



County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

Waste Collection Companies Meeting Notes August 7, 2014

Companies with attendees: KMG Hauling, Charlie & Son, Waste Management, IDS/Broad Run Recycling, Bates Trucking, PDS, Republic Service, VHI, Progressive Waste/IESI

Online Participants: Kevin Zebatto

Guests: David Biderman, NW&RA

County Staff: Pamela Gratton, Charlie Forbes, Alex Castillo, Jessica Smithberger

The meeting began at 5:10 pm.

Introductions/Welcome

Pamela Gratton greeted everyone. The purpose of the meeting was to inform attendees of the updates to the Solid Waste Management Plan. The presentation is included below.

Currently, the Fairfax County Solid Waste Management Program is in the 5 year updating cycle, and the plan is to have the final document submitted to the Board of Supervisors between January and March 2015.

Questions

Q: To what do you attribute the drop in the recycling rate for 2013 (as compared to 2012)?

A: Generally blame falls on the economy, but overall waste tonnages didn't change much between 2012 and 2013.

Q: Are you reaching out to the business community?

A: Yes, we have sent letters to the chamber of commerce to set up a meeting. The SWMP is willing to have meetings; however, there has been no response.

Q: What kind of organics recycling is the County interested in?

A: Food recycling, as is practiced on the west coast. We could possibly go to college campuses, Ft. Belvoir, and others to set up programs. However, a significant problem is that there is currently nowhere close by to take the material. Some locations are rising up and are being investigated.

The meeting adjourned at 5:58 pm.

Next Meeting: November 13, 2014, Government Center – Room 4/5



Department of Public Works and Environmental Services
Solid Waste Management Program
12000 Government Center Parkway, Suite 458
Fairfax, Virginia 22035
Phone: 703-324-5230, TTY: 711, Fax: 703-324-3950
www.fairfaxcounty.gov/dpwes



Fairfax County Solid Waste Management Program

Department of Public Works and Environmental Services
Working for You!



A Fairfax County, VA, publication

Items for Consideration in Solid Waste Management Plans

- ☞ Population statistics and geographic characteristics
- ☞ Markets for reuse and recycling
- ☞ Transportation systems
- ☞ Estimates of solid waste generation
- ☞ List of existing solid waste collection, storage, treatment, transportation and disposal facilities and expected life
- ☞ Planned changes/amendments to existing plans
- ☞ Plan for public participation
- ☞ Identification of funding sources and needs
- ☞ Current and predicted needs for solid waste management for 20 years (5-year updates required)

Purpose of Solid Waste Management Plan

- ✎ All jurisdictions in VA are required by state law to have solid waste management plans
- ✎ Plans must show that the county has a plan for the disposal and recycling of solid waste
- ✎ Plans must show that the county has 20 years of disposal capacity of solid waste
- ✎ For large jurisdictions, 25% of solid waste generated within the jurisdiction must be recycled and the plan must show how that will be achieved

History of Trash in Fairfax County

- ☞ Landfill opened in 1962 on West Ox Rd
- ☞ All residential and business waste disposed of there until 1982
- ☞ Transfer station constructed to move trash from West Ox to Lorton MSW landfill, opened by DC in 1970
- ☞ Fairfax County takes over operation of the I-95 landfill in 1982
- ☞ County develops waste-to-energy facility at Lorton site & starts service in 1990
- ☞ Federal Government closes I-95 landfill in 1995, county uses facility for ash disposal
- ☞ Curbside recycling starts in 1990
- ☞ County develops landfill gas collection systems at both closed landfills and is responsible for compliance with environmental rules
- ☞ County has disposal capacity in the county until 2031





Emergency Response

(Hurricanes, tornadoes, snow, flooding)



Environmentally-Sound Disposal

20 tons of solid waste is transported and disposed of every 10 minutes (about 1,000,000 tons per year).



Renewable Energy Production

We generate enough power for 80,000 homes or about 90 MW of electricity.



Refuse Collection

Collection of 10% of household waste and recyclables



Fairfax County
Solid Waste
Management



Recycling

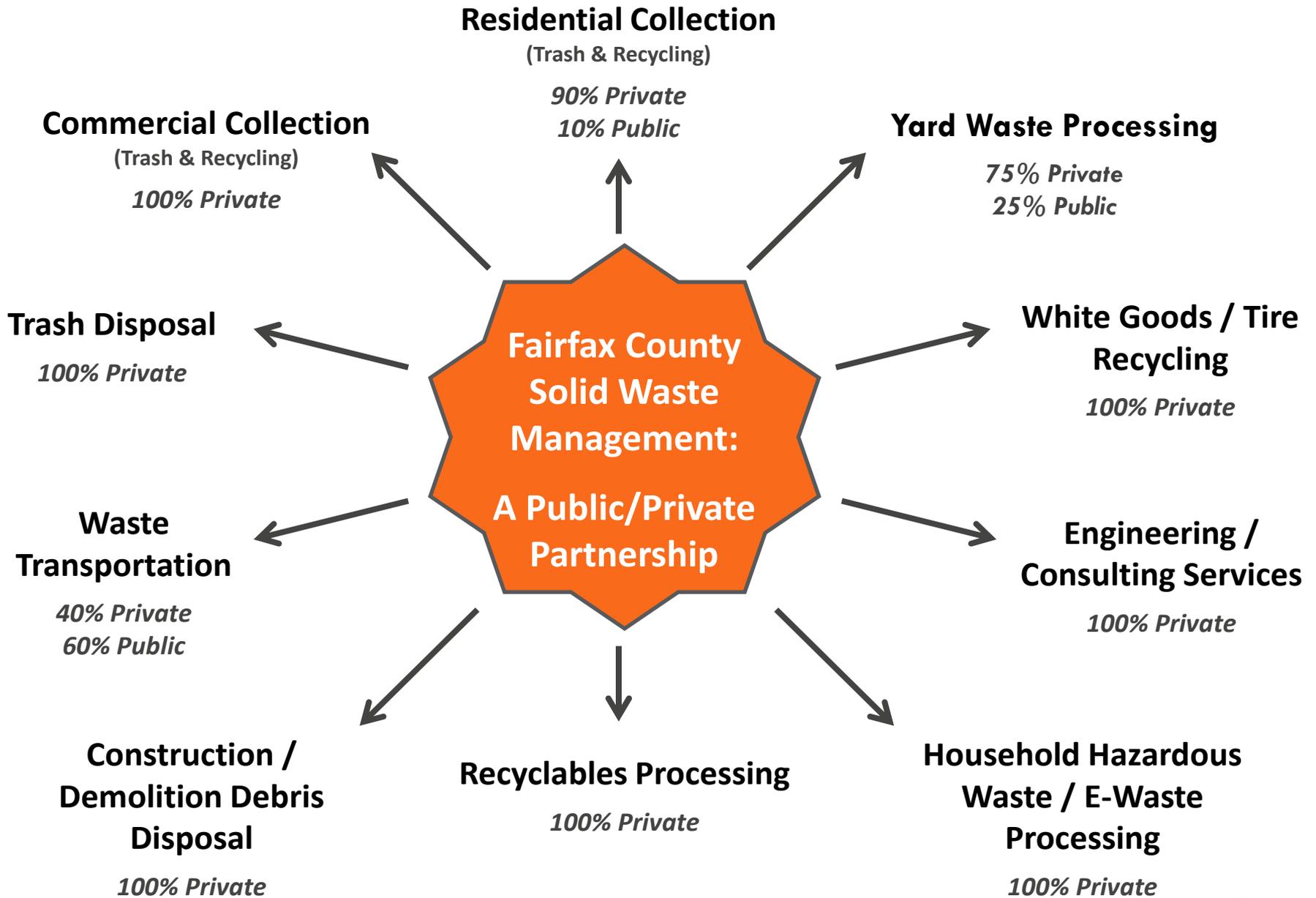
The countywide recycling rate is about 50%



Pollution Prevention and Community Engagement

100 community events per year







I-66 Transfer Station Complex



75% of the waste generated in Fairfax County is delivered to this facility for transport to the Energy/Resource Recovery Facility.





Alternative Technologies

Criteria	Combustion	Pyrolysis to Bio Crude	Pyrolysis/Gasification to syngas	Aerobic Digestion (Composting)	Anaerobic Digestion	Acid Hydrolysis
Portion of Waste Stream managed	The entire mixed MSW stream can be processed using combustion technology. RDF technology will require size reduction prior to feeding. Sorting of the feed to remove non-processible and inert material is desirable.	When used alone to produce pyrolysis oil, normally limited to plastics fraction of MSW (PET, HDPE, LDPE, PP, PE, PS). When used in combination with gasification, the entire stream can be used after sorting and removal of recyclables and inert material.	The entire mixed MSW stream can be processed using gasification. Many types will require size reduction prior to feeding (exception is plasma). Sorting of the feed to remove non-processible and inert material is necessary.	Organic fraction of MSW (food scrap, yard waste, paper) and selected construction debris. Economics are favored by source separated organics.	Organic fraction of MSW only (food scrap, yard waste, paper). Economics are favored by source separated organics.	Organic fraction of MSW only (food scrap, yard waste, paper and demolition waste).
Commercial Operation and Scale (tpd MSW)	Typically 200 tpd to 1,000 tpd units combined in one to four units per facility for a facility throughput from 200 tpd to 3,000 tpd.	Plants of 10-20 tpd waste plastics commercially operated in the US. Plants for combined pyrolysis or gasification of coal/MSW up to 700 tpd have been operated in Europe.	1000 tpd plant producing 30 MW power under construction in UK. Another 270 tpd plant producing biofuel and chemicals recently commissioned in Canada.	Several commercial plants operating in the US. Plants that accept source separated and commercial waste, and utilizing covered windrows have capabilities up to 550 tpd.	Several plants operating in US at 50-100 tpd capacity. Digester units may be combined for installed capacity of 400 tpd. Several plants in Europe combining AD with combustion.	Plant in Iowa claims to have capacity to process up to 650 tpd MSW, of which about 50% will be converted to biofuels.

Alternative Technologies

<p>Combustion plants typically operate with 90-93% availability. Annual maintenance is scheduled on individual units to minimize interruption.</p>	<p>No reliability data is available for the operating plants. See comments under gasification.</p>	<p>No reliability data is available for the operating plants. The gasification process is complex and produces three phases (syngas, tar and slag) in various quantities. For this reason demonstration plants have faced reliability challenges.</p>	<p>Windrow type composting facilities rely on basic material handling equipment such as shredders, trommels, conveyors and loaders. Compared to more complex process, reliability is high.</p>	<p>No reliability data is available for the operating plants. However, the technology is well established in Europe which suggests reliability issues are minimal.</p>	<p>No reliability data is available for the operating plants.</p>
<p>There are ~89 mass burn facilities in the U.S. and over 600 facilities worldwide. Technologies available from a number of commercially viable vendors and operators.</p>	<p>Pyrolysis of MSW components to produce pyrolysis oil is an emerging technology. There are several demonstration plants and small commercial plants reported, but operational history is not readily available.</p>	<p>Gasification of MSW alone is an emerging technology, although several plants are approaching commercial operation (see above). Overseas (particularly Japan and Germany) there is a 20 year history of commercial operation with MSW blended with other feedstocks (e.g., hazardous waste, industrial waste, coal).</p>	<p>Commercial composting facilities for both mixed MSW and source separated organics are well established in the US. Twenty-four facilities were reported in 2008 and several facilities are reported to have been built since then.</p>	<p>AD of organic fraction of MSW is widely practiced in Europe and the UK with several plants operational for 10-20 years. In Europe alone, over 240 installations have been constructed or are permitted. In the US, relatively few plants have been built specifically for MSW organic fraction.</p>	<p>Cellulosic ethanol from MSW-derived materials is an emerging technology in the US. There are several facilities in the US and Europe using similar technology on agricultural residues. At least one US project has EPA approval and a source of MSW secured for a large, commercial-scale facility.</p>

Process for Plan Update

Plan Requirements (Update every 5 years)	Staff Process	Timeline
Project 20 year disposal capacity for various wastes	Update demographics, waste generation for various wastes, identify disposal at landfills	April - August 2014
Public participation	Conduct meetings with stakeholders (residential community, business community, collection companies, civic associations, EQAC, and individually with Board of Supervisors) to gather input.	May 2014 - March 2015
Analyze findings, financial outlook and evaluate options	Determine changes needed to the Plan	May - November 2014
Draft Plan	Evaluate findings and incorporate into draft Plan	September - November 2014
Draft Plan review	Receive and review comments for stakeholders on draft plan prior to the Public Hearing	November 2014 - January 2015
Present to Board for approval and then submit to VDEQ	Recommend approval of updated plan	February - March 2015

	Objectives	Future Solid Waste Management 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 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

- 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 general public and business sector awareness, to increase participation in recycling initiatives
- Promote public/private recycling programs
 - Improve public and business-targeted outreach and education to promote recycling
 - ~~Increase business recycling by reducing commercial recycling thresholds~~
 - ~~Expand curbside recyclables collected to include mixed paper, plastic bottles, and cardboard~~
 - ~~Encourage increased CDD recycling by promoting CDD recycling at a county location~~
 - Revise regulations to enhance recycling, including;
 - **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
 - Address suitable recycling alternatives for multiunit buildings
 - Continue current yard waste recycling system; contract with out-of-county composting facilities for dedicated capacity
 - Explore VDOT to use recycled materials in road construction
 - Support expansion of the capacity of existing MRFs, if quantities of recyclable materials warrant expansion
 - Continue using the current special wastes management system

Collection

- Improve service
 - Partner with private waste collection companies and community stakeholders to improve residential collection service
- Reduce collection truck traffic impacts on county air quality
 - ~~Revise County Code to improve residential service~~
 - Continue current vacuum leaf collection system
- Promote a more homogeneous service level to support unified recycling and collection messages
 - 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~~



<p>Disposal</p>	<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>
<p>Transfer</p>	<ul style="list-style-type: none"> - Provide disposal capacity for county-generated waste at reasonable costs - Continue to accept wastes generated in the county at the I-66 Transfer Station or other locations — Increase efficiency and safety by reconfiguring or constructing new waste handling areas 	<p>Continue using the current transfer system</p> <p>Reconfigure or construct waste handling areas at the I-66 Transfer Station, including;</p> <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 <p>Add transfer capabilities to the I-95 Landfill Complex, if increases in transfer quantities or waste exchange agreements require it</p> <p>Improve public outreach and education to promote SWMP transfer actions</p>



What Do We Need From You?

- ✎ This is the initial stage of our public involvement process for the 2015 plan update
- ✎ Input needed to address future approaches to waste management
- ✎ Input will be evaluated for applicability to the solid waste program, the ability to be implemented, compliance with environmental regulations, costs for projects or programs and suitability to enhance and complement the existing system
- ✎ Comments received will be tracked on the solid waste plan website at <http://www.fairfaxcounty.gov/dpwes/trashplan2015/>

Comments/Conversation

Additional Information

For additional information, please call

Pamela Gratton or Charles Forbes at 703-324-5230

Pamela.gratton@fairfaxcounty.gov

Charles.forbes@fairfaxcounty.gov

www.fairfaxcounty.gov/dpwes

