in the waste management hierarchy and any non-substantive administrative change such as a change in name. All amendments will be submitted directly to the VDEQ for approval; major amendments require public participation, including a public hearing.

Solid waste planning is a continuous process and county staff will continually evaluate the need to update and modify the SWMP throughout the 20-year planning period.