UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

AUG 3 2007

SUBJECT: Action Memorandum - Request for Removal Action and Exemption from the $2 Million Statutory Limit at the Sauer Dump Site, Baltimore County, Baltimore, MD

FROM: James Burke, Director
Hazardous Site Cleanup Division (3HS00)

TO: Susan Bodine, Assistant Administrator
Office of Solid Waste and Emergency Response (5101)

THRU: Debbie Dietrich, Director
Office of Emergency Management (5201)

ATTN: Gilberto Irizarry, Director
Program Operations and Coordination Division (5104A)

ISSUE

The attached Action Memorandum is to request a 12-Month Exemption and Change in the Scope of Work for the Sauer Dump Site (Site). The initial Action Memorandum, signed September 26, 2005, requested a Time Critical Removal Action and Exemption from the $2 Million Statutory Limit and is attached for reference. Since the initial Action Memorandum was signed, two actions have been conducted by the Potentially Responsible Parties (PRPs); the first action provided temporary stabilization of the Site, while the second action was performance of an additional extent of contamination assessment. EPA has now determined that a Change in the Scope of Work at the Site is necessary in order to provide for revised cleanup levels for sediments and to provide cleanup levels for soils on residential properties and in groundwater.

Contamination at the Site is present in the soils, groundwater, surface water, and sediments in the wetlands and adjacent shoreline areas. EPA and Maryland Department of the Environment conducted assessments at the Site between 1985 and 2005. In 2006, the PRPs conducted an additional assessment to further identify the extent of contamination. PCBs are present in the soil at concentrations as high as 33,000 parts per million (ppm (mg/kg)), while lead has been observed at concentrations of up to 27,000 ppm. Sediment samples collected in wetlands at the Site indicate PCBs concentrations as high as 38.7 ppm, while lead concentrations in the same area ranged up to 4,800 ppm. Surface water in the Back River and wetlands adjacent to the Site have concentrations of total PCBs of 0.084 micrograms per liter (ug/l) and lead of 3.4 ug/l. The EPA National Recommended Water Quality Criterion Continuous Concentration (CCC) for

PCBs is 0.03 ug/l. The CCC is an estimate of the highest concentration of a pollutant in surface water to which an aquatic community can be exposed indefinitely without suffering an unacceptable effect. Fish consumption advisories have been issued by the State of Maryland for a variety of fish within the Back River because of concentrations of PCBs in fish tissue.

Further investigation revealed four additional Potential Responsible Parties who are being named in a forthcoming order to conduct a final removal action to cleanup the Site. Conditions at the Site continue to meet the criteria set forth in *Section 300.415 of the NCP, 40 CFR §300.415*, supporting the need for a Removal Action and meets the criteria for an emergency exemption from the limit pursuant to Section 104(c)(1)(A) of CERCLA, 42 U.S.C. § 9604(c)(1)(A). The Region finds that conditions at the Site described above and in the attached Action Memorandum constitute a public health threat warranting time-critical attention and no other person or agency with authority can respond in a timely manner to complete the actions. The attached Action Memorandum approves a Removal Action Estimated Project Ceiling of $3,085,000 of which an estimated $2,700,000 are from the Regional Removal allowance. This allocation will enable Region III to properly stabilize the facility and complete actions necessary to protect public health and welfare and to minimize releases of hazardous substances to the environment.

Attachment: Action Memorandum

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

AUG 3 — 2007

SUBJECT: Request for 12-Month Exemption and Change in Scope of Response at the Sauer Dump Site, Action Memorandum
Baltimore County, Baltimore, MD

FROM: Richard Rupert, On-Scene Coordinator
Eastern Response Branch (3HS31)

TO: James Burke, Director
Hazardous Site Cleanup Division (3HS00)

THRU: Dennis P. Carney, Associate Director
Office of Preparedness and Response (3HS30)

I. PURPOSE

The purpose of this Action Memorandum is to request a 12-Month Exemption and Change in the Scope of Work at the Sauer Dump Site (Site). The initial Action Memorandum, signed September 26, 2005, requested a Time Critical Removal Action and Exemption from the $2 Million Statutory Limit and is attached for reference. Since the initial Action Memorandum was signed, two actions have been conducted by the Potentially Responsible Parties (PRPs); the first action provided temporary stabilization of the Site, while the second action was performance of an additional extent of contamination assessment. EPA has now determined that a Change in the Scope of Work at the Site is necessary in order to provide for different cleanup levels for sediments and to provide cleanup levels for soils on residential properties and in groundwater.

The Site is located adjacent to/behind 4225 Lynhurst Road, Dundalk, Baltimore County, Maryland, 21222 (39° 27' 22" North latitude, 76° 45' 25" West longitude) and is further depicted on the map of the Site attached hereto as Attachment A. The major portion of the Site is owned by Wittstadt Hunting Club, Inc., while the remainder of the Site is made up of numerous residences, which lie adjacent to the Wittstadt Hunting Club. The Site is an inactive landfill and former dump. A continued response action at this Site is necessary to address threats to human health, welfare and the environment posed by debris, soils and sediments contaminated with polychlorinated biphenyls (PCBs) and lead. The Site is located in a residential neighborhood and is partially bordered by wetlands and the Back River, a tributary to the Chesapeake Bay. Contaminated debris, soils and sediments will be excavated and disposed of off-site and selected portions of the Site will be capped with an appropriate cover system.

The On-Scene Coordinator (OSC) has determined that the Site continues to meet the criteria for initiating a Removal Action under Section 300.415 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and Section 104 of the Comprehensive

Environmental Response, Compensation, and Liability Act, as amended (CERCLA), 42 U.S.C. § 9604. The actions necessary to abate the threats at this Site are anticipated to require more than twelve (12) months for completion due to the delays inherent in proceeding with enforcement activities.

II SITE CONDITIONS AND BACKGROUND

The CERCLIS ID number for the Sauer Dump Site is MDD981038334. Current conditions at the Site necessitate a Time Critical Removal Action. The Site is composed of several properties including all of parcel 425 and parts of parcels 574, 503, 464, 295 and 137, as shown in Attachment A. The Site is a partially wooded lot, which includes wetlands and shoreline, which was formerly an unpermitted dump.

Subsequent to the approval of the initial Action Memorandum, several PRPs were identified. EPA issued two Unilateral Administrative Orders to some of these PRPs to conduct actions to mitigate threats and to assess the Site. These two orders, and the actions that have been completed since the initial Action Memorandum was signed, are described below:

1. On December 8, 2005, an Administrative Order for Removal Response Action (Order), Docket No. CERC-03-2006-0030DC, was issued pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a). This Order required temporary mitigative actions to prevent further erosion and to prevent access to the Site by unauthorized individuals. The requirements of this Order were fulfilled in February 2006.

2. On August 18, 2006, an Order, Docket No. CERC-03-2006-0239DC, was issued pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a). This Order required performance of an extent of contamination study to supplement and update earlier assessments of the Site. A final report of activities conducted pursuant to this Order was submitted to EPA on April 27, 2007. The April 2007 report confirmed that PCB and lead contamination is present in soils, groundwater, and sediments at the Site. Additionally, PCB contamination was discovered on residential properties, which make up part of the Site.

Currently, there are several small structures and numerous old vehicles, such as cars, trucks, and boats, located on the Site. A fence, which was erected in January 2006, restricts access by the public to the most contaminated areas of the Site. The Site is comprised of former marshy land, which was landfilled by the owner of an adjacent property, Mr. Frederick (Fritz) Sauer, in the 1960s and 1970s. Fritz Sauer, who is now deceased, used the Site as a salvage yard/dump/landfill in the 1960s, 1970s, and 1980s. The Site's historical usage as a salvage yard/dump/landfill operation resulted in the improper storage and disposal of hazardous substances and the consequent release of these hazardous substances into the environment. Assessments conducted of the Site between 1985 and 2007 by EPA, the Maryland Department of the Environment (MDE), and the PRPs indicate that concentrations of semi-volatile organic compounds (SVOCs), metals, PCBs, and pesticides in soil and sediment exceed various risk-based screening levels. PCBs and lead are the primary contaminants of concern due to their extremely elevated concentrations.

A. Site Description

1. Removal Site Evaluation

A removal site evaluation has been completed consistent with 40 C.F.R. § 300.410 and has revealed evidence of the release of hazardous substances at the Site. Contamination at the Site is present in the soils, groundwater, surface water, and sediments in the wetlands and adjacent shoreline areas. EPA and MDE conducted assessments at the Site between 1985 and 2005. In 2006, the PRPs conducted an additional assessment to further identify the extent of contamination. PCBs are present in the soil at concentrations as high as 33,000 parts per million (ppm (mg/kg)) while lead has been observed at concentrations of up to 27,000 ppm. Sediment samples collected in wetlands at the Site indicate PCBs concentrations as high as 38.7 ppm, while lead concentrations in the same area ranged up to 4,800 ppm. Surface water in the Back River and adjacent wetland have concentrations of total PCBs of 0.084 micrograms per liter (ug/l) and lead of 3.4 ug/l. The EPA National Recommended Water Quality Criterion Continuous Concentration (CCC) for PCBs is 0.03 ug/l. The CCC is an estimate of the highest concentration of a pollutant in surface water to which an aquatic community can be exposed indefinitely without suffering an unacceptable effect. Fish consumption advisories have been issued by the State of Maryland for a variety of fish within the Back River because of concentrations of PCBs in fish tissue.

In December 1991, EPA conducted an Expanded Site Investigation (ESI) of the Site. Based on this ESI, a Hazard Ranking System score of fifty (50) was calculated. Salvage and disposal operations were observed on-Site at that time. Salvage items, such as scrap metal, empty tanks and drums, derelict cars and trucks, tractor-trailers, roll-off containers, and heavy construction equipment, were observed at the Site. In addition to these items, charred areas, burned paint waste, and a wood chip mound were also noted. Oil spill areas (areas where oil was apparently dumped) and an oily sheen were observed on the water in adjacent wetland areas. Early reports suggest that the Site had been used to store up to 250 drums, which were reported to have contained oil and lubricants. Extensive sampling was conducted during this ESI and contaminant concentrations in surficial soil, sediments, and surface water were detected above respective risk-based screening levels. A 21,700 square foot area of contaminated soil was also identified.

Field investigations were conducted by MDE between 2001 and 2005 in order to develop a Remedial Investigation/Feasibility Study (RI/FS). Areas of exceptionally high PCBs contamination were noted during these investigations. Observations from examining the test pits excavated at the Site indicate that the fill is made up of miscellaneous debris, such as wood, plastic, metal, rubber, brick, sand, black sand/soil, concrete/concrete castings, asphalt, ash, paint/paint containers, batteries, crushed drums, railroad ties, Styrofoam, and a white/gray powdery substance. In one of these test pits, an object suspected to be an electrical transformer of approximately 35-gallon capacity was discovered. This suspected transformer was leaking oil, which contaminated the adjacent soils with PCBs at a concentration of 33,000 ppm. Approximately 3,000 cubic yards of soil contaminated with PCBs in excess of 25 ppm were identified in the RI.

In March 2005, the OSC inspected the Site and observed that the test pits that had been excavated during the earlier investigations, as well as areas of known elevated PCBs and lead contamination, were now covered only with plastic sheeting.

2. Physical location

The Site is located adjacent to/behind 4225 Lynhurst Road, Dundalk, Baltimore County, Maryland, 21222 (39° 27' 22" North latitude, 76° 45' 25" West longitude) and is approximately four (4) acres in size. Attachment A shows the location of the Site and the surrounding regional topography and surface water hydrology as depicted on the United States Geological Survey (USGS) 7.5-minute series Middle River Quadrangle Map. The elevation of the Site ranges from approximately mean sea level to nearly seventeen (17) feet above mean sea level. A mounded area, present in the western and central portions of the Site, exhibits the irregular topography typically associated with dumpsites. The topography along the eastern and southern portions of the Site is generally more level.

The Back River, a tributary of the Chesapeake Bay, borders the Site to the south. A tidal wetland area is present along the southern border of the Site adjacent to the Back River. Non-tidal wetland areas are present on adjacent properties along the northwestern, southwestern, and southeastern borders of the Site. A pond is present in the northwest corner of the Site in a non-tidal wetland area.

There are over 1,000 residences within one (1) mile of the Site, more than forty (40) of which are located within 1300 feet of the Site. The area is mainly suburban residential with some light industrial areas. Residential properties border the Site to the northeast, east, and southeast, while undeveloped land borders the Site to the northwest, west, and southwest.

3. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

PCBs and lead present in the soils, sediment and water on Site are "hazardous substances," as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

Assessments conducted by EPA and MDE of the Site have documented the presence of various contaminants that may pose human health and ecological hazards; however, PCBs and lead have been identified as the primary contaminants of concern. PCBs are present in concentrations up to 33,000 ppm and lead is present in concentrations up to 27,000 ppm. Contamination from PCBs and lead are present across the Site. There are two areas where the contamination appears to be most concentrated, with PCBs concentrations exceeding 100 ppm and lead concentrations exceeding 8,000 ppm. Site characterization indicates that one of these areas is somewhat limited in size while the other is more highly contaminated and larger in areal extent and volume. In aggregate, there are approximately 3,000 cubic yards of soils contaminated with PCBs at greater than 25 ppm of which approximately 900 cubic yards are at concentrations greater than 100 ppm PCBs.

PCBs have been demonstrated to cause a variety of serious health effects. PCBs have been shown to cause cancer and a number of serious non-cancer health effects in animals, including

effects on the immune system, reproductive system, nervous system, and endocrine system. Studies in humans provide supportive evidence for the potential carcinogenic and non-carcinogenic effects of PCBs. The different health effects of PCBs may be interrelated, as alterations in one system may have significant implications for the other regulatory systems of the body.

Lead is a suspected carcinogen in the lungs and kidneys. Human systemic effects by ingestion and inhalation are loss of appetite, anemia, malaise, insomnia, headache, irritability, muscle and joint pains, tremors, hallucinations, distorted perceptions, muscle weakness, gastritis, and liver changes. Lead also affects the human nervous system, the blood system, and the kidneys. Chronic exposure can lead to irreversible vascular sclerosis, tubular cell atrophy, interstitial fibrosis, and glomerular sclerosis. Severe toxicity can cause sterility, spontaneous abortion, and neonatal mortality and morbidity.

The Site was evaluated by the Agency for Toxic Substances and Disease Registry (ATSDR) in December 2002. The ATSDR report is attached as Attachment B. ATSDR concluded:

a) "Contaminants, i.e., lead and PCBs detected in surface soil samples at this Site pose a public health hazard for a residential setting;"

b) "PCBs detected in sub-surface soil samples at this Site may pose a public health hazard if gardening or construction activities involving digging or trenching bring contaminated soil to the surface."

Currently, the Site appears to be used for vehicle maintenance and storage and is reported to be used for duck hunting during the autumn. There are several small structures, as well as numerous derelict vehicles, on-Site. The Site is also apparently used for driving all terrain vehicles, such as motorcycles, which has caused eroding, exposing and spreading of contaminated soils, and thereby has expanded the areal extent of the Site boundaries. Access to the Site is only partially restricted and members of the public, including children in the neighborhood, can easily gain access to the most highly contaminated areas of the Site allowing contamination to be tracked from the Site to nearby residences.

Much of the Site is located in the flood plain of the Back River and is subject to extensive flooding and erosion during weather events such as tropical storms and hurricanes. Erosion has caused hazardous substances, including PCBs and lead, to be released and to migrate from the Site into "navigable waters" as defined in Section 502 of the Clean Water Act, 33 U.S.C. §1362. Further erosion will occur during future storms.

Conditions at the Site likely contribute to the need for fish consumption restrictions and advisories in the Back River due to PCBs contamination in fish tissue. Bioaccumulation begins from the base of the food chain in organisms closely associated with soils and sediments (local hotspots are significant even for species that have large foraging ranges) and PCBs tissue concentrations biomagnify in higher trophic level species. Recreational fisheries exist in the Back River and recreational and commercial fisheries exist in the Chesapeake Bay. Migratory fish, such as striped bass, shad and herring are exposed to and bioaccumulate PCBs in their tissue before migrating out into the Chesapeake Bay. PCBs also accumulate in higher-level predators

in the ecosystem such as piscivorous birds (e.g., osprey, Great Blue Heron) and aquatic and semi-aquatic mammals (e.g., muskrat, mink). PCBs have been linked to reproductive and developmental effects in many animals including fish and mammals.

Proper disposal of PCBs greater than 50 ppm is required by 40 C.F.R. §761.50. 40 C.F.R. Part 761 (commonly referred to as the PCB Rule) also prohibits discharges to navigable waters of PCBs greater than 3 micrograms per liter unless the discharge is in accordance with a PCB discharge limit included in a permit issued under Section 402 of the Clean Water Act, 33 U.S.C. § 1342. The Site has no such permit. Region III's "Hazard Evaluation Handbook, A Guide to Removals Action, Fourth Edition" indicates a Removal Action value of 286 ppm for PCBs, indicating a Removal Action is appropriate when PCBs concentrations exceed 286 ppm. Samples collected from the Site indicate the presence of PCBs contamination as high as 33,000 ppm.

4. NPL Status

This Site is not presently on the National Priorities List (NPL). In December 1991, EPA conducted an Expanded Site Investigation (ESI) of the Site. Based on this ESI, a Hazard Ranking System score of fifty (50) was calculated.

B. OTHER ACTIONS TO DATE

No actions have been taken at the Site other than assessment activities, as detailed above, by the State of Maryland, EPA, and the PRPs, and stabilization actions performed by the PRPs pursuant to the December 8, 2005 Order.

C. STATE AND LOCAL AUTHORITIES' ROLES

MDE has completed an RI/FS for the Site but does not have the necessary resources to conduct a comprehensive cleanup. In March 2005, MDE requested that EPA assist in the cleanup of the Site. Due to a change in the enforcement status of the Site, MDE has no funding available. MDE continues to assist the OSC with the assessment of the Site as resources permit and the OSC will continue to coordinate activities with MDE and other authorities, as appropriate. No other State or local authorities have indicated the availability of resources to address the contamination or to conduct a Removal Action in a timely manner at the Site.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES:

Section 300.415 of the NCP (40 C.F.R. § 300.415) lists the factors to be considered in determining the appropriateness of a removal action. Paragraphs (b)(2)(i), (ii), (iv), (v) and (vii) of Section 300.415 directly apply as follows to the conditions at the Sauer Dump Site:

A. **40 C.F.R. § 300.415(b)(2)(i)** **Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby human populations, animals, or food chain.**

Access to the Site is only partially restricted and members of the public, including children in the neighborhood, can gain access to the most highly contaminated areas of the Site. Evidence is apparent of the use of all-terrain vehicles, such as motorcycles, which has caused eroding, exposing and spreading of contaminated soils. As indicated in Section II. A. 3., ATSDR evaluated the Site in December 2002 and found, among other things, that:

1. "Contaminants, i.e., lead and PCBs detected in surface soil samples at this Site pose a public health hazard for a residential setting;"

2. "PCBs detected in sub-surface soil samples at this Site may pose a public health hazard if gardening or construction activities involving digging or trenching bring contaminated soil to the surface."

Conditions at the Site likely contribute to the need for fish consumption restrictions and advisories in the Back River due to PCB contamination in fish tissue. Recreational fisheries exist in the Back River and recreational and commercial fisheries exist in the Chesapeake Bay. Hazardous substances released at and from the Site will bioaccumulate in the food chain. Bioaccumulation poses a threat to migratory birds and potentially to human receptors ingesting aquatic organisms such as fish, shellfish and/or crustaceans from the contaminated environment. PCBs and lead have been found at the Site in concentrations in excess of the applicable EPA regulations and guidelines requiring their removal. PCBs are present in concentrations up to 33,000 ppm and lead is present in concentrations up to 27,000 ppm.

B. **40 C.F.R. § 300.415(b)(2)(ii)** **Actual or potential contamination of drinking water supplies or sensitive ecosystems.**

PCBs and lead have been found in sediments adjacent to the shoreline on Site at 150 ppm and 3,160 ppm respectively, indicating transport into the food chain of this riverine system. The Back River and associated tributaries, like Herring Run, are very sensitive aquatic ecosystems. These habitats provide spawning and nursery areas for recreational and commercial fish species, including anadramous fish such as striped bass, herring, and shad. These areas also provide foraging and nesting habitats for aquatic and semi-aquatic birds and mammals such as osprey, Great Blue heron, waterfowl, muskrat, mink, and others. Contaminant concentrations at the Site pose the risk of causing adverse biological effects and/or foodchain bioaccumulation to exposed fish, shellfish, crustaceans, birds and mammals and constitute a likely probability of ecological risk to the ecological receptors of the Back River, the Chesapeake Bay, and to the aquatic food chain, as well as to the habitat.

C. **40 C.F.R. § 300.415(b)(2)(iv)** **High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.**

Migration of the PCBs and lead-contaminated soils to the wetlands, sediments and river is evident. PCBs are present in the soils at shallow depths in concentrations up to 33,000 ppm and lead is present in levels up to 27,000 ppm. Soils contaminated with PCBs are eroding and migrating from the Site and discharging to the Back River. Samples collected from the banks of the Back River on the Site indicate a concentration as great as 29 ppm PCBs, while sediment samples adjacent to the shoreline of the Site range as high as 150 ppm of PCBs.

D. 40 C.F.R. § 300.415(b)(2)(v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.

The Site is located in the flood plain of the Back River and is subject to extensive flooding and erosion during weather events such as tropical storms and hurricanes, which are frequent in the area. Most of the Site is subject to tidal flooding during a Category 1 Hurricane, while the entire Site would be affected by these types of storm surges during a Category 2 Hurricane (Western Shore Maryland Hurricane Evacuation Study (HES) Draft Maps and Data - Baltimore County, Baltimore District Army Corps of Engineers). Erosion has caused hazardous substances to be released and to migrate from the Site into navigable waters. Further erosion will occur during future storms.

E. 40 C.F.R. § 300.415(b)(2)(vii) The availability of other appropriate Federal or State response mechanisms to respond to the release.

The State and other response organizations involved in the evaluation of the Site do not have response mechanisms or resources to deal with the threats posed by the Site in a timely manner.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response actions outlined in this funding request, may present an imminent and substantial endangerment to the public health, welfare, or the environment.

V. EXEMPTION FROM STATUTORY LIMITS

A. Emergency Exemption:

1. Immediate risk to public health, welfare, or the environment.

An immediate risk to both public health and the environment is present at the Sauer Dump Site. Erosion caused by both nature and all-terrain vehicles has exposed soil that is highly contaminated with lead and PCBs. The Site is only partially fenced and access by neighborhood children is not restricted. ATSDR evaluated the Site (Section II. A. 3.) and found that a public health threat exists due to the PCBs and lead. This threat is now exacerbated by the disturbed condition of the soil as the result of the soil sampling performed during the RI. On December 8, 2005, an Administrative Order for Removal Response Action, as detailed in Section II. 1. above, required installation of plastic sheeting to prevent erosion and contact with contaminated soils

and a fence to restrict access. The plastic sheeting installed during this action is now completely degraded and the highly contaminated soil at the surface is now subject to erosional forces. Unless immediate action is taken, erosion will accelerate the release of PCBs and lead into the Back River. Additionally, the assessment conducted pursuant to the August 18, 2006 Administrative Order for Removal Response Action discovered PCBs and lead at unsafe levels on residential properties which comprise a portion of the Site.

The Back River and the Chesapeake Bay both have commercial and recreational fisheries, which are being impacted by PCBs and lead from the Site, as described above in Sections II. A. 3. and III. A. and B. Unless action is taken immediately, the release of PCBs will significantly increase and further degrade the food chain of this riverine system.

2. Continued response actions are immediately required to prevent, limit, or mitigate an emergency.

MDE completed an RI/FS at the Site in August 2005. During this RI/FS, several areas of the Site were disturbed and now have contaminant-laden soil exposed to the erosional forces acting upon the Site. This erosion will cause hazardous substances, such as PCBs and lead, to be released to the Back River and subsequently to the Chesapeake Bay. As described above, a Removal Action was conducted pursuant to an Order issued by EPA in December 2005, and plastic sheeting was placed on areas of the Site to mitigate erosion. This plastic sheeting is now completely degraded and the situation is now worse than it was prior to implementation of the December 2005 Order.

Pursuant to the August 2006 Order, samples were collected on the residential properties that make up part of the Site. PCBs and lead were detected in most of the samples with one sample containing PCBs at 48 ppm and lead at 2,720 ppm. As noted in paragraph II. A. 3., ATSDR observed that PCBs and lead pose health risks to human populations at concentrations far less than the concentrations recently found. Additionally, sediment samples collected in the wetland areas indicated PCBs and lead at elevated levels as high as 38 ppm and 595 ppm, respectfully. As noted below at VI. 1. iii., these concentrations are well above the acceptable clean-up levels that were established by a risk based method. In the case of PCBs, 38 ppm is over 200 times greater than the clean-up value determined to be protective.

3. Assistance will not otherwise be provided on a timely basis.

MDE attempted to address the contamination at the Site for several years but managed only to fund an RI/FS. Neither MDE nor any other State or Local organization has the resources to complete a comprehensive response action at Site in the foreseeable future.

VI. PROPOSED ACTIONS AND ESTIMATED COSTS.

A. <u>Proposed Actions</u>

1. Clean-up levels.

As stated in Section I (PURPOSE) EPA has changed the cleanup level for sediments and has added cleanup levels for soils on residential properties and in groundwater as follows:

i.	Soils and debris:	100 ppm total PCBs	400 ppm lead
ii.	Soils on occupied Residential properties:	1 ppm total PCBs	400 ppm lead
iii.	Sediments:	0.140 ppm total PCBs (as determined via summed congener analyses)	130 ppm lead
iv.	Groundwater:	0.017 ug/l total PCBs (as determined via summed congener analyses)	8.1 ug/l lead

The clean-up values above were selected based on the rationale described below.

PCBs in soils and debris, except sediments: 40 C.F.R. § 761.61(a)(1)(ii) states: "The self-implementing cleanup provisions shall not be binding upon cleanups conducted under other authorities, including but not limited to, actions conducted under Section 104 or Section 106 of CERCLA, or Section 3004(u) and (v) or Section 3008(h) of RCRA." However, 40 C.F.R. § 761.61(a)(4)(i)(B)(*3*) was considered in selecting the cleanup levels because a cap will be installed over portions of the Site.

PCBs in sediment: The risk-based process referenced at 40 C.F.R. § 761.61(c) was considered in selecting the cleanup levels. However, based on background concentrations of PCBs in the Back River sediments, the cleanup level was selected to meet background concentrations.

PCBs in Groundwater: The levels of PCBs in groundwater are of concern because PCBs discharge into the Back River and subsequently the Chesapeake Bay. As described above in Sections II. A. 3. and III, the Back River and the Chesapeake Bay both have commercial and recreational fisheries, which are being impacted by PCBs from the Site. The cleanup levels for PCBs in groundwater were set based on several considerations including the National Recommended Water Quality Criteria (2006), (NRWQC) and background concentrations of PCBs found in the Chesapeake Bay. The cleanup number, 0.017 ug/l total PCBs, set at the background concentration of total PCBs in the northern Chesapeake Bay as established in the 2001 Back River Chemical Contaminant Survey Final Report.

Lead in soils and debris, except sediments: OSWER Directive 9355.4-12, issued on July 14, 1994, and later clarified by OSWER Directive # 9200.4-27P, described OSWER's approach to addressing lead in soil at CERCLA and RCRA sites. The directives described a streamlined approach for determining protective levels for lead in soil at CERCLA sites and RCRA facilities.

Lead in sediment: Lead cleanup levels were developed with consideration of MacDonald, DD, CG Ingersoll and TA Berger, 2000. *Development and evaluation of consensus-based sediment quality guidelines for freshwater ecosystems.* Arch. Environ. Contam. Toxicol. 39:20-31

Lead in groundwater: Lead cleanup levels were taken from the NRWQC.

2. Actions.

a. Mobilize personnel and equipment.

b. Restrict access to the Site to protect public health and to lessen the possibility of further erosion. To accomplish this goal, a chain-link fence (or equivalent) will be erected with a minimum of two (2) entrance gates, approximately eight (8) feet in height, surrounding the Site and properly marked with warning signs. The fence will be left in place at the end of the construction period of the removal to continue to restrict access and protect the cover system.

c. To alleviate the release of sediments during the construction phase of the action, develop and construct an erosion control system with the appropriate features detailed in 1994 Maryland Specifications for Soil Erosion and Sediment Control.

d. Dredge, or otherwise take up in an appropriate fashion, and remove for disposal, all contaminated sediments with concentrations of PCBs and lead at levels greater than the respective cleanup standards referenced in item VI.A.1.iii. above. These sediments are located in the wetlands and adjacent shoreline of the Site. Minimize releases of hazardous substances, pollutants or contaminants to the Back River during this activity using appropriate measures.

e. To protect the shoreline of the Site from erosion and the integrity of the containment system, shore protection such as riprap, or gabions and coir logs, of adequate design considerations will be installed.

f. Excavate and remove for disposal off-site, all contaminated soils and debris exceeding the PCBs and/or lead cleanup levels set forth in VI.A.1. above.

g. Fill, in an engineered compaction method, all excavated areas with clean fill material.

h. In order to: 1) prevent direct contact, 2) protect from erosion, and 3) prevent migration of hazardous substances, Site topography will be contoured and a cover system will be installed. The cover system shall be continuously installed over that area of the Site with concentrations of PCBs over 1 ppm.

i. Construct and operate, as necessary, a groundwater management system or functional equivalent to provide treatment of all groundwater migrating from the land portion of the Site to the adjacent wetlands and the Back River. Treated groundwater shall not exceed PCBs greater than 0.17 ug/l and lead greater than 8.1 ug/l.

j. In order to evaluate near- and long-term effectiveness of this Removal Action, a groundwater monitoring system will be installed and operated.

k. Ensure the continued integrity and effectiveness of the controls installed during the Removal Action set forth in b., d., e., h., i. and j. through complying with the

provisions as set forth in item 3. b. and c. below, and coordination with State and Local authorities on removal and post-removal activities.

l. Demobilize personnel and equipment.

2. Contribution to remedial performance

The proposed Removal Action is not expected to be inconsistent with or hinder any Remedial Actions at the Site; however, no such Remedial activities are currently expected.

3. Applicable or Relevant and Appropriate Requirements (ARARs)

The proposed Removal Action will comply with, inter alia, the following, ARARs to the extent practicable considering the exigencies of the situation.

a. 40 C.F.R. § 761.61, which governs cleanup and disposal of PCB remediation waste.

b. 40 C.F.R. § 761.61 (a)(7), which provides cap requirements and (8) which provides for deed restrictions for caps, fences, and low occupancy areas.

c. 40 C.F.R. § 264.310, which provides requirements for closure and post-closure care of landfills.

ARARs were requested from the MDE on August 18, 2005, and are presented below. The OSC intends to consider the State's substantive aspects and standards identified below, if more stringent than the federal standards, to the extent practicable considering the exigencies of the situation.

Code of Maryland Regulations (COMAR)

d. 26.02 Provides limits on the maximum allowable levels of noise at the Site boundaries during Site remediation work to protect the health, general welfare and property of the people of the State.

e. 26.04 Provides specifications for well construction and abandonment and for proper closure and post closure monitoring and maintenance of landfills.

f. 26.05 Assures that monitoring wells are installed by qualified well drillers.

g. 26.08 Protects and maintains the quality of surface water in the State. Establishes criteria and standards for discharge limitations and policy for anti-degradation of waters of the State. Any contaminated groundwater entering the surface water must meet ambient water quality criteria. Discharges of treated groundwater must meet the substantive requirements of the State's NPDES permit requirements.

h. 26.11 Provides ambient air quality standards, general emissions standards, and restrictions for air emissions from construction activities, vents, and treatment technologies such as incinerators. Also includes nuisance and odor control.

i. 26.13.05.06 through 26.13.06.06-6 Provides for the design, installation and operation of a groundwater monitoring system capable of detecting any potential off-site migration of hazardous substances.

j. 26.17 Provides that any land-clearing, grading, or other earth disturbances require an erosion and sediment control plan. Provides that stormwater must be managed to prevent off-site sedimentation and to maintain current Site conditions.

k. 26.23.02 Provides for a comprehensive watershed management plan to protect from an individual or cumulative effect that degrades the sensitive nature of the aquatic ecosystem.

B. Estimated Costs

The proposed distribution of funding is as follows:

Extramural Costs:

Regional Removal Allowance Costs:	
ERRS (includes 10% contingency)	$ 2,708,000
Other Extramural Costs Not Funded from the Regional Allowance:	
START (includes contingency)	$ 297,000
CLP	$ 80,000
Total, Removal Action Estimated Project Ceiling:	$ 3,299,000

VII. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If no action is taken or the action is delayed, the contaminated soil at the Site will continue to pose an imminent and substantial threat to public health, welfare, or to the environment through the continued release of hazardous substances, including PCBs and lead, into the Back River and the Chesapeake Bay.

VIII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues.

IX. ENFORCEMENT

See attached Confidential Enforcement Addendum.

The total EPA costs for this Removal Action based upon full-cost accounting practices that will be eligible for cost recovery, are estimated below as follows[1]:

Direct Extramural Costs:	$ 2,739,000
Direct Intramural Costs:	$ 560,000
Indirect Costs (62.93%):	$ 2,076,000
Estimated EPA Costs for Removal Action:	$ 5,375,000

X. RECOMMENDATION

This Action Memorandum decision document represents the recommended Removal Action for the Sauer Dump Site, Baltimore County, Baltimore, Maryland, developed in accordance with CERCLA as amended, and not inconsistent with the NCP. Conditions at the Sauer Dump Site meet the NCP Section 300.415(b)(2) criteria for a removal and the CERCLA Section 104(c) consistency exemption from the 12-month limitation, and I recommend your approval of the proposed Removal Action and 12-month exemption. The total project ceiling, if approved, will be $3,299,000, of which an estimated $ 2,708,000 will be funded from Regional removal allowances.

Action by the Approving Official:

This Action Memorandum represents the selected Removal Action for the Sauer Dump Site, Baltimore County, Baltimore, Maryland, developed in accordance with CERCLA as amended, and not inconsistent with the NCP. This decision is based on the administrative record for the Site.

Pursuant to Section 113(k) of CERCLA, 42 U.S.C 9613(k) and EPA delegation No. 14-22, I hereby establish the documents identified in Attachment C hereto as the Administrative Record supporting the issuance of the Action Memorandum.

I have reviewed the above-stated facts and based upon those facts and the information complied in the documents described above, I hereby determine that the release or threatened release of

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[1] Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of Site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

hazardous substances at and/or from the Site presents or may present an imminent and substantial endangerment to the public health or welfare or to the environment. I concur with the Removal Action as outlined in the Action Memorandum.

Approved James J Burke Date 8/1/07

Disapproved _____ Date _____