

APPENDIX D
Adopted 2008 Water and Sewer Plan

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4.4 BIOSOLIDS MANAGEMENT

Biosolids are the solids recovered during the wastewater treatment process that contains nutrient-rich organic matter and micronutrients. Research supported by the EPA has determined that the land application of biosolids in accordance with regulations and in appropriate rates enriches the soil and is beneficial to the environment. Biosolids improve agricultural yields while reducing the need for chemical fertilizers that can be harmful when carried by rainfall into streams, rivers and the Chesapeake Bay.

The EPA has established regulations for the use of biosolids to protect human health, plant life, livestock, wildlife, and water quality. The Clean Water Act required that these regulations protect human health and the environment from any reasonably anticipated adverse effects of pollutants and pathogens in the biosolids. Biosolids generated from municipal wastewater treatment plants are monitored for pollutants and cannot be applied to the land if they exceed the EPA limits.²

4.4.1 Biosolids Production

The Blue Plains Wastewater Treatment Plant is the largest advanced wastewater treatment facility of its type in the United States. Although other plants may have larger capacities, Blue Plains provides the highest level of treatment with its nitrification and filtration processes. Treatment consists of preliminary treatment, primary treatment, secondary treatment, nitrification, denitrification, effluent filtration, chlorination/dechlorination and post-aeration. The solids treatment processes are comprised of thickening and dewatering for primary sludge, secondary waste activated sludge, and nitrification/denitrification waste activated sludge.³ Plants operated in Prince George's County by the WSSC also use these methods for recovering and treating biosolids.

Once treated, biosolids becomes a viable product recycled in the form of natural fertilizers and land applied. It may also be disposed of by incineration and at landfills. **Table 4-4** reflects the production, reuse, and disposal methods for biosolids from the Blue Plains WWTP and treatment facilities located in Prince George's County.

4.4.2 Regulatory Requirements

MDE is the primary agency that regulates the application of biosolids. A biosolids contractor must file and be permitted by MDE in order to apply biosolids to any site approved by the County. The application and permitting process assures that all regulatory requirements are met, assuring that use on land is safe for humans and the environment.⁴ MDE, WSSC, and the

² District of Columbia Water and Sewer Authority, "Biosolids Recycling-Preserving Agriculture and Protecting the Chesapeake Bay"

³ District of Columbia Water and Sewer Authority, "Water and Sewer Facilities Master Plan," August 1998

⁴ Maryland Department of the Environment, Factsheet, Sewage Sludge, Website: www.mde.state.md.us, January, 2001.

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County's Health Department inspect the site both during and after biosolids applications. The following is a list of requirements and restrictions that relate to the land application of biosolids:

- Pathogen Control
- Heavy Metals
- Pretreatment
- Buffer Zones
- Slope Requirements
- Application Rates
- Frozen Ground Restrictions
- Nutrient Management Plans
- Time Restrictions
- Monitoring Records
- Site Inspections

The land application of biosolids is considered an acceptable and beneficial management method and is now considered the centerpiece of a diverse management plan that also includes incineration and landfilling. The County Executive and County Council, pursuant to Section 21-108 of the County Code, must approve sites that are selected for the land application of stabilized biosolids. Land application sites need not be included in the County's Comprehensive Water and Sewer Plan, since the actual application of biosolids on a particular site is of short duration. **Table 4-5** lists companies permitted to apply biosolids in Prince George's County, the originating source of the biosolids, and the sites for land application. The locations of the sites are found on **Map 4-2**.

The land application contract requires the contractors to provide storage facilities to manage the disposal of biosolids produced daily at the Wastewater Treatment Plants. The storage facilities are used during inclement weather or other conditions that may prevent land application. One biosolids storage lagoon is located in Prince George's County. The Cedarville lagoon is operated by Synagro, Inc. and has a capacity of 8,750 dry tons. The lagoon must be emptied once a year.

4.4.3 Land Application

Biosolids are applied to the land in amounts specific to the type of soil, crop to be grown and proximity to roads or streams. Subsurface soil injection involves injection, under pressure, of liquid biosolids beneath the soil surface. The second method, surface application with incorporation (tilling in), involves spreading the biosolids on the surface of the soil and tilling the soil to incorporate the biosolids with the soil.

The suitability of a site for biosolids land application is a function of potential crops, the physical, chemical and mineralogical characteristics of the soil as determined by laboratory analyses, and site considerations for each field. Nutrient level, texture, micro-nutrients and macro-nutrients, soil pH – the measure of the soil alkalinity – and any other soil properties that will influence application rates, are considered. Other factors considered are landscape features

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(e.g., slope), proximity to surface waters and groundwater, as well as soil parent materials, density and moisture holding capacity. Setback from these features are mandated by State law and strictly enforced by onsite inspection.

The annual rate of application for biosolids application is carefully determined and is usually based on meeting the nitrogen requirement of the crop to be grown. This avoids leaching of nitrate-nitrogen into groundwater and surface waters since the crop will quickly absorb the needed nitrogen contained in the biosolids. Silviculture is used in the County where biosolids are land applied. Fast-growing trees are planted above the biosolids, utilizing the nutrient to grow. The following biosolids parameters are required to develop recommendations for application rates on agricultural soils: percent solids, total nitrogen (N), ammonia (NH₃), nitrate (NO₃), phosphorus (P), potassium (K), copper (Cu), zinc (Zn), nickel (Ni), lead (Pb) and cadmium (Cd). With all nutrients (with the exception of phosphorus), specific upper level limits of soil accumulation is avoided to protect both the environment and public health. Recent legislation by the State will implement phosphorus limits.

Generally, biosolids produced in Prince George's County are extremely low in metals. As an extra precaution, however, MDE restricts the number of applications that can be made on agricultural land for any biosolids that contain heavy metals such as copper, zinc, nickel, lead or cadmium.

4.4.4 Innovative Approaches to Land Application

Since 1983, Prince George's County has been the home of one innovative reuse of biosolids, the ERCO Tree Farm. The tree farm is located on 284 acres of a former gravel mine in Brandywine. Annually, the site uses up to 2,000 dry tons of biosolids from the Blue Plains WWTP on 122 acres, and harvests 10 acres of poplar trees for forest products to include mulch biomass. Poplars thrive on high-nitrogen soils, and ground water monitoring for over 20 years shows no negative impact on local aquifers.

The District of Columbia Water and Sewer Authority (WASA) is planning a pilot project for small scale composting technology. This pilot project currently operating at Blue Plains is a portable system that fills long silage bags with biosolids, and aerates these fully enclosed bags. The technology will produce Class A compost in smaller scale – the same high-quality pathogen-free biosolids as will be the product from the egg-shaped digesters scheduled to be built at the Blue Plains WWTP.

4.4.5 Incineration

Land application is the preferred method of recycling of biosolids in Prince George's County. As the agency primarily responsible for handling biosolids, the WSSC has also constructed incinerators to augment its land management methods. In accordance with Federal and State approvals, incineration is currently in operation at the Western Branch Wastewater Treatment Plant. The Western Branch disposes of 12.4 dry tons per day by incineration. Residue from the incinerated biosolids is then disposed of in landfills.

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Table 4-4 Biosolids Production and Reuse

| Treatment Plant Name (Existing or Planned) | Sludge Generation (Dry tons/Day) | | | | | 2005 | Chemical Solids | Solids Contents | Biosolids Facility Planned Expansion and/or Upgrading: Dates and Processes | Present Utilization Method(s) and Site(s) | Site Life Expect- ancy | Future Plans for Sludge Management |
|--|-------------------------------------|------|------|------|------|-------------------------------|--------------------|---|--|--|------------------------------------|---|
| | 1985 | 1990 | 1995 | 2000 | 2005 | | | | | | | |
| Blue Plains (Wash. D.C.) ⁵ | 380 | 380 | 380 | 380 | 380 | Ferric Cl. Polymer Lime | 28% | Prince George's County Share - Land Application | | 5 Year Contract Beginning in 2007 | Land Application and Composting | |
| Prince George's County Pro-rata Share ⁶ | 82.9 | 82.9 | 82.9 | 82.9 | 82.9 | | | | | | | |
| Parkway | 8.2 | 8.4 | 8.3 | 8.4 | 9.7 | Polymer Aluminum Lime | 27% | Off-site Land Application | | 5 Year Contract Beginning in 2005 | | |
| Western | 10.5 | 12.6 | 15.8 | 17.5 | 12.4 | Polymer | 23% | Incineration | | N/A | | |
| Piscataway | 29.6 | 30.0 | 27.5 | 27.6 | 23.9 | Ferric Cl. Lime | 26% | Off-site Land Application | | 5 Year Contract Beginning In 2005 | | |
| Mattawoman (Charles Co., MD) ⁷ | | | | | | Ferric Cl. Lime | 20% 25% | 201 Facilities Plan Study in | No biosolids have been received | N/A | Under Study | |

⁵ The District of Columbia Government has completed a feasibility study for the attainment of effluent limitations continued in NPDES Permit No. DC0021199 and a long-range Blue Plains biosolids management plan.

⁶ The Prince George's County pro-rata share is managed pursuant to the 1985 Blue Plains Intermunicipal Agreement.

⁷ The operation of the Mattawoman Sewage Treatment Plant (STP) is the responsibility of the Charles County Government. The agreement between the WSSC and the Charles County Government governing the Mattawoman STP provides that the WSSC shall dispose of its proportionate share of the total sludge generated by the Plant outside the geographical boundaries of Charles County. The projection of the amount of sludge for the forecast period is under study by the WSSC. The results of this study will be incorporated at a later date.

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**Table 4-5 Sewage Sludge Utilization Permits (State Records 02/26/08 –updated)
Prince George’s County Active Permits and Sites**

| Permittee | Permit Number | Exp. Date | Destination | Source(s) |
|-----------------------------|----------------------|------------------|---|-------------------------------------|
| USDA, Beltsville | S-97-16-4345-A | Pending Renew | Beltsville Agricultural Research Center | BARC East |
| Synagro | S-98-16-4428-M | 04/16/08 | PG-180 Percontee, Inc. Ford/Rooney | PW, B, MM, BP, P |
| Synagro | S-99-16-2888-M | 05/20/09 | PG-7 E.L. Gardiner, Inc. | PW, B, MM, BP, P |
| Synagro | S-05-16-4550-A | 05/11/10 | PG-182 DNR | PW, B, MM, BP, P |
| Synagro | S-05-16-4552-A | 11/12/11 | PG-154 DNR Sasscer Tract | PW, B, MM, BP, P |
| Synagro | S-05-16-4554-A | 03/21/10 | PG-111 DNR Trueman Tract | PW, B, MM, BP, P |
| Synagro | S-05-16-4555-A | 05/10/10 | PG-37 DNR Peed Tract | PW, B, MM, BP, P |
| Erco, Inc. | S-01-16-809-I | Pending Renew | Erco Tree Farm | PW, B, MM, BP, P |
| Synagro | S-01-16-959-S | Pending Renew | Cedarville (Bevard Rd.) | Cedarville |
| Synagro | S-01-16-4755-A | 08/01/11 | PG-185 George Windsor | PW, B, MM, BP, P |
| Erco, Inc. | S-02-16-4863-R1 | Pending Renew | Erco Tree Farm | BP, PW |
| Synagro Mid-Atlantic, Inc. | S-02-16-4876-M | 07/16/12 | A.H. Smith, Jr., PG-187 | BP, MM, PW, P |
| USDA | S-03-16-4488-T | 03/10/08 | USDA East-Side WWTP | BARC West |
| Synagro Mid Atlantic, Inc. | S-03-16-4962-M | 05/11/08 | H.P. Queen Estates – PG 189 | BP, B, MM, PW, P |
| Synagro Mid-Atlantic, Inc. | S-03-16-4987-A | 08/17/08 | Peter/Buchheister, PG-190 | BP, B, MM, PW, P |
| Synagro Mid-Atlantic, Inc. | S-04-16-5013-A | 05/18/09 | At Last Farm, LLC PG-191 | BP, B, MM, PW, P |
| Synagro Mid-Atlantic, Inc. | S-04-16-5031-A | 01/07/09 | A & P Metroka PG-192 | BP, B, MM, PW, P |
| Mirant Chalk Point | S-04-16-5040-T | 01/29/09 | WSSC Tinker’s Creek Interceptor No. 010-U | Chalk Point Generator Station |
| USDI/Patuxent | S-05-16-5111-T | 04/14/10 | WSSC Interceptor No. WH017 | Patuxent Wildlife Research Center |
| Synagro Central, LLC | S-06-16-5131-M | 04/06/11 | A.H. Smith – PG-124R | BP, B, MM, PW, P |
| U.S. Air Force | S-05-16-5146-T | 11/16/10 | WSSC Interceptor at AAFB | Davidsonville Transmitter Site WWTP |
| Synagro Central, LLC | S-06-16-5156-M | 07/13/11 | Brandywine/Henry L. Meinhardt – PG-147 | BP, B, MM, PW, P |
| USDA Beltsville | S-06-16-5210-R | 07/06/11 | Hayden Farm/Beltsville Ag. Center | BP, PW |
| Synagro Central, LLC | S-07-16-5213-A | 03/18/12 | Blackwater, LLC – PG-194 | BP, B, MM, PW, P |
| Synagro Central, LLC | S-07-16-5071-M | 04/19/12 | Bevard Family Ltd. Ptn. PG-193 | BP, B, MM, PW, P |
| Mumford-Briscoe/ A.H. Smith | S-08-16-5357-M | New | PGC-03 | BP |
| W. D. & C. Devaughn | S-08-16-5358-A | New | PGC-01 | BP |

Source: MDE – Sewage Sludge Utilization Section (Feb 2008)

WWTP: PW-Parkway, B-Bowie, MM-Marlboro Meadows, BP-Blue Plains, P-Piscataway

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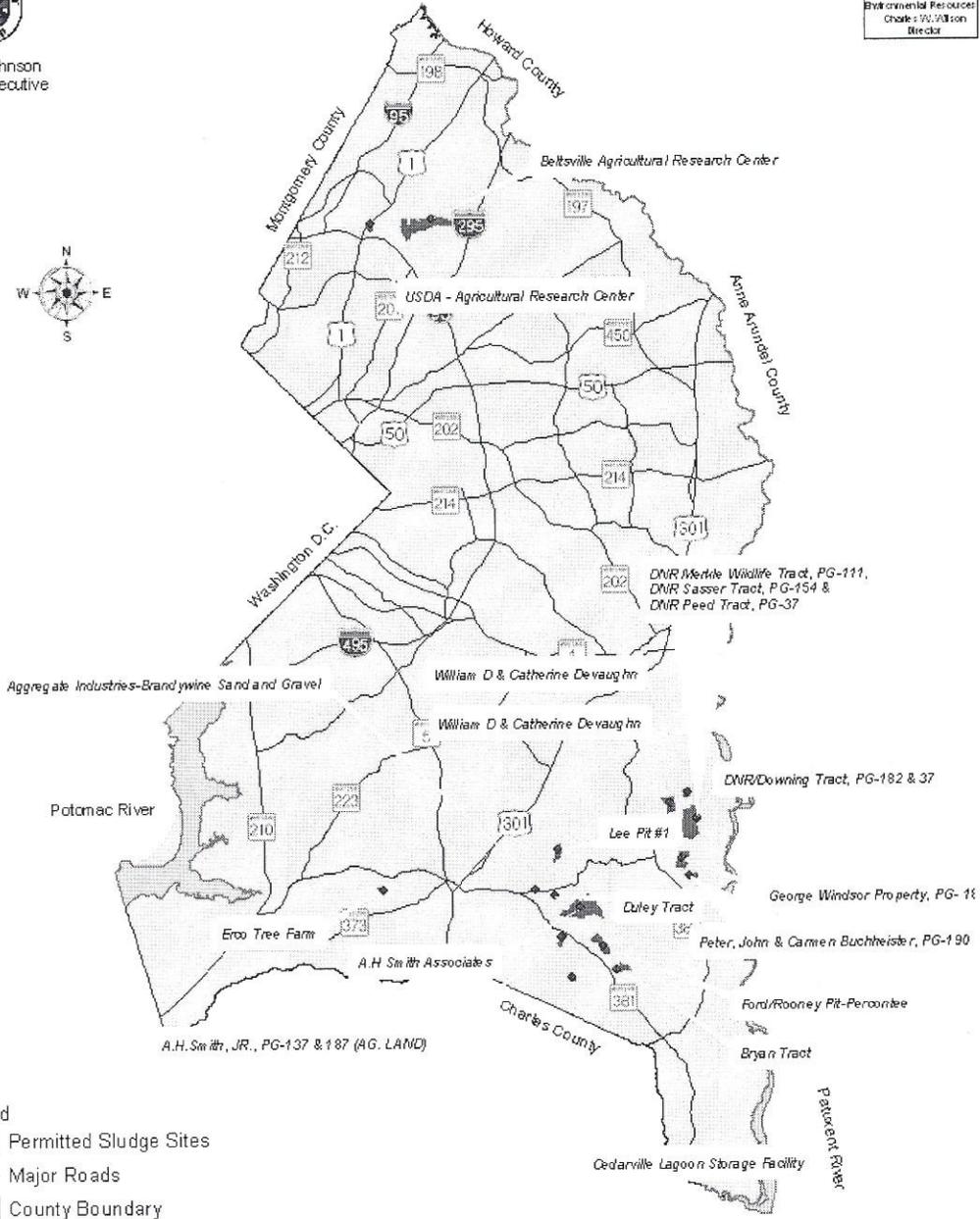
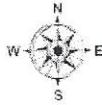
Map 4-2 Biosolids Management Sites



Jack B. Johnson
County Executive



Department of
Environmental Resources
Charles W. Wilson
Director



- Legend**
- Permitted Sludge Sites
 - Major Roads
 - County Boundary



For: 2008 Water and Sewer Plan

Created

All mapping is referenced to the Maryland State Plane Coordinate System 1983 North American Horizontal Datum and 1988 vertical datum in meters.

2008/04/01 and Sewer Plan
Map/Esri/arcgis/arcgis000003 10'

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4.5 FINANCIAL PLANNING

Financing of all WSSC CIP is reviewed by the two County Executives and approved annually by the Prince George's and Montgomery County Councils. Each CIP covers a six-year period. The Prince George's County Council adopts the CIP as part of the County's Comprehensive Water and Sewer Plan. The CIP is divided into three categories for both water and sewer projects: Prince George's County projects, Montgomery County projects, and bi-county projects. **Appendix 4-2** of this chapter lists the current sewer projects for the bi-county area and for Prince George's County.

System improvement projects under the CIP are financed with funds from the Water Supply and Sewage Disposal Bond Funds. The funds are repaid to bond holders over a period of 20 years by annual principal and interest payments known as debt service. System improvement projects related to State environmental regulations are funded through grants from the regulatory agency. The State may fund up to 50% of the project cost. Growth-related projects are usually paid through System Development Charges and developer contributions.

WASA also submits a budget for review by Prince George's County as a signatory to the 1985 IMA. The WASA budget includes costs related to the County's share of its allocated flow at the Blue Plains WWTP through WSSC. The WASA Board of Directors is comprised of 11 members; two of the members are from Prince George's County. The Board sets policy, oversees bond issues, and approves the operating and capital budgets.

The City of Bowie is required to prepare and adopt a formal budget appropriating funds for the operation, including plant improvements, of the Water and Sewer system. The City Council formally adopts the budget each year. Rates are established based upon the "Cash Needs Approach." The rate structure must provide not only funds for operation and maintenance, but principal and interest payments on long-term debt, plant additions, and renewals and replacements.

In recent years, the City of Bowie has utilized the Water Quality State Revolving Loan Fund Program to finance its Wastewater Plant improvements. It has also used a pay as you go system to finance some of its improvements, as well as issuing general obligation bonds. Additional information concerning the financial management plan for the City of Bowie's Water and Sewer system may be obtained by contacting the Finance Director.

APPENDIX E
2011 Calendar Year Recycling Report

Prince George's County
Department of Environmental Resources
Waste Management Division
2011 Recycling Report

The primary agency responsible for the County's recycling programs is the Department of Environmental Resources, Waste Management Division's, Recycling Section. Recycling in Prince George's County remains voluntary, with the exception of multifamily properties. Mandatory apartment recycling legislation continues to be monitored and enforced for multifamily buildings containing three or more dwelling units. Business reporting, under certain circumstances is also mandatory and continues to be enforced. Through improved reporting by recycling processors, most business reporting is required of larger businesses that direct market their recycling to end users.

In Calendar Year 2010, Prince George's County achieved a waste diversion rate of 45.35%, surpassing the State's mandate under the Maryland Recycling Act to recycle 20%, and surpassing the State's voluntary goal of a 40% diversion rate. The County has always surpassed the required 35% recycling rate, as mandated under County Law (CB-58-1989). The County continues to expand ways to promote source reduction initiatives and has received the maximum 5% waste diversion credit in 2010. The Calendar Year 2011 MRA Recycling Report has not yet been released by the Maryland Department of the Environment.

CURBSIDE SINGLE-STREAM RECYCLING PROGRAM

The County sponsored curbside recycling program now services approximately 165,000 single family households. This program has been servicing County residents since 1990, as a dual stream collection process. In 2007, Prince George's County made a significant commitment to increasing recycling in the County by embracing Single-Stream Recycling. The County invested time and resources to ensure that this decision would be a step forward in recycling. In 2007, the County's Materials Recycling Facility was converted from a dual stream processing facility to a single-stream processing facility. In 2010, new collection contracts were awarded for the collection of single-stream recyclables and the County completed delivery of 165,000 64-gallon, wheeled carts with lids to residents for curbside collection service. The 22-gallon recycling bins may still be used in conjunction with or instead of the carts. Results indicate that single-stream collection has increased the participation rate by 11% and overall curbside recycling rate by 51%. The types of materials now collected at curbside include:

- All paper products including, paper, newspaper with inserts, paper board, corrugated cardboard, wrapping paper, craft paper and bags, hard and soft bound books, catalogs, magazines, telephone books
- Food and beverage containers (aluminum and bi-metal cans, glass bottles and jars, all plastic containers #1 through #7)
- Aluminum foil and trays
- Aseptic/gable-top milk and juice cartons

- Plastic grocery bags, shrink wrap and stretch-film which are inserted into a plastic bag and tied
- Wire and plastic coat hangers
- Small sized rigid plastics such as nursery flower pots and small toys
- Empty aerosol cans

The County contracts four recycling haulers to make weekly collections between the hours of 6:30 a.m. and 8:00 p.m., Monday through Friday. All materials collected in the curbside program are delivered to the County owned Materials Recycling Facility (MRF) located in Capitol Heights, Maryland. The facility is operated under a contract between the County and Waste Management-Recycle America Incorporated. The renovated facility is now capable of processing over 600 tons of recyclables per day.

MULTIFAMILY RECYCLING PROGRAM

Apartments

Prince George's County law provides that all apartment owners and managers of multifamily properties with three or more dwelling units must provide convenient recycling programs for their residents. Properties consisting of 100 or more units must have an approved recycling plan on file with the Department of Environmental Resources. The property owners are responsible for maintaining their programs and for promoting them to their residents. While recycling by the residents is voluntary, the property owners are responsible for providing the opportunity to recycle. It is also required that the property owners report yearly recycling tonnages to the County. Staff from the Recycling Section will assist property owners with educational materials and by providing technical assistance in planning and maintaining effective multifamily recycling programs.

Over 600 properties throughout the County are monitored for compliance. In instances where an apartment owner has failed to maintain the recycling program, violation notices are issued. In most cases, when a complaint is received from a resident that they have no recycling program available, investigations reveal that the program is available, but the owner or manager has not sufficiently informed the new residents about recycling opportunities. Education is a major component of the mandated recycling program, and the County enforces this aspect. This program ensures that all of the County's residents have an equal opportunity to recycle. Property managers and owners have also been provided with information about single-stream recycling. Typically, collection costs and maintenance costs can be reduced by converting to single-stream collections. With less complicated rules for the residents and possible cost savings for the owners, it is anticipated that recycling from this sector will also increase over the next several years.

Condominiums

Generally, most condominium homes in the County are collected through the curbside program. However, nearly 15,000 condominium units are garden-style and are difficult to collect through the curbside program. As an alternative, the County developed a program which

enables garden-style condominium associations to contract directly with their own recycling haulers. The County, through a legal agreement, reimburses the association and the condominium owners for the cost of their recycling program. Currently, approximately 5,000 condominium units participate in this program. Condominiums are eligible to participate in the County's program, even if they are located within municipalities that do not participate in the County's curbside program. Single-stream recycling information has been provided to all of the licensed recycling contractors in the area. With this information available to them, many of the condominium programs will have begun to collect their recycling single-stream. By adopting single-stream, many of the condominiums will need fewer collection containers within their communities. In some instances, it is anticipated that some properties will start programs in their communities for the first time, as space issues that previously prevented recycling can be successfully addressed.

COMMERCIAL RECYCLING

Commercial recycling continues to contribute over two-thirds of all of the recycling tonnages reported to the State throughout the years. Over 270,000 tons of recyclable materials were recovered from the Commercial Waste Stream in Prince George's County in calendar year 2010. This includes large portions of corrugated containers, white and mixed office paper, aluminum and steel cans, wood pallets, compost, and textiles recovered from industrial sources.

Commercial recycling efforts sponsored by the Recycling Section include providing technical assistance to businesses on how to start recycling programs. Staff from the Section visit the business site and assess the "recyclability" of the waste stream and provide information concerning markets for the materials that can be recycled. Information is also provided concerning local recycling haulers and ways to reduce their overall waste stream through source reduction practices. The most significant change to business recycling has been the promotion of single-stream collections for the commercial sector. The principals for single-stream collections apply to businesses as well as the residential sector. In some ways, by allowing all materials to be collected in one container, recycling programs for smaller businesses are easier to plan. The Recycling Section also provides educational materials to employees concerning how to prepare materials for recycling and offer advice concerning procurement of products made from recycled materials.

COUNTY OFFICE RECYCLING PROGRAM

The County Office Recycling Program (CORP) was expanded in October 2011 and is now using a single-stream collection system similar to the County's curbside program. The program now collects from over 75 County and some State facilities located in the County. Offices were equipped with new single-stream containers. An educational and awareness global email was distributed electronically to County personnel and a newly designed single-stream CORP program poster was strategically placed within office buildings. An increase in participation and tonnages are anticipated. In Calendar year 2011, over 150 tons of recyclables were collected from these facilities. In addition to the single stream program, used toner cartridges are also collected in County facilities.

SOURCE REDUCTION

Prince George's County's recycling programs incorporates and encourages source reduction and reuse. Source reduction has proven economical benefits for consumers and has positive environmental impacts. Source reduction, also known as waste reduction, waste prevention or pollution prevention, is eliminating waste before it is created. It involves the design, manufacture, purchase, or use of materials and products to reduce the amount of toxicity that is thrown away.

The Waste Management's Division's Recycling Section is committed to reducing and eliminating waste before it is ever started. Source Reduction can result in substantial savings through reduced purchasing and disposal costs. Waste prevention also has environmental benefits including reduced energy consumption and pollution, conservation of natural resources, and less dependency on landfilling. The Recycling Section includes source reduction educational information in all of its public outreach materials including the Division's webpage, advertisements, and brochures, includes source reduction tips within special displays, and discusses source reduction in presentations. The business sector is also provided assessment, technical assistance, and recommendations on how to reduce waste. The Recycling Section coordinates and partners with the County's Procurement Office and Reuse centers to notify County contractors, residents and businesses where they can donate unwanted building materials for reuse. The Recycling Section is committed to working County-wide in incorporating source reduction education and implementing source reduction.

CONVENIENCE CENTERS (DROP-OFF CENTERS)

With the expansion of curbside recycling throughout the County, the importance of both private for-profit and non-profit drop-off facilities has diminished. Still, the County operates two drop-off locations for residents at the Brown Station Road and Missouri Avenue Convenience Centers. A third drop-off is in the planning stages and will be located in the southern portion of the County. The two existing drop-offs have been updated to allow for single stream collection of all materials currently being accepted in the County's curbside program. These centers also provide residents with the opportunity to recycle their Christmas trees, car batteries, used oil and antifreeze, and large rigid plastic materials, such as large toys and outdoor furniture. Residents may deliver scrap metal to the Brown Station Road Sanitary Landfill for recycling or if they wish to sell scrap metal there are several privately owned recycling facilities located throughout the County. Ultimately, the drop-offs serve to compliment the County's curbside program. Most of the materials collected at the County sponsored drop-offs are processed at the County's Materials Recycling Facility.

HOUSEHOLD HAZARDOUS WASTE COLLECTIONS

The Recycling Section's Household Hazardous Waste (HHW) Collection program is important in reducing the amount of hazardous materials that might otherwise inadvertently end up in the County's waste disposal facilities. The materials collected at this site are those materials typically used by homeowners to clean and paint their homes, control household pests or garden insects, and fertilize their yards. In addition to cleaning agents, and pesticides,

insecticides and herbicides, the County contracts with a licensed hazardous materials contractor to also collect items such as, lead and mercury batteries, used oil and petroleum products, inoperative smoke detectors, empty propane tanks, and other potentially hazardous materials found in and around the home. All of the materials are disposed of in an environmentally sound manner, and those items which can be reused or recycled, such as lead batteries are delivered for recycling. While latex paint is non-hazardous and residents are highly encouraged to donate left-over or unused paint or to allow the paint to dry for disposal with their regular trash, currently latex paint is being accepted at the HHW facility. The Recycling Section is working with non-profit organizations for the possibility of accepting latex paint which assists the poor and/or the homeless. Since 2007, the County has maintained the Household Hazardous Waste Acceptance Facility located at the Brown Station Road Landfill. It is open three days a week for the citizens and residents of the County to properly dispose of their potentially hazardous materials. The County also provides front door pickup of hazardous materials to seniors and physically challenged who are unable to take their materials to the site. This site is managed through the County's hazardous waste contractor. The County removes an average of 800 tons of household hazardous waste per year from the waste stream.

ELECTRONICS RECYCLING

The County continues to operate an electronics recycling program to deal with the problem of outdated computers, monitors, televisions, and other related electronic equipment. As technology advances, obsolete equipment is being thrown away. Recently, the television industry changed from analog to digital broadcasting and the impact on the waste stream has been alarming. While the land filling of these items has not been banned, the County continues to help reduce the flow of this waste to the landfill. The electronics drop-off is located inside the Household Hazardous Waste Acceptance Facility at the Brown Station Road Landfill. About 95% of the materials collected here, including televisions, monitors, CPU's, copiers, fax machines, mice, keyboards etc. are either reused through charitable donations or recycled. County residents may take their obsolete equipment to the site three days per week (Thursday – Saturday). In 2010, over 350 tons of electronics were collected at this location.

YARD WASTE

Composting of leaves and grass, and wood waste recycling contributed over 60,000 tons of recyclable materials in 2010. Approximately 50% of this total came from the residential sector. Curbside collection of leaves, grass, small brush, and Christmas trees is accomplished through County contracted waste haulers. Over 154,000 homes receive yard waste collection.

The materials are delivered by County contractors to the County's Western Branch Yard Waste Composting Facility located in Upper Marlboro. Once delivered, the material is processed through a shredder and screened to remove contaminants. The clean yard waste is placed in windrows to compost and, within a year, is available for marketing to landscapers and retail distributors. This material is marketed under the Leafgro trademark and is sold in bulk from this facility. Larger, woody materials such as Christmas trees and tree limbs are also delivered to the site. This material is processed through a large tub grinder. Much of this material is used as a bulking agent in the composting process. Over the past eleven years, the

County has sponsored a Mulch-Giveaway Event where residents can obtain free mulch derived from their recycled Christmas trees. The mulch event is eagerly anticipated and has become one of the County's most popular recycling activities.

SCRAP TIRES, WHITE GOODS AND SCRAP METAL

Additional programs, which contribute to the County's recycling rate, include scrap tire recycling, white goods (appliances) and scrap metal recycling. During Calendar year 2011, over 390 tons of tires were collected for recycling or disposal at the Brown Station Road Landfill. Some of the tires are transferred from the staging area at the landfill to be recycled, and others are used as fuel for cement kilns or in other waste to energy plants. Only a small portion of the tires that are used for fuel or incineration is counted towards recycling.

White goods and scrap metal collected in the County, through the County's bulky trash collections and those delivered by municipalities or by the private sector to the Brown Station Road staging area, are delivered to a metal processing facility where they are shredded and sold to an end user. The County has a contract with the Maryland Environmental Service, which provides the safe removal of CFCs and other potentially hazardous materials from the white goods before they are shipped for processing. This program provided over 800 tons to the recycling rate for 2011.

SPECIAL EVENT RECYCLING

In 2009, the County Council passed Resolution CR-67-2009 encouraging recycling at County sponsored events and activities with the objective and goal for recycling to reduce waste and extend the life of the landfill capacity, and thereby protecting the County's environment and meeting its goal for recycling. Departments within the County typically contact the Recycling Section for assistance, including providing collection containers and pick-up service. The Recycling Section also provides additional recycling collection boxes and special pick-up services for Clean Your Files Day at County offices, when requested.

Over the past couple of years, there have been an increasing number of requests made to the County to provide recycling services at special events hosted by community organizations and/or non-profit organization for events such as community clean ups, Earth Day celebrations, and festivals. Most of the requests are directed to the Waste Management Division's Recycling Section and Collections Section to coordinate containers and collection for recyclables. These requests have been very popular and typically roll-off containers for recycling are now reserved a year in advance. The Waste Management Division is presently doing all it can to accommodate these types of requests.

PUBLIC OUTREACH AND EDUCATION

Central to an educational program is the development of consistent, easily identifiable themes and logos. One such theme, the universal recycling chasing arrows and the Department of Environmental Resources logo, have been used on the educational and promotional pieces produced. The County utilizes various media, including television, radio, and the internet, to

promote its programs and educate the public about the benefits of recycling, source reduction and minimizing waste. Specially designed brochures, post cards and flyers, where appropriate, are utilized to help get the message out. Other methods for dissemination of information includes presentations to community, civic and school groups, providing display booths at local fairs and special events, and providing tours of the County's recycling facilities.

MUNICIPALITIES

The following municipalities participate in the County's Curbside Single-Stream Recycling Program:

| | |
|----------------|------------------|
| Bladensburg | Capital Heights |
| Cottage City | Fairmont Heights |
| Forest Heights | Hyattsville |
| Landover Hills | Riverdale Park |
| Upper Marlboro | |

The following municipalities do not participate in the County's Curbside Single-Stream Recycling Program:

| | |
|------------------|-----------------|
| Berwyn Heights | Bowie |
| Brentwood | Cheverly |
| Colmar Manor | College Park |
| District Heights | Eagle Harbor |
| Edmonston | Glenarden |
| Greenbelt | Laurel |
| Morningside | Mount Rainier |
| New Carrollton | North Brentwood |
| Seat Pleasant | University Park |

All of the listed non-participating municipalities, except for Eagle Harbor, provide recycling collections for their residents. Several of the municipalities have also adopted single-stream recycling collections for their programs. Nearly all of the municipalities deliver their materials to the County's Materials Recycling Facility. Eagle Harbor residents may now recycle by taking their materials to the County's Missouri Avenue Convenience Center. It is anticipated that over the next two years, an additional drop off facility will be sited in the southern portion of the County, which has experienced significant housing development growth during recent years.

KEEP PRINCE GEORGE'S COUNTY BEAUTIFUL

Keep Prince George's County Beautiful (KPGCB) is a community driven, non-profit, volunteer based organization affiliated with Keep America Beautiful. This organization offers the citizens of Prince George's County a means to improve their environment through its educational and outreach programs. KPGCB coordinates and participates in the Keep America Beautiful Great American Cleanup on a County-wide basis. The annual event is held over a period of time in the spring. PPGCB is also instrumental in the Green Team School Program (formally Litter Free Schools) in partnership with Prince George's County Public Schools.

Additionally, KPGCB is in partnership with the Town of Bladensburg in a Cigarette Litter Prevention Program to reduce cigarette butt litter. The Recycling Section staffs the coordinator for KPGCB and works very closely in efforts to assist in achieving success and viability of the organization.

APPENDIX F
Hazardous Materials Emergency Response Plan and Procedures



Division 09

Special Operations

Chapter 03 – Hazardous Materials Preparedness and Response

January 2010

POLICY

This General Order establishes the Prince George's County Fire/EMS Department's comprehensive preparedness and response program for Hazardous Materials (HAZMAT).

DEFINITIONS

Definitions are from the National Incident Management System (NIMS) glossary.

Biological Agent – Living organisms or the materials derived from them (such as bacteria, viruses, fungi, and toxins) that cause disease in or harm to humans, animals, or plants, or cause deterioration of material.

Bomb Squad/Explosives Teams – A public safety agency specializing in the investigation and disarming of suspected explosive devices.

Chemical/Biological (C/B) Protective Ensemble – A compliant vapor-protective ensemble that is also certified as being compliant with the additional requirements for protection against C/B warfare agents such as vapors, gases, liquids, and particulate.

Chemical Warfare Agent – A chemical substance (such as a nerve agent, blister agent, blood agent, choking agent, or irritating agent) used to kill, seriously injure, or incapacitate people through its physiological effects.

Decontamination – The physical or chemical process of reducing and preventing the spread of contaminants from persons and equipment

used at a hazardous materials (HAZMAT) incident.

Hazardous Materials (HAZMAT) – Any material that is explosive, flammable, poisonous, corrosive, reactive, or radioactive, or any combination thereof, and requires special care in handling because of the hazards it poses to public health, safety, and/or the environment. Any hazardous substance under the Clean Water Act, or any element, compound, mixture, solution, or substance designated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); any hazardous waste under the Resource Conservation and Recovery Act (RCRA); any toxic pollutant listed under pretreatment provisions of the Clean Water Act; any hazardous pollutant under Section 112 of the Clean Air Act; or any imminent hazardous chemical substance for which the administrator has taken action under the Toxic Substances Control Act (TSCA) Section 7. (Section 101[14] CERCLA)

Hazardous Material Response Team – An organized group of individuals that is trained and equipped to perform work to control actual or potential leaks, spills, discharges, or releases of HAZMAT, requiring possible close approach to the material. The team/equipment may include external or contracted resources.

Hazardous Materials Company – Any piece of equipment having the capabilities, personal protective equipment (PPE), equipment, and complement of personnel as specified in the Hazardous Materials



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Company types and minimum capabilities. The personnel complement will include one member who is trained to a minimum level of assistant safety officer - HAZMAT.

Hazardous Materials Incident – Uncontrolled, unlicensed release of HAZMAT during storage or use from a fixed facility or during transport outside a fixed facility that may impact public health, safety, and/or the environment.

HAZMAT Task Force – A group of resources with common communications and a leader. A HAZMAT Task Force may be pre-established and sent to an incident, or formed at the incident.

HAZMAT Trained and Equipped. To the level of training and equipment defined by the Occupational Safety and Health Administration (OSHA) and the National Fire Protection Association (NFPA).

Personal Protective Equipment (PPE) – Equipment and clothing required to shield or isolate personnel from the chemical, physical, thermal, and biological hazards that may be encountered at a hazardous materials (HazMat) incident.

Release – Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discharging of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant). (Section 101[22] CERCLA)

Vapor Protective Ensemble – A vapor protective ensemble or garment that is intended for use in an unknown threat atmosphere or for known high health risk atmospheres is vapor tight, and is in

compliance with National Fire Protection Association (NFPA) Standard 1991.

Weapons of Mass Destruction (WMD) – (1) Any destructive device as defined in section 921 of this title ("destructive device" defined as any explosive, incendiary, or poison gas, bomb, grenade, rocket having a propellant charge of more than 4 ounces, missile having an explosive or incendiary charge of more than 1/4 ounce, mine or device similar to the above); (2) any weapon that is designed or intended to cause serious bodily injury through the release, dissemination, or impact of toxic or poisonous chemicals, or their precursors; (3) any weapon involving a disease organism; or (4) any weapon that is designed to release radiation or radioactivity at a level dangerous to human life. (United States Code, Title 18-Crimes and Criminal Procedure, Part I-Crimes, Chapter 113B-Terrorism, Sec. 2332a)

Zone, Contamination Reduction (Warm Zone) – The area between the Exclusion Zone and the Support Zone. This zone contains the personnel decontamination station. This zone may require a lesser degree of personnel protection than the Exclusion Zone. This separates the contaminated area from the clean area and acts as a buffer to reduce contamination of the "clean" area. (U.S. Coast Guard Incident Management Handbook, 2001 edition)

Zone, Exclusion (Hot Zone) – The area immediately around a spill or release and where contamination does or could occur. The innermost of the three zones of a hazardous substances/material incident. Special protection is required for all personnel while in this zone. (U.S. Coast Guard Incident Management Handbook, 2001 edition)



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Zone, Support (Cold Zone) – The "clean" area outside of the contamination control line. In this area, equipment and personnel are not expected to become contaminated. Special protective clothing is not required. This is the area where resources are assembled to support the hazardous substances/materials release operations. (U.S. Coast Guard Incident Management Handbook, 2001 edition)

PROCEDURES

1. General Information

Hazardous materials pose a significant and potentially disastrous threat to Prince George's County. Hazardous materials incidents may include, but are not limited to, responses involving fires, spills, transportation accidents, chemical reactions, or explosions.¹ The hazards associated with these incidents could be thermal, radiological, asphyxiant, chemical, etiological, mechanical, or any combination of thereof.

The threat of weapons of mass destruction is important throughout the Washington Metropolitan Region. A comprehensive and coordinated response to these incidents has been undertaken by Prince George's County Fire/EMS Department and the other members of the Metropolitan Washington Council of Governments (COG). Even though weapons of mass destruction preparedness and response are considered a subset of the hazardous materials response process, they covered in General Order XXXX.

Under Prince George's County Executive Order 25-1987, the Fire/EMS Department is

¹ Responses to explosive incidents (i.e., improvised explosive devices – IEDs, munitions, etc.) are covered under Bureau of Fire Investigations Operational Order #3. This operational order may be implemented at the same time due to the nature of the incident.

designated as the primary County agency for Hazardous Materials Incident Response Operations, as it is the most likely first arriving and organized agency with the personnel and resources to contain, control, and/or resolve hazardous materials incidents. The hazardous materials incident management process utilized by the Fire/EMS Department shall include procedures for all of the following:

1. Scene Management and Control
2. Identifying the Problem
3. Hazard and Risk Evaluation
4. Selecting Personal Protective Clothing and Equipment
5. Information Management and Resource Coordination
 1. Implementing Response Objectives
 2. Decontamination
 3. Termination and Documentation

2. HAZMAT Coordinator

The HAZMAT Coordinator manages the Fire/EMS Department HAZMAT/WMD Response program. The HAZMAT Coordinator ensures the HAZMAT Team metrics are satisfied. The HAZMAT Coordinator is the senior HAZMAT Team Leader during HAZMAT Responses.

3. HAZMAT Team Metrics

The Fire/EMS Department HAZMAT/WMD Response Program is designed to maintain this department's HAZMAT Team as a Type I HAZMAT Entry Team² under Emergency Support Function (ESF) #10 within the National Incident Management System (NIMS). A Type I HAZMAT Team must be able to perform the following metrics (as minimum capabilities):

² See FEMA Document 508-4, *Typed Resource Definitions – Fire and Hazardous Materials Resources*.



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- a. Field Testing for Known Chemicals; Unknown Chemicals; and Known or Suspect Weapons of Mass Destruction Chemical/Biological Substances
 - The presumptive testing and identification of chemical substances using a variety of sources to be able to identify associated chemical and physical properties. Sources may include printed and electronic reference resources, safety data sheets, field testing kits, specific chemical testing kits, chemical testing strips, data derived from detection devices, and air-monitoring sources.
- b. Air Monitoring for Basic Confined Space Monitoring; Specific Known Gas Monitoring; and WMD Chem/Bio Aerosol Vapor and Gas
 - The use of devices to detect the presence of known gases or vapors. The basics begin with ability to provide standard confined space readings (oxygen deficiency percentage, flammable atmosphere Lower Explosive Limit [LEL], carbon monoxide, and hydrogen sulfide).
 - The use of advanced detection equipment to detect the presence of known or unknown gases or vapors. Advanced detection and monitoring may incorporate more sophisticated instruments that differentiate between two or more flammable vapors, and may directly identify by name a specific flammable or toxic vapor.
 - Advanced detection and monitoring includes WMD Chem/Bio detection Instruments.
- c. Sampling (Capturing, Labeling, Evidence Collection) for Known Industrial Chemicals; Unknown Industrial Chemicals; and WMD Chem/Bio
 - Known industrial chemicals standard evidence collection protocols required for each include capturing and collection, containerizing and proper labeling, and preparation for transportation and distribution, including standard environmental sampling procedures for lab analysis.
 - Consistent with established chain of custody protocols.
 - Known and unknown industrial chemicals standard evidence collection protocols.
 - Ability to sample liquid and solids.
 - Special resources may be required for air sample collection.
- d. Radiation Monitoring/ Detection for Alpha, Beta; and Gamma Detection
 - The ability to accurately interpret readings from the radiation-detection devices and conduct geographical survey search of suspected radiological source or contamination spread.
 - Basic criteria include detection and survey capabilities for alpha, beta, and gamma.
 - Identify and establish the exclusion zones after contamination spread (this does include identification of some, but not all, radionuclides).



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- Ability to conduct environmental and personnel survey.
 - Ensure all members of survey teams are equipped with accumulative self-reading instruments (dosimeters).
- e. Protective Clothing Ensembles for Liquid Splash-Protective CPC; Vapor-Protective CPC; Flash Fire Vapor-Protective CPC; and Weapons of Mass Destruction (WMD) Vapor-Protective CPC; WMD Liquid Splash-Protective CPC)
- Chemical Protective Clothing (CPC) includes complete ensembles (suit, boots, gloves) and may incorporate various configurations (encapsulating, non-encapsulating, jumpsuit, multi-piece) depending upon the level of protection needed.
 - Liquid Splash-Protective, which must be compliant with NFPA Standard 1992, Standard on Liquid Splash-Protective Ensembles and Clothing for Hazardous Materials Emergencies (current edition).
 - Vapor-Protective, Flash Fire Protective option for Vapor-Protective, and Chemical/Biological-Protective option for Vapor-Protective, all of which must be compliant with NFPA Standard 1991, Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies (current edition).
- f. Technical Reference (Printed and Electronic; Plume Air Modeling; Map Overlays, and WMD Chem/Bio)
- Access to and use of various databases, chemical substance data depositories, and other guidelines and safety data sheets, either in print format, electronic format, stand-alone computer programs, or data available via telecommunications. The interpretation of data collected from electronic devices and chemical testing procedures.
- At a minimum, technical references will have the ability to outsource additional capabilities and have one source for air-modeling capability.
- g. Special Capabilities. Additional resources that augment the capabilities of the team. This includes:
- Gloves and other specialized equipment based on local risk assessment;
 - Heat sensing capability; light amplification capability; and
 - Digital imaging documentation capability.
- h. Intervention. Ability to implement the following techniques:
- Diking, Damming, Absorption. Employment of mechanical means of intervention and control such as plugging, patching, off-loading, and tank stabilization. Environmental means such as absorption, dams, dikes, and booms.
 - Liquid Leak Intervention, Neutralization, Plugging, Patching, and Vapor Leak Intervention. Chemical means such as neutralization and encapsulation of known and unknown chemicals. Mechanical means include specially designed kits for controlling leaks in



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rail car dome assemblies and pressurized containers, to pneumatic and standard patching systems.

Responding to Hazardous Materials Incidents, as is appropriate for the specific team type.

- Advanced capabilities should include ability to intervene and confine incidents involving WMD Chem/Bio substances.
- i. Decontamination of Known Contaminants Based on Local Risk Assessment; Unknown Contaminants; and WMD Chem/Bio
- Must be self-sufficient to provide decontamination for members of their team.
 - Must be capable of providing decontamination for known and unknown contaminants and WMD Chem/Bio.
- j. Communications (In-Suit; Wireless Voice; Wireless Data; and Secure Communications)
- Personnel utilizing CPC shall be able to communicate appropriately and safely with one another and their team leaders
- k. Staffing (5 Personnel)
- l. Training
- All personnel must be trained to the minimum response standards in accordance with the most current editions of NFPA 471, Recommended Practice for Responding to Hazardous Materials Incidents, NFPA 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents, and NFPA 473, Standard for Competencies for EMS Personnel

m. Sustainability

- Capability to perform three (3) entries in a 24-hour period.

This general order is divided into three sections (Preparedness, Response, and Recovery).

4. Preparedness

The Fire/EMS Department HAZMAT/WMD Response Preparedness Program is designed to and involves the following:

Training – Comprehensive training program to ensure that responders are prepared to respond to hazardous materials and weapons of mass destruction emergencies incidents safely and effectively. See Addendum 1 for training requirements.

Equipment/Techniques – Provide specialized equipment and techniques to effectively manage and control hazardous materials and weapons of mass destruction emergencies.

All response units in the Prince George's County Fire/EMS Department may be called upon to respond to an incident involving hazardous materials. As such, the following minimum equipment standards are established in Addendum 2 to this General Order. Equipment requirements should meet minimum capabilities of a Type I HAZMAT Team.

Planning – Pre-Incident Planning, Inspection, and Enforcement program designed to anticipate and reduce the probabilities, risks, and impact of hazardous materials or weapons of mass destruction emergencies.



The HAZMAT Coordinator is responsible to maintain a list of facilities and locations that use, store, or manufacture hazardous materials in quantities that exceed the threshold planning quantity (TPQ) as defined by the EPCRA regulations.³ A list of these facilities (within each first-due) is sent to each fire station. Each first-due company is responsible for developing a pre-plan using departmental format.

The HAZMAT Coordinator will identify designated facilities that could be considered high-risk targets for terrorism and require pre-incident plans. The Primary Hazardous Materials Company will pre-plan these facilities for typical fire emergencies and for mass decontamination, mass casualty care, and hazardous materials response.

These pre-plans will be updated and forwarded on an annual basis to the HAZMAT Coordinator and the Primary Hazardous Materials Company. Each of these pre-plans will be made available on the computer systems on the primary hazardous materials response unit and PSC-1. Printed copies will be made available to first due companies and Battalion Chiefs.

Inspection and Enforcement – Fire Inspectors from the Fire Prevention Office will accompany first due station personnel during the pre-planning and inspection process, upon request. Fire code concerns will be addressed using normal fire code enforcement procedures.

5. Response – Dispatch Procedures

Dispatch procedures will follow the guidance set forth in Addendum 3 to this general order.

³ List is developed from submitted Tier II facility documents to comply with the Emergency Planning and Community Right-to-Know Act (EPCRA).

6. Operational Procedures

All hazardous materials responses will use the National Incident Command System to safely, effectively, and efficiently address all of the following steps of the Hazardous Materials Incident Management Process (Noll, Hildebrand, Yvorra, 2005):

1. Scene Management
2. Recognition and Identification
3. Hazard and Risk Assessment
4. Selection of Protective Clothing
5. Information and Resource Coordination
6. Execute Response Objectives
7. Decontamination
8. Termination and Documentation

Note: This procedure is written for general response to hazardous materials incidents. Although this guidance is relevant and effective, specific procedures have been developed for those incidents that are most common, such as Natural Gas Emergencies, Fuel Spills, and Carbon Monoxide incidents.

First Arriving Unit and Initial Command Officer

The initial units are responsible to initiate the Hazardous Materials Incident Management Process as described in this General Order.

ALL Other Operations Level Companies

All other responding units are to report to the staging area designated by the initial and subsequent incident commander and await further assignment and instructions. The operational procedures set forth by General Order 3-1 are not appropriate for an initial hazardous materials response.



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Hazardous Materials Technician Level Companies

Hazardous Materials Companies are responsible to support the initial operations on the scene prior to their arrival with technical advice. Upon arrival they will provide guidance and specialized tactics necessary to address the hazards found.

Operations Level Companies

The first arriving unit and resulting command should consider the following response priorities during any hazardous materials response. Operations Level Companies concentrate their efforts on the first three steps of the Hazardous Material Incident Management Process. These steps are most critical to the life safety of responders, the public in general, and any victims present on the scene. The Incident Commander assigns units to specific tasks and roles. The incident commander must consider responder safety and the limitations of protective equipment and training when making these assignments.

Scene Management and Control

- Approach the scene cautiously from an upwind and uphill direction
- Establish Incident Command System (ICS)
- Establish safe staging area for other responding units
- Request additional resources, as necessary
- Isolate an initial Hot Zone and deny entry
- Establish emergency decontamination procedures for affected victims
- Initiate public protective actions (Evacuation or Shelter-in-Place)
- Establish triage, treatment, and transportation groups and areas.
- Establish other hazard control zones (Warm and Cold)

- Maintain responder safety and accountability

Recognition and Identification of the Problem from a Safe Distance

- Attempt to identify Material(s) involved using:
 - Occupancy, Location, and Pre-Incident Plans
 - Container Shapes
 - Markings and Colors
 - Placards and Labels
 - Shipping Papers/Facility Documents/MSDS
 - Drivers/Subject Matter Experts
 - Monitoring and Detection Devices
 - Senses of Victims/Signs and Symptoms
- Assess container(s) involved
 - Size(s)
 - Pressure
 - Materials of construction
 - Relief devices
 - Breaches, Leaks, or Openings
- Conduct Defensive Reconnaissance

Hazard and Risk Assessment

- Assess potential hazards
 - Thermal
 - Radiological
 - Asphyxiant
 - Corrosive
 - Etiological (Biological)
 - Mechanical
 - Poisonous
- Anticipate potential course and harm of the incident
- Develop initial Incident Action Plan
 - Defensive
 - Non-Intervention

Selection of Protective Clothing

- Evaluate proper Protective clothing for the material and potential hazards
 - Understand the limitations and capabilities of Structural Fire



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- Fighter Protective Clothing and Self-Contained Breathing Apparatus
 - Understand the appropriateness of higher levels of chemical protective clothing
- Ensure proper application of protective clothing prior to incident operations

Information and Resource Coordination

- Incident Command
 - Unified Command
 - Expanded to address operational needs (HAZMAT Group, Protection Group, Suppression Group, etc.)
- Notifications

Execute Response Objectives

- Life Safety
 - Offensive — Assess the viability of victims versus the limitations of PPE available; conduct emergent rescue of victims, only if reasonable to do so.
 - Defensive — Remove ambulatory victims from Release area, conduct emergency decontamination, and perform Triage, Treatment, and Transport.
 - Non-Intervention — If you can't change the outcome, don't get involved.
- Incident Stabilization
 - Defensive Product Control — Perform actions in accordance with limitations of training and protective clothing
 - Non-Intervention — If you can't change the outcome, don't get involved.
- Property Conservation
 - Defensive Product Control — Perform actions in accordance

- with limitations of training and protective clothing
- Non-Intervention — If you can't change the outcome, don't get involved.
- Environmental Protection
 - Defensive Product Control — Perform actions in accordance with limitations of training and protective clothing
 - Non-Intervention — If you can't change the outcome, don't get involved.
- Atmospheric Monitoring
 - Defensive — Area Monitoring
- Decontamination
 - Continue Emergency Mass Casualty Decontamination
- Termination
 - Personnel Accountability
 - Incident Scene Debriefing
 - Documentation
 - Equipment replacement and servicing
 - Critique

Technician Level Companies/Hazardous Materials Response Team

The first arriving technician level unit will be responsible to provide technical advice and incident action planning to the Incident Commander. Technician level companies are trained and equipped to perform offensive tactics to address all response objectives: Life Safety, Incident Stabilization, Property Conservation, and Environmental Preservation. Technician level companies will create a Hazardous Materials Branch or Group within the existing Incident Command Structure. The Hazardous Materials Group will provide adequate information and updates to the Incident Commander.



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Scene Management and Control

- Approach the scene cautiously from an upwind and uphill direction
- Coordinate with Incident Command
 - Establish a Hazardous Materials Branch or Group with the Incident Command Structure
 - Determine a safe staging an operational location for hazardous materials branch/group personnel in the Warm Zone
 - Exchange Information
- Request appropriate resources to address hazardous materials tactical objectives
 - Engine Company to support technical decontamination
 - Special Service Company for support operations
 - Hazardous Materials Technician personnel for offensive measures
 - Medic Unit for medical monitoring
- Verify safe staging area and unit positioning
- Verify safe staging area
- Verify initial Hot Zone and control measures
- Enhance/Support emergency decontamination procedures on affected victims
- Verify public protective actions (Evacuation or Shelter-in-Place)
- Verify other hazard control zones (Warm and Cold)
- Maintain responder safety and accountability

Recognition and Identification of the Problem from a Safe Distance

- Attempt to Identify Material(s) Involved
 - Occupancy, Location, and Pre-Incident Plans
 - Container Shapes

- Markings and Colors
- Placards and Labels
- Shipping Papers, Facility Documents, and MSDSs
- Drivers/Subject Matter Experts
- Monitoring and Detection Devices (Including for potential Weapons of Mass Destruction)
- Senses of Victims/Signs and Symptoms
- Assess container(s) involved
 - Size(s)
 - Pressure
 - Materials of construction
 - Relief devices
 - Breaches, Leaks, or Openings
- Conduct Offensive or Defensive Reconnaissance

Hazard and Risk Assessment

- Assess potential hazards
 - Thermal
 - Radiological
 - Asphyxiant
 - Corrosive
 - Etiological (Biological)
 - Mechanical
 - Poisonous
- Anticipate potential course and harm of the incident
- Develop initial Incident Action Plan
 - Offensive
 - Defensive
 - Non-Intervention

Selection of Protective Clothing

- Evaluate proper protective clothing for the material and potential hazards
 - Select Proper Chemical Protective Clothing Level
 - Select Proper Chemical Protective Clothing Ensemble
- Ensure proper application of protective clothing prior to incident operations



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Information and Resource Coordination

- Incident Command
 - Unified Command
 - Expanded to address operational needs (i.e., HAZMAT Group, Protection Group, Suppression Group, etc.)
- Notifications

Execute Response Objectives

- Life Safety
 - Offensive — Assess the viability of victims vs. the limitations of PPE available; conduct emergent rescue of victims, only if reasonable to do so.
 - Defensive — Remove ambulatory victims from release area, conduct emergency decontamination, and perform Triage, Treatment, and Transport.
 - Non-Intervention — If you can't change the outcome, don't get involved.
- Incident Stabilization
 - Offensive — Perform actions in accordance with limitations of training and protective clothing
 - Defensive Product Control — Perform actions in accordance with limitations of training and protective clothing
 - Non-Intervention — If you can't change the outcome, don't get involved.
- Property Conservation
 - Defensive Product Control — Perform actions in accordance with limitations of training and protective clothing
 - Non-Intervention — If you can't change the outcome, don't get involved.
- Environmental Protection
 - Defensive Product Control — Perform actions in accordance

with limitations of training and protective clothing

- Non-Intervention — If you can't change the outcome, don't get involved.
- Ensure proper Rapid Intervention Team
 - Properly Protected and Equipped
- Ensure Preparation for Entry Team(s)
 - Briefing
 - Objectives
 - Safety Procedures
 - Decontamination
- Atmospheric Monitoring

Decontamination

- Initiate Emergency Mass Casualty Decontamination
- Ensure technical decontamination is available prior to Entry Operations
- Monitoring
- Disposal
- Termination
 - Personnel Accountability
 - Incident Scene Debriefing
 - Documentation
 - Equipment replacement and servicing
 - Critique

REFERENCES

All Hazardous Materials response operations coordinated by the Prince George's County Fire/EMS Department will be conducted in accordance with the rules and regulations for operations in such situations, as established in the OSHA and national consensus standards listed in the reference section.

1. OSHA 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response (HAZWOPER)



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2. 29 CFR 1910.134, Respiratory Protection
3. NFPA 471, Recommended Practice for Responding to Hazardous Materials Incidents
4. NFPA 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents
5. NFPA 473, Standard for Professional Competence of EMS Personnel to Hazardous Materials Incidents
6. NFPA 1500, Standard on Fire Department Occupational Safety and Health Program
7. NFPA 1991, Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies
8. NFPA 1993, Standard on Liquid Splash-Protective Ensembles for Hazardous Materials Emergencies
9. NFPA 1994, Standard on Protective Ensembles for Chemical/Biological Terrorism Incidents
10. FEMA Document 508-4, Typed Resource Definitions – Fire and Hazardous Materials Resources.

FORMS/ATTACHMENTS

Addendum 1- Training

Addendum 2- Minimum Equipment Requirements

Addendum 3- Dispatch Procedures



Addendum 1 - Training

All hazardous materials training is provided through formal curriculum programs and regular drills and exercises designed to maintain competence with all related equipment and procedures. All hazardous materials training is intended to meet the requirements of OSHA Part 29 CFR 1910.120 and NFPA 472 and 473.

All Fire/EMS Department personnel must be trained to one of the following levels:

First Responder at the Operational Level (HAZMAT Operations)

First responders at the operational level are those persons who respond to releases or potential releases of hazardous materials as part of the initial response to the incident for the purpose of protecting nearby persons, the environment, or property from the effects of the release. They should be trained to respond in a defensive fashion to control the release from a safe distance and keep it from spreading. (NFPA 472)

Personnel:

- All personnel (career and volunteer) that may discover, investigate, or respond to a hazardous materials incident must maintain Hazardous Materials Operations level training.

Initial Training Requirements:

- Approximately 24 hours of training in compliance with 29 CFR 1910.120 and NFPA 472.
- WMD Awareness/Operations Level Training

Certification Recommended:

- Maryland State Fire Service Professional Qualifications Board (MFSPQB),
- National Board on Fire Service Professional Qualifications (Pro Board), or
- International Fire Service Accreditation Congress (IFSAC)

Continuing Education/Refresher Requirements:

- Annual Regulatory Competency Requirement: Minimum 4 hours

Hazardous Materials Technician (HAZMAT Tech)

Hazardous materials technicians are those persons who respond to releases or potential releases of hazardous materials for the purpose of controlling the release. Hazardous materials technicians are expected to use specialized chemical protective clothing and specialized control equipment. (NFPA 472)

Personnel:

- Hazardous Materials Technician Level personnel and response equipment are maintained at the stations assigned with the Hazardous Materials Support Units.

Initial Training Requirements:

- First Responder Operations Level training, plus approximately 40 hours of training in compliance with 29 CFR 1910.120 and NFPA 472 at the Hazardous Materials Technician Level.



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- WMD HAZMAT Technician Enhancement Training (need to define what training is required and from where)

Certifications Recommended:

- Maryland State Fire Service Professional Qualifications Board (MFSPQB),
- National Board on Fire Service Professional Qualifications (Pro Board), or
- International Fire Service Accreditation Congress (IFSAC)

Continuing Education/Refresher Requirements:

- Annual Regulatory Competency Requirement: Minimum 16 hours
- Participation in at least one Hazardous Materials Response Drill per quarter
- Participation in at least one Hazardous Materials Exercise per year.

Credentialing: All Technician Level personnel are identified through appropriate credentials issued by the Fire Chief. This shall include identification cards and helmet designations.

Primary Hazardous Material Company and Response Team

Personnel:

- These personnel are either assigned to the Primary Hazardous Materials Response Unit or otherwise selected to participate as a HAZMAT Response Team Member through a competitive selection process.

Pre-requisite Training Requirements:

- Completion of Technician Level training as specified above.

Certifications Required:

- Maryland State Fire Service Professional Qualifications Board (MFSPQB),
- National Board on Fire Service Professional Qualifications (Pro Board), or
- International Fire Service Accreditation Congress (IFSAC)

Initial Training Requirements:

- HAZMAT Response Team Indoctrination Training – Approximately 80 hours
- WMD HAZMAT Technician Enhancement Training

Initial Training Recommendations:

- NFA – Chemistry of Hazardous Materials or Chemistry for Emergency Response
- NFA – Hazardous Materials Operating Site Practices (or similar training from a recognized training program)

Continuing Education/Refresher Requirements:

- Annual Regulatory Competency Requirement: Minimum 32 hours
- Participation in at least one Hazardous Materials Response Drill per month
- Participation in at least two Hazardous Materials Exercises per year.



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Credentialing: All Technician Level personnel are identified through appropriate credentials issued by the Fire Chief. This shall include identification cards and helmet designations.

Hazardous Materials Response Team Leaders

Designated Hazardous Materials Response Team Leaders are responsible to supervise and control of hazardous materials personnel and equipment. They are specially trained to interface with Incident Command and other agencies to ensure safe and effective incident solution is achieved.

Personnel:

- Senior members of Hazardous Materials Response Team with at least 5 years hazardous materials response experience.

Training:

- Same as above, for Hazardous Materials Response Team Members
- Hazardous Materials Incident Commander Certification

Continuing Education/Refresher Requirements:

- Annual Regulatory Competency Requirement: Minimum 42 hours
- Participation in at least one Hazardous Materials Response Drill per month
- Participation in at least two Hazardous Materials Exercises per year.

Credentialing: All Hazardous Materials Response Team Leaders are identified through appropriate credentials issued by the Fire Chief. This shall include identification cards and helmet designations.

Hazardous Materials Incident Commanders

Incident Commanders who will assume control of the incident scene beyond the first responder awareness level must receive specific HAZMAT Incident Commander training.

Initial Training Requirements:

- Approximately 24 hours of training in compliance with 29 CFR 1910.120 and NFPA 472.
- WMD Awareness/Operations Level Training

Certification Recommended:

- Maryland State Fire Service Professional Qualifications Board (MFSPQB),
- National Board on Fire Service Professional Qualifications (Pro Board), or
- International Fire Service Accreditation Congress (IFSAC)

Continuing Education/Refresher Requirements:

- Annual Regulatory Competency Requirement: Minimum 4 hours

Credentialing: All Hazardous Materials Incident Commanders are identified through appropriate credentials issued by the Fire Chief.

Refresher Training



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All refresher training must be approved by the HAZMAT Coordinator and meet 29 CFR 1910.120(q)(6) and NFPA 472/473 requirements.



Addendum 2 - Minimum Equipment Requirements

Primary Hazardous Materials Response Unit

Site Management and Control

- Barrier Tape
- Traffic Cones

Recognition and Identification

- Cell Phone for immediate contact with technical experts/resources
- Wireless Internet Service for internet based reference searches
- Various Electronic Databases
- Various Printed Reference Materials
- Binoculars

Detection and Monitoring

- Atmospheric Monitoring – 4 Gas (O₂, CO, LEL, H₂S) with Photoionization Detector
- Remote Atmospheric Monitoring
- Colorimetric Test Materials
- Ion Mobility Spectrometer
- Sound Acoustic Wave Detector
- Infrared Spectrometer
- RAMAN Spectrometer
- Radiation Detection
- Radiation Dosimeters

Protective Clothing

- Level A Protective Ensembles
- Level B Protective Ensembles
- Level C Protective Ensembles with Powered Air Purifying Respirators
- Level C Protective Ensembles with Air Purifying Respirators
- Structural Fire Fighter Protective Clothing with SCBA
- Flash Fire Protective Coveralls

Specialized Equipment and Techniques

- Offensive Product Control Equipment (i.e., Transfer Pumps and Equipment and Chlorine Response Kits)
- Defensive Product Control Equipment (Absorbent, Pads, Absorbent Boom, Barrier Boom, Hand Tools)

Decontamination

- Mass Casualty Decontamination System with Triage Equipment
- Technical Decontamination

Hazardous Materials Support Units

Site Management and Control

- Barrier Tape

Recognition and Identification



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- Binoculars
- Additional Printed Reference Materials

Detection and Monitoring

- Atmospheric Monitoring – 4 Gas (O₂, CO, LEL, H₂S) with Photoionization Detector
- Colorimetric Test Materials
- Radiation Detection
- Radiation Dosimeters

Protective Clothing

- Level B Protective Ensembles
- Level C Protective Ensembles with Air Purifying Respirators
- Structural Fire Fighting Protective Clothing with SCBA

Specialized Equipment and Techniques

- Offensive Product Control Equipment (i.e., Transfer Pumps and Equipment)
- Defensive Product Control Equipment (Absorbent, Pads, Absorbent Boom, Barrier Boom, Hand Tools)

Decontamination

- Mass Casualty Decontamination System with Triage Equipment
- Technical Decontamination

Operations Level Suppression Units

Site Management and Control

- Binoculars
- Barrier Tape

Recognition and Identification

- North American Emergency Response Guidebook

Detection and Monitoring

- Atmospheric Monitoring – 3 Gas (O₂, CO, LEL)
- Radiation Detection

Protective Clothing

- Structural Fire Fighting Protective Clothing with SCBA

Specialized Equipment and Techniques

- Defensive Product Control Equipment (Cellulose Absorbent, Clay Adsorbent, Hand Tools)

Decontamination

- Emergency Mass Casualty Decontamination Techniques

Other Operations Level Response Units

Site Management and Control

- Binoculars
- Barrier Tape

Recognition and Identification

- North American Emergency Response Guidebook



Addendum 3 – Dispatch Procedures

Hazardous Materials Service Call

Units are dispatched to investigate and evaluate suspicious materials, substances, or mail items, this small response allows for the incident to be safely evaluated without inciting panic. These incidents require the specialized resources of the Hazardous Materials Units, without the fire suppression or EMS response. **Note: Bomb technicians will also be notified if packages presents or could present and explosive hazard.**

Dispatch:

- One (1) HAZMAT Unit (Primary or Support)

Notify:

- Primary Hazardous Materials Unit
- Hazardous Materials Team Coordinator
- Hazardous Materials Team Leaders

Hazardous Materials Local Assignment

Units are dispatched to investigate incidents involving the suspicion of a hazardous material release or small incidents involving hazardous materials commonly known (e.g., gasoline, fuel oil, diesel, etc.). This assignment is also used to investigate reports of potential incidents such as abandoned or discarded hazardous material containers with no evidence of a release.

- Dispatch Guidance
- Occupancies: Exterior, no exposures
- Automotive Fluids: Small Vehicles (< 5 tons GVW)
- Carbon Monoxide: Detector activation, no signs and symptoms

Additional Dispatch Guidance (NFPA 471):

| Incident Conditions | Information Available/Findings |
|--------------------------|---|
| Product Identification | No placards or labels, NFPA 704 0 or 1 all categories |
| Container Size | Small (Drum, Pail, Bag, Cylinder (<55 gal)) |
| Fire/Explosion Potential | Low |
| Leak Severity | No known release, or small release contained with available resources |
| Life Safety | No known life threatening situation |
| Environmental Impact | Minimal |
| Container Integrity | Not Damaged or slightly damaged, not getting worse |

Dispatch:

- Closest Suppression Company (Engine, Truck or Squad)



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Notify:

- Primary Hazardous Materials Unit
- Hazardous Materials Team Coordinator
- Hazardous Materials Team Leaders

HAZMAT Street Assignment

Units are dispatched to investigate and address:

- Unconfirmed presence or release of a hazardous material with possible victims
- Small incidents involving unknown hazardous materials
- Large incidents involving specific known hazardous materials.

Dispatch Guidance

- Occupancies: Residential or exterior with exposures
- Automotive Fluids: Large Vehicles (greater than 5 tons GVW)
- Propane (LPG): Less than or equal to 40 pounds (fork lift bottle)
- Carbon Monoxide: Detector activation w/ signs and symptoms, or signs and symptoms in more than one person.

Additional Dispatch Guidance (NFPA 471):

| Incident Conditions | Information Available/Findings |
|--------------------------|--|
| Product Identification | Any placards or labels found, NFPA 704 2 in any category |
| Container Size | Medium Small Tanks Multiple packages (Drum, Pail, Bag, Cylinder (<55 gal)) |
| Fire/Explosion Potential | Medium |
| Leak Severity | Release may not be controllable with available resources |
| Life Safety | Limited to the building or local area, limited evacuation |
| Environmental Impact | Moderate |
| Container Integrity | Damaged but will allow handling or transfer |

HAZMAT Street Assignment requires:

Dispatch:

- Two (2) Engine Companies
- One (1) Special Service Company
- One (1) HAZMAT Unit
- One (1) BLS Ambulance
- One (1) ALS Medic Unit
- One (1) Command Officer
- One (1) AEMS Supervisor

Notify:



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- Hazardous Materials Team Coordinator
- Hazardous Materials Response Team Leaders
- Primary Hazardous Materials Unit

HAZMAT Task Force

The HAZMAT Task Force assignment is intended to provide the necessary resources to an incident to evaluate a possible release or exposure to a hazardous material. This assignment is used in addition to any initial dispatch if there is reported or suspected involvement with hazardous materials.

The HAZMAT Task Force may be requested by the incident commander to evaluate the potential that there are hazardous materials present on the scene of any incident or to respond to the scene of an incident that requires additional specialized consultation, knowledge, or resources.

Units on the HAZMAT Task Force will evaluate and identify any hazardous materials present and control hazardous run-off. If additional HAZMAT resources are required to safely mitigate the situation, the incident can be escalated as necessary.

The intent of this assignment is to provide the resources necessary to populate a complete HAZMAT Group within the established Incident Command System.

Dispatch:

- Two (2) Engine Companies
- One (1) Special Service Company
- One (1) HAZMAT Support Unit
- One (1) Primary Hazardous Materials Unit
- One (1) BLS Ambulance, if not already assigned to the incident
- One (1) ALS Medic Unit, if not already assigned to the incident
- One (1) Command Officer, if not already assigned to the incident
- One (1) AEMS Supervisor, if not already assigned to the incident

Notify:

- Hazardous Materials Team Coordinator
- Hazardous Materials Response Team Leaders

Hazardous Materials Box Alarm

Units are dispatched to:

- Confirmed presence and possible release of a hazardous material with possible victims
- Confirmed release of any hazardous material greater than 100 gallons
- Incident suspected to involve weapons of mass destruction

Additional Dispatch Guidance (NFPA 471):



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| Incident Conditions | Information Available/Findings |
|--------------------------|--|
| Product Identification | Class 1, Division 1.1 or 1.2 – Explosives Class 2, Division 2.3 – Poison Gases, Class 4 – Flammable Solid, Dangerous when Wet Class 5, Division 5.1 – Organic Peroxides Class 7 – Radioactive Materials Cryogenic Materials NFPA 704 3 or 4 in any categories Suspected WMD Event |
| Container Size | Large Bulk Transport Containers: Tank Cars, Tank Trucks, multiple containers |
| Fire/Explosion Potential | High |
| Leak Severity | Release may not be controllable even with special resources |
| Life Safety | Large evacuation area, Large number of evacuees |
| Environmental Impact | Severe |
| Container Integrity | Damaged so that catastrophic failure may be possible |

A HAZMAT Box Assignment shall consist of the following units:

Typical Street Alarm

- Two (2) Engine Companies
- One (1) Special Service Company
- One (1) Command Officer

With a HAZMAT Task Force

- Two (2) Engine Companies
- One (1) Special Service Company
- One (1) HAZMAT Support Unit
- One (1) Primary Hazardous Materials Unit
- One (1) BLS Ambulance
- One (1) ALS Medic Unit
- One (1) Command Officer
- One (1) AEMS Supervisor
- Hazardous Materials Team Coordinator
- Hazardous Materials Response Team Leaders

Notify:

- Hazardous Materials Team Coordinator
- Hazardous Materials Response Team Leaders

HAZMAT Response Team Dispatch



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The off-duty personnel and/or assigned to other positions on-duty the Hazardous Materials Response Team shall be dispatched on the discretion of the Incident Commander on the scene in consultation with a HAZMAT Team Leader.

The HAZMAT Response Team shall require the following in addition to the resources already assigned to the incident:

Notify:

- Hazardous Materials Response Team
- Hazardous Materials Team Coordinator
- Hazardous Materials Response Team Leaders

Additional Resources

Since Hazardous Materials incidents can develop into large and complex command structures, the Incident Commander should also consider the following additional resources:

- Command Unit (PSC-1) – Long duration incidents or complex command structures
- Air Unit – If entry operations are undertaken by the Hazardous Materials personnel
- Foam Unit – If flammable liquids are present
- Canteen Unit – Long duration incidents

APPENDIX G
Public School Recycling Plan

Insert the following language into Chapter 5, Plan of Action, of the 2012-2022 Prince George's County Comprehensive Ten Year Solid Waste Management Plan.

Prince George's County Public School Recycling Program

In July, 2009, the Maryland General Assembly passed House Bill 1290, Environmental-Recycling – Public School Plans requiring recycling in all publicly-funded schools with the exception of State Universities. The law became effective on July 1, 2009 (amending 9-1703 of Environment Article, Annotated Code of Maryland). This bill requires each county's recycling plan to implement a strategy for collecting, processing, marketing, and disposing of recyclable materials from its public schools. It is mandated to have a plan in place by October 1, 2010.

Prince George's County Pubic Schools, Office and Learning Locations Considered as Property of the Prince George's County Public School System

1. (a) Program

Through the assistance of Prince George's County Office of Recycling and Keep Prince George's County Beautiful, the Prince George's County Public School (PGCPS) currently recycles paper. Schools are provided paper collection containers and pick-up service Abitibi Paper Retriever.

In May 2010, the Prince George's County Public Schools Purchasing Office issued a Request for Proposal for the Purchase of Materials Collected from Recycling. The Recycling Program will include every public school in Prince George's County. The contractor shall be required to work with the school system to further develop, implement and expand the system's existing paper recycling program. The Prince George's County Recycling Team will provide technical assistance and recycling education to administrators, teachers, and students on a continuing basis. The plan activities of the public school recycling will be implemented according to the schedule discussed in section 4.

Located in each facility are collection boxes that are placed in necessary areas for staff and students to use for recycling purposes only. All students and staff are instructed to place together all acceptable recyclable materials in these boxes. PGCPS employees will empty these collection boxes into dumpsters provided by the awarded contractor.

After collection has been made, all recyclables must be taken to either a transfer station where items will then be moved to a Materials Recovery Facility (MRF) or maybe taken directly to a MRF. Prince George's County Government, Department of Environmental Resources, Waste Management Group, Recycling Team, will work with the Board of Education to offer free tipping of recyclables at the County's MRF.

1. (b) Materials Included in Program

Recyclables must include paper. Other items may be added to the recycling collection program as markets become available.

1. (c) Collection of Materials

Recycled materials shall be placed in the same recycling container as single-stream recycling materials. The contractor shall be responsible for providing all containers, labor and equipment necessary to fulfill necessary recycling container removal services for PGCPSS on a scheduled basis (non-emergency), throughout the County's school system. Distinctive colors and markings recycling containers shall be provided to avoid cross contamination. The recycling can is to be clearly marked as recycled in plain text 100 font or greater and have at a minimum the universal recycling emblem. The work shall consist of collecting, transporting and disposing recyclable materials from schools, office and learning locations considered as property of the Prince George's County Public School System. All material that is set out in designated recycling areas for each of these facilities shall be collected. Eight cubic yard containers are to be used for recyclable materials.

1. (d) Marketing of Materials

The awarded contractor shall submit quarterly reports and a route schedule on all recycling tonnage removed from the PGCPSS to the PGCPSS contract manager. In addition, the awarded contractor will for one week every October and every March collect recyclables from the school routes only and submit a report by the 15th with the following information from each load: material collected, schools collected from, tonnage, destination of material, scale tickets for each load from the destination facility. Recycling data is to include tonnage and market outlets. Materials delivered to the Prince George's County Materials Recycling Facility (MRF) will be marketed by the County's MRF operating contractor in accordance with the contract between Prince George's County and Waste Management-Recycle America, Inc.

2. Stakeholders

Stakeholders include the Prince George's County Public School System (PGCPSS) including the PGCPSS Director of School Facilities, PGCPSS Contract Manager, William Schmidt Outdoor Education Center, Board of Education, Prince George's County- Department of Environmental Resources- Waste Management Group-Recycling Team, and the Prince George's County Council. This Plan will be amended in conjunction with the adoption of the County's 2012-2022 Comprehensive Ten Year Solid Waste Plan, currently being updated.

The PGCPSS stakeholders are responsible for ensuring all publicly-funded schools are participating in the School Recycling Program. The Director of School Facilities will ensure the contractor is providing the recycling services to each facility including collection boxes and regularly scheduled pick-up service. The PGCPSS Contract Manager will provide the contract management to ensure the contractor is meeting the contract specifications. The William Schmidt Outdoor Education Center will ensure each school has a recycling coordinator to ensure participation. The Board of Education will submit every three years to the Prince George's County, Department of the Environment, Waste Management Group, Recycling Team Manager

at 1220 Caraway Court, Suite 1050-B, Largo, Maryland 20774 any changes and updates to the School Recycling Program to be included in the Ten Year Solid Waste Management Plan .

The Prince George’s County Recycling Office and Keep Prince George’s County Beautiful will assist and monitor the Public School Recycling Program to ensure a highly successful program exists. The Prince George’s County Council is responsible for adopting the School Recycling Plan for inclusion into the Ten Year Solid Waste Management Plan.

3. Schools in Program

Elementary Schools

| | |
|----------------------------------|---|
| Adelphi | 8820 Riggs Road, Adelphi 20783 |
| Allenwood | 6300 Harley Lane, Temple Hills 20748 |
| Andrew Jackson Academy (K-8) | 3500 Regency Parkway, Forestville 20747 |
| Apple Grove | 7400 Bellefield Avenue, Fort Washington 20744 |
| Ardmore | 9301 Ardwick-Ardmore Road, Springdale 20774 |
| Arrowhead | 2300 Sansbury Road, Upper Marlboro 20774 |
| Avalon | 7302 Webster Lane, Fort Washington 20744 |
| Baden | 13601 Baden-Westwood Road, Brandywine 20613 |
| Barack Obama | 12700 Brooke Lane |
| Barnaby Manor | 2411 Owens Road, Oxon Hill 20745 |
| Beacon Heights | 6929 Furman Parkway, Riverdale 20737 |
| Beltsville Academy (K-8) | 4300 Wicomico Avenue, Beltsville 20705 |
| Benjamin Foulois Performing Arts | 4601 Beauford Road, Morningside 20746 |
| Berwyn Heights | 6200 Pontiac Street, Berwyn Heights 20740 |
| Bladensburg | 4915 Annapolis Road, Bladensburg 20710 |
| Bond Mill | 16001 Sherwood Avenue, Laurel 20707 |
| Bradbury Heights | 1401 Glacier Avenue, Capitol Heights 20743 |
| Brandywine | 14101 Brandywine Road, Brandywine 20613 |
| Calverton | 3400 Beltsville Road, Beltsville 20705 |
| Capitol Heights | 601 Suffolk Avenue, Capitol Heights 20743 |
| Carmody Hills | 401 Jadeleaf Avenue, Capitol Heights 20743 |
| Carole Highlands | 1610 Hannon Street, Takoma Park 20912 |
| Carrollton | 8300 Quintana Street, New Carrollton 20784 |
| Catherine T. Reed | 9501 Greenbelt Road, Lanham 20706 |
| Cesar Chavez | 6609 Riggs Road, Hyattsville 20782 |
| Cherokee Lane | 9000 25th Avenue, Adelphi 20783 |
| Chillum | 1420 Chillum Road, Hyattsville 20782 |
| Clinton Grove | 9420 Temple Hill Road, Clinton 20735 |
| Columbia Park | 1901 Kent Village Drive, Landover 20785 |
| Concord | 2004 Concord Lane, District Heights 20747 |
| Cool Spring | 8910 Riggs Road, Adelphi 20783 |
| Cooper Lane | 3817 Cooper Lane, Landover Hills 20784 |
| Cora L. Rice | 950 Nalley Road, Landover 20785 |
| Deerfield Run | 13000 Laurel-Bowie Road, Laurel 20708 |
| District Heights | 2200 County Road, District Heights 20747 |
| Dodge Park | 3401 Hubbard Road, Landover 20785 |
| Doswell E. Brooks | 1301 Brooke Road, Capitol Heights 20743 |
| Accokeek Academy (K-8) | 14600 Berry Road, Accokeek 20607 |
| Flintstone | 800 Comanche Drive, Oxon Hill 20745 |
| Forest Heights | 200 Talbert Drive, Oxon Hill 20745 |
| Fort Foote | 8300 Oxon Hill Road, Fort Washington 20744 |
| Fort Washington Forest | 1300 Fillmore Road, Fort Washington 20744 |

| | |
|------------------------------|---|
| Francis Scott Key | 2301 Scott Key Drive, District Heights 20747 |
| Francis T. Evans | 6720 Old Alexandria Ferry Road, Clinton 20735 |
| Gaywood | 6701 97th Avenue, Seabrook 20706 |
| Gladys Noon Spellman | 3324 64th Avenue, Cheverly 20785 |
| Glassmanor | 1011 Marcy Avenue, Oxon Hill 20745 |
| Glenarden Woods | 7801 Glenarden Parkway, Glenarden 20706 |
| Glenn Dale | 6700 Glenn Dale Road, Glenn Dale 20769 |
| Glenridge | 7200 Gallatin Street, Landover Hills 20784 |
| Greenbelt | 66 Ridge Road, Greenbelt 20770 |
| Heather Hills | 12605 Heming Lane, Bowie 20716 |
| High Bridge | 7011 High Bridge Road, Bowie 20720 |
| Highland Park | 6501 Lowland Drive, Landover 20785 |
| Hillcrest Heights | 4305 22nd Place, Temple Hills 20748 |
| Hollywood | 9811 49th Avenue, College Park 20740 |
| Hyattsville | 5311 43rd Avenue, Hyattsville 20781 |
| Indian Queen | 9551 Fort Foote Road, Fort Washington 20744 |
| J. Frank Dent | 2700 Coming Avenue, Fort Washington 20744 |
| James H. Harrison | 13200 Larchdale Road, Laurel 20708 |
| James McHenry | 8909 McHenry Lane, Lanham 20706 |
| James Ryder Randall | 5410 Kirby Road, Clinton 20735 |
| John H. Bayne | 7010 Walker Mill Road, Capitol Heights 20743 |
| John Hanson French Immersion | 6360 Oxon Hill Road, Oxon Hill 20745 |
| John Hanson Montessori | 6360 Oxon Hill Road, Oxon Hill 20745 |
| Judge Sylvania W. Woods | 3000 Church Street, Glenarden 20706 |
| Judith P. Hoyer Montessori | 2300 Belleview Avenue, Cheverly 20785 |
| Kenilworth | 12520 Kembridge Drive, Bowie 20715 |
| Kenmoor | 3211 82nd Avenue, Landover 20785 |
| Kettering | 11000 Layton Street, Upper Marlboro 20774 |
| Kingsford | 1401 Enterprise Road, Mitchellville 20721 |
| Lake Arbor | 10205 Lake Arbor Way, Mitchellville 20721 |
| Lamont | 7101 Good Luck Road, New Carrollton 20784 |
| Langley Park-McCormick | 8201 15th Avenue, Hyattsville 20783 |
| Laurel | 516 Montgomery Street, Laurel 20707 |
| Lewisdale | 2400 Banning Place, Hyattsville 20783 |
| Longfields | 3300 Newkirk Avenue, Forestville 20747 |
| Magnolia | 8400 Nightingale Drive, Lanham 20706 |
| Marlton | 8506 Old Colony Drive South, Upper Marlboro 20772 |
| Mary Harris "Mother" Jones | 2405 Tecumseh Street, Adelphi 20783 |
| Mattaponi | 11701 Duley Station Road, Upper Marlboro 20772 |
| Melwood | 7100 Woodyard Road, Upper Marlboro 20772 |
| Montpelier | 9200 Muirkirk Road, Laurel 20708 |
| Mount Rainier | 4011 32nd Street, Mt. Rainier 20712 |
| North Forestville | 2311 Ritchie Road, Forestville 20747 |
| Northview | 3700 Northview Drive, Bowie 20716 |
| Oakcrest | 929 Hill Road, Landover 20786 |
| Oaklands | 13710 Laurel-Bowie Road, Laurel 20708 |
| Overlook | 3298 Curtis Drive, Temple Hills 20748 |
| Oxon Hill | 7701 Livingston Road, Oxon Hill 20745 |
| Paint Branch | 5101 Pierce Avenue, College Park 20740 |
| Panorama | 2002 Callaway Street, Temple Hills 20748 |
| Patuxent | 4410 Bishopmill Drive, Upper Marlboro 20772 |
| Perrywood | 501 Watkins Park Drive, Largo 20774 |
| Phyllis E. Williams | 9601 Prince Place, Upper Marlboro 20774 |
| Pointer Ridge | 1110 Parkington Lane, Bowie 20716 |
| Port Towns | 4351 58th Avenue, Bladensburg 20710 |
| Potomac Landing | 12500 Ft. Washington Road, Fort Washington 20744 |

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|----------------------------------|--|
| Princeton | 6101 Baxter Drive, Suitland 20746 |
| Ridgecrest | 6120 Riggs Road, Hyattsville 20783 |
| Riverdale | 5006 Riverdale Road, Riverdale Park 20737 |
| Robert Frost | 6419 85th Avenue, New Carrollton 20784 |
| Robert Goddard French Immersion | 9850 Good Luck Road, Seabrook 20706 |
| Robert Goddard Montessori | 9850 Good Luck Road, Seabrook 20706 |
| Robert R. Gray | 4949 Addison Road, District Heights 20743 |
| Rockledge | 7701 Laurel-Bowie Road, Bowie 20715 |
| Rogers Heights | 4301 58th Avenue, Bladensburg 20710 |
| Rosa L. Parks | 6111 Ager Road, Hyattsville 20782 |
| Rosaryville | 9925 Rosaryville Road, Upper Marlboro 20772 |
| Rose Valley | 9800 Jacqueline Drive, Fort Washington 20744 |
| Samuel Chase | 5700 Fisher Road, Temple Hills 20748 |
| Samuel P. Massie Academy (K-8) | 3301 Regency Parkway, Forestville 20747 |
| Scotchtown Hills | 15950 Dorset Road, Laurel 20707 |
| Seabrook | 6001 Seabrook Road, Seabrook 20706 |
| Seat Pleasant | 6411 G Street, Seat Pleasant 20743 |
| Skyline | 6311 Randolph Road, Suitland 20746 |
| Springhill Lake | 6060 Springhill Drive, Greenbelt 20770 |
| Suitland | 4650 Homer Avenue, Suitland 20746 |
| Tayac | 8600 Allentown Road, Fort Washington 20744 |
| Templeton | 6001 Carters Lane, Riverdale 20737 |
| Thomas Claggett | 2001 Addison Road, District Heights 20747 |
| Thomas G. Pullen Performing Arts | 700 Brightseat Road, Landover 20785 |
| Thomas S. Stone | 4500 34th Street, Mt. Rainier 20712 |
| Tulip Grove | 2909 Trainor Lane, Bowie 20715 |
| University Park | 4315 Underwood Street, Hyattsville 20782 |
| Valley View | 5500 Danby Avenue, Oxon Hill 20745 |
| VANSVILLE | 6813 Ammendale Road, Beltsville 20705 |
| Waldon Woods | 10301 Thrift Road, Clinton 20735 |
| Whitehall | 3901 Woodhaven Lane, Bowie 20715 |
| William Beanes | 5108 Dianna Drive, Suitland 20746 |
| William Paca | 7801 Sheriff Road, Landover 20785 |
| William W. Hall Academy (K-8) | 5200 Marlboro Pike, Capitol Heights 20743 |
| Woodmore | 12500 Woodmore Road, Mitchellville 20721 |
| Woodridge | 5001 Flintridge Drive, Hyattsville 20784 |
| Yorktown | 7301 Race Track Road, Bowie 20715 |

Middle Schools

| | |
|-------------------------|--|
| Benjamin Stoddert | 2501 Olson Street, Temple Hills 20748 |
| Benjamin Tasker | 4901 Collington Road, Bowie 20715 |
| Buck Lodge | 2611 Buck Lodge Road, Adelphi 20783 |
| Charles Carroll | 6130 Lamont Drive, New Carrollton 20784 |
| Drew-Freeman | 2600 Brooks Drive, Suitland 20746 |
| Dwight D. Eisenhower | 13725 Briarwood Drive, Laurel 20708 |
| Ernest Everett Just | 1300 Campus Way North, Mitchellville 20721 |
| G. James Gholson | 900 Nalley Road, Landover 20785 |
| Greenbelt | 8950 Edmonston Road, Greenbelt 20770 |
| Gwynn Park | 8000 Dyson Road, Brandywine 20613 |
| Hyattsville | 6001 42nd Avenue, Hyattsville 20781 |
| Isaac J. Gourdine | 8700 Allentown Road, Fort Washington 20744 |
| James Madison | 7300 Woodyard Road, Upper Marlboro 20772 |
| Kenmoor | 2500 Kenmoor Drive, Landover 20785 |
| Kettering | 65 Herrington Drive, Upper Marlboro 20772 |
| Martin Luther King, Jr. | 4545 Ammendale Road, Beltsville 20705 |

Nicholas Orem
Oxon Hill
Samuel Ogle
Stephen Decatur
Thomas Johnson
Thurgood Marshall
Walker Mill
William Wirt

6100 Editors Park Drive, Hyattsville 20782
9570 Fort Foote Road, Ft. Washington 20744
4111 Chelmont Lane, Bowie 20715
8200 Pinewood Drive, Clinton 20735
5401 Barker Place, Lanham 20706
4909 Brinkley Road, Temple Hills 20748
800 Karen Boulevard, Capitol Heights 20743
62nd Place & Tuckerman Street, Riverdale 20782

High Schools

Bladensburg
Bowie
Central
Charles Herbert Flowers
Crossland
Dr. Henry A. Wise, Jr.
DuVal
Eleanor Roosevelt
Fairmont Heights
Forestville Military Academy
Frederick Douglass
Friendly
Gwynn Park
High Point
Largo
Laurel
Northwestern
Oxon Hill
Parkdale
Potomac
Suitland
Surrattsville

4200 57th Avenue, Bladensburg 20710
15200 Annapolis Road, Bowie 20715
200 Cabin Branch Road, Capitol Heights 20743
10001 Ardwick-Ardmore Road, Springdale 20774
6901 Temple Hills Road, Temple Hills 20748
12650 Brooke Lane, Upper Marlboro 20772
9880 Good Luck Road, Lanham 20706
7601 Hanover Parkway, Greenbelt, MD 20770
1401 Nye Street, Capitol Heights 20743
7001 Beltz Drive, Forestville 20747
8000 Croom Road, Upper Marlboro 20772
10000 Allentown Road, Fort Washington 20744
13800 Brandywine Road, Brandywine 20613
3601 Powder Mill Road, Beltsville 20705
505 Largo Road, Upper Marlboro 20772
8000 Cherry Lane, Laurel 20707
7000 Adelphi Road, Hyattsville 20782
6701 Leyte Drive, Oxon Hill MD 20745
6001 Good Luck Road, Riverdale 20737
5211 Boydell Avenue, Oxon Hill 20745
5200 Silver Hill Road, Forestville 20747
6101 Garden Drive, Clinton 20735

Alternative Schools

Community-Based Classroom
Annapolis Road Academy (Alternative HS)
Green Valley Academy (Alternative MS/HS)
Edgar Allan Poe Academy (Alternative ES)

5150 Annapolis Road, Bladensburg 20710
5150 Annapolis Road, Bladensburg 20710
2215 Chadwick Street, Temple Hills 20748
2001 Shadyside Avenue, Suitland 20746

Charter Schools

EXCEL Academy
Imagine Foundations Public Charter
Turning Point Academy
Lincoln Public Charter School
Possibility Prep Public Charter School

5811 Riverdale Road, Riverdale 20737
4605 Brown Station Road, Upper Marlboro 20772
7800 Good Luck Road, Greenbelt 20706
3120 Branch Avenue, Marlow Heights 20748
610 Largo Road, Largo 20774

Early Childhood Centers

Chapel Forge ECC
Frances Fuchs ECC
H. Winship Wheatley ECC

12711 Milan Way, Bowie 20715
11011 Cherry Hill Road, Beltsville 20705
8801 Ritchie Drive, Capitol Heights 20743

Environmental/Science

Howard B. Owens Science Ctr.
William S. Schmidt Environmental Ed. Ctr.

9601 Greenbelt Road, Lanham 20706
18501 Aquasco Road, Brandywine 20613

Evening High Schools

Crossland Evening HS
Northwestern Evening HS
Largo Evening HS

6901 Temple Hills Road, Temple Hills 20748
7000 Adelphi Road, Hyattsville 20782
505 Largo Road, Upper Marlboro 20774

Special Schools

C. Elizabeth Rieg School
Jessie B. Mason School
James E. Duckworth School
Margaret Brent School
Tanglewood School

15542 Peach Walker Drive, Mitchellville 20716
2710 Iverson Street, Temple Hills 20748
11201 Evans Trail, Beltsville 20705
5816 Lamont Terrace, New Carrollton 20784
8333 Woodyard Road, Clinton 20735

Vocational

Croom Vocational
Tall Oaks Vocational

9400 Surratts Road, Cheltenham 20623
2112 Church Road, Bowie 20721

All new school facilities will be included in the School Recycling Program within three months of opening.

4. Schedule for the Development and the Program

Prince Georges County has already begun working with the Public Schools to initiate the described recycling program. Initial funding sources for this program are being explored. Prince George's County funds recycling programs through user fees assessed against County Residential Property Tax Bills and can not use these funds for school recycling. During the Fiscal year 2012 Budget process, funding alternatives will be discussed. Implementation of the School Recycling Plan will be contingent upon securing the necessary funds. It is anticipated that this issue will be resolved by October of 2012. However, in view of the economic situation in the area, an extension of time may be requested.

5. Program Monitoring

The school system shall conduct inspections, review service levels, investigate reported or unreported pick-up and disposal complaints, meet with PGCPs and Contractor staff to educate or review practices, and review Contractor compliance with the school recycling contract. Any issues which arise from these visits that are deemed deficiencies on the part of the Contractor will be detailed in writing and reported to the contractor. The Contractor shall promptly initiate actions to correct all deficiencies found. If deficiencies are not being satisfactorily corrected, the PGCPs may take over the service and pursue it to completion, by contract or otherwise, and the Contractor shall be liable to PGCPs for all costs incurred.

The Contractor will also be available to conduct educational seminars and/or tours on new products, practices, and procedures for PGCPs employees and/or students. As well, the contractor shall be responsible to keep PGCPs current on new regulations, laws, and mandates affecting recycling in the State of Maryland.

The Contractor, throughout the life of the contract, shall be required to work with the school system to further develop, implement and expand the system's existing recycling program.

The Prince George's County Public School System, Plant Operations Department, PGCCPS Director of School Facilities, Board of Education, PGCCPS Contract Manager, and the PGCCPS William S. Schmidt Outdoor Education Center will monitor the Public School Recycling Program to ensure participation.

The Prince George's Community College

The Prince George's Community College (PGCC), located in Largo, has an extensive recycling program. The recycling program shall continue in full force. This facility is currently recognized as a PGCC Maryland Green Registry Member. This designation was established in November of 2009.

RECYCLING

The College launched a college wide recycling program in 1997. This program recycles all paper products (cardboard, newspaper, books, and periodicals/magazines), aluminums, and plastics. Glass products are not recycled for safety reasons, thus glass vending products are discouraged and are severely limited on campus. The recycling program has been implemented using only in-house resources (no contracted services) for aluminum, plastic, and unsecured paper. Secured paper (paper with sensitive or confidential information) recycling is Vendor supported; service includes security and containment of confidential information, collection and destruction on campus, transport to a recycler where it is baled and sent to a paper mill. This process generates revenue to help offset the cost of the contracted services. Comingled paper is collected and transported to a central location using in-house resources; a local contracted vendor retrieves these recyclables.

Quantities recycled are as follows:

Aluminum and plastics: 2.75 tons/year

Unsecured paper: 22.30 tons/year

Secured Paper: 18.40 tons/year

Co-mingle paper products: 186.2 tons/year

Prince George's Community College disposes of used computer equipment and parts/components through a firm that guarantees any and all harmful chemicals and elements are extracted and recycled. None of the components end up in landfills. Under the current vendor, more than 1,400 electronic devices have been disposed of in this manner.

Program Monitoring

The PGCC Facility Manager monitors the Recycling Program. Other conservation and green registry responsibilities are monitored by PGCC Manager for Environmental Services. The County will continue to monitor this program thorough frequent contact with the Facility Manager.

- C. The Department may require the installation of a solid waste disposal system, if deemed necessary, after considering the factors listed in Environment Article, Title 9, Subtitle 5, Annotated Code of Maryland. The Department may permit the establishment of a solid waste acceptance facility without a collection and transportation system if a solid waste disposal system is either not available or not required to be installed in the area.

.03 Plan Content.

- A. The introduction shall contain:

- (1) A statement certifying that the plan has been prepared in accordance with these regulations and that it has been officially adopted by the governing body of the county; and
- (2) The letter of approval from the Department.

- B. Chapter One shall contain a:

- (1) Statement of the county's goals regarding solid waste management, the objectives and policies necessary to achieve these goals, and a discussion of the conformance of these objectives and policies with those of State, regional, and local comprehensive land use plans and programs;
- (2) Brief discussion, with charts, of the structure of the county government as it relates to solid waste management; and
- (3) Brief discussion of State, federal and local agencies, laws, and regulations which affect the planning, establishment, and operation by the county of solid waste disposal systems.

- C. Chapter Two shall contain a:

- (1) Table which shows the county's present and projected population (if more than one set of projections is shown, the set upon which the plan is based shall be noted);
- (2) Map which shows the location of municipalities and federal facilities within the county;
- (3) Discussion of current county zoning requirements as they relate to solid waste management activities; and
- (4) Discussion of the current status of the county comprehensive land-use plan, including the date that the plan was adopted and last updated.

D. Chapter Three shall contain:

- (1) A table that shows the existing and projected, for at least the succeeding 10-year period, annual generation (in tons, cubic yards, or gallons, as appropriate) of:
 - (a) Residential (household, domestic) wastes;
 - (b) Commercial wastes;
 - (c) Industrial (nonhazardous) solids, liquids, and sludges;
 - (d) Institutional (schools, hospitals, government buildings) waste;
 - (e) Land clearing and demolition debris (rubble);
 - (f) Controlled hazardous substances (CHS);
 - (g) Dead animals;
 - (h) Bulky or special wastes (automobiles, large appliances, etc.);
 - (i) Vehicle tires;
 - (j) Wastewater treatment plant sludges;
 - (k) Septage; and
 - (l) Other wastes (water treatment plant sludges, residues collected by a pollution control device, agricultural wastes, mining wastes, litter, street sweepings, recreational wastes, etc.) unless they are generated in insignificant quantities. However, the Department may require the county to substantiate any omission.
- (2) A discussion of the bases for the data presented in the table required by D (1).
- (3) A discussion of the types and quantities of solid waste, if significant, which are entering or leaving the county for processing, recovery, or disposal.
- (4) A description of existing solid waste collection systems, including service areas.
- (5) Information concerning each existing public or private solid waste acceptance facility (incinerators, transfer stations, major composting sites, sanitary and rubble landfills, dumps, major resource recovery facilities, CHS facilities, injection wells, and industrial waste liquid holding impoundments) including:
 - (a) Its location on a map;
 - (b) Its Maryland grid coordinates;

- (c) Its size in acres;
- (d) The types and quantities of solid wastes accepted;
- (e) Ownership;
- (f) Permit status; and
- (g) Anticipated years of service life remaining.

E. Chapter Four.

- (1) Chapter four shall contain an assessment (using a narrative description, maps, charts, and graphs as appropriate) of the county's needs to alter, extend, modify, or add to existing solid waste disposal systems during the next 10 years.
- (2) The assessment above shall use, when appropriate, the background information contained in chapters one, two, and three.
- (3) The assessment shall consider the constraints imposed upon the establishment of solid waste acceptance facilities by:
 - (a) Topography;
 - (b) Soil types and their characteristics;
 - (c) Geologic conditions;
 - (d) Location;
 - (e) Use and depth of aquifers;
 - (f) Location of wetlands;
 - (g) Location of surface water sources and their flood plains and watersheds;
 - (h) Existing water quality conditions;
 - (i) Incompatible land use;
 - (j) Planned long-term growth patterns;
 - (k) Federal, State, and local laws and areas of critical State concern (as designated by the Department of State Planning).

- (4) The assessment shall evaluate:
 - (a) The use of source separation and source reduction programs to reduce the quantities of solid wastes which shall be collected for disposal.
 - (b) Resource recovery options to reduce land disposal capacity needs;
 - (c) Consumer education programs, and cooperation with appropriate suppliers for the purchase of recycled products to encourage and help create a market for resource recovery and source separation programs;
 - (d) The need for disposal capacity for asbestos;
 - (e) Programs and procedures needed to respond to the unplanned (emergency) spillage or leaking of hazardous wastes within the county; and
 - (f) Whether existing local master plans and zoning regulations provide for the appropriate siting, operation, or both, or solid waste management systems or facilities.

F. Chapter Five.

- (1) Chapter five shall contain the county's plan of action with respect to all types of solid waste and all phases of solid waste management.
- (2) The plan of action in F (1), above, shall cover at least the succeeding 10-year period and, at a minimum, shall:
 - (a) Discuss the solid waste disposal systems and solid waste acceptance facilities, both public and private, which will be in use during the planning period, including proposed systems and facilities;
 - (b) Provide a mechanism for managing each of the waste streams identified in D(1);
 - (c) Demonstrate, through tables, charts and graphs, that the sizing, staging, and capacity of all systems and facilities in F(2)(a) and (b), above, will be adequate for the county's needs during the planning period;
 - (d) Establish schedules for placing new public or private solid waste disposal systems or solid waste acceptance facilities into operation, including a description of necessary actions and their timing, to bring the County's solid waste disposal systems into compliance with the mandates of pertinent federal and State laws, and any permits or orders issued under these laws;
 - (e) Describe provisions and methods for financing existing and proposed solid waste disposal systems, including planning and implementation;

- (f) Include a projected closure date for each public solid waste acceptance facility which is scheduled to cease operations during the planning period, the projected use of each closed site, and the relationship of that use to the County's comprehensive land use plan; and
- (g) Discuss changes in programs, plans, regulations, and procedures as a result of the assessment conducted under E, above.

.04 Technical Requirements Applicable to County Plans.

- A. Maps in the County plans shall be of sufficient scale and clarity to clearly show the required information.
- B. Projections in the County plans shall be given for at least the succeeding 10-year period at intervals of not more than 5 years.

.05 Plan Revisions.

- A. Except as provided in B, below, each county plan shall be:
 - (1) Revised if deemed necessary by the Department;
 - (2) Reviewed in its entirety at the interval specified by Environment Article, Title 9, Subtitle 5, Annotated Code of Maryland; and
 - (3) Revised to include the installation or extension of either a solid waste acceptance facility, or solid waste disposal system, before the issuance of a permit by the Department under Environment Article, Title 9, Subtitle 2, Annotated Code of Maryland.
- B. Exceptions. A revision for the sole purpose of including a private facility is not necessary if the:
 - (1) Facility accepts only wastes generated by the owner's operations;
 - (2) Facility is in general conformance with the management mechanism described in Regulation .03F(2)(b); and
 - (3) Information listed in Regulation .03D(5) is provided for the facility when the County plan is reviewed and revised in accordance with A(2), above.
- C. Revisions pertaining to County plans shall be adopted and submitted in accordance with the following process:

- (1) The County shall solicit input concerning the proposed revision from each of the entities listed in Regulation .02B, above, and from any other entity likely to be affected by the proposed revision.
 - (2) The County shall provide a reasonable opportunity for a public hearing concerning the proposed revision to the County plan. Prince George's County and Montgomery County are required by Environment Article, Title 9, Subtitle 5, Annotated Code of Maryland, to conduct a public hearing. The Department, the public, and the entities listed in Regulation .02B shall receive prior notice of a hearing.
 - (3) Following the public hearing or public meeting, or a decision not to conduct a public hearing or public meeting, the governing body of the County shall adopt the revisions and submit seven copies of it to the Department. This submittal shall be accompanied by a discussion of substantive issues raised at the public hearing or public meeting, and how they were resolved.
- D. The Department shall distribute copies of the adopted revision to the Departments of Natural Resources, State Planning, and Agriculture, for review and comment.
- E. The Department shall, within 90 days after receiving the submission, approve, disapprove, or approve in part, the adopted revision unless the review period has been extended under Environment Article, Title 9, Subtitle 5, Annotated Code of Maryland. If the submittal is disapproved in whole, or in part, the Department shall, in a written notice to the County, clearly define the inadequacies of the submittal, and provide a suggested outline of the tasks needed to improve the submittal so that it can be approved by the Department.
- F. The governing body shall, for 6 months following the disapproval, have the right to appeal the Department's action by sending a written notice of appeal to the Department's Office of Hearings at 201 West Preston Street, Baltimore, Maryland 21201.

Administrative History

Effective date: January 1, 1971

Regulations .01--.05 repealed and new Regulations .01--.05 adopted effective November 4, 1985 (12:22 Md. R. 2104)

Chapter recodified from COMAR 10.17.08 to COMAR 26.03.03