

**The Lessons of Swann Park:  
Implications for Maryland's Environmental Policy**

Swann Park Task Force

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## **Executive Summary**

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On April 19, 2007, Baltimore City's Commissioner of Health ordered the closure of Swann Park after tests showed high levels of arsenic in the soil. The testing was prompted by the disclosure of 30-year-old documents from the files of Allied Chemical, which had operated a chemical manufacturing plant adjacent to the park. These documents showed that tests conducted by Allied Chemical in 1976 identified high arsenic levels at that time.

In the wake of the document disclosure, subsequent testing, and closing of Swann Park, Mayor Sheila Dixon asked the Commissioner of Health to convene a Task Force to investigate why the arsenic levels had not been recognized or addressed decades earlier and to make recommendations to prevent similar situations in the future.

In response to the Mayor's request, the Commissioner of Health convened the five-member Swann Park Task Force in May 2007. The first report of the Task Force, in July 2007, found that key information about high levels of arsenic in the park known to Allied Chemical was not shared with a committee established in 1976 to assess the safety of the park.

The Task Force subsequently wrote the Mayor about research conducted in the late 1970s by Johns Hopkins investigators on arsenic in Swann Park. The Task Force urged greater cooperation between researchers and policymakers in Baltimore.

In this third and final report, the Task Force turns to the implications of Swann Park for environmental policy in Maryland. Federal and state laws on exposure to contaminated sites and waste management are complex and apply different standards for different types of contaminated sites. This report finds that avoiding future Swann Parks requires Maryland to develop a more coordinated and transparent system that identifies potentially hazardous sites, prioritizes them for further assessment, and enforces necessary remediation.

- **There is no single, easily accessible list of contaminated sites that pose a potential threat to public health and the environment in Maryland.** The Maryland Department of the Environment makes large amounts of information on contaminated sites available to the public through its website. However, the site is difficult to navigate. The Task Force recommends that the Maryland Department of the Environment establish a single complete list of contaminated waste sites in the state and make it easily accessible by the public. It should also be clear to the public which sites require remediation, which sites are inactive, which sites were determined not to be hazardous, and other important determinations.
- **The state's ranking system that prioritizes contaminated sites is poorly communicated to the public.** The Maryland Department of the Environment

uses two different prioritization tools depending on the legal status of the property. This system has not been clearly explained to the public. The Task Force recommends that the Maryland Department of the Environment use its existing system and data to establish a transparent approach that prioritizes all sites and helps direct resources to those requiring further investigation. Additional funding may be required to initiate such a system.

- **The Maryland Department of the Environment does not have sufficient resources to undertake proactive and timely enforcement of state regulations to monitor and pursue site cleanup by responsible parties.** The Task Force recommends that, in the face of budgetary constraints, the Maryland Department of the Environment invest in the staff required to more strongly enforce the “polluter pays” principle inherent in State and federal laws.

Progress on each of these three issues is necessary to avoid future Swann Parks.

## **Background and Methods**

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The story of Swann Park is a cautionary one, arising from Baltimore’s history as a densely populated industrial city, where hazardous chemical processes, little understood at the time, often took place in close proximity to places where residents lived and played.

Swann Park, which today comprises 11 acres of athletic fields and green space, began as a recreational field in 1905. In 1920, Allied Chemical became the owner of the agricultural plant bordering the park on the north at 2000 Race Street. The plant began manufacturing arsenic acid and calcium and lead arsenates at the Race Street site in the late 1930s.

Starting in 1974, public concern arose over the health effects of Kepone, a chemical used in pesticides that was found to have filtered into the James River from an Allied plant in Hopewell, Virginia. Attention turned to the Baltimore agricultural plant, which was also owned by Allied. Governor Marvin Mandel closed neighboring Swann Park on March 4, 1976 and convened the Kepone Task Force to investigate whether the park had been contaminated by Kepone or arsenic from the adjacent chemical plant. The Task Force reviewed a small number of soil samples, and held several meetings that included Allied officials. The Task Force recommended replacing a strip of dirt and grass along the park’s fence, with re-sodding “purely as a precautionary measure.” After this work was done, the park was reopened in the late spring of 1976.

No further investigation of contamination at Swann Park was undertaken until April 2007 when Honeywell, which had merged with Allied Chemical, turned over 30-year-old company documents to the Maryland Department of the Environment showing that Allied’s soil sampling of the park in 1976 had found high levels of arsenic.

After new testing confirmed continued arsenic contamination at Swann Park, the Commissioner of Health closed the park for further assessment and remediation. The Maryland Department of the Environment, the agency responsible for environmental contamination in Maryland, served a cleanup order on Honeywell and the City. A team from the Agency for Toxic Substances and Disease Registry provided an independent assessment of available toxicological data on a wide range of substances including kepone. The team identified arsenic as the only exposure of concern, with a potential acute health hazard for children with pica and a very small potential elevation in cancer risk for others with years of exposure to the park. The Maryland Department of the Environment tested other parks of potential concern in Baltimore, but did not identify any similar problems elsewhere.

While Swann Park is being remediated, its story remains concerning. Last spring, Baltimore City Mayor Sheila Dixon asked the Health Department to convene a Task Force to investigate why the arsenic levels had not been recognized or addressed decades earlier and to make recommendations to prevent similar situations in the future.

In response to the Mayor's request, the Commissioner of Health convened the five-member Swann Park Task Force in May 2007. Members include:

- Dr. Lynn R. Goldman, a pediatrician and Professor of the Johns Hopkins Bloomberg School of Public Health
- Heather A. Moore, President of the Federal Hill South Neighborhood Association
- George Nilson, Baltimore City Solicitor and former Deputy Attorney General for the State of Maryland
- Dr. Joshua M. Sharfstein, Commissioner of Health for Baltimore City
- Stuart Simms, partner in the law firm of Brown, Goldstein, and Levy

The Task Force's scientific adviser is Thomas A. Burke, Ph.D, Professor of the Johns Hopkins Bloomberg School of Public Health. The legal advisor is Rena I. Steinzor, Professor at the University of Maryland School of Law.

The first report of the Swann Park Task Force, released in July 2007, was an examination of the historical events that caused contamination at Swann Park to go unrecognized for 30 years. The Task Force determined that key information about high levels of arsenic in the park known to Allied Chemical was not shared with the committee established in 1976 to assess the safety of the park. The report found that, "Had the [1976] Task Force been aware of the full scope of the contamination, they might have sought additional remedial action or disclosed the information to the public."

The next action of the Task Force was to review research conducted in the late 1970s by Johns Hopkins investigators on arsenic in Swann Park. The Task Force found that although a public health researcher working with the Environmental Protection Agency (EPA) documented excess cancer mortality from 1966 to 1974 in men living nearby, this report was not shared with the committee meeting in 1976 or with the community. In a

letter to the Mayor, the Task Force urged greater cooperation between researchers and policymakers in Baltimore.

This final report focuses on the implications of Swann Park for Maryland's future environmental policy. The Task Force used the example of Swann Park, asking what checks, had they been in place, could have prevented the condition of the park from remaining undiscovered for so long.

Working with the Maryland Department of the Environment, the panel investigated the public's access to information about sites of concern; the system used to prioritize sites; and the resources available for clean-up. The Task Force found that barriers exist at each of the three stages. Specific findings and recommendations follow. The Task Force appreciates the cooperation and input of the Maryland Department of the Environment.

### **Findings and Recommendations**

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- **There is no single, easily accessible list of contaminated sites that pose a potential threat to public health and the environment in Maryland. The Maryland Department of the Environment makes large amounts of information on contaminated sites available to the public through its website. However, the site is difficult to navigate. The Task Force recommends that the Maryland Department of the Environment establish a single complete list of contaminated waste sites in the state and make it easily accessible by the public. It should also be clear to the public which sites require remediation, which sites are inactive, which sites were determined not to be hazardous, and other important determinations.**

Identifying sites in need of environmental assessment and making their presence known are necessary first steps to safeguarding public health and informing the community of potential hazards.

One reason that serious arsenic contamination was not discovered at Swann Park until 2007 is that the park was never listed publicly as a site of concern at any point in its history. In 1976, Swann Park was not identified as needing further remediation in part because Allied Chemical did not disclose its soil testing results showing high levels of arsenic in the park and scientific, technological, and bureaucratic limitations of the time prevented this failure from being brought to light.

Federal and state laws on exposure to contaminated sites and waste management are complex and apply different standards to different types of contaminated sites. In 1980, in the wake of contamination at Love Canal in New York, Congress enacted the Superfund law.<sup>1</sup> This law created a tax on certain polluting industries and gave the federal government wide authority to protect the public health and environment from

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<sup>1</sup> The federal Superfund act (CERCLA) is codified at 42 U.S.C. §§9601 *et seq.* The federal Emergency Planning and Community Right-to-Know Act is codified at 42 U.S.C. §§ 11001 *et seq.*

toxic spills. The Superfund law also provided for public participation at various steps in the identification and clean-up process.

Congress passed the 1986 Emergency Planning and Community Right-to-Know Act in the wake of the Bhopal, India tragedy. The law created requirements for industry and government on the reporting of toxic chemicals. Requirements cover notification for more than 700 chemicals.

Maryland adopted versions of both of these laws.<sup>2</sup> These laws and their accompanying rules require the creation of a “State Master List” for sites at which the release or threatened release of a hazardous substance is suspected or confirmed and a “Disposal Site Registry” for the prioritized listing of sites with confirmed releases.<sup>3</sup>

In the 2008 Maryland Legislative Assembly, the Maryland Department of the Environment developed successful legislation, already signed by the Governor, which further strengthens reporting requirements. Beginning on October 1, 2009, this legislation requires responsible parties to report any environmental assessments or sample results indicating the release of a hazardous substance to the Department. The Department has the authority to set reportable thresholds for this requirement.

Taken together, all of these federal and state laws recognize that sunshine is an important element in identifying and addressing possible community health hazards. For this goal to be accomplished, the public must have easy access to information about hazardous sites.

Maryland makes available considerable amounts of information about contaminated sites online through the Maryland Department of the Environment’s website. These contaminated sites are generally organized into 10 categories (Appendix). The Task Force appreciates how much information is accessible online. The way this information is presented, however, poses several challenges to the public’s interest in ascertaining the status of sites in their communities.

A person who wants to find out information about a specific location must navigate across several links on the Maryland Department of the Environment’s website to a satellite mapping system that contains another link to “fact sheets” (some of which are missing) before locating 134 sites of concern in the city. The page listing the sites is [http://www.mde.state.md.us/Programs/LandPrograms/ERRP\\_Brownfields/mapping/errp\\_factsheets.asp](http://www.mde.state.md.us/Programs/LandPrograms/ERRP_Brownfields/mapping/errp_factsheets.asp).

The list does not link to a map demonstrating where the sites are. A related mapping website is <http://mdeerrp.towson.edu/ERRP>. However, many of the site documents are not accessible through the map.

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<sup>2</sup> The statutes implementing Maryland’s version of CERCLA and EPCRA programs are codified at MD Code, Environment, Title 7, Hazardous Materials and Hazardous Substances.

<sup>3</sup> MD Code, Environment, Title 7 Subtitle 2. COMAR 26.14

The state should compile a single comprehensive list and map of active sites that is easily accessible by the public. This list should include sites in all 10 categories, properties eligible for the Voluntary Cleanup Program, properties being investigated for possible contamination, and any old sites known to the Maryland Department of the Environment that may not fall into existing categories.

It should also be clear to the public which sites require remediation, which sites are inactive, which sites were determined not to be hazardous, and other important determinations.

- **The state's ranking system that prioritizes contaminated sites is poorly communicated to the public. The Maryland Department of the Environment uses two different prioritization tools depending on the legal status of the property. This system has not been clearly explained to the public. The Task Force recommends that the Maryland Department of the Environment use its existing system and data to establish a transparent approach that prioritizes all sites and helps direct resources to those requiring further investigation. Additional funding may be required to initiate such a system.**

Even if Swann Park had been included on an accessible, single list of contaminated sites in Maryland, it may well have escaped attention. Public access is necessary, but may not be sufficient for the timely identification of important environmental hazards.

Maryland also needs a transparent system of prioritization. In the case of Swann Park, the shock of public disclosure of 30-year-old test results moved the Park to the top of the agenda. Once Swann Park was identified as a site of concern, testing returned results within several weeks and found elevated levels of arsenic. Swann Park was closed the same day, the Maryland Department of the Environment rapidly negotiated a cleanup plan with responsible parties, and remediation is underway.

Many other sites are not cleaned up as quickly as Swann Park. Factors in the speed of clean-up include accessibility, current and future use of the site, and the financial resources of the responsible party. Given the potential for delays, it is important for the public to understand the urgency of each site.

The Maryland Department of the Environment currently uses two scoring systems to evaluate risk or potential risk to human health and the environment. One is the Hazard Ranking System developed by U.S. EPA, which assigns risk based upon characteristics of the waste, the pathways of exposure to communities who live nearby, ground water migration, surface water migration, soil exposure, and air migration. The other scoring system gives points based on the severity of contamination and other factors. Whether sites are scored by one or the other method depends on their regulatory status.

It is difficult for the public to access information about the priority scores of contaminated sites in Maryland. Yet without easy access to such information, it is challenging for the public to understand the risk of nearby sites.

The Task Force recommends the Maryland Department of the Environment build upon existing prioritization efforts by adopting a transparent classification system across sites. This system could begin with the basic “high, medium, and low” priority distinctions.

Using existing priority systems already followed by the Maryland Department of the Environment, and considering other priority systems used in other circumstances,<sup>4</sup> steps could involve:

1. A site inventory that determines past land use using historic public records such as real estate tax assessments, health department and the Maryland Department of the Environment archives, manufacturing directories and standard industrial codes;
2. A substance score based on chemical information such as the hazard potential and persistence in soil of materials used in past processes or released on the site; and
3. A site specific score based on public health information such as duration of industrial use, potential pathways of exposure, surrounding land use, possible exposed populations, higher levels of environmentally related disease and death, and cumulative effects of other sites.

The need for soil sampling might be determined depending on the findings at each step or by a final ranking. Once this system is established, all sites on the universal list should be scored as rapidly as possible.

Making this basic classification available to the public would help foster public understanding of the challenges of contaminated waste sites, preventing future Swann parks. Heightening the transparency of the process would also yield greater involvement of municipalities, community members, and other stakeholders.

Once the Maryland Department of the Environment has developed a clear and accessible system of characterizing and prioritizing sites, it must have the resources needed to take action.

- **The Maryland Department of the Environment does not have sufficient resources to undertake proactive and timely enforcement of state regulations to monitor and pursue site cleanup by responsible parties. The Task Force recommends that, in the face of budgetary constraints, the Maryland**

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<sup>4</sup> The system could rely on methods such as those used by the Armed Forces Medical Intelligence Center in Bosnia to assess danger to staff, or assessments made by companies within the environmental insurance industry to determine the potential environmental risk of development sites. See Jill S. Litt and Thomas A. Burke. “Uncovering the Historic Environmental Hazards of Urban Brownfields.” *Journal of Urban Health*. December 2002; 79.4: 464 – 481.

**Department of the Environment invest in the staff required to more strongly enforce the “polluter pays” principle inherent in State and federal laws.**

The Maryland Department of the Environment’s authority to address instances of industrial contamination in residential areas stems from and includes stringent provisions for reporting, assessing, and cleaning up such problems.<sup>5</sup>

The remediation of contaminated waste sites is typically costly and time-consuming because the sites contain large quantities of hazardous waste, and recordkeeping about what was dumped when and where is incomplete or non-existent. Because Congress and the Maryland General Assembly were reluctant to place the economic burden of cleanup on the general taxpayer, federal and state Superfund statutes are based on a “polluter pays” principle. This principle holds that industries that benefited from short-sighted dumping practices should be made to remedy the damage they caused as well as face additional penalties for any attempts to avoid liability.

Once a contaminated waste site is identified and placed on federal or state priority lists, the government has the authority to investigate to the point that it has identified enough liable or “responsible” parties to undertake cleanup. Under joint and several liability, government officials can select a small group of such parties and compel them to clean up the entire site. The original targets are then motivated to find other “joint tortfeasors” and demand that the second group defray these costs.

As with the identification of the contaminated waste sites, federal and state Superfund statutes cast a wide net with respect to those considered liable. Such parties include (1) past and present owners of the site; (2) past and present operators of the site; (3) generators of hazardous waste sent to the site; and (4) transporters who trucked in or otherwise brought wastes to the site. In another expansion of Superfund’s stringent liability provisions, successor corporations to the original owner or operator are often held liable for past dumping that occurred before a company changed hands.

EPA and the Maryland Department of the Environment have three options for site remediation. First, the agencies can identify parties responsible for a site, pursue enforcement through legal action and wait for an order from a judicial or administrative hearing to compel the responsible parties to pay for the remediation as well as any monetary damages as penalties for violations. Alternatively, the agencies can enter into a settlement with responsible parties who agree to conduct cleanup. These two routes are known as “lawyers first, shovels later.”

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<sup>5</sup> The following description of the federal and Maryland state Superfund programs is excerpted from a Memorandum on the legal implications of Swann Park by Professor Rena Steinzor, Legal Advisor to the Swann Park Task Force.

The third option is for the agencies to remediate a site with money from their own funds and recover costs from liable parties after the fact. This route is known as the “shovels first, lawyers later” approach. The agencies have used all three approaches successfully.

In order to allow for remediation at sites where no responsible party can be located (often called “orphaned sites”), Congress allocated billions of dollars to a national bank account known as the “Superfund.” This fund, which totaled approximately \$1.5 billion annually, was primarily supported by industry taxes, supplemented by some \$211 million to be drawn from general taxpayer revenues. In 1995, industry taxes expired and Congress has never extended them. Although Superfund reserves and appropriations from general revenue blunted the initial impact of the lost tax revenues, the program eventually ran out of money. During the current administration, annual “construction completions” dropped in half until 2007, when they dropped by 75 percent.

Like the federal program, Maryland’s cleanup effort has not had an adequate, stable source of funding for well over a decade. In the mid-1990s, an IRS ruling prohibiting the use of tax-free bonds for implementation of state Superfund programs cut off access to millions of dollars in funding. Since that time, the program has been funded at a fraction of what is needed. Funding levels for cleanup at the 17 National Priorities List sites and some 660 state-listed sites now stand at \$5.6 million appropriated and \$5.1 million encumbered. The Maryland Department of the Environment funding for site investigation, remedial action supervision, and enforcement have fluctuated from \$2.1 million in FY 2005 to \$1.9 million in FY 2006 to \$2.4 million in FY 2007.

As a result of inadequate funding, Maryland has not had sufficient resources to assess and fix all the contaminated sites it has identified, nor has it aggressively identified and enforced cleanup by responsible parties. A better approach, in the absence of adequate resources, is to strategically target those problems that return a better investment on limited state dollars.

In order to locate and work with responsible parties, the Maryland Department of the Environment needs more staff to investigate sites and make the case for cleanup. For at least the last three years, the Land Restoration Program has had funding for programmatic activities in the vicinity of only \$2 million annually. Two attorneys are available to provide legal advice with respect to the approximately 660 sites for which the state is responsible, as well as 17 federal priority sites. There is little support for the essential assessment services of geologists, hydrologists, and toxicologists.

Federal funding should be made available to help the Maryland Department of the Environment investigate the nature and scope of contamination at identified sites. In the end, however, the state must commit additional resources if it hopes to revive the cleanup program. The Task Force recommends that such funding be committed primarily to enforcement.

As the case of Swann Park indicates, initial investment in locating and working with a responsible party can yield large returns. Once Swann Park was identified, assessed, and

prioritized, it was quickly placed under a remediation plan approved by the Maryland Department of the Environment and financed by Honeywell, Allied's successor. The future park design is currently being coordinated by Honeywell and Baltimore City, ground is due to be broken shortly, and the park is scheduled to reopen in Spring 2009.

While the remediation of Swann Park should prove to be a success, other sites could continue to pose potential threats to public health. Removing barriers to the accessibility, intelligibility and completeness of site lists, applying a basic health screening assessment to all sites, and targeting proactive enforcement to those sites with responsible parties could prevent future stories like Swann Park.

## APPENDIX

The Maryland Department of the Environment uses the following ten lists and categories to identify contaminated waste sites:<sup>6</sup>

- 1) **National Priorities List:** the nation's most severely contaminated hazardous waste sites that are generally addressed under the lead of the EPA.<sup>7</sup> The Maryland Department of the Environment's website identifies two sites on this list in Baltimore.<sup>8</sup>
- 2) **State Master List:** potential hazardous waste sites in Maryland. This list includes sites identified by the EPA's Comprehensive Environmental Response, Compensation and Liability Information System. The Maryland Department of the Environment's website identifies 29 sites on this list in Baltimore.
- 3) **State Non-Master List:** sites that are under investigation or have been previously investigated but are not listed on the State Master List. The Maryland Department of the Environment's website identifies two sites on this list in Baltimore.
- 4) **Voluntary Cleanup Program List:** properties that have applied to, are currently in, or have completed the Voluntary Cleanup Program.<sup>9</sup> The Maryland Department of the Environment's website identifies 83 sites on this list in Baltimore.
- 5) **Brownfields Revitalization Inventory List:** properties for which a "Brownfields Assessment" has been or is being conducted. The Maryland Department of the Environment has not developed a Brownfields list because of the stigma that may be attached to the sites included on such a list. However, some local jurisdictions and municipalities have compiled information on underutilized properties. Baltimore, for example, has developed a Geographic Information System (GIS) inventory of vacant and underutilized industrial and commercial sites. This GIS inventory provides site-specific information on more than 1,000 properties citywide with special emphasis on properties within the Empowerment Zone.<sup>10</sup>

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<sup>6</sup> Accessed January 25, 2008 at [http://www.mde.state.md.us/Programs/LandPrograms/ERRP\\_Brownfields/mapping/errp\\_factsheets.asp](http://www.mde.state.md.us/Programs/LandPrograms/ERRP_Brownfields/mapping/errp_factsheets.asp).

<sup>7</sup> A map of NPL sites in Maryland can be found at [http://www.mde.state.md.us/Programs/LandPrograms/Hazardous\\_Waste/popUp/npl.asp](http://www.mde.state.md.us/Programs/LandPrograms/Hazardous_Waste/popUp/npl.asp)

<sup>8</sup> One of the sites, the 68<sup>th</sup> Street Dump, is labeled a Superfund Alternative Site (SAS). According to the Maryland Department of the Environment, "In the SAS process, Potentially Responsible Parties (PRPs) enter into an agreement that commits them to clean up the site in the same manner as if it were listed on the NPL. The SAS process allows portions of the site to be remediated and redeveloped in order to generate funds for the overall project." Accessed January 25, 2008 at [http://www.mde.state.md.us/assets/document/brownfields/68th\\_Street\\_Dump.pdf](http://www.mde.state.md.us/assets/document/brownfields/68th_Street_Dump.pdf).

<sup>9</sup> A complete list of VCP applicants and participants can be found at <http://www.mde.state.md.us/assets/document/brownfields/vcpapplicants.pdf>.

<sup>10</sup> For information about the Baltimore City GIS inventory, please contact the Baltimore City Department of Planning at 410-396-8356. For other jurisdictions, contact the local environmental health or economic development office.

The Maryland Department of the Environment's website identifies 10 sites on this list in Baltimore.

- 6) **Formerly Investigated Site List** (containing sites that have been archived): sites that formerly were on the State Master List, but were moved to this list because the Maryland Department of the Environment has decided, on the basis of available information, to take "no further action" at the property. The Maryland Department of the Environment's website identifies four sites on this list in Baltimore.
- 7) **Base Realignment and Closure List:** Department of Defense facilities that have been closed under federal Base Realignment and Closure legislation. The environmental conditions of these facilities must be adequately evaluated and appropriate cleanup measures taken in order for the Department of Defense to transfer them for reuse. The Maryland Department of the Environment's website identifies one site on this list in Baltimore.
- 8) **State Deferral Site List:** sites from the National Priorities List that have been "deferred" to the Maryland Department of the Environment from the EPA for action if it is appropriate and the State has the necessary resources and expertise to address a site.<sup>11</sup> The Maryland Department of the Environment's website does not identify any sites on this list in Baltimore.
- 9) **Federal Facility List:** sites under the jurisdiction, custody or control of the Secretary of the Department of Defense that are being assessed, evaluated, or remediated in compliance with the Comprehensive Environmental Response, Compensation and Liability Act. The Maryland Department of the Environment's website does not identify any sites on this list in Baltimore.
- 10) **Formerly Utilized Defense Sites List:** sites that were once used by the military and may have suffered environmental contamination as a result of the military's activities. These sites are no longer under the jurisdiction, custody or control of the Secretary of the Department of Defense. The Maryland Department of the Environment's website does not identify any sites on this list in Baltimore.

Three Baltimore sites on the Maryland Department of the Environment's website are not categorized.<sup>12</sup>

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<sup>11</sup> pursuant to a "Deferral Agreement" between the Maryland Department of the Environment and EPA Region III.

<sup>12</sup> 3800 E. Biddle Street, F. Bowie Smith and Son, and Former Southern Can Company. Accessed January 25, 2008 at [http://www.mde.state.md.us/assets/document/brownfields/3800\\_E\\_Biddle.pdf](http://www.mde.state.md.us/assets/document/brownfields/3800_E_Biddle.pdf).  
[http://www.mde.state.md.us/assets/document/brownfields/F\\_Bowie\\_Smith.pdf](http://www.mde.state.md.us/assets/document/brownfields/F_Bowie_Smith.pdf)

[http://www.mde.state.md.us/assets/document/brownfields/Former\\_Southern\\_Can\\_Company.pdf](http://www.mde.state.md.us/assets/document/brownfields/Former_Southern_Can_Company.pdf)