

T&E COMMITTEE #1
July 23, 2009

Briefing

MEMORANDUM

July 21, 2009

TO: Transportation, Infrastructure, Energy & Environment Committee

FROM:  Keith Levchenko, Senior Legislative Analyst

SUBJECT: **Briefing: Solid Waste Issues**

On July 23 the T&E Committee will receive a briefing on Solid Waste issues. The following DEP staff are expected to attend the meeting:

- Robert Hoyt – Director, DEP
- Dan Locke – Chief, Division of Solid Waste Services (DSWS)
- Anthony Skinner – Business Manager, DSWS
- Bill Davidson – Chief, Northern Operations and Strategic Planning Section, DSWS
- Eileen Kao – Chief, Waste Reduction and Recycling Section, DSWS
- Ray Wimbrough – Central Operations Section, DSWS
- Tom Kusterer – Central Operations Section, DSWS
- Steve Lezinski – Central Operations Section, DSWS
- Robin Ennis - Chief, Collections Section, DSWS

July 23 Agenda

This briefing was originally scheduled for June 29, but with the exception of a power purchase agreement to install solar panels at the transfer station and the Materials Recovery Facility, the Committee deferred the briefing. DSWS staff have prepared a slide presentation (attached on ©1-12). The topics in the presentation include:

- Tonnages: Trends at the Resource Recovery Facility (RRF), Compost Facility, and Materials Recovery Facility (MRF)
- Low NOx Project at the Resource Recovery Facility (RRF)
- Recycling
- Market values/trends for recyclable materials
- Electronics recycling
- Expanded plastics recycling

- Construction and Demolition (C&D) recycling
- Gude Landfill Remediation
- Landfill Gas-to-Energy Project at the Gude and Oaks landfills
- Update on refuse and recycling collection service and contracts
- Solar Energy Projects at the Transfer Station and Materials Recovery Facility (MRF)
(discussed on June 29 and resolution supporting this effort approved by the Council on June 30)

Discussion

Council Staff has provided some comments below on a few of the agenda items above.

RRF and Compost Facility Tonnages

Both the RRF and the Dickerson Compost Facility experienced reduced tonnage levels during FY09 from original FY09 estimates.

The RRF is permitted by the State to handle a maximum of 657,000 tons per year. The County's policy is to stay within an 85% to 92% utilization rate (558,450 to 604,000 tons). Tip Fee pricing provides a means to encourage or discourage the use of the County's transfer station by haulers of multi-family and non-residential trash versus using other facilities outside of Montgomery County.

During the Council's budget discussions earlier this spring, it was noted that the RRF tonnages for FY09 were expected to be down substantially from the budget assumption of 604,000 tons. The FY09 actual was 537,115 tons. The primary factor assumed in the reduced tonnage is economic conditions.

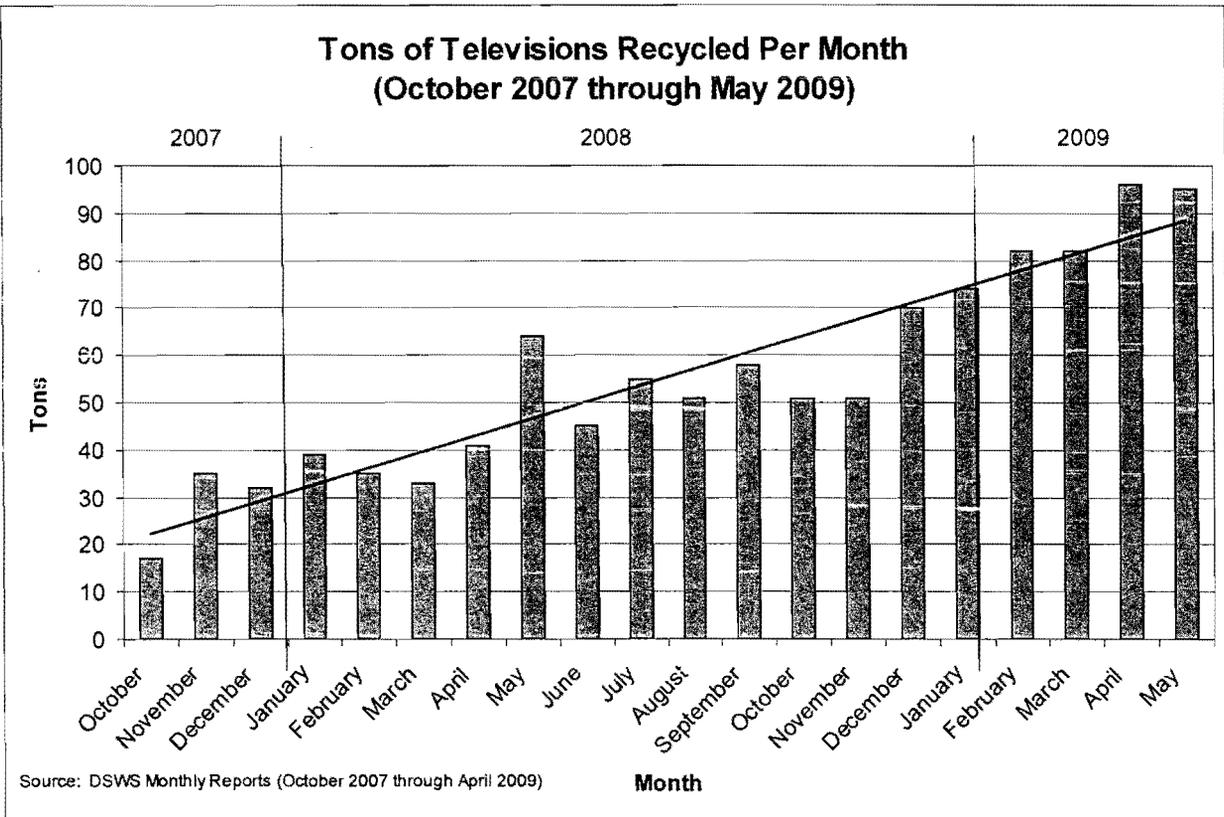
The Dickerson Compost Facility has also seen tonnages decline over the past couple of years and the export of yard waste in excess of the legal limit (77,000 tons per year) did not happen in FY09 and is not expected in FY10. The FY09 actual tonnage was 67,928 tons, which is 8 percent below the FY08 actual of 74,040 tons. As discussed during the Council's review of the 10 Year Solid Waste Management Plan earlier this Spring, DSWS has pursued a number of initiatives such as grasscycling and home composting to reduce yard trim volumes.

Television Recycling Trends

The long-planned switchover from analog to all digital television signals in the United States occurred on June 12, 2009.

In anticipation of the potential increase in the number of analog TV sets being disposed of, DEP expanded its computer recycling program (begun in 2000) to include other consumer electronics (such as television sets) in October 2007. The program was expanded again in April 2008 to include many other electronics. DEP has been conducting satellite drop-off events since June 2008.

As shown in the following chart, television recycling has increased steadily since the program's inception in October 2007.



Overall, more than 1,100 tons of televisions have been recycled (through May 2009). That is equivalent to over 22,000 27" standard tube televisions (assuming a weight of 100 pounds each).

It is unclear how much more of an increase in television recycling will occur in the coming weeks and months as a result of the digital switchover. Analog television set owners who have cable or satellite subscriptions with existing TV decoder boxes can continue to use their analog televisions without any transition issues. For those analog TV owners who use antennas, digital to analog converter boxes are widely available at electronics stores for purchase (approximately \$50 each). The federal government's converter box coupon program (up to two \$40 coupons per household) will take applications through July 31, 2009.

The Council has received some correspondence from residents suggesting that DEP consider a curbside pickup program for analog televisions. However, it is not clear that there is a large enough demand or need for this effort. DSWS staff believe the current drop-off facility at the Transfer Station and the periodic satellite events are sufficient at this time. The Council (as part of its approval of the recent 10 Year Solid Waste Management Plan Update) has asked for regular updates regarding television recycling levels.

Gude Landfill Remediation

The T&E Committee has received a number of briefings in recent months regarding DEP's remediation efforts at the closed Gude landfill. Most recently, the Council discussed this issue as part of its recent Operating and Capital Budget review process in April and early May.

In order to move forward expeditiously on the necessary studies to identify remediation needs and alternatives, and because of reduced waste volumes being experienced during FY09, DEP identified surplus appropriation in FY09 in the Solid Waste Disposal Fund that could be used to begin this work. The Council agreed with this approach and this work is moving forward. On May 27, MDE approved DEP's project sequence and schedule (see letter from MDE ©13). The Gude Landfill Concerned Citizens (GLCC) group comments are also attached (©14-15). The GLCC does not support identification of a future yard trim processing area as part of the remediation study. It also recommends that the area to be studied include some additional public marshland and that water sampling of all seeps/springs within 500 yards of the landfill boundaries be done.

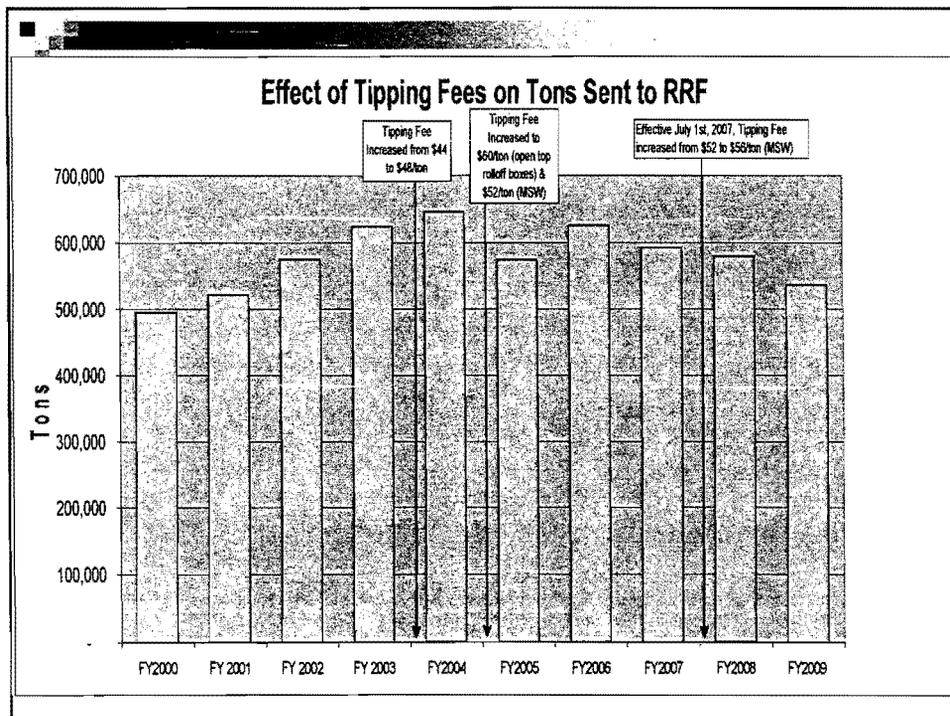
DEP and DSWS staff will be available to discuss the remediation work and the GLCC issues referenced above at the July 23 discussion.

Attachments

KML:f:\levchenko\solid waste\quarterly briefings\t&e committee 7 23 09 update.doc

DSWS T & E Briefing

July 23, 2009



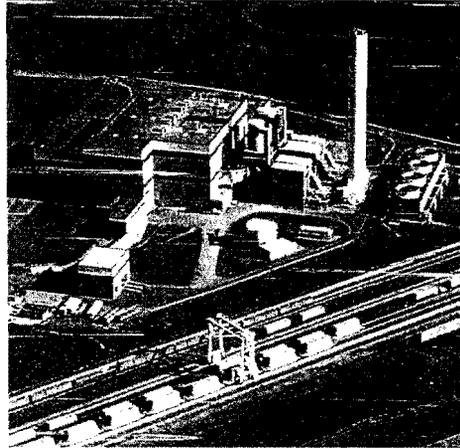
RRF Tonnages

Tons Processed:

<u>FY08</u>	<u>FY09</u>
587,269	537,115
(8.5% Decrease)	

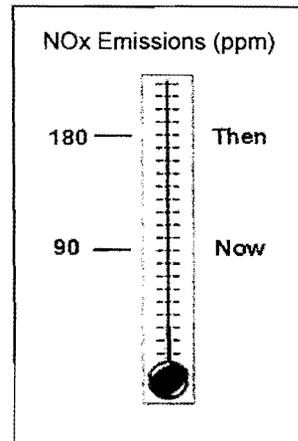
Attributed To The Economy
(Less Disposable Income)
(More Focus on Savings)

Implication for Future
575,000 Budgeted for FY10
Less Waste is Not a Problem



RRF Air Pollution Control: NOx Reduction (50%)

- LN™ (Low NOx)
 - Voluntary
 - First Publicly-Owned WTE Plant to Install This New Technology
 - Defines New State-of-the-Art
- Rapid Deployment
 - Last year at this time, we reported "Change order nearly finalized".
 - At this time, the LN™ upgrade has been installed and operating successfully for four months (since 3/12/09).
- NOx Reduction Achieved = Removing 70,000 cars from road



More to Come: By Next October, Elimination of Anhydrous Ammonia (Hazardous)

Compost Facility

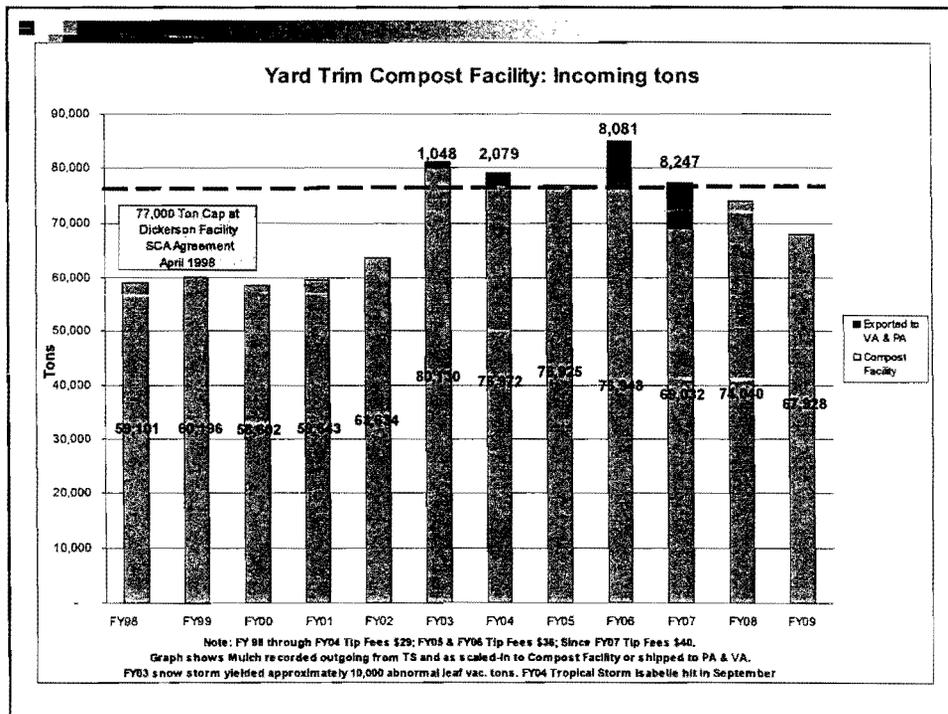
FY09 Tons Received in FY09 = 67,928

This continues our achievement of zero diversion to back-up sites since FY07, and is:

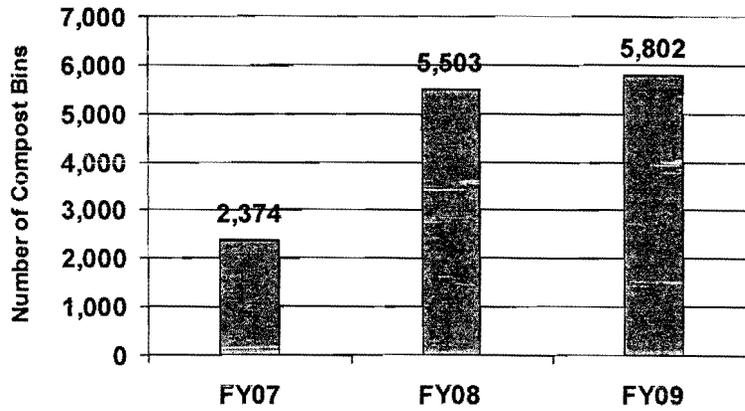
- 8% below FY08 total of 74,040 tons
- 12% below Sugarloaf Citizens' Association limit of 77,000

Attributed to:

- Grasscycling & Backyard Compostin
 - Outreach and Education
 - Free Compost Bins
- Diversion of Leaves
 - Into Salable Mulch
 - At Transfer Station



Number of Compost Bins Distributed



Grasscycling: The Grass is Greener on Your Side

What is Grasscycling? Grasscycling is simply and easy way to give for the environment. It's what happens when you leave your lawn's grass clippings to do their job on the lawn instead of putting them in the trash. It's a simple way to reduce your lawn's maintenance costs and to help the environment.

Why Grasscycling?

- Saves time
- Reduces your lawn's maintenance costs
- Adds nutrients to your lawn
- Reduces your lawn's water needs
- Reduces your lawn's need for fertilizers
- Reduces your lawn's need for pesticides
- Reduces your lawn's need for herbicides
- Reduces your lawn's need for fungicides
- Reduces your lawn's need for nematocides
- Reduces your lawn's need for molluscicides
- Reduces your lawn's need for acaricides
- Reduces your lawn's need for insecticides
- Reduces your lawn's need for molluscicides
- Reduces your lawn's need for acaricides
- Reduces your lawn's need for insecticides

Compost Happens

Composting is the natural process by which organic materials are broken down into a rich, dark brown soil. This soil is full of nutrients and is perfect for your garden. Composting is a simple and easy way to recycle your yard waste and to help the environment.

How to Compost:

1. Choose a site for your compost pile.
2. Gather your yard waste.
3. Layer your yard waste.
4. Water your compost pile.
5. Turn your compost pile.
6. Harvest your compost.

Grasscycling... Just Mow and Go!

Set mower blade height to 3"
Cut lawn before grass reaches 4" tall
Let grass clippings fall and stay on the lawn to do its job

For more information on grasscycling, contact the Montgomery County Division of Solid Waste Services at www.montgomerycountymd.gov/recycle
240-777-6400

Composting... It's Natural

Compost is a natural fertilizer for healthy lawns and gardens that you can make in your own backyard. Get started today by playing these materials together this year's compost bin.

- ✓ Grass
- ✓ Stems
- ✓ Weed chips
- ✓ Flowers
- ✓ Grass clippings
- ✓ Plant trimmings

For more information on composting, contact the Montgomery County Division of Solid Waste Services at www.montgomerycountymd.gov/recycle
240-777-6400

Civic Loop

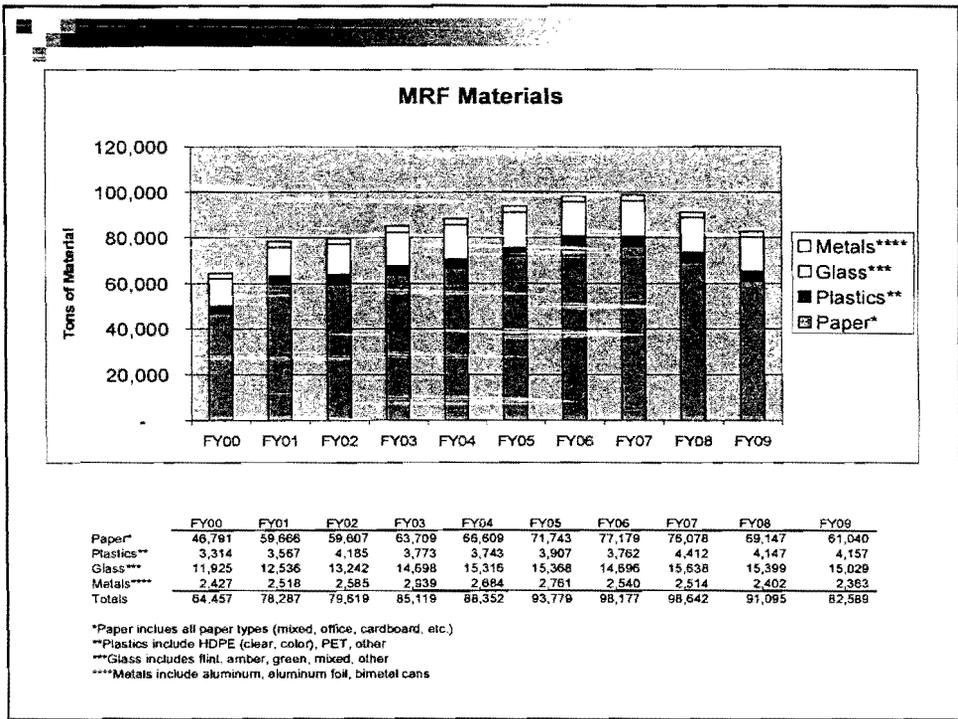
It's Fall - Put Your Leaves to Work for Composting

Leaf mulch is a natural fertilizer for your lawn and garden. It's a simple and easy way to recycle your yard waste and to help the environment.

October 2007
November 2007
December 2007

Grasscycling: Just Mow and Go!

Grasscycling is a simple and easy way to give for the environment. It's what happens when you leave your lawn's grass clippings to do their job on the lawn instead of putting them in the trash. It's a simple way to reduce your lawn's maintenance costs and to help the environment.



FY09 Recycling Market Volatility

- Recycling markets for the last several months reflect the general economic downturn
- Recycling Center market revenues have had wide swings in this period—for example, revenue for steel in July 2008 was \$590 per ton and is \$55 per ton in June 2009; natural high density polyethylene plastic dropped from \$960 per ton in December 2008 to \$280 per ton in January 2009
- Current revenues are steady, but significantly less than they had been over the last several years

Expanded Plastics Recycling

- Program well received by the public since its July 1, 2008 beginning
- Collections have gone smoothly
- Operations for receiving, sorting and selling the material have gone smoothly
- Shipped approximately 110 tons of tubs and lids since the program began
- Revenues have been as high as \$220 per ton and as low as \$25 per ton

Electronics Recycling

- Recycled an estimated 1,825 tons of unwanted electronics in FY09
- Seven days a week electronics drop-off service at the Transfer Station
- Ten satellite electronics recycling events in the past 12 months
 - Five events at Upcounty sites
 - Five events at Downcounty sites

Acceptable Materials for Electronics Recycling

CD Players	Fax machines
Cell Phones	Monitors
Calculators	PDAs
Camcorders	Printers
Computers and computer related products	Projection equipment
Consumer electronics	Scanners
Copiers	Small electronic appliances
Cords and cables	Stereos and speakers
Digital cameras	Telephones
DVD players	Televisions
Electronic toys	VCR players
Electronic typewriters	

Quarterly Update on Television Recycling Required in Ten-Year Plan

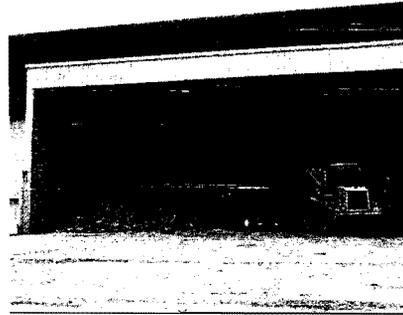
- Approximately 875 tons of televisions were recycled at the Transfer Station in FY09, and about 60 tons were collected at satellite electronics collection events.



Construction & Demolition Debris Recycling

(Dirt, Concrete, and Asphalt)

- Since mid-February 2009, recyclable C&D has been going to Honeygo Run Reclamation Center from the Transfer Station which accepts more materials than our previous C&D recycler. C&D which is not recycled is transported to the Brunswick Waste Management Facility Landfill.
- Each month DSWS receives a \$2.50 per ton rebate of processed recyclables sold.
- In the past five months, 17,500 tons of C&D have been recycled at Honeygo Run.
- In FY09 23,553 tons of C&D (soil concrete, asphalt, brick and block) were recycled compared to only 5,057 tons in FY08.



Gude Landfill Remediation

- **Maryland Department of the Environment Approvals**
 - Landfill Gas Monitoring Plan (4/22/09)
 - Groundwater and Surface Water Monitoring Plan (5/11/09)
 - Remediation Approach (5/27/09)
- **Elements of the Remediation**
 - Northeast Maryland Waste Disposal Authority: IGA
 - EA Engineering, Science and Technology: Consultant via IGA
 - Phase 0: Aerial/Field Survey and Waste Delineation, initiated
 - Phase 1: Nature and Extent Study to assess contamination and human exposure pathways, scope of work being finalized
- **Continued Working Relationship with Community**
 - Gude Landfill Concerned Citizens Meetings 3/10, 6/11 and 7/16/09
 - Future meetings to be held monthly

Landfill Gas-to-Energy: Gude LF

■ Major Accomplishments

- Ground Breaking (January 2009)
- Completed concrete pads and set equipment (May 2009)
- Completed incoming power supply to LFGE Facility (June 2009)
- Completed communications circuit and direct transfer trip test, enables Pepco to remotely shut electrical circuit down (June 2009)
- LFGE Engine Performance and Emissions Tests
 - Performance Test – 6/29/09 (Jenbacher).
 - Emissions Test – 6/30/09 (Jenbacher).
- Generate Power to Grid for Revenue (First week of July)
- Substantial Completion Acceptance (July 13, 2009)

Landfill Gas-to-Energy: Gude LF



Landfill Gas-to-Energy: Oaks LF

■ Major Accomplishments

- Ground Breaking (December 2008)
- Completed concrete pads and set equipment (March 2009)
- Completed incoming power supply to LFGE Facility (April 2009)
- Completed communications circuit and direct transfer trip test, enables Pepco to remotely shut electrical circuit down (June 2009)
- LFGE Engine Performance and Emissions Tests
 - Performance Test – 7/16/09 (CAT), 6/30/09 (Jenbacher)
 - Emissions Test – 6/23/09 (CAT), 7/1/09 (Jenbacher).
- Generate Power to Grid for Revenue (First week of July)
- Substantial Completion Acceptance (7/16/09)

Landfill Gas-to-Energy: Oaks LF



What's New in Collections?

- Missed collections reduced by 26%
- Call volume increased by 12%
- All current refuse and recycling collection contracts will expire 2010 – 2013
- Recycling Services to 210,000 homes
- Refuse Services to 90,000 homes
- 102 vehicles used for collection services
- Six petition areas in past two years (3,156)
 - Williamsburg – 450 homes
 - (3) Sherwood Forrest – 1,296
 - Colesville Manor – 690
 - Flower Valley – 720

What's New in the Contracts?

- New services to residents
 - Refuse from small home remodeling projects
 - Small metal auto parts
 - Expanded plastics and paper recycling
- New 2010 vehicles required that meet strict EPA air quality and emission standards
- Longer Term
 - 7 years + 2 one-year renewals vs.
5 years + 2 one-year renewals
- All collection vehicles will be powered with compressed natural gas (CNG)

Why Compressed Natural Gas?

- It's Cleaner
- it's Cheaper
- It's Domestic



Solar Energy Project

- Largest solar installation in the state of Maryland
- Contributes renewable energy to the Maryland grid
- Reduces the carbon footprint, through a documented environmental benefit, of DSWS
- Employs Maryland energy firm and stimulates the solar energy industry
- Reduces expenses paid by Solid Waste ratepayers



MARYLAND DEPARTMENT OF THE ENVIRONMENT

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Martin O'Malley
Governor

Shari T. Wilson
Secretary

Anthony G. Brown
Lieutenant Governor

Robert M. Summers, Ph.D.
Deputy Secretary

May 27, 2009

CERTIFIED MAIL

Return Receipt Requested

Mr. Peter R. Karasik
Department of Environmental Protection
16101 Frederick Road
Derwood MD 20855

Dear Mr. Karasik:

This is in reference to the Gude Landfill - Remediation Approach Project Sequence and Schedule dated April 2009 for the Gude Sanitary Landfill, which was received by the Maryland Department of the Environment (the "Department") on April 29, 2009. The Department has reviewed and hereby approves the project sequence and schedule.

Per the submittal, the Department approves the scope of work for the survey and limit of waste delineation and the scope of work for the nature and extent study. Enclosed please find a letter from the Gude Landfill Concerned Citizens with comments on the County's proposed work plan and remediation approach. The Department is forwarding this letter to you to insure that community concerns are addressed as appropriate. Please provide a copy of the 50% status report for the nature and extent study when available for Departmental review.

The Department appreciates your cooperation in this important matter. If there are any questions regarding this matter, please contact Mr. Andrew Grenzer, Project Manager, at (410) 537-3318.

RECEIVED

DEPT OF ENVIRONMENTAL PROTECTION

Sincerely,

Martha Hynson, Chief
Landfill Operations Division

DIVISION OF SOLID WASTE SERVICES

MH:ATG:sm

Enclosure

cc: Mr. Stephen Lezinski
Mr. Horacio Tablada
Mr. Brian Coblentz

RECEIVED
DEP - SOLID WASTE

MAY 28 2009

MONTGOMERY COUNTY
TRANSFER STATION

Gude Landfill Concerned Citizens

15461 Indianola Drive
Derwood, MD 20855

May 19, 2009

Martha Hynson, Chief
Landfill Operations Division
Solid Waste Program
Maryland Department of the Environment
1800 Washington Boulevard, Suite 605
Baltimore, MD 21230-1719

Dear Ms. Hynson:

On April 29th the Montgomery County Department of Environmental Protection (DEP) submitted its proposed statement of work for the Nature and Extent Study and proposed Remediation Approach timeline for the Gude Landfill. By copy of that letter, the Gude Landfill Concerned Citizens (GLCC) was invited to comment on the plans and approach. The GLCC offers these comments and recommendations:

Task 2 – Field Survey

We recommend deleting the task (4th bullet) to mark the potential outline of the yard trim processing area. This has absolutely nothing to do with the approach to remediation and appears to be another attempt to avoid MDE direction to not proceed with any aspect of the Yard Trim Project until it has been completely presented to and approved by MDE.

Our community has voiced a clear and resounding objection to any relocation of the commercial wood processing activities to the Gude Landfill site. This Yard Trim site will receive thousands of 18 wheeler trucks and host multiple operations of wood processing equipment such as loaders and tub grinders. The expected wood waste storm water runoff will degrade an already compromised Rock Creek stream. In addition the added weight and vibration of the operating equipment will adversely impact the fragile hydrologic system under the landfill and result in increased contaminate migration.

SOW – Nature and Extent Study

In section C, we recommend that the evaluation include the public marshland 200 yards west-north-west of the Gude Landfill. While not on the landfill border, this area is downhill and collects a lot of landfill storm water runoff. There are also a number of springs in and around the marsh where the first aquifer surfaces.

In section P, we recommend that the exposure evaluation include the potential break through of the contaminated plume into Rock Creek and the inclusion of the human pathway vector on the entire Rock Creek watershed and the subsequent downstream impacts to the downstream freshwater water intakes. This evaluation should also include the potential impact to the Chesapeake Bay Clean Water plan.

We believe that this plan must acknowledge that there could be human exposure pathways. Not a single heavy metal will evaporate and except during the hottest months in the summer, only minimal VOC's will evaporate, but not before affecting water quality and increasing the bioaccumulation of contaminants. Despite the testimony of a Montgomery County official, the GLCC does not believe that dilution is the solution to the Gude Landfill contamination.

Post Closure Maintenance Activities

We are concerned about Leachate Seep #1 and the DEP statement that there is no evidence of leachate migrating beyond the landfill property. A slope failure or seepage due to the fact that the cap has eroded is a condition that needs to be repaired. Seeping within limits or seeping only on landfill property is not an acceptable environmental solution. To ensure the safety of our neighborhood, we recommend that DEP conduct a single full spectrum water sampling of all seeps/springs within 500 yards of the landfill bounds. Additionally, we recommend an analysis of the landfill contaminate impact, both present and potential, on the Total Maximum Daily Load (TMDL) for the Rock Creek stream segment.

Summary

We appreciate all the efforts that have gone into the preparation of this Remediation Approach, particularly the specific tasks to reach out to the community with public meetings and an information sharing website. The GLCC and our entire community are committed to working with DEP and MDE to ensure a safe and hazard free neighborhood environment.

Sincerely,
Keith Ligon,
GLCC Chairman

cc:

Horatio Tablada, Director Waste Management Administration, MDE
Karen Kumm Morris, MNPPC
Robert Hoyt, Director DEP
Peter Karasik, Section Chief, DEP/DSWS
Daniel Locke, Chief, DEP/DSWS
David Lake, Special Assistant/Office of the Director, DEP
Stephen Lezinski, Engineer III, DEP/DSWS