



MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

February 13, 2009

MEMORANDUM

To: Montgomery County Planning Board

Via: Mark Pfefferle, Acting Chief *MP*
Environmental Planning Division

From: Steve Findley, Planner Coordinator *SFH*
Environmental Planning Division

Subject: Comprehensive Solid Waste Management 10 Year Plan, 2007-2016
Triennial Review

STAFF RECOMMENDATION: Approval to transmit comments to the County Council.

BACKGROUND

Title 9, Subtitle 5 of the Environment Article of the Annotated Code of Maryland requires that the County develop a Solid Waste Management Plan for the County. The plan is to cover a ten-year period and must be updated every 3 years. It must detail the County's solid waste disposal systems, including solid waste acceptance facilities and systems for collection and disposal of solid waste by public or private entities.

The Comprehensive Solid Waste Management 10 Year Plan addresses all aspects of solid waste management in the county, including source reduction, recycling, municipal solid waste collection and disposal, yard waste, and special waste streams such as construction waste, hazardous waste, and biosolids from wastewater treatment operations. It prioritizes waste management approaches, placing the highest priorities on waste reduction, followed by recycling, then incineration with energy recovery. Landfilling is the last and least preferred approach.

The 10 Year Solid Waste Management Plan was introduced by the County Council on Jan. 27, 2009. A public hearing is scheduled for Feb. 24, 2009 and the work session with the Council's Transportation and

Environment Committee is scheduled on Mar. 9, 2009. It is anticipated that the Council will adopt the 10 Year Solid Waste Management Plan during the spring.

SUMMARY AND ANALYSIS

Staff had the opportunity to comment on this plan last summer when it was in draft form. The updated plan contains substantial changes and additions that address staff's comments. We endorse the overall plan, and believe that it contributes significantly to environmental quality in Montgomery County.

The plan does propose that the closed Gude Drive landfill be upgraded to allow a yard waste handling facility to operate on the site, with the intention of shifting yard trim handling operations currently conducted at the solid waste Transfer Station to the Gude Drive site. This project is included in the County Executive's CIP. The plan states that "final decisions on site improvements being designed for relocation of yard waste operations from the Transfer Station to an area at the Gude landfill will be made during subsequent CIP review of that design."

Waste reduction

Waste reduction is monitored by tracking per capita and per employee waste generation trends. Waste reduction is promoted through "consumer education and technical assistance using various media, including development, production and distribution of education and promotional materials, public and private schools outreach, training and support of [volunteers who assist with recycling and composting efforts], workshops, demonstrations and seminars... Both national and local data indicate trends toward increased waste generation." The plan urges that all county agencies strive to model behaviors that result in reductions in waste generation.

Recycling Goals and Performance

The County has established a goal to "achieve, maintain or exceed 50 percent recycling of municipal solid waste by the end of Calendar Year 2010." In support of this goal, the County operates the Materials Recovery Facility (MRF) at the Solid Waste Transfer Station in Derwood, Maryland. Paper is baled at the MRF for transfer to a private company under contract to the County for paper recycling. Comingled plastic, metal and glass containers are separated by the MRF for sale to other recycling companies. Through aggressive education and enforcement of mandatory recycling laws, the County has achieved a recycling rate of over 43% in Fiscal Year 2007. The plastics recycling program was expanded significantly in 2008 to include plastic lids, food-grade tubs, jars, pails and buckets.

Yard Waste Recycling

The County encourages grasscycling and backyard composting to reduce the amount of yard waste reaching the Transfer Station. County yard waste handling is done at two facilities: the Transfer Station in Derwood and the Yard Waste Composting Facility in Dickerson. Yard trim is delivered to the Transfer Station by County and private haulers as well as private individuals and landscaping firms. Yard trim received at the Transfer Station may be ground into mulch for sale; the remainder is transferred to the Yard Waste Composting Facility where it is composted and bagged for sale. When rail capacity is

available, yard trim is transferred to the Dickerson site by rail, helping to reduce truck traffic. There is a proposal in the Comprehensive Solid Waste Management 10 Year Plan to relocate the yard trim handling operation currently housed at the Transfer Station to the closed Gude landfill. A final decision on this will be made as part of the review of the County Executive's CIP.

Resource Recovery Facility

Combustible non-recyclable municipal solid waste is collected at the Transfer Station for shipment to the County's Resource Recovery Facility (RRF) in Dickerson, Maryland. The waste is burned to turn its captured energy into electricity using steam-driven turbines. In the process, certain resources, such as heavy metals, are recovered for recycling. The RRF is considered a model for its efficiency and state of the art pollution-reduction technology. Emissions are continuously monitored to ensure compliance with State and Federal emissions limits.

Advantages of the RRF include generation of electricity by a method that produces lower emissions than coal-burning power plants; reduction of methane production normally associated with landfilling operations (methane is much more potent as a greenhouse gas than CO₂); resource recovery; and reduction of landfill requirements. Incineration of municipal solid waste reduces its weight by 70% and its volume by 90% prior to landfilling, resulting in much more efficient landfill disposal.

The County and their partner Covanta Energy are continually seeking ways to improve the RRF and its operations. A project currently underway should significantly reduce NO_x emissions from the facility. Use of the rail line for transfer between the Transfer Station and the RRF adds efficiency and reduces greenhouse gas emissions by reducing the number of truck trips needed to haul municipal solid waste to the RRF.

While the RRF has many significant advantages for municipal solid waste disposal, it is not perfect. No energy generation plant that burns fuel is emission-free. Neighbors in the Dickerson area have reported problems with odors and stack emissions. Truck traffic into and out of the facility and occasional blasts associated with maintenance disturb the peace of the agricultural reserve. The Dickerson Area Facility Implementation Group (DAFIG) was created to give neighbors a venue for interacting with County, Covanta, and Mirant (coal burning power plant located adjacent to the RRF) officials to find ways to improve operations and reduce impacts on the community.

Landfill

The County has a contract with a commercial landfill in Brunswick, Virginia to landfill ash from the RRF as well as "bypass" waste (waste that is non-combustible and non-recyclable that bypasses the RRF, MRF and Yard Waste Composting Facility). Most of the ash from the RRF is transported by rail to a railhead near the landfill site in Brunswick. The ash travels the remaining distance by truck. Bypass waste is transported directly to the landfill by truck.

The County maintains 820 acres near Dickerson, Maryland as a potential in-County landfill site in the event that “economic conditions or changes in the law render out-of-County waste disposal infeasible.” This property, known as Site 2, is currently leased out for agricultural use.

Special Waste Streams

The **Comprehensive Solid Waste Management 10 Year Plan** details the collection and disposition of a variety of special waste materials, including *Land Clearing and Construction and Demolition Debris (C&D)*, *Hazardous Waste*, *Special Medical Waste*, *Animal Carcass Waste*, *Bulky Waste*, *Wastewater Treatment Biosolids*, and *Agricultural Waste*. Many of these are hauled out of County for treatment at specialized processing facilities.

Adequacy of Facility Capacities

A primary concern of staff is that the systems and facilities for collecting, hauling, processing, and/or disposing of solid waste are adequate to accommodate existing and projected future County development. The Montgomery County Division of Solid Waste Services uses M-NCPPC projections to assess the adequacy of these systems and facilities. Their assessment indicates that there is sufficient capacity in all of these areas for current and projected development.

STAFF COMMENTS ON THE DRAFT 10 YEAR PLAN AND RESPONSES

Environmental Planning staff was given the opportunity to review and comment on the Draft Comprehensive Solid Waste Management 10 Year Plan in the summer of 2008. Following are staff's most substantial comments on the draft, and how the Plan introduced for Public Hearing addresses staff comments:

Staff Comment #1:

“We recommend an increasing focus on sustainability in this plan, particularly in regard to monitoring and reducing greenhouse gas emissions. In particular, we encourage refinement of efforts to model existing and projected greenhouse gas emissions associated with solid waste management. We would like to recognize work that has been done in this area, and endorse such efforts as the Resource Recovery Facility that recovers energy from municipal solid waste to generate electricity, the Materials Recovery Facility that facilitates recycling, and the Yard Trim Composting Facility that recycles yard waste into beneficial products for gardening and agriculture. These combined efforts significantly reduce the need to landfill solid waste and reduce the greenhouse gas emissions that accompany landfill operations.”

DEP Response to Comment #1:

The updated Plan has added a new section on Greenhouse Gas and ozone emissions (Section 4.6), and a new Action Plan item, 5.5.1.12: “The County will develop a complete, solid waste system-wide, inventory of GHG (greenhouse gas) and ozone-related emissions, and will include net emissions effects in the consideration of future changes in (the) solid waste management system.”

Staff Comment #2:

“Page 5-53, second paragraph (Section 5.3.2) states: “Land clearing and demolition debris generation is thought to be tied directly to population growth and the resulting need for land clearing and new construction. As stated in Chapter Three, this category is expected to grow at the rate of population change with existing and proposed private facilities adequately serving County needs for the next decade.”

Our master and sector plans as well as development review projects indicate that building in the County is shifting from greenfield development to redevelopment of existing developed areas. This shift will result in generation of larger amounts of construction and demolition debris. This study should include strategies for increasing deconstruction of old buildings and the re-use and recycling of deconstructed building materials. Given reasonable assumptions for re-use and recycling, confirm the adequacy of existing and proposed private facilities to handle the resulting volume.”

DEP Response to #2:

The updated Plan significantly expands discussion of C&D waste in Sections 4.2.1 and 5.3.2., including an acknowledgement that the larger proportions of land clearing and demolition waste may shift away from land clearing debris toward more demolition debris. Section 4.2.1 notes that, although there are currently multiple destinations for disposal of C&D waste, most are not equipped for recycling the materials. The section concludes that “the County’s hierarchical preference that waste be recycled rather than disposed dictates a planning direction with respect to C&D management. Specifically, the County will continue to explore the fiscal and operational feasibility of increased recycling for land clearing and demolition debris generated from County roadway construction projects. In addition, the County should endeavor to more closely monitor and encourage private sector C&D recycling activities and opportunities.”

Staff Comment #3:

“In Section 5.2.1.1, item f(4), “Plan of Action: Transfer Station,” the 2004 plan notes the proposed “evaluation of alternative sites, including a surplus WSSC site on Gude Drive, for the possible movement of certain discrete waste operations that are presently handled at the Transfer Station site.” An update of this evaluation might be helpful in this plan.”

DEP Response to #3:

As noted above, the updated Plan includes discussion of a plan to move yard trim handling operations from the Transfer Station to the site of the closed Gude landfill. The primary reasons are space and safety considerations at the Transfer Station. At certain times of year, the amount of yard trim coming into the Transfer Station, combined with the number of people using the Transfer Station, puts people in uncomfortably close proximity to the tub grinders that grind up the yard trim. In addition, increases in traffic cause traffic jams at the Transfer Station, resulting in long lines of idling cars and trucks. The Plan proposes that moving the yard trim operations to the Gude site will increase the safety and efficiency of both the yard trim and Transfer Station operations. Operations at the Gude site would include drop off of yard trim and grinding operations, sale and/or distribution of mulch, and loading of truck/rail containers for shipment to the yard composting facility at Dickerson. Loaded containers would be taken back to the Transfer Station to be loaded onto rail cars for transport.

Staff Comment #4:

“Has a study been done to determine the effectiveness of the drop-off program for computers, automotive fluids and batteries, rechargeable batteries, building materials, textiles and tires? In particular, do we know if there is any problem with these materials being improperly disposed of, or if we could increase the percentage of these materials collected and properly treated in a cost-effective manner by increasing opportunities for disposal?”

DEP Response to Comment #4:

The updated Plan includes a discussion of expanded drop-off programs for many of the above items, including special collections at Park & Ride lots and schools (Section 4.1.2.4). There is also a discussion of expanded programs to handle “Solid waste with hazardous characteristics” (Section 4.1.6). The County will monitor the need to continue such programs.

Staff Comment #5:

“Regarding hazardous wastes (Section 5.1.2.5): How does the County address the disposal of fluorescent light bulbs, including the new cfl bulbs? This question covers both public education and collection and disposal processes.”

DEP Response to Comment #5:

The updated Plan includes a discussion of cfc disposal in the section on solid waste with hazardous characteristics (4.1.6). This section states: “There is a growing use of and interest in CFLs. Some private retailers such as Home Depot and IKEA stores have begun to offer CFL recycling opportunities at their stores. These retailers contract CFL collection services with their current hazardous waste collection company or through designated CFL recycling collection companies and programs. DEP will encourage this practice, and also will investigate the feasibility of County-sponsored satellite collection centers for CFLs and fluorescent tubes.”

Staff Comment #6:

The Parks Department will monitor parks following increases in tipping fees to make sure that illegal dumping does not increase. (Statement – no response required)

The remaining comments were editorial in nature, and have been addressed in the update of the plan.