SEDIMENT IN BALTIMORE HARBOR

Quality and Suitability for Innovative Reuse

An Independent Technical Review

October 2009

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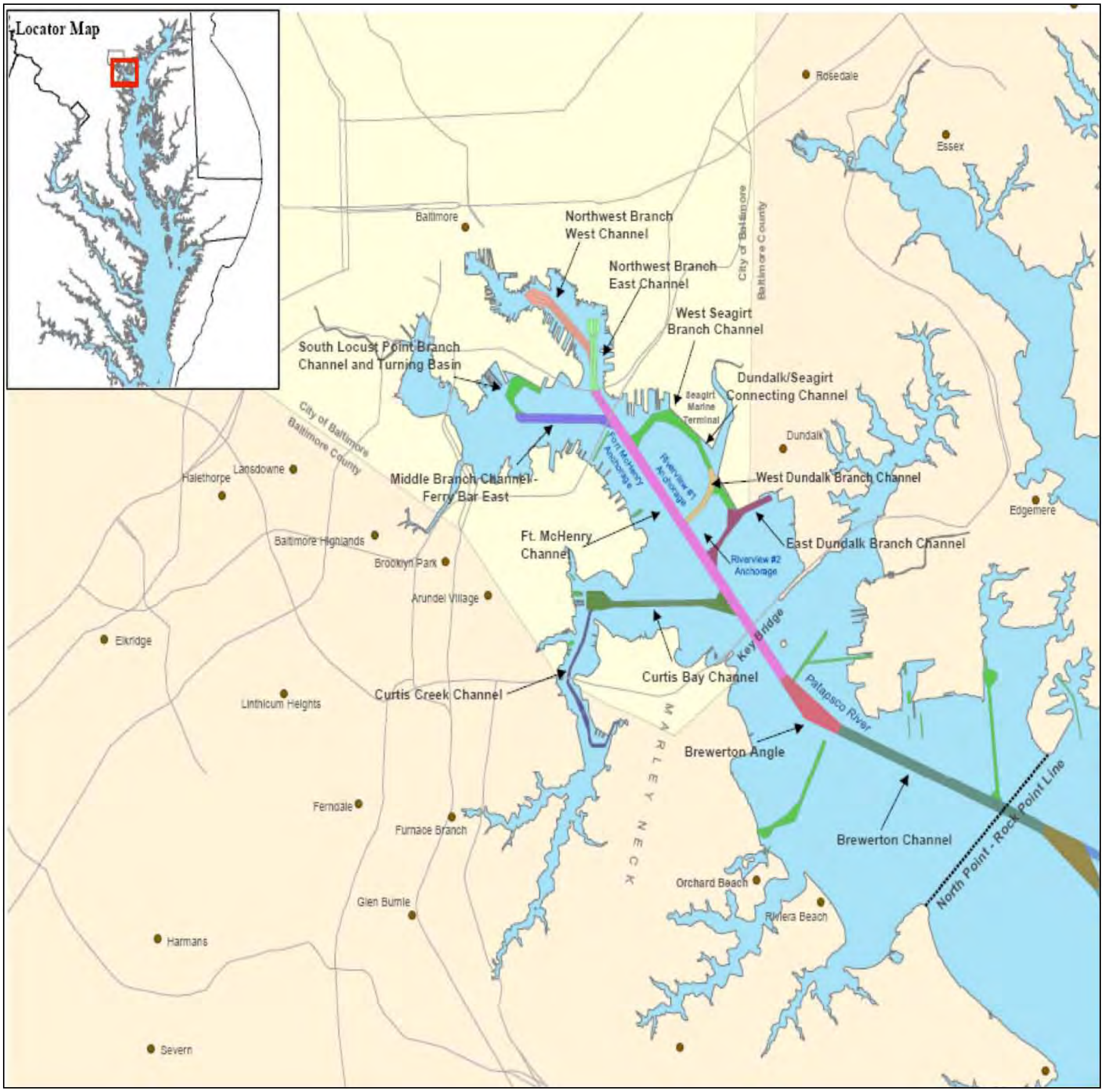
Report Highlights

A national team of independent experts examined historical data for levels of metals and organic contamination in sediments that may be dredged from Baltimore Harbor shipping channels, including off-channel sites and harbor approach channels in the Chesapeake Bay. To help authorities as they manage large amounts of sediment taken from these channels — over three million cubic yards a year — the team evaluated the suitability of dredged sediments for innovative reuse. These potential uses include a range of applications, from manufactured topsoil to cement filler and building materials. To provide managers with a scientifically sound basis for determining potential innovative reuse options, the team assembled data and information to construct a frame for risk analysis and decision-making. Among the team's significant conclusions are:

- In most cases, soil criteria currently applied in Maryland are sufficient to assess sediment quality. Based on these criteria, the team felt that some sediments in the harbor are contaminated to the point that consideration should be given to leaving them in place. For much of the remaining sediment taken from currently dredged channels, a variety of options do exist for innovative reuse.
- The team noted that in some cases — arsenic is an example — background levels in the environment are often higher than the state's regulatory limits. These limits therefore make it difficult to meet the criteria, thus restricting reuse options. Addressing this regulatory issue will require consultations between the Innovative Reuse Committee and the Maryland Department of the Environment.
- A screening protocol developed by the team based on available datasets revealed varying suitability for three types of innovative reuse: unrestricted land amendment (e.g., agricultural), residential (e.g., manufactured topsoil), and non-residential (e.g., industrial).
- The team determined that no sites met the most stringent criteria for unrestricted upland reuse options (e.g., agricultural land amendment). The review team therefore did not consider land amendment a viable option, both because of contaminants and because of inherent characteristics of estuarine sediments that can impact the integrity and productivity of soils.
- A limited number of sites meet Maryland criteria for residential reuse (e.g., manufactured topsoil, not meant for cropland).
- A greater number of sites meet Maryland criteria for non-residential reuse criteria. These uses include, for example, fill for mines and for sand and gravel pits, and as components in cement filler and lightweight aggregate materials.
- Acceptable uses in the residential and non-residential categories cover ten of the options under consideration by the Innovative Reuse Committee. Further feasibility assessments for innovative reuse are therefore clearly warranted.
- Numbers of sites, however, exceeded both residential and non-residential reuse criteria. This was especially true in off-channel sites. Managers must carefully consider specific conditions before undertaking channel widening or other activities in these areas.
- Before decisions are made regarding dredging and innovative reuse, any selected sites will require case-by-case, site-by-site testing, risk assessment, and monitoring.



Inner Harbor Channels. Figure from the Dredged Material Management Plan (USACE 2006).

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Executive Summary

The Port of Baltimore serves as a vital economic resource for the city of Baltimore, the state of Maryland, and the entire region. On average, more than 3 million cubic yards of dredged materials must be removed annually from Baltimore Harbor's shipping and approach channels to maintain operations. Maryland law stipulates that harbor sediments (defined as those inside a line drawn between North Point and Rock Point at the harbor entrance) may not be placed outside the harbor and that the unconfined placement of *any* dredged materials (including those from approach channels), even at sites used for several decades, will cease by December 31, 2010 (Maryland Environmental Code 5-1102). This action initiated a thorough analysis of a variety of options to maintain the long-term sustainability of the port and its approaches. As part of this process, the Maryland Ports Administration (MPA), through its Dredged Materials Management Program (DMMP), instituted the Innovative Reuse Committee (IRC) to examine the potential for innovative reuses of these dredged materials. The IRC developed a list of priority technologies, with a focus on upland uses and reclamation projects as well as the production of engineering fill and specific building materials. The viability of these options depends in great part on the quality of the sediments to be dredged — in particular, levels of metal and organic contaminants and other chemical characteristics of the sediments in question.

In 2008, the DMMP sought a scientific and technical review of sediment quality in Baltimore Harbor, with emphasis on the associated shipping and approach channels. In addition, the DMMP sought guidance on state and federal criteria for sediment quality assessment. Central to this effort was a strong commitment on the part of the DMMP and the Ports Administration to an independent assessment — one that would yield a better understanding of the characteristics of harbor sediments and the development of effective guidance for stakeholders and policy makers focused on decision making for innovative reuse options.

With these general goals in mind, the Ports Administration engaged Maryland Sea Grant and the Chesapeake Research Consortium to organize and facilitate a scientific review of issues related to sediment quality in Baltimore Harbor. The review was conducted by an Independent Technical Review Team composed of seven individuals (scientists and engineers) from across the region and the country. This expert panel has extensive experience in such fields as sediment biogeochemistry, metal and organic contaminants, toxicology, risk assessment, human health issues, dredging operations, and sediment management. The team focused on completing six main tasks:

1. A summary of the status of sediment quality guidelines and criteria that may be in use regionally or nationally.

2. Recommendations for scientific protocols to evaluate dredged material for its suitability for use in various innovative reuse applications.

3. A characterization of the sediment quality (physical, chemical, and biological) in the port's shipping channels and the adequacy of information available for that purpose.

4. A comparison of sediment quality (physical, chemical, and biological) in harbor channels and the main Bay channels, including the potential for beneficial uses of these sediments.

5. An assessment of trends in the quality of sediments deposited in and dredged from harbor channels over time and of differences between the contamination found in legacy sediments and sediments recently dredged from maintenance channels.

6. A list of considerations regarding the value of formal chemical-specific limits or guidance versus the use of a case-by-case, site-specific process for assessment of sediment quality.

Assessing Risk and Criteria for Reuse

The team conducted a thorough analysis of sediment quality guidelines and criteria, as well as an assessment of relevant risk factors for innovative reuse options. There are risks associated with all dredging activities. Therefore, it is important to understand the resources at risk for a given reuse option. Risk, defined as the likelihood that a situation (or substance) will produce harm under a specified set of conditions, is a combination of two factors: (1) the probability that an adverse event or exposure will occur and (2) the consequences of that adverse event or exposure (i.e., hazard or, in this case, toxicity). There is no risk if exposure to a harmful substance or situation does not or will not occur. An important early step during the problem formulation phase of a risk assessment is to determine potential pathways for exposure, both to humans and the ecosystem. Accordingly, the team detailed potential pathways for exposure to contaminants in dredged materials to various receptors for each of the innovative reuses identified by the IRC. In addition, because the DMMP charged the team with assessing sediments in the main Bay channels, aquatic restoration was included in this analysis. These exposure pathways were defined for a range of management alternatives, and the team developed a tiered classification scheme that requires that dredged material meet increasingly stringent criteria as the risk increases for a given reuse.

Sediment Screening Guidelines

The team focused on guidelines used locally, but also consulted guidelines from beyond the region to verify the validity of local criteria. These analyses were instrumental in the development of both the screening level assessment protocol used by the team and the guidance for future management decisions. The team adopted a practical approach to develop its screening protocol and used a process consistent with one currently employed by the State of New Jersey, using Maryland soil standards when possible. The exception to this was a subset of metal contaminants. The natural (geological) background levels of those metals are higher than the Maryland soil standards.

The team's analysis resulted in screening criteria based on four general classes of reuse. These are:

- Unrestricted upland reuse
- Residential reuse
- Non-residential reuse
- Material that must be confined, or material that should not be dredged at all

This screening protocol was adequate to assess potential sediment quality for the suite of reuse options under consideration by the Port's Innovative Reuse Committee.

Analysis of Sediment Quality Data

The team's evaluation of harbor and approach channel sediment quality was based on a large number of studies used for testing of sediment quality for individual dredging projects. All datasets were provided to the team — new sampling was not a part of this assessment. These data were originally collected to meet differing goals of projects conducted over a relatively wide spatial and temporal range. Use of secondary data of this type can sometimes result in significant uncertainties. Accordingly, the team first screened all the provided datasets to assess their suitability for inclusion in the team's analysis. Although much of the data were collected using rigorous and reliable protocols that satisfied data quality objectives specific to the original goal, many datasets did not meet the needs of the present assessment. Further, many of the datasets were not available in raw format, at least electronically. The team used studies that met minimum criteria with respect to analytical methodology, quality assurance/ quality control, and, importantly, sampling that was representative of what would be dredged in a given project. The team concluded that there were a number of datasets that sufficiently met these criteria to provide an adequate scoping assessment of sediment suitability.

These datasets represented a reasonable distribution in time and space to enable baseline screening of contamination of sediments and suitability for potential reuse. The compiled data were used in a geographic information system to generate a series of maps detailing sediment characteristics in various areas of the harbor and approach channels. These maps demonstrate general findings for a given area based on the team's screening protocol. The maps do have important limitations imposed by the spatial and temporal nature of the datasets, as well as the underlying variability (heterogeneity) of harbor sediments. The team emphasizes that these analyses are based on a compilation of historical data collected across approximately ten years of sampling. While a synthesis of this type is extremely useful, the maps are best used as a means to highlight sites that could be examined with respect to the potential innovative reuses of sediments found there.

The Quality of Harbor Sediments

The team concluded that none of the sites for which there was available data met the standard for the most stringent reuse options (i.e., unrestricted upland use) and, therefore, harbor sediments have some limitations regarding reuse options with the highest risk factors. Land amendment was not considered a viable reuse option by the team due to concerns regarding contaminant levels and the biogeochemical characteristics of estuarine sediments (i.e., pH, sodium, chloride, and sulfate), which can have highly adverse impacts and lead to soil infertility.

Many of the sites in the datasets analyzed meet criteria for residential (e.g., manufactured top-soil) or non-residential reuse options. By far the majority of these met the latter criteria. The team notes that most innovative reuse options under consideration should be regulated using the non-residential criteria. The data also suggest that the channels dredged currently are most suitable for innovative reuse.

The scoping assessment also revealed that numerous sites exceeded both the residential and non-residential reuse criteria. The distribution of these sites was complex, with locations across most of the harbor. The screening assessment used by the team was designed to identify sites that exceed the non-residential (e.g., industrial) reuse criteria. With that in mind, exceeding the non-residential criteria does not preclude certain other innovative reuses. This is especially true where engineering and institutional controls — as well as existing site conditions and proposed final end use — make using them appropriate.

Comparing Harbor and Main Bay Sediments

The team found limited data to make comparisons between harbor and main Bay channels — those that were found were restricted to information on organic contaminants. Examination of the maps revealed that no sites, neither inside nor outside the harbor, had organic contaminant levels that met criteria for the most stringent reuse options. A comparison of the maps does show that a greater percentage of the sites outside the North Point-Rock Point line met the criteria for residential applications and a smaller percentage exceeded the criteria for non-residential reuse. Should this finding remain consistent when re-sampled, it may indicate that the sediments outside the harbor will have a greater potential for innovative reuse than those inside the harbor.

Trends in Sediment Quality

While very useful, the studies analyzed by the team did not lend themselves to a coherent trend analysis. This is due in part to variations in study intent/design, analytical technique, and location of sediments. A cursory examination of Federal Channel data for metal contaminants suggests some improvement in sediment quality since 1998. However, the team recommends that managers work closely with the scientific community to consider how best to implement trend studies.

Guidance for Future Decision Making

The team did not find data in the applicable data sets that indicated that any of the sediments in currently dredged areas are too hazardous to be dredged. However, given some of the data available in off-channel areas, the team recommends that sediment in areas proposed for new channels, or for channel deepening or widening, should be carefully examined during the design process to ensure that the sediments that will either be removed or exposed will have an appropriate management option and will not result in undue environmental harm during dredging. It is possible that some of these sediments would require special management or techniques during either dredging or disposal. The team did not specifically identify or evaluate these sediments.

While the independent team process was suitable for screening the large dataset provided, it would not be appropriate to use this process for decision making on actual projects. Accordingly, the team developed a decision-support matrix that provides guidance for sediment characterization for projects inside and outside the harbor. The first step in determining appropriate management options for a particular dredging project would be to evaluate the historical database. If data exist that show that the material has either always been clean, or always been contaminated, this information can be used to decide what the ultimate management goal might be. For example, a site that has been historically clean might be targeted for evaluation for use in habitat restoration, or unrestricted innovative reuse or beneficial use. It would not be a wise use of time or resources, however, to evaluate a historically contaminated site for these uses. Rather, one should proceed toward the goal of a more restrictive use or confined disposal. This screening step is analogous to what the team performed to produce this report.

The team has proposed four categories for the management of Chesapeake Bay sediments. Three of these categories would divide the material for upland or aquatic use and innovative reuse ranging in quality from upland industrial sites to land amendment. Each successive category requires that the sediment meet more stringent criteria. For material that does not meet the lowest upland innovative reuse criteria, the only options are confined disposal or sediment decontamination. It logically follows that if disposal options are not available, or if the material exceeds criteria for all options, then the sediment should remain in place until appropriate management options have been developed. The team emphasizes that project decision making must be made on a case-by-case, site-specific basis.

Introduction

In 2008 approximately 33 million tons of foreign cargo moved through the Port of Baltimore's public and private marine terminals (MPA 2009a). The value of this cargo totaled over $45 billion (MPA 2009b). With direct access to major markets, the Port ranks first in the nation for roll on/roll off (farm and construction equipment), trucks, imported forest products, imported gypsum, and imported iron ore and sugar (MPA 2009b). Overall, the Port of Baltimore ranks 12th nationally for total dollar value of cargo and 14th nationally for total foreign cargo handled. Recent analyses reported that the Port provides 16,500 direct jobs — and those generated by overall Port activity exceed 100,000 across Maryland, accounting for $3.6 billion in personal wages and salary. Annually, the Port has generated $1.9 billion in business revenues and $400 million in state, county, and municipal tax revenues (MPA 2009b). These statistics highlight the Port's role as a vital economic resource for the city of Baltimore, the state of Maryland, and the entire region. In this context, maintaining safe and efficient shipping is an essential part of the Maryland Port Administration's (MPA) mission. On average, over 3 million cubic yards of dredged materials must be removed annually from Baltimore Harbor's shipping channels to maintain operations. Constraints on the placement for this material require that decision makers explore a variety of options to ensure the long-term sustainability of the port and its approaches. Recognizing this fact, the Maryland Ports Administration, through its Dredged Materials Management Program, instituted the Innovative Reuse Committee (IRC) to examine the potential for innovative reuse of dredged materials.

The Maryland Legislature has specific definitions regarding uses of dredged materials from Chesapeake Bay and Baltimore Harbor. Specifically:

> **"Beneficial use of dredged material"** means any of the following uses of dredged material from the Chesapeake Bay and its tributary waters placed into waters or onto bottomland of the Chesapeake Bay or its tidal tributaries, including Baltimore Harbor:
>
> (i) the restoration of underwater grasses;
>
> (ii) the restoration of islands;
>
> (iii) the stabilization of eroding shorelines;
>
> (iv) the creation or restoration of wetlands; and
>
> (v) the creation, restoration, or enhancement of fish or shellfish habitats.
>
> **"Innovative Reuse"** includes the use of dredged material in the development or manufacturing of commercial, industrial, horticultural, agricultural, or other products." (Maryland Senate Bill 830)

In their analyses the IRC (2007) noted that several potential options exist and a selected subset should be pursued in pilot studies. The IRC, however, also emphasized that implementation of any methods will depend in great part on whether the sediments in question are sufficiently free of contaminants to be deemed suitable for processing and the projected end uses. Specifically:

> MDE and MPA should use the best scientific expertise available to examine the issue of sediment quality in the port's shipping channels and conduct a comparison of sediment quality in the harbor and sediment quality in the main Bay channels. This review should include historic and recent monitoring data and sampling protocols, comparison of sediment quality to EPA and MDE criteria and standards, and analysis of the impacts of current legal restrictions on the management of dredged materials. The review should recommend a scientific protocol to identify and categorize dredged material to be either processed so it can be reused innovatively or handled in a confined facility if it were deemed unsuitable for innovative reuse. (Recommendation 3 [IRC 2007])

In 2008 the Dredged Materials Management Program sought an independent scientific review of sediment quality in the target area as well as further guidance on state and federal criteria for sediment quality assessment. Their intent was to help inform stakeholders and policy makers as they engage in the decision-making process on reuse of dredged sediments. With this general goal in mind, the MPA engaged Maryland Sea Grant and the Chesapeake Research Consortium to organize and facilitate a scientific review of issues related to sediment quality of the entire Baltimore Harbor, with an emphasis on the associated shipping channels. This report is the result of that effort, which compared the characteristics of harbor channels and the main Bay channels and considered the potential for beneficial uses of these sediments. The review was conducted by an Independent Technical Review Team comprised of experts able to address the tasks outlined. The review team was composed of seven individuals (scientists and engineers) from across the region and the country. They conducted a thorough review of sediment data from Baltimore Harbor and the Port of Baltimore's Bay shipping channels. The team analyzed and synthesized a variety of data relevant to completing the following tasks as defined by the IRC:

- A summary of the status of sediment quality guidelines and criteria that may be in use regionally or nationally.
- Recommendations for scientific protocols to evaluate dredged material for its suitability for use in various innovative reuse applications.
- A characterization of the sediment quality (physical, chemical, and biological) in the port's shipping channels and the adequacy of information available for that purpose.
- A comparison of sediment quality (physical, chemical, and biological) in harbor channels and the main Bay channels including the potential for innovative uses of these sediments.
- An assessment of trends in the quality of sediments deposited in and dredged from harbor channels over time and of any differences between the contamination found in legacy sediments and sediments recently dredged from maintenance channels.
- A list of considerations regarding the value of formal chemical-specific limits or guidance versus the use of a case-by-case, site-specific process for assessment of sediment quality.

Data

To address these questions, the team examined data provided to them by Maryland Environmental Services as well as other data sources. They did not collect additional data from the field.

Because these datasets spanned a wide timeframe, the team considered the sampling and analytical methodologies used in the collection and analysis and their overall utility for the comparison of data sets — an especially important task when attempting to assess differences over time. For those datasets deemed useful, the team considered technical information such as physical and chemical characteristics of sediment and the implications of any sediment bioassay information available. While both environmental and human health components and criteria were considered in analysis of risk levels, a complete ecological and human health-based risk assessment was beyond the scope of the study.

Project Structure

The team used a variety of means to complete their study, including face-to-face meetings, conference calls, and email exchanges. Each team member was responsible for analyzing data relevant to their area of expertise and for providing summary text for the final report. The team findings presented in this report represent a strong consensus of the team members.

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Dredging in Baltimore Harbor

To evaluate the potential for innovative reuse of dredged materials, it is important to have a basic understanding of current dredging operations in the Port of Baltimore and its approach channels. In this background section we describe:

- Current dredging needs
- Regulatory considerations
- Current placement of dredged materials
- Potential environmental issues associated with current dredging and placement activities
- Future placement options and innovative reuse

Current Dredging Needs

Maintenance dredging is essential for the operation of the Port of Baltimore. Maintaining the authorized depth of the channels is tasked to the U.S. Army Corps of Engineers (USACE), with a substantial State of Maryland responsibility for placement of dredged materials. Continual dredging is required because of ongoing inputs of fluvial sediment inputs from the Susquehanna River and substantial rates of shoreline erosion (Hobbs et al. 1992). These two sources of sediment are key to the infilling of Baltimore Harbor, with the multi-layer circulation resulting in inputs of "Bay" sediment (Chao et al. 1996). Indeed, studies by the Maryland Geological Survey (MGS) and University of Maryland Center for Environmental Science (J. Cornwell, personal communication) suggest that the dominant source of sediment into the harbor is from the Chesapeake Bay, with lesser contributions from the Patapsco River and other drainages, low shoreline erosion because of shoreline structures, urban runoff from streets, and modest inputs of dust.

The dredged material management plan for Baltimore Harbor (USACE 2006) details current dredging for maintenance of shipping channels. Table 1 summarizes average dredging needs with channel locations indicated in Figures 1 to 3. The average annual need for placement of dredged materials is ~ 3.4 million cubic yards, with ~ 0.5 million cubic yards derived from Baltimore Harbor. For current dredging purposes Baltimore Harbor is defined as the area inside the North Point-Rock Point line at the mouth of the Patapsco River (Figure 3).

Regulatory Considerations

Two key actions by the State of Maryland have large consequences for placement alternatives:

1. **State law (MD Senate Bill 830; Maryland Environmental Code (5), Subtitle 11) prohibits the placement of dredged material from Baltimore Harbor in an unconfined manner in the Bay or its tributaries (**Maryland Senate 2001). Baltimore Harbor is defined by the North Point-Rock Point Line and there are no provisions for detailed characterization of dredged materials to enable their use outside the harbor. Even

clean materials from inside the line face a strong regulatory constraint, and are defined as suitable only for a containment facility such as Hart-Miller Island (HMI) Dredged Material Containment Facility (DMCF).

2. The future use of open water placement has been removed, a consequence of the heated debate over the proposed use of the Site 104 open water site. By the end of 2010, open water disposal of any dredged materials within Maryland is prohibited (Blankenship 2000, Maryland House of Delegates 2001)**.**

In addition, and as noted earlier, the Maryland legislature has developed strict definitions of innovative reuse and beneficial use of dredged materials.

Table 1. Average maintenance dredging in federally authorized channels/anchorages in the northern Chesapeake Bay. Data are from the Dredged Material Management Plan (USACE 2006).

Channel Section	Length (nm)	Constructed Width (ft)	Authorized Depth (ft)	Maintenance Dredging Average Annual Pay Quantity (1996-2004) (cubic yards)
Baltimore Harbor Channels				
Curtis Bay Channel	2.2	400	50	96,431
Curtis Creek Channel	2.2	150 (Upper)		12,132
		290 (Middle)		
		200 (Lower)		
East Dundalk Branch	1	400	42	0
West Dundalk Branch	1.2	500	42	484
Dundalk/Seagirt connecting	1	500	42	2,814
South Locust Point Branch	0.7	400	36	0
Middle Br. Channel - Ferry Bar East	1.4	600	42	11727
NW Branch East	1.3	600	49	0
NW Branch West	1.3	600	40	10187
Brewerton Channel	3	700	50	111364
Brewerton Angle	0.8	1075	50	107648
Ft. McHenry Channel	3.8	700	50	101392
				Total 454,179
C&D Approach Channel (Lower Approach)	15	450		**Total 1,200,000**
Anchorages				
Ft. Mc Henry	0.3	Deauthorized		0
Riverview #1 3A	0.4	2200		16667
Riverview #1 3B	0.3	1800		0
Riverview #2	0.4	1800		4441
				Total 21,108
Chesapeake Bay Approach				
Craighill Entrance	3.1	700	50	193983
Craighill	2.8	700	50	100668
Craighill Angle	1.6	1258	50	396742
Craighill Upper Range	2.1	700	50	56889
Cutoff Angle	0.9	1220	50	188855
Brewerton Eastern Extension	5	600	35	439906
Swan Point	1.7	600	35	103465
Tolchester	6.5	600	35	208787
				Total 1,689,295
			Cumulative Total	**3,364,582**

Figure 1. Northern Approach Channels. Copied from the Dredged Material Management Plan (USACE 2006).

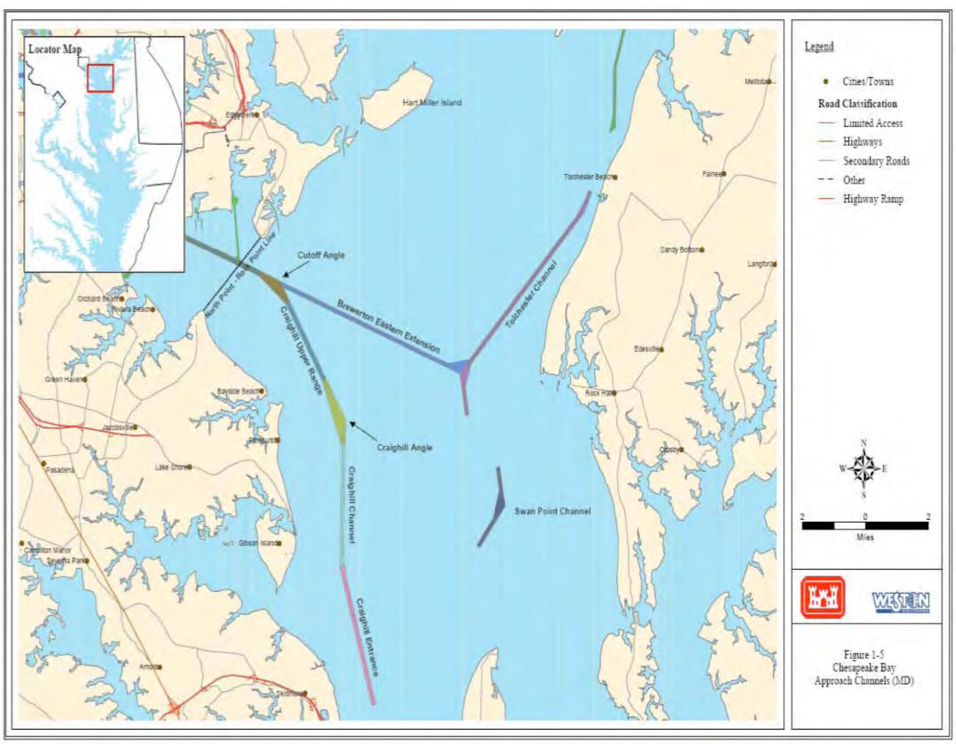

Figure 2. Outer Harbor Approach Channels. Copied from the Dredged Material Management Plan (USACE 2006).

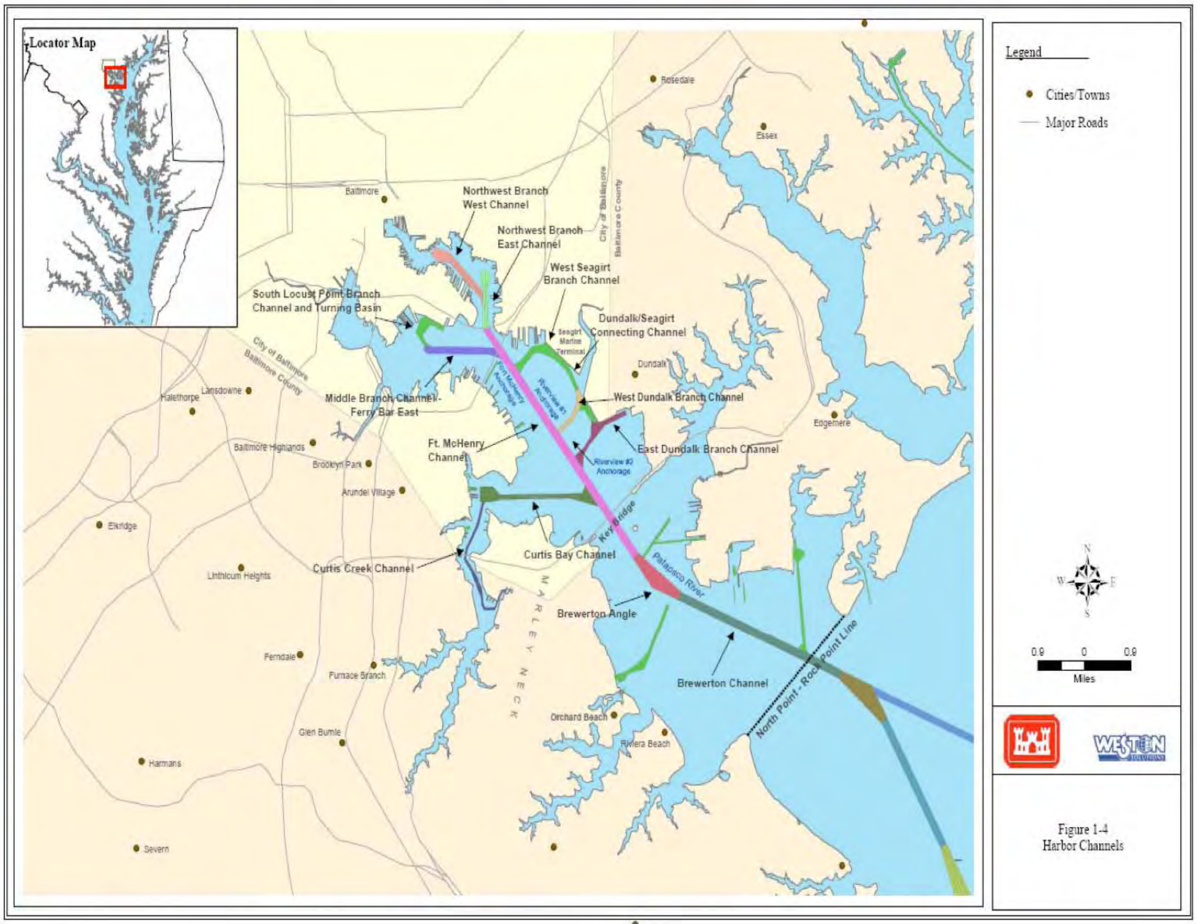

Figure 3. Inner Harbor Channels. Copied from the Dredged Material Management Plan (USACE 2006).

Current Placement of Dredged Materials

Current placement options are summarized in the dredged material management plan (USACE 2006). These include:

- C&D Approach Channels. The Pooles Island Open Water Site consists of a series of open water placement sites near Pooles Island. This open water dumping site has a mandatory closure by the end of 2010.

- Harbor Channels and Anchorages. Through the end of 2009, the Hart-Miller site can accept material from Baltimore Harbor and the approach channels. This 1,200-acre facility was designed to contain contaminated materials and appears to have been effective in retaining contaminants on-site; because of the unexpected failure of approval of an open water site (Site 104), large quantities of approach channel materials were deposited at Hart-Miller. Capacity of the 102-acre Cox Creek Confined Disposal Facility is currently being expanded to accommodate harbor materials. This facility can provide only about half the capacity needed for the next 21 years of harbor dredging.

- Chesapeake Bay Approach Channels in Maryland. The Paul Sarbanes Poplar Island Environment Restoration Project is a beneficial use project offshore of Talbot County, Maryland. This large facility is being used for the development of 570 acres of tidal wetlands and 570 acres of upland, using uncontaminated dredged material from the Baltimore Harbor and Channels Federal navigation projects (USACE 2009). The upland component of this facility has by far the largest capacity to accommodate dredged materials. The current island configuration will reach capacity in 2017, with expansion options on the north end of the island adding capacity through 2025.

Two new alternatives for dredged material from Baltimore Harbor placement are currently being developed by the Port, and sites in the middle Bay area (Dorchester County, see below) are being evaluated for large island and wetland restoration or dredged material placement.

- Current plans for Cox Creek suggest that this relatively new facility will reach capacity by 2017, with a new facility (Masonville DCMF) coming online in 2012 and reaching capacity in 2025. These two facilities cannot supply all the capacity needed for the 21-year planning window for dredged material placement.

- For Chesapeake Bay Approach Channel sediments, a new Mid-Bay Island Project is being evaluated, with a combination of: (1) large island (~2,000 acres) creation at the remnants of James Island (Dorchester County) and (2) island/wetland restoration at Barren Island and other eroding islands in southern Dorchester County.

Other alternatives such as wetland restoration at the Blackwater National Wildlife Reserve may be evaluated in the future (IAN 2007).

Potential Environmental Issues Associated with Current Dredging and Placement Activities

Both USACE and MPA have considerable environmental data on their dredging and placement practices. In this section, we discuss the process of dredging and potential issues associated with the collection, handling, and final disposition of this material.

Dredging in the northern Chesapeake Bay is most often carried out using clamshell dredges. This approach minimizes the mixing of dredged materials with the water column during the dredging process, with sediment deposited onto barges. One important environmental effect is the exposure of deep, nutrient-rich sediments to overlying water (Cornwell 1999) and some resuspension of sediment.

There are generally minimal losses during transport (with the possible exception of volatile organic materials) and the next major step of handling is offloading. Bay or harbor water is added to the sediment to facilitate hydraulic movement of the material through pipelines. The resultant mixture is mostly water.

Dewatering of the offloaded material is a major issue in the handling of dredged material and all discharges require permits from the regulatory agencies to ensure that they meet water quality standards prior to being discharged into receiving waters. In confined facilities or at beneficial use sites, the material is pumped to areas where the slurried sediment is deposited. Over many months, the sediment compacts and the water is generally pumped offsite. Cornwell et al. (2009) have summarized the major constraints for removing the water. These include non-compliant pH values, excessive trace metal concentrations (most often zinc and nickel), and high turbidity (both suspended sediments and algae). The pH values can be too high (> 8.5) from high primary production of algae, or too low from pyrite oxidation (pH < 6.5; see below). High concentrations of ammonium are also common in the water pumped offsite. The sediment is often reworked to repeatedly expose wet sediment to drying conditions — a process referred to as “crust management.” This process is critical for maximum capacity at the facility; wet sediment takes up more volume, and ineffective drying reduces the ability to receive more dredged materials. Keeping each year’s sediment addition (“lift”) relatively thin enhances the longevity of the facility.

Estuarine sediments such as those in Chesapeake Bay have sulfate reduction as the major anaerobic metabolism. A consequence of this is the formation of pyrite in deposited sediment. Upon exposure to oxygen in air, pyrite oxidizes, releasing sulfuric acid: $4FeS_2 + 15O_2 + 8H_2O \rightarrow 2Fe_2O_3 + 8\ H_2SO_4$. This release of acid can mobilize some trace metals, with soil solutions having low pHs (< 4). Low pH causes problems when using dredged materials as upland soils, with substantially reduced soil fertility until pyrite is exhausted and pH adjusted.

Containment facilities are designed to effectively retain metals, trace organics, and particulate material. The multi-decade experience at the Hart-Miller site suggests that these facilities are effective. Studies conducted by UMCES, MGS, and the Maryland Department of the Environment (MDE) suggest that no discernable impacts on living resources occurred in the waters near the facility; and ground water studies suggest that metals are effectively retained at the facility (Hill 2005). The most recent external monitoring report (MDE 2009) shows some external chemical enrichment, but no long-term biological impacts:

- The South Cell discharge operations did appear to have an effect on the exterior sedimentary environment, which is evident in the enrichment of Pb and Zn around the South Cell Spillway 003.

- Although monitoring detected both a Zn and a Pb signature in sediments surrounding Hart-Miller Island over the long-term record, construction and operation at the HMI-DMCF have produced no long-term biological impacts to surrounding aquatic communities.

Restoration sites such as the wetlands at Poplar Island have shown little apparent toxicological effects from metals (EA Engineering, Science, and Technology, Inc. 2007) — sediments deposited at this site derived from approach channels, which made contaminant issues less anticipated. Upland restoration presents a great challenge because of pH (see above), but the successful establishment of upland grasses in the south cell of Hart-Miller Island shows that, over time, the soil becomes suitable for grassland (Cornwell et al. 2009).

Future Placement Options for Beneficial Use and Innovative Reuse

Island creation, wetland/island restoration, and containment facilities represent the immediate future for placement of dredged materials (i.e., defined as beneficial use). The current Dredged Materials Management Program (DMMP) clearly identifies the volumetric limitations of the status quo, with placement of harbor materials of particular concern. The accepted suitability of non-harbor dredged materials for environmental restoration enhances the likelihood that sites will be supported by the public and approved by regulators. Indeed, with wetland/island/shoreline losses in the mesohaline Chesapeake Bay likely to increase with increasing sea levels, there is a *bona fide* prospect of competition for "clean" dredged materials by a number of interests (IAN 2007).

A list of options is shown in Table 2. Some options such as open water placement are included in this federal list, but are not viable under current Maryland state law. They are included here to provide a comprehensive listing of placement options that have been discussed. Options shown here encompass both beneficial use and innovative reuse as specified by the Maryland legislature and include: agricultural placement, island creation/restoration, capping projects at landfills and brownfields, mine placement, building products, and confined disposal.

The Port's Innovative Reuse Committee (IRC) recognized that the most urgent need is for placement of Baltimore Harbor channel sediments and articulated the importance of considering other options for these sediments. Indeed, they have noted that this material should be considered a "recyclable resource" that can be reused for purposes beyond those previously described.

A number of different options were evaluated by the IRC (2007). Different technologies were prioritized and suggestions were made for pilot projects to start the evaluation (Table 3).

Table 2. List of Maryland Placement options considered in the Dredged Material Management Plan. Data in table are derived from USACE (2006).

Dredged Material Management Placement Options	**Harbor Channels**	**C&D Approach Channels**	**Ches. Bay Approach (MD)**
Agricultural Placement	■	■	■
Artificial Island Creation —Upper Bay	■	■	■
Building Products	■	■	■
C&D Canal Upland Sites Expansion	■	■	■
Capping Brownfields	■	■	■
Capping Landfill	■	■	■
Capping Patapsco River		■	■
Confined Aquatic Disposal Area Patapsco River	■		
Confined Disposal Area Patapsco River	■		
Cox Creek Expansion	■		
Hart-Miller Expansion	■	■	■
Large Island Restoration — Mid-Bay		■	■
Mine Placement — Cecil County	■	■	■
Mine Placement — Western Maryland	■	■	■
Pooles Island Open Water Site Expansion		■	■
PIERP Expansion		■	■
Shoreline Restoration — Mid-Bay	■	■	■
Shoreline Restoration — Upper Bay	■	■	■
Small Island Restoration — Mid-Bay	■	■	■
Wetlands Restoration — Dorchester County		■	■
Dam Neck Open Water Placement (Existing)			
Hart-Miller Island (Existing)	**BASE**	■	■
New Open Water Placement — Mid-Bay (Deep Trough)		■	**BASE**
Pooles Island Open Water Site (Existing)		**BASE**	
Wolf Trap Alternate Open Water Placement (Existing)		■	■

Table 3. Technologies recommended for evaluation by the Innovative Reuse Committee (IRC 2007).

High Priority Technology	**Medium Priority Technology**	**Low Priority Technology**
Land Amendment	Lightweight Aggregate	Brownfields
Sand & Gravel Pits	Cement Filler	Compressed Blocks
Flowable Fill	Base Material	Manufactured Topsoil
Mines		Daily Cover
		Bricks

The Context for Risk Assessment

To assess the potential suitability for reuse of dredged sediments from Baltimore Harbor, one must consider the state of contamination of the sediments, their end use, and the resources at risk. Risk is defined as the likelihood that a situation (or substance) will produce harm under a specified set of conditions. Risk is a combination of two factors: (1) the probability that an adverse event or exposure will occur and (2) the consequences of that adverse event or exposure (i.e., hazard or, in this case, toxicity). There is no risk if exposure to a harmful substance or situation does not or will not occur. Therefore, an important early step during the problem formulation phase of a risk assessment is to determine potential pathways for exposure, both to humans and to ecologic receptors. Accordingly, potential pathways for exposure to contaminants in dredged materials to various receptors were assessed for each of the beneficial uses identified by the IRC (Table 3). In addition, because the Dredged Materials Management Program charged the team with assessing sediments in the main Bay channels, aquatic restoration was included also in this analysis. Table 4 describes potential exposure pathways for each management alternative; it also identifies, where available, sediment criteria for evaluating risk.

Risk Factors for Harbor and Approach Channel Sediments

There are risks associated with all dredging activities (Table 4), especially involving "new dredging" of relatively deeper and older sediments, which may be more highly contaminated than areas where repeated maintenance dredging has previously removed more contaminated sediments. The team developed a tiered classification scheme that requires that dredged material meet increasingly more stringent criteria as the risk increases for a given innovative or beneficial use (Table 5). The team defined Class K sediment where data suggest that the best option may be to leave sediments in place, if buried under clean, more recently deposited sediments. The criteria used in designating dredged material Class B through I and specified beneficial uses (Table 5) are consistent with the approach taken by the Great Lakes Commission (2004) in their report on evaluating dredged material for upland beneficial uses. As documented in that report, the approach for setting criteria for those uses was similar among a number of states. Driscoll et al. (2002) provide an excellent case study showing that manufacturing construction materials can often have the largest number of complete exposure pathways (e.g., inhalation, dermal, ocular, ingestion) to humans because there is much more manipulation of the sediment.

The team was also charged with assessing sediments in the main Bay channels. Here, aquatic restoration (e.g., habitat restoration in areas such as the Blackwater National Wildlife Refuge) was included as a possible beneficial use. In this case (Class A), the risk of adverse ecological effects was deemed high and, accordingly, the potential hazard must be minimized through use of more stringent criteria.

Table 4. Potential pathways for human and ecological receptors to be exposed to contaminants under various beneficial use scenarios of dredged materials (DM). For humans, routes of exposure are explicitly identified: (1) vaporized chemicals can be inhaled leading to lung and systemic exposure; can also lead to ocular exposure and eye irritation; (2) airborne dusts and particles can be inhaled leading to lung and systemic exposure, ocular exposure; deposition on skin can lead to dermal exposure; and they can be ingested (e.g., as much as half of inhaled dusts and particles are swallowed following deposition in mouth, nose, esophagus and lung); (3) DM and soils can lead to dermal exposure but can also be ingested inadvertently via contaminated hands; (4) fishery exposure leads to ingestion by humans; (5) groundwater and surface water contamination can lead to ingestion via drinking water, wash water, and irrigation or plant watering activities, as well as dermal exposure, ocular exposure, and inhalation exposure of mists and droplets (e.g., in shower or with watering activities). Also shown are various potential sediment quality guidelines to assess risk (cancer and non-cancer) from the specified pathway-receptor combination. It is important to recognize that under most of these scenarios dredged materials will become oxidized for some period of time, thus altering the bioavailability of contaminants currently buried deep in anaerobic sediments.

Management Alternative	Exposure Pathway and Final Receptor	Comments	Sediment Quality Assessment Criterion
Dredge Operation (common to all alternatives)	Sediment Resuspension → Aquatic Toxicity	Increased turbidity, decreased dissolved oxygen levels, and release of sediment-bound contaminants	Elutriate Test: State water quality criteria
	Sediment Resuspension → Surface Water → Fishery → Human Toxicity	Ingestion, contaminants bioaccumulated in recreational or commercially important finfish or shellfish	Elutriate Test: BCF and FDA action level; Sediment Bioaccumulation Screening Level Values (ODEQ 2007)
	Exposed Sediment→ Sediment Biota Toxicity Exposed Sediment→ Water Column → Pelagic Biota Toxicity Exposed Sediment→ Sediment Biota → Predator Toxicity Exposed Sediment→ Sediment Biota/Water Column → Fishery → Human Toxicity	Through removal of sediment, expose contaminated sediments that had been buried. Dermal, ingestion	Must have chemistry on sediments exposed following dredging. Threshold or Probable Effects Levels (MacDonald 1994, MacDonald et al. 2003); USEPA 2002; Sediment Bioaccumulation Screening Level Values (ODEQ 2007)
	DM → Atmosphere Vaporization → Human Toxicity	Inhalation, ocular (e.g., barge operators, on-site workers)	Industrial Use Soil Cleanup Requirements (MDE 2008b)
	DM → Airborne Particulates → Human Toxicity	Inhalation, ocular, dermal, ingestion (e.g., barge operators, on-site workers)	Industrial Use Soil Cleanup Requirements (MDE 2008b)
	DM → Human Toxicity	Dermal, ingestion (e.g., barge operators, on-site workers)	Industrial Use Soil Cleanup Requirements (MDE 2008b)

Table 4, continued.

Management Alternative	Exposure Pathway and Final Receptor	Comments	Sediment Quality Assessment Criterion
Confined Disposal Area	DM → Sediment/Soil Biota → Scavenger Toxicity	Confined Disposal Area as an attractive nuisance	Sediment Bioaccumulation Screening Level Values (ODEQ 2007); EcoSSL (USEPA 2003, Friday 2005); Site specific risk assessment
	DM → Runoff → Surface Water → Aquatic Toxicity		Elutriate test: State water quality criteria
	DM → Runoff → Surface Water → Fishery → Human Toxicity	Ingestion	Elutriate test: State water quality criteria BCF/FDA action level; Sediment Bioaccumulation Screening Level Values (ODEQ 2007)
	DM → Groundwater → Human Toxicity	Ingestion, dermal, ocular, inhalation	Synthetic Precipitation Leaching Procedure: State water quality criteria; Groundwater Assessment/Remedial Action Requirements (MDE 2008b)
Industrial Uses: flowable fill, aggregate, base material, compressed blocks, cement filler, bricks	DM → Human Toxicity	Dermal, ingestion	Industrial Use Soil Cleanup Requirements (MDE 2008b)
	DM → Atmosphere Vaporization → Human Toxicity	Inhalation, ocular (e.g., on-site workers, off-site excavation workers, nearby residents)	Industrial Use Soil Cleanup Requirements (MDE 2008b)
	DM → Airborne Particulates → Human Toxicity	Inhalation, dermal, ocular, ingestion (e.g., on-site workers, off-site excavation workers, nearby residents)	Industrial Use Soil Cleanup Requirements (MDE 2008b)
Landfill Daily Cover or Closure	DM → Atmosphere Vaporization → Human Toxicity	Inhalation, ocular (e.g., on-site workers, off-site excavation workers, nearby residents)	Industrial Use Soil Cleanup Requirements (MDE 2008b)
	DM → Airborne Particulates → Human Toxicity	Inhalation, dermal, ocular, ingestion (e.g., on-site workers, off-site excavation workers, nearby residents)	Industrial Use Soil Cleanup Requirements (MDE 2008b)
----------------------------	DM → Runoff → Surface water → Wildlife toxicity		Synthetic Precipitation Leaching Procedure: Surface water criteria
If Landfill does not have liner and leachate collection	DM → Runoff → Surface Water→ Fishery → Human Toxicity	Ingestion	Synthetic Precipitation Leaching Procedure: BCF and FDA action level; Sediment Bioaccumulation Screening Level Values (ODEQ 2007)
	DM → Leachate → Groundwater → Human Toxicity	Ingestion, dermal, ocular, inhalation	Synthetic Precipitation Leaching Procedure: State Water Quality Standard; Groundwater Assessment/Remedial Action Requirements (MDE 2008b)

Table 4, continued.

Management Alternative	Exposure Pathway and Final Receptor	Comments	Sediment Quality Assessment Criterion
Brownfields	DM → Atmosphere Vaporization → Human Toxicity	Inhalation, ocular (e.g., on-site workers, off-site excavation workers, nearby residents)	Industrial Use Soil Cleanup Requirements (MDE 2008b)
	DM → Airborne Particulates → Human Toxicity	Inhalation, dermal, ocular, ingestion (e.g., on-site workers, off-site excavation workers, nearby residents)	Industrial Use Soil Cleanup Requirements (MDE 2008b)
	DM → Human Toxicity	Dermal, ingestion	Industrial Use Soil Cleanup Requirements (MDE 2008b)
	DM → Groundwater → Human Toxicity	Ingestion, dermal, ocular, inhalation	Synthetic Precipitation Leaching Procedure: State Water Quality Standard; Groundwater Assessment/Remedial Action Requirements (MDE 2008b)
Upland Beneficial Uses: sand & gravel pits/ mined lands restoration	DM → Soil Biota Toxicity		EcoSSL (USEPA 2003, Friday 2005)
	DM → Plant Toxicity	Consider pH, excess Na, SO_4, Chlorides, soil physical properties	EcoSSL (USEPA 2003, Friday 2005)
	DM → Soil Biota → Predator Toxicity		EcoSSL (USEPA 2003, Friday 2005)
	DM → Plant → Wildlife Toxicity		EcoSSL (USEPA 2003, Friday 2005)
	DM → Human Toxicity	Dermal, ingestion	Residential/Recreational Use Soil Cleanup Requirements (MDE 2008b)
	DM → Airborne Particulates → Human Toxicity	Inhalation, dermal, ocular, ingestion (e.g., on-site workers, off-site excavation workers, nearby residents)	Residential/Recreational Use Soil Cleanup Requirements (MDE 2008b)
	DM → Atmosphere Vaporization → Human Toxicity	Inhalation, ocular (e.g., on-site workers, off-site excavation workers, nearby residents)	Residential/Recreational Use Soil Cleanup Requirements (MDE 2008b)
	DM → Surface Runoff → Surface Water → Aquatic Toxicity		Synthetic Precipitation Leaching Procedure or Leachate toxicity test: Surface water quality criteria
	DM → Surface Runoff → Surface Water →Wildlife Toxicity		Synthetic Precipitation Leaching Procedure or Leachate toxicity test: Surface water quality criteria
	DM → Surface Runoff → Surface Water → Human Toxicity	Ingestion, dermal, ocular, inhalation	Synthetic Precipitation Leaching Procedure or Leachate toxicity test: Surface water quality criteria

Table 4, continued.

Management Alternative	Exposure Pathway and Final Receptor	Comments	Sediment Quality Assessment Criterion
Upland Beneficial Uses, continued: sand & gravel pits/mined lands restoration	DM → Surface Runoff → Surface Water → Fishery → Human Toxicity	Ingestion	Synthetic Precipitation Leaching Procedure or Leachate toxicity test: Surface water quality criteria
	DM → Groundwater → Human Toxicity	Ingestion, dermal, ocular, inhalation	Synthetic Precipitation Leaching Procedure: Surface water quality criteria; Groundwater Assessment/Remedial Action Requirements (MDE 2008b)
Upland Beneficial Uses: land amendment, manufactured topsoil (MS)	DM/MS → Soil Biota Toxicity (including microbes responsible for biogeochemical cycling of nutrients)		EcoSSL (USEPA 2003, Friday 2005)
	DM/MS → Plant Toxicity	Consider pH, excess Na, SO4, Chlorides, soil physical properties	EcoSSL (USEPA 2003, Friday 2005, USEPA 2007)
	DM/MS → Soil Biota → Predator Toxicity		EcoSSL (USEPA 2003, Friday 2005)
	DM/MS → Human Toxicity	Dermal, ingestion	Residential Use Soil Cleanup Requirements (MDE 2008b)
	DM/MS → Airborne Particulates → Human Toxicity	Inhalation, dermal, ocular, ingestion	Residential Use Soil Cleanup Requirements (MDE 2008b)
	DM/MS → Atmosphere Vaporization → Human Toxicity	Inhalation, ocular (e.g., on-site workers, off-site excavation workers, nearby residents)	Residential Use Soil Cleanup Requirements (MDE 2008b)
	DM/MS → Surface Runoff → Surface Water → Aquatic Toxicity		Synthetic Precipitation Leaching Procedure: Surface water quality criteria; leachate toxicity test
	DM/MS → Surface Runoff → Surface Water → Free Range Animal/Wildlife Toxicity		Synthetic Precipitation Leaching Procedure: Surface water quality criteria
	DM/MS → Surface Runoff → Surface Water → Human Toxicity	Ingestion, dermal, ocular, inhalation	Synthetic Precipitation Leaching Procedure: Surface water quality criteria
	DM/MS → Surface Runoff → Surface Water → Fishery → Human Toxicity	Ingestion	Synthetic Precipitation Leaching Procedure: Surface water quality criteria
	DM/MS → Groundwater → Human Toxicity	Ingestion, dermal, ocular, inhalation	Synthetic Precipitation Leaching Procedure: Surface water quality criteria; Groundwater Assessment/Remedial Action Requirements (MDE 2008b)
	DM/MS → Farm Animal/Wildlife Toxicity	Dermal, ingestion	Residential Use Soil Cleanup Requirements (MDE 2008b)

Table 4, continued.

Management Alternative	Exposure Pathway and Final Receptor	Comments	Sediment Quality Assessment Criterion
Upland Beneficial Uses, continued: land amendment, manufactured topsoil (MS)	DM/MS → Plant → Feedlot/Free Range Animal/Wildlife Toxicity		Residential Use Soil Cleanup Requirements (MDE 2008b)
	DM/MS → Plant → Feedlot/Free Range Animal/Wildlife → Human Toxicity	Ingestion	Residential Use Soil Cleanup Requirements (MDE 2008b); Site specific risk assessment
	DM/MS→ Plant → Human Toxicity	Ingestion	40 CFR Part 503 Land Application Pollutant Limits; Site-specific risk assessment
Aquatic Beneficial Uses (e.g., creation of wetlands)	DM → Sediment Biota Toxicity		Threshold or Probable Effects Levels (MacDonald 1994, MacDonald et al. 2003); NY state sediment guidance (NYSDEC 2004); Porewater toxicity test, Chronic whole sediment toxicity test and/or sediment-water interface toxicity test.
	DM → Water Column → Pelagic Biota Toxicity		USEPA 2002; or Sediment-water interface toxicity test; Surface water quality criteria
	DM → Sediment Biota → Predator Toxicity	From ingestion of contaminants bioaccumulated in living sediment biota	Sediment Bioaccumulation Screening Level Values (ODEQ 2007) BSAF/BMF/CBR (Moore et al. 2005)
	DM → Sediment Biota → Pelagic Biota → Wildlife Toxicity	Same as above	Sediment Bioaccumulation Screening Level Values (ODEQ 2007); BSAF / BMF / CBR (Moore et al. 2005); Leachate/BCF/ BCR = equilibrium partitioning and trophic transfer (Word et al. 2005)
	DM → Sediment Biota/Water Column → Fishery → Human Toxicity	Ingestion	Sediment Bioaccumulation Screening Level Values (ODEQ 2007); See California Phase II Sediment Quality Objectives Proposal (Beegan 2008); BSAF/BMF/FDA action level (Moore et al. 2005)

Exposure routes modified from Canadian Council of Ministers of the Environment (CCME) 2006, Chang et al. 2002, Driscoll et al. 2002, Great Lakes Commission 2004.

Synthetic Precipitation Leaching Procedure (SPLP)
Effluent Elutriate Test (EET)
Critical body residue (CBR)
Biota-sediment accumulation factors (BSAF)
Bioconcentration factor (BCF)
Biomagnification factor (BMF)

Table 5. Screening criteria for innovative reuse and beneficial use of dredged material.

Dredged Material Classification	Uses	Criteria
AA	Land amendment for agricultural use	Must meet the most stringent criteria, i.e., use a two-phased approach — physiochemical/bioassay screening for plant toxicity followed by a case-by-case assessment of risk of bioaccumulation and human exposure to relic (e.g., metals, PCB, pesticide) and emerging contaminants
A	Aquatic habitat restoration — i.e., salt marsh	Must meet sediment quality assessment guidelines — Threshold Effect Level (TEL); Sediment Bioaccumulation Screening Level values
B	Upland habitat restoration	Must meet ecological soil screening levels
C	Upland reclamation — i.e., fill or soil cover for residential sites	Must meet residential soil cleanup criteria
D	Manufactured topsoil for landscaping	Must not exceed residential soil cleanup requirements for concentrations in blended soil product
E	Building materials, e.g., aggregate, blocks	Must have satisfactory results from air concentration modeling of volatiles and respirable suspended particulates to protect on-site workers; in addition, must test to confirm the strength of binding and the lack of leaching
F	Upland reclamation — cover for industrial, sites e.g., mines, gravel pits, brownfields	Must meet non-residential soil cleanup criteria; groundwater protection criteria; Synthetic Precipitation Leaching Procedure Test and state's water quality standards
G	Engineering fill, e.g., base material	Must meet non-residential soil cleanup criteria; groundwater protection criteria; Synthetic Precipitation Leaching Procedure Test — and state's water quality standards
H	Fill for landfill closure cap	Must meet non-residential soil cleanup criteria
I	Fill for landfill daily cover or upland use with containment, e.g., liners and leachate collection, and cap	Must be non-toxic or hazardous as defined by Code of Maryland Regulations 26.13.02.15-19; Toxic Substances Control Act (i.e., < 50 mg/kg PCB)
J	Confined disposal facility	Data indicates dredged material does not meet criteria for higher tier classification or data are absent
K	Leave undisturbed	Case-by-case assessment shows risk of mobilization (i.e., through chemical and physical processes) is such that buried sediments should be left undisturbed if more recently deposited material is cleaner and acts as a barrier

The beneficial use with the greatest risk was dredged material used as land amendment for agricultural use (Class AA). The team raised a number of concerns with regard to this use. The first focused on the fact that the physical structure of the sediment, its pH, sodium, chloride and sulfate contents could cause soil infertility. The greater risk was associated with the completed exposure pathways to humans (Table 4). The team was unable to offer generic screening values for this classification. It recommends a two-phased approach: (1) initially assessing physio-chemical/bioassay screening for plant toxicity followed by (2) a case-by-case assessment of risk of bioaccumulation and human exposure (Table 5). USEPA/USACE (2004) suggested the use of criteria contained in U.S. EPA 503 regulations (40 CFR Part 503) for the application of biosolids to agricultural areas but did not elaborate on its use nor offer other alternative criteria. As suggested in regards to applications of biosolids (Chang et al. 2002), a guiding principle here should be to prevent pollutants from accumulating in the soil and limiting potential uses over the long term. There has been considerable controversy over the 503 rules and biosolids applications (Snyder 2005). Recently, a U.S. court has strongly criticized American biosolids policy, and awarded compensation to a farmer whose land was contaminated, thus limiting its use, following biosolids amendment (McElmurray v. USDA 2008). The team was concerned not only with relic, commonly measured contaminants (e.g., metals, PCB, pesticides) but also emerging contaminants (e.g., brominated, fluorinated compounds) that are not currently routinely measured. Therefore, much more analysis would be required before dredged materials could be classified as suitable for agricultural use. It is very likely this would also involve a number of pilot tests.

As evident from Table 4, a number of potentially completed exposure pathways exist if contaminated dredged materials were to be used for aquatic restoration. All things being equal (e.g., contaminants of potential concern and their concentrations), the risk associated with aquatic restoration was deemed higher than with upland restoration, due to the intimate contact of sediment with water. The likelihood that an exposure pathway could be completed to humans (i.e., DM→Sediment→biota/water column→fishery→human) was deemed higher for aquatic than for upland uses. An issue specific to Blackwater was completed pathways to valued ecological receptors in a national wildlife refuge. Although many differences exist between Blackwater Refuge and Lake Apopka, Florida, the bird mortalities that occurred following the ecological restoration efforts at Lake Apopka should always be considered as a cautionary note in risk assessments of potential use of contaminated sediments in shallow-water aquatic restoration. Accordingly, screening criteria should factor in both biota-sediment accumulation factors and biomagnification factors to be protective of fisheries and wildlife, and one should not simply rely on threshold effects levels that are derived to assess potential toxicity to benthic infauna.

Uncertainty and Risk Management Goals

Decision making in the face of uncertainty is inescapable. Some authors distinguish "variability," which is inherent in natural systems (i.e., statistical variance that derives from random or heterogeneous factors) from "incertitude." The latter stems from incomplete knowledge and is a byproduct of random error (measurement error), systematic error and subjective judgment, linguistic imprecision (vagueness) and, of course, model uncertainty (Morgan and Henrion 1990). Collection of additional data and refinement of models can reduce incertitude. Alternatively, although we can establish bounds for the inherent variability, there is no way to rid the process of it completely.

Depending on the hazard (e.g., incidence of cancers in humans versus acute toxicity to sediment biota), risk managers may tolerate greater incertitude. Ultimately, the question reduces to how much uncertainty managers are willing to tolerate for a given hazard (consequences of making the wrong decision, see Bridges et al. 2006) and, as a corollary, how many resources they are willing to devote to reduce uncertainty.

In human health assessments, the risk management goal is to protect the individual — even the high end or what is known as the reasonable maximal exposure (RME) individual (often taken to be the 90^{th} or 95^{th} percentile). By comparison, in most ecological assessments, the risk management goal is to guard against population-level effects by protecting some hypothetical "average" individual or what is called the central tendency exposure individual (i.e., the 50^{th} percentile). However, where the ecological receptor is a threatened or endangered species, it may be more appropriate to protect the RME individual. Nonetheless, there remains no established default decision threshold for identifying what level of risk is either clearly acceptable or clearly unacceptable for a reasonable maximum exposure (Suter 1993; USEPA 1999); nor should there be for several reasons. First, use of "bright lines" (i.e., single value thresholds or decision criteria such as screening values above which the risk is considered unacceptable by definition) presumes a level of accuracy in both exposure models and effects measures that does not exist in practice (NRC 1994; Presidential/Congressional Commission on Risk Assessment and Risk Management 1997). Risk estimates must be interpreted relative to the assumptions on which the assessment was based. Clearly, the more conservative the exposure and effects assumptions, the greater the upper boundary for tolerable risk. Under certain circumstances, it may also be necessary to differentiate and accept some level of background risk and assess only the excess risk due to some new action (e.g., arsenic levels above the risk-based criteria but below background levels).

It must be understood that this assessment was completed to support, not direct, decision making. Decision makers have the ultimate responsibility — which must not be "abrogated" (Hope 2007) — of reaching a decision not only based on science but also balanced against a variety of potentially competing issues (e.g., social, political, legal, etc.).

Data Evaluated to Assess Sediment Quality

This evaluation of Baltimore Harbor and approach channel sediment quality has at its core a large number (46) of studies for individual dredging projects. Included are considerable data on contaminant levels in sediments collected in and around Baltimore Harbor that have been provided to the team by Maryland Environmental Services and other sources. These data were originally collected to meet differing goals for projects conducted over a relatively wide spatial and temporal range. Use of secondary data (sometimes referred to as "found data") can sometimes result in significant uncertainties. Although much of the data were collected using rigorous and reliable protocols that satisfied data quality objectives specific to the original program goal, many datasets did not meet the needs of the present assessment. Further, many of the datasets were not available in raw form, at least electronically, or the associated metadata were insufficient to allow analysis. Because of this, all datasets were first screened to assess their suitability for the purposes of the team.

Dataset Utility Criteria

The team employed a series of criteria to assess the utility of data provided, including:

- **Age of Dataset.** The available datasets represent samples taken to meet a variety of objectives over several decades. Datasets for samples collected prior to 1985 were rejected because results would not be representative of the present pollution climate of the sediments (which should be improving over time through circulation/ transport processes and biogeochemical activity). In addition, analytical techniques employed prior to 1985 were inferior to those used more recently. Older data may be used to make some judgments regarding temporal trends in sediment contamination for given sites in and around Baltimore Harbor, but this must be done with caution because the data were not likely collected with that purpose in mind. This makes inter-comparability of data using diverse analytical procedures among the various studies problematic.

- **Methodology.** Datasets were also rejected from further consideration if the analytical methodology was deemed inadequate (partial digestion, poor detection limits, etc.) and if there were insufficient analytes to allow for a reasonable assessment of the validity of the data. For example, in the case of metals, elements such as iron and aluminum should reflect natural abundances and not be affected by significant human artifacts. For organic contaminants, ancillary data on total organic carbon was considered useful.

- **Quality Assurance/Quality Control.** To be useful, datasets needed sufficient information on quality assurance and quality control. This includes measures used in acquiring data to support its validity, such as blanks, matrix spike recoveries, and duplicates.

- **Representative Sediment Samples.** The team considered it essential that the sediment sample be representative of the material potentially removed during dredging; in practice, it is often recommended that sediment cores extend at least one foot below maximum proposed dredge depth (NYSDEC 2004). Those not meeting this condition were rejected from further consideration.[1]

Once the suitability of the dataset was established, results, where appropriate, were compared to environmental quality standards to enable a prediction of the potential risk associated with reuse of sediments with given levels of contaminants. Appendix Table A1 details the data sources and the assessment the team made with respect to their utility for examining the levels of metals and organic contaminants in sediments.

Analyzing Trends in Data

The team considered the data with respect to discerning trends in contaminant loading to harbor sediments. They concluded that the data were not usable for trend analysis. Contaminated areas such as Baltimore Harbor tend to have very heterogeneous contaminant concentrations that can vary by orders of magnitude over short distances. Therefore, it is impossible to compare sediment data collected at a specific site in the late 1990s to data supposedly collected at the same site years later. In actuality, the sediments are not collected from the same location, but within meters of each other. Consequently, one may be looking at spatial heterogeneity rather than a true trend. We could ignore the problem of heterogeneity noted above and interpret data from the same area to indicate that levels of a particular contaminant have changed. However, these changes could be simply due to dredging and removal of previously contaminated sediments rather than a change in inputs of a particular contaminant. Finally, the team noted that great care needs to be exercised in using any trend data to indicate that a decline in legacy pollutants could be interpreted to mean that the contaminant status of Baltimore Harbor is getting better. Without data for emerging contaminants, we would not be able to say whether the opposite case is true for these chemicals.

The preferred approach to collect appropriate trend analysis information is to obtain sediment cores in areas of accumulation and then date the cores using lead-210 and cesium-137. To the best of the team's knowledge, there has not been a sampling plan that addresses the need for trend analysis using these appropriate methodologies. With this in mind, the team recommends that managers consider how best to implement trend studies in sampling sites slated for maintenance dredging. With a 21-year forecast for placement options, sampling every 3-4 years on a selected grid would generate that information for longer-term placement issues.

[1] Sampling for one foot over dredged depth is typical and ensures that the potential overdredge is included in the sample. For example, in the NY/NJ harbor, the sampling is typically done to project depth, plus 2-foot overdredge, followed by separating out the bottom six inches as a separate sample. This is done because contamination is often greater at depth, and there is more concern about the sediment that remains than the sediment that is removed. Excluding the potential overdredge from typical maintenance dredging would most likely bias the sample to the high or low side since the material is typically dredged to depth at each location, rather than moving down by increments over the project footprint. If contamination increases with depth, then the sample would be biased low; if the converse were true then the sample would be biased high.

Evaluation of Existing Criteria, Standards, and Guidelines for Applicability to Dredged Material Management Decision Making

There are numerous soil and sediment quality assessment frameworks in use throughout the world. Typically, soil/sediment quality is assessed for one of the following reasons:

1. To assess need for corrective action and/or remediation (i.e., use *in situ* evaluation to locate areas of ecological or human health risk).

2. To assess risk associated with a change in land use (e.g., use of a former industrial site for residential development or an agricultural area for ecological restoration).

3. To assess risk associated with various alternatives for managing the disposal/beneficial uses of sediments dredged for navigational purposes (i.e., *ex situ* management).

The team focused on the third option while benefitting from tools developed for the other two.

A number of literature reviews and compilations have been completed recently on media specific screening values, (i.e., chemical concentration in environmental media that are used as benchmarks to predict frequency or intensity of negative biological effects (Friday 2005, Apitz et al. 2007, Buchman 2008). These screening values were developed based on a number of simplifying assumptions about the interactions between the receptor (i.e., organism) and the specific media (e.g., freshwater, marine water, freshwater sediment, marine sediments, soil) and about the presumptive pathway (e.g., direct exposure, inhalation, ingestion, biomagnification) leading to exposure (Bartley et al. 2004). Because they are highly specific, screening values should only be used with an understanding of how they were derived, the exposure pathway and receptors for which they were designed to protect, and their predictive ability (Word et al. 2005).

Compilation of Currently Available Screening Values

The team compiled criteria, standards, and guidelines from a number of sources (Appendix Tables B1-B4). Where available, the team utilized screening values that were already adopted by the State of Maryland. For example, to protect aquatic life from leaching of materials and contamination of surface water (e.g., fresh, estuarine, and salt water) the team relied on COMAR26.08.02.03-2 - Numerical Criteria for Toxic Substances in Surface Waters (MDE 2008a). For the protection of human health from potentially contaminated dredged materials used as soils, the team relied on soil standards that were developed for residential clean-up, non-residential clean-up and protection of groundwater (MDE 2008b). Where a specific criterion had not been codified by the state of Maryland, the team compiled multiple criteria from different sources and, as appropriate for a scoping-level study, used the most conservative value. For the protection of ecological health in scenarios where dredged material would be used as upland soil, we compiled U.S. EPA's Ecological Soil Screening Levels (Eco-SSL) for 17 metals and 4 organics, including metabolites and degradates (USEPA 2003, updated in 2005). Eco-SSLs were derived separately for four groups of ecological receptors: plants, soil invertebrates, birds, and mammals. These criteria were developed through a collaborative effort by a multi-stakeholder group consisting of federal, state, consulting, industry, and academic participants led by the U.S. EPA Office of Solid Waste and Emergency Response (USEPA 2003, updated in 2005). Where appropriate, the Eco-SSL explicitly consider and model the potential for bioaccumulation and subsequent biomagnification through trophic transfer. Soil screening values for the protection of plants, invertebrates, birds, and mammals were also compiled from the Oregon's Department of Environmental Quality (ODEQ 1998 and updated in 2001), the New Jersey's Department of Environmental Protection (NJDEP 2009) and from Friday (2005). The latter two were compilations from other sources including, but not limited to, the U.S. EPA, U.S. Fish and Wildlife Service, Oak Ridge National Laboratory (http://www.hsrd.ornl.gov/ecorisk/reports.html), the Canadian Council of Ministers of the Environment, and the Dutch Ministry of the Environment.

It is difficult to adequately evaluate the scientific underpinnings of a screening value that is derived from a compilation of previous compilations (see below). To screen scenarios where dredged materials might be used for aquatic habitat restoration, three sets of sediment screening values of marine sediments for the protection of benthic infauna (Long et al. 1995, MacDonald et al. 1996, Barrick et al. 1989) were compiled and evaluated. As discussed in greater detail below, these three sets of screening values were derived using different approaches resulting in different degrees of protection. To screen for possible negative impacts to ecological (e.g., fish, birds, mammals) and human receptors (e.g., general/recreational fishers and subsistence fishers) from bioaccumulation and subsequent biomagnification through trophic transfer of contaminants in dredged materials, Sediment Bioaccumulation Screening Level Values were compiled from Oregon's Department of Environmental Quality (ODEQ 2007). The derivation of those screening values is described in Appendix D of that document and involved using chemical-specific biota-sediment accumulation factors, the fraction of total organic carbon in the sediment, and the fraction of lipid in the receptor to model the sediment concentration that would not be expected to exceed acceptable tissue levels in diet for the specific receptors (either no observable adverse effect level (NOAEL) for individuals or lowest observable adverse effect level (LOAEL) for populations).

Application of Screening Values

The application of screening values must be consistent with the underlying assumptions in their derivation. Caution must also be exercised because screening values are developed using different methods, especially across different media, each with varying degrees of embedded conservatism. A recent review found screening values were not always correctly applied and often were derived from other previously published compilations that were based on outdated values (Barron and Wharton 2005).

For the purposes of this scoping-level assessment, the team compiled and applied criteria specific for the receptor in each of the exposure pathway scenarios (Table 4). However, these screening values are not offered as final criteria; development of final criteria was beyond the scope of this assessment. Several guidance documents are available for developing criteria (Chang et al. 2002, Cura et al. 2004, CCME 2006, ODEQ 2007), including criteria for *ex situ* management of contaminated dredged materials (Driscoll et al. 2002, Munns et al. 2002, USEPA/USACE 2004). Before adopting final criteria, the state of Maryland must carefully evaluate the technical basis, predictive ability, embedded conservatism, and uncertainty surrounding each screening value. As an illustration of this process, the ensuing section provides details on the development of different sediment screening values and the team selection rationale.

The Effects Range-Low/Effects Range-Median (ER-L/ER-M) sediment screening value (Long et al. 1995), the Threshold Effects Level/Probable Effects Level (TEL/PEL) sediment screening value (MacDonald et al. 1996) and the Apparent Effects Threshold (AET) sediment screening value (Barrick et al. 1989) were all derived from compilations of toxicity test results and benthic infauna analyses for marine and estuarine sediments, but each through a different approach. ER-L and ER-M values were derived from effects data sets of toxicity tests and benthic community surveys, representing the 10^{th} and 50^{th} percentile of effective concentrations of each chemical in the dataset, respectively (Long et al. 1995). The derivation of TEL and PEL values included both effects and no-effects datasets of toxicity tests and benthic community analyses. The TEL represents the geometric mean of the 15^{th} percentile concentration of the effects dataset and the 50^{th} percentile concentration of the no-effects dataset for each given chemical, and the PEL represents the geometric mean of the 50^{th} percentile concentration of the effects dataset and the 85^{th} percentile concentration of the no-effects dataset (MacDonald et al. 1996). AET values have been determined using effects and no-effects datasets, with the AET being the highest detected concentration of a chemical in sediments at which no statistical effect is observed for a given biological indicator. Confirmation was done by verifying if statistically significant effects occurred at concentrations higher than the AET (Barrick et al. 1989).

The ER-L and TEL values represent concentrations of chemicals below which adverse biological effects are not expected (i.e., are rarely observed). The ER-M and PEL values represent concentrations of chemicals above which adverse biological effects are likely (i.e., frequently occur). Values between the ER-L and ER-M, or the TEL and PEL, represent concentrations at which adverse biological effects are expected to occasionally occur (Long et al. 1995; MacDonald et al. 1996). The AET is the concentration of a chemical in the sediment above which adverse effects to the biota are always expected for a particular biological indicator (Barrick et al. 1989).

ER-L and ER-M values, including those originally derived by Long et al. (1995) and some additional values added to the NOAA SQuiRT tables (Buchman 2008), are available for a total of 32 chemicals or groups of chemicals, including nine trace metals, total PCBs, DDT and its derivatives, and two additional organochlorine pesticides, 13 polynuclear aromatic hydrocarbons (PAHs), and three classes of PAHs (low molecular weight, high molecular weight, and total PAHs). TEL and PEL values are available for the same chemicals, with some additional pesticides, metals, a phthalate, a PCB, and a dioxin, including original values from MacDonald et al. (1996) and additional values from Buchman (2008). AET values are available for 70 compounds or groups of compounds, including a broader variety of metals and organics than the other two guidelines (Buchman 2008).

Given the method by which the TEL and PEL were derived, including effects and no-effects datasets, they represent a more robust set of SQGs and tend to be more conservative (i.e., more protective of the aquatic environment). Therefore, we recommend the use of the TEL to establish acceptability of dredged material from Baltimore Harbor for aquatic restoration uses. For chemicals for which TEL values are not available, the use of the next most conservative sediment quality guideline shown in Appendix Tables B1-B4 is recommended for screening purposes. However, it is important to note that while numerical sediment quality guidelines are useful tools for environmental management, they do not preclude the need for site-specific considerations (Nipper 1998).

Mixtures of Different Contaminants

An often-ignored source of uncertainty occurs when environmental media contain a mixture of contaminants. In most cases, screening values are developed for individual contaminants as if they occurred in isolation in the environment. More often than not, however, contaminants occur as mixtures. The effects of chemical interactions on the toxicity of mixtures are not well understood. In assessing potential impacts, the mode of action (MOA) of each potential toxicant should be considered when assessing the potential for chemical interactions such as additivity, antagonism, synergism, and potentiation. The often-invoked simplifying assumption that the toxicity of a combination of toxicants will be additive may have some degree of validity only where those toxicants share a common MOA and interact with the same site of action. Assessing the interactive effects of mixtures of toxicants that do not share a similar MOA or site of action remains a source of considerable uncertainty (for other sources of uncertainty, see Vorhees et al. 2002).

Assessing Dredged Material for Reuse

Regardless of the end reuse, assessing the potential suitability of dredged sediments involves two steps: (1) an evaluation of the level of contamination of the sediment to be dredged and (2) an evaluation of how the material will be reused and the levels of contaminants which likely pose a risk to relevant resources or environmental receptors (see "The Context for Risk Assessment," p. 15).

The first step requires data on levels of contaminants in the sediments to be dredged and an evaluation relative to defined criteria. With these considerations, the team conducted a screening level assessment based on criteria detailed earlier for metal and organic contaminants (see "Evaluation of Existing Criteria, Standards, and Guidelines for Applicability to Dredged Material Management Decision Making," p. 27). The team criteria are useful as a screening tool for the purposes of this assessment and may be appropriate in cases where the hazard is not "unacceptable" (even where the probability of occurrence or exposure is not "low"). One example might be use of dredged material as daily cover in a lined landfill. In many cases, however, decision making must be made on a case-by-case, site-specific basis.

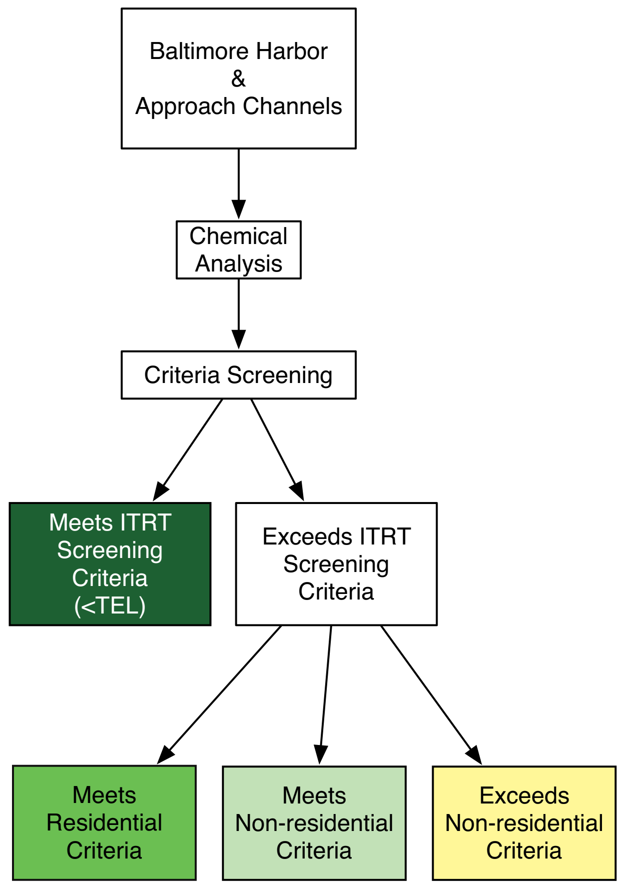

Figure 4. Independent Technical Review Team Screening Level Assessment Process.

The team sediment suitability screening process (Figure 4) recognizes that the contaminant concentration threshold to be applied depends on the risk associated with a particular reuse. The most straightforward innovative reuses, for which there may be an applicable set of standards for contaminant concentrations, are those described by the Innovative Reuse Committee (see Table 3).

NOTE: Tables 6 and 7 and Figures 5-22 are located in a separate section beginning on p. 57.

Maryland's existing soil clean-up criteria list acceptable levels for contaminants (both inorganic and organic) in residential and non-residential soils. The team focused on end reuses for fill material in remedial activities on landfills and brownfields where state standards for residential and industrial soil cleanup are applicable and contaminant concentrations in the sediments can be used as the main criteria for assessing their potential suitability. It was clear that assessing the suitability for other reuses, such as land amendment for agricultural use and habitat restoration, would require additional steps that address specific transfer pathways to environmental receptors (see "Evaluation of Existing Criteria, Standards and Guidelines for Applicability to Dredged Material Management Decision Making," p. 27).

If these criteria are to be applied specifically to dredged material reuse, there are, however, several issues that must first be addressed. These issues may differ among the categories of contaminants and will be discussed below for metals and organic contaminants.

Metals

The team employed a "weight of evidence" approach to using existing criteria to arrive at reasonable screening levels for potential dredged material upland reuse with regard to metal contamination. This provides a set of screening criteria used to assess Baltimore Harbor sediments for potential innovative reuse in non-agricultural upland applications.

Regarding metal contaminants, Table 6 lists relevant environmental criteria along with data on the natural abundances of those contaminants of most concern. Metals such as aluminum, manganese, and iron are so naturally enriched in soils that they were not considered, since they are unlikely to influence decision making. Table 6 lists the Maryland criteria for residential and non-residential cleanup along with those for New Jersey; an EPA standard for industrial use is also provided. The process for establishing these criteria provides a starting point for evaluating the potential reuse of dredged material.

Sediments in harbors and navigation channels are primarily naturally occurring materials in which contaminants, typically from land-based activities, have accumulated. There is a rich literature on the natural abundance of the elements in natural solids. Early papers (Turekian and Wederpohl, 1961;Taylor, 1964; Taylor and McLennan, 1981) quantified average concentrations in natural crustal materials that provide the source material of metals in all natural sedimentary deposits. These values have fundamentally not changed. The literature also demonstrates that surface geochemical processes that lead to the formation of natural aquatic sediments do not fractionate metals significantly, so that elemental ratios remain similar to those of crustal abundances. This fact has facilitated the ability to discriminate natural from metal-contaminated sediments (Windom, et al., 1989; Loring, 1990; Weisberg et al., 2000). The weathering process does, however, lead to natural enrichment of metals in suspended sediments, which ultimately supply bottom sediments; and average concentrations of metals in this material, as well as in oceanic sediments, is also well documented (Martin and Whitfield, 1983). Metals are generally more concentrated as the mean grain size of the material decreases, the result of naturally occurring metals being associated primarily with clay minerals. The metal concentrations given in Table 6 for average continental rocks, natural soils, and suspended sediments should be reasonably representative of the expected range of metal concentrations in the sediments if no contaminants were added.

With this considered, it is apparent that the Maryland criteria for some of the metals (e.g., arsenic, chromium, and vanadium) for residential and non-residential soil clean-up are lower than the concentrations characteristic of natural materials, such as average soils. This may be overly restrictive in the context of innovative reuse of certain dredged sediments.

Using the natural abundances, along with soil criteria for New Jersey and EPA Region 3 that are similar to those in Maryland, a modified set of criteria was prepared by the team for dredged material upland reuse. This is shown in two rows, residential and non-residential, at the bottom of Table 6. By using naturally observed soils metals concentrations as the minimum, the team selected reuse concentrations from New Jersey, EPA, or those already in place in Maryland as reasonable values over naturally occurring concentrations. This rationalization only affected criteria for arsenic, chromium, cobalt, and vanadium.

A criterion based on threshold effects levels (TELs), discussed elsewhere in this report, allows for the assessment of the suitability of harbor sediments for aquatic habitat restoration and the most restrictive upland reuses. These criteria are noted at the bottom of Table 6. For chromium, copper, and nickel, the TEL criteria are unreasonably low (52.3, 18.7, and 15.9 mg/kg, respectively) compared to soil abundances (70, 30, and 50 mg/kg, respectively) and natural coastal marine sediments. Therefore the value for natural soils was used for these metals in the screening presented below. For reuses where biological receptors become the focus of risk, the team employed criteria based on biological effects (hence TELs).

Organic Contaminants

The team screened subsets of existing sediment organic contaminant data relative to several criteria. These included the State of Maryland criteria for residential and non-residential soil clean-up standards, and aquatic sediment threshold effects levels (TELs) to determine potential suitability of sediments for habitat restoration.

In a limited number of cases where no Maryland soil cleanup criteria or TEL data existed for a particular group of contaminants, the data were assessed relative to the State of Oregon standards for bioaccumulation in humans that subsistence feed on fish exposed to contaminated sediments (ODEQ 2007). This third assessment provides additional information regarding the suitability of sediments for habitat restoration.

Classes of organic contaminants examined included polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), polychlorinated dibenzo-p-dioxins (PCDDs) and furans (PCDFs), volatile organic contaminants (VOCs), semivolatile organic contaminants (SVOCs), and pesticides. Table 7 lists the relevant environmental criteria for various components of these classes of organic contaminants.

Sediment Screening for Potential Reuse

Using the criteria developed above, the team evaluated existing data for metal concentrations in sediments from channels in and around Baltimore Harbor to assess the potential suitability for various types of reuse. (These data were previously screened for relevance.) The team used color-coding for contaminants in sediments to indicate four levels of potential reuse: *dark green* indicates that the contaminant level is below the TEL or natural abundance (whichever is higher) and is potentially suitable for the most stringent reuse applications; *medium green* indicates that the material exceeds the TEL or natural abundance (whichever is higher), but is suitable for residential reuse applications; *light green* indicates that the material exceeds the residential reuse application criteria, but is below the team screening criteria for non-residential (industrial) reuse criteria; and *yellow* indicates that the material exceeds the team screening criteria for industrial reuse.

The team used an approach that weights the number of criteria that are met for each sample, yielding maps that allow for a comparative evaluation of potential reuse of sediments from the different locations in the harbor. The simple weighting protocol is as follows:

- Below Thresholds Effects Level (TEL) Criteria — No chemicals measured exceed the TEL or natural abundance (whichever is higher).
- Meets Residential Reuse Criteria — At least one chemical exceeds the TEL or natural abundance (whichever is higher), but all measured chemicals are suitable for residential reuse based on the team's screening criteria.
- Meets Non-Residential Reuse (Industrial) Criteria — At least one chemical exceeds the team screening criteria for residential reuse application, but all measured chemicals are suitable for non-residential (industrial) reuse based on the team's screening criteria.
- Exceeds Non-Residential Reuse (Industrial) Criteria — At least one chemical exceeds the team's screening criteria for non-residential (industrial) reuse.

The team stresses that there are a variety of possible end uses for each category. For instance, a yellow determination ("material exceeds the industrial reuse criteria") does not mean that the material could not be reused, but instead that site-specific application information is required before a determination could be made. Table 8 applies the color-coding scheme to the initial screening criteria for innovative reuse and beneficial use presented earlier in this report.

The results of these analyses are presented in tables for the data sets with demonstrable quality, derived from appropriate analytical procedures (see "Data Evaluated to Assess Sediment Quality," p. 25). The tables found in Appendix Tables C1-C8 list contaminant levels (metals and organics contaminants) in geographically defined sediment samples collected for specific projects. Each table is color-coded according to the scheme described above. In total, they provide a reasonable distribution in time and space to enable a baseline screening of the contamination of sediments in Baltimore Harbor and the immediate vicinity and the suitability of these sediments for potential reuse.

Table 8. Screening criteria for innovative reuse and beneficial use of dredged material.

Dredged Material Classification	Uses	Criteria
AA	Land amendment for agricultural use	Must meet the most stringent criteria, i.e., use a two-phased approach — physiochemical/bioassay screening for plant toxicity followed by a case-by-case assessment of risk of bioaccumulation and human exposure to relic (e.g., metals, PCB, pesticide) and emerging contaminants
A	Aquatic habitat restoration — i.e., salt marsh	Must meet sediment quality assessment guidelines — Threshold Effect Level (TEL); Sediment Bioaccumulation Screening Level values
B	Upland habitat restoration	Must meet ecological soil screening levels
C	Upland reclamation — i.e., fill or soil cover for residential sites	Must meet residential soil cleanup criteria
D	Manufactured topsoil for landscaping	Must not exceed residential soil cleanup requirements for concentrations in blended soil product
E	Building materials, e.g., aggregate, blocks	Must have satisfactory results from air concentration modeling of volatiles and respirable suspended particulates to protect on-site workers; in addition, must test to confirm the strength of binding and the lack of leaching
F	Upland reclamation — cover for industrial, sites e.g., mines, gravel pits, brownfields	Must meet non-residential soil cleanup criteria; groundwater protection criteria; Synthetic Precipitation Leaching Procedure Test and State's water quality standards
G	Engineering fill, e.g., base material	Must meet non-residential soil cleanup criteria; groundwater protection criteria; Synthetic Precipitation Leaching Procedure Test — and state's water quality standards
H	Fill for landfill closure cap	Must meet non-residential soil cleanup criteria
I	Fill for landfill daily cover or upland use with containment, e.g., liners and leachate collection, and cap	Must be non-toxic or hazardous as defined by Code of Maryland Regulations 26.13.02.15-19; Toxic Substances Control Act (i.e., < 50 mg/kg PCB)
J	Confined disposal facility	Data indicates dredged material does not meet criteria for higher tier classification or data are absent
K	Leave undisturbed	Case-by-case assessment shows risk of mobilization (i.e., through chemical and physical processes) is such that buried sediments should be left undisturbed if more recently deposited material is cleaner and acts as a barrier

Data compiled in tables were input to a geographic information system (ESRI ArcMap 9.3 with associated data processing done in Microsoft Excel and Microsoft Access) to generate a series of maps detailing sediment characteristics in various areas of the harbor and approach channels. Here we present maps that specifically focus on contaminant levels in harbor channels. Data for off-channel locations are summarized below. Maps for off-channel sites analogous to those shown below are found in the Appendix (Figures D1-D12).

- Potential reuse options based on application of the team's screening criteria for metal contaminants criteria only (Figures 5, 6, 7, 8).

- Potential reuse options based on application of the team's screening criteria for organic contaminants (Figures 9, 10, 11, 12).

- Potential reuse options based on application of the team's screening criteria for metals and organic contaminants together. Data for these maps come from sampling locations where both metal and organic contaminant data co-occur (Figures 13, 14, 15, 16).

For clarity, sites meeting criteria for each level of possible reuse (<TEL, Meets Residential Reuse, Meets Non-Residential Reuse and >Non-Residential Reuse) are shown separately. These maps are useful to demonstrate general findings and, as such, they represent potential reuse options for a given area based on the team's screening protocol. However, they have important limitations imposed by the spatial and temporal nature of the datasets used to generate them. The scale of the maps is designed to show general spatial trends, not highly specific locations of each sample. Therefore, when comparing maps for different designations, the colored circles may appear to be at the same site. This is most likely not the case. Individual sampling stations vary on the scale of hundreds of meters — enough to be significant with respect to the mapping program, but not visible on the scale of the maps presented here. In addition, as noted earlier in this report, contaminated areas such as Baltimore Harbor tend to have very heterogeneous contaminant concentrations that can vary by orders of magnitude over short distances. The team reiterates that these analyses are based on a compilation of historical data from studies done at different times. While the data used were deemed to be of sufficient quality for the team's assessment, they extend across approximately ten years of sampling — an important context to consider.

While a synthesis of this type is extremely useful, the maps that follow have not been designed to be of sufficient scale to make detailed management decisions. Rather, they highlight areas that could be examined with respect to potential innovative reuses. For reference, we present the original list of priority innovative reuses designated by the IRC (2007) here in Table 9. The table has been color-coded consistent with the team screening protocol to show how projected end uses link to potential areas where sediments might be dredged.

The team emphasizes that a projected innovative reuse — depending upon its level of risk — would be based on new assessments of sediment quality at the specific sites where dredging would take place.

Table 9. Technologies recommended for evaluation by the Innovative Reuse Committee (IRC 2007).

High Priority Technology	Medium Priority Technology	Low Priority Technology
Land Amendment	Lightweight Aggregate	Brownfields
Sand & Gravel Pits	Cement Filler	Compressed Blocks
Flowable Fill	Base Material	Manufactured Topsoil
Mines		Daily Cover
		Bricks

Findings for the Harbor Channels

Metal Contaminants

For metal contaminants in harbor channels the following general observations are made:

- There were no samples in the datasets reviewed by the team that were lower than the threshold effects level (TEL), eliminating land amendment reuse applications or aquatic habitat restoration (Figure 5).

- A limited number of the samples analyzed met the criteria for residential reuse applications. Based solely on the limited number of samples with limited geographic distribution that were analyzed, about 9% of the samples fell into this category (Figure 6).

- Significantly more samples met the team screening criteria for non-residential (industrial) reuse applications. Based solely on the limited number of samples with limited geographic distribution that were analyzed, about 43% of the samples fell into this category (Figure 7).

- There were a number of samples that exceeded the criteria for non-residential reuse. Based solely on the limited number of samples with limited geographic distribution that were analyzed, about 48% of the samples fell into this category. In most cases, arsenic concentrations in excess of the team's screening standard resulted in this designation (Figure 8).

- The team did a general comparison of the 1998 Federal Channel data with samples taken more recently. The analysis suggested that, with regard to metal contamination, sediments from the Federal Channel in 1998 were more contaminated than those analyzed more recently. This is not surprising because there is an expectation that contamination of the harbor should decline, due to more recent rigorous environmental controls as well as natural sorting processes. Nonetheless, the only potential reuse of these sediments would be for residential and non-residential soils.

Organic Contaminants

For organic contaminants in harbor channels the team made the following general observations:

- There were no samples in the datasets reviewed by the team that were lower than the threshold effects level (TEL) criteria, eliminating land amendment reuse applications or aquatic habitat restoration (Figure 9).
- A limited number of the samples analyzed met the criteria for residential reuse applications. Based solely on the limited number of samples with limited geographic distribution that were analyzed, about 44% of the samples fell into this category (Figure 10).
- A similar number of samples met the team's screening criteria for non-residential (industrial) reuse applications. Based solely on this limited number of samples with limited geographic distribution that were analyzed, about 41% of the samples fell into this category (Figure 11).
- There were a number of samples that exceeded the criteria for non-residential reuse. Based solely on the limited number of samples with limited geographic distribution that were analyzed, about 15% of the samples fell into this category. High levels of benzo(a)-pyrene in many areas resulted in this designation (Figure 12).

Lack of TEL data for numerous organic contaminants, combined with levels of octachlorodibenzo-p-dioxin (OCDD) that exceed the standard for bioaccumulation in humans that subsistence feed on fish exposed to contaminated sediments, indicate that sediments in the harbor should be carefully evaluated prior to use if aquatic habitat restoration becomes an option for reuse. See Appendix Table C3 and C4 and Figure 21.

Aggregated Metals and Organic Contaminants

By pooling the data for both metal and organic contaminants for all stations it is possible to generate a composite or aggregate set of maps showing the suitability of sediments for reuse applications. There were fewer stations with overlap of data for both metal and organic contaminants limiting the conclusions that the team could make. The following general observations are made:

- There were no samples in the datasets reviewed by the team that were lower than the TEL, eliminating land amendment reuse applications or aquatic habitat restoration (Figure 13).
- A single sample (1%) analyzed met the criteria for residential reuse applications (Figure 14).
- Significantly more samples met the team screening criteria for non-residential (industrial) reuse applications. Based solely on this limited number of samples with limited geographic distribution that were analyzed, about 43% of the samples fell into this category (Figure 15).
- There were a number of samples that exceeded the criteria for non-residential reuse. Based solely on the limited number of samples with limited geographic distribution that were analyzed, about 56% of the samples fell into this category (Figure 16).

Findings for Off-Channel Locations

Data for off-channel locations is summarized in Appendix Tables C1-C8. Maps of off-channel sites for all four criteria are also found in the Appendices (Figures D1-D12). We summarize these findings here (Table 10).

- Metals: With respect to metal contaminants, the team found that off-channel sites grouped into a range of possible reuse options that was very similar to that found in the harbor channels (Appendix Maps D1-D4). No sites met the most stringent reuse criteria (<TEL), with a low percentage meeting residential reuse criteria. More sites either met or exceeded non-residential criteria.

- Organics: The team found that the distribution of sites that met reuse criteria for organic contaminants in off-channel locations varied from what was observed in channels (Appendix Maps D5-D8). While no sites met the most stringent reuse options (<TEL), few sites (8%) were found that met residential reuse criteria. A greater number (32%) were suitable for non-residential reuse; however, the majority of off-channel sites examined for this study (60%) exceeded the criteria for non-residential reuse option.

- Metals and Organics: Pooled data for both metal and organic contaminants for off-channel locations were examined to generate a composite picture for those sites with sufficient sample coverage (Appendix Maps D9-D12). In general terms, the pattern for these stations was similar to that observed for organic contaminants. Almost none of the sites examined met the TEL or residential reuse criteria, and a small number met non-residential reuse criteria. The large majority of sites for which there was composite data (74%) exceeded non-residential guidelines (Table 10).

Table 10. Comparison of sites in harbor channels or in off-channel locations that meet reuse criteria for each contaminant class. All values reported as the percent of the total number of sites for each contaminant class (metals, organics or metals & organics) in channels or off-channel sites respectively.

	Metals		**Organics**		**Metals & Organics**	
Location	Channel Sites (n= 96)	Off-Channel Sites (n= 80)	Channel Sites (n= 85)	Off-Channel Sites (n= 92)	Channel Sites (n= 71)	Off-Channel Sites (n= 70)
Criteria	**%**	**%**	**%**	**%**	**%**	**%**
Below TEL	0	0	0	0	0	0
Below Residential Reuse	9	5	44	8	1	1
Below Non-Residential Reuse	43	47.5	41	32	43	25
Exceeds Non-Residential Reuse	48	47.5	15	60	56	74

Findings for Approach Channels, the Main Bay and Areas Outside the Harbor

With respect to metal contaminants, the team did not find sufficiently validated metal data outside the harbor to conduct a detailed assessment. Limited data for organic contaminants outside the harbor were analyzed and a series of wide area maps produced (Figures 17-20). It should be noted that most of the samples outside the harbor were taken from the approach channels with a small percentage derived from the Back River and mid-Bay stations. With respect to organic contaminants the team found:

- Consistent with the analysis of other sites using the team screening criteria, there were no samples in the datasets from outside of the harbor (North Point to Rock Point line) that were lower than the TEL (Figure 17).

- Of the samples screened, a significant number (~58%) met the criteria for residential use (Figure 18).

- Approximately 36% of the samples met the criteria for non-residential reuse (Figure 19).

- There were very few samples that exceeded the non-residential reuse criteria (~6%), however, the sample size was very small, limiting any conclusions the team could make (Figure 20).

Similar to findings for the harbor, limited data for approach channels and a few sites in the Bay screening revealed levels of octachlorodibenzo-p-dioxin (OCDD) that exceed the standard for bioaccumulation in humans that subsistence feed on fish exposed to contaminated sediments. See Appendix Tables C3 and C4 and Figure 22.

General Conclusions

The Independent Technical Review Team was asked to undertake several specific tasks to help the Innovative Reuse Committee understand the suitability of Baltimore Harbor sediments for reuse applications. Here we summarize the team's findings and general conclusions. More detailed guidance regarding future dredging efforts appears in the next section.

1. A summary of the status of sediment quality guidelines and criteria that may be in use regionally or nationally.

The team conducted a thorough analysis of sediment quality guidelines and criteria, as well as an assessment of relevant risk factors for innovative reuse options. These analyses were instrumental in the development of the assessment protocol used by the team in shaping and in guidance for future management decisions. The team focused on guidelines and criteria that were locally derived and used, but also reached out to find guidelines and criteria that were not available locally or to verify the validity of locally derived criteria. The team did not perform an overall evaluation of the status of sediment criteria or guideline development, as this would be beyond the scope of this effort. Nor did the team perform a critical evaluation of the criteria or guidelines that were used beyond what is discussed below with regards to natural background of metals.

2. Recommendations for scientific protocols to evaluate dredged material for its suitability for use in various innovative reuse applications.

The team has summarized a broad set of scientific protocols deemed useful for the evaluation of sediment quality for innovative reuse applications. For the purposes of the current assessment, the team developed a screening criteria based on four general classes of reuse. This was adequate to assess potential sediment quality for the suite of reuse options under consideration by the Innovative Reuse Committee. The team adopted a practical approach to develop its screening protocol and used a process consistent with that currently employed by the State of New Jersey, using Maryland soil standards where possible. The exception to this was a subset of metal contaminants. In each case, the natural (geological) background levels of these metals is higher than the Maryland soil standards. In order to complete the screening and consider potential reuse options, the team felt it was necessary to develop alternate criteria derived from an analysis of what is done elsewhere and consistent with the region's geological background. The team recommends that the Innovative Reuse Committee work closely with the Maryland Department of the Environment with respect to this issue as they move forward on implementing reuse options. In the case of a number of organic contaminants where there are no threshold effects level (TEL) criteria, it is important to consider bioaccumulation criteria such as those adopted by the state of Oregon. The team notes that dioxin concentrations in some samples both inside and outside the harbor should be considered with respect to potential reuse options.

A more detailed compilation of criteria — consistent with what is employed in other parts of the United States — was developed and provides guidance for evaluation of sediment quality for additional innovative reuse and beneficial use (Table 8). The team concluded that for the purposes of the current assessment, the use of threshold effects level (TEL) criteria provided an appropriate initial screen for reuse options with higher potential risk. While no sites met the TEL criteria in the current assessment, additional sites that do could emerge with more sampling. At that point, soil criteria (as opposed to TELs specifically related to sediments) should be brought into play for screening level assessment of upland reuse. Such criteria include the U.S. EPA's ecological soil screening levels, the State of Oregon's soil screening values, and those compiled by Friday (2005) or the State of New Jersey (see also Table 4).

3. *A characterization of the sediment quality (physical, chemical, and biological) in the port's shipping channels and the adequacy of information available for that purpose.*

The team used studies that met minimum criteria with respect to analytical methodology, QA/QC, and, importantly, sampling that was representative of what would be dredged in a given project. The team concluded that there were a number of datasets that sufficiently met these criteria to provide an adequate scoping assessment of sediment suitability. The team emphasizes that there are, at present, several highly relevant and detailed syntheses that provide guidance on sampling and analytical methodologies that should be considered as a basis for planning future characterizations of sediments (Best et al. 2001, Bridges et al. 2008, Great Lakes Commission 2004, NYDEC 2004, USEPA/USACE 2004).

The team's scoping assessment and mapping protocol revealed that Baltimore Harbor contains a number of sites with a range of potential reuse options. The team concluded that none of the sites for which there was available data met the TEL standard and, therefore, harbor sediments have some limitations regarding reuse options with the highest risk factors. Land amendment (e.g., agricultural) was not considered as a viable reuse option by the team. As stated previously, a number of concerns were raised with regard to land amendment including the biogeochemical characteristics of estuarine sediments (i.e., pH, sodium, chloride and sulfate) that can have highly adverse impacts and lead to soil infertility. The greater risks were associated with the completed exposure pathways to humans (Table 4). In addition, the team notes that additional data regarding emerging contaminants (e.g., brominated and fluorinated organics) will need to be collected if land amendment is to be considered. The team also emphasizes that if sites for aquatic restoration are identified in future assessments, additional criteria (e.g., bioaccumulation) need to be considered as well.

Many of the sites in the datasets analyzed meet criteria for residential or non-residential reuse options (see Figures 6, 7, 10, 11, 14, 15). By far the majority of these met the latter criteria. The team notes that most innovative reuse options under consideration should be regulated using the non-residential criteria. The data also suggest that the currently dredged channels are most suitable for innovative reuse. It is important to note, however, that much of the data used for the team's analysis came from channel surveys. The team did not find data in the applicable datasets that indicated that channel sediments are too hazardous to be dredged.

The scoping assessment also revealed that there were numerous sites that exceeded the non-residential reuse criteria. The distribution of these sites was complex and locations were found across most of the harbor. The screening assessment used by the team was designed to identify sites that exceed the non-residential reuse criteria. With that in mind, exceeding the non-residential criteria does not preclude certain innovative reuses, especially where engineering and institutional controls, as well as existing site conditions and proposed final end use, make using them appropriate. Therefore, the extent to which sites exceed criteria is important and needs to be evaluated on a case-by-case basis. The team notes that in some cases sediments chiefly outside the currently dredged channels (see below) may not be suitable for innovative reuse. In these cases, appropriate disposal, or leaving sediments in place, may be the appropriate management decision.

4. A comparison of sediment physical, chemical, and biological quality in harbor channels and the main Bay channels including the potential for innovative reuse/ beneficial uses of these sediments.

The team found limited data to make comparisons between Baltimore Harbor and main Bay channels — those that were found were restricted to information on organic contaminants. Examination of the maps revealed that no sites, neither inside nor outside the harbor, had organic contaminant levels that were less than the threshold effects level (TEL) criteria. A comparison of the maps does show that a greater percentage of the sites outside the North Point-Rock Point line met the criteria for residential applications and that a smaller percentage exceeded the criteria for non-residential reuse. Should this finding remain consistent when re-sampled, it may indicate that the sediments outside the harbor will have a greater potential for innovative reuse than those inside the harbor. An important caveat with respect to these analyses is that most of these sites outside the harbor were associated with approach channels. A greater number of sites inside the North Point-Rock Point line were taken at locations that were not in channels. This is especially true with respect to those sites that exceeded the non-residential reuse criteria (compare Figures 12 and 20). These results emphasize the challenge with using historical data derived from studies with diverse scientific goals. Accordingly, the team must reiterate its strong endorsement of the need for project-specific, site-by-site analyses as the basis for all decisions regarding innovative reuse of dredged sediments regardless of whether projects occur inside or outside the legislatively defined boundaries for Baltimore Harbor.

5. An assessment of trends in the quality of sediments deposited in and dredged from harbor channels over time and of any differences between the contamination found in legacy sediments and sediments recently dredged from maintenance channels.

The team concluded that the data were not usable for trend analysis. While very useful, the studies analyzed by the team simply do not lend themselves to a coherent trend analysis. This is due in part to variations in study intent and design, significant changes in analytical technique, and the inherent spatial heterogeneity of sediments. A cursory examination of Federal Channel data for metal contaminants suggests some improvement in sediment quality since 1998 (data not shown). However, the team recommends that managers work closely with the scientific community to consider how best to implement trend studies.

6. A list of considerations regarding the value of formal chemical-specific limits or guidance versus the use of a case-by case, site-specific process for assessment of sediment quality.

The team concluded that the use of any sediments from a specific site must be evaluated on a case-by-case basis using appropriate guidelines and analytical procedures — and with a clear understanding of the risk factors involved with the projected reuse option. The final section of this report summarizes the team's guidance, focused on decision support that adopts this approach.

Guidance for Future Sediment Management Decision Making

The retrospective analysis conducted by the team provides a basic context for understanding the suitability of sediments for various end uses. The team stresses, however, that the use of any sediments from a specific site must be evaluated on a case-by-case basis using appropriate guidelines and analytical procedures. Here we present a decision matrix to help inform this process (see Figure 23, p. 49).

Note that at least one aspect of sediment management decision making for the harbor and its approach channels has been set legislatively: the inner/outer harbor boundary. Material dredged west of this line must be managed in a confined manner, while material dredged from the east may be evaluated for certain restrictive uses. While there may be other management options for Baltimore Harbor sediments that are scientifically defensible, the decision tree presented here is based on the assumption that this spatial criterion will continue to be used. However, the matrix could be used to evaluate material "inside" the harbor material for more restrictive uses simply by entering the matrix from the "outside" the harbor side.

This approach creates four different levels of sediment targeted for upland innovative reuse (Table 8). These include unrestricted upland use (dark green), and two levels of restricted upland use (medium and light green for residential and non-residential reuse). The remainder of the sediment inside the harbor would fall into one additional category (yellow): material that must be confined, or material that should not be dredged at all. For existing channels, only material that cannot be reused should be targeted for confined disposal. It is possible that some of the material that exceeds the upland placement criteria could be used safely if the placement site was properly constructed, managed, and restricted (e.g., sites that have sophisticated engineering controls such as leachate collection, caps and liners, slurry walls, etc. that eliminate contaminant migration pathways). Institutional controls such as deed restrictions and careful recordkeeping are also prudent in these situations to ensure that future land owners and regulators are aware of the nature of the materials placed at the site.

The team did not find data in the applicable data sets that indicated that any of the sediments in currently dredged areas are too hazardous to be dredged. However, given some of the data available in off-channel areas, the team recommends that sediment in areas proposed for new channels, or for channel deepening or widening, should be carefully examined during the design process to ensure that the sediments that will either be removed or exposed will have an appropriate management option and will not result in undue environmental harm during dredging. It is possible that some of these sediments would require special management or particular techniques during either dredging or disposal. The team did not specifically identify or evaluate these sediments.

While the team process was suitable for screening the large dataset provided, it would not be appropriate to use this process for decision making on specific projects. The first step in determining appropriate management options for a particular dredging project would be to evaluate the historical database. If data exist that show that the material has either always been clean, or always been contaminated, this information can be used to decide what the ultimate management goal might be. For example, a site that has been historically clean might be targeted for evaluation for use in habitat restoration, or unrestricted beneficial or innovative reuse. It would not be a wise use of time or resources, however, to evaluate a historically contaminated site for these uses. Rather, one should proceed toward the goal of a more restrictive use or confined disposal. This screening step is analogous to what the team performed to produce this report.

The second step would be to design a sampling program to evaluate the material proposed to be dredged. This sampling program should be designed using the historical database and any data that may be available regarding outfalls, spills, or other potential sources of contamination. Sampling equipment, frequency, depth, compositing scheme, and the target analyte list will also be informed by historical data. The type of analysis required will be determined by the proposed management option(s). Bulk sediment chemistry, elutriate, or synthetic leachate tests can all provide valuable information.

Careful evaluation of any stratification in the sediment bed is important, especially in new work dredging. This information may suggest stratified management options for different portions of a given work site. Some regulatory programs require that the bottom six inches of cores be evaluated separately in order to show what contamination might be exposed by a new dredging project (NJDEP 1997). If the sediments will be amended with pozzolans or other stabilizing agents before placement, bench scale batches should also be analyzed along with the bulk sediment. Synthetic leachate analysis should also be conducted on amended samples, if amending is anticipated in the field. The analysis of the amended sediment allows for consideration of both the sediment and the amendment at the same time, and ensures adequate evaluation of changes in contaminant mobility caused by the pozzolan-sediment interaction. In most cases, this will show that the mobility has decreased significantly due to the amendment.

The Target Analyte List (TAL) should be based on the criteria available for comparison. When MDE cleanup standards (MDE 2008b) are used for decision making, only those contaminants that have criteria need be analyzed for sediment proposed for upland placement as fill. However, for more restrictive uses, a more expansive TAL might be desirable. In some cases, site-specific historical information may make it prudent to require additional analyses. Care should be taken to avoid requiring or performing analyses against which there are no criteria to base decisions. It is also important to ensure that the analyte reporting is in a form consistent with the criteria (i.e., Total PCBs vs. PCB Aroclors vs. PCB congeners).

Chemical data would then be evaluated against the appropriate criteria, specific to the proposed end use. For material from inside the harbor, where upland innovative reuses such as land fill or capping are anticipated, the appropriate criteria are the 2008 MDE soil cleanup criteria evaluated against samples of amended dredged material. In cases where groundwater contamination is a concern, these data can be used to ensure that leachate meets groundwater quality standards. In some cases, however, engineering controls installed during the remediation will eliminate the leachate pathway. If leachate data is not available, bulk sediment or amended sediment data can be evaluated against maximum contaminant levels (MCLs) for protection of groundwater. Elutriate data is appropriate only for evaluation of in-water placement options or upland confined disposal facilities with passive dewatering and can be compared to Maryland water quality standards.

Under certain scenarios, environmental variables affecting a contaminant's bioavailability are too numerous and convolved to rely on screening values. In particular, our ability to forecast the potential for biomagnification and exposure to higher trophic level receptors is often constrained. Additional modeling and risk assessment will be required in those cases. Tools for such modeling are already available. One example is the spreadsheet tool, TrophicTrace, developed by the U.S. Army Corps of Engineers to assist managers in making informed management decisions when selecting appropriate management alternatives for dredged material where contaminants have the potential to biomagnify (http://el.erdc.usace.army.mil/trophictrace/).

Where the degree of uncertainty is too great, biological assays (e.g., sediment toxicity identification evaluation, seed germination tests, plant growth screening tests; Sturgis et al. 2001, Munns et al. 2002, USEPA 2007) and monitoring are highly recommended. As identified in Tables 4 and 8, sediment/soil quality guidelines are only one tool, Elutriate Tests, Synthetic Precipitation Leaching Procedure (SPLP) and air dispersion models are some examples of the numerous other tools that will need to be brought to bear for scientifically credible risk-based assessments.

It may be appropriate to consider the volatilization potential of bound contaminants when permitting a sediment processing or placement site. While air quality is not likely to be impacted outside of the site, exposure of the workers should be considered and appropriate protective measures taken to ensure their long-term health and safety when processing contaminated sediments. If appropriate, limits could be set for a processing or placement site on an annual weight basis, or on a sediment concentration basis.

In cases where the non-residential criteria are exceeded, the management options do not necessarily have to be limited to confined disposal. A site-specific risk assessment could be used to determine appropriate criteria to evaluate sediment. This would result in site-specific criteria, where sites with more engineering controls or less sensitive end uses would be able to take more contaminated sediments. Sediments that fail to meet the criteria for any of the available upland sites would need to be either disposed of in a confined facility, or treated using decontamination technologies. Decontamination techniques such as thermal desorption, chemical oxidation or sediment washing can be used to create artificial aggregates, manufactured soils, blended cement, or products such as brick or tile. The utility and costs of these techniques have been discussed by the IRC (2007).

For material from outer Baltimore Harbor, where contaminant levels have historically been low, certain restrictive beneficial uses are possible. However, more extensive testing and analysis will need to be conducted in order to show that the uses are protective of human health and the environment. The team used screening level criteria to evaluate the existing database for potential uses. While this screening could also be used for actual project evaluations, it is preferable to perform either a site-specific risk assessment or toxicological/bioaccumulation tests, or both. A site-specific risk assessment could be used to develop criteria for comparison of bulk sediment and elutriate data from projects proposed for either aquatic restoration or land amendment sites. The USEPA and USACE have developed batteries of toxicological tests for evaluation of sediments proposed for in water placement (U.S. EPA 1998). Data from these tests could also be used to evaluate material proposed for aquatic restoration. Note that the results from bioaccumulation tests would still need to be evaluated against site-specific tissue criteria.

Overall, we propose four categories for the management of Chesapeake Bay sediments. Three of the categories would divide the material for upland or aquatic beneficial use and innovative reuse ranging in quality from upland industrial sites to land amendment. Each successive category requires that the sediment meet more stringent criteria. For material that does not meet the lowest upland innovative reuse criteria, the only options are confined disposal or sediment decontamination. It logically follows that if disposal options are not available, or the material proposed exceeds criteria for all options, then the sediment should remain in place until appropriate management options have been developed.

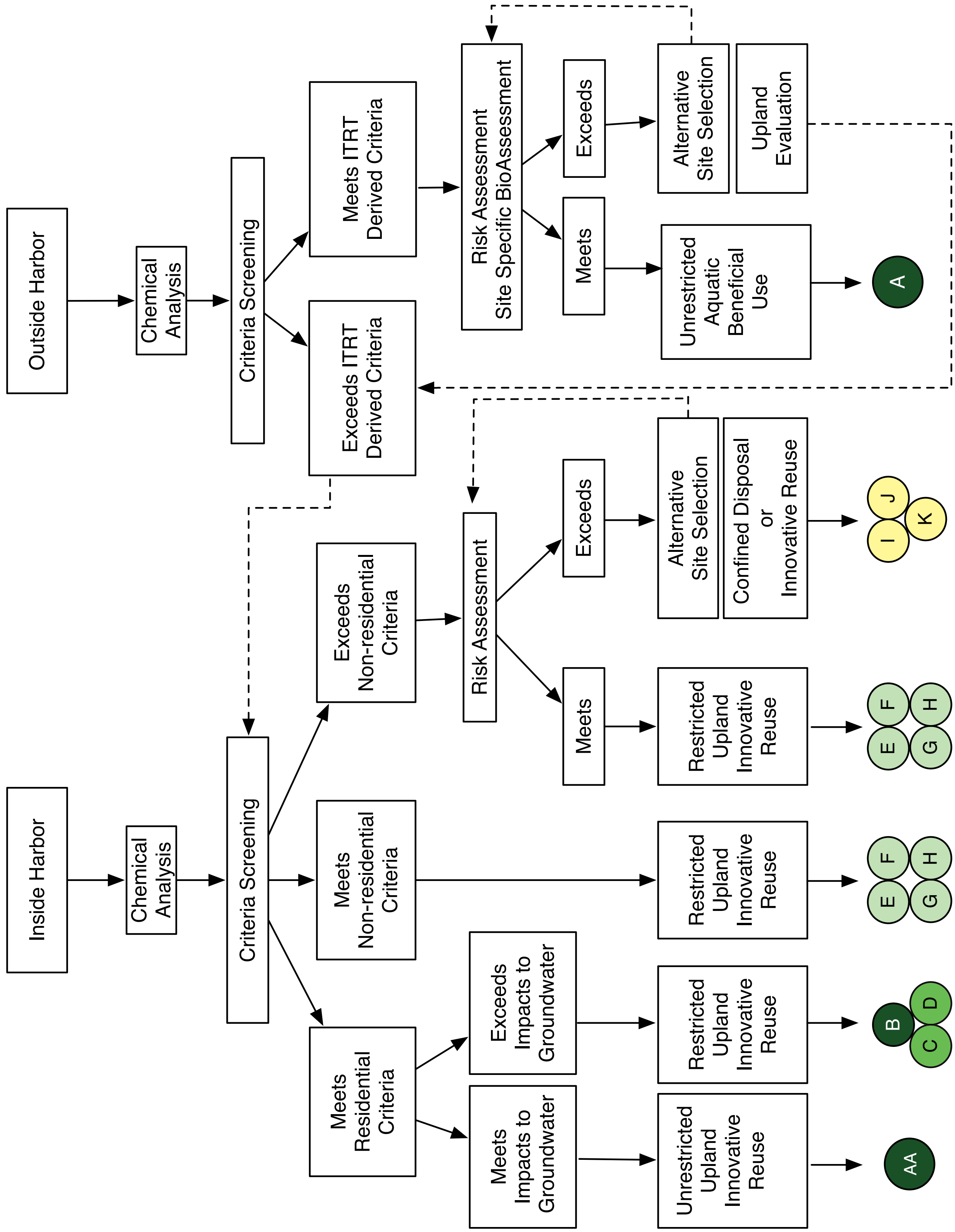

Figure 23. Decision matrix for case-by-case assessment of sediments for innovative reuse.

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Assessment and Criteria

Tables and Figures

Table 6. Comparison of Standards for Metal Concentrations and ITRT Scoping Assessment Criteria for Metals (all values mg/kg).

	Al	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Fe	Pb	Mn	Hg	Ni	Se	Ag	Tl	Sn	V	Zn
Standards																				
MD Residential Clean up	7800	3.1	0.43	1600	16	3.9	23		310	5500	400	160	2.3	160	39	39	.55	4700	7.8	2300
MD Non-Residential Clean up	100000	41	1.9	20000	200	51	310		4100	72000	1000	2000	31	2000	510	510	7.2	61000	100	31000
NJ Residential Soil Clean up	NA	14	20	700	1	1	NA	NA	600	NA	400	NA	14	250	63	110	2		370	1500
NJ Residential Direct Contact Soil Rem.	78000	31	19	16000	16	78		1600	3100		400	11000	23	1600	390	390	5		78	23000
NJ Non-Residential Soil Clean up		340	20	47000	1	100	NA	NA	600	NA	600	NA	270	2400	3100	4100	2		7100	1500
NJ Non-Residential Direct Contact Soil Rem.	NA	450	19	59000	140	78		590	45000		800	5900	65	23000	5700	5700	79		1100	110000
EPA Region 3 Industrial Soil RBC's		40.9	1.91		204.4	51.1	306.6		4088	30600	1000	2044	30.66	2044	511	511	7.15	61320		30660
Natural Abundances																				
Continental Rocks	69300	0.96	7.9	455	1	0.2	71	13	32	35900	16	720		49	0.5	0.07	1	2	97	127
Soils	71000	1	6	500		0.35	70	8	30	40000	35	1000	.1	50		0.05			90	90
Riverine Suspended Sediments	94000	1	5	600		1	100	20	100	48000	100	1050	.1	90		0.07			170	250
Marine Sed. Quality Standards																				
TEL			7.24			.68	52.3		18.7		30.24		0.13	15.9		0.73				124
PEL			41.6			4.21	160.4		108.2		112.18		0.696	42.8		1.77				271
ITRT Criteria																				
ITRT TEL			7.24			0.68	70		30		30		0.13	50		0.73		0.048		124
Residential		3.1	20		16	3.9	70	8	310		400		2.3	160	39	39	0.55	4700	90	2300
Non Residential		41	20		200	51	310	8	4100		1000		31	2000	510	510	7.2	61000	100	31000
Exceeds Non-Residential Use		>41	>20		>200	>51	>310	>8	>4100		>1000		>31	>2000	>510	>510	>7.2	>61000	>100	>31000

Table 7. Independent Technical Review Committee Screening Criteria for Organic Compounds.

PAHs	**Units**	**<TEL**	**<MD Residential Soil Clean Up Criteria**	**<MD NonResidential Soil Clean Up Criteria**	**>MD NonResidential Soil Clean Up Criteria**	
2-methylnaphthalene	µg/kg		<31,000	<410,000	>410,000	
Acenaphthene	µg/kg	<6.7	<470,000	<6,100,000	>6,100,000	
Acenaphthylene	µg/kg	<5.9	<470,000	<6,100,000	>6,100,000	
Anthracene	µg/kg	<47	<2,300,000	<31,000,000	>31,000,000	
Benzo(a)anthracene	µg/kg	<75	<220	<3,900	>3,900	
Benzo(a)pyrene*	µg/kg	<89*	<22	<390	>390	
Benzo(b)fluoranthene	µg/kg		<220	<3,900	>3,900	
Benzo(ghi)perylene	µg/kg		<230,000	<3,100,000	>3,100,000	
Benzo(k)fluoranthene	µg/kg		<2,200	<39,000	>39,000	
Chrysene	µg/kg	<108	<22,000	<390,000	>390,000	
Dibenzo(a,h)anthracene	µg/kg	<6	<22	<390	>390	
Fluoranthene	µg/kg	<113	<310,000	<4,100,000	>4,100,000	
Fluorene	µg/kg	<21	<310,000	<4,100,000	>4,100,000	
Indeno(1,2,3-cd)pyrene	µg/kg		<220	<3,900	>3,900	
Naphthalene	µg/kg	<35	<160,000	<2,000,000	>2,000,000	
Phenanthrene	µg/kg	<87	<2,300,000	<31,000,000	>31,000,000	
Pyrene	µg/kg	<153	<230,000	<3,100,000	>3,100,000	
** Tel > MD residential soil criteria; lower value used for screening criteria*						
PCBs	**Units**					**>OR Sediment Standard for Bioaccumula-tion by Humans**
Bz 77*	µg/kg					>0.0064
Bz 105*	µg/kg					>0.021
Bz 118*	µg/kg					>0.026
Bz 126*	µg/kg					>0.0000062
Bz 156	µg/kg					>0.026
Bz 169*	µg/kg					>0.000021
Total PCBs (nd=0)	µg/kg	<22	<320	<1400	>1400	
Total PCBs (nd=1/2mdl)	µg/kg	<22	<320	<1400	>1400	
** MDL for individual congeners in most cases exceed the Oregon Sediment Bioaccumulation Screening Level Values for subsistence feeding by humans.*						

Table 7, continued.

PCDDs and PCDFs	**Units**					**>OR Sediment Standard for Bioaccumula-tion by Humans**
2,3,7,8-TCDD*	ng/kg					>0.0011
1,2,3,7,8-PECDD*	ng/kg					>0.034
1,2,3,4,7,8-HXCDD*	ng/kg					>0.34
1,2,3,6,7,8-HXCDD*	ng/kg					>0.34
1,2,3,7,8,9-HXCDD*	ng/kg					>0.34
1,2,3,4,6,7,8-HPCDD	ng/kg					>85
OCDD	ng/kg					>2800
2,3,7,8-TCDF*	ng/kg					>0.094
1,2,3,7,8-PECDF*	ng/kg					>0.31
2,3,4,7,8-PECDF*	ng/kg					>0.0037
1,2,3,4,7,8-HXCDF*	ng/kg					>0.34
1,2,3,6,7,8-HXCDF*	ng/kg					>0.34
2,3,4,6,7,8-HXCDF*	ng/kg					>0.34
1,2,3,7,8,9-HXCDF*	ng/kg					>0.34
1,2,3,4,6,7,8-HPCDF	ng/kg					>85
1,2,3,4,7,8,9-HPCDF	ng/kg					>85
OCDF	ng/kg					>2800

** MDL for individual congeners in most cases exceed the Oregon Sediment Bioaccumulation Screening Level Values for subsistence feeding by humans.*

Table 7, continued.

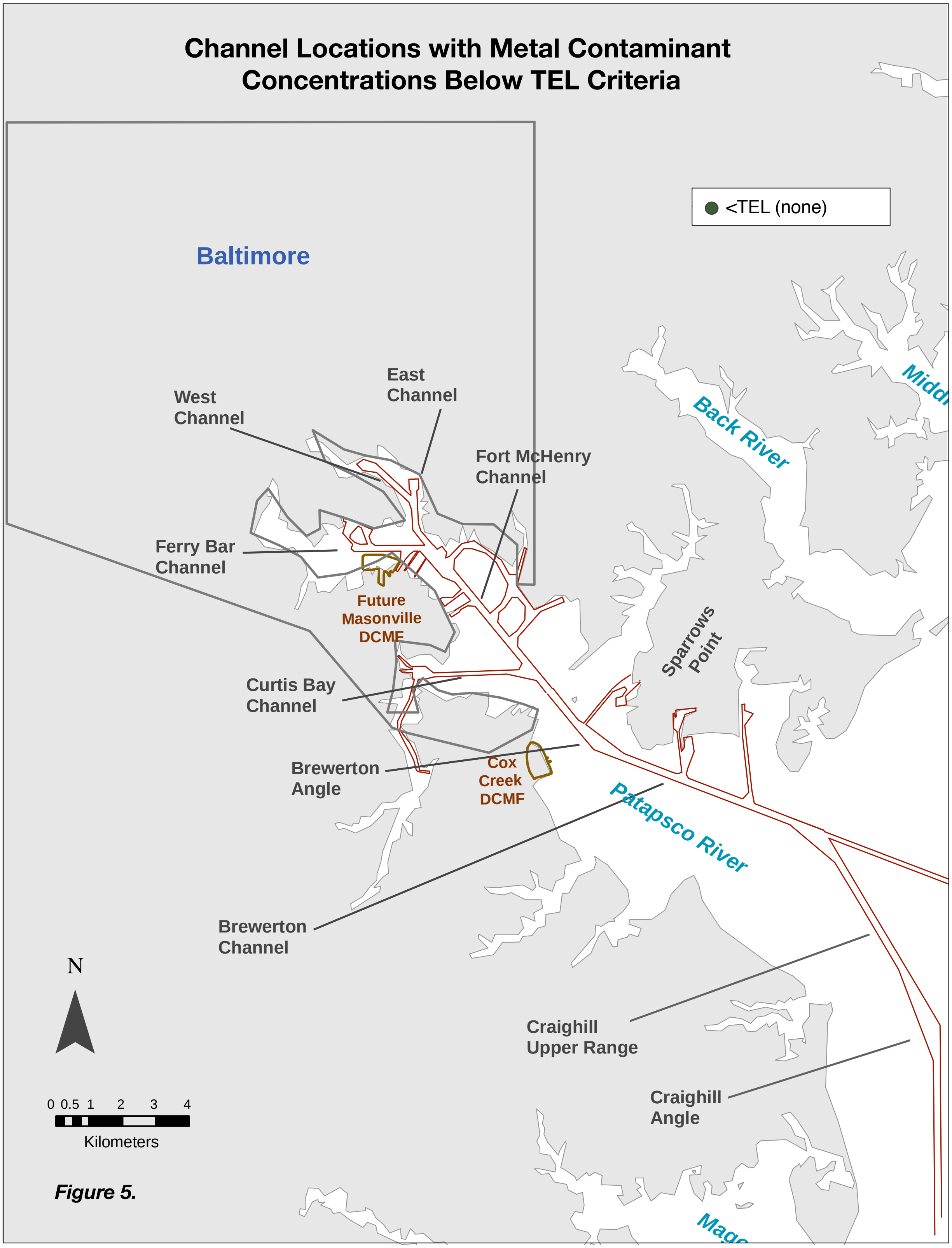
VOCs	Units	<TEL	<MD Residential Soil Clean Up Criteria	<MD NonResiden-tial Soil Clean Up Criteria	>MD NonResidential Soil Clean Up Criteria	
1,1,1-trichloroethane	µg/kg		<16,000,000	<200,000,000	>200,000,000	
1,1,2,2-tetrachloroethane	µg/kg		<3200	<14,000	>14,000	
1,1,2-trichloroethane	µg/kg		<11,000	<50,000	>50,000	
1,1-dichloroethane	µg/kg		<16,000,000	<200,000,000	>200,000,000	
1,1-dichloroethene	µg/kg		<390,000	<51,000,000	>51,000,000	
1,2-dichlorobenzene	µg/kg		<700,000	<9,200,000	>9,200,000	
1,2-dichloroethane	µg/kg		<7000	<31,000	>31,000	
1,2-dichloropropane	µg/kg		<9400	<42,000	>42,000	
1,3-dichlorobenzene	µg/kg		<23,000	<310,000	>310,000	
1,4-dichlorobenzene	µg/kg		<27,000	<120,000	>120,000	
2-butanone (mek)	µg/kg		<4,700,000	<64,000,000	>64,000,000	
Benzene	µg/kg		<12,000	<52,000	>52,000	
Bromodichloromethane	µg/kg		<10,000	<46,000	>46,000	
Bromoform	µg/kg		<81,000	<360,000	>360,000	
Bromomethane	µg/kg		<11,000	<140,000	>140,000	
Carbon tetrachloride	µg/kg		<4900	<22,000	>22,000	
Chloroethane	µg/kg		<220,000	<990,000	>990,000	
Chloroform	µg/kg		<78,000	<1,000,000	>1,000,000	
Cis-1,3-dichloropropene	µg/kg		<6400	<29,000	>29,000	
Dibromochloromethane	µg/kg		<7600	<34,000	>34,000	
Ethylbenzene	µg/kg		<780,000	<10,000,000	>10,000,000	
Methylene chloride	µg/kg		<85,000	<380,000	>380,000	
Tetrachloroethene	µg/kg		<1200	<5300	>5300	
Toluene	µg/kg		<630,000	<8,200,000	>8,200,000	
Trans-1,2-dichloroethene	µg/kg		<160,000	<2,000,000	>2,000,000	
Trans-1,3-dichloropropene	µg/kg		<6400	<29,000	>29,000	
Trichloroethene	µg/kg		<1600	<7200	>7200	
Vinyl chloride	µg/kg		<90	<4000	>4000	

Table 7, continued.

SVOCs	**Units**	**<TEL**	**<MD Residential Soil Clean Up Criteria**	**<MD NonResidential Soil Clean Up Criteria**	**>MD NonResidential Soil Clean Up Criteria**	
1,2,4-trichlorobenzene	µg/kg		<78,000	<1,000,000	>1,000,000	
2,4,6-trichlorophenol	µg/kg		<58,000	<260,000	>260,000	
2,4-dichlorophenol	µg/kg		<23,000	<310,000	>310,000	
2,4-dimethylphenol	µg/kg		<160,000	<2,000,000	>2,000,000	
2,4-dinitrophenol	µg/kg		<16,000	<200,000	>200,000	
2,4-dinitrotoluene	µg/kg		<16,000	<200,000	>200,000	
2,6-dinitrotoluene	µg/kg		<7800	<100,000	>100,000	
2-chloronaphthalene	µg/kg		<630,000	<8,200,000	>8,200,000	
2-chlorophenol	µg/kg		<39,000	<510,000	>510,000	
2-methylphenol	µg/kg		<390,000	<5,100,000	>5,100,000	
4-methylphenol	µg/kg		<39,000	<510,000	>510,000	
Bis(2-chloroethyl) ether	µg/kg		<580	<2600	>2600	
Bis(2-chloroisopropyl) ether	µg/kg		<9100	<41,000	>41,000	
Bis(2-ethylhexyl) phthalate	µg/kg	<182	<4600	<200,000	>200,000	
Dibenzofuran	µg/kg		<7800	<100,000	>100,000	
Diethyl phthalate	µg/kg		<6,300,000	<83,000,000	>83,000,000	
Di-n-butyl phthalate	µg/kg		<780,000	<1,000,000	>1,000,000	
Hexachlorobenzene	µg/kg		<400	<1800	>1800	
Hexachlorobutadiene	µg/kg		<8200	<37,000	>37,000	
Hexachlorocyclopentadiene	µg/kg		<47,000	<610,000	>610,000	
Hexachloroethane	µg/kg		<46,000	<200,000	>200,000	
Isophorone	µg/kg		<670,000	<3,000,000	>3,000,000	
Nitrobenzene	µg/kg		<3900	<51,000	>51,000	
N-nitrosodi-n-propylamine	µg/kg		<91	<410	>410	
N-nitrosodiphenylamine	µg/kg		<130,000	<580,000	>580,000	
Pentachlorophenol	µg/kg		<5300	<24,000	>24,000	
Phenol	µg/kg		<2,300,000	<31,000,000	>31,000,000	

Table 7, continued.

Pesticides	**Units**	**<TEL**	**<MD Residential Soil Clean Up Criteria**	**<MD NonResidential Soil Clean Up Criteria**	**>MD NonResidential Soil Clean Up Criteria**	
4,4'-ddd	µg/kg	<1.2	<2700	<12,000	>12,000	
4,4'-dde	µg/kg	<2.1	<1900	<8400	>8400	
4,4'-ddt	µg/kg	<1.2	<1900	<8400	>8400	
Aldrin	µg/kg		<38	<170	>170	
Alpha-BHC	µg/kg		<100	<450	>450	
Beta-BHC	µg/kg		<350	<1600	>1600	
Chlordane	µg/kg	<2.26	<1800	<8200	>8200	
Delta-BHC	µg/kg		<490	<2200	>2200	
Dieldrin	µg/kg	<0.72	<40	<180	>180	
Endosulfan I	µg/kg		<4700	<610,000	>610,000	
Endosulfan II	µg/kg		<4700	<610,000	>610,000	
Endosulfan sulfate	µg/kg		<4700	<610,000	>610,000	
Endrin	µg/kg		<2300	<31,000	>31,000	
Endrin aldehyde	µg/kg		<2300	<31,000	>31,000	
Gamma-BHC	µg/kg	<0.32	<490	<2200	>2200	
Heptachlor	µg/kg		<140	<640	>640	
Heptachlor epoxide	µg/kg		<70	<310	>310	
Methoxychlor	µg/kg		<39,000	<510,000	>510,000	
Toxaphene	µg/kg	<0.1	<580	<2600	>2600	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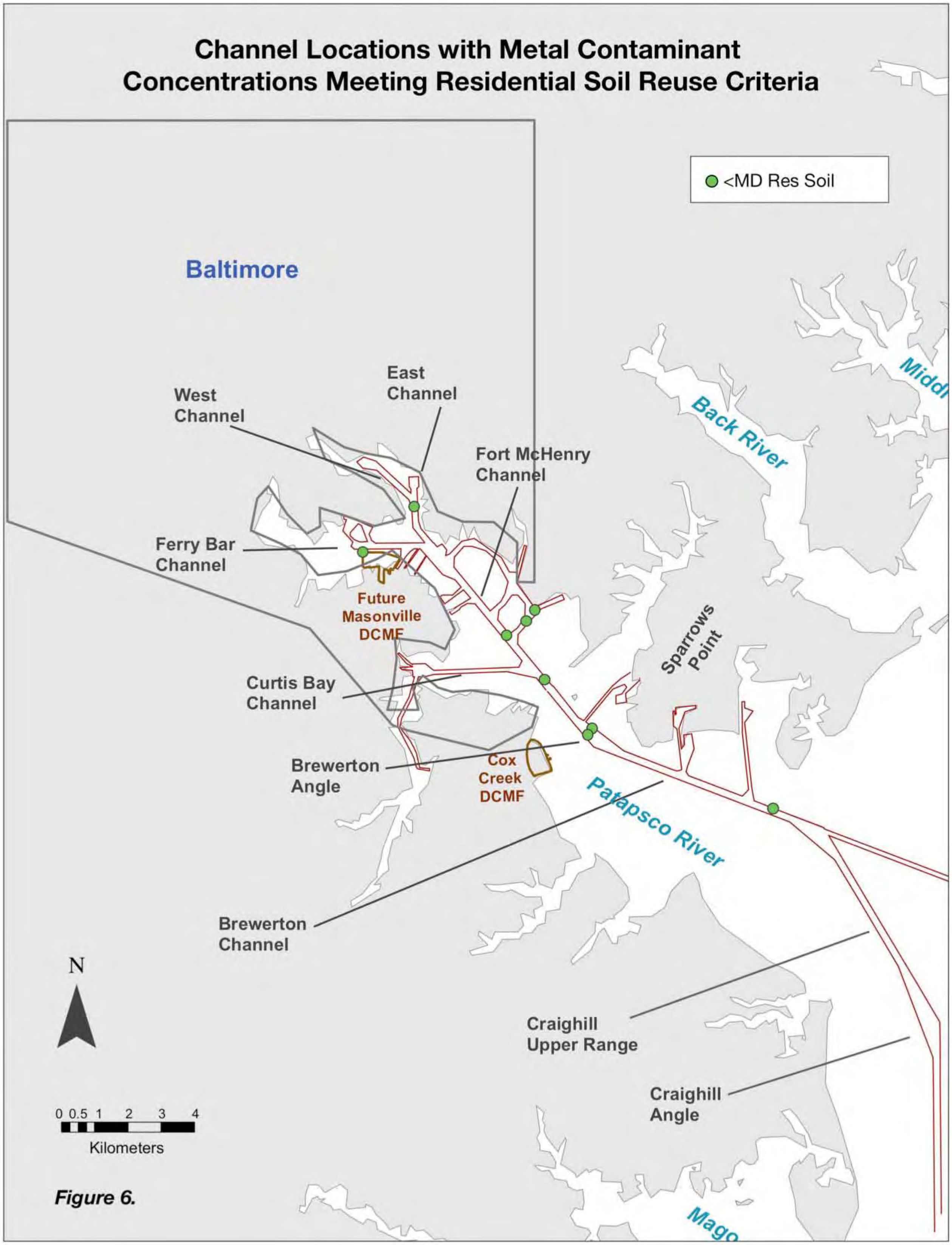
East
Channel
Fort McHenry
Channel
Ferry Bar
Channel
Future
Masonville
DCMF
Curtis Bay
Channel
Brewerton
Angle
Cox
Creek
DCMF
Brewerton
Channel
Craighill
Upper Range
Craighill
Angle
Back River
Sparrows
Point
Patapsco River
N
0 0.5 1 2 3 4
Kilometers

Figure 5.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Patapsco River
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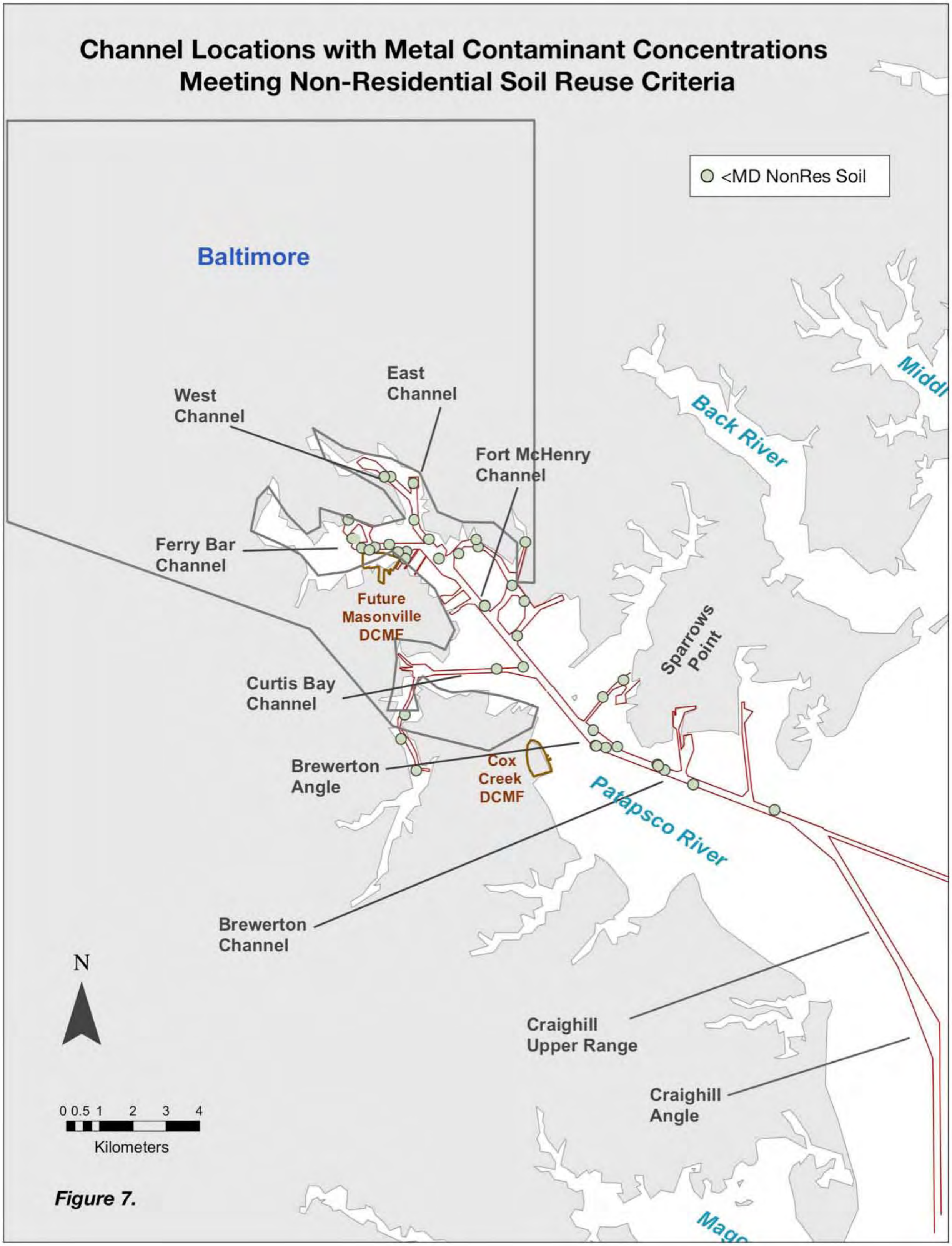
Craighill Angle
N
0 0.5 1 2 3 4
Kilometers

Figure 6.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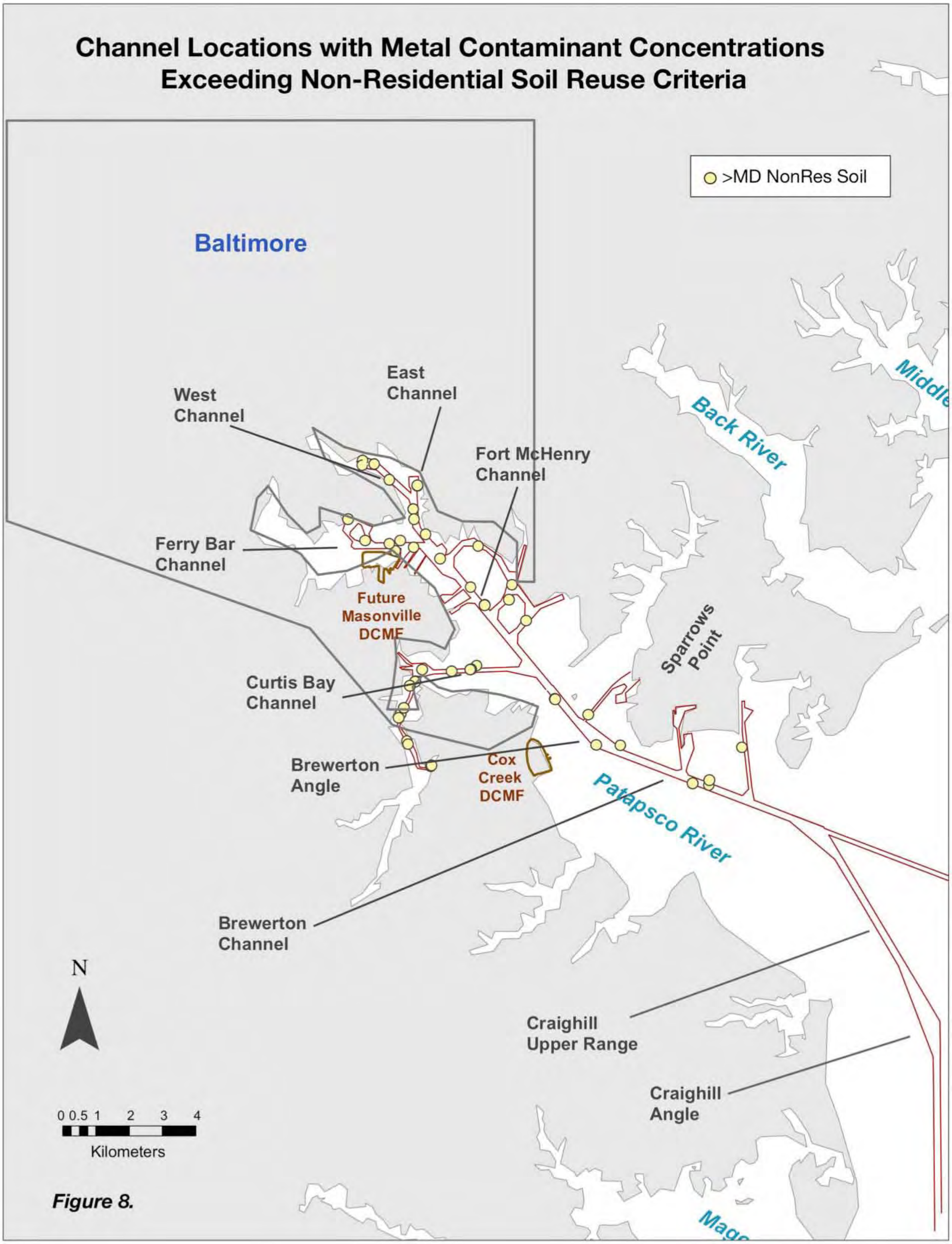
Kilometers

Figure 7.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Cox Creek DCMF
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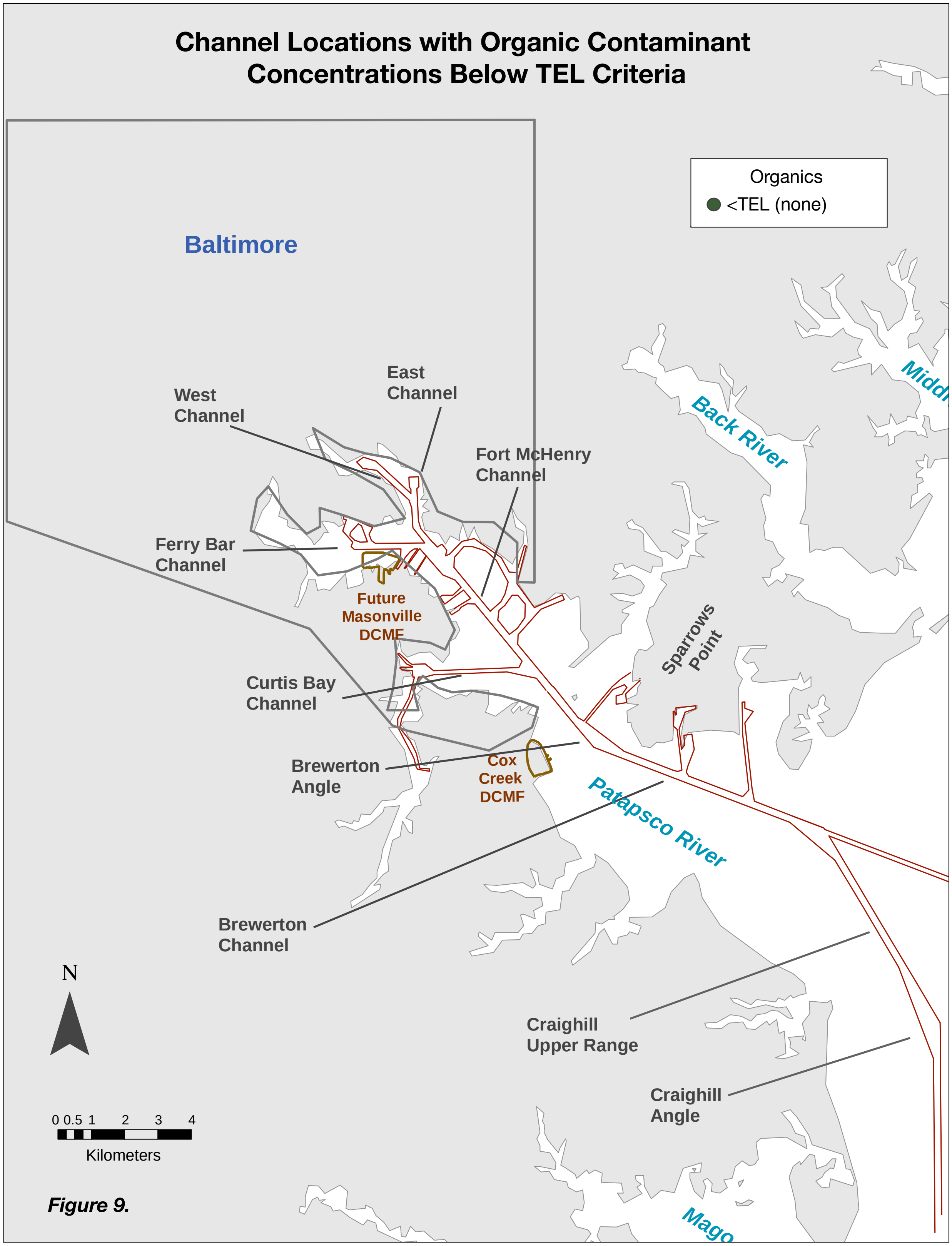
Back River
Sparrows Point
Patapsco River
N
0 0.5 1 2 3 4
Kilometers

Figure 8.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DCMF
Curtis Bay
Channel
Brewerton
Angle
Cox
Creek
DCMF
Brewerton
Channel
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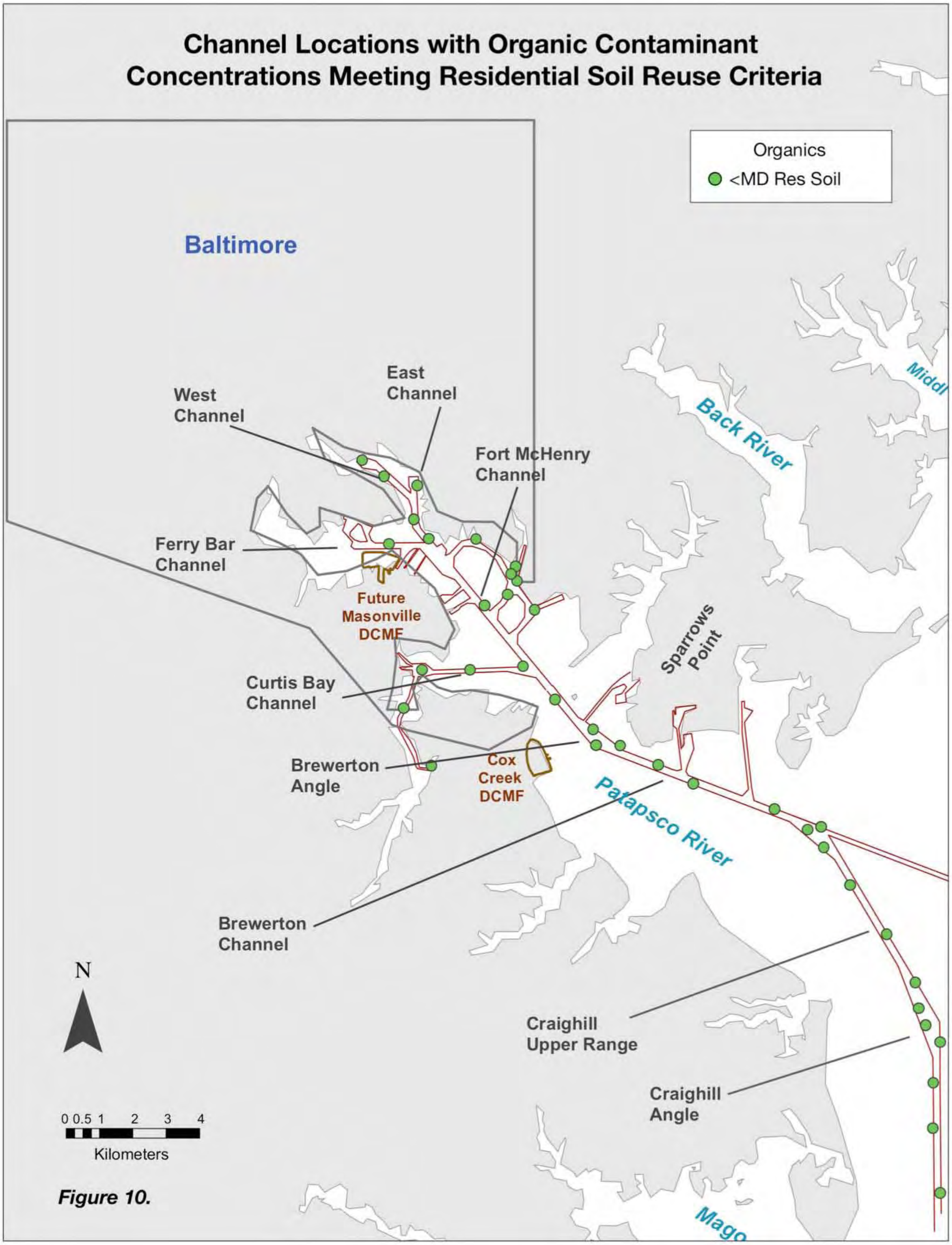
Sparrows
Point
Patapsco River
Craighill
Upper Range
Craighill
Angle
N
0 0.5 1 2 3 4
Kilometers

Figure 9.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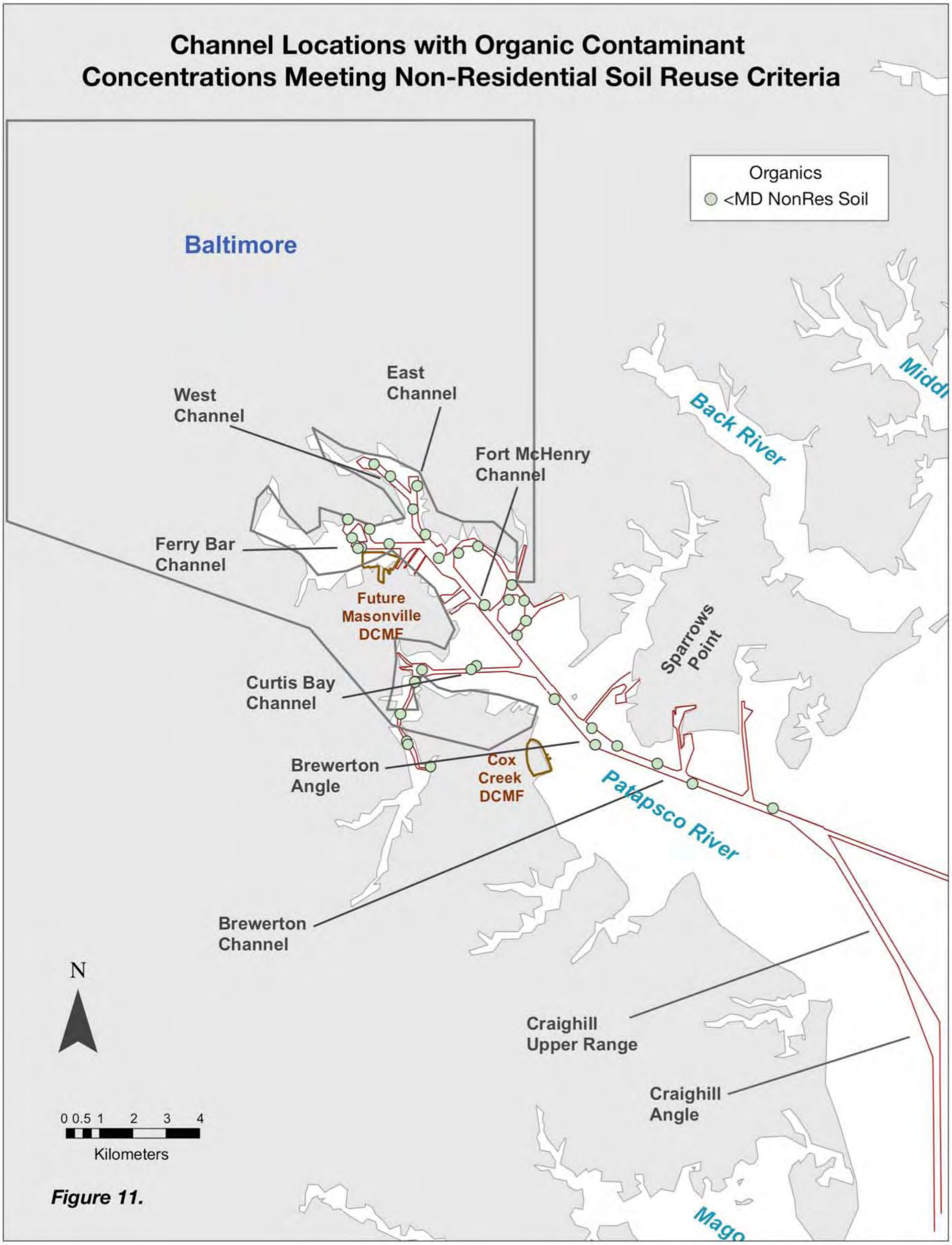
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Back River
Sparrows Point
Patapsco River
Craighill Upper Range
Craighill Angle
N
0 0.5 1 2 3 4
Kilometers

Figure 10.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Concentrations Meeting Non-Residential Soil Reuse Criteria
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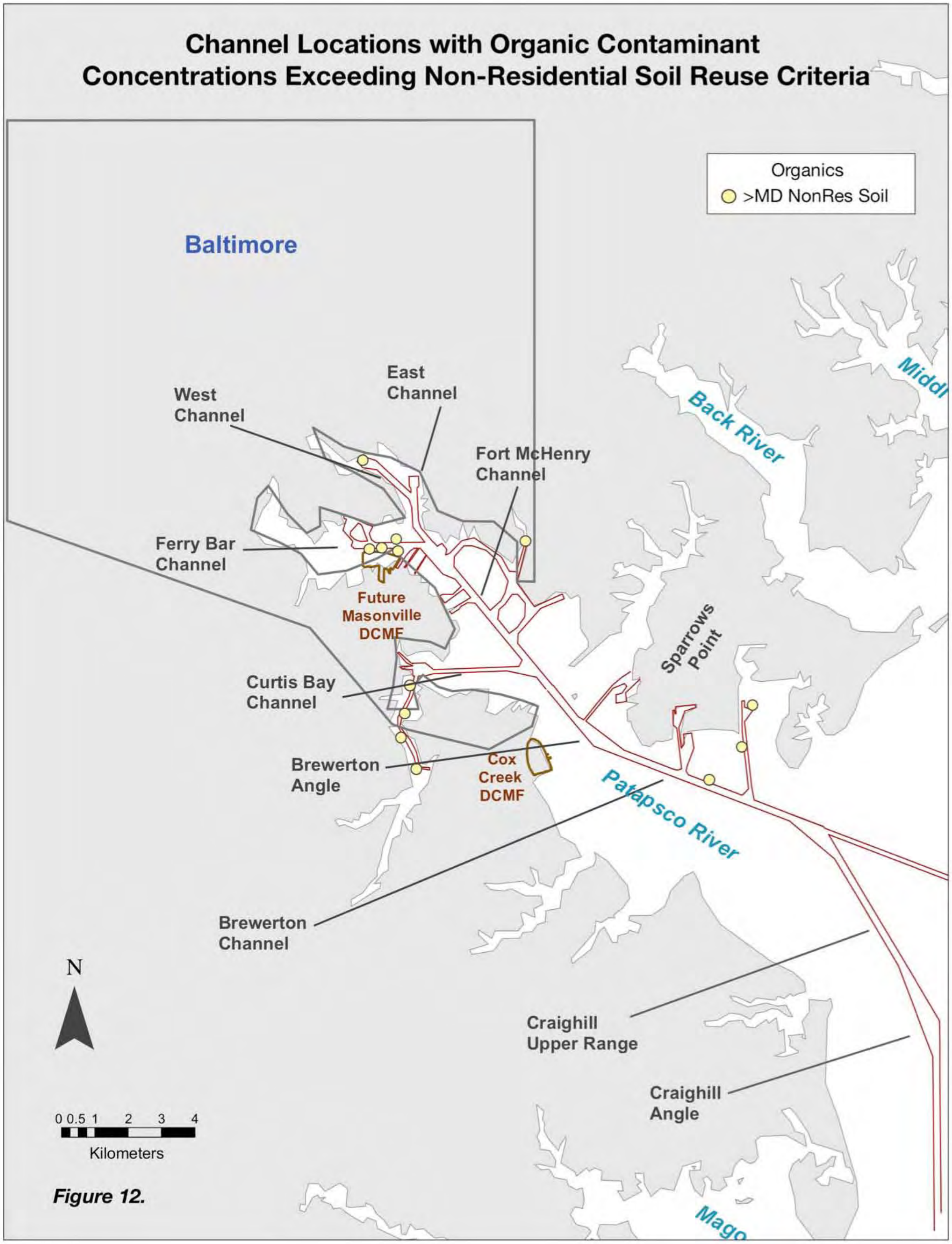
Brewerton Channel
Sparrows Point
Back River
Patapsco River
Craighill Upper Range
Craighill Angle
N
0 0.5 1 2 3 4
Kilometers

Figure 11.



Channel Locations with Organic Contaminant
Concentrations Exceeding Non-Residential Soil Reuse Criteria
Organics
>MD NonRes Soil
Baltimore
West Channel
East Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Back River
Sparrows Point
Patapsco River
Craighill Upper Range
Craighill Angle
N
0 0.5 1 2 3 4
Kilometers

Figure 12.

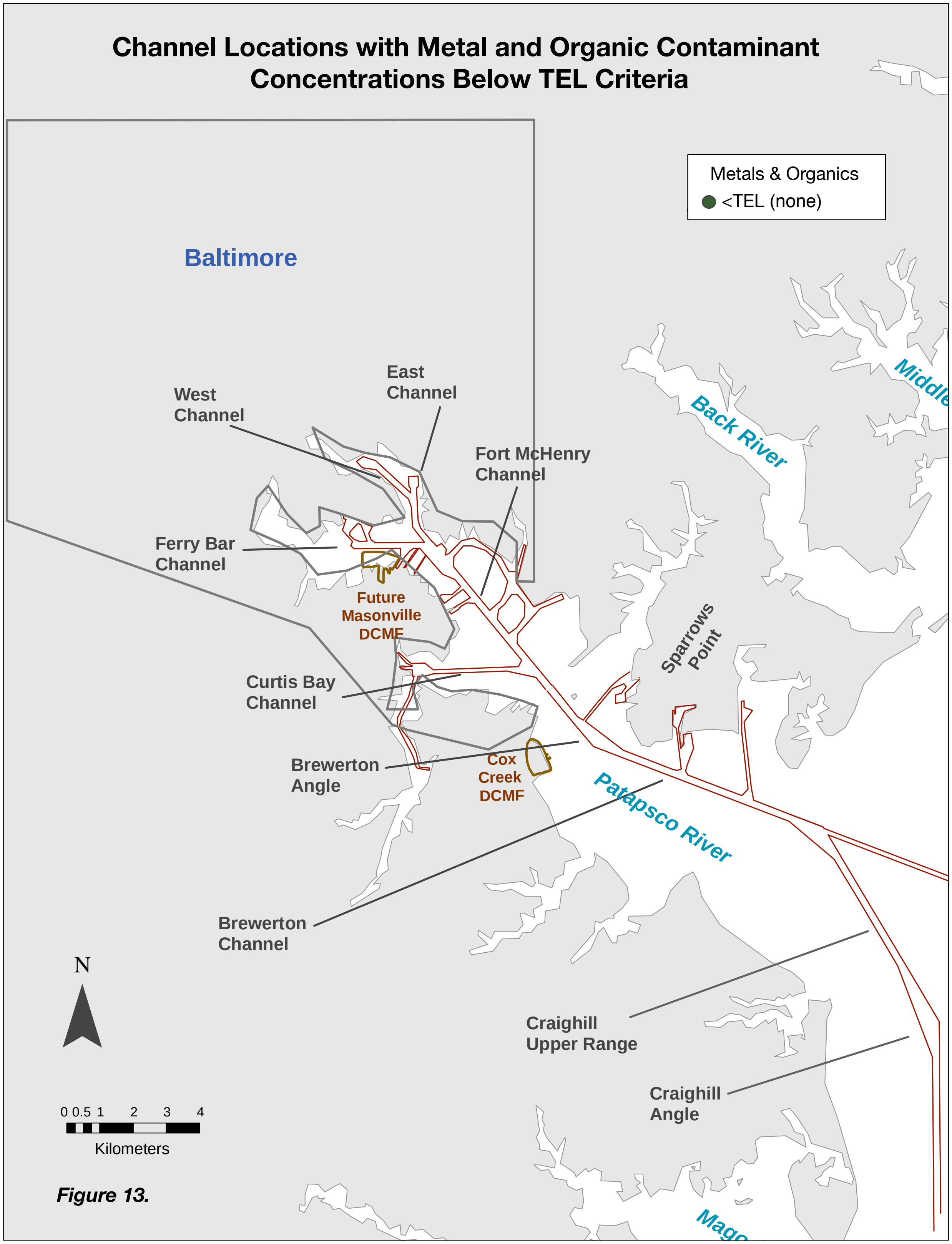

Channel Locations with Metal and Organic Contaminant Concentrations Below TEL Criteria
Metals & Organics
<TEL (none)
Baltimore
West Channel
East Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Back River
Middle
Sparrows Point
Patapsco River
Craighill Upper Range
Craighill Angle
N
0 0.5 1 2 3 4
Kilometers

Figure 13.

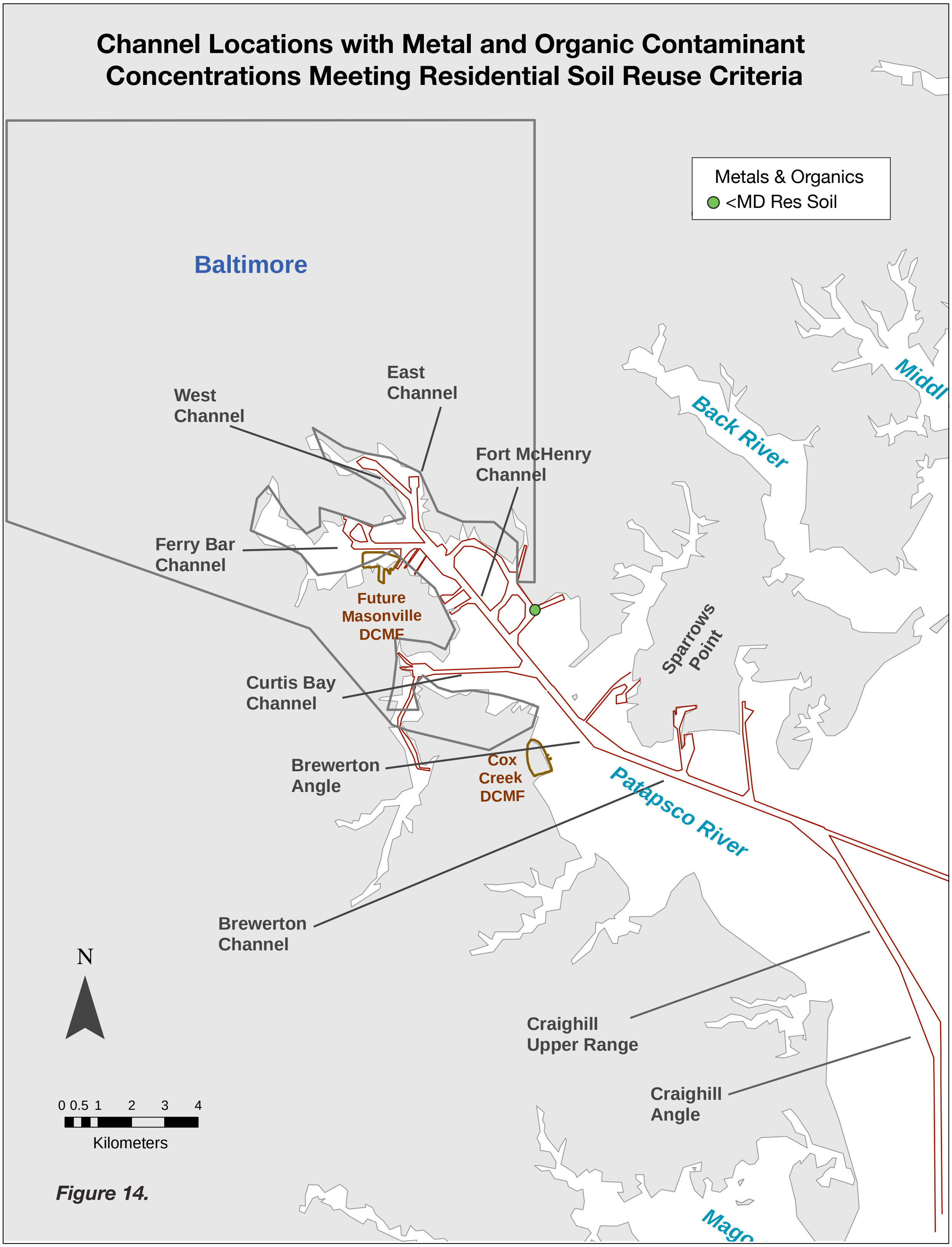

Channel Locations with Metal and Organic Contaminant Concentrations Meeting Residential Soil Reuse Criteria
Metals & Organics
<MD Res Soil
Baltimore
West Channel
East Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Patapsco River
Sparrows Point
Back River
Craighill Upper Range
Craighill Angle
N
0 0.5 1 2 3 4
Kilometers

Figure 14.

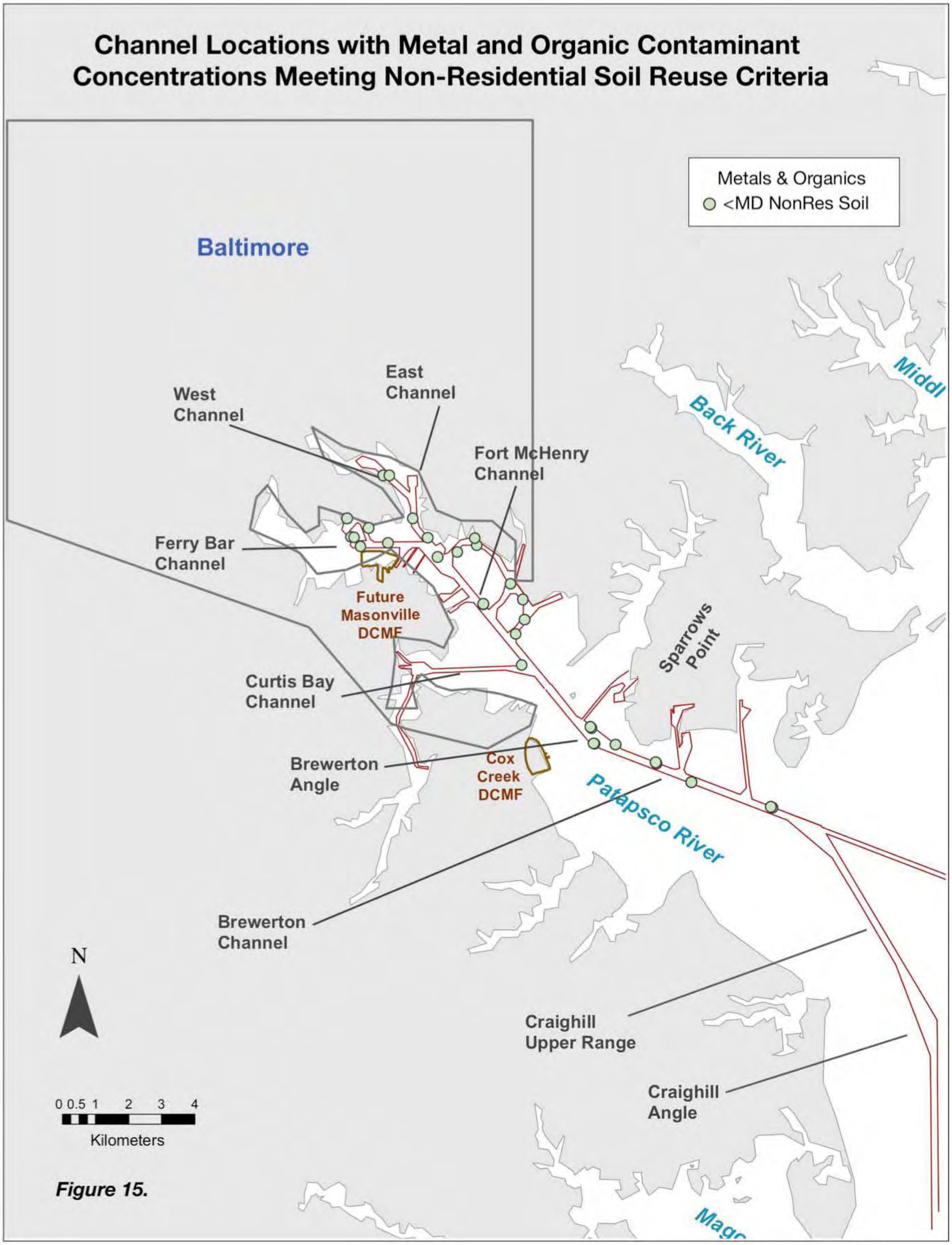

Channel Locations with Metal and Organic Contaminant
Concentrations Meeting Non-Residential Soil Reuse Criteria
Metals & Organics
<MD NonRes Soil
Baltimore
East Channel
West Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Back River
Sparrows Point
Patapsco River
Craighill Upper Range
Craighill Angle
N
0 0.5 1 2 3 4
Kilometers

Figure 15.

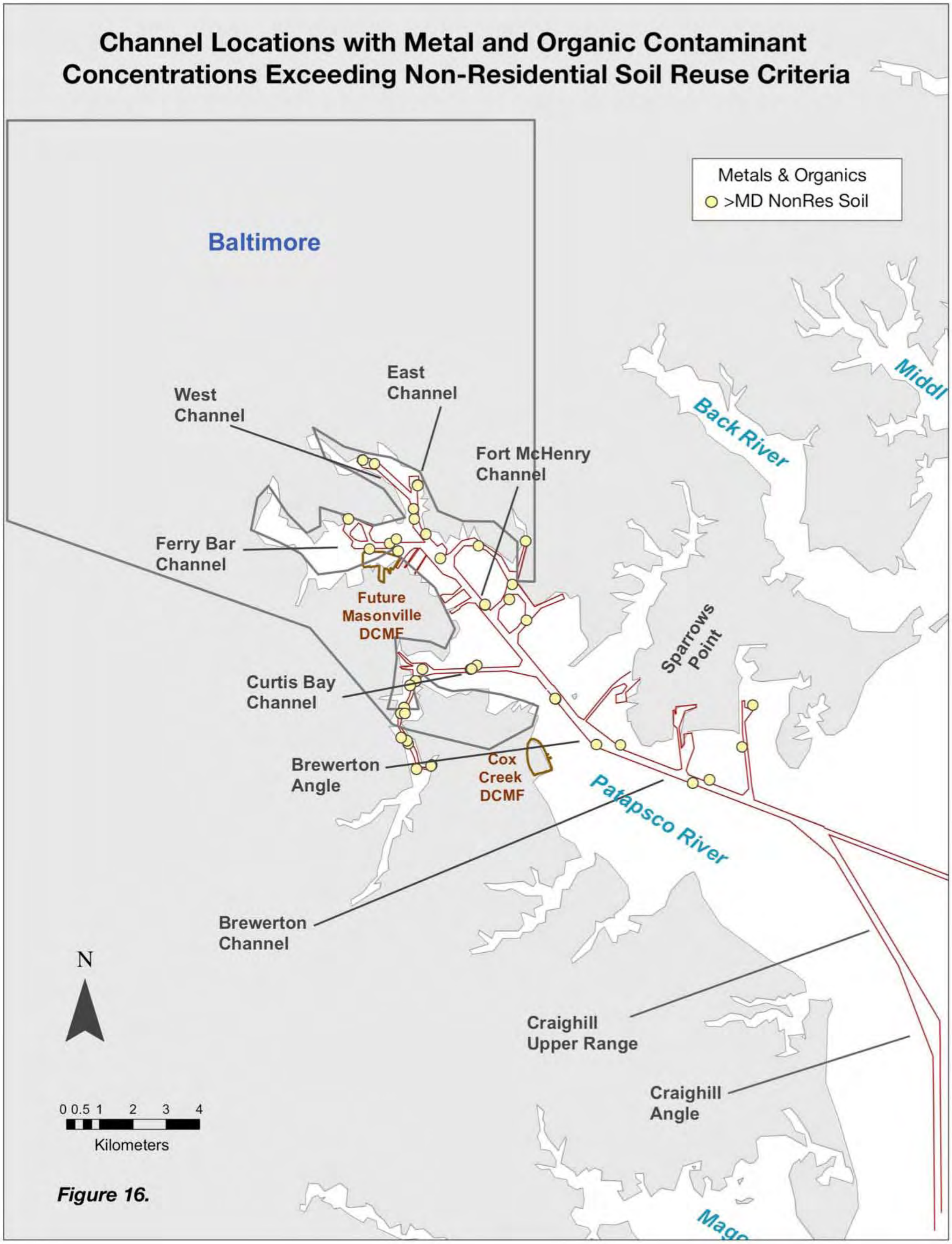
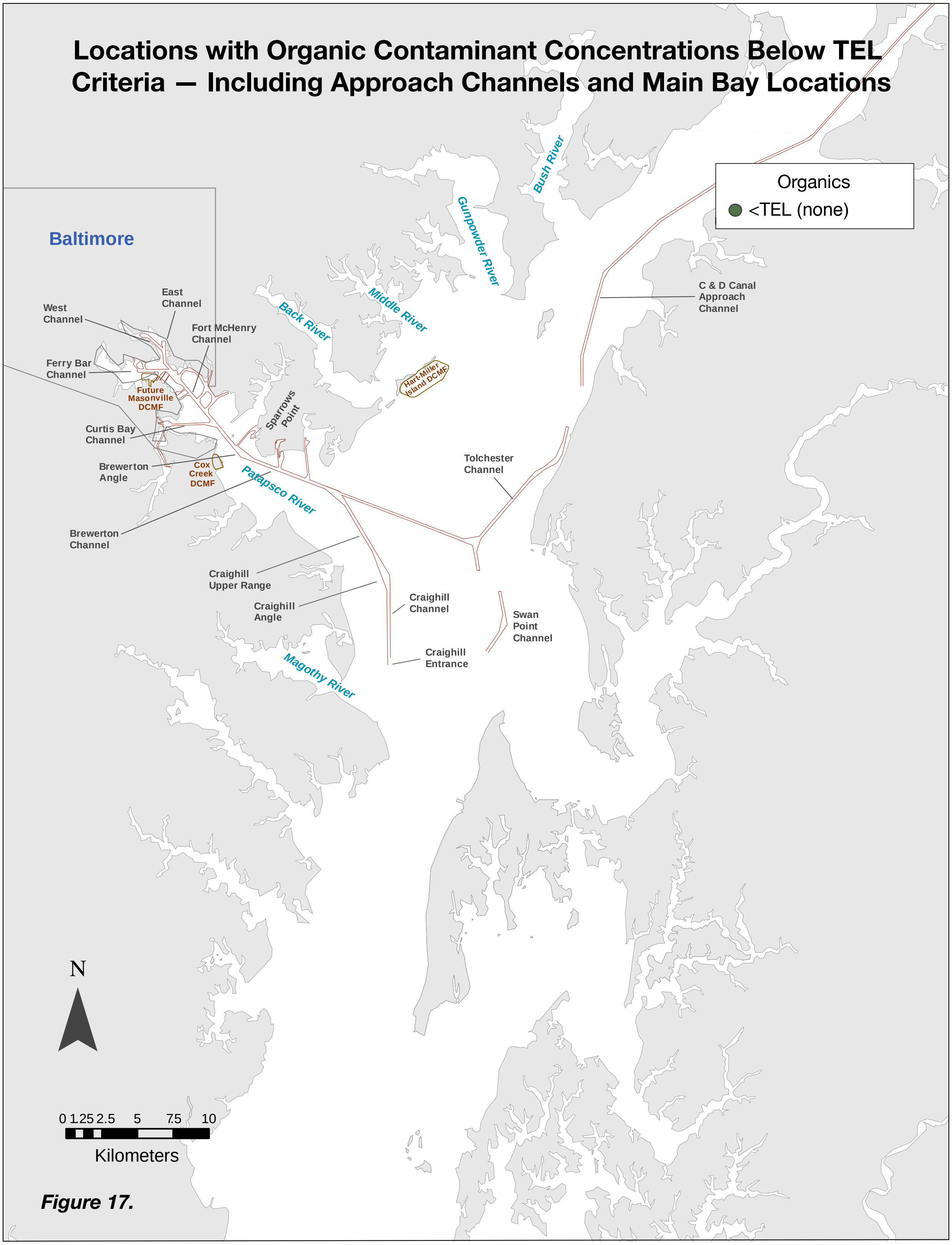

Channel Locations with Metal and Organic Contaminant
Concentrations Exceeding Non-Residential Soil Reuse Criteria
Metals & Organics
>MD NonRes Soil
Baltimore
West Channel
East Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Sparrows Point
Back River
Patapsco River
Craighill Upper Range
Craighill Angle
N
0 0.5 1 2 3 4
Kilometers

Figure 16.



Locations with Organic Contaminant Concentrations Below TEL Criteria — Including Approach Channels and Main Bay Locations
Organics
<TEL (none)
Baltimore
West Channel
East Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Sparrows Point
Back River
Middle River
Gunpowder River
Bush River
Hart-Miller Island DCMF
C & D Canal Approach Channel
Tolchester Channel
Patapsco River
Craighill Upper Range
Craighill Angle
Craighill Channel
Craighill Entrance
Swan Point Channel
Magothy River
N
0 1.25 2.5 5 7.5 10
Kilometers

Figure 17.

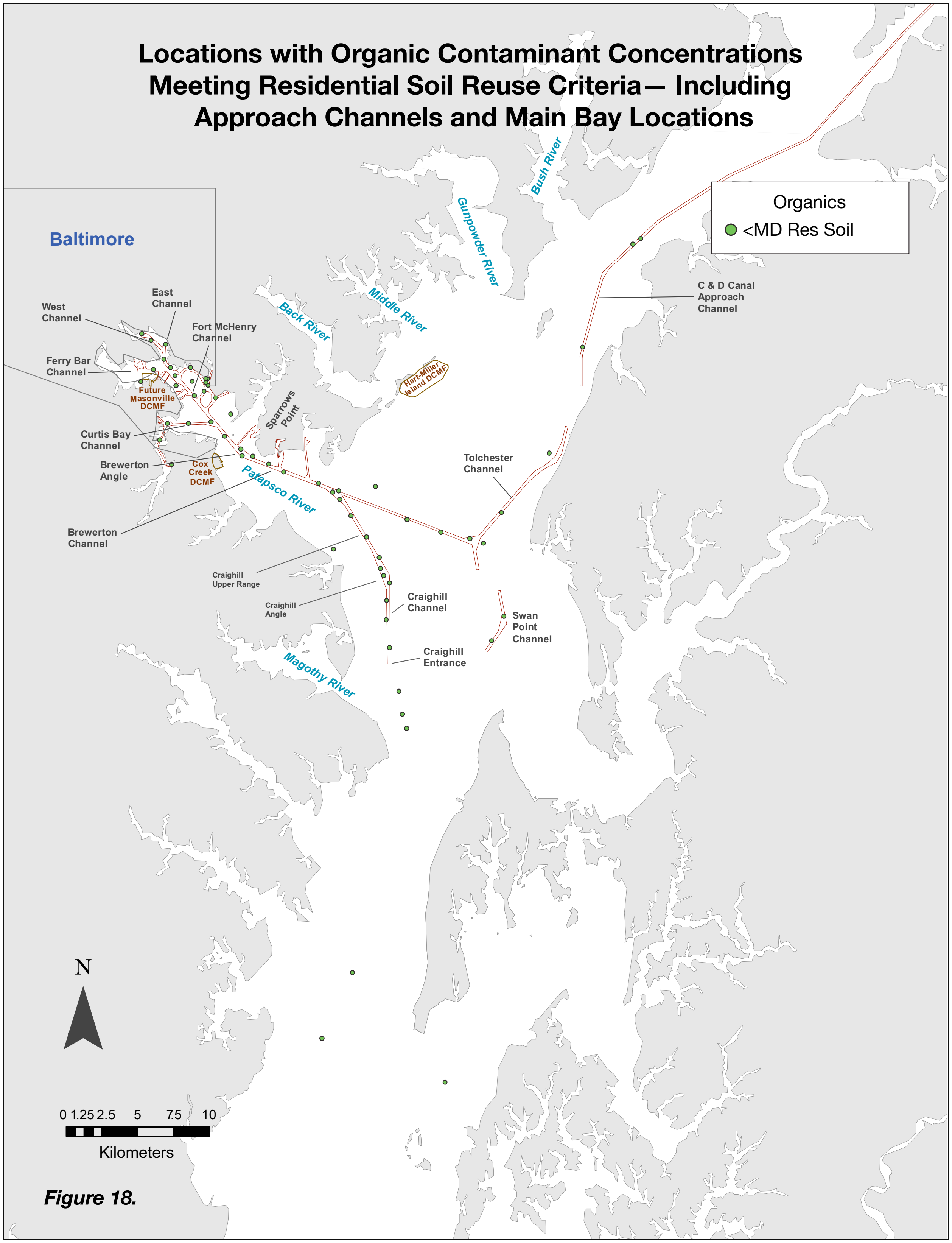

Locations with Organic Contaminant Concentrations Meeting Residential Soil Reuse Criteria— Including Approach Channels and Main Bay Locations
Organics
<MD Res Soil
Baltimore
West Channel
East Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Sparrows Point
Patapsco River
Back River
Middle River
Gunpowder River
Bush River
Hart-Miller Island DCMF
C & D Canal Approach Channel
Tolchester Channel
Craighill Upper Range
Craighill Angle
Craighill Channel
Craighill Entrance
Swan Point Channel
Magothy River
N
0 1.25 2.5 5 7.5 10
Kilometers

Figure 18.

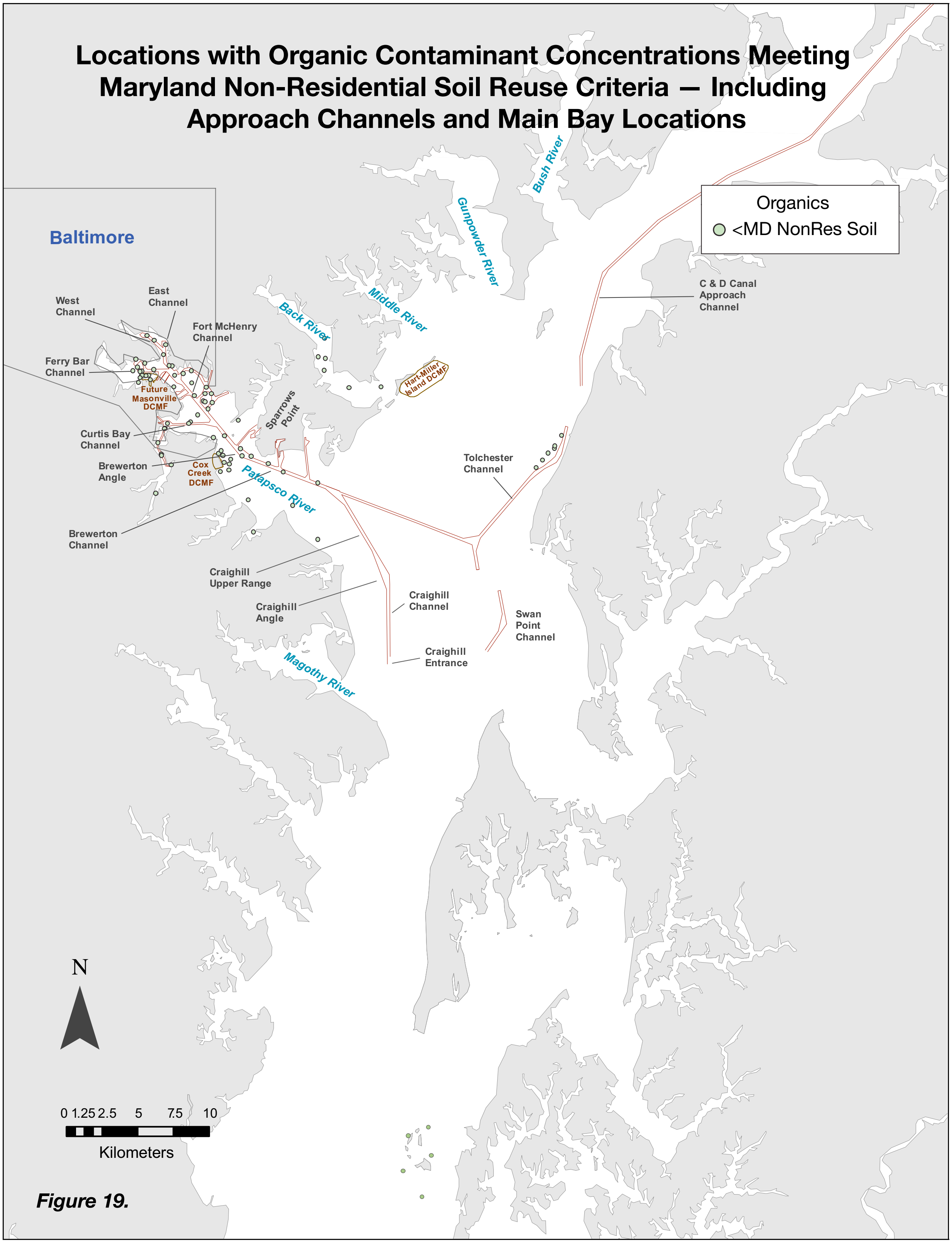

Locations with Organic Contaminant Concentrations Meeting Maryland Non-Residential Soil Reuse Criteria — Including Approach Channels and Main Bay Locations
Organics
<MD NonRes Soil
Baltimore
West Channel
East Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Sparrows Point
Patapsco River
Back River
Middle River
Gunpowder River
Bush River
Hart-Miller Island DCMF
C & D Canal Approach Channel
Tolchester Channel
Craighill Upper Range
Craighill Angle
Craighill Channel
Craighill Entrance
Swan Point Channel
Magothy River
N
0 1.25 2.5 5 7.5 10
Kilometers

Figure 19.

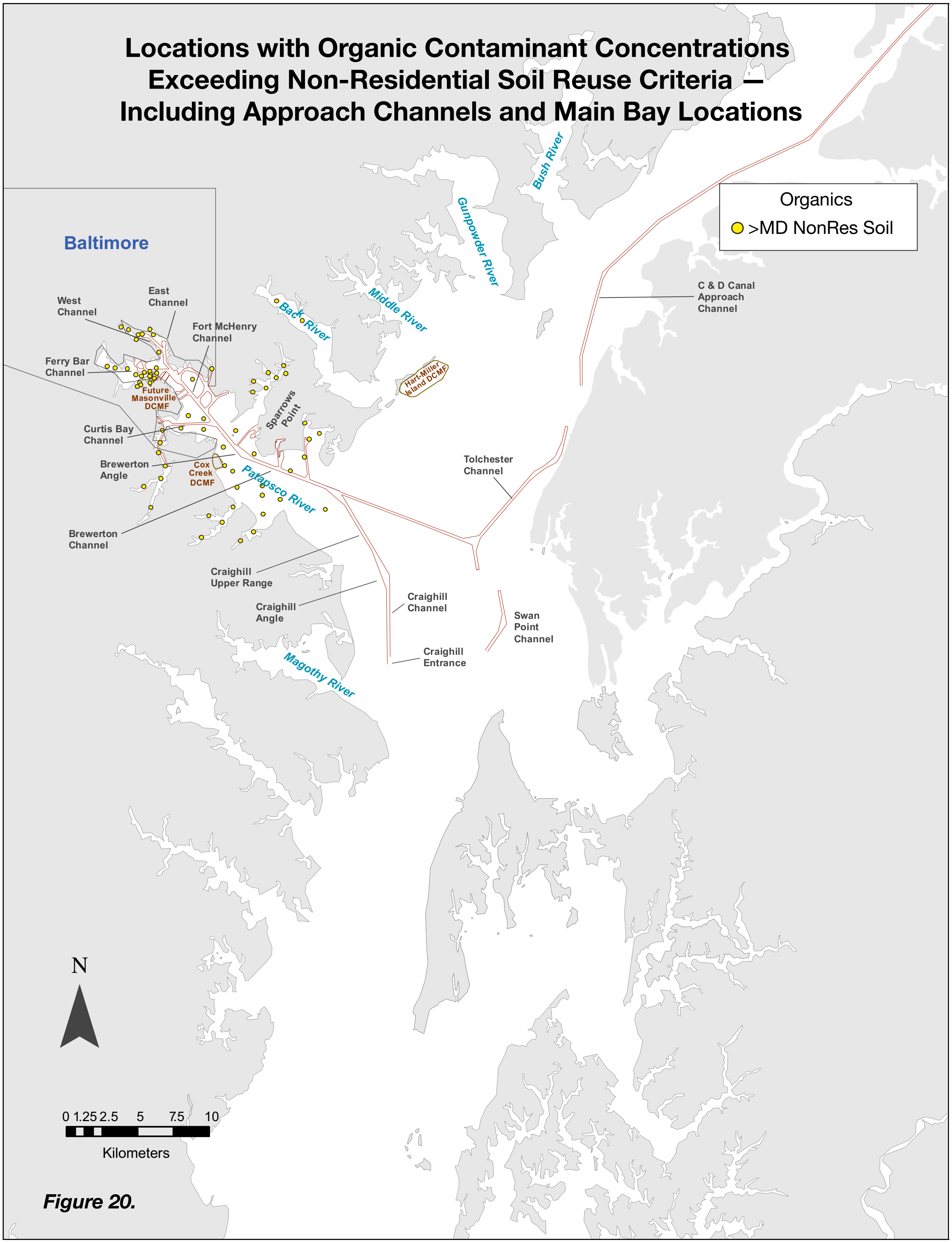

Locations with Organic Contaminant Concentrations Exceeding Non-Residential Soil Reuse Criteria — Including Approach Channels and Main Bay Locations
Organics
>MD NonRes Soil
Baltimore
West Channel
East Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Back River
Middle River
Gunpowder River
Bush River
Hart-Miller Island DCMF
Sparrows Point
Patapsco River
C & D Canal Approach Channel
Tolchester Channel
Craighill Upper Range
Craighill Angle
Craighill Channel
Craighill Entrance
Swan Point Channel
Magothy River
N
0 1.25 2.5 5 7.5 10
Kilometers

Figure 20.

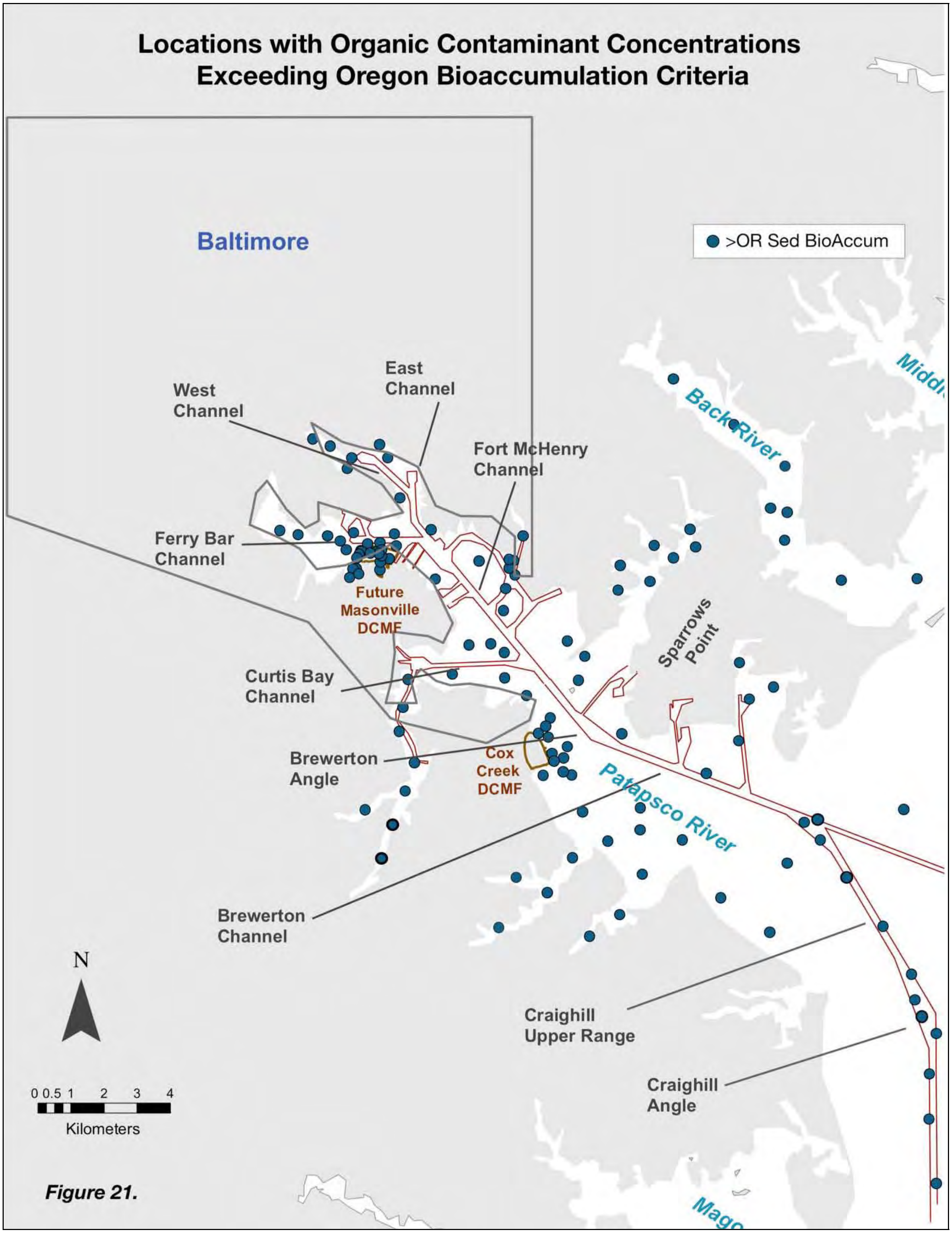

Locations with Organic Contaminant Concentrations
Exceeding Oregon Bioaccumulation Criteria
Baltimore
>OR Sed BioAccum
West Channel
East Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Back River
Sparrows Point
Patapsco River
Craighill Upper Range
Craighill Angle
N
0 0.5 1 2 3 4
Kilometers

Figure 21.

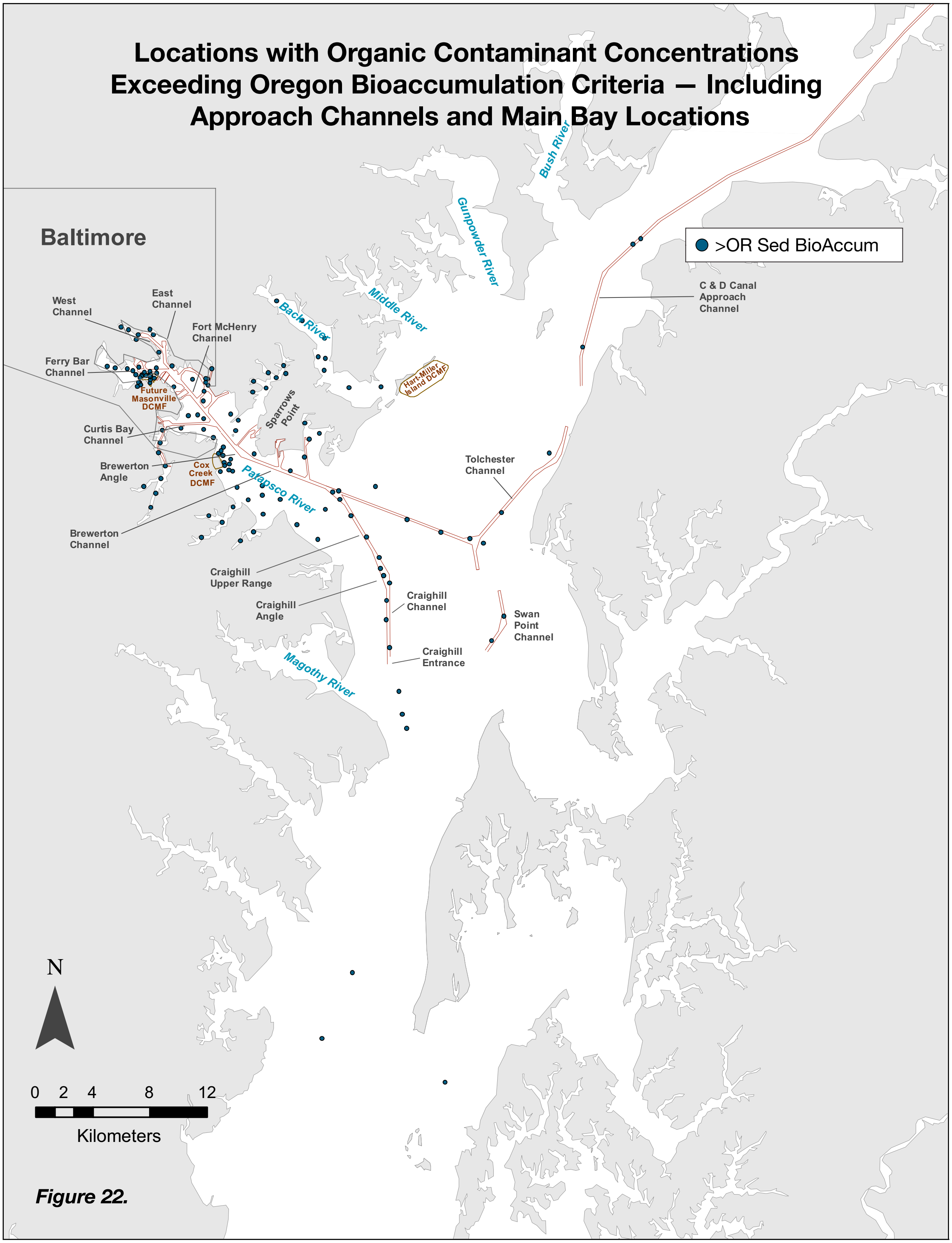

Locations with Organic Contaminant Concentrations Exceeding Oregon Bioaccumulation Criteria — Including Approach Channels and Main Bay Locations
Baltimore
>OR Sed BioAccum
West Channel
East Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Sparrows Point
Patapsco River
Back River
Middle River
Gunpowder River
Bush River
Hart-Miller Island DCMF
C & D Canal Approach Channel
Tolchester Channel
Craighill Upper Range
Craighill Angle
Craighill Channel
Craighill Entrance
Swan Point Channel
Magothy River
N
0 2 4 8 12
Kilometers

Figure 22.

Appendices

List of Tables Included in Appendices

Dataset Files

File	Contents
Table A1.pdf	Datasets Included and Excluded

Criteria Tables

File	Contents
Table B1.pdf	Compilation of Screening Criteria
Table B2.pdf	OR Bioaccumulation Screening Levels
Table B3.pdf	Maryland soil and groundwater standards
Table B4.pdf	NJDEP Ecological Screening Criteria

Data Files Used to Create Maps

(Use the "zoom" function in your pdf viewer to enhance visualization of the files)

File	Contaminants	Screening Criteria
Table C1.pdf	Metals	Independent Technical Review Team Screening
Table C2.pdf	PAHs	Independent Technical Review Team Screening
Table C3.pdf	Pesticides	Independent Technical Review Team Screening
Table C4.pdf	VOCs	Independent Technical Review Team Screening
Table C5.pdf	sVOCs	Independent Technical Review Team Screening
Table C6.pdf	PCBs	OR Bioaccumulation
Table C7.pdf	PCDDs	OR Bioaccumulation
Table C8.pdf	Combined Metals and Organics	Independent Technical Review Team Screening

Tables C1-C5 & C8 are color-coded following the scheme detailed in the text applying the Independent Technical Review Team Screening Criteria to assess sediment quality at each site.

See next page for abbreviations used to designate studies.

Abbreviations for Studies Used for Mapping

Abbreviation	Dataset Utilized
FED 98 FED 02 FED 05	US Army Corps of Engineers Federal Channel Testing: 1998 (metals), 2002 and 2005 (organics)
HMI	Final White Paper – Development of Potential Closure Options – North Cell HMI DMCF: Appendix A Comprehensive Report: South Cell Soil and Vegetation Survey for the HMI DMCF: 2005 (metals)
HMI	HMI DMCF Bulk Sediment: 1984-present (metals)
COX CREEK	Cox Creek DMCF South Cell Soil Sampling - (Post-Placement): 1999, 2005, 2007 (metals)
COX CREEK	Cox Creek Dredged Material Containment Facility Exterior Monitoring Study: Baseline 2006. (EA Engineering, Science, and Technology, Inc. 2007b) (metals and organics)
MASONVILLE	Masonville and Masonville Cove Exterior Monitoring Study: Baseline 2006 (EA Engineering, Science, and Technology Inc. 2007c) (metals)
MASONVILLE	Tiered Final Environmental Impact Statement for the Proposed (Masonville) Dredged Material Containment Facility: 2005 (metals and organics)
SEAGIRT	Seagirt Dredging Area Proposed Borrow Material Sediment and Water Quality Report (EA Engineering, Science, and Technology, Inc. 2007d) (metals and organics)
VARIOUS SITES*	Sample and Testing for Dredged Materials: Baltimore Harbor, Baltimore, Maryland (Law Engineering and Environmental Services, Inc. 1996) (metals)
NEW WORK	Proposed New Work Dredging Baltimore Harbor and Channels, Maryland and Virginia. Straightening of the Tolchester Channel S-turn, Maryland: Draft Environmental Assessment and Draft Finding of No Significant Impact. (Department of the Army, Baltimore District, Corps of Engineers 2000) (organics)
SPARROWS POINT	Final Report Sparrows Point Confirmatory Sampling (Dredged Material Characterization) Sparrows Point Shipyard, Baltimore Harbor, Maryland: October 2006 (metals)
BALT CONT	Spatial Mapping of Contaminants in the Baltimore arbor/Patapsco River/Back River System (Baker et al. 1997) (metals and organics)
BALT CONT	Hydrophobic Organic Contaminants in Surficial Sediments of Baltimore Harbor: Inventories and Sources (Ashley and Baker 1999) (organics)

** A limited number of sites from this study (Dundalk, Seagirt, S. Locust Point, N. Locust Point) were mapped but are not listed separately on the data tables.*

Table A1. Datasets included and excluded.

SEDIMENT AND BENTHIC SAMPLING DATA FOR METAL AND ORGANIC CONTAMINANTS						
Data Set or Report		Dates of sampling	METALS Included/ Excluded	METALS Justification	ORGANICS Included/ Excluded	ORGANICS Justification
1	US Army Corps of Engineers Federal Channel Testing	1995	E	Old techniques, not useful.	E	Unknown if data is on a dry or wet weight basis so unable to compare to soil quality criteria.
	Excel Spreadsheet Provided by MES	1998	I	Appropriate analytical methods.	E	Unknown if data is on a dry or wet weight basis so unable to compare to soil quality criteria.
	(EA Engineering, Science, and Technology, Inc. 2006)	2002	I	Appropriate analytical methods.	I	Includes recent data: PAH, some PCB congeners, most pesticides, VOCs, some dioxin/furan data from throughout harbor.
	(EA Engineering, Science, and Technology, Inc. 2007a)	2005	I	Appropriate analytical methods.	I	Includes recent data: PAH, some PCB congeners, most pesticides, VOCs, some dioxin/furan data from throughout harbor.
2	Hart Miller Island Dredged Material Containment Facility (HMI DMCF) - North Cell Sediment Sampling (Post-Placement) (Lab Reports and Excel Spreadsheets Provided by MES)	2002-2006	E	Total digests.	E	Most data as non-detectable.

3	Final White Paper - Development of Potential Closure Options – North Cell HMI DMCF: Appendix A Comprehensive Report: South Cell Soil and Vegetation Survey for the HMI DMCF (Lab Report and Appendix Provided by MES)	2005	I	Appropriate analytical methods.	E	Most PAH data below the detection limit; unknown if data are on a wet or dry weight basis, so unable to compare to soil quality criteria.
4	HMI DMCF Bulk Sediment (Lab Reports and Excel Spreadsheets Provided by MES)	Various (1984 - present)	I	Appropriate analytical methods.	E	Insufficient data in usable format.
5	Cox Creek DMCF Bulk Sediment (Lab Reports and Excel Spreadsheet Provided by MES)	2005	E	Few data, no normalizing Al, Fe.	E	Data limited in spatial coverage; unknown if data are on a wet or dry weight basis, so unable to compare to soil quality criteria.
6	Cox Creek DMCF South Cell Soil Sampling - (Post-Placement) (Lab Report and Excel Spreadsheets Provided by MES)	1999, 2005, 2007	I	Partial digestion, not appropriate for comparing to standards.	E	Unknown if data are on a wet or dry weight basis, so unable to compare to soil quality criteria.

7	Cox Creek Dredged Material Containment Facility Exterior Monitoring Study: Baseline 2006. (EA Engineering, Science, and Technology, Inc. 2007b)	2006	I	Appears useful, appropriate ratios provided.	I	High quality data.
8	Masonville and Masonville Cove Exterior Monitoring Study: Baseline 2006 (EA Engineering, Science, and Technology Inc. 2007c)	2006	I	Appropriate analytical methods.	E	Unknown if data are on a wet or dry weight basis, so unable to compare to soil quality criteria.
9	Tiered Final Environmental Impact Statement for the Proposed (Masonville) Dredged Material Containment Facility (USACE 2007)	2005	E	Difficult to interpret Excel files.	I	Recent quality data for PAH, DDT, PCB congenors and dioxin/furan data. Other pesticides and VOCs below the detection limit.
10	Seagirt Dredging Area Proposed Borrow Material Sediment and Water Quality Report (EA Engineering, Science, and Technology, Inc. 2007d)	2006	I	Perhaps same information as report #9 but in better format.	I	Some OCDD and PAH data adequate, but most others below detection limit.

11	Sample and Testing for Dredged Materials: Baltimore Harbor, Baltimore, Maryland (Law Engineering and Environmental Services, Inc. 1996)	1996	I	Table 4 data useful.	E	Most organics below the detection limit.
12a	A Pilot Study for Ambient Toxicity Testing in Chesapeake Bay - Volume I Year 1 Report (Hall et al. 1991)	1990	E	Nothing useful for metals.	E	Nothing useful; data for Elizabeth, Patapsco, Wye, and Potomac River sites. Sporadic data appears to be from GC/MS scans.
12b	A Pilot Study for Ambient Toxicity Testing in Chesapeake Bay - Year 2 Report (Hall et al. 1992)	1991	E	Nothing useful for metals.	E	Nothing useful; data for Elizabeth, Patapsco, Wye, and Potomac River sites. Sporadic data appears to be from GC/MS scans.
12c	A Pilot Study for Ambient Toxicity Testing in the Chesapeake Bay - Year 3 Report (Hall et al. 1994)	1993	E	Nothing useful for metals.	E	Nothing useful; data for Elizabeth, Patapsco, Wye, and Potomac River sites. Sporadic data appears to be from GC/MS scans.

12d	A Pilot Study for Ambient Toxicity Testing in the Chesapeake Bay - Year 4 Report (University of Maryland System, Old Dominion University, Maryland Department of the Environment 1997)	1994	E	Nothing useful for metals.	E	Nothing useful; data for Elizabeth, Patapsco, Wye, and Potomac River sites. Sporadic data appears to be from GC/MS scans.
13	Ambient Toxicity Testing in the Chesapeake Bay: Year 9 - An Assessment of the Chester and Rappahannock Rivers (Hall et al. 2002)	1999	E	Only ranges reported for sediments from the site, no analytical technique description, QA/QC.	E	Nothing useful; data for Chester and Rappahannock River sites.
14	Chesapeake Bay Sediment Monitoring Project (Text files Provided by MES)	1994-95	E	No information on methodology, QA/QC.	E	No info on sampling locations, methods, sample type, etc. Very vague dataset.

15	Proposed New Work Dredging Baltimore Harbor and Channels, Maryland and Virginia. Straightening of the Tolchester Channel S-turn, Maryland: Draft Environmental Assessment and Draft Finding of No Significant Impact. (USACE 2000)	1995 & 1999	E	Perhaps to be considered in future review with unlimited resources and staffing, more data mining requiring original data sheets.	I	Some quality PAH and PCB congenor data.
16	Benthic Index of Biotic Integrity Results for NOAA NS&T Chesapeake Bay Samples (Versar, Inc. 2006)	1998-1999, 2001	E	No metals data.	E	No useful organic chemical data.
17	Data collected in support of Bartletta Willis' dredging permit application (Lab Reports Provided by MES)	2004	E	Old, methodology questionable.	E	Organic contaminant data below detection limit.
18	Draft Environmental Impact Statement - Sparrows Point LNG Terminal and Pipeline Project (FERC 2008)	2006, 2007	E	Extracted metal concentrations and of no use in assessing bulk sediment metal concentrations since this is a partial leach technique.	E	Unknown if data are on a wet or dry weight basis, so therefore unable to compare with soil quality criteria.

19	Final Report Sparrows Point Confirmatory Sampling (Dredged Material Characterization) Sparrows Point Shipyard, Baltimore Harbor, Maryland (Excel Spreadsheets Provided By MES)	Oct-06	I	A few quality data.	E	Unknown if data are on a wet or dry weight basis, so therefore unable to compare with soil quality criteria.
20	Contaminants in Chesapeake Bay Sediments 1984-1991 (Eskin.et al. 1996)	1984-1991	E	Data too old to be useful.	E	Data too old to be useful.
21	CHARM data (Excel Spreadsheets Provided by MES)	1999-2000	E	Dissolved contaminants, not sediment contaminant data.	E	Dissolved contaminants, not sediment contaminant data.
22	Record of Decision, Site 1 Drydock Sediments Baltimore, Maryland (U.S Coast Guard Yard, U.S. EPA, and MDE 2007)	Jan-06	E	Data unclear, likely contamination of samples.	E	Unknown if data are on a wet or dry weight basis, so unable to compare to soil quality criteria.
23	Testing the Toxicity of Baltimore Harbor Sediments with *Leptocheirus plumulosus* (Versar, Inc. 1993)	1992	E	Toxicity data -- not applicable; no metal data to evaluate.	E	Toxicity data -- not applicable.

24	Final Technical Report -- Baltimore Harbor and Channels Aquatic Benthos Investigations (Diaz et al. 1985)	1983-1984	E	Only benthic diversity data; no metal data to evaluate.	E	Not contaminant data.
25	Baltimore Harbor and Channels Aquatic Benthos Investigations: Rappahannock Shoals Disposal Site (Diaz and Cutter 1997)	1987	E	No metals data.	E	Data not applicable.
26	Chesapeake Bay Water Quality Monitoring Program: Long-Term Benthic Monitoring and Assessment Component Level I Comprehensive Report (Versar, Inc. 2007)	July 1984-Dec. 1995	E	No metals data.	E	Data not applicable.
27	Spatial Mapping of Contaminants in the Baltimore Harbor/Patapsco River/Back River System (Baker et al. 1997)	1997	I	Useful, quality data.	I	Quality PAH, PCB, and some pesticide data presented.

28	Assessment of Sediment Toxicity in Baltimore Harbor/Patapsco River System (Fisher and McGee 1997)	1997	E	Data not applicable.	E	Data not applicable.
29	Poplar Island Environmental Restoration Project White Paper Sediment Evaluation Process, Chesapeake Bay, Maryland (EA Engineering, Science, and Technology Inc. 2007e)	1998 - 2005	E	No contaminant data.	E	Data not applicable.
30	Hydrophobic Organic Contaminants in Surficial Sediments of Baltimore Harbor: Inventories and Sources (Ashley and Baker 1999)	1996	E	No metals data.	I	Same data set as #27 above.

31	Field Validation of the Chronic Sediment Bioassay with the Estuarine Amphipod *Leptocheirus plumulosus* in Chesapeake Bay (McGee and Fisher 1999)	1997	E	Data suggest sample contamination.	E	No sampling site location.
32	Using the Sediment Quality Triad to characterize Toxic Conditions in the Chesapeake Bay (1999): An assessment of tidal river segments in the Bohemia, Magothy, Patuxent, Potomac, James and York Rivers (McGee et al. 2001)	1999	E	No metal data to evaluate.	E	Locations outside Baltimore Harbor.
33	Magnitude and Extent of Contaminated Sediment and Toxicity in Chesapeake Bay (Hartwell and Hameed 2007)	1998-2001	E	Sites not pertinent.	E	Unknown if data are on a wet or dry weight basis, so unable to compare to soil quality criteria.

34	Baltimore Harbor and Channels Aquatic Benthos Investigations at the Wolf Trap Alternate Disposal Site in the Lower Chesapeake Bay (Shaffner 1993)	1987-1991	E	Not specific to metals.	E	Unknown if data are on a wet or dry weight basis, so therefore unable to compare to soil quality criteria.
35	Using The Sediment Quality Triad to Characterize Toxic Conditions in the Chesapeake Bay (2002): An Assessment of Tidal River Segments in the Bohemia, Elk, Northeast and Severn Rivers (Pinkney et al. 2005)	2002	E	Data not applicable.	E	Data not applicable.
36	Summary of Available Guidance and Best Practices for Determining Suitability of Dredged Material for Beneficial Uses	N/A	E	Guidance document only.	E	Data not applicable.

37	Contaminated Sediments Management Strategy for the Baltimore Harbor	Summary Rpt. - No orig. data.	E	No metal data to evaluate.	E	Data not applicable.
38	Toxics Regional Action Plan for Baltimore Harbor	Various	E	No metal data to evaluate.	E	Data not applicable.
39	Distribution of Metals in Baltimore Harbor Sediments (Villa and Johnson 1974)	1973	E	Data too old to be reliable or relevant to present conditions.	E	Only metals data so data not applicable.
40	Permit Application for Slag Filling at the Bethlehem Steel Sparrows Point Plant, Baltimore County, Maryland, Final Environmental Impact Statement. (U.S. Army Engineer District, Baltimore, Maryland 1979)	1973	E	Data too old to be reliable or relevant to present conditions.	E	Data not applicable.
41	Trace Elements in the Sediments of the Baltimore Harbor and Elizabeth River (Sinex et al. 1981)	1981	E	Data too old to be reliable or relevant to present conditions.	E	Only metals data so data not applicable.

42	Metals in the Baltimore Harbor and Upper Chesapeake Bay and Their Accumulation By Oysters (Chesapeake Bay Institute and Chesapeake Biological Laboratory 1974)	1970	E	Data too old to be reliable or relevant to present conditions.	E	Only metals data so data not applicable.
43	Description of Current Conditions (Rust Environment & Infrastructure 1998)	various, 1990-1994	E	Data not applicable.	E	Data not applicable.
44	Chronic Toxicity of Sediments from the Inner Harbor and Bear Creek to *Leptocheirus plumulosus* (Fisher et al. 2004)	2003	E	Data not applicable.	E	Data not applicable.
45	Chemical and Physical Analysis from the Sparrows Point Marine Channel (EA Engineering, Science, and Technology, Inc. 1987)	1987	E	Too few samples.	E	Old data on a wet weight basis preventing comparison to soil quality criteria.

46	Chemical and Physical Analysis of Sediments from the Marine Channel and Associated Berths and Turning Basin -- A Data Report (EA Engineering, Science, and Technology, Inc. 1985)	1984	E	Too few samples.	E	Old data on a wet weight basis preventing comparison to soil quality criteria.

References

Ashley, J. T. F. and J. E. Baker. 1999. Hydrophobic Organic Contaminants in Surficial Sediments of Baltimore Harbor: Inventories and Sources. Environmental Toxicology and Chemistry 18(5):838-849.

Baker, J., R. Mason, J. Cornwell, and J. Ashley. 1997. Spatial Mapping of Contaminants in the Baltimore Harbor/Patapsco River/Back River System. Report to Maryland Department of the Environment, Baltimore, Maryland.

Chesapeake Bay Institute and Chesapeake Biological Laboratory. 1974. Metals in the Baltimore Harbor and Upper Chesapeake Bay and Their Accumulation By Oysters. Editors, L.E. Cronin, D. W. Pritchard, J. R. Schubel, and J. A. Sherk.

Diaz, R. J. L. C. Schaffner, R. J. Byrne, and R. A. Gammisch. 1985. Final Technical Report -- Baltimore Harbor and Channels Aquatic Benthos Investigations. Report to U.S. Army Corps of Engineers, Baltimore, Maryland.

Diaz, R. and G. R. Cutter. 1997. Baltimore Harbor and Channels Aquatic Benthos Investigations: Rappahannock Shoals Disposal Site. Report to U.S. Army Corps of Engineers, Baltimore, Maryland.

EA Engineering, Science, and Technology, Inc. 1985. Chemical and Physical Analysis of Sediments from the Marine Channel and Associated Berths and Turning Basin -- A Data Report. Report to Bethlehem Steel Corporation, Sparrows Point, Maryland.

EA Engineering, Science, and Technology, Inc. 1987. Chemical and Physical Analysis from the Sparrows Point Marine Channel. Report to Bethlehem Steel Corporation, Sparrows Point, Maryland.

EA Engineering, Science, and Technology, Inc. 2006. FY02 Evaluation of Dredged Material. Upper Chesapeake Bay Approach Channels to the Port of Baltimore and Baltimore Harbor Channels. Chesapeake Bay, Maryland. Report to U.S. Army Corps of Engineers, Baltimore, Maryland.

EA Engineering, Science, and Technology, Inc. 2007a. FY05 Evaluation of Dredged Material. Baltimore Harbor Federal Navigation Channels. Patapsco River, Maryland. Report to U.S. Army Corps of Engineers, Baltimore, Maryland.

EA Engineering, Science, and Technology, Inc. 2007b. Cox Creek Dredged Material Containment Facility Exterior Monitoring Study: Baseline 2006. Report to Maryland Environmental Service, Millersville, Maryland.

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Table B1. Compilation of screening criteria.

Toxic Substance	CAS Number	Surface Water (ug/L) – Aquatic resources: Acute	Chronic	Human Health for Consumption of: (Risk Level = 10^{-5}) (µg/L): Water + Organism	Organism Only	Sediment (mg/kg) – Sediment infauna: Effects Range Low (ER-L)	Effects Range Medium (ER-M)	Threshold Effect Level (TEL)	Probable Effects Level (PEL)	Apparent Effects Threshold (AET)	Oregon Sediment Bioaccumulation Screening Level Values (see other sheet for TCDD/PCB): Bird individual	Bird population	Mammals individual	Mammals population	Fish freshwater	Fish marine	Humans General	Humans Subsistence	Soil (mg/kg) – MDE Residential Clean-up	MDE Non-Residential Clean-up	MDE Protection of Groundwater	Anticipated Typical Concentration (ATC) for Eastern Maryland	Land application of biosolids: §503.13 Ceiling Concentrations (mg/kg)	Compost or topsoil, unrestricted use: Most conservative value based on 8 states (USACOE 2007)	NJ Wildlife PRGs (flora and fauna)	Eco Screening Values: Ecological screening value recommended by Friday 2005	Oregon Soil Screening Value 2001 (most conservative receptor)	EPA Ecological soil screening level: Plants	Soil Invertebrates	Avian	Mammalian
Acenaphthene	83-32-9			670	990	0.016	0.500	0.0067	0.089	0.130									470	6100	100				20[9]	20	20				
Acenaphthylene	208-96-8					0.044	0.640	0.0059	0.128	0.071									470	6100	100				682[8]						
Acrolein	107-02-8			190	290																				5.27[8]						
Acrylonitrile	107-13-1			0.51	2.5																				0.02393[8]		1000				
Aldrin	309-00-2	1.3		0.00049	0.00050					0.0095									0.038	0.17	0.0077				0.00332[8]	0.06	25				
Aluminum	7429-90-5									18000.000									7800	100000	--	11000					50				
Ammonia, un-ionized	7664-41-7	See N.J.A.C. 7:9B-1.14(e)																													
Anthracene	120-12-7			8,300	40,000	0.085	1.100	0.047	0.245	0.280									2300	31000	470				1,480[8]						
Antimony	7440-36-0			5.6	640					9.300									3.1	41	13	6			5[9]	0.29	5		78		0.27
Arsenic	7440-38-2	69(d)(s)	36(d)(s)	10	41[a]	8.2	70	7.24	41.60	35.000									0.43	1.9	0.026	3.6	75	0.042	9.9[9,10]	10	10	18		43	46
Asbestos	1332-21-4			7 million fibers/L																											
Atrazine																			2.9	13	0.0088					0.1					
Barium	7440-39-3			2,000				130.1		48.000									1600	20000	6000	73			283[11]	160	85		330		2,000
Benz(a)anthracene	56-55-3			0.038	0.18	0.261	1.600	0.075	0.693	0.960									0.22	3.9	0.48				5.21[8]						
Benzene	71-43-2			22	510														12	52	0.0019			0.03	0.25462[8]		3300				
Benzidine	92-87-5			0.00086	0.0020																										
3,4-Benzofluoranthene (Benzo(b)fluorar	205-99-2			0.038	0.18					1.800									0.22	3.9	1.5				59.8[8]						
Benzo(k)fluoranthene	207-08-9			0.038	0.18					1.800									2.2	39	15				148[8]						
Benzo(g,h,i)perylene	191-24-2									0.670									230	3100	680				119[8]						
Benzo(a)pyrene (BaP)	50-32-8			0.038	0.18	0.430	1.600	0.089	0.763	1.100									0.022	0.39	0.12			0.0088	1.52[8]	0.1	125				
Beryllium	7440-41-7			4															16	200	1200	0.66			10[9]	1.1			40		21
BHC (Benzohexachloride)				0.091	0.17																										
alpha-BHC (alpha-HCH)	319-84-6																		1.0E-01	4.5E-01	8.9E-04				0.09939[8]	3					
beta-BHC (beta-HCH)	319-85-7																		3.5E-01	1.6E+00	3.1E-03				0.00398[8]	9					
gamma-BHC (gamma-HCH/Lindane)	58-89-9	0.16						0.00032	0.00099	>0.0048									4.9E-01	2.2E+00	4.3E-03				0.00500[8]	0.05	8				
Biphenyl	92-52-4																								60[9]	60	60				
Bis(2-chloroethyl) ether	111-44-4			0.30	5.3														0.58	2.6	0.000044				23.7[8]						
Bis(2-chloroisopropyl) ether	108-60-1			1400	65,000														9.1	41	0.0017				19.9[8]						
Bis(2-ethylhexyl) phthalate	117-81-7			12	22			0.182	2.647	1.300									46	200	2900				0.92594[8]						
Boron	7440-42-8																								0.5[9]	0.5	0.5				
Bromine	7726-95-6																								10[9]	10	10				
Bromodichloromethane (Dichlorobromo	75-27-4																		10	46	0.0011				0.53978[8]						
Bromoform	75-25-2																		81	360	0.067				15.9[8]						
Butyl benzyl phthalate	85-68-7									0.063															0.23889[8]						
Cadmium	7440-43-9	40(d)(s)	8.8(d)(s)	5		1.2	9.6	0.68	4.21	3.000									3.9	51	27	0.73	85		4[9,11]	0.38	4	32	140	0.77	0.36
Carbon tetrachloride	56-23-5			2.3	16														4.9	22	0.0021				2.98[8]		1000				
Chlordane	57-74-9	0.09	0.004	0.0080	0.0081	0.0005	0.006	0.00226	0.00479	0.0028	0.01	0.051	0.028	0.056	0.0005	0.00047	0.00037	0.000046	1.8	8.2	0.92				0.224[8]	0.03	9				
Chloride	16887-00-6																														
Chlorine Produced Oxidants (CPO)	7782-50-5	13	7.5																												
3-Chloroaniline	108-42-9																								20[9]		20				
Chlorobenzene	108-90-7			680	21,000														160	2000	0.68				40[12]		40				
Chloroform	67-66-3			See Trihalomethanes	4,700														78	1000	0.00091				1.19[8]		1875				
2-Chloronaphthalene	91-58-7																		6.3E+02	8.2E+03	3.2E+01				0.01218[8]						
2-Chlorophenol	95-57-8									0.000333															0.24266[8]		60				
3-Chlorophenol	108-43-0																								7[12]						
Chlorpyrifos	2921-88-2	0.011	0.0056																												
Chromium	7440-47-3			100		81	370	52.3	160.0	62.000									23	310	42	28			0.4[12]	0.4					
Chromium+3	16065-83-1																		12000	150000	2000000000					0.4	0.4			26	34
Chromium+6	18540-29-9	1,100(d)(s)	50(d)(s)																23	310	42					0.4	410				130
Chrysene	218-01-9			0.038	0.18	0.384	2.800	0.108	0.846	0.950									22	390	48				4.73[8]						
Cobalt	7440-48-4									10.000												11			20[9]	9	20	13		120	230
Copper	7440-50-8	4.8(d)(s)	3.1(d)(s)	1,300		34	270	18.7	108.0	390.000									310	4100	11000	12	4300		60[12]	36	50	70	80	28	49
Cyanide (Total)	57-12-5	1.0(fc)	1.0(fc)																160	2000	150				1.33[9]	0.9					
4,4'-DDD (p,p'-TDE)	72-54-8			0.0031	0.0031	0.002	0.02	0.0012	0.0078	0.016									2.7	12	11				0.75815[8]		0.01				
4,4'-DDE	72-55-9			0.0022	0.0022	0.0022	0.0270	0.0021	0.3740	0.009									1.9	8.4	35				0.59587[8]		0.01				
4,4'-DDT	50-29-3	0.13	0.001	0.0022	0.0022	0.001	0.007	0.0012	0.0048	0.012									1.9	8.4	1.2				0.01750[8]		0.01				
DDT (Total)						0.0016	0.0461	0.0039	0.0517	0.011	0.00043	0.0013	0.0049	0.024	0.00039	0.00039	0.00033	0.00004								10				0.093[21]	0.021[21]
Demeton	8065-48-3		0.1																												
Dibenz(a,h)anthracene	53-70-3					0.063	0.260	0.006	0.135	0.230									0.022	0.39	0.46				18.4[8]						
Dibromochloromethane (Chlorodibromo	124-48-1																		7.6	34	0.00083				2.05[8]						
Di-n-butyl phthalate	84-74-2									0.058															200[9]		0.45				
1,2-Dichlorobenzene	95-50-1	7.0E+02	9.2E+03							0.013									7.0E+02	9.2E+03	4.6E+00				2.96[8]						
1,3-Dichlorobenzene	541-73-1																								37.7[8]						
1,4-Dichlorobenzene	106-46-7									0.110															20[12]		20				
3,3'-Dichlorobenzidine	91-94-1																								0.64636[8]						
1,2-Dichloroethane	107-06-2																		7.0E+00	3.1E+01	1.0E-03				21.2[8]						
1,1-Dichloroethylene	75-35-4																								8.28[8]						
trans-1,2-Dichloroethylene	156-60-5																								0.78373[8]						
2,4-Dichlorophenol	120-83-2									0.000208									23	310	1.2				87.5[8]		20				
3,4-Dichlorophenol	95-77-2																								20[9,12]		20				
1,2-Dichloropropane	78-87-5																		9.4E+00	4.2E+01	3.4E-03				32.7[8]		700				
1,3-Dichloropropene (cis and trans)	542-75-6																		6.4E+00	2.9E+01	3.1E-03										
Dieldrin	60-57-1	0.71	0.0019	0.00052	0.00054	0.00002	0.00430	0.00072	0.0043	0.0019	0.00037	0.0018	0.0012	0.0061	0.0022	0.0022	0.0000081	0.0000001	0.04	0.18	0.0022				0.00238[8]	0.032	0.3			0.022	0.0049
Diethyl phthalate	84-66-2			17,000	44,000					0.006									6300	82000	450				100[9]		100				
2,4-Dimethyl phenol	105-67-9	1.6E+02	2.0E+03							0.018															0.010[8]		20				
4,6-Dinitro-o-cresol	534-52-1																														
2,4-Dinitrophenol	51-28-5	1.6E+01	2.0E+02	69	5,300																				20[9]		20				
2,4-Dinitrotoluene	121-14-2																								1.28[8]						
1,2-Diphenylhydrazine	122-66-7																														

Surface Water (ug/L)

Toxic Substance	CAS Number	Aquatic resources: Acute	Aquatic resources: Chronic	Human Health for Consumption of: (Risk Level = 10^{-5}) (µg/L): Water + Organism	Human Health for Consumption of: (Risk Level = 10^{-5}) (µg/L): Organism Only
Endosulfans (alpha and beta)	115-29-7	0.034	0.0087	62	89
Endosulfan sulfate	1031-07-8			62	89
Endrin	72-20-8	0.037	0.0023	0.76	0.81
Endrin aldehyde	7421-93-4			0.29	0.30
Ethylbenzene	100-41-4			3,100	29,000
Fluoranthene	206-44-0			130	140
Fluorene	86-73-7			1,100	5,300
Fluorine	7782-41-4				
Furan	110-00-9				
Guthion	86-50-0		0.01		
Heptachlor	76-44-8	0.053	0.0036	0.00079	0.00079
Heptachlor epoxide	1024-57-3	0.053	0.0036	0.00039	0.00039
Hexachlorobenzene	118-74-1			0.0028	0.0029
Hexachlorobutadiene	87-68-3				
Hexachlorocyclopentadiene	77-47-4			240	17,000
Hexachloroethane	67-72-1			14	33
Indeno(1,2,3-cd)pyrene	193-39-5			0.038	0.18
Iodine	7553-56-2				
Isophorone	78-59-1			350	9,600
Kepone (Chlordecone)					
Lead	7439-92-1	210(d)(s)	8.1		
Lithium	7439-93-2				
Malathion	121-75-5		0.1		
Manganese	7439-96-5				
Mercury	7439-97-6	1.8(d)(s)	0.94(d)(s)		
methylmercury					
Methoxychlor	72-43-5		0.03		
Methyl bromide (bromomethane)	74-83-9			47	1,500
Methyl t-butyl ether (MTBE)	1634-04-4	53,000[17]	18,000[17]		
Methylene chloride	75-09-2			46	5,900
2-Methylnaphthalene	91-57-6				
Mirex	2385-85-5		0.001		
Molybdenum	7439-98-7				
Naphthalene	91-20-3				
Nickel	7440-02-0	74	8.2	610	4,600
Nitrate (as N)	14797-55-8				
Nitrobenzene	98-95-3			17	690
4-Nitrophenol	100-02-7				
N-Nitrosodi-n-butylamine	924-16-3				
N-Nitrosodiethylamine	55-18-5				
N-Nitrosodimethylamine	62-75-9			0.0069	30
N-Nitrosodiphenylamine	86-30-6			0.050	5.1
N-Nitrosodi-n-propylamine (Di-n-propyl	621-64-7				
N-Nitrosopyrrolidine	930-55-2				
Parathion	56-38-2				
Pentachlorobenzene	608-93-5				
Pentachlorophenol	87-86-5	13	7.9	2.7	30
Phenanthrene	85-01-8				
Phenol	108-95-2			21,000	1,700,000
Phosphorous (yellow)	7723-14-0		0.1		
PCB Aroclor 1016					
PCB Aroclor 1248					
PCB Aroclor 1254					
PCB Aroclor 1260					
Polychlorinated biphenyls (PCBs)	1336-36-3		0.03	0.00064	0.00064
Pyrene	129-00-0			830	4,000
Selenium	7782-49-2	290(d)(s)	71(d)(s)	170	4,200
Silver	7440-22-4	1.9(d)(s)			
Styrene	100-42-5				
Sulfide-hydrogen sulfide (undissociated	7783-06-4		2		
TCDF					
Technetium	7440-26-8				
tert-Butyl alcohol (TBA)	75-65-0				
2,3,5,6-Tetrachloroaniline	3481-20-7				
1,2,3,4-Tetrachlorobenzene	634-66-2				
1,2,4,5-Tetrachlorobenzene	95-94-3				
2,3,7,8-Tetrachlorodibenzo	1746-01-6				
1,1,2,2-Tetrachloroethane	79-34-5				
Tetrachloroethylene	127-18-4			6.9	33
2,3,4,5-Tetrachlorophenol	4901-51-3				
Thallium	7440-28-0			1.7	6.3
Tin	7440-31-5				
Tributyltin		0.37	0.01		
Toluene	108-88-3			6,800	200,000
Toxaphene	8001-35-2	0.21	0.0002	0.0028	0.0028
2,4,5-Trichloroaniline	636-30-6				
1,2,3-Trichlorobenzene	87-61-6				
1,2,4-Trichlorobenzene	120-82-1				
1,1,1-Trichloroethane	71-55-6				

Sediment (mg/kg) — Sediment infauna; Oregon Sediment Bioaccumulation Screening Level Values (see other sheet for TCDD/PCB)

Toxic Substance	CAS Number	Effects Range Low (ER-L)	Effects Range Medium (ER-M)	Threshold Effect Level (TEL)	Probable Effects Level (PEL)	Apparent Effects Threshold (AET)	Bird: individual	Bird: population	Mammals: individual	Mammals: population	Fish: freshwater	Fish: marine	Humans: General	Humans: Subsistence
Endosulfans (alpha and beta)	115-29-7													
Endosulfan sulfate	1031-07-8													
Endrin	72-20-8													
Endrin aldehyde	7421-93-4													
Ethylbenzene	100-41-4					0.004								
Fluoranthene	206-44-0	0.600	5.100	0.113	1.494	1.300								
Fluorene	86-73-7	0.019	0.540	0.021	0.144	0.120								
Fluorine	7782-41-4													
Furan	110-00-9													
Guthion	86-50-0													
Heptachlor	76-44-8					0.0003								
Heptachlor epoxide	1024-57-3				0.00274									
Hexachlorobenzene	118-74-1					0.006								
Hexachlorobutadiene	87-68-3					0.0013								
Hexachlorocyclopentadiene	77-47-4													
Hexachloroethane	67-72-1					0.073								
Indeno(1,2,3-cd)pyrene	193-39-5					0.600								
Iodine	7553-56-2													
Isophorone	78-59-1													
Kepone (Chlordecone)														
Lead	7439-92-1	46.7	218	30.2	112.0	400.000								
Lithium	7439-93-2													
Malathion	121-75-5													
Manganese	7439-96-5					260.000								
Mercury	7439-97-6	0.15	0.71	0.130	0.700	0.410								
methylmercury														
Methoxychlor	72-43-5													
Methyl bromide (bromomethane)	74-83-9													
Methyl t-butyl ether (MTBE)	1634-04-4													
Methylene chloride	75-09-2													
2-Methylnaphthalene	91-57-6	0.070	0.670	0.020	0.201	0.064								
Mirex	2385-85-5													
Molybdenum	7439-98-7													
Naphthalene	91-20-3	0.160	2.100	0.035	0.391	0.230								
Nickel	7440-02-0	20.9	51.6	15.9	42.8	110.000								
Nitrate (as N)	14797-55-8													
Nitrobenzene	98-95-3					0.021								
4-Nitrophenol	100-02-7													
N-Nitrosodi-n-butylamine	924-16-3													
N-Nitrosodiethylamine	55-18-5													
N-Nitrosodimethylamine	62-75-9													
N-Nitrosodiphenylamine	86-30-6					0.028								
N-Nitrosodi-n-propylamine (Di-n-propyl	621-64-7													
N-Nitrosopyrrolidine	930-55-2													
Parathion	56-38-2													
Pentachlorobenzene	608-93-5													
Pentachlorophenol	87-86-5					0.017			0.33	3.3	0.31	0.17	0.25	0.03
Phenanthrene	85-01-8	0.240	1.500	0.087	0.544	0.660								
Phenol	108-95-2					0.130								
Phosphorous (yellow)	7723-14-0													
PCB Aroclor 1016														
PCB Aroclor 1248														
PCB Aroclor 1254				0.063	0.709									
PCB Aroclor 1260														
Polychlorinated biphenyls (PCBs)	1336-36-3	0.023	0.180	0.022	0.189	0.130								6.2E-09
Pyrene	129-00-0	0.665	2.600	0.153	1.398	2.400								
Selenium	7782-49-2					1.000								
Silver	7440-22-4	1.0	3.7	0.73	1.77	3.100								
Styrene	100-42-5													
Sulfide-hydrogen sulfide (undissociated	7783-06-4					4.500								
TCDF														0.000000094
Technetium	7440-26-8													
tert-Butyl alcohol (TBA)	75-65-0													
2,3,5,6-Tetrachloroaniline	3481-20-7													
1,2,3,4-Tetrachlorobenzene	634-66-2													
1,2,4,5-Tetrachlorobenzene	95-94-3													
2,3,7,8-Tetrachlorodibenzo	1746-01-6			0.00000085	0.0000215	0.0000036								1.1E-09
1,1,2,2-Tetrachloroethane	79-34-5													
Tetrachloroethylene	127-18-4					0.057								
2,3,4,5-Tetrachlorophenol	4901-51-3													
Thallium	7440-28-0													
Tin	7440-31-5			0.048		>3.4								
Tributyltin							1.6	4.1	0.73	1.1	0.0023	0.00037	0.085	0.01
Toluene	108-88-3													
Toxaphene	8001-35-2			0.0001										
2,4,5-Trichloroaniline	636-30-6													
1,2,3-Trichlorobenzene	87-61-6													
1,2,4-Trichlorobenzene	120-82-1					>0.0048								
1,1,1-Trichloroethane	71-55-6													

Soil (mg/kg)

Toxic Substance	CAS Number	MDE Residential Clean-up	MDE Non-Residential Clean-up	MDE Protection of Groundwater	Anticipated Typical Concentration (ATC) for Eastern Maryland	Land application of biosolids: §503.13 Ceiling Concentrations (mg/kg)	Compost or topsoil, unrestricted use: Most conservative value based on 8 states (USACOE 2007)	Eco Screening Values: NJ Wildlife PRGs (flora and fauna)	Eco Screening Values: Ecological screening value recommended by Friday 2005	Eco Screening Values: Oregon Soil Screening Value 2001 (most conservative receptor)	EPA Ecological soil screening level: Plants	EPA Ecological soil screening level: Soil Invertebrates	EPA Ecological soil screening level: Avian	EPA Ecological soil screening level: Mammalian
Endosulfans (alpha and beta)	115-29-7	47	610	20						20				
Endosulfan sulfate	1031-07-8	47	610	20				0.03578[8]						
Endrin	72-20-8	2.3	31	5.4				0.01010[8]	0.04	0.04				
Endrin aldehyde	7421-93-4	2.3	31	5.4				0.1050[8]						
Ethylbenzene	100-41-4	780	10000	15				5.16[8]						
Fluoranthene	206-44-0	310	4100	6300				122[8]	0.1					
Fluorene	86-73-7	310	4100	140				122[8]	30	30				
Fluorine	7782-41-4							200[9]		30				
Furan	110-00-9							600[9]		600				
Guthion	86-50-0													
Heptachlor	76-44-8	0.14	0.64	0.84				0.00598[8]		15				
Heptachlor epoxide	1024-57-3	0.07	0.31	0.025				0.15188[8]						
Hexachlorobenzene	118-74-1	0.4	1.8	0.052				0.19878[8]		1000				
Hexachlorobutadiene	87-68-3	8.2	37	1.8				0.03976[8]						
Hexachlorocyclopentadiene	77-47-4	47	610	1800				10[9]		10				
Hexachloroethane	67-72-1	46	200	0.36				0.59634[8]						
Indeno(1,2,3-cd)pyrene	193-39-5	0.22	3.9	4.2				109[8]						
Iodine	7553-56-2							4[9]	4	4				
Isophorone	78-59-1	670	3000	0.41				139[8]						
Kepone (Chlordecone)										10.0				
Lead	7439-92-1	400	1000	--	45	840	background	40.5[11]	16	16	120	1,700	11	56
Lithium	7439-93-2							2[9]	2	2				
Malathion	121-75-5													
Manganese	7439-96-5	160	2000	950	480				100	100	220	450	4,300	4,000
Mercury	7439-97-6	2.3	31		0.51	57		0.00051[11]	0.1	0.1				
methylmercury		0.78	10						0.67	0.0002				
Methoxychlor	72-43-5	39	510	310				0.01988[8]						
Methyl bromide (bromomethane)	74-83-9							0.23516[8]						
Methyl t-butyl ether (MTBE)	1634-04-4	85	380	0.019										
Methylene chloride	75-09-2							4.05[8]		730				
2-Methylnaphthalene	91-57-6							3.24[8]						
Mirex	2385-85-5													
Molybdenum	7439-98-7					75		2[9]	2	2				
Naphthalene	91-20-3	160	2000	0.15				0.9939[8]		10				
Nickel	7440-02-0	160	2000		13	420		30[9]	30	30	38	280	210	130
Nitrate (as N)	14797-55-8													
Nitrobenzene	98-95-3	3.9	51	0.023				1.31[8]		8				
4-Nitrophenol	100-02-7							7[12]		7				
N-Nitrosodi-n-butylamine	924-16-3													
N-Nitrosodiethylamine	55-18-5							0.06933[8]						
N-Nitrosodimethylamine	62-75-9							0.0000321[8]						
N-Nitrosodiphenylamine	86-30-6	130	580	0.76				0.54514[8]		20				
N-Nitrosodi-n-propylamine (Di-n-propyl	621-64-7	0.091	0.41	0.000047										
N-Nitrosopyrrolidine	930-55-2							0.01256[8]						
Parathion	56-38-2							0.000340[8]						
Pentachlorobenzene	608-93-5							20[12]		40				
Pentachlorophenol	87-86-5							3[9]		3	5.0	31	2.1	2.8
Phenanthrene	85-01-8	2300	31000	470				45.7[8]						
Phenol	108-95-2	2300	31000	67				30[12]		30				
Phosphorous (yellow)	7723-14-0													
PCB Aroclor 1016		0.55	41	4.2						100				
PCB Aroclor 1248		0.32	1.4	--										
PCB Aroclor 1254		0.32	1.4	1.1						0.7				
PCB Aroclor 1260		0.32	1.4	--										
Polychlorinated biphenyls (PCBs)	1336-36-3	0.32	1.4	0.41			1	0.371[10]	0.020	4.000				
Pyrene	129-00-0							78.5[8]						
Selenium	7782-49-2	39	510	19	2.2	100		0.21[13]	0.7	1	0.52	4.1	1.2	0.63
Silver	7440-22-4	39	510	31	0.94			2[9]	2	2	560		4.2	14
Styrene	100-42-5	1600	20000	57				300[9]						
Sulfide-hydrogen sulfide (undissociated	7783-06-4													
TCDF								0.00084[14]						
Technetium	7440-26-8							0.2[9]		0.2				
tert-Butyl alcohol (TBA)	75-65-0													
2,3,5,6-Tetrachloroaniline	3481-20-7							20[9]		20				
1,2,3,4-Tetrachlorobenzene	634-66-2							10[9]		10				
1,2,4,5-Tetrachlorobenzene	95-94-3							2.02[8]						
2,3,7,8-Tetrachlorodibenzo	1746-01-6							0.00000315[10]		0.00005500				
1,1,2,2-Tetrachloroethane	79-34-5	3.2E+00	1.4E+01	6.8E-04				0.12722[8]						
Tetrachloroethylene	127-18-4							9.92[8]		10				
2,3,4,5-Tetrachlorophenol	4901-51-3							20[12]						
Thallium	7440-28-0	0.55	7.2	3.6	3.9			1[9]	1	1				
Tin	7440-31-5	4700	61000					50[9]	20	50				
Tributyltin														
Toluene	108-88-3	630	8200	27				200[9]	0.01	200				
Toxaphene	8001-35-2	0.58	2.6	0.63				0.11927[8]		1000				
2,4,5-Trichloroaniline	636-30-6							20[9]		20				
1,2,3-Trichlorobenzene	87-61-6							20[12]		20				
1,2,4-Trichlorobenzene	120-82-1							20[12]		20				
1,1,1-Trichloroethane	71-55-6	16000	200000	32				29.8[8]						

Toxic Substance	CAS Number	Surface Water (ug/L): Aquatic resources – Acute	Surface Water (ug/L): Aquatic resources – Chronic	Surface Water (ug/L): Human Health for Consumption of: (Risk Level = 10^{-5}) (µg/L) – Water + Organism	Surface Water (ug/L): Human Health – Organism Only	Sediment (mg/kg): Sediment infauna – Effects Range Low (ER-L)	Sediment infauna – Effects Range Medium (ER-M)	Sediment infauna – Threshold Effect Level (TEL)	Sediment infauna – Probable Effects Level (PEL)	Sediment infauna – Apparent Effects Threshold (AET)	Oregon Sediment Bioaccumulation Screening Level Values (see other sheet for TCDD/PCB): Bird – individual	Bird – population	Mammals – individual	Mammals – population	Fish – freshwater	Fish – marine	Humans – General	Humans – Subsistence
1,1,2-Trichloroethane	79-00-5																	
Trichloroethylene	79-01-6																	
2,4,5-Trichlorophenol	95-95-4									0.003								
2,4,6-Trichlorophenol	88-06-2									0.006								
Uranium	7440-61-1																	
Vanadium	7440-62-2									57.000								
Vinyl chloride	75-01-4			20	5,300													
Xylene	1330-20-7									0.004								
Zinc	7440-66-6	90(d)(s)	81(d)(s)	7,400	26,000	150	410	124.0	271.0	410.000								
Low Molecular Weight PAHs[18]						0.552	3.160	0.312	1.442	1.200								
High Molecular Weight PAHs[19]						1.700	9.600	0.655	6.676	7.900								
Total PAHs						4.022	44.792	1.684	16.770									
2-methyl-4,6-dinitrophenol																		
Cresols (total)																		
Dibenzofuran																		

Toxic Substance	Soil (mg/kg): MDE Residential Clean-up	MDE Non-Residential Clean-up	MDE Protection of Groundwater	Anticipated Typical Concentration (ATC) for Eastern Maryland	Land application of biosolids – §503.13 Ceiling Concentrations (mg/kg)	Compost or topsoil, unrestricted use – Most conservative value based on 8 states (USACOE 2007)	Eco Screening Values: NJ Wildlife PRGs (flora and fauna)	Eco Screening Values: Ecological screening value recommended by Friday 2005	Eco Screening Values: Oregon Soil Screening Value 2001 (most conservative receptor)	EPA Ecological soil screening level: Plants	EPA Ecological soil screening level: Soil Invertebrates	EPA Ecological soil screening level: Avian	EPA Ecological soil screening level: Mammalian
1,1,2-Trichloroethane	11	50	0.00078				28.6[8]						
Trichloroethylene	1.6	7.2	0.00026				12.4[8]						
2,4,5-Trichlorophenol	780	10000	--				9[12]		4				
2,4,6-Trichlorophenol	58	260	--				4[9]		10				
Uranium							5[9]		5				
Vanadium	7.8	100	730	30			2[9]	2	2			7.8	280
Vinyl chloride	--	4	0.00012				0.64614[8]						
Xylene	1600	20000	3				10[8]		100				
Zinc	2300	31000	14000	63	7500	65	8.5[11]	50	50	160	120	46	79
Low Molecular Weight PAHs[18]											29		100
High Molecular Weight PAHs[19]											18		1.1
Total PAHs								1.0					
2-methyl-4,6-dinitrophenol													
Cresols (total)								0.05					
Dibenzofuran	7.8	100											

*Friday, G.P.2005. Ecological screening values for surface water, sediment, and soil: 2005 Update. WSRC-TR-2004-00227. Savannah River National Laboratory. Aiken, South Carolina 29803; http://www.osti.gov/bridge/product.biblio.jsp?osti_id=881510

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NOAA SQuiRTs, 2008.

Table B2. Oregon bioaccumulation screening levels.

	Oregon Sediment Bioaccumulation Screening Level Values							
	bird (mg/kg dry)		Mammals (mg/kg)		fish (mg/kg)		humans (mg/kg dry)	
	individual	population	individual	population	freshwater	marine	General	Subsistence
2,3,7,8-TCDD	7.0E-07	3.5E-06	3.5E-06	5.2E-08	1.4E-06	5.6E-07	9.1E-09	1.1E-09
1,2,3,7,8-PeCDD	2.1E-05	1.1E-04	1.5E-06	4.2E-05	1.7E-05	1.7E-05	2.7E-07	3.4E-08
1,2,3,4,7,8-HxCDD	4.2E-04	2.1E-03	1.5E-05	4.2E-04	3.4E-05	3.4E-05	2.7E-06	3.4E-07
1,2,3,6,7,8-HxCDD	2.1E-03	1.1E-02	1.5E-05	4.2E-04	1.7E-03	1.7E-03	2.7E-06	3.4E-07
1,2,3,7,8,9-HxCDD	2.1E-04	1.1E-03	1.5E-05	4.2E-04	1.7E-03	1.7E-03	2.7E-06	3.4E-07
1,2,3,4,6,7,8-HpCDD	5.3E-01	2.7E+00	3.9E-03	1.1E-01	4.3E-01	4.3E-01	6.9E-04	8.5E-05
OCDD	5.3E+00	2.7E+01	1.3E-01	3.6E+00	4.3E+00	4.3E+00	2.3E-02	2.8E-03
2,3,7,8-TCDF	5.9E-06	3.0E-05	4.3E-06	1.2E-04	9.5E-05	9.5E-05	7.7E-07	9.4E-08
1,2,3,7,8-PeCDF	5.9E-05	3.0E-04	1.4E-05	4.0E+04	9.5E-05	9.5E-05	2.6E-06	3.1E-07
2,3,4,7,8-PeCDF	7.0E-07	3.5E-06	1.7E-07	4.7E-06	1.1E-06	1.1E-06	3.0E-08	3.7E-09
1,2,3,4,7,8-HxCDF	2.1E-04	1.1E-03	1.5E-05	4.2E-04	1.7E-04	1.7E-04	2.7E-06	3.4E-07
1,2,3,6,7,8-HxCDF	2.1E-04	1.1E-03	1.5E-05	4.2E-04	1.7E-04	1.7E-04	2.7E-06	3.4E-07
2,3,4,6,7,8-HxCDF	2.1E-04	1.1E-03	1.5E-05	4.2E-04	1.7E-04	1.7E-04	2.7E-06	3.4E-07
1,2,3,7,8,9-HxCDF	2.1E-04	1.1E-03	1.5E-05	4.2E-04	1.7E-04	1.7E-04	2.7E-06	3.4E-07
1,2,3,4,6,7,8-HpCDF	5.3E-03	2.7E-01	3.9E-03	1.1E-01	4.3E-02	4.3E-02	6.9E-04	8.5E-05
1,2,3,4,7,8,9-HpCDF	5.3E-03	2.7E-01	3.9E-03	1.1E-01	4.3E-02	4.3E-02	6.9E-04	8.5E-05
OCDF	5.3E+00	2.7E-01	1.3E-01	3.6E+00	4.3E+00	4.3E+00	2.3E-02	2.8E-03
PCB congeners								
PCB 77	8.0E-06	4.0E-05	3.0E-04	8.1E-03	3.2E-03	3.2E-03	5.2E-05	6.4E-06
PCB 81	4.0E-06	2.0E-05	9.8E-05	2.7E-03	6.5E-04	6.5E-04	1.7E-05	2.1E-06
PCB 105	3.9E-03	1.9E-02	9.4E-04	2.6E-02	6.2E-02	6.2E-02	1.7E-04	2.1E-05
PCB 114	4.0E-02	2.0E-01	9.8E-04	2.7E-02	6.5E-02	6.5E-02	1.7E-04	2.1E-05
PCB 118	4.9E-02	2.4E-01	1.2E-03	3.3E-02	7.9E-02	7.9E-02	1.2E-04	2.6E-05
PCB 123	4.9E-02	2.4E-01	1.2E-03	3.3E-02	7.9E-02	7.9E-02	2.1E-04	2.6E-05
PCB 126	3.9E-06	1.9E-05	2.8E-07	7.8E-06	6.2E-05	6.2E-05	5.0E-08	6.2E-09
PCB 156	4.9E-03	2.4E-02	1.2E-03	3.3E-02	7.9E-02	7.9E-02	2.1E-04	2.6E-05
PCB 157	4.9E-03	2.4E-02	1.2E-03	3.3E-02	7.9E-02	7.9E-02	2.1E-04	2.6E-05
PCB167	4.9E-02	2.4E-01	1.2E-03	3.3E-02	7.9E-02	7.9E-02	2.1E-04	2.6E-05
PCB 169	4.9E-04	2.4E-03	1.2E-06	3.3E-05	7.9E-02	7.9E-02	2.1E-07	2.1E-08
PCB 189	2.7E-01	1.4E+00	6.6E-03	1.8E-02	4.3E-01	4.3E-01	1.2E-03	1.4E-04
								6.2E-09

Table B3. Maryland soil and groundwater standards.

	Maryland Soil Standards			Groundawater Standards	
	Res Clean-up	Non-Res Clea	Protection of Groundwate	Type i&ii Aquafers	
	mg/kg	mg/kg	mg/kg	ug/l	mg/l
VOC					
Acetone	7.00E+03	9.20E+04	2.20E+01	5.50E+02	5.50E-01
Benzene	1.20E+01	5.20E+01	1.90E-03	5.00E+00	5.00E-03
Bromodichloromethane(THM)b	1.00E+01	4.60E+01	1.10E-03	8.00E+01	8.00E-02
Bromoform(THM)b	8.10E+01	3.60E+02	6.70E-02	8.00E+01	8.00E-02
Bromomethane	1.10E+01	1.40E+02	4.10E-02	8.50E-01	8.50E-04
2-Butanone(MethylEthylKetone)	4.70E+03	6.10E+04	2.90E+01	7.00E+02	7.00E-01
CarbonDisulfide	7.80E+02	1.00E+04	1.90E+01	1.00E+02	1.00E-01
CarbonTetrachloride	4.90E+00	2.20E+01	2.10E-03	5.00E+00	5.00E-03
Chlorobenzene	1.60E+02	2.00E+03	6.80E-01	1.00E+02	1.00E-01
Chloroethane	2.20E+02	9.90E+02	1.90E-02	3.60E+00	3.60E-03
Chloroform(THM)b	7.80E+01	1.00E+03	9.10E-04	8.00E+01	8.00E-02
Chloromethane	--	--	9.30E-01	1.90E+01	1.90E-02
Dibromochloromethane(THM)b	7.60E+00	3.40E+01	8.30E-04	8.00E+01	8.00E-02
Dibromochloropropane(DBCP)f	2.00E-01	3.60E+00	3.70E-06	2.00E-01	2.00E-04
1,2-Dibromoethane(EthyleneDibromide,EDB)	3.20E-01	1.40E+00	6.00E-05	5.00E-02	5.00E-05
1,1-Dichloroethane	1.60E+03	2.00E+04	5.10E+00	9.00E+01	9.00E-02
1,2-Dichloroethane	7.00E+00	3.10E+01	1.00E-03	5.00E+00	5.00E-03
1,1-Dichloroethene	3.90E+02	5.10E+03	2.90E+00	7.00E+00	7.00E-03
cis-1,2-Dichloroethene	7.80E+01	1.00E+03	--	7.00E+01	7.00E-02
trans-1,2-Dichloroethene	1.60E+02	2.00E+03	7.20E-01	1.00E+02	1.00E-01
1,2-Dichloroethene(total)	7.00E+01	9.20E+02	3.70E-01	5.50E+00	5.50E-03
1,2-Dichloropropane	9.40E+00	4.20E+01	3.40E-03	5.00E+00	5.00E-03
cis-1,3-Dichloropropene	6.40E+00	2.90E+01	3.10E-03	4.40E-01	4.40E-04
trans-1,3-Dichloropropene	6.40E+00	2.90E+01	3.10E-03	4.40E-01	4.40E-04
Ethylbenzene	7.80E+02	1.00E+04	1.50E+01	7.00E+02	7.00E-01
Isopropylbenzene(Cumene)	7.80E+02	1.00E+04	6.40E+01	6.60E+01	6.60E-02
4-Methyl-2-pentanone(MethylIsobutylKetone)	--	--	5.90E+01	6.30E+02	6.30E-01
MethyleneChloride(Dichloromethane)	8.50E+01	3.80E+02	1.90E-02	5.00E+00	5.00E-03
Methyltert-butylether(MTBE)c	1.60E+02	7.20E+02	1.20E-02	2.00E+01	2.00E-02
Styrene	1.60E+03	2.00E+04	5.70E+01	1.00E+02	1.00E-01
Tetrachloroethene	1.20E+00	5.30E+00	4.70E-03	5.00E+00	5.00E-03
1,1,2,2-Tetrachloroethane	3.20E+00	1.40E+01	6.80E-04	5.30E-02	5.30E-05
Toluene	6.30E+02	8.20E+03	2.70E+01	1.00E+03	1.00E+00
1,1,1-Trichloroethane	1.60E+04	2.00E+05	3.20E+01	2.00E+02	2.00E-01
1,1,2-Trichloroethane	1.10E+01	5.00E+01	7.80E-04	5.00E+00	5.00E-03
Trichloroethene	1.60E+00	7.20E+00	2.60E-04	5.00E+00	5.00E-03
VinylChloride(earlylife)f	9.00E-02	--	1.20E-04	2.00E+00	2.00E-03
VinylChloride(adult)f	--	4.00E+00	1.20E-04	2.00E+00	2.00E-03
Xylenes	1.60E+03	2.00E+04	3.00E+00	1.00E+04	1.00E+01
SVOC					
Acenaphthene	4.70E+02	6.10E+03	1.00E+02	3.70E+01	3.70E-02

Acenaphthylene	4.70E+02	6.10E+03	1.00E+02	3.70E+01	3.70E-02
Anthracene	2.30E+03	3.10E+04	4.70E+02	1.80E+02	1.80E-01
Benz[a]anthracenef	2.20E-01	3.90E+00	4.80E-01	2.00E-01	2.00E-04
Benzo[a]pyrenef	2.20E-02	3.90E-01	1.20E-01	2.00E-01	2.00E-04
Benzo[b]fluoranthenef	2.20E-01	3.90E+00	1.50E+00	2.00E-01	2.00E-04
Benzo[g,h,i]perylene	2.30E+02	3.10E+03	6.80E+02	1.80E+01	1.80E-02
Benzo[k]fluoranthenef	2.20E+00	3.90E+01	1.50E+01	3.00E-01	3.00E-04
bis(2-Chloroethyl)ether	5.80E-01	2.60E+00	4.40E-05	9.60E-03	9.60E-06
bis(2-Ethylhexyl)phthalate	4.60E+01	2.00E+02	2.90E+03	6.00E+00	6.00E-03
Carbazole	3.20E+01	1.40E+02	4.70E-01	3.30E+00	3.30E-03
4-Chloroaniline	3.10E+01	4.10E+02	9.70E-01	1.50E+01	1.50E-02
2-Chloronaphthalene	6.30E+02	8.20E+03	3.20E+01	4.90E+01	4.90E-02
2-Chlorophenol	3.90E+01	5.10E+02	--	3.00E+00	3.00E-03
Chrysenef	2.20E+01	3.90E+02	4.80E+01	3.00E+00	3.00E-03
Dibenz[a,h]anthracenef	2.20E-02	3.90E-01	4.60E-01	2.00E-01	2.00E-04
Dibenzofuran	7.80E+00	1.00E+02	--	3.70E+00	3.70E-03
Di(2-ethylhexyl)adipate	5.30E+01	2.40E+02	--	4.00E+02	4.00E-01
1,2-Dichlorobenzene	7.00E+02	9.20E+03	4.60E+00	6.00E+02	6.00E-01
1,3-Dichlorobenzene	2.30E+01	3.10E+02	2.90E-01	1.80E+00	1.80E-03
1,4-Dichlorobenzene	2.70E+01	1.20E+02	4.20E-03	7.50E+01	7.50E-02
3,3-Dichlorobenzidine	1.40E+00	6.40E+00	4.90E-03	1.50E-01	1.50E-04
2,4-Dichlorophenol	2.30E+01	3.10E+02	1.20E+00	1.10E+01	1.10E-02
Diethylphthalate	6.30E+03	8.20E+04	4.50E+02	2.90E+03	2.90E+00
2,4-Dimethylphenol	1.60E+02	2.00E+03	6.70E+00	7.30E+01	7.30E-02
Di-n-butylphthalate	7.80E+02	1.00E+04	5.00E+03	3.70E+02	3.70E-01
2,4-Dinitrophenol	1.60E+01	2.00E+02	--	7.30E+00	7.30E-03
2,4-Dinitrotoluene	1.60E+01	2.00E+02	5.70E-01	7.30E+00	7.30E-03
2,6-Dinitrotoluene	7.80E+00	1.00E+02	2.50E-01	3.70E+00	3.70E-03
Fluoranthene	3.10E+02	4.10E+03	6.30E+03	1.50E+02	1.50E-01
Fluorene	3.10E+02	4.10E+03	1.40E+02	2.40E+01	2.40E-02
Hexachlorobenzene	4.00E-01	1.80E+00	5.20E-02	1.00E+00	1.00E-03
Hexachlorobutadiene	8.20E+00	3.70E+01	1.80E+00	8.60E-01	8.60E-04
Hexachlorocyclopentadiene	4.70E+01	6.10E+02	1.80E+03	5.00E+01	5.00E-02
Hexachloroethane	4.60E+01	2.00E+02	3.60E-01	4.80E+00	4.80E-03
Indeno[1,2,3-c,d]pyrenef	2.20E-01	3.90E+00	4.20E+00	2.00E-01	2.00E-04
Isophorone	6.70E+02	3.00E+03	4.10E-01	7.00E+01	7.00E-02
2-Methylnaphthalene	3.10E+01	4.10E+02	4.40E+00	2.40E+00	2.40E-03
2-Methylphenol	3.90E+02	5.10E+03	--	1.80E+02	1.80E-01
4-Methylphenol	3.90E+01	5.10E+02	--	1.80E+01	1.80E-02
Naphthalene	1.60E+02	2.00E+03	1.50E-01	6.50E-01	6.50E-04
Nitrobenzene	3.90E+00	5.10E+01	2.30E-02	3.50E-01	3.50E-04
N-Nitrosodiphenylamine	1.30E+02	5.80E+02	7.60E-01	1.40E+01	1.40E-02
N-Nitroso-di-n-propylamine	9.10E-02	4.10E-01	4.70E-05	9.60E-03	9.60E-06
Bis(2-Chloroisopropyl)etherd	9.10E+00	4.10E+01	1.70E-03	2.60E-01	2.60E-04
Pentachlorophenol	5.30E+00	2.40E+01	--	1.00E+00	1.00E-03

Phenanthrene	2.30E+03	3.10E+04	4.70E+02		1.80E+02	1.80E-01
Phenol	2.30E+03	3.10E+04	6.70E+01		1.10E+03	1.10E+00
Pyrene	2.30E+02	3.10E+03	6.80E+02		1.80E+01	1.80E-02
1,2,4-Trichlorobenzene	7.80E+01	1.00E+03	2.40E+00		7.00E+01	7.00E-02
2,4,5-Trichlorophenol	7.80E+02	1.00E+04	--		3.70E+02	3.70E-01
2,4,6-Trichlorophenol	5.80E+01	2.60E+02	--		6.10E+00	6.10E-03
Pesticides/Herbicides/PCBs						
Alachlor	8	36	0.007		2	0.002
Aldrin	0.038	0.17	0.0077		0.0039	0.0000039
Atrazine	2.9	13	0.0088		3	0.003
a-BHC(a-HCH)	0.1	0.45	0.00089		0.011	0.000011
b-BHC(b-HCH)	0.35	1.6	0.0031		0.037	0.000037
d-BHC	0.49	2.2	0.0043		0.2	0.0002
g-BHC(Lindane)	0.49	2.2	0.0043		0.2	0.0002
Chlordane	1.8	8.2	0.92		2	0.002
2,4-D	78	1000	9		70	0.07
4,4'-DDD	2.7	12	11		0.28	0.00028
4,4'-DDE	1.9	8.4	35		0.2	0.0002
4,4'-DDT	1.9	8.4	1.2		0.2	0.0002
Dalapon	230	3100	7.1		200	0.2
Dieldrin	0.04	0.18	0.0022		0.0042	0.0000042
Dinoseb	7.8	100	0.17		7	0.007
Endosulfan	47	610	20		22	0.022
EndosulfanI	47	610	20		22	0.022
EndosulfanII	47	610	20		22	0.022
EndosulfanSulfate	47	610	20		22	0.022
Endrin	2.3	31	5.4		2	0.002
EndrinAldehyde	2.30E+00	3.10E+01	5.40E+00		1.10E+00	1.10E-03
EndrinKetone	2.30E+00	3.10E+01	5.40E+00		1.10E+00	1.10E-03
Glyphosate	7.80E+02	1.00E+04	5.30E+02		7.00E+02	7.00E-01
Heptachlor	1.40E-01	6.40E-01	8.40E-01		4.00E-01	4.00E-04
HeptachlorEpoxide	7.00E-02	3.10E-01	2.50E-02		2.00E-01	2.00E-04
Methoxychlor	3.90E+01	5.10E+02	3.10E+02		4.00E+01	4.00E-02
Oxamyl	2.00E+02	2.60E+03	3.80E+00		2.00E+02	2.00E-01
Simazine	5.30E+00	2.40E+01	3.30E-03		4.00E+00	4.00E-03
2,4,5-TP(Silvex)	7.80E+01	1.00E+03	2.00E+00		5.00E+01	5.00E-02
Toxaphene	5.80E-01	2.60E+00	6.30E-01	c		3.00E-03
PCB(total)	3.20E-01	1.40E+00	4.10E-01		5.00E-01	5.00E-04
Aroclor1016	5.50E-01	4.10E+01	4.20E+00		9.60E-01	9.60E-04
Aroclor1221	3.20E-01	1.40E+00	--		5.00E-01	5.00E-04
Aroclor1232	3.20E-01	1.40E+00	--		5.00E-01	5.00E-04
Aroclor1242	3.20E-01	1.40E+00	--		5.00E-01	5.00E-04
Aroclor1248	3.20E-01	1.40E+00	--		5.00E-01	5.00E-04
Aroclor1254	3.20E-01	1.40E+00	1.10E+00		5.00E-01	5.00E-04
Aroclor1260	3.20E-01	1.40E+00	--		5.00E-01	5.00E-04

Inorganics

Aluminum	7.80E+03	1.00E+05	--	3.70E+03	3.70E+00
Antimony	3.10E+00	4.10E+01	1.30E+01	6.00E+00	6.00E-03
Arsenic	4.30E-01	1.90E+00	2.60E-02	1.00E+01	1.00E-02
Barium	1.60E+03	2.00E+04	6.00E+03	2.00E+03	2.00E+00
Beryllium	1.60E+01	2.00E+02	1.20E+03	4.00E+00	4.00E-03
Cadmium	3.90E+00	5.10E+01	2.70E+01	5.00E+00	5.00E-03
Chromium(total)	2.30E+01	3.10E+02	4.20E+01	1.00E+02	1.00E-01
ChromiumIII	1.20E+04	1.50E+05	2.00E+09	1.00E+02	1.00E-01
ChromiumVI	2.30E+01	3.10E+02	4.20E+01	1.00E+02	1.00E-01
Copper	3.10E+02	4.10E+03	1.10E+04	1.30E+03	1.30E+00
Iron	5.50E+03	7.20E+04	--	2.60E+03	2.60E+00
Lead	4.00E+02	1.00E+03	--	1.50E+01	1.50E-02
Manganese(nonfood)	1.60E+02	2.00E+03	9.50E+02	7.30E+01	7.30E-02
Mercury(element)e	--	--	--	2.00E+00	2.00E-03
Mercury(inorganic/MercuricDichloride)	2.30E+00	3.10E+01	--	2.00E+00	2.00E-03
Nickel	1.60E+02	2.00E+03	--	7.30E+01	7.30E-02
Selenium	3.90E+01	5.10E+02	1.90E+01	50	5.00E-02
Silver	3.90E+01	5.10E+02	3.10E+01	18	1.80E-02
Thallium	5.50E-01	7.20E+00	3.60E+00	2.00E+00	2.00E-03
Tin	4.70E+03	6.10E+04	--	2.20E+03	2.20E+00
Vanadium	7.80E+00	1.00E+02	7.30E+02	3.70E+00	3.70E-03
Zinc	2.30E+03	3.10E+04	1.40E+04	1.10E+03	1.10E+00
Perchlorate	5.50E+00	7.20E+01	--	2.60E+00	2.60E-03
Cyanide	1.60E+02	2.00E+03	1.50E+02	2.00E+02	2.00E-01
Methylmercury	7.80E-01	1.00E+01	--	3.70E-01	3.70E-04

NJDEP Ecological Screening Criteria

(f)3 Freshwater aquatic criteria for cadmium, chromium III, copper, nickel, silver, and zinc are expressed as a function of water hardness. Criteria can be calculated at any hardness using these equations as listed below. Criteria thus calculated are multiplied by appropriate conversion factor (CF) to convert total recoverable metal into dissolved metal and by the default Water Effect Ratio (WER) of 1.0.

General formula: WER [e(V[ln (hardness)] + ln A - V[ln Z])] CF

where:
V = pooled slope
A = FAV at given hardness
Z = selected value of hardness

Cadmium:
Acute dissolved criterion WER $[e^{(1.0166 (\ln [hardness])-3.924)}]$ 0.651
Chronic dissolved criterion WER $[e^{(0.7409 (\ln [hardness])-4.719)}]$ 0.651

Chromium III:
Acute dissolved criterion WER $[e^{(0.819 (\ln [hardness])+3.7256)}]$ 0.277
Chronic dissolved criterion WER $[e^{(0.819 (\ln [hardness])+0.6848)}]$ 0.277

Copper:
Acute dissolved criterion WER $[e^{(0.9422 (\ln [hardness])-1.7)}]$ 0.908
Chronic dissolved criterion WER $[e^{(0.8545 (\ln [hardness])-1.702)}]$ 0.908

Nickel:
Acute dissolved criterion WER $[e^{(0.846 (\ln [hardness])+2.255)}]$ 0.846
Chronic dissolved criterion WER $[e^{(0.846 (\ln [hardness])+0.0584)}]$ 0.846

Silver:
Acute dissolved criterion WER $[e^{(1.72 (\ln [hardness])-6.59)}]$ 0.85

Zinc:
Acute or dissolved criterion WER $[e^{(0.8473 (\ln [hardness])+0.884)}]$ 0.950
Chronic dissolved criterion WER $[e^{(0.8473 (\ln [hardness])+0.884)}]$ 0.950

(f)4 Freshwater criteria for pentachlorophenol are expressed as a function of pH. Criteria are derived in accordance with the formula set forth below:

Acute criterion = $e^{(1.005[pH]-4.869)}$
Chronic criterion = $e^{(1.005[pH]-5.134)}$

Table C1. Metals.

Northing	Easting	Sample	Study	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Iron	Lead	Mangenese	Mercury	Nickel	Selenium	Silver	Thallium	Tin	Zinc	Station Assessment
			Soil Standards:	*Aluminum*	*Antimony*	*Arsenic*	*Beryllium*	*Cadmium*	*Chromium*	*Copper*	*Iron*	*Lead*	*Mangenese*	*Mercury*	*Nickel*	*Selenium*	*Silver*	*Thallium*	*Tin*	*Zinc*	
			Habitat Reconstruction (TELs)		1.0	7.2		0.7	52.0	18.7		30.0		0.1	15.9		0.7		0.048	124.0	
			MD Residential Clean-up	70000.0	3.1	20.0	16.0	3.6	70.0	310.0	40000.0	400.0	1000.0	2.3	160.0	39.0	39.0	0.6	4700.0	2300.0	
			MD Non-Residential Clean-up	100000.0	41.0	20.0	200.0	51.0	310.0	4100.0	72000.0	1000.0	2000.0	31.0	2000.0	510.0	510.0	7.2	61000.0	31000.0	
171378.8	441927.4	SPSY-01	SparrowsPT		1.0	56.9	1.7	1.5	328.0	201.0		180.0		0.3	43.0	6.2	1.5	1.8		670.0	
171939.6	442366.3	SPSY-02	SparrowsPT		1.0	4.7	0.6	0.5	31.5	13.0		17.8		0.0	10.6	0.4	0.2	1.0		58.1	
172432.4	442982	SPSY-03	SparrowsPT		1.0	5.1	1.1	0.5	31.9	16.1		14.9		0.0	21.1	0.5	0.2	1.0		70.3	
172396.2	443498.3	SPSY-04	SparrowsPT		0.7	12.5	1.4	1.6	128.0	129.0		203.0		0.3	43.7	1.2	0.8	1.0		380.0	
176115.5	434849.7	ME-01	Masonville		0.3	14.8	1.1	1.3	115.0	136.0		111.0		0.4	38.7	2.7	0.8	0.3		280.0	
176265.5	435151.6	ME-02	Masonville		0.3	11.4	0.6	0.6	67.4	86.0		56.5		0.2	22.0	2.7	0.5	0.2		153.0	
176603.3	435224.6	ME-03	Masonville		0.5	24.6	1.4	2.3	282.0	200.0		151.0		0.6	45.0	4.6	1.2	0.4		377.0	
176284.4	436130.4	ME-04	Masonville		0.7	20.5	1.8	1.8	198.0	217.0		163.0		0.8	46.1	3.8	1.1	0.4		468.0	
176287.8	436465.9	ME-05	Masonville		0.4	18.7	1.3	1.1	149.0	154.0		110.0		0.6	41.5	3.3	0.7	0.4		228.0	
176081.9	436426.7	ME-06	Masonville		0.3	14.2	1.3	1.0	106.0	94.8		214.0		0.3	37.2	2.5	0.5	0.4		223.0	
176833.7	435488.1	ME-07	Masonville		0.7	23.9	1.3	2.1	240.0	190.0		147.0		0.5	44.8	4.2	1.0	0.5		363.0	
176796.2	435892.6	ME-08	Masonville		0.7	19.1	1.4	1.4	201.0	168.0		137.0		0.3	46.9	4.5	1.3	0.4		301.0	
176593.8	436278.7	ME-09	Masonville		0.9	22.3	1.8	2.1	249.0	207.0		163.0		0.6	51.4	4.9	1.5	0.4		431.0	
176469.8	434069.6	ME-REF	Masonville		0.4	19.0	1.3	1.9	177.0	190.0		135.0		0.4	45.3	3.2	0.9	0.4		345.0	
169321.3	445054.2	BR-COMP	FED05		0.6	20.4			88.9	58.2				0.3						337.0	
168576.9	447476.2	BR1	FED05		0.6	16.8			67.7	47.3				0.3						299.0	
169321.3	445054.2	BR2	FED05		0.5	20.1			94.2	58.8				0.2						330.0	
169914.9	444002.7	BR3	FED05		0.7	19.8			91.9	58.0				0.3						321.0	
170474.6	442141	BRA-COMP	FED05		0.6	17.5			71.9	50.6				0.2						278.0	
170435.6	442797.7	BRA1	FED05		0.9	19.3			93.7	57.7				0.3						305.0	
170474.6	442141	BRA2	FED05		0.6	17.2			74.4	53.4				0.2						289.0	
170981	442039	BRA3	FED05		0.6	17.4			68.1	49.6				0.2						276.0	
172733.3	438417.2	CB-COMP	FED05		0.8	23.4			102.0	77.0				0.3						244.0	
172843.2	438569.2	CB1	FED05		0.7	23.0			134.0	80.0				0.3						378.0	
172733.3	438417.2	CB2	FED05		1.5	27.3			143.0	104.0				0.4						330.0	
172724.3	436936.2	CB3	FED05		0.6	30.0			90.3	86.7				0.3						210.0	
171394.7	436286.1	CC-COMP	FED05		1.7	69.8			160.0	281.0				1.1						510.0	
172379.2	436734.9	CC1	FED05		0.7	70.1			159.0	208.0				1.4						426.0	
171394.7	436286.1	CC2	FED05		1.9	76.4			157.0	238.0				1.3						454.0	
170581.5	436482.7	CC3	FED05		1.9	52.7			158.0	345.0				1.1						568.0	
169833.6	437197.4	CC4	FED05		1.9	55.9			162.0	447.0				0.9						770.0	
174193.9	440053.3	DDE-COMP	FED05		0.4	10.0			68.5	45.2				0.1						147.0	
173765.2	439797.9	DDE1	FED05		0.6	13.1			86.1	53.7				0.2						199.0	
174193.9	440053.3	DDE2	FED05		1.2	22.3			165.0	111.0				0.4						367.0	
174533.9	440322.1	DDE3	FED05		0.3	7.3			43.4	27.8				0.1						71.6	
175268.7	439637.8	DDW-COMP	FED05		0.9	17.8			132.0	96.8				0.3						298.0	
174826	439548	DDW1	FED05		1.0	22.4			164.0	114.0				0.4						358.0	
175268.7	439637.8	DDW2	FED05		1.0	25.7			129.0	83.7				0.3						250.0	
174806.1	440004.2	DDW3	FED05		1.1	17.9			158.0	102.0				0.3						321.0	
176503.7	435960.5	FB1	FED05		1.0	20.2			145.0	149.0				0.4						347.0	
176400	435123.7	FB2	FED05		0.8	19.5			135.0	145.0				0.8						336.0	
174668.8	438810.6	FTM-COMP	FED05		1.2	19.9			128.0	89.6				0.3						333.0	
171852.1	440913	FTM1	FED05		1.4	22.8			146.0	84.5				0.3						368.0	
174668.8	438810.6	FTM2	FED05		1.3	20.2			115.0	81.5				0.3						322.0	
176085	437442.7	FTM3	FED05		1.0	16.1			107.0	91.4				0.4						282.0	
174259.9	439572.4	HA-COMP	FED05		0.9	19.4			124.0	86.9				0.3						297.0	
175569	438639.3	HA1	FED05		0.7	22.0			150.0	110.0				0.4						364.0	
174259.9	439572.4	HA2	FED05		0.6	20.9			123.0	78.2				0.3						271.0	
177548.7	436674.9	NWBE-COMP	FED05		1.9	30.8			235.0	327.0				0.8						428.0	
176793.6	437043.8	NWBE1	FED05		0.9	21.0			143.0	136.0				0.5						355.0	
177548.7	436674.9	NWBE2	FED05		1.0	22.1			173.0	183.0				0.5						387.0	
178248.7	436795.3	NWBE3	FED05		3.3	58.8			435.0	782.0				1.1						586.0	
178895.9	435496.6	NWBW-COMP	FED05		2.1	30.2			536.0	336.0				1.0						434.0	
178539.2	435992.9	NWBW1	FED05		0.8	12.7			143.0	157.0				0.4						269.0	
178895.9	435496.6	NWBW2	FED05		4.0	58.9			1060.0	631.0				2.1						656.0	
179003.5	435149.5	NWBW3	FED05		2.3	28.4			568.0	321.0				1.1						469.0	
176436.7	438622.1	SGT-COMP	FED05		0.9	14.1			110.0	76.3				0.2						214.0	
176232.2	438039	SGT1	FED05		0.7	13.7			98.6	81.4				0.3						241.0	
176436.7	438622.1	SGT2	FED05		1.1	22.0			160.0	149.0				0.5						377.0	
176641.8	438559.2	SGT3	FED05		0.7	14.1			200.0	50.4				0.1						135.0	
177240	434708.6	SLP-COMP	FED05		0.9	16.2			111.0	120.0				0.3						269.0	
176678.1	434834.8	SLP1	FED05		1.0	18.9			134.0	143.0				0.4						329.0	
177240	434708.6	SLP2	FED05		0.8	23.2			136.0	174.0				0.4						360.0	
176956.1	435360	SLP3	FED05		0.7	12.6			86.8	88.5				0.3						200.0	

Northing	Easting	Sample	Study	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Iron	Lead	Mangenese	Mercury	Nickel	Selenium	Silver	Thallium	Tin	Zinc	Station Assessment
		Soil Standards:		Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Iron	Lead	Mangenese	Mercury	Nickel	Selenium	Silver	Thallium	Tin	Zinc	
		Habitat Reconstruction (TELs)			1.0	7.2		0.7	52.0	18.7		30.0		0.1	15.9		0.7		0.048	124.0	
		MD Residential Clean-up		70000.0	3.1	20.0	16.0	3.6	70.0	310.0	40000.0	400.0	1000.0	2.3	160.0	39.0	39.0	0.6	4700.0	2300.0	
		MD Non-Residential Clean-up		100000.0	41.0	20.0	200.0	51.0	310.0	4100.0	72000.0	1000.0	2000.0	31.0	2000.0	510.0	510.0	7.2	61000.0	31000.0	
168753.2	448309.8	BR1_98	FED98	15400.0	1.2	16.4	1.5	0.3	73.1	54.2	40000.0	75.0	5240.0	0.3	46.7	1.5	0.4	0.2		325.0	
169261	445546.9	BR2_98	FED98	20700.0	2.1	21.1	1.6	0.6	105.0	61.3	46800.0	87.8	8490.0	0.4	48.8	2.3	1.0	0.1		343.0	
169746.8	444224.3	BR3_98	FED98	17200.0	2.1	19.1	1.6	0.3	101.0	68.0	47400.0	90.2	4980.0	0.4	50.5	1.3	0.4	0.1		371.0	
170415.5	442445	BRA1_98	FED98	14200.0	1.7	15.8	1.1	0.3	89.9	51.8	34900.0	64.7	3720.0	0.2	35.1	1.1	0.4	0.2		257.0	
170782.7	441915.2	BRA2_98	FED98	17400.0	1.2	10.4	1.6	0.3	60.7	49.4	39500.0	61.7	2680.0	0.3	51.8	0.8	0.2	0.2		273.0	
172773.1	439170.1	CB1_98	FED98	21000.0	2.7	18.3	1.3	0.1	116.0	78.5	48500.0	77.0	1060.0	0.4	34.8	1.2	0.6	0.1		279.0	
172674	437827.3	CB2_98	FED98	26500.0	4.2	34.2	1.7	0.1	177.0	149.0	64800.0	129.0	1060.0	0.6	49.0	1.6	0.4	0.2		401.0	
171278.8	436226.6	CC1_98	FED98	21900.0	6.8	62.4	1.7	1.5	230.0	384.0	100000.0	370.0	750.0	1.4	63.0	2.9	0.1	0.5		669.0	
176400	436682.5	FB1_98	FED98	24100.0	6.8	38.7	1.4	1.5	296.0	286.0	64300.0	172.0	792.0	0.8	40.2	5.4	1.1	0.2		459.0	
176425.5	435507.6	FB2_98	FED98	18300.0	3.3	19.5	1.8	0.6	147.0	160.0	45000.0	118.0	1110.0	0.5	47.8	1.4	0.1	0.1		340.0	
172441.2	440611	FTM1_98	FED98	8540.0	1.6	7.2	0.8	0.1	66.8	62.7	24200.0	46.4	618.0	0.2	25.4	0.5	0.1	0.1		184.0	
173761.5	439477	FTM2_98	FED98	14700.0	1.1	10.6	1.0	0.1	51.1	35.9	34600.0	34.0	998.0	0.1	28.6	0.7	0.1	0.1		126.0	
175205.5	438390.6	FTM3_98	FED98	20100.0	4.0	22.7	1.7	0.1	156.0	120.0	53600.0	104.0	1060.0	0.4	49.0	1.5	0.4	0.2		383.0	
174255.1	439522.5	HA1_98	FED98	17500.0	2.6	21.8	1.4	0.2	134.0	95.4	49500.0	87.1	1520.0	0.4	37.5	2.0	0.1	0.2		290.0	
174962.8	439207.2	HA2_98	FED98	13400.0	3.4	21.1	1.4	0.5	158.0	125.0	44500.0	107.0	1510.0	0.4	37.3	1.9	0.2	0.2		361.0	
175115.9	438990.6	HA3_98	FED98	15600.0	3.3	19.5	1.5	0.4	142.0	113.0	48200.0	99.1	1180.0	0.4	40.3	1.9	0.2	0.2		344.0	
175422.5	438629.4	HA4_98	FED98	16400.0	4.1	34.4	1.6	0.6	200.0	190.0	56200.0	153.0	1170.0	0.6	51.3	3.7	0.1	0.4		523.0	
178432	435954	NWBW1_98	FED98	9750.0	9.0	56.2	1.2	3.7	649.0	763.0	43100.0	375.0	798.0	1.4	40.1	24.0	2.9	0.5		524.0	
178860.1	435137.1	NWBW2_98	FED98	14100.0	3.1	20.9	1.5	0.5	144.0	165.0	41200.0	121.0	1090.0	0.5	40.0	3.6	0.5	0.2		319.0	
177633.7	436700.8	NWBE1_98	FED98	2850.0	1.5	11.9	0.8	0.1	65.4	50.7	26200.0	21.0	239.0	0.1	10.9	0.6	0.1	0.1		65.6	
178342.8	436673.5	NWBE2_98	FED98	4050.0	3.1	9.0	0.4	0.7	179.0	113.0	13100.0	73.8	273.0	0.4	13.6	2.5	0.5	0.1		148.0	
169319.6	445074.4	BR-COMP-SED	FED02		0.8	17.8		1.0	78.0	52.8		72.9		0.3	44.8	1.4	0.9	2.0	16.8	316.0	
168547.6	447518.1	BR-1	FED02		0.7	16.9		0.4	69.5	45.4		69.1		0.3	42.8	2.9	0.9	2.0	15.3	304.0	
169319.6	445074.4	BR-2	FED02		0.6	15.9		0.5	68.1	49.7		62.8		0.2	46.0	1.5	0.7	2.9	13.6	290.0	
169881.7	444031.7	BR-3*	FED02		0.8	17.2		0.5	93.6	55.6		77.3		0.3	39.3	1.8	0.8	2.9	19.2	319.0	
170465.5	442165.5	BRA-COMP-SED	FED02		0.7	18.4		0.2	99.7	58.8		77.0		0.3	36.6	1.6	0.9	2.9	21.4	313.0	
170449	442891.2	BRA-1	FED02		0.8	20.1		0.4	120.0	70.6		89.7		0.4	42.5	2.1	0.9	3.5	27.0	368.0	
170465.5	442165.5	BRA-2	FED02		0.7	20.4		0.2	107.0	63.6		83.7		0.3	40.0	2.4	1.0	3.6	21.7	340.0	
170940.5	442079.5	BRA-3*	FED02		0.8	19.6		0.3	98.9	61.7		81.5		0.3	40.3	2.1	1.0	1.9	20.9	338.0	
172729.4	438384.1	CB-COMP-SED	FED02		0.9	31.0		1.0	149.0	105.0		107.0		0.6	39.2	4.2	0.7	1.7	25.7	352.0	
172828	439972.5	CB-1	FED02		0.7	17.4		0.4	104.0	57.8		70.2		0.3	30.3	2.3	0.8	1.7	17.9	268.0	
172729.4	438384.1	CB-2	FED02		1.2	32.8		0.7	180.0	125.0		121.0		0.5	41.3	3.6	0.8	3.2	28.0	392.0	
172729.9	436939.1	CB-3*	FED02		0.6	26.2		0.5	73.9	73.6		62.7		0.4	23.9	2.9	0.1	1.9	11.8	179.0	
171574.6	436388.9	CC-COMP-SED	FED02		1.3	54.1		1.4	165.0	285.0		218.0		0.9	42.1	5.3	0.2	4.2	37.1	511.0	
172362.5	436722	CC-1	FED02		1.3	63.9		1.6	182.0	237.0		220.0		0.9	39.2	4.9	0.2	4.2	42.9	486.0	
171574.6	436388.9	CC-2*	FED02		1.2	67.5		0.1	195.0	268.0		225.0		1.1	42.6	5.2	0.1	4.7	39.8	508.0	
170489.1	436520.6	CC-3	FED02		1.3	47.7		1.2	153.0	304.0		219.0		0.9	41.2	3.9	0.3	4.2	35.4	507.0	
169859.6	437220.3	CC-4	FED02		1.0	37.7		1.2	94.1	303.0		161.0		0.7	31.9	3.9	0.3	2.8	21.3	468.0	
175657.8	435081	FB-COMP-SED	FED02		0.9	17.2		1.0	119.0	120.0		92.4		0.4	35.3	3.0	0.7	2.4	19.1	300.0	
176507.3	435940.3	FB-1	FED02		0.9	18.6		1.1	132.0	130.0		101.0		0.4	41.1	3.8	0.8	1.9	20.8	338.0	
175657.8	435081	FB-2*	FED02		0.8	18.4		1.0	112.0	132.0		95.6		0.4	33.4	2.9	0.8	3.8	17.2	295.0	
174661.4	438812.1	FTM-COMP-SED	FED02		0.7	16.9		0.6	97.4	63.0		61.3		0.3	30.5	2.3	0.6	2.5	16.8	239.0	
171839.3	440934.7	FTM-1	FED02		0.5	20.4		0.8	108.0	56.9		64.5		0.2	32.2	3.3	0.5	1.9	17.2	247.0	
174661.4	438812.1	FTM-2	FED02		0.8	23.0		1.4	151.0	98.5		101.0		0.4	40.9	3.8	0.9	1.9	25.4	370.0	
176061.1	437475.9	FTM-3*	FED02		0.7	20.9		1.1	125.0	81.6		82.8		0.3	34.1	3.5	0.7	1.2	22.2	307.0	
175373.1	437525.2	HA-COMP-SED	FED02		0.8	19.4		1.4	160.0	115.0		97.6		0.4	39.4	3.1	0.9	3.5	21.6	362.0	
175674.6	438671.8	HA-1*	FED02		0.9	20.7		1.7	176.0	138.0		111.0		0.4	39.3	2.9	1.0	1.8	24.9	407.0	
175373.1	437525.2	HA-2	FED02		0.9	22.8		1.6	181.0	129.0		108.0		0.4	43.6	4.2	0.9	3.1	24.1	407.0	
177250.9	436692.1	NWBE-COMP-SED	FED02		1.6	29.3		1.6	215.0	292.0		172.0		0.6	41.4	28.4	4.9	4.0	25.5	392.0	
176660.9	437140.8	NWBE-1	FED02		1.1	19.0		1.1	128.0	123.0		97.2		0.4	33.2	2.7	0.9	2.4	20.4	326.0	
177250.9	436692.1	NWBE-2	FED02		0.9	18.8		1.1	143.0	147.0		111.0		0.6	35.0	4.7	1.1	2.8	21.3	332.0	
178257.9	436793.8	NWBE-3*	FED02		3.2	57.0		0.1	412.0	730.0		344.0		1.2	51.3	93.5	18.1	2.8	28.6	516.0	
178542	435800.2	NWBW-COMP-SED	FED02		0.9	17.3		1.5	209.0	194.0		126.0		0.4	45.1	6.1	1.6	2.1	16.9	324.0	
178542	435800.2	NWBW-2	FED02		0.7	5.5		0.3	68.3	43.0		21.7		0.2	40.0	2.0	0.1	1.5	7.5	99.4	
179010.8	435140.8	NWBW-3*	FED02		1.0	21.9		2.2	346.0	269.0		196.0		0.9	41.2	5.8	1.8	1.5	19.8	457.0	

Table C2. PAHs.

Northing	Easting	Study	Station	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE*	BENZO(B)FLUORANTHENE	BENZO(GHI)PERYLENE	BENZO(K)FLUORANTHENE	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE	PHENANTHRENE	PYRENE	Station Assessment
			Habitat Reconstruction (TELs)		6.7	5.9	47	75	22				108	6	113	21		35	87	153	
			MD Residential Clean-up	31,000	470,000	470,000	2,300,000	220	22	220	230,000	2,200	22,000	22	310,000	310,000	220	160,000	2,300,000	230,000	
			MD Non-Residential Clean-up	410,000	6,100,000	6,100,000	31,000,000	3,900	390	3,900	3,100,000	39,000	390,000	390	4,100,000	4,100,000	3,900	2,000,000	31,000,000	3,100,000	
163913.11	448555.58	BaltCont	B1	3.6	3.3	1.4	3.4	3.4	5.8	9.1	4.2	2.1	4.1		10.9	2.0	2.2	14.1	11.4	12.1	
169418.3	445558.02	BaltCont	B10	336.0	73.0	91.5	215.4	370.1	631.1	591.2	426.6	509.9	383.8	57.6	803.0	132.6	651.0	1078.6	589.2	769.3	
167406.62	444837.54	BaltCont	B11	659.4	406.4	194.8	654.5	1072.8	1247.9	1106.3	826.4	843.5	877.1	123.2	1848.7	305.2	1031.2	1927.5	1727.0	1742.3	
168377.13	443579.2	BaltCont	B12	703.4	197.5	316.1	401.0	540.7	707.5	721.0	481.2	0.0	515.9	65.5	842.3	201.1	554.8	1172.5	903.7	844.1	
167707.86	443563.69	BaltCont	B13	482.5	124.1	137.8	351.1	540.7	762.5	744.8	502.1	661.9	583.0	51.8	1041.5	154.5	640.8	1374.0	559.1	1002.8	
166366.8	443633.52	BaltCont	B14	489.9	271.0	213.7	385.3	553.9	738.6	749.0	489.1	614.6	603.6	48.3	1134.0	141.0	627.1	1015.6	898.6	1125.2	
165144.97	442953.58	BaltCont	B15	256.1	63.7	79.0	249.6	302.5	378.6	444.3	281.4	308.5	326.5	36.5	570.8	131.7	368.5	582.1	579.2	539.6	
165144.97	442953.58	BaltCont	B15J	614.7	322.1	387.9	478.0	476.3	624.9	690.0	464.4	571.4	540.6	44.1	952.2	195.3	842.9	1003.0	1156.1	861.5	
164492.49	442044.66	BaltCont	B16	416.1	93.5	215.0	607.3	1035.1	1141.9	1533.2	891.8	1011.4	1212.0	102.4	2050.6	188.6	1324.5	970.7	1285.2	1749.1	
167372.58	442591	BaltCont	B17	134.9	69.3	55.0	161.1	180.2	214.8	190.1	149.0	191.1	198.6	14.0	319.4	66.4	261.3	369.9	385.2	332.6	
166864.26	441527.92	BaltCont	B18	418.4	101.1	145.3	290.5	640.0	706.5	763.1	503.9	588.5	643.9	71.6	1017.9	127.8	669.6	883.8	688.9	1007.9	
165811.79	440765.2	BaltCont	B19	679.2	391.2	673.3	480.7	630.6	881.1	1136.4	580.4	894.6	711.8	66.2	1306.4	168.0	974.3	986.2	1145.8	1231.8	
166700.54	448000.7	BaltCont	B2	453.7	80.3	97.0	230.9	314.8	391.1	424.8	268.0	324.2	338.7	30.6	681.7	139.2	353.0	937.2	658.8	652.3	
164755.91	439305.96	BaltCont	B20	181.1	40.1	168.4	269.3	407.1	512.8	741.4	407.5	535.9	496.9	35.2	772.3	66.1	648.3	378.9	384.2	722.8	
166269.57	439826.57	BaltCont	B21	260.3	55.0	98.9	204.2	328.2	472.5	569.5	363.8	439.8	438.3	34.6	843.2	107.9	467.7	563.9	450.8	702.9	
168253.52	441823.02	BaltCont	B22	308.1	134.9	234.6	289.7	406.4	472.1	497.2	293.1	387.0	388.3	40.3	669.4	90.2	443.3	612.2	698.7	627.7	
169368.16	441502.74	BaltCont	B23	480.4	85.6	129.3	302.7	619.4	861.3	944.4	576.9	658.3	620.1	74.2	989.6	132.8	773.6	1358.1	672.9	1045.0	
170606.68	443010.22	BaltCont	B24	944.9	257.8	453.7	1118.7	1595.1	2569.9	2557.8	1741.4	1808.0	1506.5	237.0	2484.1	388.9	3458.8	7727.0	2042.3	2309.2	
171085.53	440853.11	BaltCont	B25	384.4	78.9	101.8	667.9	613.3	769.5	857.0	547.4	632.7	617.4	78.0	997.3	121.4	735.5	1150.1	122.1	1040.7	
172221.76	441706.02	BaltCont	B26	100.7	21.3	77.8	240.5	827.6	821.5	754.8	438.4	674.1	667.3	57.8	1347.2	54.2	838.8	434.9	324.8	1091.4	
172941.34	441903.7	BaltCont	B27	32.1	6.4	14.6	23.1	45.7	59.3	66.2	45.7	52.1	48.8	5.9	84.4	9.2	63.8	113.8	52.3	77.6	
174935.77	442900.28	BaltCont	B29	438.6	76.7	264.4	325.7	907.5	1424.9	1584.5	1125.9	1311.3	939.4	174.6	2333.4	128.9	1366.8	1402.2	619.6	2125.6	
164615.78	447470.71	BaltCont	B3	16.1	18.4	14.0	28.4	86.0	142.4	109.1	79.6	147.0	94.6	6.3	175.6	8.9	118.3	73.3	51.7	177.6	
175203.17	443858.01	BaltCont	B30	408.6	79.3	235.3	358.6	948.6	1283.7	1604.6	1090.5	1040.8	970.9	167.1	1527.9	138.5	1312.2	1921.8	673.3	1327.0	
175691.69	442968.1	BaltCont	B31	474.6	98.1	287.0	253.3	828.1	1256.5	1345.0	1057.8	1138.7	941.7	127.2	2158.8	111.8	1456.9	1119.8	560.0	1843.1	
175916.41	444561.38	BaltCont	B32	381.3	90.3	357.5	355.5	813.3	1195.0	1541.6	1032.3	1005.2	881.7	29.6	1886.1	96.2	1698.2	1089.1	658.2	1603.9	
176283.29	443995.86	BaltCont	B33	278.3	75.0	211.3	182.6	582.6	855.1	1119.1	768.5	779.0	732.3	97.8	1546.3	82.8	1085.8	726.0	491.6	1360.8	
176244.03	445230.87	BaltCont	B34	187.9	76.8	185.3	204.5	441.4	609.0	791.1	496.8	56.8	487.1	65.4	1128.1	80.7	613.6	390.8	544.5	918.6	
176782.79	445071.94	BaltCont	B35	435.0	58.8	171.0	146.8	429.4	551.1	694.1	465.2	533.3	540.5	51.3	1007.6	53.1	674.6	825.3	406.8	873.5	
173401.11	441373.58	BaltCont	B36	33.4	6.7	32.2	9.7	12.2	16.1	20.2	13.6	14.0	14.6	1.9	20.0	3.7	18.4	30.8	23.5	20.6	
174322.58	439452.56	BaltCont	B37	141.8	51.7	66.3	139.9	172.3	212.6	201.1	141.6	159.0	175.8	17.9	373.6	60.3	175.8	330.9	309.4	382.5	
176570.57	440038.3	BaltCont	B38	199.0	68.0	88.3	154.0	381.2	425.8	561.4	333.1	357.5	452.6	42.7	920.7	73.0	419.7	165.7	460.2	845.3	
175823.82	438711.33	BaltCont	B39	375.6	84.3	100.8	214.6	386.6	476.3	565.7	335.3	416.7	384.8	36.7	783.8	99.2	588.0	583.3	573.1	741.0	
173058.28	439466.09	BaltCont	B40	284.3	64.3	118.7	213.5	329.9	439.7	479.4	317.0	346.7	355.4	37.3	665.5	83.9	450.9	570.5	576.8	657.3	
173327.63	439059.39	BaltCont	B41	239.1	53.5	76.5	149.4	266.5	355.8	367.1	250.5	288.6	300.1	29.4	563.8	88.1	305.2	510.2	412.1	552.8	
173284.32	438404.8	BaltCont	B42	405.2	128.0	236.5	211.3	323.9	404.0	467.1	308.2	339.3	359.7	38.7	598.4	85.4	433.1	491.3	530.1	617.4	
172296.69	439489.09	BaltCont	B43	437.4	134.4	179.0	445.5	504.7	621.1	675.5	459.2	497.3	546.0	57.3	927.3	202.0	839.7	845.8	1053.7	910.5	
172396.83	437900.58	BaltCont	B44	345.8	58.2	81.2	231.3	347.5	459.7	545.4	346.2	382.0	347.2	55.4	740.6	128.9	404.3	564.0	583.0	717.3	
172242.52	436569.96	BaltCont	B45	522.3	113.4	91.1	289.9	498.0	598.5	705.3	431.5	522.2	623.3	56.5	1237.2	165.5	532.0	741.6	797.5	1118.0	
171399.91	436413.12	BaltCont	B46	1052.3	548.9	568.6	221.2	484.0	568.2	673.9	403.6	498.8	608.4	51.4	1204.8	115.1	509.7	554.0	672.4	1055.8	
170677.79	436301.29	BaltCont	B47	182.4	63.8	114.6	198.8	371.7	478.7	576.6	356.1	447.7	461.5	42.6	862.0	68.8	523.5	260.9	525.5	785.7	
169739.36	436761.54	BaltCont	B48	246.2	72.7	123.6	271.0	828.0	896.3	1305.2	658.7	922.1	958.6	70.0	1770.9	106.2	1142.1	369.2	108.5	1795.5	
168874.58	436477.59	BaltCont	B49	224.4	89.9	121.6	183.7	296.6	445.1	680.6	434.0	486.3	396.9	46.0	827.4	79.8	804.9	217.4	487.3	777.1	
166979.72	445680.13	BaltCont	B5	35.9	41.6	11.8	29.6	53.3	60.6	62.4	30.7	64.8	50.4	3.3	95.7	16.4	45.7	80.8	85.8	79.0	
168314.05	435280.16	BaltCont	B50	66.7	22.2	28.5	94.8	352.1	596.2	919.2	580.8	614.2	510.2	54.3	1169.0	35.4	1001.3	101.9	362.9	983.5	
167855.19	436098.27	BaltCont	B51	70.8	23.0	49.7	81.3	224.8	343.7	483.6	329.2	345.6	354.2	36.6	701.1	36.1	452.8	115.4	251.9	617.4	
166836.03	435766.87	BaltCont	B52	47.6	17.5	39.1	60.8	227.6	390.0	567.7	396.9	419.5	371.0	38.1	777.7	24.0	483.6	60.4	244.9	657.1	
175277.79	437395.15	BaltCont	B53	149.2	45.4	63.3	195.9	250.8	331.0	349.9	258.5	260.4	340.1	28.0	500.6	72.6	417.4	245.8	427.1	531.0	
176772.79	437256.2	BaltCont	B54	123.6	77.0	18.7	105.4	152.9	136.5	115.6	81.7	101.8	143.2	9.9	354.7	43.3	110.3	122.5	357.6	395.5	
176635.09	436161.18	BaltCont	B55	317.1	107.6	185.9	385.5	328.7	427.7	520.5	338.7	314.7	420.4	51.3	698.2	161.5	386.4	413.0	1028.4	690.4	
176274.47	436203.6	BaltCont	B56	209.4	185.7	255.4	174.6	344.7	451.9	513.6	317.4	376.8	455.3	41.9	921.5	69.8	428.8	270.8	452.7	794.3	
176332.23	435340.19	BaltCont	B57	163.2	56.8	61.6	169.7	305.2	450.5	446.6	309.9	352.5	341.1	44.0	584.6	66.7	356.2	279.7	417.8	701.9	
176133.99	435144.47	BaltCont	B58	193.8	163.8	221.8	61.9	157.2	199.4	248.8	164.1	192.8	188.3	16.6	344.3	21.2	268.1	133.8	194.2	388.8	
175590.57	434995.84	BaltCont	B59	94.9	40.3	72.0	139.5	311.1	466.8	561.5	400.5	451.7	415.6	44.0	789.8	38.5	565.9	134.4	461.8	724.3	
170392.33	446536.17	BaltCont	B6	578.2	92.4	218.2	448.9	959.6	1258.0	1174.7	761.3	1027.7	891.5	108.7	131.1	170.9	1415.7	1992.8	950.1	1266.0	
176159.8	434705.59	BaltCont	B60	263.2	47.4	51.6	114.2	413.6	538.3	609.2	439.8	473.6	521.1	50.1	889.6	56.6	628.7	514.6	517.1	873.1	
176421.13	434524.62	BaltCont	B62	89.1	30.7	48.3	83.7	237.9	318.0	365.3	296.0	273.7	340.0	30.5	568.3	34.1	372.2	124.5	289.0	533.1	
176573.65	434140.35	BaltCont	B63	118.6	34.4	47.3	123.0	272.8	398.6	478.0	314.5	350.0	369.3	37.3	701.0	53.2	357.9	150.1	437.2	645.1	
176616.11	433253.08	BaltCont	B64	130.0	37.7	82.8	137.8	469.6	641.3	682.8	527.2	539.9	579.9	58.4	1008.8	51.5	735.0	213.8	442.6	955.7	
176746.41	432703.51	BaltCont	B65	152.0	97.5	176.0	224.5	844.4	1176.7	1301.1	999.3	1049.4	1035.1	119.7	2030.4	72.5	1428.8	240.8	963.4	1851.2	
177721.37	436328.79	BaltCont	B67	176.5	79.9	160.3	208.5	617.2	725.4	799.1	486.6	558.0	806.1	69.8	1126.0	64.9	578.5	276.8	561.9	1077.8	
178925.43	435951.73	BaltCont	B68	1506.9	3742.0	1787.8	506.4	739.8	1026.5	1103.5	824.0	742.8	775.1	84.6	1660.4	133.7	1316.2	883.5	1023.8	1882.8	
179340.66	435710.17	BaltCont	B69	481.0	164.2	177.2	1577.6	1664.5	1737.7	2131.6	1311.2	1175.4	1214.8	242.7	2983.1	248.4	2043.6	530.0	1166.0	2941.7	
171649.36	446859.82	BaltCont	B7	331.4	102.3	101.6	278.3	610.7	929.3	982.2	658.0	698.3	632.6	47.5	971.2	137.9	766.2	709.4	677.0	933.9	
178936	434873.12	BaltCont	B70	366.6	258.1	255.0	422.2	1039.3	1277.3	1775.6	1385.7	970.6	1186.2	204.7	1950.7	130.5	1865.9	409.4	1104.3	2120.0	
178605.41	434733.17	BaltCont	B71	465.9	252.4	320.3	539.6	1295.7	1475.8	1716.0	1152.1	1245.7	1319.7	41.2	2937.9	181.5	1397.8	411.0	1099.9	2902.1	
179287.8	434224.45	BaltCont	B72	215.5	265.1	179.1	732.2	2576.3	2766.2	3690.2	2477.6	2174.7	3148.9	303.2	5698.9	346.9	3999.1	222.6	4398.8	4798.2	
179501.4	433696.27	BaltCont	B73	498.3	211.4	200.6	710.1	2015.1	2479.3	2962.6	1976.6	2096.4	2021.7	261.4	4526.5	272.3	2601.9	694.5	2153.0	4323.1	
175282.97	451914.72	BaltCont	B74	217.9	27.8	56.0	105.8	133.4	185.2	226.6	155.1	194.0	175.8	18.7	339.8	61.4	223.9	260.5	338.9	332.1	
175282.97	451914.72	BaltCont	B74J	187.1	22.7	47.7	113.5	127.8	166.9	195.9	138.1	166.3	177.5	16.2	329.7	68.3	173.0	224.8	357.5	320.8	
175237.45	449636.94	BaltCont	B75	167.9	32.6	57.7	105.8	111.6	122.2	180.6	136.9	129.9	132.0	17.4	257.1	60.3	244.4	175.9	294.8	254.2	
176445	447927.02	BaltCont	B76	184.1	24.8	36.6	95.8	265.2	312.1	521.4	304.7	284.1	296.5	34.0	576.1	64.5	519.0	217.7	335.2	562.9	
177413.77	447489.62	BaltCont	B77	287.6	51.2	96.6	121.8	269.4	305.1	438.5	283.9	286.7	326.3	30.5	599.0	67.7	399.1	341.7	370.5	581.0	
177293.47	447993.78	BaltCont	B78	253.1	105.3	280.0	117.1	262.1	318.2	443.7	293.9	319.6	329.3	30.0	595.2	53.6	412.0	184.8	397.3	570.9	
178680.87	447937.39	BaltCont	B79	192.8	39.6	80.0	85.7	261.3	300.2	394.0	301.0	330.2	369.1	34.8	602.9	60.9	390.3	181.8	308.1	593.5	
172017.65	447594.11	BaltCont	B8	293.6	113.6	75.3	309.4	875.9	1410.9	1508.7	1114.7	933.0	964.8	134.5	1157.2	128.6	1406.8	578.3	725.6	1136.5	
179936.03	446395.97	BaltCont	B80	151.3	33.9	72.1	88.1	356.8	446.9	640.1	430.1	403.1	485.7	48.5	846.2	54.8	593.6	159.7	316.0	857.9	
181313.22	444566.8	BaltCont	B81	70.4	37.4	71.3	138.5	635.3	863.4	1030.7	725.8	789.1	885.2	83.6	1658.6	46.7	873.9	75.0	625.6	1548.1	
172751.59	446558.23	BaltCont	B9	247.6	77.8	77.3	229.4	643.1	955.7	1109.7	809.7	757.2	717.8	98.8	926.3	101.3	1171.3	425.0	543.6	930.7	
170621.62	440496.73	CoxCreek	CCE-01	33.0	12.0	21.0	94.0	280.0	230.0	260.0	150.0	100.0	210.0	41.0	340.0	24.0	130.0	84.0	150.0	370.0	
170839.32	440711.44	CoxCreek	CCE-02	130.0	33.0	57.0	160.0	420.0	380.0	440.0	250.0	190.0	380.0	69.0	660.0	73.0	220.0	570.0	270.0	580.0	
170494.83	440803.92	CoxCreek	CCE-03	85.0	23.0	36.0	89.0	160.0	170.0	200.0	130.0	88.0	170.0	33.0	280.0	43.0	110.0	200.0	170.0	310.0	
170005.71	440903.34	CoxCreek	CCE-04	100.0	26.0	42.0	100.0	210.0	190.0	240.0	150.0	100.0	190.0	39.0	300.0	54.0	130.0	230.0	190.0	340.0	
169877.21	441252.39	CoxCreek	CCE-05	150.0	42.0	51.0	140.0	290.0	250.0	310.0	180.0	110.0	230.0	46.0	430.0	72.0	150.0	310.0	300.0	490.0	
169784.59	440961.33	CoxCreek	CCE-06	120.0	32.0	69.0	150.0	380.0	450.0	570.0	310.0	210.0	330.0	88.0	450.0	59.0	280.0	260.0	260.0	610.0	
170217.71	441372.75	CoxCreek	CCE-07	120.0	27.0	56.0	130.0	250.0	240.0	320.0	190.0	110.0	200.0	50.0	350.0	63.0	170.0	290.0	260.0	420.0	
169458.27	441246.7	CoxCreek	CCE-08	65.0	46.0	33.0	110.0	220.0	220.0	290.0	160.0	100.0	200.0	41.0	440.0	65.0	140.0	120.0	160.0	520.0	
169349.53	440642.24	CoxCreek	CCE-09	82.0	35.0	40.0	120.0	160.0	230.0	260.0	150.0	120.0	160.0	38.0	270.0	63.0	130.0	150.0	210.0	420.0	
171755.44	440135.37	CoxCreek	CCE-REF	70.0	31.0	50.0	100.0	270.0	310.0	370.0	230.0	150.0	220.0	66.0	320.0	42.0	210.0	180.0	190.0	420.0	

Northing	Easting	Study	Station	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE*	BENZO(B)FLUORANTHENE	BENZO(GHI)PERYLENE	BENZO(K)FLUORANTHENE	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE	PHENANTHRENE	PYRENE	Station Assessment
			Soil Standards:	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE*	BENZO(B)FLUORANTHENE	BENZO(GHI)PERYLENE	BENZO(K)FLUORANTHENE	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE	PHENANTHRENE	PYRENE	
			Habitat Reconstruction (TELs)		6.7	5.9	47	75	22				108	6	113	21		35	87	153	
			MD Residential Clean-up	31,000	470,000	470,000	2,300,000	220	22	220	230,000	2,200	22,000	22	310,000	310,000	220	160,000	2,300,000	230,000	
			MD Non-Residential Clean-up	410,000	6,100,000	6,100,000	31,000,000	3,900	390	3,900	3,100,000	39,000	390,000	390	4,100,000	4,100,000	3,900	2,000,000	31,000,000	3,100,000	
168324.7	451514.2	FedChan 02	BE-1	1.3	1.3	1.2	1.2	1.2	1.2	1.6	1.3	1.6	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.8	
166011.67	453705.86	FedChan 02	BE-2	2.2	2.2	2.0	2.0	2.0	2.0	2.7	2.3	2.7	2.0	2.0	2.6	2.1	2.2	3.4	2.3	3.9	
165106.81	456084.77	FedChan 02	BE-3	22.0	4.7	3.9	8.5	11.0	10.0	17.0	7.3	1.7	12.0	2.2	23.0	8.2	5.7	41.0	25.0	35.0	
164660.76	458116.5	FedChan 02	BE-4*	1.1	1.1	1.0	1.0	2.1	1.7	2.5	1.2	1.4	2.0	1.0	2.5	1.1	1.1	2.1	1.3	3.2	
166011.67	453705.86	FedChan 02	BE-COMP-SED	1.3	1.3	1.2	1.2	1.4	1.2	1.6	1.3	1.6	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.7	
168547.57	447518.15	FedChan 02	BR-1	1.4	1.4	1.2	1.2	2.4	2.2	3.7	1.6	1.7	2.3	1.2	2.9	1.3	1.3	1.3	1.7	4.1	
169319.6	445074.39	FedChan 02	BR-2	1.2	1.2	1.1	1.1	1.4	1.2	2.0	1.2	1.5	1.3	1.1	1.5	1.2	1.2	1.1	1.1	2.1	
169881.74	444031.66	FedChan 02	BR-3*	1.6	1.4	1.3	1.3	2.8	2.9	5.1	2.7	1.7	2.9	1.3	3.9	1.4	2.1	5.3	3.0	5.2	
169319.6	445074.39	FedChan 02	BR-COMP-SED	1.4	1.4	1.3	1.3	1.3	1.3	1.7	1.4	1.7	1.3	1.3	1.3	1.4	1.4	1.3	1.3	1.8	
170449.04	442891.19	FedChan 02	BRA-1	1.5	1.5	1.4	1.4	3.4	4.4	7.0	3.3	1.8	4.1	1.4	5.0	1.4	2.9	4.6	2.2	5.9	
170465.47	442165.53	FedChan 02	BRA-2	3.2	1.2	1.6	2.3	5.3	6.9	11.0	4.7	1.4	5.7	1.6	8.1	1.9	4.1	9.4	4.8	9.2	
170940.53	442079.48	FedChan 02	BRA-3*	1.2	1.2	1.1	1.1	2.4	2.7	4.1	1.6	1.5	2.5	1.1	3.0	1.2	1.5	2.2	1.3	3.3	
170465.47	442165.53	FedChan 02	BRA-COMP-SED	3.0	1.3	1.2	2.1	4.3	5.3	5.2	3.7	4.0	4.8	1.2	6.3	1.7	3.2	11.0	4.2	7.3	
172827.97	439972.49	FedChan 02	CB-1	1.4	1.4	1.2	1.2	1.7	1.4	2.1	1.4	1.7	1.3	1.2	1.3	1.3	1.3	1.3	1.2	1.8	
172729.4	438384.09	FedChan 02	CB-2	2.0	2.0	1.8	1.8	2.1	1.8	2.9	2.2	2.4	1.8	1.8	1.8	1.9	1.9	1.8	1.8	2.6	
172729.92	436939.09	FedChan 02	CB-3*	1.2	1.2	1.1	1.1	1.1	1.1	1.4	1.2	1.4	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.5	
172729.4	438384.09	FedChan 02	CB-COMP-SED	1.7	1.7	1.6	1.6	1.6	1.6	2.1	1.7	2.1	1.6	1.6	1.6	1.6	1.7	1.6	1.6	2.2	
172362.54	436722.04	FedChan 02	CC-1	2.1	2.1	1.9	1.9	2.9	2.3	4.7	2.1	2.5	3.1	1.9	4.1	2.0	2.0	1.9	2.6	5.6	
171574.63	436388.9	FedChan 02	CC-2*	1.6	1.6	1.5	1.5	2.9	2.6	4.7	2.2	2.0	3.3	1.5	4.5	1.5	1.6	1.5	2.4	5.4	
170489.12	436520.6	FedChan 02	CC-3	2.1	2.1	1.9	1.9	3.6	3.2	9.5	3.2	2.5	6.3	1.9	8.6	2.0	2.5	1.9	3.1	11.0	
169859.58	437220.33	FedChan 02	CC-4	1.8	1.8	1.6	1.6	2.8	2.0	4.6	1.8	2.1	3.8	1.6	2.9	1.7	1.7	1.6	1.6	3.6	
171574.63	436388.9	FedChan 02	CC-COMP-SED	1.9	1.9	1.7	1.7	2.1	1.7	3.8	1.9	2.3	3.2	1.7	3.0	1.8	1.9	1.8	1.7	4.3	
157037.2	452496.45	FedChan 02	CR-1	1.3	1.4	1.2	1.2	1.9	1.5	2.6	1.4	1.6	1.8	1.2	2.9	1.3	1.3	1.5	2.1	3.4	
158976.67	452280.28	FedChan 02	CR-2	1.3	1.3	1.2	1.2	1.2	1.2	1.6	1.3	1.6	1.2	1.2	1.8	1.2	1.3	1.2	1.8	2.1	
160334.86	452295.8	FedChan 02	CR-3*	1.5	1.5	1.3	1.3	1.7	1.3	1.9	1.5	1.8	1.3	1.3	2.3	1.4	1.4	1.4	1.8	2.5	
158976.67	452280.28	FedChan 02	CR-COMP-SED	1.4	1.4	1.3	1.3	2.0	1.5	3.0	1.4	1.7	2.2	1.3	3.1	1.3	1.4	1.3	2.5	3.7	
161557.32	452492.36	FedChan 02	CRA-1*	3.0	1.1	1.0	1.5	2.2	2.3	3.7	1.6	1.3	2.4	1.0	3.7	1.7	1.3	4.8	3.8	5.4	
162074.41	452066.65	FedChan 02	CRA-2	2.2	1.4	1.3	1.5	2.2	1.8	3.1	1.5	1.7	2.1	1.3	4.0	1.3	1.4	2.2	3.9	4.2	
162576.27	451851.49	FedChan 02	CRA-3	1.4	1.4	1.3	1.3	1.5	1.3	1.8	1.4	1.7	1.3	1.3	2.0	1.3	1.4	3.2	2.3	2.7	
163347.2	451752.77	FedChan 02	CRA-4	1.5	1.3	1.2	1.2	1.7	1.4	2.2	1.3	1.6	1.6	1.2	2.3	1.3	1.3	3.7	2.0	3.2	
162074.41	452066.65	FedChan 02	CRA-COMP-SED	1.3	1.3	1.2	1.2	1.3	1.2	1.7	1.3	1.6	1.2	1.2	1.7	1.2	1.3	2.8	1.4	2.4	
151389.07	453692.85	FedChan 02	CRE-1	1.7	1.7	1.6	1.6	2.0	1.7	2.4	1.7	2.1	1.6	1.6	3.7	1.6	1.7	1.8	2.1	5.6	
152349.16	453393.41	FedChan 02	CRE-2	1.6	1.6	1.4	1.4	1.8	1.4	2.4	1.6	1.9	1.6	1.4	2.1	1.5	1.5	1.8	1.6	2.3	
153985.11	453171.7	FedChan 02	CRE-3*	2.3	1.6	1.4	1.4	2.5	2.5	4.2	2.2	1.9	2.9	1.4	4.3	1.5	1.6	4.4	4.3	5.3	
152349.16	453393.41	FedChan 02	CRE-COMP-SED	1.8	1.7	1.5	1.5	2.6	2.7	4.2	2.3	2.0	3.0	1.5	4.2	1.6	1.7	3.5	3.7	5.3	
164794.02	450887.5	FedChan 02	CRU-1*	1.3	1.3	1.2	1.2	1.9	1.7	1.6	1.3	1.6	1.7	1.2	2.1	1.2	1.3	2.3	1.6	3.5	
166265.41	449793.39	FedChan 02	CRU-2	1.2	1.2	1.1	1.1	1.3	1.1	1.4	1.2	1.4	1.1	1.1	1.6	1.1	1.2	1.7	1.3	2.2	
166265.41	449793.39	FedChan 02	CRU-COMP-SED	1.2	1.2	1.1	1.1	2.0	1.7	2.6	1.2	1.5	1.6	1.1	3.1	1.1	1.2	1.1	2.9	3.9	
167400.21	448998.41	FedChan 02	CUT-1	1.4	1.4	1.2	1.2	1.5	1.2	1.7	1.4	1.7	1.2	1.2	1.6	1.3	1.3	4.5	1.5	2.4	
168012.16	448922.61	FedChan 02	CUT-2	2.7	1.3	1.2	1.6	3.4	3.7	6.0	2.9	1.6	3.6	1.2	5.0	1.5	2.3	6.3	4.2	7.6	
167924.56	448517.04	FedChan 02	CUT-3*	1.1	1.1	1.0	1.0	1.5	1.4	2.2	1.1	1.4	1.5	1.0	2.3	1.1	1.1	3.2	1.8	3.8	
168012.16	448922.61	FedChan 02	CUT-COMP-SED	1.3	1.3	1.2	1.2	1.2	1.2	1.6	1.3	1.6	1.2	1.2	1.3	1.2	1.3	2.9	1.3	2.1	
176507.3	435940.32	FedChan 02	FB-1	1.7	1.7	1.6	1.6	1.6	1.6	2.2	1.8	2.1	1.6	1.6	1.8	1.7	1.7	2.6	1.6	2.7	
175657.82	435081	FedChan 02	FB-2*	1.6	1.6	1.5	1.5	3.7	3.8	7.1	3.2	2.0	4.5	1.5	5.4	1.5	2.5	3.1	2.5	7.9	
175657.82	435081	FedChan 02	FB-COMP-SED	2.5	1.7	1.9	2.3	6.5	8.5	15.0	7.3	2.1	8.9	2.4	10.0	1.6	5.6	1.6	5.2	14.0	
171839.29	440934.68	FedChan 02	FTM-1	1.0	1.0	0.9	0.9	2.1	1.9	3.2	1.2	1.2	2.1	0.9	2.3	1.0	1.0	1.8	1.1	2.6	
174661.37	438812.09	FedChan 02	FTM-2	1.4	1.4	1.3	1.3	1.5	1.3	2.2	1.4	1.7	1.3	1.3	1.3	1.4	1.4	1.3	1.3	1.8	
176061.11	437475.9	FedChan 02	FTM-3*	1.4	1.4	1.2	1.2	1.2	1.2	1.7	1.4	1.7	1.2	1.2	1.2	1.3	1.3	1.3	1.2	1.8	
174661.37	438812.09	FedChan 02	FTM-COMP-SED	1.3	1.3	1.2	1.2	2.4	2.4	4.2	1.6	1.5	2.4	1.2	3.2	1.2	1.4	3.9	1.7	4.8	
175674.65	438671.85	FedChan 02	HA-1*	1.6	1.6	1.4	1.4	2.3	2.1	3.5	1.9	1.9	2.1	1.4	2.6	1.5	1.5	1.5	1.5	3.5	
175373.05	437525.22	FedChan 02	HA-2	1.4	1.4	1.3	1.3	2.6	2.6	4.7	2.4	1.8	2.7	1.3	3.0	1.4	1.9	1.4	1.7	3.7	
175373.05	437525.22	FedChan 02	HA-COMP-SED	1.4	1.4	1.3	1.3	1.3	1.3	1.9	1.4	1.7	1.3	1.3	1.3	1.3	1.4	1.3	1.3	1.8	
176660.89	437140.78	FedChan 02	NWBE-1	1.6	1.6	1.5	1.5	4.4	4.0	6.7	2.6	2.0	4.9	1.5	7.9	1.6	2.3	1.5	5.1	8.6	
177250.89	436692.08	FedChan 02	NWBE-2	1.7	1.7	1.5	1.5	2.5	2.4	4.4	1.9	2.1	2.7	1.5	3.8	1.6	1.7	3.2	2.2	4.5	
178257.92	436793.82	FedChan 02	NWBE-3*	2.3	1.7	1.6	3.0	8.6	7.9	13.0	5.6	2.1	9.9	2.3	15.0	1.6	4.3	3.1	4.6	19.0	
177250.89	436692.08	FedChan 02	NWBE-COMP-SED	1.7	1.7	1.5	1.8	4.6	4.6	7.9	3.9	2.0	5.1	1.5	8.0	1.6	3.0	3.1	3.8	9.2	
178131.46	435026.84	FedChan 02	NWBW-1	3.9	2.0	1.8	2.9	6.7	7.5	13.0	6.3	2.4	7.3	2.0	11.0	1.9	4.8	7.7	6.0	17.0	
178541.99	435800.17	FedChan 02	NWBW-2	1.5	1.3	1.1	1.3	3.3	3.3	6.3	2.5	1.5	3.6	1.1	5.6	1.2	2.0	1.2	2.9	7.7	
179010.84	435140.83	FedChan 02	NWBW-3*	2.0	2.0	1.8	1.9	6.1	6.9	13.0	5.7	2.4	7.1	1.9	11.0	1.9	4.4	1.8	4.6	16.0	
178541.99	435800.17	FedChan 02	NWBW-COMP-SED	1.7	1.7	1.6	1.6	3.6	3.8	6.9	3.2	2.1	3.8	1.6	6.2	1.6	2.4	1.6	3.2	9.2	
157522.74	459644.28	FedChan 02	SWP-1	1.8	1.6	1.4	1.4	2.1	1.9	3.3	1.6	1.9	2.3	1.4	3.0	1.5	1.6	3.5	3.0	3.6	
159246.36	460509.27	FedChan 02	SWP-2*	1.3	1.3	1.2	1.2	2.0	1.9	3.2	1.6	1.6	2.2	1.2	3.1	1.2	1.3	1.2	2.7	3.7	
159246.36	460509.27	FedChan 02	SWP-COMP-SED	1.4	1.4	1.3	1.3	1.7	1.7	1.8	1.5	1.8	1.6	1.3	2.1	1.4	1.4	2.9	2.0	2.6	
134279.61	449901.26	FedChan 02	UB1REF*	1.3	1.3	1.2	1.2	1.2	1.2	1.6	1.3	1.6	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.7	
129648.42	447752.54	FedChan 02	UB2REF	1.2	1.2	1.1	1.1	1.2	1.1	1.5	1.3	1.5	1.1	1.1	1.6	1.2	1.2	1.2	1.2	1.7	
126592.77	456379.33	FedChan 02	UB3REF	1.2	0.7	1.3	1.1	2.8	2.4	3.9	1.7	0.9	3.0	0.7	6.3	1.0	1.4	1.4	3.7	5.9	
129648.42	447752.54	FedChan 02	UBREF-COMP-SED	0.8	0.8	0.7	0.7	0.7	0.7	1.0	0.8	1.0	0.7	0.7	0.7	0.8	0.8	0.8	0.7	1.0	
169321.33	445054.22	FedChan 05	BR-COMP	160.0	44.0	80.0	130.0	210.0	230.0	300.0	180.0	100.0	240.0	43.0	480.0	80.0	150.0	430.0	270.0	370.0	
168576.92	447476.23	FedChan 05	BR1	91.0	32.0	45.0	83.0	120.0	140.0	170.0	130.0	63.0	150.0	29.0	300.0	52.0	110.0	170.0	180.0	290.0	
169321.33	445054.22	FedChan 05	BR2	85.0	28.0	55.0	96.0	150.0	150.0	180.0	120.0	68.0	160.0	30.0	310.0	77.0	100.0	230.0	180.0	250.0	
169914.88	444002.69	FedChan 05	BR3	120.0	42.0	84.0	110.0	230.0	280.0	320.0	230.0	140.0	270.0	53.0	380.0	75.0	180.0	500.0	200.0	360.0	
170474.59	442140.99	FedChan 05	BRA-COMP	110.0	35.0	55.0	100.0	180.0	200.0	250.0	180.0	100.0	210.0	40.0	340.0	65.0	150.0	220.0	230.0	350.0	
170435.58	442797.68	FedChan 05	BRA1	180.0	51.0	99.0	150.0	260.0	320.0	360.0	280.0	180.0	310.0	63.0	540.0	93.0	230.0	600.0	290.0	420.0	
170474.59	442140.99	FedChan 05	BRA2	150.0	40.0	59.0	110.0	230.0	220.0	280.0	200.0	110.0	230.0	45.0	340.0	70.0	170.0	350.0	270.0	390.0	
170981.03	442038.96	FedChan 05	BRA3	140.0	33.0	51.0	88.0	170.0	180.0	220.0	180.0	86.0	190.0	37.0	230.0	57.0	140.0	310.0	200.0	310.0	
172733.27	438417.16	FedChan 05	CB-COMP	60.0	18.0	23.0	49.0	88.0	91.0	120.0	88.0	53.0	92.0	19.0	140.0	31.0	70.0	110.0	100.0	160.0	
172843.18	438569.18	FedChan 05	CB1	92.0	27.0	37.0	75.0	120.0	130.0	170.0	120.0	70.0	140.0	27.0	220.0	48.0	100.0	190.0	160.0	230.0	
172733.27	438417.16	FedChan 05	CB2	93.0	25.0	37.0	76.0	130.0	150.0	190.0	150.0	76.0	160.0	32.0	240.0	46.0	120.0	180.0	150.0	260.0	
172724.34	436936.25	FedChan 05	CB3	50.0	16.0	16.0	44.0	77.0	79.0	110.0	74.0	36.0	88.0	17.0	150.0	29.0	60.0	74.0	92.0	170.0	
171394.67	436286.08	FedChan 05	CC-COMP	25.0	8.4	15.0	31.0	62.0	68.0	110.0	63.0	43.0	82.0	15.0	130.0	17.0	54.0	36.0	51.0	140.0	
172379.25	436734.92	FedChan 05	CC1	130.0	48.0	46.0	130.0	280.0	250.0	350.0	220.0	110.0	320.0	53.0	500.0	81.0	180.0	190.0	290.0	490.0	
171394.67	436286.08	FedChan 05	CC2	130.0	47.0	48.0	130.0	220.0	210.0	280.0	190.0	120.0	300.0	43.0	480.0	80.0	150.0	170.0	300.0	470.0	
170581.46	436482.73	FedChan 05	CC3	89.0	27.0	58.0	98.0	200.0	260.0	410.0	240.0	140.0	290.0	54.0	400.0	55.0	200.0	110.0	160.0	490.0	
169833.58	437197.43	FedChan 05	CC4	55.0	17.0	33.0	75.0	150.0	160.0	260.0	140.0	99.0	220.0	32.0	310.0	26.0	120.0	66.0	110.0	460.0	
174193.89	440053.33	FedChan 05	DDE-COMP	33.0	10.0	13.0	26.0	46.0	58.0	73.0	56.0	32.0	58.0	12.0	95.0	19.0	47.0	71.0	56.0	95.0	
173765.18	439797.92	FedChan 05	DDE1	49.0	15.0	24.0	44.0	72.0	86.0	110.0	82.0	48.0	76.0	19.0	140.0	31.0	69.0	110.0	85.0	130.0	
174193.89	440053.33	FedChan 05	DDE2	95.0	27.0	43.0	74.0	130.0	160.0	200.0	150.0	95.0	150.0	34.0	260.0	53.0	130.0	210.0	150.0	240.0	
174537.87	440322.11	FedChan 05	DDE3	5.2	2.3	2.1	3.1	6.2	7.9	11.0	8.5	5.2	9.5	1.7	15.0	3.8	6.8	8.1	12.0	15.0	
175268.67	439637.82	FedChan 05	DDW-COMP	13.0	9.5	14.0	33.0	63.0	69.0	87.0	59.0	29.0	74.0	13.0	130.0	18.0	45.0	13.0	83.0	120.0	

Northing	Easting	Study	Station	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE*	BENZO(B)FLUORANTHENE	BENZO(GHI)PERYLENE	BENZO(K)FLUORANTHENE	CHRYSENE	DIBENZO(A,H)ANTHRACENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE	PHENANTHRENE	PYRENE	Station Assessment
			Soil Standards:																		
			Habitat Reconstruction (TELs)		6.7	5.9	47	75	22				108	6	113	21		35	87	153	
			MD Residential Clean-up	31,000	470,000	470,000	2,300,000	220	22	220	230,000	2,200	22,000	22	310,000	310,000	220	160,000	2,300,000	230,000	
			MD Non-Residential Clean-up	410,000	6,100,000	6,100,000	31,000,000	3,900	390	3,900	3,100,000	39,000	390,000	390	4,100,000	4,100,000	3,900	2,000,000	31,000,000	3,100,000	
174826	439547.96	FedChan 05	DDW1	28.0	10.0	13.0	24.0	39.0	44.0	50.0	39.0	23.0	46.0	8.3	75.0	17.0	28.0	62.0	52.0	75.0	
175268.67	439637.82	FedChan 05	DDW2	11.0	6.0	9.4	20.0	37.0	42.0	56.0	40.0	19.0	45.0	8.3	78.0	13.0	29.0	11.0	44.0	77.0	
174806.09	440004.18	FedChan 05	DDW3	25.0	12.0	21.0	34.0	73.0	83.0	96.0	68.0	44.0	83.0	16.0	120.0	20.0	54.0	50.0	72.0	110.0	
176503.68	435960.48	FedChan 05	FB1	60.0	20.0	29.0	71.0	120.0	130.0	170.0	130.0	75.0	140.0	30.0	240.0	28.0	110.0	110.0	110.0	220.0	
176399.99	435123.71	FedChan 05	FB2	43.0	15.0	24.0	46.0	90.0	110.0	150.0	120.0	54.0	120.0	27.0	190.0	28.0	100.0	73.0	90.0	180.0	
174668.76	438810.61	FedChan 05	FTM-COMP	200.0	56.0	78.0	150.0	260.0	330.0	420.0	310.0	170.0	310.0	69.0	460.0	100.0	250.0	440.0	310.0	570.0	
171852.14	440913.03	FedChan 05	FTM1	140.0	42.0	58.0	110.0	210.0	280.0	310.0	200.0	150.0	210.0	52.0	330.0	58.0	190.0	340.0	210.0	340.0	
174668.76	438810.61	FedChan 05	FTM2	140.0	37.0	55.0	98.0	220.0	230.0	290.0	220.0	110.0	220.0	48.0	290.0	68.0	180.0	300.0	210.0	370.0	
176085.02	437442.71	FedChan 05	FTM3	140.0	42.0	54.0	110.0	240.0	260.0	350.0	240.0	150.0	250.0	53.0	330.0	72.0	200.0	270.0	230.0	490.0	
174259.93	439572.39	FedChan 05	HA-COMP	34.0	11.0	14.0	31.0	48.0	53.0	62.0	48.0	29.0	59.0	10.0	95.0	19.0	35.0	75.0	65.0	94.0	
175569.01	438639.29	FedChan 05	HA1	64.0	19.0	28.0	53.0	91.0	100.0	120.0	90.0	54.0	110.0	19.0	190.0	34.0	67.0	140.0	120.0	160.0	
174259.93	439572.39	FedChan 05	HA2	12.0	8.7	15.0	31.0	55.0	70.0	77.0	59.0	29.0	65.0	12.0	110.0	15.0	43.0	12.0	66.0	120.0	
177548.7	436674.87	FedChan 05	NWBE-COMP	140.0	38.0	54.0	130.0	250.0	240.0	300.0	230.0	120.0	280.0	53.0	420.0	46.0	180.0	270.0	180.0	420.0	
176793.65	437043.76	FedChan 05	NWBE1	97.0	24.0	33.0	74.0	160.0	150.0	210.0	150.0	72.0	170.0	34.0	260.0	46.0	120.0	170.0	170.0	280.0	
177548.7	436674.87	FedChan 05	NWBE2	98.0	24.0	38.0	82.0	140.0	160.0	200.0	160.0	79.0	150.0	35.0	250.0	49.0	130.0	180.0	140.0	280.0	
178248.68	436795.3	FedChan 05	NWBE3	140.0	45.0	82.0	240.0	400.0	370.0	460.0	320.0	180.0	540.0	79.0	780.0	63.0	250.0	200.0	260.0	680.0	
178895.88	435496.56	FedChan 05	NWBW-COMP	120.0	47.0	83.0	190.0	300.0	300.0	390.0	260.0	170.0	440.0	61.0	750.0	63.0	210.0	170.0	230.0	550.0	
178539.17	435992.89	FedChan 05	NWBW1	59.0	18.0	31.0	69.0	120.0	130.0	180.0	140.0	72.0	150.0	30.0	240.0	38.0	110.0	94.0	110.0	220.0	
178895.88	435496.56	FedChan 05	NWBW2	140.0	56.0	100.0	310.0	480.0	380.0	490.0	320.0	160.0	600.0	78.0	950.0	82.0	250.0	210.0	280.0	770.0	
179003.49	435149.5	FedChan 05	NWBW3	130.0	48.0	95.0	220.0	390.0	390.0	520.0	330.0	200.0	520.0	81.0	970.0	62.0	260.0	180.0	290.0	720.0	
176436.72	438622.09	FedChan 05	SGT-COMP	22.0	8.2	8.7	21.0	44.0	41.0	53.0	33.0	20.0	48.0	7.4	91.0	13.0	25.0	42.0	46.0	78.0	
176232.2	438039.03	FedChan 05	SGT1	27.0	9.0	13.0	26.0	45.0	48.0	60.0	45.0	21.0	58.0	9.2	73.0	15.0	31.0	52.0	53.0	57.0	
176436.72	438622.09	FedChan 05	SGT2	57.0	17.0	29.0	58.0	95.0	100.0	120.0	97.0	45.0	120.0	22.0	210.0	31.0	72.0	96.0	110.0	140.0	
176641.79	438559.22	FedChan 05	SGT3	8.1	6.2	5.9	13.0	23.0	21.0	23.0	17.0	8.4	25.0	3.7	55.0	8.8	12.0	19.0	29.0	47.0	
177240.04	434708.59	FedChan 05	SLP-COMP	33.0	13.0	25.0	38.0	72.0	84.0	100.0	94.0	40.0	92.0	20.0	180.0	23.0	70.0	53.0	76.0	150.0	
176678.1	434834.78	FedChan 05	SLP1	44.0	16.0	28.0	45.0	93.0	110.0	140.0	120.0	63.0	120.0	24.0	210.0	30.0	84.0	65.0	92.0	180.0	
177240.04	434708.59	FedChan 05	SLP2	62.0	22.0	46.0	66.0	120.0	130.0	170.0	130.0	65.0	160.0	29.0	260.0	41.0	100.0	92.0	130.0	230.0	
176956.14	435360.02	FedChan 05	SLP3	35.0	14.0	24.0	40.0	77.0	85.0	110.0	85.0	44.0	94.0	17.0	180.0	24.0	61.0	60.0	78.0	150.0	
175892.97	435999.11	Masonville	M-B1	42.0	25.0	83.0	110.0	240.0	410.0	360.0	350.0	390.0	280.0	140.0	500.0	41.0	290.0	61.0	160.0	440.0	
176099.82	435605.44	Masonville	M-B2	34.0	18.0	60.0	84.0	200.0	280.0	250.0	270.0	260.0	270.0	92.0	480.0	28.0	210.0	49.0	150.0	300.0	
176106.49	435165.07	Masonville	M-B3	32.0	25.0	53.0	82.0	200.0	250.0	370.0	220.0	3.7	250.0	81.0	390.0	34.0	180.0	57.0	160.0	300.0	
175559.36	435712.2	Masonville	M-B5	71.0	44.0	53.0	95.0	320.0	390.0	530.0	410.0	160.0	340.0	84.0	390.0	55.0	300.0	160.0	200.0	620.0	
175792.89	435732.22	Masonville	M-B6	74.0	47.0	62.0	130.0	370.0	350.0	450.0	340.0	140.0	390.0	76.0	580.0	93.0	250.0	110.0	250.0	610.0	
176373.38	435712.2	Masonville	M-B7	83.0	38.0	100.0	140.0	280.0	600.0	850.0	440.0	290.0	330.0	120.0	430.0	52.0	350.0	150.0	210.0	1100.0	
176366.71	435011.61	Masonville	M-B8 M	56.0	23.0	51.0	60.0	160.0	180.0	230.0	150.0	73.0	190.0	37.0	240.0	36.0	120.0	44.0	120.0	290.0	
175973.04	435778.92	Masonville	MSN03-JV1	110.0	40.0	98.0	260.0	620.0	650.0	760.0	540.0	290.0	680.0	120.0	120.0	56.0	410.0	170.0	310.0	1100.0	
176159.87	435772.25	Masonville	MSN03-JV2	89.0	27.0	73.0	160.0	280.0	450.0	590.0	420.0	210.0	340.0	92.0	770.0	46.0	310.0	150.0	240.0	710.0	
176053.11	435685.51	Masonville	MSN03-JV3	110.0	39.0	98.0	240.0	460.0	550.0	720.0	530.0	250.0	490.0	120.0	1100.0	60.0	390.0	190.0	310.0	800.0	
176066.46	435425.29	Masonville	MSN03-JV4	82.0	34.0	92.0	160.0	260.0	330.0	590.0	390.0	5.8	260.0	88.0	500.0	47.0	290.0	160.0	180.0	740.0	
176026.42	435098.35	Masonville	MSN03-JV5	89.0	35.0	76.0	160.0	400.0	440.0	550.0	470.0	180.0	440.0	99.0	770.0	55.0	350.0	100.0	320.0	660.0	
175919.66	435024.95	Masonville	MSNSURF05-1-S	47.0	33.0	57.0	87.0	280.0	340.0	470.0	290.0	150.0	370.0	64.0	600.0	44.0	230.0	63.0	230.0	540.0	
175586.05	434904.85	Masonville	MSNSURF05-2-S	59.0	33.0	65.0	110.0	290.0	370.0	560.0	350.0	210.0	420.0	75.0	850.0	52.0	290.0	76.0	210.0	710.0	
175319.15	434811.44	Masonville	MSNSURF05-3-S	63.0	35.0	73.0	110.0	270.0	390.0	570.0	370.0	230.0	370.0	81.0	610.0	52.0	300.0	82.0	200.0	650.0	
175432.58	435085	Masonville	MSNSURF05-4-S	98.0	99.0	140.0	270.0	850.0	1000.0	1500.0	870.0	510.0	120.0	200.0	260.0	130.0	710.0	140.0	700.0	200.0	
118569.95	454788.29	NewWork	PI-1	20.0	35.0	2.0	1.0	2.8	3.1	28.0	1.3	1.3	1.4	2.8	4.2	2.3	20.0	1.4	2.6		
120380.11	453435.43	NewWork	PI-2	67.0	110.0	6.7	3.3	9.0	10.0	9.0	4.1	4.2	4.6	9.0	14.0	7.6	67.0	4.7	8.6		
122847.63	453797.46	NewWork	PI-3	18.0	31.0	1.8	0.9	2.4	2.7	2.4	1.1	1.1	1.2	2.4	3.7	2.0	18.0	1.1	2.3		
123428.79	455207.48	NewWork	PI-4	20.0	34.0	2.0	1.0	2.7	3.0	2.7	1.2	1.3	1.4	2.7	4.1	2.3	20.0	1.2	2.6		
121456.67	455407.55	NewWork	PI-5	22.0	38.0	2.2	1.1	3.0	3.3	3.0	1.4	1.4	1.5	3.0	4.6	2.6	22.0	2.8	2.9		
170998.65	464061.57	NewWork	TLS2VC	240.0	180.0	150.0	84.0	100.0	240.0	65.0	50.0	68.0	8.4	390.0	160.0	45.0	540.0	430.0	340.0		
170161.48	463223.24	NewWork	TLV2	40.0	46.0	7.6	14.0	19.0	22.0	10.0	7.4	16.0	1.9	28.0	140.0	12.0	99.0	15.0	21.0		
170669.49	463595.78	NewWork	TLV3	60.0	48.0	10.0	24.0	34.0	43.0	20.0	13.0	28.0	2.8	47.0	130.0	23.0	120.0	32.0	33.0		
171177.5	464069.92	NewWork	TLV4	180.0	53.0	42.0	44.0	57.0	120.0	46.0	24.0	56.0	5.7	120.0	1100.0	41.0	650.0	160.0	110.0		
171888.71	464544.06	NewWork	TLV5	61.0	52.0	12.0	20.0	28.0	87.0	22.0	11.0	27.0	2.5	55.0	150.0	22.0	75.0	48.0	49.0		
169619.6	462782.96	NewWork	TLVI	51.0	48.0	19.0	19.0	31.0	43.0	14.0	13.0	22.0	2.8	36.0	260.0	23.0	89.0	41.0	15.0		
174980.01	439508.68	Seagirt	EA-01/02	4.6	4.2	4.2	3.4	3.1	4.2	2.3	2.5	4.7	2.8	2.8	4.5	4.5	2.7	4.7	3.8	2.6	
175392.41	439798.05	Seagirt	EA-03/04	2.3	2.1	2.1	1.7	1.6	2.1	1.2	2.7	2.4	1.4	1.4	2.2	2.2	1.3	2.3	5.0	2.0	
175834.67	439750.41	Seagirt	EA-05/06	2.3	2.1	2.1	1.7	1.6	2.1	1.2	1.2	2.4	1.4	1.4	2.3	2.3	1.4	2.4	4.4	1.3	
175606.53	439613.31	Seagirt	EA-07/08	2.3	2.1	2.1	1.7	1.6	2.1	1.2	1.3	2.4	1.4	1.4	2.2	2.2	1.4	2.4	5.4	2.5	
175868.66	439615.51	Seagirt	EA-09/10	2.3	2.1	2.1	1.7	1.6	2.1	1.2	1.2	2.3	1.4	1.4	2.2	2.2	1.3	2.3	5.1	1.3	

Table C3. Pesticides.

Northing	Easting	Study	Station	4,4'-DDD	4,4'-DDE	4,4'-DDT	ALDRIN	ALPHA-BHC	BETA-BHC	CHLORDANE (TECHNICAL)	DELTA-BHC	DIELDRIN	ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	GAMMA-BHC (LINDANE)	HEPTACHLOR	HEPTACHLOR EPOXIDE	METHOXYCHLOR	TOXAPHENE	Station Assessment
			Soil Standards:	4,4'-DDD	4,4'-DDE	4,4'-DDT	ALDRIN	ALPHA-BHC	BETA-BHC	CHLORDANE (TECHNICAL)	DELTA-BHC	DIELDRIN	ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	GAMMA-BHC (LINDANE)	HEPTACHLOR	HEPTACHLOR EPOXIDE	METHOXYCHLOR	TOXAPHENE	
			Habitat Reconstruction (TELs)	1.2	2.1	1.2				2.26		0.72						0.32				0.1	
			MD Residential Clean-up	2700	1900	1900	38	100	350	1800	490	40	4700	4700	4700	2300	2300	490	140	70	39,000	580	
			MD Non-Residential Clean-up	12,000	8400	8400	170	450	1600	8200	2200	180	610,000	610,000	610,000	31,000	31,000	2200	640	310	510,000	2600	
167707.8589	443563.69	BaltCont	B13		3.0					2.6						11.1				0.7			
165144.9747	442953.58	BaltCont	B15		0.7					1.8		0.5											
166700.5394	448000.7	BaltCont	B2	1.4	1.3					0.7		3.6											
169368.1619	441502.74	BaltCont	B23	2.5	4.3					3.7		1.6											
170606.6785	443010.22	BaltCont	B24	4.3	3.8					4.4		2.4				2.9							
175691.6869	442968.1	BaltCont	B31	12.2	8.5					23.0		3.6							2.2				
175916.4058	444561.38	BaltCont	B32	6.9	2.9					9.7		2.0											
176782.7908	445071.94	BaltCont	B35	4.8						10.4													
174322.5801	439452.56	BaltCont	B37	1.1	1.0					1.1													
176570.572	440038.3	BaltCont	B38	2.0						2.1													
172396.8259	437900.58	BaltCont	B44	6.4	6.5					7.3		2.5											
171399.9123	436413.12	BaltCont	B46	6.3	6.0					13.9		4.7		2.1		2.2			3.3				
168874.5814	436477.59	BaltCont	B49	6.5						10.6				0.5					1.2				
166836.033	435766.87	BaltCont	B52	1.6	1.6					2.4			0.2										
176772.795	437256.2	BaltCont	B54	1.7	0.8					1.8				2.1		1.5							
170392.3295	446536.17	BaltCont	B6	1.6	2.4					2.2		1.0				0.7							
176421.1292	434524.62	BaltCont	B62		2.5					1.5										0.7			
177721.3742	436328.79	BaltCont	B67	0.9						3.5		0.5											
179287.8023	434224.45	BaltCont	B72		9.8					11.6									22.0				
175282.97	451914.72	BaltCont	B74	1.9	2.9					0.5		1.0											
178680.8701	447937.39	BaltCont	B79		9.2					2.5				1.3		1.2				1.3			
181313.2237	444566.8	BaltCont	B81		1.7					2.1													
172751.5875	446558.23	BaltCont	B9		4.8					0.5													
170621.6237	440496.73	CoxCreek	CCE-01	0.8	1.1	3.2	1.0	2.8	1.1	3.7	0.9	0.8	0.8	1.3	1.1	0.9	1.7	0.7	0.8	1.0	1.8	11.0	
170839.3241	440711.44	CoxCreek	CCE-02	18.0	7.5	15.0	1.6	8.3	1.7	6.0	1.4	1.2	1.3	18.0	1.8	1.3	2.8	1.1	1.2	1.6	2.8	17.0	
170494.833	440803.92	CoxCreek	CCE-03	1.0	1.6	4.4	1.3	6.4	1.4	4.7	1.1	1.0	1.0	1.6	1.4	1.0	2.2	0.9	1.0	1.2	2.2	14.0	
170005.7082	440903.34	CoxCreek	CCE-04	1.0	2.0	5.2	1.3	5.0	1.4	4.8	1.1	1.0	1.0	3.2	1.4	1.0	2.2	0.9	1.0	1.3	2.3	14.0	
169877.2107	441252.39	CoxCreek	CCE-05	1.3	3.4	5.5	1.6	8.6	1.7	6.0	1.4	1.2	1.3	5.2	1.8	1.3	2.8	1.1	1.2	1.6	2.8	17.0	
169784.5911	440961.33	CoxCreek	CCE-06	4.7	4.6	9.3	1.2	6.5	1.2	4.3	1.0	0.9	0.9	1.7	1.3	0.9	2.0	0.8	0.9	1.1	2.1	13.0	
170217.7088	441372.75	CoxCreek	CCE-07	2.1	2.3	3.3	1.6	8.2	1.7	6.0	1.4	1.3	1.3	2.0	1.8	1.3	2.8	1.1	1.3	1.6	2.9	18.0	
169458.2661	441246.7	CoxCreek	CCE-08	7.4	2.1	1.8	1.6	5.3	1.7	5.9	1.4	1.2	1.2	2.0	1.7	1.3	2.7	1.1	1.2	1.5	2.8	17.0	
169349.5348	440642.24	CoxCreek	CCE-09	3.2	3.5	7.3	1.4	4.2	1.4	5.0	1.2	1.0	1.1	1.7	1.5	1.1	2.3	0.9	1.0	1.3	2.4	15.0	
171755.4401	440135.37	CoxCreek	CCE-REF	2.9	3.7	7.4	1.1	4.8	1.1	3.9	0.9	0.8	0.8	1.4	1.2	0.8	1.8	0.7	0.8	1.0	1.8	11.0	
166011.667	453705.86	FedChan 02	BE-COMP-SED	0.7	0.2	0.3	0.3	0.2	0.3	1.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.9	5.5	
168324.7027	451514.2	FedChan 02	BE-1	0.7	0.2	0.3	0.3	0.2	0.3	1.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.9	5.4	
166011.667	453705.86	FedChan 02	BE-2	0.6	0.2	0.2	0.2	0.2	0.26	1.1	0.2	0.2	0.4	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.8	4.7	
165106.8072	456084.77	FedChan 02	BE-3	0.8	0.2	0.3	0.3	0.2	0.32	1.3	0.2	0.2	0.5	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.9	5.8	
164660.7629	458116.5	FedChan 02	BE-4*	0.6	0.2	0.2	0.2	0.2	0.27	1.1	0.2	0.2	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.8	4.9	
169319.6004	445074.39	FedChan 02	BR-COMP-SED	0.8	0.3	0.3	0.3	0.2	0.33	1.4	0.2	0.2	0.6	0.3	0.3	0.3	0.3	0.3	0.4	0.2	1.0	6.1	
168547.5725	447518.15	FedChan 02	BR-1	0.8	0.2	0.3	0.3	0.2	0.32	1.3	0.2	0.2	0.5	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.9	5.8	
169319.6004	445074.39	FedChan 02	BR-2	0.7	0.2	0.2	0.3	0.2	0.28	1.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.8	5.2	
169881.743	444031.66	FedChan 02	BR-3*	0.8	0.3	0.3	0.3	0.2	0.33	1.4	0.2	0.2	0.6	0.3	0.3	0.3	0.3	0.3	0.4	0.2	1.0	6.0	
170465.4655	442165.53	FedChan 02	BRA-COMP-SED	0.7	0.2	0.3	0.3	0.2	0.3	1.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.9	5.4	
170449.0368	442891.19	FedChan 02	BRA-1	0.8	0.3	0.3	0.3	0.2	0.35	1.4	0.2	0.3	0.6	0.3	0.4	0.3	0.3	0.3	0.4	0.3	1.0	6.4	
170465.4655	442165.53	FedChan 02	BRA-2	0.7	0.2	0.2	0.3	0.2	0.28	1.1	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.2	0.4	0.2	0.8	5.0	
170940.5268	442079.48	FedChan 02	BRA-3*	0.7	0.2	0.2	0.3	0.2	0.29	1.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.2	0.5	0.2	0.8	5.2	
172729.398	438384.09	FedChan 02	CB-COMP-SED	1.0	0.3	0.3	0.4	0.3	0.4	1.6	0.3	0.3	0.7	0.4	0.4	0.3	0.3	0.3	0.4	0.3	1.2	7.3	
172827.9703	439972.49	FedChan 02	CB-1	0.8	0.2	0.3	0.3	0.2	0.32	1.3	0.2	0.2	0.5	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.9	5.8	
172729.398	438384.09	FedChan 02	CB-2	1.1	0.3	0.4	0.4	0.3	0.46	1.9	0.3	0.3	0.8	0.4	0.5	0.4	0.4	0.4	0.5	0.3	1.3	8.4	
172729.9162	436939.09	FedChan 02	CB-3*	0.6	0.2	0.2	0.2	0.2	0.27	1.1	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.8	4.9	
171574.6327	436388.9	FedChan 02	CC-COMP-SED	1.1	0.3	0.4	0.4	0.3	0.45	1.8	0.3	0.3	0.7	0.4	0.5	0.3	0.4	0.4	0.5	0.3	1.3	8.1	
172362.5407	436722.04	FedChan 02	CC-1	1.1	0.4	0.8	0.4	0.3	0.48	2.0	0.3	0.3	0.8	0.4	0.5	0.4	0.4	0.4	0.5	0.3	1.4	8.7	
171574.6327	436388.9	FedChan 02	CC-2*	0.9	0.3	0.5	0.3	0.3	0.38	1.5	0.2	0.3	0.6	0.4	0.4	0.3	0.3	0.3	0.4	0.3	1.1	6.8	
170489.118	436520.6	FedChan 02	CC-3	1.1	0.4	0.4	0.4	0.3	0.49	2.0	0.3	0.4	0.8	0.5	0.5	0.4	0.4	0.4	0.5	0.3	1.4	8.8	
169859.5841	437220.33	FedChan 02	CC-4	1.0	0.3	0.3	0.4	0.3	0.41	1.7	0.3	0.3	0.7	0.4	0.4	0.3	0.3	0.4	0.5	0.3	1.2	7.5	
185299.5024	469546.63	FedChan 02	CD-COMP-SED	0.6	0.2	0.2	0.2	0.2	0.23	1.0	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.7	4.2	
178065.8364	466043.5	FedChan 02	CD-1	0.6	0.2	0.2	0.2	0.2	0.25	1.0	0.2	0.2	0.4	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.7	4.5	
185299.5024	469546.63	FedChan 02	CD-2	0.6	0.2	0.2	0.2	0.2	0.25	1.0	0.2	0.2	0.4	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.7	4.5	
185681.9654	470106.51	FedChan 02	CD-3*	0.5	0.2	0.2	0.2	0.1	0.21	0.9	0.1	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	3.9	
158976.6696	452280.28	FedChan 02	CR-COMP-SED	0.8	0.2	0.3	0.3	0.2	0.33	1.3	0.2	0.2	0.5	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.9	5.9	
157037.1967	452496.45	FedChan 02	CR-1	0.8	0.2	0.3	0.3	0.2	0.32	1.3	0.2	0.2	0.5	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.9	5.7	
158976.6696	452280.28	FedChan 02	CR-2	0.7	0.2	0.3	0.3	0.2	0.3	1.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.9	5.4	
160334.8584	452295.8	FedChan 02	CR-3*	0.8	0.3	0.3	0.3	0.2	0.34	1.4	0.2	0.3	0.6	0.3	0.3	0.3	0.3	0.3	0.4	0.2	1.0	6.3	
162074.413	452066.65	FedChan 02	CRA-COMP-SED	0.7	0.2	0.3	0.3	0.2	0.3	1.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.3	0.6	0.2	0.9	5.5	
161557.3198	452492.36	FedChan 02	CRA-1*	0.6	0.2	0.2	0.2	0.2	0.25	1.0	0.2	0.2	0.4	0.2	0.3	0.2	0.2	0.2	0.4	0.2	0.7	4.6	
162074.413	452066.65	FedChan 02	CRA-2	0.8	0.2	0.3	0.3	0.2	0.32	1.3	0.2	0.2	0.5	0.3	0.3	0.2	0.3	0.3	0.5	0.2	0.9	5.9	
162576.2662	451851.49	FedChan 02	CRA-3	0.8	0.2	0.3	0.3	0.2	0.33	1.3	0.2	0.2	0.5	0.3	0.3	0.3	0.3	0.3	0.6	0.2	0.9	5.9	
163347.1968	451752.77	FedChan 02	CRA-4	0.7	0.2	0.3	0.3	0.2	0.31	1.3	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.9	5.6	
152349.1594	453393.41	FedChan 02	CRE-COMP-SED	0.9	0.3	0.3	0.4	0.3	0.39	1.6	0.3	0.3	0.7	0.4	0.4	0.3	0.3	0.3	0.4	0.3	1.1	7.1	
151389.0698	453692.85	FedChan 02	CRE-1	1.0	0.3	0.3	0.4	0.3	0.4	1.7	0.3	0.3	0.7	0.4	0.4	0.3	0.3	0.3	0.4	0.3	1.2	7.3	
152349.1594	453393.41	FedChan 02	CRE-2	0.9	0.3	0.3	0.3	0.2	0.36	1.5	0.2	0.3	0.6	0.3	0.4	0.3	0.3	0.3	0.4	0.3	1.0	6.6	
153985.1124	453171.7	FedChan 02	CRE-3*	0.9	0.3	0.3	0.3	0.3	0.37	1.5	0.2	0.3	0.6	0.3	0.4	0.3	0.3	0.3	0.4	0.3	1.1	6.7	
166265.413	449793.39	FedChan 02	CRU-COMP-SED	0.7	0.2	0.2	0.3	0.2	0.28	1.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.2	0.6	0.2	0.8	5.1	
164794.0214	450887.5	FedChan 02	CRU-1*	0.7	0.2	0.3	0.3	0.2	0.3	1.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.3	0.6	0.2	0.9	5.4	
166265.413	449793.39	FedChan 02	CRU-2	0.7	0.2	0.2	0.2	0.2	0.28	1.1	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.2	0.4	0.2	0.8	5.0	
168012.1608	448922.61	FedChan 02	CUT-COMP-SED	0.7	0.2	0.3	0.3	0.2	0.3	1.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.9	5.4	
167400.2138	448998.41	FedChan 02	CUT-1	0.8	0.2	0.3	0.3	0.2	0.32	1.3	0.2	0.2	0.5	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.9	5.8	
168012.1608	448922.61	FedChan 02	CUT-2	0.7	0.2	0.3	0.3	0.2	0.31	1.3	0.2	0.2	0.5	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.9	5.7	
167924.5613	448517.04	FedChan 02	CUT-3*	0.6	0.2	0.3	0.2	0.2	0.26	1.1	0.2	0.2	0.4	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.8	4.8	
175657.825	435081	FedChan 02	FB-COMP-SED	0.9	0.3	0.3	0.4	0.3	0.4	1.6	0.3	0.3	0.7	0.4	0.4	0.3	0.3	0.3	0.4	0.3	1.1	7.2	
176507.3026	435940.32	FedChan 02	FB-1	1.0	0.3	0.3	0.4	0.3	0.41	1.7	0.3	0.3	0.7	0.4	0.4	0.3	0.3	0.4	0.5	0.3	1.2	7.4	
175657.825	435081	FedChan 02	FB-2*	0.9	0.3	0.4	0.3	0.3	0.37	1.5	0.2	0.3	0.6	0.3	0.4	0.3	0.3	0.3	0.4	0.3	1.1	6.8	
174661.3728	438812.09	FedChan 02	FTM-COMP-SED	0.7	0.2	0.2	0.3	0.2	0.3	1.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.9	5.4	
171839.2906	440934.68	FedChan 02	FTM-1	0.6	0.2	0.2	0.2	0.2	0.24	1.0	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.7	4.3	
174661.3728	438812.09	FedChan 02	FTM-2	0.8	0.3	0.3	0.3	0.2	0.33	1.4	0.2	0.2	0.6	0.3	0.3	0.3	0.3	0.3	0.4	0.2	1.0	6.1	
176061.1058	437475.9	FedChan 02	FTM-3*	0.8	0.2	0.3	0.3	0.2	0.32	1.3	0.2	0.2	0.5	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.9	5.8	
175373.0503	437525.22	FedChan 02	HA-COMP-SED	0.8	0.2	0.3	0.3	0.2	0.32	1.3	0.2	0.2	0.5	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.9	5.9	
175674.6499	438671.85	FedChan 02	HA-1*	0.9	0.3	0.3	0.3	0.3	0.37	1.5	0.2	0.3	0.6	0.3	0.4	0.3	0.3	0.3	0.4	0.3	1.1	6.7	
175373.0503	437525.22	FedChan 02	HA-2	0.8	0.3	0.5	0.3	0.2	0.34	1.4	0.2	0.2	0.6	0.3	0.3	0.3	0.3	0.3	0.4	0.2	1.0	6.1	
177250.8926	436692.08	FedChan 02	NWBE-COMP-SED	0.9	0.3	0.3	0.4	0.3	0.39	1.6	0.3	0.3	0.7	0.4	0.4	0.3	0.3	0.3	0.5	0.3	1.1	7.1	
176660.8913	437140.78	FedChan 02	NWBE-1	0.9	0.3	0.3	0.3	0.3	0.38	1.6	0.2	0.3	0.6	0.4	0.4	0.3	0.3	0.3	0.6	0.3	1.1	7.0	
177250.8926	436692.08	FedChan 02	NWBE-2	0.9	0.3	0.3	0.4	0.3	0.39	1.6	0.3	0.3	0.7	0.4	0.4	0.3	0.3	0.3	0.5	0.3	1.1	7.2	
178257.9214	436793.82	FedChan 02	NWBE-3*	1.0	0.3	0.3	0.4	0.3	0.4	1.6	0.3	0.3	0.7	0.4	0.4	0.3	0.3	0.3	0.5	0.3	1.2	7.3	
178541.995	435800.17	FedChan 02	NWBW-COMP-SED	1.0	0.3	0.4	0.4	0.3	0.4	1.7	0.3	0.3	0.7	0.4	0.4	0.3	0.3	0.3	0.4	0.3	1.2	7.3	
178131.4598	435026.84	FedChan 02	NWBW-1	1.1	0.3	0.4	0.4	0.3	0.46	1.9	0.3	0.3	0.8	0.4	0.5	0.3	0.4	0.4	0.5	0.3	1.3	8.3	

			Soil Standards:	4,4'-DDD	4,4'-DDE	4,4'-DDT	ALDRIN	ALPHA-BHC	BETA-BHC	CHLORDANE (TECHNICAL)	DELTA-BHC	DIELDRIN	ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	GAMMA-BHC (LINDANE)	HEPTACHLOR	HEPTACHLOR EPOXIDE	METHOXYCHLOR	TOXAPHENE	
			Habitat Reconstruction (TELs)	1.2	2.1	1.2				2.26		0.72						0.32				0.1	
			MD Residential Clean-up	2700	1900	1900	38	100	350	1800	490	40	4700	4700	4700	2300	2300	490	140	70	39,000	580	
			MD Non-Residential Clean-up	12,000	8400	8400	170	450	1600	8200	2200	180	610,000	610,000	610,000	31,000	31,000	2200	640	310	510,000	2600	
Northing	**Easting**	**Study**	**Station**	4,4'-DDD	4,4'-DDE	4,4'-DDT	ALDRIN	ALPHA-BHC	BETA-BHC	CHLORDANE (TECHNICAL)	DELTA-BHC	DIELDRIN	ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	GAMMA-BHC (LINDANE)	HEPTACHLOR	HEPTACHLOR EPOXIDE	METHOXYCHLOR	TOXAPHENE	Station Assessment
178541.995	435800.17	FedChan 02	NWBW-2	0.7	0.2	0.3	0.3	0.2	0.29	1.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.9	5.4	
179010.8383	435140.83	FedChan 02	NWBW-3*	1.1	0.3	0.5	0.4	0.3	0.46	1.9	0.3	0.3	0.8	0.4	0.5	0.3	0.4	0.4	0.5	0.3	1.3	8.3	
159246.3566	460509.27	FedChan 02	SWP-COMP-SED	0.8	0.3	0.3	0.3	0.2	0.34	1.4	0.2	0.2	0.6	0.3	0.3	0.3	0.3	0.3	0.4	0.2	1.0	6.1	
157522.7431	459644.28	FedChan 02	SWP-1	0.9	0.3	0.3	0.3	0.3	0.37	1.5	0.2	0.3	0.6	0.3	0.4	0.3	0.3	0.3	0.4	0.3	1.1	6.8	
159246.3566	460509.27	FedChan 02	SWP-2*	0.7	0.2	0.3	0.3	0.2	0.3	1.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.9	5.5	
166475.9078	460335.78	FedChan 02	TLC-COMP-SED	0.7	0.2	0.2	0.3	0.2	0.28	1.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.8	5.1	
164340.2352	459053.95	FedChan 02	TLC-1*	0.8	0.3	0.3	0.3	0.2	0.35	1.4	0.2	0.3	0.6	0.3	0.3	0.3	0.3	0.3	0.4	0.2	1.0	6.3	
166475.9078	460335.78	FedChan 02	TLC-2	0.6	0.2	0.2	0.2	0.2	0.26	1.0	0.2	0.2	0.4	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.7	4.6	
170650.6315	463684.16	FedChan 02	TLC-3	0.5	0.2	0.2	0.2	0.1	0.21	0.9	0.1	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	3.8	
134279.6095	449901.26	FedChan 02	UB1REF*	0.7	0.2	0.3	0.3	0.2	0.3	1.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.9	5.5	
129648.4174	447752.54	FedChan 02	UB2REF	0.7	0.2	0.2	0.3	0.2	0.29	1.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.8	5.3	
126592.7669	456379.33	FedChan 02	UB3REF	0.4	0.1	0.1	0.2	0.1	0.17	0.7	0.1	0.1	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.5	3.0	
129648.4174	447752.54	FedChan 02	UBREF-COMP-SED	0.4	0.1	0.2	0.2	0.1	0.19	0.8	0.1	0.1	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.5	3.4	
169321.3256	445054.22	FedChan 05	BR-COMP	1.5	1.9	1.7	1.9	1.3	2	7.2	1.7	1.5	1.5	2.4	2.1	1.5	3.3	1.3	1.5	1.9	3.4	21.0	
168576.9186	447476.23	FedChan 05	BR1	1.5	2.0	2.7	2.0	1.4	2.1	7.3	1.7	1.5	1.5	2.5	2.2	1.6	3.4	1.3	1.5	1.9	3.5	21.0	
169321.3256	445054.22	FedChan 05	BR2	1.4	1.7	5.0	1.8	1.2	1.9	6.5	1.5	1.3	1.4	2.2	1.9	1.4	3.0	1.2	1.3	1.7	3.1	19.0	
169914.8778	444002.69	FedChan 05	BR3	1.7	2.2	4.8	2.2	1.5	2.3	8.2	1.9	1.7	1.7	2.7	2.4	1.8	3.8	1.5	1.7	2.1	3.9	24.0	
170474.5943	442140.99	FedChan 05	BRA-COMP	1.6	2.0	1.8	2.1	1.4	2.2	7.6	1.8	1.6	1.6	2.5	2.2	1.6	3.5	1.4	1.6	2.0	3.6	22.0	
170435.5768	442797.68	FedChan 05	BRA1	1.7	2.1	1.8	2.1	1.4	2.2	7.8	1.8	1.6	1.6	2.6	2.3	1.7	3.6	1.4	1.6	2.1	3.7	23.0	
170474.5943	442140.99	FedChan 05	BRA2	1.6	2.0	1.8	2.1	1.4	2.2	7.6	1.8	1.6	1.6	2.5	2.3	1.8	3.5	1.4	1.6	2.0	3.6	22.0	
170981.0286	442038.96	FedChan 05	BRA3	1.6	2.0	1.8	2.1	1.4	2.2	7.6	1.8	1.6	1.6	2.6	2.3	1.6	3.6	1.4	1.6	2.0	3.6	22.0	
172733.272	438417.16	FedChan 05	CB-COMP	1.8	2.2	1.9	2.3	1.5	2.4	8.3	2.0	1.7	1.7	2.8	2.5	1.8	3.9	1.5	1.7	2.2	3.9	24.0	
172843.1798	438569.18	FedChan 05	CB1	1.8	2.2	1.9	2.3	1.5	2.4	8.3	2.0	1.7	1.7	4.7	2.5	2.4	3.9	1.5	1.7	2.2	3.9	24.0	
172733.272	438417.16	FedChan 05	CB2	2.1	2.7	12.0	2.7	1.8	2.9	10.0	2.4	2.1	2.1	3.3	3.0	2.1	4.7	1.8	2.1	2.6	4.7	29.0	
172724.3414	436936.25	FedChan 05	CB3	1.6	2.0	6.3	2.1	1.4	2.2	7.6	1.8	1.6	1.6	2.5	2.3	1.6	3.5	1.4	1.6	2.0	3.6	22.0	
171394.6697	436286.08	FedChan 05	CC-COMP	1.8	2.3	7.4	8.0	1.6	2.5	8.8	2.1	2.4	1.8	3.3	2.6	6.5	4.1	1.6	1.8	2.3	4.1	26.0	
172379.2499	436734.92	FedChan 05	CC1	19.0	9.7	24.0	11.0	1.5	2.3	8.0	1.9	1.7	1.7	37.0	8.5	7.8	3.7	1.5	1.7	2.1	3.8	23.0	
171394.6697	436286.08	FedChan 05	CC2	18.0	9.7	26.0	13.0	1.6	2.5	8.6	2.0	2.4	1.8	27.0	2.5	8.5	4.0	1.6	1.8	2.3	4.1	25.0	
170581.4572	436482.73	FedChan 05	CC3	2.2	6.2	30.0	6.9	1.9	2.9	10.0	2.4	2.4	2.2	3.4	3.0	8.0	4.8	1.9	2.1	2.7	4.9	30.0	
169833.5816	437197.43	FedChan 05	CC4	0.8	20.0	32.0	17.0	0.7	12	3.6	18.0	7.9	0.8	37.0	19.0	0.8	68.0	0.7	0.8	6.5	1.7	10.0	
174193.8949	440053.33	FedChan 05	DDE-COMP	1.0	1.2	6.6	1.3	0.9	1.3	4.6	1.1	1.0	1.0	1.6	1.4	1.0	2.2	0.8	1.0	1.2	2.2	14.0	
173765.1816	439797.92	FedChan 05	DDE1	1.6	2.0	8.9	5.7	1.4	2.1	7.4	1.7	1.5	1.6	2.5	2.2	1.6	3.4	1.3	1.5	1.9	3.5	22.0	
174193.8949	440053.33	FedChan 05	DDE2	1.8	2.2	18.0	2.3	1.5	2.4	8.4	2.0	1.7	1.8	2.8	2.5	1.8	3.9	1.5	1.7	2.2	4.0	24.0	
174533.8689	440322.11	FedChan 05	DDE3	0.8	1.0	5.1	1.1	1.1	1.1	3.9	0.9	0.8	0.8	1.3	1.1	0.8	1.8	0.7	0.8	1.0	1.8	11.0	
175268.6685	439637.82	FedChan 05	DDW-COMP	0.3	1.0	0.3	0.4	0.3	0.4	1.4	0.3	0.3	0.3	0.5	0.4	0.6	0.7	0.3	0.3	0.4	0.7	4.0	
174825.9953	439547.96	FedChan 05	DDW1	0.3	0.6	0.3	0.4	0.3	0.41	1.4	0.3	0.3	0.3	0.5	0.4	0.5	0.7	0.3	0.3	0.4	0.7	4.2	
175268.6685	439637.82	FedChan 05	DDW2	0.3	0.7	0.3	0.4	0.3	0.39	1.4	0.3	0.3	0.3	0.5	0.4	0.6	0.6	0.3	0.3	0.4	0.6	4.0	
174806.0949	440004.18	FedChan 05	DDW3	0.2	0.8	0.3	0.3	0.2	0.32	1.1	0.3	0.2	0.2	0.4	0.3	1.4	0.5	0.2	0.2	0.3	0.5	3.2	
176503.6815	435960.48	FedChan 05	FB1	2.1	2.9	14.0	2.7	1.8	2.8	9.8	2.3	2.0	2.0	3.3	2.9	2.5	4.5	1.8	2.0	2.6	4.6	28.0	
176399.9916	435123.71	FedChan 05	FB2	1.9	3.7	13.0	2.5	1.7	2.6	9.1	2.1	1.9	1.9	3.0	2.7	2.1	4.2	1.6	1.9	2.4	4.3	26.0	
174668.7551	438810.61	FedChan 05	FTM-COMP	1.8	2.3	2.0	2.3	1.6	2.5	8.6	2.0	1.8	1.8	2.9	2.5	1.8	4.0	1.6	1.8	2.2	4.0	25.0	
171852.1409	440913.03	FedChan 05	FTM1	1.8	2.3	2.0	2.3	1.6	2.4	8.4	2.0	1.8	1.8	2.8	2.5	1.8	3.9	1.5	1.8	2.2	4.0	25.0	
174668.7551	438810.61	FedChan 05	FTM2	1.8	2.3	2.0	2.3	1.6	2.4	8.4	2.0	1.8	1.8	2.8	2.5	1.8	3.9	1.5	1.8	2.2	4.0	25.0	
176085.0174	437442.71	FedChan 05	FTM3	1.9	2.4	6.9	2.5	1.7	2.6	9.1	2.1	1.9	1.9	3.0	2.7	1.9	4.2	1.6	1.9	2.4	4.3	26.0	
174259.9268	439572.39	FedChan 05	HA-COMP	0.4	0.4	0.4	0.5	0.3	0.47	1.7	0.4	0.3	0.4	0.6	0.5	0.4	0.8	0.3	0.3	0.4	0.8	4.8	
175569.0093	438639.29	FedChan 05	HA1	0.4	0.5	0.4	0.5	0.3	0.51	1.8	0.4	0.4	0.4	0.6	0.5	0.4	0.8	0.3	0.4	0.5	0.9	5.2	
174259.9268	439572.39	FedChan 05	HA2	0.3	0.4	0.4	0.4	0.3	0.43	1.5	0.4	0.3	0.3	0.5	0.5	0.3	0.7	0.3	0.3	0.4	0.7	4.4	
177548.6975	436674.87	FedChan 05	NWBE2	2.0	3.8	11.0	2.6	1.7	2.7	9.5	2.2	2.0	2.0	3.2	2.8	2.7	4.4	1.7	2.0	2.5	4.5	28.0	
178248.6768	436795.3	FedChan 05	NWBE3	14.0	17.0	27.0	10.0	1.8	2.8	9.6	2.3	6.0	2.0	3.2	2.8	2.1	4.5	1.7	2.0	2.5	4.5	28.0	
178539.1695	435992.89	FedChan 05	NWBW1	1.5	4.4	7.6	2.0	1.3	2.1	7.2	1.7	1.5	1.5	2.4	2.1	1.5	3.3	1.3	1.5	1.9	3.4	21.0	
178895.8769	435496.56	FedChan 05	NWBW2	14.0	25.0	1.7	20.0	1.4	2.1	7.4	1.7	7.4	1.5	2.5	2.2	1.6	3.4	1.3	1.5	7.2	3.5	21.0	
179003.4896	435149.5	FedChan 05	NWBW3	1.5	12.0	1.7	13.0	1.3	2	7.1	1.7	4.6	1.5	2.4	2.1	1.5	3.3	1.3	1.5	1.9	3.3	21.0	
176436.717	438622.09	FedChan 05	SGT-COMP	0.2	0.4	0.3	0.3	0.2	0.31	1.1	0.3	0.2	0.2	0.4	0.3	0.4	0.5	0.2	0.2	0.3	0.5	3.2	
176232.1962	438039.03	FedChan 05	SGT1	2.2	0.8	6.6	0.3	0.2	0.36	1.2	0.3	0.3	0.3	0.4	0.4	0.7	0.6	0.2	0.3	0.3	0.6	3.6	
176436.717	438622.09	FedChan 05	SGT2	0.3	1.5	0.4	0.4	0.3	0.44	1.5	0.4	0.3	0.3	0.5	0.5	1.5	0.7	0.3	0.3	0.4	0.7	4.4	
176641.7925	438559.22	FedChan 05	SGT3	0.2	0.8	0.2	0.2	0.1	0.21	0.8	0.2	0.2	0.2	0.3	0.2	0.6	0.4	0.1	0.2	0.2	0.4	2.2	
177240.0387	434708.59	FedChan 05	SLP-COMP	0.3	0.9	0.3	0.4	0.3	0.42	1.5	0.4	0.3	0.3	0.5	0.4	0.8	0.7	0.3	0.3	0.4	0.7	4.3	
176678.1033	434834.78	FedChan 05	SLP1	0.4	1.0	0.4	0.5	0.3	0.51	1.8	0.4	0.4	0.4	0.6	0.5	0.9	0.8	0.3	0.4	0.5	0.9	5.2	
177240.0387	434708.59	FedChan 05	SLP2	0.4	0.6	0.4	0.5	0.4	0.54	1.9	0.5	0.4	0.4	0.6	0.6	0.7	0.9	0.3	0.4	0.5	0.9	5.5	
176956.1388	435360.02	FedChan 05	SLP3	0.2	0.4	0.3	0.3	0.2	0.33	1.2	0.3	0.2	0.2	0.4	0.3	0.4	0.5	0.2	0.2	0.3	0.6	3.4	
175892.9745	435999.11	Masonville	M-B1	4.9	5.2	3.2	0.2	0.2	0.18	0.7	0.1	1.1	0.3	6.0	0.2	1.5	2.3	0.2	0.2	0.1	0.5	3.2	
176099.8167	435605.44	Masonville	M-B2	4.9	3.2	2.8	0.2	0.2	0.2	0.8	0.1	0.9	0.3	3.4	0.2	0.7	2.1	0.2	0.2	0.1	0.6	3.6	
176106.489	435165.07	Masonville	M-B3	7.4	3.2	3.7	0.2	0.1	0.18	0.7	0.1	1.3	0.3	4.9	0.2	2.1	1.9	0.2	0.2	0.1	0.5	3.3	
175559.3584	435712.2	Masonville	M-B5	5.2	5.6	12.0	0.7	0.5	0.72	5.1	0.6	1.5	0.5	11.0	0.7	0.5	15.0	0.5	0.5	1.0	1.2	36.0	
175792.8898	435732.22	Masonville	M-B6	7.5	14.0	11.0	0.4	0.3	0.44	3.2	0.4	1.5	0.3	18.0	0.5	0.3	12.0	0.3	3.0	1.3	0.7	22.0	
176373.3817	435712.2	Masonville	M-B7	11.0	10.0	12.0	0.5	0.4	5.7	3.8	0.4	0.4	0.4	9.1	0.6	0.4	15.0	0.3	0.4	3.9	0.9	27.0	
176366.7096	435011.61	Masonville	M-B8 M	7.0	4.4	2.8	0.4	0.3	0.42	3.0	0.4	1.1	0.3	1.5	0.4	0.3	3.1	0.3	0.3	1.4	0.7	21.0	
175973.0424	435778.92	Masonville	MSN03-JV1	17.0	11.0	0.7	0.5	0.8	0.5	13.0	0.5	2.1	0.1	0.5	0.5	0.8	0.5	0.8	0.9	0.5	1.5	81.0	
176159.8674	435772.25	Masonville	MSN03-JV2	12.0		0.7	0.4	0.7	0.45	12.0	0.4	0.7	0.1	0.4	0.4	8.3	0.4	0.7	0.8	0.4	1.4	73.0	
176053.1103	435685.51	Masonville	MSN03-JV3	20.0	13.0	0.7	1.5	0.7	0.47	13.0	0.4	0.8	0.1	0.4	0.4	7.8	0.5	0.8	0.9	0.5	1.4	77.0	
176066.4551	435425.29	Masonville	MSN03-JV4	23.0	11.0	0.6	0.4	0.7	2.5	12.0	0.4	3.2	0.1	0.4	0.4	6.1	0.4	0.7	0.8	0.4	1.3	70.0	
176026.4211	435098.35	Masonville	MSN03-JV5	5.0	8.1	0.6	0.3	0.6	0.38	10.0	0.4	1.9	0.1	0.4	0.4	6.0	0.4	0.6	0.7	0.4	1.2	62.0	
175586.0476	434904.85	Masonville	MSNSURF05-2-S	7.4	3.7	6.2	3.3	1.1	1.8	6.1	1.4	1.4	1.3	2.1	1.8	1.3	2.9	1.1	1.3	1.6	2.9	18.0	
175319.155	434811.44	Masonville	MSNSURF05-3-S	8.3	3.4	1.5	5.1	1.2	1.8	6.4	1.5	1.3	1.3	2.1	1.9	1.4	3.0	1.2	1.3	1.7	3.0	19.0	
175432.5842	435085	Masonville	MSNSURF05-4-S	3.9	5.7	1.1	1.2	0.8	1.3	4.5	1.1	1.5	1.0	1.5	1.3	1.0	2.1	0.8	0.9	1.2	2.1	13.0	
118569.9487	454788.29	NewWork	PI-1	3.0	0.6	3.4	0.3	2.4	0.21	7.9	0.4	2.8	0.2	0.5	1.1	3.0	0.2	1.6	1.8	0.2	18.0	110.0	
120380.1053	453435.43	NewWork	PI-2	32.0	6.6	36.0	0.8	25.0	2.3	84.0	3.9	29.0	2.3	5.2	12.0	32.0	2.3	17.0	19.0	0.5	57.0	1200.0	
122847.6345	453797.46	NewWork	PI-3	2.3	0.5	2.6	0.2	1.8	0.16	6.1	0.3	2.1	0.2	0.4	0.8	2.3	0.2	1.2	1.4	0.1	15.0	87.0	
123428.7901	455207.48	NewWork	PI-4	2.8	0.6	3.2	0.3	2.2	0.2	7.5	0.3	2.6	0.2	0.5	1.0	2.8	0.2	1.5	1.7	0.1	17.0	110.0	
121456.6721	455407.55	NewWork	PI-5	3.6	0.7	4.1	0.4	2.8	0.25	9.4	0.4	3.3	0.3	0.6	1.3	3.6	0.3	1.9	2.1	0.2	19.0	130.0	
170998.649	464061.57	NewWork	TLS2VC	0.6	0.5	0.8	0.6	0.5	0.6	2.0	0.6	0.5	0.9	0.4	1.0	1.8	1.1	0.6	0.7	1.0	3.2	17.0	
170161.4766	463223.24	NewWork	TLV2	2.7	0.6	3.1	0.3	2.1	0.19	7.1	0.3	2.5	0.2	0.4	1.0	2.7	0.2	1.4	1.6	0.2	23.0	100.0	
170669.4862	463595.78	NewWork	TLV3	2.8	0.6	3.2	0.3	2.2	0.2	7.4	0.3	2.6	0.2	0.5	1.0	2.8	0.2	1.5	1.7	0.2	24.0	110.0	
171177.4958	464069.92	NewWork	TLV4	3.1	0.6	3.6	0.4	2.4	0.22	8.2	0.4	2.9	0.2	0.5	1.1	3.1	0.2	1.6	1.8	1.2	27.0	120.0	
171888.7092	464544.06	NewWork	TLV5	3.0	0.6	3.5	0.4	2.4	0.22	8.0	0.4	2.8	0.2	0.5	1.1	3.0	0.2	1.6	1.8	0.2	26.0	120.0	
169619.5996	462782.96	NewWork	TLVI	2.9	0.6	3.3	0.3	2.2	0.2	7.6	0.4	2.7	0.2	0.5	1.0	2.9	0.2	1.5	1.7	0.2	24.0	110.0	
174980.0107	439508.68	Seagirt	EA-01/02	0.2	0.2	0.2	0.2	0.1	0.22	0.8	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.1	0.2	0.2	0.4	2.3	
175392.4051	439798.05	Seagirt	EA-03/04	0.2	0.2	0.2	0.2	0.1	0.22	0.8	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.1	0.2	0.2	0.4	2.3	
175834.6699	439750.41	Seagirt	EA-05/06	0.2	0.2	0.2	0.2	0.1	0.22	0.8	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.1	0.2	0.2	0.4	2.3	
175606.5271	439613.31	Seagirt	EA-07/08	0.2	0.2	0.2	0.2	0.1	0.22	0.8	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.1	0.2	0.2	0.4	2.3	
175868.6551	439615.51	Seagirt	EA-09/10	0.2	0.2	0.2	0.2	0.1	0.22	0.8	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.1	0.2	0.2	0.4	2.2	

Table C4. VOCs.

Northing	Easting	Study	Station	1,1,1-TRICHLOROETHANE	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHENE	1,2-DICHLOROBENZENE	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	1,3-DICHLOROBENZENE	1,4-DICHLOROBENZENE	2-BUTANONE (MEK)	BENZENE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE	CARBON TETRACHLORIDE	CHLOROETHANE	CHLOROFORM	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	ETHYLBENZENE	METHYLENE CHLORIDE	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	VINYL CHLORIDE	Station Assessment
			Soil Standards:	1,1,1-TRICHLOROETHANE	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHENE	1,2-DICHLOROBENZENE	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	1,3-DICHLOROBENZENE	1,4-DICHLOROBENZENE	2-BUTANONE (MEK)	BENZENE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE	CARBON TETRACHLORIDE	CHLOROETHANE	CHLOROFORM	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	ETHYLBENZENE	METHYLENE CHLORIDE	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	VINYL CHLORIDE	
			MD Residential Clean-up	16,000,000	3200	11,000	16,000,000	390,000	700,000	7000	9400	23,000	27,000	4,700,000	12,000	10,000	81,000	11,000	4900	220,000	78,000	6400	7600	780,000	85,000	1200	630,000	160,000	6400	1600	90	
			MD Non-Residential Clean-up	200,000,000	14,000	50,000	200,000,000	51,000,000	9,200,000	31,000	42,000	310,000	120,000	64,000,000	52,000	46,000	360,000	140,000	22,000	990,000	1,000,000	29,000	34,000	10,000,000	380,000	5300	8,200,000	2,000,000	29,000	7200	4000	
170621.6237	440496.7314	CoxCreek	CCE-01	0.5	0.8	1.2	0.5	1.0	1.6	0.5	1.1	1.6	1.2	2.5	1.0	0.4	1.1	1.6	0.4	1.7	0.4	0.5	0.5	1.6	8.8	1.3	1.0	1.1	0.5	1.5	1.2	
170839.3241	440711.4386	CoxCreek	CCE-02	0.8	1.4	2.1	0.9	1.8	2.9	0.9	1.9	2.8	2.1	4.3	1.7	0.8	1.9	2.9	0.8	2.9	0.8	0.9	0.8	2.9	17.0	2.4	1.8	2.0	0.9	2.6	2.0	
170494.833	440803.918	CoxCreek	CCE-03	0.7	1.1	1.7	0.7	1.4	2.3	0.7	1.5	2.2	1.7	3.4	1.3	0.6	1.5	2.3	0.6	2.3	0.6	0.7	0.6	2.3	12.0	1.9	1.4	1.6	0.7	2.1	1.6	
170005.7082	440903.3407	CoxCreek	CCE-04	0.7	1.1	1.7	0.7	1.5	2.3	0.8	1.6	2.3	1.7	3.5	1.4	0.6	1.5	2.3	0.6	2.3	0.6	0.7	0.7	2.3	7.0	1.9	1.5	1.6	0.7	2.1	1.6	
169877.2107	441252.3946	CoxCreek	CCE-05	0.8	1.4	2.1	0.9	1.8	2.9	0.9	1.9	2.8	2.1	4.3	1.7	0.8	1.9	2.9	0.8	2.9	0.8	0.9	0.8	2.9	9.1	2.4	1.8	2.0	0.9	2.7	2.0	
169784.5911	440961.3319	CoxCreek	CCE-06	0.6	1.0	1.5	0.6	1.3	2.1	0.7	1.4	2.0	1.5	3.1	1.2	0.6	1.4	2.1	0.6	2.1	0.6	0.6	0.6	2.1	11.0	1.7	1.3	1.5	0.6	1.9	1.5	
170217.7088	441372.751	CoxCreek	CCE-07	0.8	1.4	2.1	0.9	1.8	2.9	0.9	1.9	2.8	2.1	4.4	1.7	0.8	1.9	2.9	0.8	2.9	0.8	0.9	0.8	2.9	16.0	2.4	1.8	2.0	0.9	2.7	2.0	
169458.2661	441246.704	CoxCreek	CCE-08	0.8	1.4	2.1	0.9	1.8	2.8	0.9	1.9	2.8	2.1	4.2	1.7	0.8	1.9	2.8	0.8	2.9	0.8	0.9	0.8	2.8	12.0	2.3	1.8	2.0	0.8	2.6	2.0	
169349.5348	440642.2399	CoxCreek	CCE-09	0.7	1.2	1.7	0.7	1.5	2.4	0.8	1.6	2.4	1.8	3.6	1.4	0.6	1.6	2.4	0.6	2.4	0.6	0.7	0.7	2.4	14.0	2.0	1.5	1.7	0.7	2.2	1.7	
171755.4401	440135.3666	CoxCreek	CCE-REF	0.5	0.9	1.4	0.6	1.2	1.9	0.6	1.3	1.8	1.4	31.0	1.1	0.5	1.2	1.9	0.5	1.9	0.5	0.6	0.5	1.9	12.0	1.5	1.2	1.3	0.6	1.7	1.3	
168547.5725	447518.1499	FedChan 02	BR-1	8.5	3.6	4.3	5.6	7.1	4.3	5.3	4.9	4.7	4.6	3.2	5.6	4.8	4.4	16.0	9.3	7.2	4.9	4.4	5.0	5.1	6.2	8.5	5.7	6.9	4.2		7.5	
169319.6004	445074.3854	FedChan 02	BR-2	7.6	3.2	3.8	5.0	6.3	3.8	4.7	4.3	4.2	4.1	2.9	5.0	4.3	4.0	14.0	8.3	6.4	4.3	3.9	4.5	4.6	5.5	7.6	5.1	6.2	3.8		6.7	
169881.743	444031.6646	FedChan 02	BR-3*	8.9	3.8	4.5	5.8	7.4	4.5	5.6	5.1	4.9	4.8	3.4	5.9	5.0	4.6	16.0	9.8	7.5	5.1	4.6	5.2	5.3	6.5	8.9	6.0	7.2	4.4		7.9	
170449.0368	442891.1945	FedChan 02	BRA-1	9.3	4.0	4.7	6.1	7.8	4.7	5.8	5.3	5.2	5.1	3.6	6.2	5.3	4.9	17.0	10.0	7.9	5.4	4.8	5.5	5.6	6.8	9.3	6.3	7.6	4.7		8.3	
170465.4655	442165.5266	FedChan 02	BRA-2	7.4	3.2	3.7	4.9	6.2	3.7	4.6	4.2	4.1	4.0	2.8	4.9	4.2	3.9	14.0	8.1	6.3	4.3	3.8	4.4	4.5	5.4	7.4	5.0	6.0	3.7		6.6	
170940.5268	442079.4816	FedChan 02	BRA-3*	7.6	3.3	3.8	5.0	6.4	3.8	4.8	4.4	4.3	4.2	2.9	5.1	4.3	4.0	14.0	8.4	6.5	4.4	3.9	4.5	4.6	5.6	7.7	5.1	6.2	3.8		6.8	
172827.9703	439972.4906	FedChan 02	CB-1	8.5	3.6	4.3	5.6	7.1	4.3	5.3	4.9	4.7	4.7	3.3	5.7	4.8	4.4	16.0	9.4	7.2	4.9	4.4	5.0	5.1	6.2	8.5	5.7	6.9	4.2		7.6	
172729.398	438384.0864	FedChan 02	CB-2	12.0	5.2	6.2	8.0	10.0	6.2	7.7	7.0	6.8	6.7	4.7	8.2	6.9	6.4	23.0	13.0	10.0	7.1	6.3	7.2	7.4	8.9	12.0	8.2	10.0	6.1		11.0	
172729.9162	436939.0906	FedChan 02	CB-3*	7.2	3.1	3.6	4.7	6.1	3.6	4.5	4.1	4.0	4.0	2.8	4.8	4.1	3.8	13.0	8.0	6.1	4.2	3.7	4.3	4.3	5.3	7.2	4.8	5.9	3.6		6.4	
172362.5407	436722.0425	FedChan 02	CC-1	13.0	5.5	6.4	8.4	11.0	6.4	8.0	7.3	7.1	7.0	4.9	8.5	7.2	6.7	24.0	14.0	11.0	7.4	6.6	7.5	7.7	9.3	13.0	8.6	10.0	6.4		11.0	
171574.6327	436388.8961	FedChan 02	CC-2*	10.0	4.3	5.1	6.6	8.4	5.0	6.3	5.8	5.6	5.5	3.8	6.7	5.7	5.3	19.0	11.0	8.5	5.8	5.2	5.9	6.0	7.3	10.0	6.7	8.2	5.0		8.9	
170489.118	436520.6002	FedChan 02	CC-3	13.0	5.5	6.5	8.5	11.0	6.5	8.1	7.4	7.2	7.1	5.0	8.6	7.3	6.8	24.0	14.0	11.0	7.4	6.7	7.6	7.8	9.4	13.0	8.7	11.0	6.5		11.0	
169859.5841	437220.3295	FedChan 02	CC-4	11.0	4.7	5.5	7.2	9.2	5.5	6.9	6.3	6.1	6.0	4.2	7.3	6.2	5.7	20.0	12.0	9.3	6.3	5.7	6.5	6.6	8.0	11.0	7.4	8.9	5.5		9.7	
176507.3026	435940.3219	FedChan 02	FB-1	11.0	4.7	5.5	7.1	9.1	5.5	6.8	6.2	6.1	6.0	4.2	7.2	6.2	5.7	20.0	12.0	9.2	6.3	5.6	6.4	6.5	9.8	11.0	7.3	8.8	5.4		9.7	
175657.825	435080.9993	FedChan 02	FB-2*	10.0	4.3	5.0	6.5	8.4	5.0	6.3	5.7	5.6	5.5	3.8	6.6	5.6	5.2	18.0	11.0	8.5	5.7	5.2	5.9	6.0	8.7	10.0	6.7	8.1	5.0		8.9	
171839.2906	440934.6833	FedChan 02	FTM-1	6.3	2.7	3.2	4.1	5.3	3.2	3.9	3.6	3.5	3.4	2.4	4.2	3.6	3.3	12.0	6.9	5.3	3.6	3.2	3.7	3.8	4.6	6.3	4.2	5.1	3.1		5.6	
174661.3728	438812.0866	FedChan 02	FTM-2	8.9	3.8	4.5	5.8	7.4	4.5	5.6	5.1	5.0	4.9	3.4	5.9	5.0	4.7	16.0	9.8	7.6	5.1	4.6	5.2	5.3	6.5	8.9	6.0	7.2	4.4		7.9	
176061.1058	437475.9043	FedChan 02	FTM-3*	8.5	3.7	4.3	5.6	7.1	4.3	5.4	4.9	4.8	4.7	3.3	5.7	4.8	4.5	16.0	9.4	7.2	4.9	4.4	5.0	5.1	6.2	8.6	5.7	6.9	4.3		7.6	
175674.6499	438671.8481	FedChan 02	HA-1*	9.8	4.2	4.9	6.4	8.2	4.9	6.2	5.6	5.5	5.4	3.8	6.5	5.5	5.1	18.0	11.0	8.3	5.6	5.1	5.8	5.9	7.1	9.8	6.6	8.0	4.9		8.7	
175373.0503	437525.221	FedChan 02	HA-2	9.0	3.9	4.5	5.9	7.6	4.5	5.7	5.2	5.0	4.9	3.5	6.0	5.1	4.7	17.0	9.9	7.7	5.2	4.7	5.3	5.4	6.6	9.0	6.1	7.3	4.5		8.0	
176660.8913	437140.7767	FedChan 02	NWBE-1	10.0	4.4	5.2	6.7	8.6	5.2	6.4	5.9	5.7	5.6	3.9	6.8	5.8	5.4	19.0	11.0	8.7	5.9	5.3	6.0	6.2	7.5	10.0	6.9	8.3	5.1	7.2	9.1	
177250.8926	436692.0806	FedChan 02	NWBE-2	11.0	4.5	5.3	6.9	8.8	5.3	6.6	6.0	5.9	5.7	4.0	7.0	5.9	5.5	19.0	12.0	8.9	6.0	5.4	6.2	6.3	7.7	11.0	7.1	8.5	5.2	7.4	9.3	
178257.9214	436793.8229	FedChan 02	NWBE-3*	11.0	4.6	5.4	7.0	9.0	5.4	6.7	6.1	6.0	5.9	4.1	7.1	6.1	5.6	20.0	12.0	9.1	6.2	5.5	6.3	6.4	7.8	11.0	7.2	8.7	5.4	7.5	9.5	
178131.4598	435026.8363	FedChan 02	NWBW-1	12.0	5.2	6.1	8.0	10.0	6.1	7.7	7.0	6.8	6.7	4.7	8.1	6.9	6.4	23.0	13.0	10.0	7.0	6.3	7.2	7.3	8.9	12.0	8.2	9.9	6.1	8.6	11.0	
178541.995	435800.1749	FedChan 02	NWBW-2	7.9	3.4	3.9	5.2	6.6	3.9	4.9	4.5	4.4	4.3	3.0	5.2	4.4	4.1	14.0	8.6	6.7	4.5	4.1	4.6	4.7	5.7	7.9	5.3	6.4	3.9	5.5	7.0	
179010.8383	435140.8315	FedChan 02	NWBW-3*	12.0	5.2	6.1	8.0	10.0	6.1	7.7	7.0	6.8	6.7	4.7	8.1	6.9	6.4	23.0	13.0	10.0	7.0	6.3	7.2	7.3	8.9	12.0	8.2	9.9	6.1	8.6	11.0	
168576.9186	447476.2277	FedChan 05	BR1	1.0	1.7	2.6	1.1	2.2	3.5	1.1	2.4	3.5	2.6	18.0	2.1	1.0	2.3	3.5	1.0	3.6	1.0	1.1	1.0	3.5	5.0	2.9	2.2	2.5	1.0	3.3	2.5	
169321.3256	445054.2199	FedChan 05	BR2	0.9	1.5	2.3	1.0	2.0	3.1	1.0	2.1	3.1	2.3	8.2	1.8	0.8	2.0	3.1	0.8	3.2	0.8	1.0	0.9	3.1	4.4	2.6	2.0	2.2	0.9	2.9	2.2	
169914.8778	444002.6934	FedChan 05	BR3	1.2	1.9	2.9	1.2	2.5	4.0	1.3	2.7	3.9	3.0	6.0	2.4	1.1	2.6	4.0	1.1	4.1	1.1	1.2	1.1	4.0	5.7	3.3	2.6	2.8	1.2	3.7	2.8	
170435.5768	442797.6818	FedChan 05	BRA1	1.1	1.8	2.8	1.2	2.4	3.8	1.2	2.6	3.7	2.8	5.7	2.2	1.0	2.5	3.8	1.0	3.8	1.0	1.2	1.1	3.8	10.0	3.1	2.4	2.7	1.1	3.5	2.7	
170474.5943	442140.9933	FedChan 05	BRA2	1.0	1.7	2.6	1.1	2.3	3.5	1.2	2.4	3.5	2.6	10.0	2.1	1.0	2.3	3.6	1.0	3.6	1.0	1.1	1.0	3.6	5.1	2.9	2.3	2.5	1.1	3.3	2.5	
170981.0286	442038.9584	FedChan 05	BRA3	1.0	1.7	2.6	1.1	2.2	3.5	1.2	2.4	3.5	2.6	5.3	2.1	1.0	2.3	3.5	1.0	3.6	1.0	1.1	1.0	3.5	11.0	2.9	2.2	2.5	1.1	3.3	2.5	
172843.1798	438569.1823	FedChan 05	CB1	1.0	1.7	2.6	1.1	2.2	3.5	1.2	2.4	3.5	2.6	5.3	2.1	1.0	2.3	3.5	1.0	3.6	1.0	1.1	1.0	3.5	11.0	2.9	2.2	2.5	1.1	3.3	2.5	
172733.272	438417.1602	FedChan 05	CB2	1.4	2.3	3.4	1.5	3.0	4.7	1.5	3.2	4.6	3.5	7.1	2.8	1.3	3.1	4.7	1.3	4.8	1.3	1.5	1.3	4.7	14.0	3.9	3.0	3.3	1.4	4.4	3.3	
172724.3414	436936.2468	FedChan 05	CB3	1.0	1.7	2.5	1.1	2.2	3.5	1.1	2.3	3.4	2.5	5.2	2.0	0.9	2.3	3.5	0.9	3.5	0.9	1.1	1.0	3.5	12.0	2.9	2.2	2.4	1.0	3.2	2.5	
172379.2499	436734.9233	FedChan 05	CC1	1.1	1.9	2.8	1.2	2.5	3.9	1.3	2.6	3.8	2.8	29.0	2.3	1.0	2.5	3.9	1.0	3.9	1.0	1.2	1.1	3.9	14.0	3.2	2.5	2.7	1.1	3.6	2.7	
171394.6697	436286.0809	FedChan 05	CC2	1.2	2.0	3.0	1.3	2.6	4.1	1.3	2.8	4.1	3.0	6.2	2.4	1.1	2.7	4.2	1.1	4.2	1.1	1.3	1.2	4.1	18.0	3.4	2.6	2.9	1.2	3.8	2.9	
170581.4572	436482.7318	FedChan 05	CC3	1.4	2.4	3.6	1.5	3.1	4.9	1.6	3.3	4.9	3.6	7.5	2.9	1.3	3.3	5.0	1.3	5.0	1.3	1.5	1.4	5.0	17.0	4.1	3.1	3.5	1.5	4.6	3.5	
169833.5816	437197.4268	FedChan 05	CC4	1.3	2.1	3.2	1.4	2.8	4.4	1.4	3.0	4.3	3.2	6.6	2.6	1.2	2.9	4.4	1.2	4.4	1.2	1.4	1.2	4.4	16.0	3.6	2.8	3.1	1.3	4.1	3.1	
173765.1816	439797.9225	FedChan 05	DDE1	1.1	1.9	2.8	1.2	2.4	3.8	1.2	2.6	3.8	2.8	5.8	2.3	1.0	2.5	3.8	1.0	3.9	1.0	1.2	1.1	3.8	22.0	3.2	2.4	2.7	1.1	3.6	2.7	
174193.8949	440053.3297	FedChan 05	DDE2	1.1	1.7	2.6	1.1	2.3	3.6	1.2	2.4	3.5	2.6	5.4	2.1	1.0	2.4	3.6	1.0	3.6	1.0	1.1	1.0	3.6	20.0	3.0	2.3	2.5	1.1	3.3	2.5	
174533.8689	440322.1145	FedChan 05	DDE3	0.4	0.7	1.1	0.5	1.0	1.5	0.5	1.0	1.5	1.1	2.3	0.9	0.4	1.0	1.5	0.4	1.5	0.4	0.5	0.4	1.5	12.0	1.3	1.0	1.1	0.5	1.4	1.1	
174825.9953	439547.9622	FedChan 05	DDW1	0.9	1.5	2.3	1.0	2.0	3.2	1.0	2.2	3.1	2.3	4.8	1.9	0.9	2.1	3.2	0.9	3.2	0.9	1.0	0.9	3.2	11.0	2.6	2.0	2.2	1.0	3.0	2.3	
175268.6685	439637.8202	FedChan 05	DDW2	1.0	1.7	2.5	1.1	2.2	3.4	1.1	2.3	3.4	2.5	5.2	2.0	0.9	2.3	3.4	0.9	3.5	0.9	1.1	1.0	3.4	16.0	2.8	2.2	2.4	1.0	3.2	2.4	
174806.0949	440004.1776	FedChan 05	DDW3	0.6	1.0	1.5	0.7	1.3	2.1	0.7	1.4	2.1	1.5	3.2	1.2	0.6	1.4	2.1	0.6	2.1	0.6	0.7	0.6	2.1	8.6	1.7	1.3	1.5	0.6	1.9	1.5	
176503.6815	435960.4753	FedChan 05	FB1	1.4	2.2	3.4	1.4	2.9	4.6	1.5	3.1	4.6	3.4	7.0	2.7	1.2	3.0	4.7	1.2	4.7	1.2	1.4	1.3	4.6	23.0	3.8	2.9	3.3	1.4	4.3	3.3	
176399.9916	435123.714	FedChan 05	FB2	1.2	2.0	3.0	1.3	2.6	4.2	1.4	2.8	4.1	3.1	6.3	2.4	1.1	2.7	4.2	1.1	4.2	1.1	1.3	1.2	4.2	14.0	3.4	2.6	2.9	1.2	3.9	2.9	
171852.1409	440913.0303	FedChan 05	FTM1	1.2	2.0	3.0	1.3	2.6	4.1	1.3	2.8	4.0	3.0	6.2	2.4	1.1	2.7	4.1	1.1	4.2	1.1	1.3	1.2	4.1	23.0	3.4	2.6	2.9	1.2	3.8	2.9	
174668.7551	438810.6113	FedChan 05	FTM2	1.1	1.9	2.8	1.2	2.4	3.8	1.3	2.6	3.8	2.8	5.8	2.3	1.0	2.5	3.9	1.0	3.9	1.0	1.2	1.1	3.9	13.0	3.2	2.4	2.7	1.1	3.6	2.7	
176085.0174	437442.7116	FedChan 05	FTM3	1.3	2.1	3.2	1.4	2.8	4.4	1.4	3.0	4.3	3.2	6.6	2.6	1.2	2.9	4.4	1.2	4.4	1.2	1.4	1.2	4.4	13.0	3.6	2.8	3.1	1.3	4.1	3.1	
175569.0093	438639.2893	FedChan 05	HA1	1.2	2.1	3.1	1.3	2.7	4.3	1.4	2.9	4.2	3.1	6.4	2.5	1.1	2.8	4.3	1.1	4.3	1.1	1.3	1.2	4.3	15.0	3.5	2.7	3.0	1.3	3.9	3.0	
174259.9268	439572.3888	FedChan 05	HA2	1.0	1.6	2.5	1.0	2.1	3.4	1.1	2.3	3.3	2.5	9.7	2.0	0.9	2.2	3.4	0.9	3.4	0.9	1.0	0.9	3.4	11.0	2.8	2.1	2.4	1.0	3.1	2.4	
176793.6469	437043.765	FedChan 05	NWBE1	1.2	2.0	3.0	1.3	2.6	4.1	1.3	2.7	4.0	3.0	6.1	2.4	1.1	2.7	4.1	1.1	4.1	1.1	1.3	1.1	4.1	16.0	3.4	2.6	2.9	1.2	3.8	2.9	
177548.6975	436674.8747	FedChan 05	NWBE2	1.3	2.2	3.3	1.4	2.8	4.5	1.5	3.0	4.4	3.3	6.7	2.6	1.2	2.9	4.5	1.2	4.5	1.2	1.4	1.3	4.5	17.0	3.7	2.8	3.1	1.3	4.1	3.2	
178248.6768	436795.3042	FedChan 05	NWBE3	1.3	2.1	3.1	1.3	2.7	4.3	1.4	2.9	4.2	3.1	6.4	2.5	1.2	2.8	4.3	1.2	4.3	1.2	1.3	1.2	4.3	15.0	3.5	2.7	3.0	1.3	4.0	3.0	
178539.1695	435992.8938	FedChan 05	NWBW1	1.0	1.7	2.5	1.1	2.2	3.5	1.1	2.3	3.4	2.5	5.2	2.0	0.9	2.3	3.5	0.9	3.5	0.9	1.1	1.0	3.5	9.8	2.9	2.2	2.4	1.0	3.2	2.5	
178895.8769	435496.5606	FedChan 05	NWBW2	0.9	1.5	2.3	1.0	2.0	3.1	1.0	2.1	3.1	2.3	4.7	1.9	0.9	2.1	3.2	0.9	3.2	0.9	1.0	0.9	3.2	8.8	2.6	2.0	2.2	0.9	2.9	2.2	
179003.4896	435149.5	FedChan 05	NWBW3	0.9	1.5	2.3	1.0	2.0	3.2	1.0	2.2	3.1	2.3	4.8	1.9	0.9	2.1	3.2	0.9	3.2	0.9	1.0	0.9	3.2	11.0	2.6	2.0	2.2	1.0	3.0	2.3	
176232.1962	438039.0254	FedChan 05	SGT1	0.9	1.5	2.3	1.0	2.0	3.1	1.0	2.1	3.0	2.3	4.7	1.8	0.8	2.0	3.1	0.8	3.1	0.8	1.0	0.9	3.1	13.0	2.6	2.0	2.2	0.9	2.9	2.2	
176436.717	438622.0864	FedChan 05	SGT2	1.0	1.7	2.6	1.1	2.3	3.6	1.2	2.4	3.5	2.6	5.4	2.1	1.0	2.4	3.6	1.0	3.6	1.0	1.1	1.0	3.6	15.0	3.0	2.3	2.5	1.1	3.3	2.5	
176641.7925	438559.2245	FedChan 05	SGT3	0.6	1.0	1.5	0.6	1.3	2.1	0.7	1.4	2.0	1.5	3.1	1.2	0.6	1.4	2.1	0.6	2.1	0.6	0.6	0.6	2.1	7.2	1.7	1.3	1.5	0.6	1.9	1.5	
176678.1033	434834.7757	FedChan 05	SLP1	1.2	2.0	3.1	1.3	2.7	4.2	1.4	2.8	4.1	3.1	6.4	2.5	1.1	2.8	4.2	1.1	4.3	1.1	1.3	1.2	4.2	13.0	3.5	2.7	3.0	1.3	3.9	3.0	
177240.0387	434708.5885	FedChan 05	SLP2	1.3	2.1	3.2	1.4	2.8	4.4	1.4	3.0	4.3	3.2	6.6	2.6	1.2	2.9	4.4	1.2	4.5	1.2	1.4	1.2	4.4	14.0	3.6	2.8	3.1	1.3	4.1	3.1	
176956.1388	435360.0193	FedChan 05	SLP3	0.9	1.5	2.3	1.0	2.0	3.1	1.0	2.1	3.1	2.3	4.7	1.8	0.8	2.1	3.1	0.8	3.2	0.8	1.0	0.9	3.1	11.0	2.6	2.0	2.2	0.9	2.9	2.2	
175559.3584	435712.1995	Masonville	M-B5	0.9	1.5	2.2	0.9	1.9	3.0	1.0	2.0	2.9	2.2	4.5	1.8	0.8	2.0	3.0	0.8	3.0	0.8	0.9	0.8	3.0	4.3	2.5	1.9	2.1	0.9	2.8	2.1	
175792.8898	435732.2164	Masonville	M-B6	0.5	0.8	1.2	0.5	1.1	1.7	0.6	1.1	1.7	1.2	2.5	1.0	0.5	1.1	1.7	0.5	1.7	0.5	0.5	0.5	1.7	6.8	1.4	1.1	1.2	0.5	1.6	1.2	
176373.3817	435712.1995	Masonville	M-B7	0.7	1.1	1.6	0.7	1.4	2.2	0.7	1.5	2.2	1.6	3.4	1.3	0.6	1.5	2.2	0.6	2.3	0.6	0.7	0.6	2.2	3.2	1.8	1.4	1.6	0.7	2.1	1.6	
175973.0424	435778.9227	Masonville	MSN03-JV1	0.9	2.1	1.3	1.3	1.0	1.2	1.6	1.4	1.3	1.3	6.8	1.2	1.5	0.8	1.3	1.4	6.7	1.8	1.1	1.4	1.1	2.2	0.8	1.4	1.0	1.3	1.5	1.6	
176159.8674	435772.2503	Masonville	MSN03-JV2	0.8	1.9	1.2	1.1	0.9	1.1	1.4	1.3	1.1	1.2	2.3	1.1	1.3	0.7	1.2	1.3	6.0	1.6	1.0	1.2	1.0	2.0	0.7	1.2	0.9	1.1	1.4	1.4	
176053.1103	435685.51	Masonville	MSN03-JV3	0.9	2.0	1.3	1.2	0.9	1.1	1.5	1.4	1.2	1.3	6.9	1.1	1.4	0.8	1.3	1.4	6.4	1.7	1.0	1.3	1.0	2.1	0.8	1.3	1.0	1.2	1.4	1.5	
176066.4551	435425.2895	Masonville	MSN03-JV4	0.8	1.8	1.2	1.1	0.9	1.0	1.4	1.3	1.1	1.2	6.6	1.0	1.3	0.7	1.2	1.2	5.8	1.6	0.9	1.2	1.0	1.9	0.7	1.2	0.9	1.1	1.3	1.4	
176026.4211	435098.3458	Masonville	MSN03-JV5	0.7	1.6	1.0	1.0	0.8	0.9	1.2	1.1	1.0	1.0	5.3	0.9	1.1	0.6	1.0	1.1	5.1	1.4	0.8	1.0	0.8	1.7	0.6	1.0	0.8	1.0	1.2	1.2	
175919.664	435024.9502	Masonville	MSNSURF05-1-S	0.6	1.0	1.5	0.6	1.3	2.1	0.7	1.4	2.0	1.5	3.1	1.2	0.6	1.4	2.1	0.6	2.1	0.6	0.6	0.6	2.1	3.4	1.7	1.3	1.5	0.6	1.9	1.5	
175586.0476	434904.8483	Masonville	MSNSURF05-2-S	0.9	1.4	2.1	0.9	1.9	2.9	1.0	2.0	2.9	2.2	4.4	1.7	0.8	1.9	2.9	0.8	3.0	0.8	0.9	0.8	2.9	5.6	2.4	1.9	2.1	0.9	2.7	2.1	
175319.155	434811.4357	Masonville	MSNSURF05-3-S	0.9	1.5	2.2	1.0	1.9	3.1	1.0	2.1	3.0	2.3	4.6	1.8	0.8	2.0	3.1	0.8	3.1	0.8	1.0	0.9	3.1	5.0	2.5	2.0	2.2	0.9	2.8	2.2	
175432.5842	435085.001	Masonville	MSNSURF05-4-S	0.6	1.1	1.6	0.7	1.4	2.2	0.7	1.5	2.1	1.6	3.3	1.3	0.6	1.4	2.2	0.6	2.2	0.6	0.7	0.6	2.2	3.7	1.8	1.4	1.5	0.7	2.0	1.5	
120380.1053	453435.4329	NewWork	PI-2	1.0	2.0	3.0	2.0	2.0		3.0	3.0	4.0			2.0	2.0		2.0	1.0	4.0	2.0	1.0		2.0	3.0	2.0		3.0	2.0	1.0	2.0	
122847.6345	453797.4642	NewWork	PI-3	0.4	0.5	0.8	0.5	0.5		0.8	0.9	1.0			0.5	0.6		0.6	0.3	1.0	0.5	0.4		0.6	0.8	0.6		0.8	0.6	0.4	0.5	
123428.7901	455207.4809	NewWork	PI-4	0.4	0.6	0.9	0.6	0.6		0.9	1.0	1.0			0.6	0.7		0.7	0.3	1.0	0.6	0.4		0.7	0.9	0.7		0.9	0.7	0.4	0.6	
121456.6721	455407.5508	NewWork	PI-5	0.5	0.6	1.0	0.6	0.6		1.0	1.0	1.0			0.6	0.8		0.8	0.3	1.0	0.6	0.5		0.8	1.0	0.8		1.0	0.8	0.5	0.6	
170998.649	464061.5746	NewWork	TLS2VC	1.0	1.0	1.0	0.8	1.0		1.0	1.0	4.0			1.0	1.0		0.8	1.0	2.0	1.0	1.0		1.0	2.0	1.0		1.0	2.0	1.0	1.0	
170161.4766	463223.2379	NewWork	TLV2	0.6	0.8	1.0	0.8	0.8		1.0	1.0	2.0			0.8	1.0		1.0	0.6	2.0	0.8	0.6		1.0	1.0	1.0		1.0	1.0	0.6	0.8	
170669.4862	463595.7783	NewWork	TLV3	0.6	0.8	1.0	0.8	0.8		1.0	1.0	2.0			0.8	1.0		1.0	0.6	2.0	0.8	0.6		1.0	1.0	1.0		1.0	1.0	0.6	0.8	
171177.4958	464069.9206	NewWork	TLV4	0.7	0.9	1.0	0.9	0.9		1.0	2.0	2.0			0.9	1.0		1.0	0.7	2.0	0.9	0.7		1.0	2.0	1.0		1.0	1.0	0.7	0.9	
171888.7092	464544.0629	NewWork	TLV5	0.7	0.9	1.0	0.9	0.9		1.0	2.0	2.0			0.9	1.0		1.0	0.7	2.0	0.9	0.7		1.0	2.0	1.0		1.0	1.0	0.7	0.9	
169619.5996	462782.9629	NewWork	TLVI	0.6	0.8	1.0	0.8	0.8		1.0	1.0	2.0			0.8	1.0		1.0	0.6	2.0	0.8	0.6		1.0	1.0	1.0		1.0	1.0	0.6	0.8	
174980.0107	439508.6765	Seagirt	EA-01/02	0.4	0.6	1.0	0.4	0.8	1.3	0.4	0.9	1.3	1.0	2.0	0.8	0.4	0.9	1.3	0.4	1.3	0.4	0.4	0.4	1.3	6.0	1.1	0.8	0.9	0.4	1.2	0.9	
175392.4051	439798.0536	Seagirt	EA-03/04	0.3	0.5	0.8	0.3	0.7	1.0	0.3	0.7	1.0	0.8	1.5	0.6	0.3	0.7	1.0	0.3	1.0	0.3	0.3	0.3	1.0	2.7	0.9	0.7	0.7	0.3	1.0	0.7	
175834.6699	439750.4134	Seagirt	EA-05/06	0.3	0.5	0.8	0.3	0.7	1.1	0.4	0.7	1.1	0.8	1.7	0.7	0.3	0.7	1.1	0.3	1.1	0.3	0.3	0.3	1.1	5.1	0.9	0.7	0.8	0.3	1.0	0.8	
175606.5271	439613.3143	Seagirt	EA-07/08	0.3	0.6	0.9	0.4	0.7	1.2	0.4	0.8	1.1	0.9	1.8	0.7	0.3	0.8	1.2	0.3	1.2	0.3	0.4	0.3	1.2	3.2	1.0	0.7	0.8	0.4	1.1	0.8	
175868.6551	439615.5089	Seagirt	EA-09/10	0.4	0.6	0.9	0.4	0.8	1.2	0.4	0.8	1.2	0.9	1.8	0.7	0.3	0.8	1.2	0.3	1.2	0.3	0.4	0.3	1.2	4.6	1.0	0.8	0.9	0.4	1.1	0.9	

Table C5. sVOCs.

Northing	Easting	Study	Station	1,2,4-Trichlorobenzene	2,4,5-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene	2-Chlorophenol	2-Methylphenol	4-Methylphenol	Bis(2-chloroethyl) ether	Bis(2-chloroisopropyl) ether	Bis(2-ethylhexyl) phthalate	Dibenzofuran	Diethyl phthalate	Di-n-butyl phthalate	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Isophorone	Nitrobenzene	N-Nitrosodi-n-propylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenol	Station Assessment
			Soil Standards:																												
			Habitat Reconstruction (TELs)													182															
			MD Residential Clean-up	78,000	58,000	23,000	160,000	16,000	16,000	7800	630,000	39,000	390,000	39,000	580	9100	4600	7800	6,300,000	780,000	400	8200	47,000	46,000	670,000	3900	91	130,000	5300	2,300,000	
			MD Non-Residential Clean-up	1,000,000	260,000	310,000	2,600,000	200,000	200,000	100,000	8,200,000	510,000	5,100,000	510,000	2600	41,000	200,000	100,000	82,000,000	1,000,000	1800	37,000	610,000	260,000	3,000,000	51,000	410	580,000	24,000	31,000,000	
170621.6	440496.7314	CoxCreek	CCE-01	13.0	11.0	12.0	10.0	1600.0	6.7	9.1	14.0	10.0	14.0	14.0	12.0	9.2	76.0	17.0	13.0	78.0	13.0	12.0	51.0	12.0	12.0	13.0	13.0	130.0	870.0	13.0	
170839.3	440711.4386	CoxCreek	CCE-02	21.0	18.0	19.0	17.0	2600.0	11.0	15.0	22.0	16.0	23.0	120.0	20.0	15.0	600.0	49.0	21.0	130.0	21.0	20.0	82.0	20.0	20.0	33.0	21.0	210.0	1400.0	21.0	
170494.8	440803.918	CoxCreek	CCE-03	16.0	14.0	15.0	13.0	2000.0	8.5	12.0	17.0	13.0	18.0	37.0	16.0	12.0	56.0	24.0	16.0	99.0	16.0	16.0	65.0	16.0	15.0	26.0	16.0	170.0	1100.0	17.0	
170005.7	440903.3407	CoxCreek	CCE-04	17.0	14.0	16.0	13.0	2100.0	8.6	12.0	18.0	13.0	18.0	36.0	16.0	12.0	65.0	27.0	17.0	100.0	17.0	16.0	66.0	16.0	16.0	27.0	17.0	170.0	1100.0	17.0	
169877.2	441252.3946	CoxCreek	CCE-05	21.0	18.0	19.0	17.0	2600.0	11.0	15.0	22.0	16.0	23.0	60.0	20.0	15.0	64.0	39.0	21.0	130.0	21.0	20.0	82.0	20.0	20.0	33.0	21.0	210.0	1400.0	21.0	
169784.6	440961.3319	CoxCreek	CCE-06	15.0	13.0	14.0	12.0	1900.0	7.8	11.0	16.0	12.0	17.0	30.0	14.0	11.0	82.0	33.0	15.0	91.0	15.0	15.0	60.0	14.0	14.0	24.0	15.0	150.0	1000.0	15.0	
170217.7	441372.751	CoxCreek	CCE-07	21.0	18.0	20.0	17.0	2600.0	11.0	15.0	22.0	16.0	23.0	34.0	20.0	15.0	64.0	33.0	21.0	130.0	21.0	20.0	83.0	20.0	20.0	34.0	21.0	210.0	1400.0	21.0	
169458.3	441246.704	CoxCreek	CCE-08	20.0	17.0	19.0	16.0	2500.0	11.0	14.0	21.0	16.0	23.0	30.0	20.0	15.0	170.0	37.0	20.0	120.0	21.0	20.0	81.0	19.0	19.0	33.0	21.0	210.0	1400.0	21.0	
169349.5	440642.2399	CoxCreek	CCE-09	17.0	15.0	16.0	14.0	2100.0	9.0	12.0	18.0	14.0	19.0	34.0	17.0	12.0	170.0	39.0	17.0	100.0	17.0	17.0	68.0	16.0	16.0	28.0	17.0	180.0	1200.0	18.0	
171755.4	440135.3666	CoxCreek	CCE-REF	14.0	11.0	13.0	11.0	1700.0	7.0	9.5	14.0	11.0	15.0	25.0	13.0	9.7	170.0	30.0	13.0	81.0	13.0	13.0	53.0	13.0	13.0	22.0	14.0	140.0	920.0	14.0	
168324.7	451514.1998	FedChan 02	BE-1	60.0	40.0	60.0	50.0	870.0	52.0	43.0	52.0	99.0	85.0	130.0	66.0		56.0	54.0	53.0	52.0	47.0	79.0	39.0	79.0	76.0	72.0	58.0	65.0	40.0	63.0	
166011.7	453705.8642	FedChan 02	BE-2	53.0	36.0	53.0	44.0	760.0	45.0	37.0	45.0	87.0	74.0	110.0	57.0		49.0	47.0	46.0	45.0	41.0	69.0	34.0	69.0	66.0	63.0	51.0	56.0	35.0	55.0	
165106.8	456084.7673	FedChan 02	BE-3	64.0	43.0	64.0	53.0	920.0	55.0	46.0	55.0	110.0	90.0	140.0	70.0		60.0	58.0	56.0	55.0	50.0	84.0	41.0	85.0	80.0	76.0	62.0	69.0	42.0	67.0	
164660.8	458116.5031	FedChan 02	BE-4*	54.0	36.0	54.0	45.0	780.0	47.0	38.0	46.0	89.0	76.0	120.0	59.0		50.0	49.0	47.0	46.0	42.0	71.0	35.0	71.0	68.0	64.0	52.0	58.0	35.0	57.0	
166011.7	453705.8642	FedChan 02	BE-COMP-SED	61.0	41.0	61.0	50.0	880.0	52.0	43.0	52.0	100.0	86.0	130.0	66.0		57.0	55.0	54.0	52.0	48.0	80.0	39.0	80.0	76.0	73.0	58.0	65.0	40.0	64.0	
168547.6	447518.1499	FedChan 02	BR-1	64.0	43.0	64.0	53.0	920.0	55.0	46.0	55.0	110.0	90.0	140.0	70.0		60.0	58.0	56.0	55.0	50.0	84.0	41.0	84.0	80.0	76.0	61.0	68.0	42.0	67.0	
169319.6	445074.3854	FedChan 02	BR-2	57.0	38.0	57.0	47.0	820.0	49.0	41.0	49.0	94.0	80.0	120.0	62.0		53.0	52.0	50.0	49.0	45.0	75.0	37.0	75.0	72.0	68.0	55.0	61.0	38.0	60.0	
169881.7	444031.6646	FedChan 02	BR-3*	67.0	45.0	67.0	56.0	970.0	58.0	48.0	58.0	110.0	94.0	140.0	73.0		63.0	60.0	59.0	57.0	52.0	88.0	43.0	88.0	84.0	80.0	64.0	72.0	44.0	70.0	
169319.6	445074.3854	FedChan 02	BR-COMP-SED	67.0	45.0	67.0	56.0	970.0	58.0	48.0	58.0	110.0	95.0	140.0	74.0		63.0	61.0	59.0	58.0	53.0	88.0	43.0	89.0	84.0	80.0	65.0	72.0	44.0	71.0	
170449	442891.1945	FedChan 02	BRA-1	70.0	47.0	70.0	58.0	1000.0	61.0	50.0	60.0	120.0	99.0	150.0	77.0		66.0	63.0	62.0	60.0	55.0	93.0	45.0	93.0	88.0	84.0	68.0	75.0	46.0	74.0	
170465.5	442165.5266	FedChan 02	BRA-2	56.0	37.0	56.0	46.0	810.0	48.0	40.0	48.0	92.0	79.0	120.0	61.0		52.0	50.0	49.0	48.0	44.0	73.0	36.0	74.0	70.0	67.0	54.0	60.0	37.0	59.0	
170940.5	442079.4816	FedChan 02	BRA-3*	58.0	39.0	58.0	48.0	830.0	50.0	41.0	49.0	95.0	81.0	120.0	63.0		54.0	52.0	51.0	49.0	45.0	76.0	37.0	76.0	72.0	69.0	55.0	62.0	38.0	60.0	
170465.5	442165.5266	FedChan 02	BRA-COMP-SED	60.0	40.0	60.0	50.0	870.0	52.0	43.0	52.0	99.0	85.0	130.0	66.0		56.0	54.0	53.0	52.0	47.0	79.0	39.0	79.0	76.0	72.0	58.0	64.0	40.0	63.0	
172828	439972.4906	FedChan 02	CB-1	64.0	43.0	64.0	53.0	930.0	55.0	46.0	55.0	110.0	90.0	140.0	70.0		60.0	58.0	57.0	55.0	50.0	84.0	41.0	85.0	81.0	77.0	62.0	69.0	42.0	67.0	
172729.4	438384.0864	FedChan 02	CB-2	93.0	62.0	93.0	77.0	1300.0	80.0	66.0	80.0	150.0	130.0	200.0	100.0		86.0	83.0	82.0	79.0	72.0	120.0	60.0	120.0	120.0	110.0	89.0	99.0	61.0	97.0	
172729.9	436939.0906	FedChan 02	CB-3*	55.0	37.0	55.0	45.0	790.0	47.0	39.0	47.0	90.0	77.0	120.0	60.0		51.0	49.0	48.0	47.0	43.0	72.0	35.0	72.0	68.0	65.0	52.0	58.0	36.0	57.0	
172729.4	438384.0864	FedChan 02	CB-COMP-SED	81.0	54.0	81.0	67.0	1200.0	70.0	58.0	69.0	130.0	110.0	170.0	88.0		76.0	73.0	71.0	69.0	63.0	110.0	52.0	110.0	100.0	96.0	78.0	87.0	53.0	85.0	
172362.5	436722.0425	FedChan 02	CC-1	97.0	65.0	97.0	80.0	1400.0	83.0	69.0	83.0	160.0	140.0	210.0	110.0		90.0	87.0	85.0	83.0	76.0	130.0	63.0	130.0	120.0	120.0	93.0	100.0	64.0	100.0	
171574.6	436388.8961	FedChan 02	CC-2*	76.0	51.0	76.0	63.0	1100.0	65.0	54.0	65.0	130.0	110.0	160.0	83.0		71.0	68.0	67.0	65.0	59.0	100.0	49.0	100.0	95.0	90.0	73.0	81.0	50.0	80.0	
170489.1	436520.6002	FedChan 02	CC-3	98.0	66.0	98.0	81.0	1400.0	84.0	70.0	84.0	160.0	140.0	210.0	110.0		91.0	88.0	86.0	84.0	76.0	130.0	63.0	130.0	120.0	120.0	94.0	100.0	64.0	100.0	
169859.6	437220.3295	FedChan 02	CC-4	83.0	55.0	83.0	69.0	1200.0	71.0	59.0	71.0	140.0	120.0	180.0	90.0		77.0	75.0	73.0	71.0	65.0	110.0	53.0	110.0	100.0	99.0	79.0	89.0	54.0	87.0	
171574.6	436388.8961	FedChan 02	CC-COMP-SED	90.0	60.0	90.0	75.0	1300.0	78.0	64.0	77.0	150.0	130.0	190.0	99.0		84.0	81.0	79.0	77.0	70.0	120.0	58.0	120.0	110.0	110.0	87.0	97.0	59.0	94.0	
178065.8	466043.4977	FedChan 02	CD-1	50.0	33.0	50.0	41.0	720.0	43.0	35.0	43.0	82.0	70.0	110.0	54.0		46.0	45.0	44.0	43.0	39.0	65.0	32.0	65.0	62.0	59.0	48.0	53.0	33.0	52.0	
185299.5	469546.625	FedChan 02	CD-2	50.0	33.0	50.0	41.0	720.0	43.0	35.0	43.0	82.0	70.0	110.0	54.0		46.0	45.0	44.0	43.0	39.0	65.0	32.0	65.0	62.0	59.0	48.0	53.0	33.0	52.0	
185682	470106.5122	FedChan 02	CD-3*	43.0	29.0	43.0	36.0	620.0	37.0	31.0	37.0	71.0	61.0	92.0	47.0		40.0	39.0	38.0	37.0	34.0	56.0	28.0	57.0	54.0	51.0	41.0	46.0	28.0	45.0	
185299.5	469546.625	FedChan 02	CD-COMP-SED	47.0	31.0	47.0	39.0	670.0	40.0	33.0	40.0	77.0	66.0	100.0	51.0		44.0	42.0	41.0	40.0	36.0	61.0	30.0	61.0	58.0	56.0	45.0	50.0	31.0	48.0	
157037.2	452496.4483	FedChan 02	CR-1	64.0	43.0	64.0	53.0	920.0	55.0	45.0	55.0	100.0	90.0	140.0	70.0		59.0	57.0	56.0	55.0	50.0	84.0	41.0	84.0	80.0	76.0	61.0	68.0	42.0	67.0	
158976.7	452280.2842	FedChan 02	CR-2	60.0	40.0	60.0	50.0	860.0	52.0	43.0	51.0	99.0	84.0	130.0	66.0		56.0	54.0	53.0	51.0	47.0	79.0	39.0	79.0	75.0	71.0	58.0	64.0	39.0	63.0	
160334.9	452295.7985	FedChan 02	CR-3*	69.0	46.0	69.0	57.0	1000.0	60.0	49.0	60.0	110.0	98.0	150.0	76.0		65.0	62.0	61.0	59.0	54.0	91.0	45.0	91.0	87.0	83.0	67.0	74.0	46.0	73.0	
158976.7	452280.2842	FedChan 02	CR-COMP-SED	65.0	44.0	65.0	54.0	940.0	56.0	47.0	56.0	110.0	92.0	140.0	72.0		61.0	59.0	58.0	56.0	51.0	86.0	42.0	86.0	82.0	78.0	63.0	70.0	43.0	69.0	
161557.3	452492.364	FedChan 02	CRA-1*	51.0	34.0	51.0	42.0	730.0	44.0	36.0	43.0	83.0	71.0	110.0	55.0		47.0	46.0	44.0	43.0	40.0	66.0	33.0	67.0	63.0	60.0	49.0	54.0	33.0	53.0	
162074.4	452066.6498	FedChan 02	CRA-2	65.0	43.0	65.0	54.0	940.0	56.0	47.0	56.0	110.0	91.0	140.0	71.0		61.0	58.0	57.0	56.0	51.0	85.0	42.0	85.0	81.0	77.0	62.0	69.0	43.0	68.0	
162576.3	451851.4915	FedChan 02	CRA-3	66.0	44.0	66.0	55.0	950.0	57.0	47.0	56.0	110.0	93.0	140.0	72.0		61.0	59.0	58.0	56.0	51.0	86.0	42.0	87.0	83.0	78.0	63.0	70.0	43.0	69.0	
163347.2	451752.7668	FedChan 02	CRA-4	62.0	41.0	62.0	51.0	890.0	53.0	44.0	53.0	100.0	87.0	130.0	67.0		58.0	56.0	54.0	53.0	48.0	81.0	40.0	81.0	77.0	73.0	59.0	66.0	40.0	65.0	
162074.4	452066.6498	FedChan 02	CRA-COMP-SED	61.0	41.0	61.0	51.0	880.0	53.0	44.0	52.0	100.0	86.0	130.0	67.0		57.0	55.0	54.0	52.0	48.0	80.0	39.0	81.0	77.0	73.0	59.0	65.0	40.0	64.0	
151389.1	453692.8493	FedChan 02	CRE-1	81.0	54.0	81.0	67.0	1200.0	70.0	58.0	70.0	130.0	110.0	170.0	89.0		76.0	73.0	71.0	70.0	63.0	110.0	52.0	110.0	100.0	97.0	78.0	87.0	53.0	85.0	
152349.2	453393.4138	FedChan 02	CRE-2	73.0	49.0	73.0	61.0	1100.0	63.0	52.0	63.0	120.0	100.0	160.0	80.0		69.0	66.0	65.0	63.0	57.0	96.0	47.0	97.0	92.0	87.0	71.0	79.0	48.0	77.0	
153985.1	453171.7022	FedChan 02	CRE-3*	74.0	49.0	74.0	61.0	1100.0	64.0	53.0	63.0	120.0	100.0	160.0	81.0		69.0	66.0	65.0	63.0	58.0	97.0	48.0	97.0	93.0	88.0	71.0	79.0	48.0	77.0	
152349.2	453393.4138	FedChan 02	CRE-COMP-SED	79.0	53.0	79.0	65.0	1100.0	68.0	56.0	68.0	130.0	110.0	170.0	86.0		74.0	71.0	69.0	68.0	62.0	100.0	51.0	100.0	99.0	94.0	76.0	84.0	52.0	83.0	
164794	450887.5006	FedChan 02	CRU-1*	60.0	40.0	60.0	50.0	870.0	52.0	43.0	52.0	99.0	85.0	130.0	66.0		56.0	54.0	53.0	52.0	47.0	79.0	39.0	79.0	75.0	72.0	58.0	64.0	39.0	63.0	
166265.4	449793.3905	FedChan 02	CRU-2	56.0	37.0	56.0	46.0	800.0	48.0	40.0	48.0	92.0	79.0	120.0	61.0		52.0	50.0	49.0	48.0	44.0	73.0	36.0	74.0	70.0	67.0	54.0	60.0	37.0	58.0	
166265.4	449793.3905	FedChan 02	CRU-COMP-SED	57.0	38.0	57.0	47.0	820.0	49.0	40.0	49.0	93.0	80.0	120.0	62.0		53.0	51.0	50.0	49.0	44.0	74.0	37.0	75.0	71.0	67.0	54.0	61.0	37.0	59.0	
167400.2	448998.4111	FedChan 02	CUT-1	64.0	43.0	64.0	53.0	930.0	56.0	46.0	55.0	110.0	91.0	140.0	70.0		60.0	58.0	57.0	55.0	50.0	85.0	42.0	85.0	81.0	77.0	62.0	69.0	42.0	68.0	
168012.2	448922.6074	FedChan 02	CUT-2	63.0	42.0	63.0	52.0	910.0	55.0	45.0	54.0	100.0	89.0	140.0	69.0		59.0	57.0	56.0	54.0	49.0	83.0	41.0	83.0	79.0	75.0	61.0	68.0	42.0	66.0	
167924.6	448517.0405	FedChan 02	CUT-3*	53.0	36.0	53.0	44.0	770.0	46.0	38.0	46.0	88.0	75.0	110.0	58.0		50.0	48.0	47.0	46.0	42.0	70.0	34.0	70.0	67.0	63.0	51.0	57.0	35.0	56.0	
168012.2	448922.6074	FedChan 02	CUT-COMP-SED	60.0	40.0	60.0	50.0	870.0	52.0	43.0	52.0	100.0	85.0	130.0	66.0		56.0	54.0	53.0	52.0	47.0	79.0	39.0	80.0	76.0	72.0	58.0	65.0	40.0	63.0	
176507.3	435940.3219	FedChan 02	FB-1	82.0	55.0	82.0	68.0	1200.0	71.0	59.0	71.0	140.0	120.0	180.0	90.0		77.0	74.0	72.0	70.0	64.0	110.0	53.0	110.0	100.0	98.0	79.0	88.0	54.0	86.0	
175657.8	435080.9993	FedChan 02	FB-2*	75.0	50.0	75.0	62.0	1100.0	65.0	53.0	65.0	120.0	110.0	160.0	82.0		70.0	68.0	66.0	65.0	59.0	99.0	49.0	99.0	95.0	90.0	72.0	81.0	49.0	79.0	
175657.8	435080.9993	FedChan 02	FB-COMP-SED	80.0	54.0	80.0	66.0	1200.0	69.0	57.0	69.0	130.0	110.0	170.0	88.0		75.0	72.0	71.0	69.0	63.0	110.0	52.0	110.0	100.0	96.0	77.0	86.0	53.0	84.0	
171839.3	440934.6833	FedChan 02	FTM-1	47.0	32.0	47.0	39.0	680.0	41.0	34.0	41.0	78.0	67.0	100.0	52.0		44.0	43.0	42.0	41.0	37.0	62.0	31.0	63.0	60.0	57.0	46.0	51.0	31.0	50.0	
174661.4	438812.0866	FedChan 02	FTM-2	67.0	45.0	67.0	56.0	970.0	58.0	48.0	58.0	110.0	95.0	140.0	73.0		63.0	61.0	59.0	58.0	53.0	88.0	43.0	88.0	84.0	80.0	65.0	72.0	44.0	70.0	
176061.1	437475.9043	FedChan 02	FTM-3*	64.0	43.0	64.0	53.0	930.0	56.0	46.0	55.0	110.0	91.0	140.0	70.0		60.0	58.0	57.0	55.0	50.0	85.0	42.0	85.0	81.0	77.0	62.0	69.0	42.0	68.0	
174661.4	438812.0866	FedChan 02	FTM-COMP-SED	60.0	40.0	60.0	49.0	860.0	51.0	43.0	51.0	98.0	84.0	130.0	65.0		56.0	54.0	52.0	51.0	47.0	78.0	38.0	79.0	75.0	71.0	57.0	64.0	39.0	62.0	
175674.6	438671.8481	FedChan 02	HA-1*	74.0	50.0	74.0	61.0	1100.0	64.0	53.0	64.0	120.0	100.0	160.0	81.0		69.0	67.0	65.0	64.0	58.0	97.0	48.0	98.0	93.0	88.0	71.0	79.0	49.0	78.0	
175373.1	437525.221	FedChan 02	HA-2	68.0	46.0	68.0	56.0	980.0	59.0	49.0	58.0	110.0	96.0	150.0	74.0		64.0	61.0	60.0	58.0	53.0	90.0	44.0	90.0	85.0	81.0	65.0	73.0	45.0	71.0	
175373.1	437525.221	FedChan 02	HA-COMP-SED	65.0	43.0	65.0	54.0	940.0	56.0	46.0	56.0	110.0	91.0	140.0	71.0		61.0	58.0	57.0	56.0	51.0	85.0	42.0	85.0	81.0	77.0	62.0	69.0	43.0	68.0	
176660.9	437140.7767	FedChan 02	NWBE-1	77.0	52.0	77.0	64.0	1100.0	67.0	55.0	66.0	130.0	110.0	170.0	85.0		72.0	70.0	68.0	66.0	61.0	100.0	50.0	100.0	97.0	92.0	74.0	83.0	51.0	81.0	
177250.9	436692.0806	FedChan 02	NWBE-2	79.0	53.0	79.0	66.0	1100.0	68.0	57.0	68.0	130.0	110.0	170.0	87.0		74.0	72.0	70.0	68.0	62.0	100.0	51.0	100.0	100.0	95.0	76.0	85.0	52.0	83.0	
178257.9	436793.8229	FedChan 02	NWBE-3*	81.0	54.0	81.0	67.0	1200.0	70.0	58.0	69.0	130.0	110.0	170.0	88.0		76.0	73.0	71.0	69.0	63.0	110.0	52.0	110.0	100.0	96.0	78.0	87.0	53.0	85.0	
177250.9	436692.0806	FedChan 02	NWBE-COMP-SED	79.0	53.0	79.0	65.0	1100.0	68.0	56.0	68.0	130.0	110.0	170.0	86.0		74.0	71.0	69.0	68.0	62.0	100.0	51.0	100.0	99.0	94.0	76.0	85.0	52.0	83.0	
178131.5	435026.8363	FedChan 02	NWBW-1	92.0	62.0	92.0	76.0	1300.0	79.0	66.0	79.0	150.0	130.0	200.0	100.0		86.0	83.0	81.0	79.0	72.0	120.0	60.0	120.0	120.0	110.0	89.0	99.0	60.0	97.0	
178542	435800.1749	FedChan 02	NWBW-2	59.0	40.0	59.0	49.0	860.0	51.0	42.0	51.0	98.0	84.0	130.0	65.0		55.0	53.0	52.0	51.0	46.0	78.0	38.0	78.0	74.0	71.0	57.0	64.0	39.0	62.0	
179010.8	435140.8315	FedChan 02	NWBW-3*	92.0	62.0	92.0	76.0	1300.0	79.0	66.0	79.0	150.0	130.0	200.0	100.0		86.0	83.0	81.0	79.0	72.0	120.0	60.0	120.0	120.0	110.0	89.0	99.0	60.0	97.0	
178542	435800.1749	FedChan 02	NWBW-COMP-SED	81.0	54.0	81.0	67.0	1200.0	70.0	58.0	70.0	130.0	110.0	170.0	89.0		76.0	73.0	71.0	70.0	64.0	110.0	52.0	110.0	100.0	97.0	78.0	87.0	53.0	85.0	
157522.7	459644.2826	FedChan 02	SWP-1	75.0	50.0	75.0	62.0	1100.0	65.0	53.0	64.0	120.0	110.0	160.0	82.0		70.0	68.0	66.0	64.0	59.0	98.0	48.0	99.0	94.0	89.0	72.0	80.0	49.0	79.0	
159246.4	460509.2746	FedChan 02	SWP-2*	61.0	41.0	61.0	51.0	880.0	53.0	44.0	53.0	100.0	86.0	130.0	67.0		57.0	55.0	54.0	53.0	48.0	81.0	40.0	81.0	77.0	73.0	59.0	66.0	40.0	64.0	
159246.4	460509.2746	FedChan 02	SWP-COMP-SED	68.0	45.0	68.0	56.0	980.0	59.0	48.0	58.0	110.0	96.0	150.0	74.0		63.0	61.0	60.0	58.0	53.0	89.0	44.0	89.0	85.0	81.0	65.0	73.0	45.0	71.0	
164340.2	459053.946	FedChan 02	TLC-1*	70.0	47.0	70.0	58.0	1000.0	60.0	50.0	60.0	110.0	98.0	150.0	76.0		65.0	63.0	61.0	60.0	54.0	91.0	45.0	92.0	87.0	83.0	67.0	75.0	46.0	73.0	
166475.9	460335.7824	FedChan 02	TLC-2	51.0	34.0	51.0	43.0	740.0	44.0	37.0	44.0	85.0	73.0	110.0	56.0		48.0	46.0	45.0	44.0	40.0	68.0	33.0	68.0	65.0	61.0	49.0	55.0	34.0	54.0	
170650.6	463684.1628	FedChan 02	TLC-3	42.0	28.0	42.0	35.0	610.0	36.0	30.0	36.0	70.0	59.0	91.0	46.0		39.0	38.0	37.0	36.0	33.0	55.0	27.0	56.0	53.0	50.0	41.0	45.0	28.0	44.0	
166475.9	460335.7824	FedChan 02	TLC-COMP-SED	57.0	38.0	57.0	47.0	820.0	49.0	41.0	49.0	94.0	80.0	120.0	62.0		53.0	51.0	50.0	49.0	45.0	75.0	37.0	75.0	71.0	68.0	55.0	61.0	37.0	60.0	
134279.6	449901.2592	FedChan 02	UB1REF*	61.0	41.0	61.0	51.0	880.0	53.0	44.0	53.0	100.0	86.0	130.0	67.0		57.0	55.0	54.0	52.0	48.0	80.0	40.0	81.0	77.0	73.0	59.0	66.0	40.0	64.0	
129648.4	447752.5411	FedChan 02	UB2REF	59.0	39.0	59.0	49.0	850.0	51.0	42.0	50.0	97.0	83.0	130.0	64.0		55.0	53.0	52.0	50.0	46.0	77.0	38.0	77.0	74.0	70.0	56.0	63.0	39.0	61.0	
126592.8	456379.326	FedChan 02	UB3REF	34.0	23.0	34.0	28.0	490.0	29.0	24.0	29.0	56.0	48.0	73.0	37.0		32.0	30.0	30.0	29.0	26.0	44.0	22.0	45.0	42.0	40.0	32.0	36.0	22.0	35.0	
129648.4	447752.5411	FedChan 02	UBREF-COMP-SED	38.0	25.0	38.0	31.0	540.0	33.0	27.0	32.0	62.0	53.0	81.0	41.0		35.0	34.0	33.0	32.0	29.0	50.0	24.0	50.0	47.0	45.0	36.0	40.0	25.0	40.0	
169321.3	445054.2199	FedChan 05	BR-COMP	25.0	21.0	23.0	20.0	3100.0	13.0	17.0	26.0	19.0	27.0	63.0	24.0	18.0	76.0	370.0	25.0	150.0	25.0	24.0	98.0	24.0	23.0	40.0	25.0	250.0	1700.0	25.0	
168576.9	447476.2277	FedChan 05	BR1	25.0	22.0	24.0	20.0	3100.0	13.0	18.0	27.0	20.0	28.0	47.0	24.0	18.0	78.0	370.0	25.0	150.0	25.0	25.0	100.0	24.0	24.0	41.0	26.0	260.0	1700.0	26.0	
169321.3	445054.2199	FedChan 05	BR2	11.0	9.5	10.0	8.9	1400.0	5.8	7.9	12.0	8.8	12.0	53.0	11.0	8.0	34.0	180.0	11.0	68.0	11.0	11.0	44.0	11.0	11.0	18.0	11.0	120.0	760.0	11.0	
169914.9	444002.6934	FedChan 05	BR3	28.0	24.0	26.0	23.0	3500.0	15.0	20.0	30.0	22.0	31.0	49.0	27.0	20.0	87.0	420.0	28.0	170.0	28.0	28.0	110.0	27.0	27.0	46.0	29.0	290.0	1900.0	29.0	
170474.6	442140.9933	FedChan 05	BRA-COMP	26.0	22.0	24.0	21.0	3200.0	14.0	18.0	27.0	20.0	29.0	190.0	25.0	19.0	80.0	390.0	26.0	160.0	26.0	25.0	100.0	25.0	25.0	42.0	26.0	270.0	1800.0	31.0	
170435.6	442797.6818	FedChan 05	BRA1	27.0	23.0	25.0	22.0	3400.0	14.0	19.0	28.0	21.0	30.0	160.0	26.0	19.0	83.0	410.0	27.0	160.0	27.0	26.0	110.0	26.0	26.0	43.0	27.0	280.0	1800.0	28.0	
170474.6	442140.9933	FedChan 05	BRA2	26.0	22.0	25.0	21.0	3300.0	14.0	19.0	28.0	21.0	29.0	160.0	25.0	19.0	100.0	390.0	26.0	160.0	26.0	26.0	100.0	25.0	25.0	42.0	27.0	270.0	1800.0	39.0	
170981	442038.9584	FedChan 05	BRA3	27.0	22.0	25.0	21.0	3300.0	14.0	19.0	28.0	21.0	29.0	220.0	25.0	19.0	81.0	390.0	26.0	160.0	26.0	26.0	100.0	25.0	25.0	42.0	27.0	270.0	1800.0	27.0	
172733.3	438417.1602	FedChan 05	CB-COMP	29.0	24.0	27.0	23.0	3600.0	15.0	20.0	30.0	22.0	32.0	32.0	28.0	21.0	88.0	32.0	29.0	170.0	29.0	28.0	110.0	27.0	27.0	46.0	29.0	300.0	2000.0	29.0	
172843.2	438569.1823	FedChan 05	CB1	29.0	24.0	27.0	23.0	3600.0	15.0	20.0	30.0	23.0	32.0	73.0	28.0	21.0	88.0	32.0	29.0	170.0	29.0	28.0	110.0	27.0	27.0	46.0	29.0	300.0	2000.0	29.0	
172733.3	438417.1602	FedChan 05	CB2	35.0	29.0	32.0	28.0	4300.0	18.0	24.0	36.0	27.0	38.0	38.0	33.0	25.0	110.0	39.0	35.0	210.0	34.0	34.0	140.0	33.0	33.0	56.0	35.0	360.0	2400.0	35.0	
172724.3	436936.2468	FedChan 05	CB3	26.0	22.0	25.0	21.0	3300.0	14.0	19.0	28.0	21.0	29.0	29.0	25.0	19.0	81.0	29.0	26.0	160.0	26.0	26.0	100.0	25.0	25.0	42.0	27.0	270.0	1800.0	27.0	
171394.7	436286.0809	FedChan 05	CC-COMP	30.0	26.0	28.0	24.0	3800.0	16.0	21.0	32.0	24.0	34.0	57.0	29.0	22.0	410.0	46.0	30.0	180.0	30.0	29.0	120.0	29.0	29.0	49.0	30.0	310.0	2100.0	31.0	
172379.2	436734.9233	FedChan 05	CC1	28.0	24.0	26.0	22.0	3400.0	14.0	20.0	29.0	22.0	31.0	64.0	27.0	20.0	450.0	62.0	28.0	200.0	28.0	27.0	110.0	26.0	26.0	45.0	28.0	290.0	1900.0	28.0	
171394.7	436286.0809	FedChan 05	CC2	30.0	25.0	28.0	24.0	3700.0	15.0	21.0	31.0	23.0	33.0	110.0	29.0	21.0	630.0	52.0	30.0	180.0	30.0	29.0	120.0	28.0	28.0	48.0	30.0	310.0	2000.0	30.0	
170581.5	436482.7318	FedChan 05	CC3	36.0	30.0	33.0	28.0	4400.0	18.0	25.0	37.0	28.0	39.0	39.0	34.0	26.0	270.0	40.0	36.0	210.0	35.0	34.0	140.0	34.0	34.0	57.0	36.0	370.0	2400.0	36.0	
169833.6	437197.4268	FedChan 05	CC4	31.0	26.0	29.0	25.0	3900.0	16.0	22.0	33.0	24.0	34.0	35.0	30.0	22.0	400.0	35.0	31.0	190.0	31.0	30.0	120.0	30.0	30.0	50.0	31.0	320.0	2100.0	32.0	
174193.9	440053.3297	FedChan 05	DDE-COMP	16.0	14.0	15.0	13.0	2000.0	8.3	11.0	17.0	13.0	18.0	27.0	15.0	12.0	120.0	18.0	16.0	97.0	16.0	16.0	64.0	15.0	15.0	26.0	16.0	170.0	1100.0	16.0	
173765.2	439797.9225	FedChan 05	DDE1	26.0	22.0	24.0	20.0	3200.0	13.0	18.0	27.0	20.0	28.0	40.0	25.0	18.0	160.0	29.0	26.0	150.0	26.0	25.0	100.0	24.0	24.0	41.0	26.0	260.0	1700.0	26.0	
174193.9	440053.3297	FedChan 05	DDE2	29.0	25.0	27.0	23.0	3600.0	15.0	20.0	30.0	23.0	32.0	81.0	28.0	21.0	390.0	41.0	29.0	180.0	29.0	28.0	120.0	28.0	27.0	47.0	29.0	300.0	2000.0	30.0	
174533.9	440322.1145	FedChan 05	DDE3	13.0	11.0	13.0	11.0	1700.0	7.0	9.5	14.0	11.0	15.0	15.0	13.0	9.7	41.0	15.0	13.0	81.0	13.0	13.0	53.0	13.0	13.0	22.0	14.0	140.0	910.0	14.0	
175268.7	439637.8202	FedChan 05	DDW-COMP	24.0	20.0	22.0	19.0	3000.0	12.0	17.0	25.0	19.0	27.0	27.0	23.0	17.0	74.0	27.0	24.0	150.0	24.0	23.0	95.0	23.0	23.0	39.0	24.0	250.0	1600.0	24.0	
174826	439547.9622	FedChan 05	DDW1	25.0	21.0	23.0	20.0	3100.0	13.0	18.0	26.0	19.0	27.0	28.0	24.0	18.0	76.0	28.0	25.0	150.0	25.0	24.0	99.0	24.0	24.0	40.0	25.0	260.0	1700.0	25.0	
175268.7	439637.8202	FedChan 05	DDW2	24.0	20.0	22.0	19.0	2900.0	12.0	17.0	25.0	18.0	26.0	26.0	23.0	17.0	72.0	26.0	23.0	140.0	23.0	23.0	93.0	22.0	22.0	38.0	24.0	240.0	1600.0	24.0	
174806.1	440004.1776	FedChan 05	DDW3	19.0	16.0	18.0	15.0	2400.0	10.0	14.0	20.0	15.0	21.0	21.0	19.0	14.0	59.0	22.0	19.0	120.0	19.0	19.0	77.0	18.0	18.0	31.0	19.0	200.0	1300.0	20.0	
176503.7	435960.4753	FedChan 05	FB1	85.0	72.0	79.0	67.0	10000.0	44.0	60.0	89.0	66.0	93.0	94.0	81.0	61.0	390.0	94.0	490.0	510.0	84.0	82.0	330.0	80.0	80.0	140.0	85.0	870.0	5700.0	86.0	
176400	435123.714	FedChan 05	FB2	79.0	67.0	73.0	63.0	9700.0	41.0	55.0	83.0	61.0	87.0	87.0	76.0	56.0	290.0	88.0	420.0	470.0	78.0	76.0	310.0	75.0	74.0	130.0	79.0	810.0	5300.0	80.0	
174668.8	438810.6113	FedChan 05	FTM-COMP	30.0	25.0	28.0	24.0	3700.0	15.0	21.0	31.0	23.0	33.0	64.0	29.0	21.0	190.0	440.0	30.0	180.0	30.0	29.0	120.0	28.0	28.0	48.0	30.0	300.0	2000.0	30.0	
171852.1	440913.0303	FedChan 05	FTM1	29.0	25.0	27.0	23.0	3600.0	15.0	21.0	31.0	23.0	32.0	60.0	28.0	21.0	90.0	430.0	29.0	180.0	29.0	28.0	120.0	28.0	28.0	47.0	29.0	300.0	2000.0	30.0	
174668.8	438810.6113	FedChan 05	FTM2	29.0	25.0	27.0	23.0	3600.0	15.0	21.0	31.0	23.0	32.0	87.0	28.0	21.0	90.0	440.0	29.0	180.0	29.0	28.0	120.0	28.0	28.0	47.0	29.0	300.0	2000.0	30.0	
176085	437442.7116	FedChan 05	FTM3	31.0	27.0	29.0	25.0	3900.0	16.0	22.0	33.0	25.0	35.0	74.0	30.0	22.0	240.0	470.0	31.0	190.0	31.0	30.0	120.0	30.0	30.0	50.0	32.0	320.0	2100.0	32.0	
174259.9	439572.3888	FedChan 05	HA-COMP	29.0	24.0	27.0	23.0	3500.0	15.0	20.0	30.0	22.0	32.0	32.0	28.0	21.0	88.0	32.0	29.0	170.0	28.0	28.0	110.0	27.0	27.0	46.0	29.0	290.0	1900.0	29.0	
175569	438639.2893	FedChan 05	HA1	31.0	26.0	29.0	25.0	3900.0	16.0	22.0	33.0	24.0	34.0	35.0	30.0	22.0	96.0	35.0	31.0	190.0	31.0	30.0	120.0	30.0	30.0	50.0	31.0	320.0	2100.0	32.0	
174259.9	439572.3888	FedChan 05	HA2	26.0	22.0	25.0	21.0	3300.0	14.0	19.0	28.0	21.0	29.0	29.0	25.0	19.0	81.0	29.0	26.0	160.0	26.0	25.0	100.0	25.0	25.0	42.0	26.0	270.0	1800.0	27.0	
177548.7	436674.8747	FedChan 05	NWBE-COMP	81.0	69.0	76.0	65.0	10000.0	42.0	57.0	85.0	63.0	89.0	90.0	78.0	58.0	590.0	90.0	650.0	490.0	81.0	78.0	320.0	77.0	77.0	130.0	81.0	830.0	5500.0	82.0	
176793.6	437043.765	FedChan 05	NWBE1	79.0	67.0	73.0	63.0	9700.0	41.0	55.0	83.0	61.0	87.0	87.0	76.0	56.0	370.0	88.0	780.0	470.0	78.0	76.0	310.0	75.0	74.0	130.0	79.0	810.0	5300.0	80.0	
177548.7	436674.8747	FedChan 05	NWBE2	82.0	70.0	76.0	65.0	10000.0	42.0	58.0	86.0	64.0	91.0	91.0	79.0	59.0	330.0	91.0	680.0	500.0	82.0	79.0	330.0	78.0	78.0	130.0	82.0	840.0	5600.0	83.0	
178248.7	436795.3042	FedChan 05	NWBE3	84.0	71.0	78.0	66.0	10000.0	43.0	59.0	88.0	65.0	92.0	96.0	80.0	60.0	1200.0	110.0	550.0	500.0	83.0	81.0	330.0	79.0	79.0	130.0	84.0	860.0	5700.0	85.0	
178895.9	435496.5606	FedChan 05	NWBW-COMP	60.0	51.0	56.0	48.0	7500.0	31.0	43.0	63.0	47.0	67.0	67.0	58.0	43.0	1000.0	67.0	280.0	360.0	60.0	58.0	240.0	57.0	57.0	97.0	61.0	620.0	4100.0	61.0	
178539.2	435992.8938	FedChan 05	NWBW1	62.0	53.0	58.0	50.0	7700.0	32.0	44.0	65.0	49.0	69.0	69.0	60.0	45.0	500.0	69.0	360.0	380.0	62.0	60.0	250.0	59.0	59.0	100.0	62.0	640.0	4200.0	63.0	
178895.9	435496.5606	FedChan 05	NWBW2	64.0	54.0	59.0	51.0	7900.0	33.0	45.0	67.0	50.0	70.0	71.0	61.0	46.0	1700.0	110.0	320.0	390.0	63.0	62.0	250.0	61.0	60.0	100.0	64.0	650.0	4300.0	65.0	
179003.5	435149.5	FedChan 05	NWBW3	61.0	52.0	57.0	49.0	7600.0	32.0	43.0	64.0	48.0	68.0	68.0	59.0	44.0	1600.0	74.0	340.0	370.0	61.0	59.0	240.0	58.0	58.0	98.0	62.0	630.0	4200.0	62.0	
176436.7	438622.0864	FedChan 05	SGT-COMP	19.0	16.0	18.0	15.0	2300.0	9.8	13.0	20.0	15.0	21.0	21.0	18.0	14.0	58.0	21.0	19.0	110.0	19.0	18.0	75.0	18.0	18.0	30.0	19.0	190.0	1300.0	19.0	
176232.2	438039.0254	FedChan 05	SGT1	22.0	18.0	20.0	17.0	2700.0	11.0	15.0	23.0	17.0	24.0	24.0	21.0	15.0	66.0	24.0	22.0	130.0	21.0	21.0	85.0	20.0	20.0	35.0	22.0	220.0	1500.0	22.0	
176436.7	438622.0864	FedChan 05	SGT2	26.0	22.0	25.0	21.0	3300.0	14.0	19.0	28.0	21.0	29.0	29.0	25.0	19.0	81.0	29.0	26.0	160.0	26.0	26.0	100.0	25.0	25.0	42.0	26.0	270.0	1800.0	27.0	
176641.8	438559.2245	FedChan 05	SGT3	13.0	11.0	12.0	10.0	1600.0	6.7	9.2	14.0	10.0	14.0	14.0	13.0	9.3	40.0	14.0	13.0	78.0	13.0	13.0	52.0	12.0	12.0	21.0	13.0	130.0	880.0	13.0	
177240	434708.5885	FedChan 05	SLP-COMP	26.0	22.0	24.0	20.0	3200.0	13.0	18.0	27.0	20.0	28.0	28.0	24.0	18.0	78.0	28.0	25.0	150.0	25.0	25.0	100.0	24.0	24.0	41.0	26.0	260.0	1700.0	26.0	
176678.1	434834.7757	FedChan 05	SLP1	31.0	26.0	29.0	25.0	3900.0	16.0	22.0	33.0	24.0	34.0	35.0	30.0	22.0	96.0	35.0	31.0	190.0	31.0	30.0	120.0	30.0	29.0	50.0	31.0	320.0	2100.0	32.0	
177240	434708.5885	FedChan 05	SLP2	33.0	28.0	31.0	26.0	4100.0	17.0	23.0	35.0	26.0	36.0	36.0	32.0	24.0	100.0	37.0	33.0	200.0	33.0	32.0	130.0	31.0	31.0	53.0	33.0	340.0	2200.0	34.0	
176956.1	435360.0193	FedChan 05	SLP3	20.0	17.0	19.0	16.0	2500.0	10.0	14.0	21.0	16.0	22.0	22.0	19.0	14.0	62.0	22.0	20.0	120.0	20.0	19.0	79.0	19.0	19.0	32.0	20.0	210.0	1400.0	20.0	
175893	435999.1093	Masonville	M-B1	140.0	95.0	140.0	120.0	2100.0	120.0	100.0	120.0	230.0	200.0	310.0	160.0		500.0	130.0	130.0		110.0	190.0	92.0	190.0	180.0	170.0	140.0	150.0	93.0	150.0	
176099.8	435605.4421	Masonville	M-B2	400.0	270.0	400.0	330.0	5800.0	340.0	280.0	340.0	660.0	560.0	860.0	440.0		370.0	360.0	350.0		310.0	530.0	260.0	530.0	500.0	480.0	380.0	430.0	260.0	420.0	
176106.5	435165.0689	Masonville	M-B3	360.0	240.0	360.0	300.0	5200.0	310.0	260.0	310.0	600.0	510.0	780.0	400.0		340.0	330.0	320.0		280.0	480.0	230.0	480.0	450.0	430.0	350.0	390.0	240.0	380.0	
175559.4	435712.1995	Masonville	M-B5	44.0	37.0	41.0	35.0	5400.0	23.0	31.0	46.0	34.0	48.0	48.0	42.0		350.0	51.0	43.0		43.0	42.0	170.0	41.0	41.0	70.0	44.0	450.0	3000.0	44.0	
175792.9	435732.2164	Masonville	M-B6	27.0	23.0	25.0	21.0	3300.0	14.0	19.0	28.0	21.0	30.0	42.0	26.0		440.0	61.0	27.0		27.0	26.0	110.0	25.0	25.0	43.0	27.0	280.0	1800.0	27.0	
176373.4	435712.1995	Masonville	M-B7	33.0	28.0	30.0	26.0	4000.0	17.0	23.0	34.0	25.0	36.0	65.0	31.0		770.0	53.0	32.0		32.0	31.0	130.0	31.0	31.0	52.0	33.0	330.0	2200.0	33.0	
175973	435778.9227	Masonville	MSN03-JV1	62.0	78.0	74.0	120.0	110.0	130.0	100.0	58.0	69.0	90.0	120.0	54.0		140.0	87.0	130.0		100.0	65.0	72.0	57.0	52.0	53.0	62.0	98.0	110.0	56.0	
176159.9	435772.2503	Masonville	MSN03-JV2	56.0	70.0	67.0	110.0	100.0	120.0	92.0	52.0	62.0	80.0	100.0	48.0		760.0	78.0	110.0		90.0	59.0	64.0	51.0	46.0	48.0	55.0	88.0	100.0	79.0	
176053.1	435685.51	Masonville	MSN03-JV3	59.0	74.0	71.0	120.0	110.0	120.0	97.0	55.0	66.0	85.0	110.0	51.0		720.0	82.0	120.0		95.0	62.0	68.0	54.0	49.0	50.0	59.0	93.0	110.0	53.0	
176066.5	435425.2895	Masonville	MSN03-JV4	54.0	68.0	64.0	110.0	97.0	110.0	89.0	50.0	60.0	78.0	100.0	47.0		95.0	75.0	110.0		87.0	57.0	62.0	49.0	45.0	46.0	54.0	85.0	97.0	48.0	
176026.4	435098.3458	Masonville	MSN03-JV5	47.0	59.0	56.0	92.0	85.0	97.0	78.0	44.0	53.0	68.0	88.0	41.0		240.0	66.0	97.0		76.0	50.0	54.0	43.0	39.0	40.0	47.0	75.0	85.0	42.0	
175919.7	435024.9502	Masonville	MSNSURF05-1-S	38.0	32.0	35.0	30.0	4600.0	19.0	26.0	39.0	29.0	41.0	42.0	36.0		430.0	42.0	37.0		37.0	36.0	150.0	36.0	35.0	60.0	38.0	380.0	2500.0	38.0	
175586	434904.8483	Masonville	MSNSURF05-2-S	53.0	45.0	50.0	42.0	6600.0	28.0	37.0	56.0	41.0	59.0	59.0	51.0	38.0	530.0	59.0	53.0		53.0	51.0	210.0	50.0	50.0	85.0	53.0	550.0	3600.0	54.0	
175319.2	434811.4357	Masonville	MSNSURF05-3-S	56.0	47.0	52.0	44.0	6900.0	29.0	39.0	58.0	43.0	61.0	62.0	53.0	40.0	510.0	62.0	56.0		55.0	54.0	220.0	53.0	53.0	89.0	56.0	570.0	3800.0	57.0	
175432.6	435085.001	Masonville	MSNSURF05-4-S	39.0	33.0	37.0	31.0	4900.0	20.0	28.0	41.0	31.0	43.0	44.0	38.0	28.0	1600.0	84.0	39.0		39.0	38.0	160.0	37.0	37.0	63.0	40.0	400.0	2700.0	40.0	
118569.9	454788.2867	NewWork	PI-1	210.0	88.0	90.0	240.0	160.0	76.0	100.0	87.0	180.0	120.0		210.0		190.0	65.0	71.0	72.0	88.0	220.0	110.0	260.0		180.0	120.0	90.0	100.0	130.0	
120380.1	453435.4329	NewWork	PI-2	670.0	290.0	290.0	760.0	520.0	250.0	330.0	280.0	570.0	400.0		670.0		620.0	210.0	230.0	660.0	290.0	710.0	350.0	860.0		570.0	380.0	290.0	330.0	430.0	
122847.6	453797.4642	NewWork	PI-3	180.0	77.0	78.0	210.0	140.0	67.0	90.0	76.0	150.0	110.0		180.0		170.0	56.0	62.0	180.0	77.0	100.0	95.0	230.0		150.0	100.0	78.0	88.0	120.0	

Northing	Easting	Study	Station	1.2.4-TRICHLOROBENZENE	2.4.6-TRICHLOROPHENOL	2.4-DICHLOROPHENOL	2.4-DIMETHYLPHENOL	2.4-DINITROPHENOL	2.4-DINITROTOLUENE	2.6-DINITROTOLUENE	2-CHLORONAPHTHALENE	2-CHLOROPHENOL
			Soil Standards:									
			Habitat Reconstruction (TELs)									
			MD Residential Clean-up	78.000	58.000	23.000	160.000	16.000	16.000	7800	630.000	39.000
			MD Non-Residential Clean-up	1.000.000	260.000	310.000	2.000.000	200.000	200.000	100.000	8.200.000	510.000
123428.8	455207.4809	NewWork	PI-4	200.0	86.0	87.0	230.0	160.0	74.0	100.0	84.0	170.0
121456.7	455407.5508	NewWork	PI-5	220.0	95.0	97.0	250.0	170.0	83.0	110.0	94.0	190.0
170998.6	464061.5746	NewWork	TLS2VC	91.0		83.0	160.0	770.0	62.0	71.0	90.0	78.0
170161.5	463223.2379	NewWork	TLV2	270.0	120.0	120.0	310.0	210.0	100.0	130.0	110.0	230.0
170669.5	463595.7783	NewWork	TLV3	280.0	120.0	120.0	320.0	220.0	100.0	140.0	120.0	240.0
171177.5	464069.9206	NewWork	TLV4	310.0	130.0	140.0	360.0	240.0	120.0	160.0	130.0	270.0
171888.7	464544.0629	NewWork	TLV5	300.0	130.0	130.0	350.0	240.0	110.0	150.0	130.0	260.0
169619.6	462782.9629	NewWork	TLVI	290.0	120.0	120.0	330.0	220.0	110.0	140.0	120.0	240.0
174980	439508.6765	Seagirt	EA-01/02	13.0	11.0	12.0	11.0	1700.0	6.9	9.4	14.0	10.0
175392.4	439798.0536	Seagirt	EA-03/04	6.7	5.7	6.3	5.3	830.0	3.5	4.7	7.0	5.2
175834.7	439750.4134	Seagirt	EA-05/06	6.8	5.7	6.3	5.4	840.0	3.5	4.8	7.1	5.3
175606.5	439613.3143	Seagirt	EA-07/08	6.8	5.7	6.3	5.4	830.0	3.5	4.8	7.1	5.3
175868.7	439615.5089	Seagirt	EA-09/10	6.7	5.7	6.2	5.3	820.0	3.5	4.7	7.0	5.2

Station	2-METHYLPHENOL	4-METHYLPHENOL	BIS(2-CHLOROETHYL) ETHER	BIS(2-CHLOROISOPROPYL) ETHER	BIS(2-ETHYLHEXYL) PHTHALATE	DIBENZOFURAN	DIETHYL PHTHALATE	DI-N-BUTYL PHTHALATE	HEXACHLOROBENZENE
Habitat Reconstruction (TELs)				182					
MD Residential Clean-up	390.000	39.000	580	9100	4600	7800	6.300.000	780.000	400
MD Non-Residential Clean-up	5.100.000	510.000	2600	41.000	200.000	100.000	83.000.000	1.000.000	1800
PI-4	120.0		200.0		190.0	63.0	69.0	150.0	86.0
PI-5	130.0		220.0		210.0	70.0	76.0	78.0	95.0
TLS2VC	94.0		77.0		65.0	89.0	57.0	56.0	72.0
TLV2	160.0		270.0		250.0	85.0	92.0	94.0	120.0
TLV3	170.0		280.0		260.0	88.0	96.0	98.0	120.0
TLV4	190.0		310.0		290.0	98.0	110.0	770.0	130.0
TLV5	180.0		300.0		280.0	96.0	100.0	110.0	130.0
TLVI	170.0		290.0		270.0	90.0	98.0	100.0	120.0
EA-01/02	15.0	15.0	13.0	9.6	41.0	15.0	13.0	81.0	13.0
EA-03/04	7.4	7.4	6.5	4.8	21.0	7.5	6.7	40.0	6.7
EA-05/06	7.5	7.5	6.5	4.9	21.0	7.5	6.8	41.0	6.7
EA-07/08	7.4	7.5	6.5	4.8	21.0	7.5	6.7	41.0	6.7
EA-09/10	7.4	7.4	6.4	4.8	20.0	7.4	6.7	40.0	6.6

Station	HEXACHLOROBUTADIENE	HEXACHLOROCYCLOPENTADIENE	HEXACHLOROETHANE	ISOPHORONE	NITROBENZENE	N-NITROSODI-N-PROPYLAMINE	N-NITROSODIPHENYLAMINE	PENTACHLOROPHENOL	PHENOL	Station *Assessment*
MD Residential Clean-up	8200	47.000	46.000	670.000	3900	91	130.000	5300	2.300.000	
MD Non-Residential Clean-up	37.000	610.000	200.000	3.000.000	51.000	410	580.000	24.000	31.000.000	
PI-4	210.0	110.0	260.0		170.0	110.0	87.0	99.0	130.0	
PI-5	240.0	120.0	290.0		190.0	130.0	97.0	110.0	140.0	
TLS2VC	82.0	160.0	74.0		88.0	100.0	69.0	380.0	340.0	
TLV2	290.0	140.0	350.0		230.0	150.0	120.0	130.0	180.0	
TLV3	300.0	150.0	360.0		240.0	160.0	120.0	140.0	180.0	
TLV4	330.0	160.0	400.0		270.0	180.0	140.0	150.0	200.0	
TLV5	330.0	160.0	390.0		260.0	170.0	130.0	150.0	200.0	
TLVI	310.0	150.0	370.0		240.0	160.0	120.0	140.0	190.0	
EA-01/02	13.0	53.0	13.0	13.0	21.0	13.0	140.0	910.0	14.0	
EA-03/04	6.5	27.0	6.4	6.3	11.0	6.7	69.0	460.0	6.8	
EA-05/06	6.6	27.0	6.4	6.4	11.0	6.8	70.0	460.0	6.9	
EA-07/08	6.5	27.0	6.4	6.4	11.0	6.8	69.0	460.0	6.9	
EA-09/10	6.5	26.0	6.3	6.3	11.0	6.7	68.0	450.0	6.8	

Table C6. PCBs.

	Soil Standards:	BZ 77*	BZ 105*	BZ 118*	BZ 126*	BZ 156	BZ 169*
	>OR Sed Bioaccum Humans	>0.0064	>0.021	>0.026	>0.0000062	>0.026	>0.000021

Northing	Easting	Study	Station	BZ 77*	BZ 105*	BZ 118*	BZ 126*	BZ 156	BZ 169*	TOTAL PCBs (ND=0)	TOTAL PCBs (ND=1/2MDL)
169418.3005	445558.0246	BaltCont	B10	2.911		1.435		1.64		214.954	
167406.6177	444837.5393	BaltCont	B11	3.035		1.758		0.842		79.644	
168377.1279	443579.1963	BaltCont	B12	3.101		1.822		0.914		81.585	
167707.8589	443563.6922	BaltCont	B13	3.803		2.35		1.157		115.686	
166366.7975	443633.5158	BaltCont	B14	3.579		2.186		0.978		101.353	
165144.9747	442953.5785	BaltCont	B15	4.407		2.92		0.783		120.948	
165144.9747	442953.5785	BaltCont	B15J	2.431		1.573		0.627		62.365	
164492.488	442044.6642	BaltCont	B16	6.125		3.996		0.931		152.705	
167372.5815	442591.0007	BaltCont	B17	1.287		0.745		0.249		43.412	
166864.2566	441527.9215	BaltCont	B18	3.555		2.125		0.971		93.382	
165811.7946	440765.1991	BaltCont	B19	1.197		0.8		0.375		32.476	
166700.5394	448000.7011	BaltCont	B2	3.616		2.142		1.06		110.256	
164755.9096	439305.9598	BaltCont	B20	3.489		2.122		0.803		91.561	
166269.5665	439826.5689	BaltCont	B21	4.594		2.893		0.817		123.97	
168253.5197	441823.0183	BaltCont	B22	1.899		1.377		0.712		65.154	
169368.1619	441502.7418	BaltCont	B23	5.413		3.275		1.692		152.034	
170606.6785	443010.2238	BaltCont	B24	4.948		3.045		0.971		153.967	
171085.5329	440853.113	BaltCont	B25	7.149		4.25		2.104		200.731	
172221.7593	441706.0216	BaltCont	B26	1.049		0.594		0.333		33.837	
172941.3387	441903.7017	BaltCont	B27	0.317		0.173		0.099		8.197	
174935.7746	442900.2801	BaltCont	B29	4.981		3.257		1.164		120.257	
164615.7774	447470.713	BaltCont	B3	1.427		0.071		1		37.305	
175203.1735	443858.0128	BaltCont	B30	15.98		8.985		2.568		325.695	
175691.6869	442968.0997	BaltCont	B31	11.316		8.116		2.801		343.274	
175916.4058	444561.3816	BaltCont	B32	9.743		6.437		1.678		201.139	
176283.2908	443995.8602	BaltCont	B33	11.606		7.646		1.782		314.434	
176244.0256	445230.8735	BaltCont	B34	83.266		55.76		5.845		1163.856	
176782.7908	445071.9435	BaltCont	B35	7.254		5.016		1.37		205.613	
173401.1127	441373.5846	BaltCont	B36	0.258		0.152		0.04		176.851	
174322.5801	439452.5627	BaltCont	B37	1.614		0.821		4.001		97.433	
176570.572	440038.2978	BaltCont	B38	4.853		2.895		1.986		172.19	
175823.8174	438711.3306	BaltCont	B39	3.207		1.961		1.25		117.036	
165655.551	445999.9164	BaltCont	B4	0.987		0.477		0.265		26.405	
173058.2781	439466.0874	BaltCont	B40	2.748		1.765		0.996		92.814	
173327.6288	439059.3875	BaltCont	B41	2.707		1.688		0.896		86.19	
173284.3226	438404.8006	BaltCont	B42	5.907		3.687		2.374		188.17	
172296.6895	439489.0912	BaltCont	B43	5.556		3.463		1.589		194.227	
172396.8259	437900.5774	BaltCont	B44	15.126		9.113		5.285		551.302	
172242.5179	436569.956	BaltCont	B45	13.977		9.467		7.41		513.142	
171399.9123	436413.1246	BaltCont	B46	14.935		10.038		6.812		521.533	
170677.7868	436301.292	BaltCont	B47	11.713		5.742		5.411		493.852	
169739.3611	436761.5388	BaltCont	B48	24.304		13.095		10.276		808.748	
168874.5814	436477.585	BaltCont	B49	10.689		5.969		4.067		360.499	
168314.0532	435280.1554	BaltCont	B50	5.106		2.701		1.968		167.485	
167855.1881	436098.2703	BaltCont	B51	5.585		3.345		1.61		189.347	
166836.033	435766.8652	BaltCont	B52	3.728		2.227		1.251		104.5	
175277.7894	437395.1507	BaltCont	B53	3.03		1.471		0.973		111.724	
176772.795	437256.1953	BaltCont	B54	2.729		1.511		0.18		51.483	
176635.0878	436161.1822	BaltCont	B55	2.741		1.749		1.005		93.565	
176274.4728	436203.5969	BaltCont	B56	3.017		1.753		0.678		99.508	
176332.2298	435340.194	BaltCont	B57	3.919		2.044		1.151		129.774	
176133.9886	435144.4748	BaltCont	B58	2.41		1.203		0.804		92.21	
175590.5716	434995.8354	BaltCont	B59	3.666		2.071		1.244		113.471	
170392.3295	446536.1697	BaltCont	B6	2.67		1.784		0.91		82.069	
176159.7978	434705.5889	BaltCont	B60	4.452		2.342		1.159		161.238	
176675.7958	434931.0784	BaltCont	B61	4.439		2.635		1.331		448.807	
176421.1292	434524.6198	BaltCont	B62	2.618		1.424		0.612		80.458	
176573.6468	434140.3473	BaltCont	B63	2.56		1.488		0.883		87.591	
176616.1099	433253.0837	BaltCont	B64	8.082		3.604		5.869		690.872	
176746.4147	432703.513	BaltCont	B65	12.734		5.471		8.687		902.734	
177721.3742	436328.7938	BaltCont	B67	16.566		9.148		1.863		364.076	
178925.4333	435951.7348	BaltCont	B68	5.203		3.187		1.948		172.717	
179340.6562	435710.1707	BaltCont	B69	19.564		11.747		2.389		304.923	
171649.3625	446859.8219	BaltCont	B7	5.101		3.333		0.696		113.648	
178936.0033	434873.1217	BaltCont	B70	14.223		9.774		3.467		431.137	
178605.4118	434733.1676	BaltCont	B71	24.206		12.776		10.476		1025.995	
179287.8023	434224.4547	BaltCont	B72	16.872		9.157		4.086		760.73	
179501.3954	433696.2669	BaltCont	B73	43.243		21.239		23.774		2148.244	
175282.97	451914.7237	BaltCont	B74	4.192		2.149		2.028		218.598	
175282.97	451914.7237	BaltCont	B74J	2.045		1.497		0.733		63.972	
175237.4548	449636.9354	BaltCont	B75	5.877		3.107		2.749		302.901	
176444.996	447927.0246	BaltCont	B76	7.168		4.846		2.133		198.293	
177413.7669	447489.6154	BaltCont	B77	13.02		6.556		7.168		705.941	
177293.4671	447993.7841	BaltCont	B78	5.942		3.53		1.664		153.659	
178680.8701	447937.3937	BaltCont	B79	8.491		4.992		1.67		225.246	
172017.6532	447594.1117	BaltCont	B8	4.997		3.447		0.641		114.275	
179936.0342	446395.9668	BaltCont	B80	4.668		2.211		2.588		303.087	
181313.2237	444566.8032	BaltCont	B81	6.622		3.848		1.567		177.03	
172751.5875	446558.227	BaltCont	B9	7.298		5.064		1.233		190.334	
170621.6237	440496.7314	CoxCreek	CCE-01	0.32	0.5	2.3	0.38	0.3	0.29	54.2	55.5

Soil Standards:	BZ 77*	BZ 105*	BZ 118*	BZ 126*	BZ 156	BZ 169*
>OR Sed Bioaccum Humans	>0.0064	>0.021	>0.026	>0.0000062	>0.026	>0.000021

Northing	Easting	Study	Station	BZ 77*	BZ 105*	BZ 118*	BZ 126*	BZ 156	BZ 169*	TOTAL PCBs (ND=0)	TOTAL PCBs (ND=1/2MDL)
170839.3241	440711.4386	CoxCreek	CCE-02	0.56	3.2	12	0.68	0.52	0.51	285	287
170494.833	440803.918	CoxCreek	CCE-03	0.44	0.54	2.1	0.53	0.41	0.4	32.6	35.5
170005.7082	440903.3407	CoxCreek	CCE-04	0.85	2.4	11	0.54	1.2	0.41	155	157
169877.2107	441252.3946	CoxCreek	CCE-05	0.56	0.64	2.4	0.68	0.52	0.51	37.4	41.9
169784.5911	440961.3319	CoxCreek	CCE-06	0.41	0.65	2.6	0.49	0.38	0.37	51.3	53.7
170217.7088	441372.751	CoxCreek	CCE-07	0.57	0.91	3.1	0.68	0.53	0.51	55.4	58.8
169458.2661	441246.704	CoxCreek	CCE-08	1.2	2.1	9.5	0.67	0.51	0.5	200	201
169349.5348	440642.2399	CoxCreek	CCE-09	0.94	0.9	2.8	1.1	0.87	0.85	50.5	59.4
171755.4401	440135.3666	CoxCreek	CCE-REF	0.77	1.8	6.6	0.44	0.34	0.33	153	154
166011.667	453705.8642	FedChan_02	BE-COMP-SED	0.24	0.25	0.19	0.21	0.26	0.33	0	4.5
168324.7027	451514.1998	FedChan_02	BE-1	0.23	0.25	0.19	0.21	0.25	0.33	0	4.45
166011.667	453705.8642	FedChan_02	BE-2	0.2	0.22	0.16	0.18	0.22	0.28	0	3.86
165106.8072	456084.7673	FedChan_02	BE-3	0.25	0.27	0.2	0.22	0.27	0.35	0	4.73
164660.7629	458116.5031	FedChan_02	BE-4*	0.21	0.23	0.17	0.19	0.23	0.29	0	3.98
185299.5024	469546.625	FedChan_02	CD-COMP-SED	0.18	0.19	0.14	0.16	0.2	0.25	2.72	5.82
178065.8364	466043.4977	FedChan_02	CD-1	0.19	0.21	0.15	0.17	0.21	0.27	0	3.67
185299.5024	469546.625	FedChan_02	CD-2	0.19	0.21	0.15	0.17	0.21	0.27	0	3.68
185681.9654	470106.5122	FedChan_02	CD-3*	0.17	0.18	0.13	0.15	0.18	0.23	0	3.17
158976.6696	452280.2842	FedChan_02	CR-COMP-SED	0.25	0.27	0.2	0.23	0.27	0.35	0	4.79
157037.1967	452496.4483	FedChan_02	CR-1	0.25	0.27	0.2	0.22	0.27	0.34	2.2	6.68
158976.6696	452280.2842	FedChan_02	CR-2	0.23	0.25	0.19	0.21	0.25	0.32	2.2	6.4
160334.8584	452295.7985	FedChan_02	CR-3*	0.27	0.29	0.21	0.24	0.29	0.37	1.04	5.92
162074.413	452066.6498	FedChan_02	CRA-COMP-SED	0.24	0.26	0.19	0.21	0.26	0.33	0	4.51
161557.3198	452492.364	FedChan_02	CRA-1*	0.2	0.21	0.16	0.18	0.21	0.27	0	3.74
162074.413	452066.6498	FedChan_02	CRA-2	0.25	0.27	0.2	0.23	0.27	0.35	0	4.79
162576.2662	451851.4915	FedChan_02	CRA-3	0.25	0.27	0.2	0.23	0.28	0.36	0	4.82
163347.1968	451752.7668	FedChan_02	CRA-4	0.24	0.26	0.19	0.21	0.26	0.33	0	4.53
152349.1594	453393.4138	FedChan_02	CRE-COMP-SED	0.3	0.33	0.24	0.27	0.33	0.43	0.92	6.45
151389.0698	453692.8493	FedChan_02	CRE-1	0.31	0.34	0.25	0.28	0.34	0.44	0	5.97
152349.1594	453393.4138	FedChan_02	CRE-2	0.28	0.31	0.23	0.26	0.31	0.4	0	5.41
153985.1124	453171.7022	FedChan_02	CRE-3*	0.28	0.31	0.23	0.26	0.31	0.4	0.54	5.71
166265.413	449793.3905	FedChan_02	CRU-COMP-SED	0.22	0.24	0.17	0.2	0.24	0.31	0	4.15
164794.0214	450887.5006	FedChan_02	CRU-1*	0.23	0.25	0.19	0.21	0.25	0.32	0	4.42
166265.413	449793.3905	FedChan_02	CRU-2	0.22	0.23	0.17	0.19	0.23	0.3	0	4.11
168012.1608	448922.6074	FedChan_02	CUT-COMP-SED	0.23	0.25	0.19	0.21	0.25	0.33	0	4.46
167400.2138	448998.4111	FedChan_02	CUT-1	0.25	0.27	0.2	0.22	0.27	0.35	0	4.76
168012.1608	448922.6074	FedChan_02	CUT-2	0.24	0.26	0.2	0.22	0.27	0.34	0	4.66
167924.5613	448517.0405	FedChan_02	CUT-3*	0.21	0.22	0.16	0.18	0.22	0.29	0	3.92
159246.3566	460509.2746	FedChan_02	SWP-COMP-SED	0.26	0.28	0.21	0.24	0.28	0.37	0	4.99
157522.7431	459644.2826	FedChan_02	SWP-1	0.29	0.31	0.23	0.26	0.31	0.4	4.6	9.86
159246.3566	460509.2746	FedChan_02	SWP-2*	0.24	0.26	0.19	0.21	0.26	0.33	0	4.51
166475.9078	460335.7824	FedChan_02	TLC-COMP-SED	0.22	0.24	0.18	0.2	0.24	0.31	0.6	4.61
164340.2352	459053.946	FedChan_02	TLC-1*	0.27	0.29	0.21	0.24	0.29	0.38	0	5.12
166475.9078	460335.7824	FedChan_02	TLC-2	0.2	0.22	0.16	0.18	0.22	0.28	0	3.78
170650.6315	463684.1628	FedChan_02	TLC-3	0.16	0.18	0.13	0.15	0.18	0.23	1.08	3.99
134279.6095	449901.2592	FedChan_02	UB1REF*	0.24	0.26	0.19	0.21	0.26	0.33	3.8	8.11
129648.4174	447752.5411	FedChan_02	UB2REF	0.23	0.25	0.18	0.2	0.25	0.32	7.32	10.51
126592.7669	456379.326	FedChan_02	UB3REF	0.087	0.094	0.07	0.078	0.095	0.12	0	1.653
129648.4174	447752.5411	FedChan_02	UBREF-COMP-SED	0.15	0.16	0.12	0.13	0.16	0.2	3.32	5.848
169321.3256	445054.2199	FedChan_05	BR-COMP	0.46	0.86	2.3	0.16	0.12	0.12	55.6	55.9
168576.9186	447476.2277	FedChan_05	BR1	0.2	0.7	1.7	0.17	0.13	0.12	37.8	38.1
169321.3256	445054.2199	FedChan_05	BR2	0.49	0.75	2.2	0.15	0.11	0.11	53.4	53.6
169914.8778	444002.6934	FedChan_05	BR3	0.48	0.88	2.1	0.19	0.14	0.19	50	50.2
170474.5943	442140.9933	FedChan_05	BRA-COMP	0.5	0.7	1.7	0.17	0.13	0.23	53.2	53.4
170435.5768	442797.6818	FedChan_05	BRA1	0.55	1.1	2.2	0.18	0.14	0.21	68.2	68.4
170474.5943	442140.9933	FedChan_05	BRA2	0.17	0.72	1.6	0.17	0.13	0.24	45.9	46.1
170981.0286	442038.9584	FedChan_05	BRA3	0.43	0.72	1.6	0.17	0.13	0.27	46.1	46.3
172733.272	438417.1602	FedChan_05	CB-COMP	0.45	1.3	3.7	0.19	0.15	0.15	98.1	98.2
172843.1798	438569.1823	FedChan_05	CB1	0.57	0.85	2.4	0.19	0.15	0.15	60.8	61.1
172733.272	438417.1602	FedChan_05	CB2	0.76	1.7	4.4	0.23	0.17	0.32	114	115
172724.3414	436936.2468	FedChan_05	CB3	0.4	0.93	3.7	0.17	0.13	0.13	103	103
171394.6697	436286.0809	FedChan_05	CC-COMP	0.82	1.7	8.2	0.4	0.31	0.3	243	243
172379.2499	436734.9233	FedChan_05	CC1	0.3	1.9	6.7	0.36	0.28	0.27	175	177
171394.6697	436286.0809	FedChan_05	CC2	0.2	0.86	3.9	0.19	0.15	0.15	111	111
170581.4572	436482.7318	FedChan_05	CC3	0.93	1.9	9.5	0.46	0.36	0.35	356	357
169833.5816	437197.4268	FedChan_05	CC4	0.51	2.8	7.6	0.41	1.7	0.3	239	239
174193.8949	440053.3297	FedChan_05	DDE-COMP	0.087	0.12	0.3	0.1	0.081	0.079	9.7	10.1
173765.1816	439797.9225	FedChan_05	DDE1	0.14	0.29	0.75	0.17	0.13	0.13	19.1	19.5
174193.8949	440053.3297	FedChan_05	DDE2	0.16	0.15	0.4	0.19	0.15	0.14	8.46	9.65
174533.8689	440322.1145	FedChan_05	DDE3	0.066	0.064	0.062	0.08	0.062	0.06	1.24	2.07
175268.6685	439637.8202	FedChan_05	DDW-COMP	0.68	1.1	3.1	0.16	0.12	0.12	76.9	77.2
174825.9953	439547.9622	FedChan_05	DDW1	0.6	0.79	2.8	0.16	0.13	0.12	62.9	63.2
175268.6685	439637.8202	FedChan_05	DDW2	0.51	1	2.9	0.15	0.38	0.25	71.8	72
174806.0949	440004.1776	FedChan_05	DDW3	1.4	7.7	18	0.63	3.9	0.47	308	309
176503.6815	435960.4753	FedChan_05	FB1	1.3	1.9	5.4	0.22	1.4	0.33	135	135
176399.9916	435123.714	FedChan_05	FB2	0.95	1.8	4.4	0.21	0.16	0.3	122	122
174668.7551	438810.6113	FedChan_05	FTM-COMP	0.56	1.3	2.7	0.19	0.15	0.18	69	69.2
171852.1409	440913.0303	FedChan_05	FTM1	0.25	0.95	2.6	0.19	0.15	0.14	63.4	63.9
174668.7551	438810.6113	FedChan_05	FTM2	0.82	1.2	2.8	0.19	0.15	0.3	181	181
176085.0174	437442.7116	FedChan_05	FTM3	0.65	1.2	3.3	0.2	0.16	0.2	91.1	91.3
174259.9268	439572.3888	FedChan_05	HA-COMP	0.89	1.1	2.9	0.19	0.14	0.16	79.3	79.5
175569.0093	438639.2893	FedChan_05	HA1	0.91	1.4	4.1	0.2	0.16	0.19	104	104
174259.9268	439572.3888	FedChan_05	HA2	0.65	0.77	1.8	0.17	0.13	0.13	52.2	52.5
177548.6975	436674.8747	FedChan_05	NWBE-COMP	1.1	2.5	7.4	0.21	0.16	0.16	164	164

Soil Standards:	BZ 77*	BZ 105*	BZ 118*	BZ 126*	BZ 156	BZ 169*
>OR Sed Bioaccum Humans	>0.0064	>0.021	>0.026	>0.0000062	>0.026	>0.000021

Northing	Easting	Study	Station	BZ 77*	BZ 105*	BZ 118*	BZ 126*	BZ 156	BZ 169*	TOTAL PCBs (ND=0)	TOTAL PCBs (ND=1/2MDL)
176793.6469	437043.765	FedChan_05	NWBE1	0.35	1.7	4.5	0.2	0.16	0.34	108	108
177548.6975	436674.8747	FedChan_05	NWBE2	0.92	1.7	4.8	0.21	0.72	0.16	114	114
178248.6768	436795.3042	FedChan_05	NWBE3	1.8	5.2	22	1.1	3.6	0.82	483	485
178895.8769	435496.5606	FedChan_05	NWBW-COMP	0.66	5.1	14	0.79	0.61	0.59	386	388
178539.1695	435992.8938	FedChan_05	NWBW1	0.29	1.8	4.4	0.16	0.5	0.15	104	104
178895.8769	435496.5606	FedChan_05	NWBW2	2.8	12	31	3.3	2.6	2.5	943	951
179003.4896	435149.5	FedChan_05	NWBW3	1.3	7.4	24	1.6	1.2	1.2	584	589
176436.717	438622.0864	FedChan_05	SGT-COMP	0.48	1.3	4	0.12	0.095	0.24	101	102
176232.1962	438039.0254	FedChan_05	SGT1	0.36	1.4	4.3	0.14	0.11	0.27	97.9	98.1
176436.717	438622.0864	FedChan_05	SGT2	0.87	2.2	6.3	0.17	0.13	0.41	141	142
176641.7925	438559.2245	FedChan_05	SGT3	0.43	0.23	1.2	0.085	0.066	0.064	44.5	44.7
177240.0387	434708.5885	FedChan_05	SLP-COMP	0.82	1.5	4	0.17	0.65	0.21	117	117
176678.1033	434834.7757	FedChan_05	SLP1	0.43	1.8	4.7	0.2	0.16	0.25	129	130
177240.0387	434708.5885	FedChan_05	SLP2	1.3	1.7	5	0.21	0.17	0.16	160	161
176956.1388	435360.0193	FedChan_05	SLP3	0.75	1	2.8	0.13	0.1	0.12	71.9	72
175892.9745	435999.1093	Masonville	M-B1	8.1	13	41	2.5	6.3	3.8	784	805
176099.8167	435605.4421	Masonville	M-B2	3.7	2.3	5	0.69	0.84	1.1	178	184
176106.489	435165.0689	Masonville	M-B3	3.5	0.91	8.6	0.75	1.1	1.2	280	288
175559.3584	435712.1995	Masonville	M-B5	1.6	5.4	15	1.6	2.4	0.53	347	347
175792.8898	435732.2164	Masonville	M-B6	1.5	5.6	14	1.2	2.4	0.6	324	324
176373.3817	435712.1995	Masonville	M-B7	5.1	13	30	1.6	4.1	0.79	693	694
175973.0424	435778.9227	Masonville	MSN03-JV1	0.1	2.8	6.2	0.12	0.89	0.093	131	133
176159.8674	435772.2503	Masonville	MSN03-JV2	0.37	6.5	12	0.45	3.3	0.33	378	385
176053.1103	435685.51	Masonville	MSN03-JV3	0.39	5.4	19	0.47	3.1	0.35	416	422
176066.4551	435425.2895	Masonville	MSN03-JV4	0.09	2.1	4.4	0.11	0.083	0.081	99.2	101
176026.4211	435098.3458	Masonville	MSN03-JV5	0.31	2.1	6	0.38	0.29	0.28	194	199
175919.664	435024.9502	Masonville	MSNSURF05-1-S	0.64	1.6	4.1	0.098	0.72	0.42	125	125
175586.0476	434904.8483	Masonville	MSNSURF05-2-S	1.5	2.2	5.2	0.14	0.82	1.8	130	130
175319.155	434811.4357	Masonville	MSNSURF05-3-S	0.12	0.12	6.9	0.14	1.8	0.94	99.1	99.9
175432.5842	435085.001	Masonville	MSNSURF05-4-S	0.43	4.6	11	0.51	2.1	7.7	248	249
174980.0107	439508.6765	Seagirt	EA-01/02	0.052	0.05	0.14	0.063	0.048	0.047	0.79	4.15
175392.4051	439798.0536	Seagirt	EA-03/04	0.04	0.039	0.062	0.049	0.038	0.036	0.51	3.17
175834.6699	439750.4134	Seagirt	EA-05/06	0.043	0.041	0.1	0.052	0.04	0.039	2.556	4.956
175606.5271	439613.3143	Seagirt	EA-07/08	0.046	0.044	0.043	0.055	0.042	0.041	0.542	3.692
175868.6551	439615.5089	Seagirt	EA-09/10	0.048	0.046	0.045	0.058	0.045	0.043	0.148	3.888

Table C7. PCDDs.

Northing	Easting	Study	Station	2,3,7,8-TCDD	1,2,3,7,8-PeCDD	1,2,3,4,7,8-HxCDD	1,2,3,6,7,8-HxCDD	1,2,3,7,8,9-HxCDD	1,2,3,4,6,7,8-HpCDD	OCDD	2,3,7,8-TCDF	1,2,3,7,8-PeCDF	2,3,4,7,8-PeCDF	1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDF	2,3,4,6,7,8-HxCDF	1,2,3,7,8,9-HxCDF	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	OCDF
			Soil Standards:	2,3,7,8-TCDD	1,2,3,7,8-PeCDD	1,2,3,4,7,8-HxCDD	1,2,3,6,7,8-HxCDD	1,2,3,7,8,9-HxCDD	1,2,3,4,6,7,8-HpCDD	OCDD	2,3,7,8-TCDF	1,2,3,7,8-PeCDF	2,3,4,7,8-PeCDF	1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDF	2,3,4,6,7,8-HxCDF	1,2,3,7,8,9-HxCDF	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	OCDF
			>OR Sed Bioaccum Humans	0.0011	0.034	0.34	0.34	0.34	85	2800	0.094	0.31	0.0037	0.34	0.34	0.34	0.34	85	85	2800
170621.6237	440496.7314	CoxCreek	CCE-01	1	0.62	0.56	2.1	1.8	44	1100	26	52	11	80	16	2.3	11	56	42	560
170839.3241	440711.4386	CoxCreek	CCE-02	0.51	2	2.2	12	6.5	160	3000	21	39	11	87	13	3.2	8.6	96	81	2100
170494.833	440803.918	CoxCreek	CCE-03	1	1.2	1.6	4.7	5.4	99	3000	14	25	5.7	38	8	1.9	4.7	38	23	430
170005.7082	440903.3407	CoxCreek	CCE-04	0.48	3.2	3.1	13	10	180	3700	33	53	14	83	16	3.8	9	86	49	790
169877.2107	441252.3946	CoxCreek	CCE-05	0.55	2.8	3	11	14	230	6400	18	30	11	48	10	3	5.3	60	26	340
169784.5911	440961.3319	CoxCreek	CCE-06	1	1.9	2.1	7.6	8	150	3600	26	41	11	65	13	3.2	7.7	63	34	450
170217.7088	441372.751	CoxCreek	CCE-07	0.61	3.1	4.6	13	14	240	5900	24	37	12	55	12	4.1	6.5	68	30	380
169458.2661	441246.704	CoxCreek	CCE-08	0.58	2.4	2.7	12	8.3	190	4000	22	29	12	47	11	3.5	4.6	70	28	390
169349.5348	440642.2399	CoxCreek	CCE-09	1	2.3	3.7	11	12	220	6000	34	64	15	90	19	3.9	11	72	46	590
171755.4401	440135.3666	CoxCreek	CCE-REF	1	1.5	1.8	9.9	5.6	130	2300	15	19	8	30	6.6	2.1	3.1	42	16	230
166011.667	453705.8642	FedChan_02	BE-COMP-SED	1	5	5	6	6	168	4800	4	5	5	5	5	5	5	23	5	47
169319.6004	445074.3854	FedChan_02	BR-COMP-SED	1	5	5	9	8	213	5630	10	13	7	21	6	5	5	41	11	132
170465.4655	442165.5266	FedChan_02	BRA-COMP-SED	1	5	5	5	5	149	3690	7	9	5	17	5	5	5	29	9	141
172729.398	438384.0864	FedChan_02	CB-COMP-SED	1	5	5	5	5	103	2380	5	9	9	16	5	5	5	24	7	97
171574.6327	436388.8961	FedChan_02	CC-COMP-SED	1	5	5	20	12	425	6850	13	14	51	39	14	15	7	121	16	289
185299.5024	469546.625	FedChan_02	CD-COMP-SED	1	5	5	5	5	80	2570	2	5	5	5	5	5	5	11	5	20
158976.6696	452280.2842	FedChan_02	CR-COMP-SED	1	5	5	5	5	155	4660	3	5	5	5	5	5	5	15	5	33
162074.413	452066.6498	FedChan_02	CRA-COMP-SED	1	5	5	6	7	174	4940	4	5	5	5	5	5	5	21	5	44
152349.1594	453393.4138	FedChan_02	CRE-COMP-SED	1	5	5	5	6	165	4740	3	5	5	5	5	5	5	16	5	29
166265.413	449793.3905	FedChan_02	CRU-COMP-SED	1	5	5	7	8	199	5590	5	5	5	8	5	5	5	28	5	65
168012.1608	448922.6074	FedChan_02	CUT-COMP-SED	1	5	5	5	5	68	1800	2	5	5	5	5	5	5	10	5	35
175657.825	435080.9993	FedChan_02	FB-COMP-SED	1	5	5	12	8	279	7360	7	11	8	20	6	5	5	66	9	165
174661.3728	438812.0866	FedChan_02	FTM-COMP-SED	1	5	5	7	6	145	3590	4	7	5	12	5	5	5	26	6	107
175373.0503	437525.221	FedChan_02	HA-COMP-SED	1	5	7	31	20	440	10800	16	27	17	47	15	11	8	112	27	370
177250.8926	436692.0806	FedChan_02	NWBE-COMP-SED	1	5	5	13	8	269	5300	5	8	7	15	6	5	5	69	10	182
178541.995	435800.1749	FedChan_02	NWBW-COMP-SED	1	5	5	8	5	171	2960	3	5	5	9	5	5	5	39	5	105
159246.3566	460509.2746	FedChan_02	SWP-COMP-SED	1	5	5	5	5	119	3610	1	5	5	5	5	5	5	10	5	18
166475.9078	460335.7824	FedChan_02	TLC-COMP-SED	1	5	5	5	5	183	5520	4	5	5	5	5	5	5	23	5	35
129648.4174	447752.5411	FedChan_02	UBREF-COMP-SED	1	5	5	5	5	104	3020	1	5	5	5	5	5	5	9	5	13
169321.3256	445054.2199	FedChan_05	BR-COMP	0.579	2.91	4.49	12.6	14.6	266	7120	9.4	9.29	6.69	18.7	5.82	3.51	1.37	48.3	9.45	133
170474.5943	442140.9933	FedChan_05	BRA-COMP	0.997	4.99	4.99	4.99	4.99	4.23	117	0.997	4.99	4.99	0.264	4.99	4.99	4.99	0.846	4.99	2.21
172733.272	438417.1602	FedChan_05	CB-COMP	0.997	4.99	4.99	4.99	4.99	4.9	94.8	0.695	0.434	0.448	0.848	4.99	4.99	4.99	1.13	4.99	2.47
171394.6697	436286.0809	FedChan_05	CC-COMP	0.998	4.99	0.268	0.94	0.638	17.6	206	0.981	0.636	1.88	2.42	0.485	0.39	4.99	4.8	0.64	7.4
174193.8949	440053.3297	FedChan_05	DDE-COMP	0.999	5	5	0.52	0.299	5.46	121	0.999	0.235	0.148	0.392	5	5	5	1.21	5	1.75
175268.6685	439637.8202	FedChan_05	DDW-COMP	0.999	3.52	4.44	28.1	18.3	299	6990	8.66	12.5	7.21	24.7	7.11	3.41	2.51	64.9	12.8	159
174668.7551	438810.6113	FedChan_05	FTM-COMP	1	5	5	5	5	3.08	69.2	1	0.369	5	0.35	5	5	5	0.887	5	2.55
174259.9268	439572.3888	FedChan_05	HA-COMP	0.997	2.7	4.97	17.8	17.3	308	8850	8.92	14.3	6.56	23.8	7.29	3.16	1.84	57.2	12	148
178895.8769	435496.5606	FedChan_05	NWBW-COMP	1.41	6.24	6.91	29.9	22.2	487	9260	7.1	33.2	11.1	30.9	16.8	10.5	0.694	163	13.1	274
176436.717	438622.0864	FedChan_05	SGT-COMP	0.249	2.85	5.76	18.6	16.5	275	7230	4.84	7.7	2.9	9.13	4.53	2.45	1.21	58.7	7.33	120
177240.0387	434708.5885	FedChan_05	SLP-COMP	0.998	4.99	0.175	0.691	0.384	11	247	0.512	4.99	0.261	0.676	4.99	4.99	4.99	3.22	4.99	5.66
175892.9745	435999.1093	Masonville	M-B1	0.93	2.5	3.6	17	5.1	330	5000	8.6	5.1	8.6	18	7.9	6.2	0.75	100	11	200
176099.8167	435605.4421	Masonville	M-B2	6.2	1.4	2.6	8.4	5.9	170	3700	5	3.5	4.6	10	4	3	0.56	37	3.3	77
176106.489	435165.0689	Masonville	M-B3	0.61	1.5	2.6	12	5.3	260	5000	3.6	2.5	4.2	9.2	3.9	3	0.43	59	5.5	170
175559.3584	435712.1995	Masonville	M-B5	0.43	2.9	2.2	2.2	3.8	240	2600	3.4	0.75	2.1	5.2	3	3.1	0.61	98	3.3	280
175792.8898	435732.2164	Masonville	M-B6	0.66	2.1	3.8	16	7.6	390	6600	4.9	4.1	10	14	8.6	8.7	0.75	110	8.7	250
176373.3817	435712.1995	Masonville	M-B7	1.5	4.7	6.2	34	15	630	12000	13	7.5	14	27	12	9.2	0.89	190	16	470
175973.0424	435778.9227	Masonville	MSN03-JV1	1.5	3.4	3.9	15	9.3	350	6600	6.8	5.1	9	13	8.2	8.9	1.1	150	7	330
176159.8674	435772.2503	Masonville	MSN03-JV2	1.6	3.6	5.7	24	14	540	11000	7.7	6.5	10	17	9.4	8.4	0.94	150	13	410
176053.1103	435685.51	Masonville	MSN03-JV3	1.3	5.1	5.8	27	12	610	12000	8.7	9.2	17	33	17	13	1.4	220	15	470
176066.4551	435425.2895	Masonville	MSN03-JV4	1.1	4	4.9	12	7.5	210	4600	2.6	5.7	8.5	12	8	8.4	4.1	87	8.9	210
176026.4211	435098.3458	Masonville	MSN03-JV5	1.1	2.5	2.2	6	4.5	140	3200	2.3	2.1	1.9	4.6	2.6	2.2	1.2	38	4.5	100
175919.664	435024.9502	Masonville	MSNSURF05-1-S	0.89	2.7	4.1	12	9.3	280	7400	3.9	3.4	5.9	10	5.7	4.7	1	81	7.3	200
175586.0476	434904.8483	Masonville	MSNSURF05-2-S	1.7	5	6.2	25	17	570	13000	5.8	6.1	9.6	23	10	8.7	1.5	170	14	490
175319.155	434811.4357	Masonville	MSNSURF05-3-S	1.6	4.8	8.1	48	20	990	13000	8.5	9.6	16	52	18	14	2.1	330	36	990
175432.5842	435085.001	Masonville	MSNSURF05-4-S	1.1	6.5	9.5	56	24	1400	18000	7.6	9.9	18	70	25	17	1.7	540	46	1500
174980.0107	439508.6765	Seagirt	EA-01/02	1	5	5	5	0.19	5.2	91	1	5	5	5	5	5	5	5	5	0.14
175392.4051	439798.0536	Seagirt	EA-03/04	1	5	5	0.2	5	1.7	30	1	5	5	5	5	5	5	0.3	5	0.69
175834.6699	439750.4134	Seagirt	EA-05/06	1	5	5	5	5	1.5	25	1	5	5	5	5	5	5	5	5	0.19
175606.5271	439613.3143	Seagirt	EA-07/08	1	5	5	0.3	0.27	5.7	130	1	5	5	5	5	5	5	0.25	5	0.56
175868.6551	439615.5089	Seagirt	EA-09/10	1	5	0.15	1	0.53	18	350	1	5	5	5	5	5	5	5	5	10

Table 8. Combined metals and organics.

Station Assessment	Northing	Easting	Station	Study	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Iron	Lead	Mangenese	Mercury	Nickel	Selenium	Silver	Thallium	Tin	Zinc
				Soil Standards:	***Aluminum***	***Antimony***	***Arsenic***	***Beryllium***	***Cadmium***	***Chromium***	***Copper***	***Iron***	***Lead***	***Mangenese***	***Mercury***	***Nickel***	***Selenium***	***Silver***	***Thallium***	***Tin***	***Zinc***
				Habitat Reconstruction (TELs)		1.0	7.2		0.7	70.0	30.0		30.0		0.13	50.0		0.7		0.048	124.0
				MD Residential Clean-up	70000.0	3.1	20.0	16.0	3.6	70.0	310.0	40000.0	400.0	1000.0	2.3	160.0	39.0	39.0	0.6	4700.0	2300.0
				MD Non-Residential Clean-up	100000.0	41.0	20.0	200.0	51.0	310.0	4100.0	72000.0	1000.0	2000.0	31.0	2000.0	510.0	510.0	7.2	61000.0	31000.0
				Metals																	
	169321.33	445054.22	BR-COMP	FED05		0.6	20.4			88.9	58.2				0.27						337.0
	168576.92	447476.23	BR1	FED05		0.6	16.8			67.7	47.3				0.26						299.0
	169321.33	445054.22	BR2	FED05		0.5	20.1			94.2	58.8				0.24						330.0
	169914.88	444002.69	BR3	FED05		0.7	19.8			91.9	58.0				0.28						321.0
	170474.59	442140.99	BRA-COMI	FED05		0.6	17.5			71.9	50.6				0.24						278.0
	170435.58	442797.68	BRA1	FED05		0.9	19.3			93.7	57.7				0.31						305.0
	170474.59	442140.99	BRA2	FED05		0.6	17.2			74.4	53.4				0.24						289.0
	170981.03	442038.96	BRA3	FED05		0.6	17.4			68.1	49.6				0.21						276.0
	172733.27	438417.16	CB-COMP	FED05		0.8	23.4			102.0	77.0				0.30						244.0
	172843.18	438569.18	CB1	FED05		0.7	23.0			134.0	80.0				0.32						378.0
	172733.27	438417.16	CB2	FED05		1.5	27.3			143.0	104.0				0.41						330.0
	172724.34	436936.25	CB3	FED05		0.6	30.0			90.3	86.7				0.27						210.0
	171394.67	436286.08	CC-COMP	FED05		1.7	69.8			160.0	281.0				1.10						510.0
	172379.25	436734.92	CC1	FED05		0.7	70.1			159.0	208.0				1.40						426.0
	171394.67	436286.08	CC2	FED05		1.9	76.4			157.0	238.0				1.30						454.0
	170581.46	436482.73	CC3	FED05		1.9	52.7			158.0	345.0				1.10						568.0
	169833.58	437197.43	CC4	FED05		1.9	55.9			162.0	447.0				0.88						770.0
	174193.89	440053.33	DDE-COMI	FED05		0.4	10.0			68.5	45.2				0.12						147.0
	173765.18	439797.92	DDE1	FED05		0.6	13.1			86.1	53.7				0.19						199.0
	174193.89	440053.33	DDE2	FED05		1.2	22.3			165.0	111.0				0.39						367.0
	174533.87	440322.11	DDE3	FED05		0.3	7.3			43.4	27.8				0.07						71.6
	175268.67	439637.82	DDW-COM	FED05		0.9	17.8			132.0	96.8				0.32						298.0
	174826	439547.96	DDW1	FED05		1.0	22.4			164.0	114.0				0.40						358.0
	175268.67	439637.82	DDW2	FED05		1.0	25.7			129.0	83.7				0.31						250.0
	174806.09	440004.18	DDW3	FED05		1.1	17.9			158.0	102.0				0.33						321.0
	176503.68	435960.48	FB1	FED05		1.0	20.2			145.0	149.0				0.43						347.0
	176399.99	435123.71	FB2	FED05		0.8	19.5			135.0	145.0				0.77						336.0
	174668.76	438810.61	FTM-COMI	FED05		1.2	19.9			128.0	89.6				0.30						333.0
	171852.14	440913.03	FTM1	FED05		1.4	22.8			146.0	84.5				0.34						368.0
	174668.76	438810.61	FTM2	FED05		1.3	20.2			115.0	81.5				0.30						322.0
	176085.02	437442.71	FTM3	FED05		1.0	16.1			107.0	91.4				0.42						282.0
	174259.93	439572.39	HA-COMP	FED05		0.9	19.4			124.0	86.9				0.34						297.0
	175569.01	438639.29	HA1	FED05		0.7	22.0			150.0	110.0				0.37						364.0
	174259.93	439572.39	HA2	FED05		0.6	20.9			123.0	78.2				0.26						271.0
	177548.7	436674.87	NWBE-COI	FED05		1.9	30.8			235.0	327.0				0.82						428.0
	176793.65	437043.77	NWBE1	FED05		0.9	21.0			143.0	136.0				0.45						355.0
	177548.7	436674.87	NWBE2	FED05		1.0	22.1			173.0	183.0				0.47						387.0
	178248.68	436795.3	NWBE3	FED05		3.3	58.8			435.0	782.0				1.10						586.0
	178895.88	435496.56	NWBW-CO	FED05		2.1	30.2			536.0	336.0				0.99						434.0
	178539.17	435992.89	NWBW1	FED05		0.8	12.7			143.0	157.0				0.38						269.0
	178895.88	435496.56	NWBW2	FED05		4.0	58.9			1060.0	631.0				2.10						656.0
	179003.49	435149.5	NWBW3	FED05		2.3	28.4			568.0	321.0				1.10						469.0
	176436.72	438622.09	SGT-COMI	FED05		0.9	14.1			110.0	76.3				0.20						214.0
	176232.2	438039.03	SGT1	FED05		0.7	13.7			98.6	81.4				0.27						241.0
	176436.72	438622.09	SGT2	FED05		1.1	22.0			160.0	149.0				0.46						377.0
	176641.79	438559.22	SGT3	FED05		0.7	14.1			200.0	50.4				0.13						135.0
	177240.04	434708.59	SLP-COMI	FED05		0.9	16.2			111.0	120.0				0.30						269.0
	176678.1	434834.78	SLP1	FED05		1.0	18.9			134.0	143.0				0.40						329.0
	177240.04	434708.59	SLP2	FED05		0.8	23.2			136.0	174.0				0.40						360.0
	176956.14	435360.02	SLP3	FED05		0.7	12.6			86.8	88.5				0.26						200.0
	169319.6	445074.39	BR-COMP-	FED02		0.8	17.8		0.970	78.0	52.8		72.9		0.27	44.8	1.4	0.9	2.0	16.8	316.0
	168547.57	447518.15	BR-1	FED02		0.7	16.9		0.410	69.5	45.4		69.1		0.25	42.8	2.9	0.9	2.0	15.3	304.0
	169319.6	445074.39	BR-2	FED02		0.6	15.9		0.510	68.1	49.7		62.8		0.22	46.0	1.5	0.7	2.9	13.6	290.0
	169881.74	444031.66	BR-3*	FED02		0.8	17.2		0.490	93.6	55.6		77.3		0.32	39.3	1.8	0.8	2.9	19.2	319.0
	170465.47	442165.53	BRA-COMI	FED02		0.7	18.4		0.210	99.7	58.8		77.0		0.30	36.6	1.6	0.9	2.9	21.4	313.0
	170449.04	442891.19	BRA-1	FED02		0.8	20.1		0.360	120.0	70.6		89.7		0.38	42.5	2.1	0.9	3.5	27.0	368.0
	170465.47	442165.53	BRA-2	FED02		0.7	20.4		0.170	107.0	63.6		83.7		0.30	40.0	2.4	1.0	3.6	21.7	340.0
	170940.53	442079.48	BRA-3*	FED02		0.8	19.6		0.250	98.9	61.7		81.5		0.27	40.3	2.1	1.0	1.9	20.9	338.0
	172729.4	438384.09	CB-COMP-	FED02		0.9	31.0		0.960	149.0	105.0		107.0		0.56	39.2	4.2	0.7	1.7	25.7	352.0
	172827.97	439972.49	CB-1	FED02		0.7	17.4		0.390	104.0	57.8		70.2		0.29	30.3	2.3	0.8	1.7	17.9	268.0
	172729.4	438384.09	CB-2	FED02		1.2	32.8		0.720	180.0	125.0		121.0		0.49	41.3	3.6	0.8	3.2	28.0	392.0
	172729.92	436939.09	CB-3*	FED02		0.6	26.2		0.540	73.9	73.6		62.7		0.41	23.9	2.9	0.1	1.9	11.8	179.0
	171574.63	436388.9	CC-COMP-	FED02		1.3	54.1		1.400	165.0	285.0		218.0		0.93	42.1	5.3	0.2	4.2	37.1	511.0
	172362.54	436722.04	CC-1	FED02		1.3	63.9		1.600	182.0	237.0		220.0		0.94	39.2	4.9	0.2	4.2	42.9	486.0
	171574.63	436388.9	CC-2*	FED02		1.2	67.5		0.083	195.0	268.0		225.0		1.10	42.6	5.2	0.1	4.7	39.8	508.0
	170489.12	436520.6	CC-3	FED02		1.3	47.7		1.200	153.0	304.0		219.0		0.93	41.2	3.9	0.3	4.2	35.4	507.0
	169859.58	437220.33	CC-4	FED02		1.0	37.7		1.200	94.1	303.0		161.0		0.67	31.9	3.9	0.3	2.8	21.3	468.0
	175657.83	435081	FB-COMP-	FED02		0.9	17.2		1.000	119.0	120.0		92.4		0.38	35.3	3.0	0.7	2.4	19.1	300.0
	176507.3	435940.32	FB-1	FED02		0.9	18.6		1.100	132.0	130.0		101.0		0.40	41.1	3.8	0.8	1.9	20.8	338.0
	175657.83	435081	FB-2*	FED02		0.8	18.4		1.000	112.0	132.0		95.6		0.38	33.4	2.9	0.8	3.8	17.2	295.0
	174661.37	438812.09	FTM-COMI	FED02		0.7	16.9		0.640	97.4	63.0		61.3		0.31	30.5	2.3	0.6	2.5	16.8	239.0
	171839.29	440934.68	FTM-1	FED02		0.5	20.4		0.800	108.0	56.9		64.5		0.23	32.2	3.3	0.5	1.9	17.2	247.0
	174661.37	438812.09	FTM-2	FED02		0.8	23.0		1.400	151.0	98.5		101.0		0.42	40.9	3.8	0.9	1.9	25.4	370.0

Station Assessment	Northing	Easting	Station	Study	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Iron	Lead	Mangenese	Mercury	Nickel	Selenium	Silver	Thallium	Tin	Zinc
Soil Standards:					Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Iron	Lead	Mangenese	Mercury	Nickel	Selenium	Silver	Thallium	Tin	Zinc
Habitat Reconstruction (TELs)						1.0	7.2		0.7	70.0	30.0		30.0		0.13	50.0		0.7		0.048	124.0
MD Residential Clean-up					70000.0	3.1	20.0	16.0	3.6	70.0	310.0	40000.0	400.0	1000.0	2.3	160.0	39.0	39.0	0.6	4700.0	2300.0
MD Non-Residential Clean-up					100000.0	41.0	20.0	200.0	51.0	310.0	4100.0	72000.0	1000.0	2000.0	31.0	2000.0	510.0	510.0	7.2	61000.0	31000.0
				Metals																	
	176061.11	437475.9	FTM-3*	FED02		0.7	20.9		1.100	125.0	81.6		82.8		0.31	34.1	3.5	0.7	1.2	22.2	307.0
	175373.05	437525.22	HA-COMP-	FED02		0.8	19.4		1.400	160.0	115.0		97.6		0.37	39.4	3.1	0.9	3.5	21.6	362.0
	175674.65	438671.85	HA-1*	FED02		0.9	20.7		1.700	176.0	138.0		111.0		0.43	39.3	2.9	1.0	1.8	24.9	407.0
	175373.05	437525.22	HA-2	FED02		0.9	22.8		1.600	181.0	129.0		108.0		0.38	43.6	4.2	0.9	3.1	24.1	407.0
	177250.89	436692.08	NWBE-COI	FED02		1.6	29.3		1.600	215.0	292.0		172.0		0.64	41.4	28.4	4.9	4.0	25.5	392.0
	176660.89	437140.78	NWBE-1	FED02		1.1	19.0		1.100	128.0	123.0		97.2		0.41	33.2	2.7	0.9	2.4	20.4	326.0
	177250.89	436692.08	NWBE-2	FED02		0.9	18.8		1.100	143.0	147.0		111.0		0.56	35.0	4.7	1.1	2.8	21.3	332.0
	178257.92	436793.82	NWBE-3*	FED02		3.2	57.0		0.125	412.0	730.0		344.0		1.20	51.3	93.5	18.1	2.8	28.6	516.0
	178542	435800.17	NWBW-CO	FED02		0.9	17.3		1.500	209.0	194.0		126.0		0.39	45.1	6.1	1.6	2.1	16.9	324.0
	178542	435800.17	NWBW-2	FED02		0.7	5.5		0.330	68.3	43.0		21.7		0.24	40.0	2.0	0.1	1.5	7.5	99.4
	179010.84	435140.83	NWBW-3*	FED02		1.0	21.9		2.200	346.0	269.0		196.0		0.88	41.2	5.8	1.8	1.5	19.8	457.0
	163913.11	448555.58	B1	BaltCont						5.8	5.3	0.2	5.5	1053.8	0.00	7.6					48.2
	169418.3	445558.02	B10	BaltCont					0.006	189.2	83.8	4.8	66.6	2260.5	0.19	56.2					319.1
	167406.62	444837.54	B11	BaltCont					0.604	242.2	85.3	5.8	95.6	3414.3	0.47	81.3					491.9
	168377.13	443579.2	B12	BaltCont					0.286	285.2	84.2	6.8	93.8	3072.3	0.15	74.5					528.3
	167707.86	443563.69	B13	BaltCont					0.402	344.2	108.8	7.0	91.6	2609.5	0.28	80.7					570.7
	166366.8	443633.52	B14	BaltCont						343.0	117.3	6.5	121.4	2191.9	0.18	68.6					525.0
	165144.97	442953.58	B15	BaltCont					0.081	303.8	171.1	6.2	129.0	1298.5	0.33	74.3					559.7
	165144.97	442953.58	B15J	BaltCont						322.4	174.9	6.5	128.8	1275.7	0.14	75.6					574.0
	164492.49	442044.66	B16	BaltCont					0.339	281.1	299.1	5.5	147.2	608.2	0.14	84.3					630.4
	167372.58	442591	B17	BaltCont						123.0	54.4	2.9	20.2	1052.9	0.08	32.0					170.8
	166864.26	441527.92	B18	BaltCont						355.3	133.4	6.4	110.0	2028.3	0.11	68.8					476.9
	165811.79	440765.2	B19	BaltCont					0.065	344.0	172.5	6.5	154.4	1153.7	0.03	85.0					554.3
	166700.54	448000.7	B2	BaltCont					0.007	191.1	64.0	5.9	77.8	3167.2	0.24	72.6					440.5
	164755.91	439305.96	B20	BaltCont					0.955	197.1	161.0	4.7	111.7	404.9	0.30	67.3					458.2
	166269.57	439826.57	B21	BaltCont					0.560	252.4	200.0	5.7	113.9	465.7	0.09	73.9					499.4
	168253.52	441823.02	B22	BaltCont						197.8	63.4	4.1	52.0	1893.5	0.14	57.7					280.1
	169368.16	441502.74	B23	BaltCont						524.2	152.6	9.2	157.0	3381.3	0.52	69.7					715.0
	170606.68	443010.22	B24	BaltCont					0.082	320.7	115.5	6.8	125.2	2008.9	0.05	66.9					560.6
	171085.53	440853.11	B25	BaltCont						572.3	129.2	8.2	128.1	3965.3	0.53	68.0					582.3
	172221.76	441706.02	B26	BaltCont					0.010	67.9	25.4	0.0	38.8	452.0	0.05	11.1					108.3
	172941.34	441903.7	B27	BaltCont						51.9	12.7	0.9	11.2	426.2	0.02	4.6					69.8
	174935.77	442900.28	B29	BaltCont					9.281	1536.4	242.6	9.6	292.3	630.5	0.78	71.6					2574.7
	164615.78	447470.71	B3	BaltCont						10.4	8.4	0.3	10.1	972.1	0.05	11.9					69.4
	175203.17	443858.01	B30	BaltCont					6.542	1046.7	207.6	10.2	204.9	721.4	0.26	58.7					1762.6
	175691.69	442968.1	B31	BaltCont					7.645	1141.7	233.2	7.5	298.0	555.3	1.22	67.6					2057.9
	175916.41	444561.38	B32	BaltCont					6.631	1027.5	204.0	7.9	212.9	536.8	0.06	59.6					1720.2
	176283.29	443995.86	B33	BaltCont					5.305	719.4	190.5	6.8	186.2	363.9	0.17	55.4					1507.0
	176244.03	445230.87	B34	BaltCont					5.952	678.5	153.3	5.8	171.0	365.2	0.60	50.6					1786.0
	176782.79	445071.94	B35	BaltCont					8.345	841.3	221.3	7.2	266.4	459.6	1.58	64.6					2175.6
	173401.11	441373.58	B36	BaltCont						34.3	8.6	0.4	1.0	449.5	0.03	3.2					40.0
	174322.58	439452.56	B37	BaltCont					0.929	283.6	138.5	6.0	116.0	1363.2	0.21	58.0					459.5
	176570.57	440038.3	B38	BaltCont					17.595	235.9	331.3	2.6	179.2	309.8	0.64	42.5					565.9
	175823.82	438711.33	B39	BaltCont					1.676	271.1	155.1	5.7	96.6	1015.4	0.16	80.2					449.6
	173058.28	439466.09	B40	BaltCont					0.739	276.1	123.7	5.9	97.7	2799.7	0.33	78.5					432.6
	173327.63	439059.39	B41	BaltCont					0.655	277.0	120.8	6.0	102.1	2550.8	0.14	75.1					414.1
	173284.32	438404.8	B42	BaltCont					1.349	377.7	192.1	6.4	127.2	1934.4	0.76	80.1					505.7
	172296.69	439489.09	B43	BaltCont					1.327	458.2	158.4	7.4	136.2	3517.5	0.39	67.3					509.6
	172396.83	437900.58	B44	BaltCont					0.481	414.0	275.9	7.9	163.2	861.3	0.20	75.6					678.8
	172242.52	436569.96	B45	BaltCont					1.732	324.8	311.2	8.0	258.0	912.4	2.34	77.3					623.0
	171399.91	436413.12	B46	BaltCont					1.563	281.2	270.8	7.4	228.0	886.0	0.53	67.6					586.0
	170677.79	436301.29	B47	BaltCont					1.490	264.4	353.7	7.4	245.2	909.5	0.97	62.5					606.0
	169739.36	436761.54	B48	BaltCont					2.056	288.7	438.2	8.3	236.6	928.4	0.87	67.2					785.5
	168874.58	436477.59	B49	BaltCont					0.662	226.5	294.7	6.4	184.3	488.1	0.84	59.1					590.8
	166979.72	445680.13	B5	BaltCont					0.230	12.2	9.5	0.4	5.1	1844.2	0.01	16.8					78.9
	168314.05	435280.16	B50	BaltCont					1.793	138.6	184.4	4.1	142.6	357.0	0.12	50.0					479.9
	167855.19	436098.27	B51	BaltCont					1.951	160.4	215.3	4.5	136.1	392.3	0.19	54.4					506.6
	166836.03	435766.87	B52	BaltCont					1.836	132.2	175.9	3.8	122.1	313.2	0.20	48.0					455.9
	175277.79	437395.15	B53	BaltCont					0.444	270.7	138.3	4.9	98.5	1155.1	0.37	58.6					310.0
	176772.8	437256.2	B54	BaltCont					0.926	129.0	77.8	2.6	42.5	411.6	0.02	15.2					254.4
	176635.09	436161.18	B55	BaltCont					2.083	216.1	113.9	4.6	117.1	1332.9	0.45	83.5					478.0
	176274.47	436203.6	B56	BaltCont					0.475	193.8	131.4	5.1	92.1	1215.8	0.56	61.2					329.8
	176332.23	435340.19	B57	BaltCont					0.958	179.5	127.4	4.2	88.1	905.5	0.41	52.4					296.4
	176133.99	435144.47	B58	BaltCont					1.312	185.5	129.4	4.7	85.9	804.7	0.44	55.2					319.0
	175590.57	434995.84	B59	BaltCont					1.010	187.2	148.5	5.0	113.9	765.3	0.40	65.8					355.3
	170392.33	446536.17	B6	BaltCont					0.375	230.4	79.7	7.7	125.1	2831.4	0.41	71.5					652.3
	176159.8	434705.59	B60	BaltCont					0.823	171.8	102.1	4.9	79.1	1035.0	0.34	61.1					273.7
	176421.13	434524.62	B62	BaltCont					0.024	171.5	106.9	4.9	70.9	1335.4	0.25	63.3					291.3
	176573.65	434140.35	B63	BaltCont					0.887	162.2	125.4	4.7	79.0	1194.9	0.41	58.0					313.4
	176616.11	433253.08	B64	BaltCont					0.028	188.5	117.1	5.0	77.8	1252.7	0.37	69.7					321.3
	176746.41	432703.51	B65	BaltCont					2.404	205.9	176.3	4.1	167.4	1096.0	0.33	85.9					531.6
	177721.37	436328.79	B67	BaltCont					1.109	283.9	291.0	3.6	154.7	1680.7	0.76	36.3					330.2
	178925.43	435951.73	B68	BaltCont					3.179	385.6	293.1	4.5	227.9	736.5	0.60	59.6					492.6

				Soil Standards:	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Iron	Lead	Mangenese	Mercury	Nickel	Selenium	Silver	Thallium	Tin	Zinc
				Habitat Reconstruction (TELs)		1.0	7.2		0.7	70.0	30.0		30.0		0.13	50.0		0.7		0.048	124.0
				MD Residential Clean-up	70000.0	3.1	20.0	16.0	3.6	70.0	310.0	40000.0	400.0	1000.0	2.3	160.0	39.0	39.0	0.6	4700.0	2300.0
				MD Non-Residential Clean-up	100000.0	41.0	20.0	200.0	51.0	310.0	4100.0	72000.0	1000.0	2000.0	31.0	2000.0	510.0	510.0	7.2	61000.0	31000.0
Station				Metals																	
Assessment	Northing	Easting	Station	Study	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Iron	Lead	Mangenese	Mercury	Nickel	Selenium	Silver	Thallium	Tin	Zinc
	179340.66	435710.17	B69	BaltCont					3.604	672.5	532.1	5.7	1014.0	637.8	0.77	68.5					994.2
	171649.36	446859.82	B7	BaltCont					0.442	270.4	85.7	11.0	260.4	2166.4	0.56	61.0					1016.7
	178936	434873.12	B70	BaltCont					1.754	408.3	201.3	3.0	169.7	814.6	4.05	37.7					327.7
	178605.41	434733.17	B71	BaltCont					3.966	1119.3	399.7	5.1	353.1	650.0	0.00	83.2					748.4
	179287.8	434224.45	B72	BaltCont					2.561	247.2	225.4	4.4	291.9	747.0	0.72	69.9					656.2
	179501.4	433696.27	B73	BaltCont					3.493	891.7	396.0	5.0	348.6	744.7	1.29	78.6					722.7
	175282.97	451914.72	B74	BaltCont					0.851	155.0	69.1	4.5	75.7	3205.2	0.18	76.7					360.0
	175282.97	451914.72	B74J	BaltCont											0.25						
	175237.45	449636.94	B75	BaltCont					0.284	238.1	151.4	4.9	98.0	2130.8	0.32	63.1					393.2
	176445	447927.02	B76	BaltCont					3.120	321.2	179.6	4.9	179.9	1123.8	0.44	111.2					680.9
	177413.77	447489.62	B77	BaltCont					4.266	345.4	187.1	4.9	183.0	989.5	0.94	111.0					746.7
	177293.47	447993.78	B78	BaltCont					4.195	329.2	174.2	4.8	168.7	1178.1	0.65	110.0					695.4
	178680.87	447937.39	B79	BaltCont					3.918	343.7	209.0	4.8	198.5	1081.2	0.97	119.7					756.7
	172017.65	447594.11	B8	BaltCont					0.596	285.2	94.2	12.5	265.9	1331.4	0.32	49.6					1204.1
	179936.03	446395.97	B80	BaltCont					5.302	405.0	229.5	5.2	231.0	1011.1	0.26	134.9					899.7
	181313.22	444566.8	B81	BaltCont					2.729	325.9	140.0	3.9	236.7	653.6	0.65	157.7					700.5
	172751.59	446558.23	B9	BaltCont					1.085	293.8	148.2	9.5	244.2	1147.3	0.70	48.0					1414.5

		Soil Standards:	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE*	BENZO(B)FLUORANTHENE	BENZO(GHI)PERYLENE	BENZO(K)FLUORANTHENE	CHRYSENE	DIBENZO(A,H)ANTHRACENE
Soil S													
Habitat Reconstruct		Habitat Reconstruction (TELs)		6.7	5.9	47	75	22				108	6
MD Residentia		MD Residential Clean-up	31,000	470,000	470,000	2,300,000	220	22	220	230,000	2,200	22,000	22
MD Non-Residentia		MD Non-Residential Clean-up	410,000	6,100,000	6,100,000	31,000,000	3,900	390	3,900	3,100,000	39,000	390,000	390

Station Assessment	Northing	Easting	Station	PAH Station	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE*	BENZO(B)FLUORANTHENE	BENZO(GHI)PERYLENE	BENZO(K)FLUORANTHENE	CHRYSENE	DIBENZO(A,H)ANTHRACENE
	169321.33	445054.22	BR-COMP	BR-COMP	160.0	44.0	80.0	130.0	210.0	230.0	300.0	180.0	100.0	240.0	43.0
	168576.92	447476.23	BR1	BR1	91.0	32.0	45.0	83.0	120.0	140.0	170.0	130.0	63.0	150.0	29.0
	169321.33	445054.22	BR2	BR2	85.0	28.0	55.0	96.0	150.0	150.0	180.0	120.0	68.0	160.0	30.0
	169914.88	444002.69	BR3	BR3	120.0	42.0	84.0	110.0	230.0	280.0	320.0	230.0	140.0	270.0	53.0
	170474.59	442140.99	BRA-COMI	BRA-COMI	110.0	35.0	55.0	100.0	180.0	200.0	250.0	180.0	100.0	210.0	40.0
	170435.58	442797.68	BRA1	BRA1	180.0	51.0	99.0	150.0	260.0	320.0	360.0	280.0	180.0	310.0	63.0
	170474.59	442140.99	BRA2	BRA2	150.0	40.0	59.0	110.0	230.0	220.0	280.0	200.0	110.0	230.0	45.0
	170981.03	442038.96	BRA3	BRA3	140.0	33.0	51.0	88.0	170.0	180.0	220.0	180.0	86.0	190.0	37.0
	172733.27	438417.16	CB-COMP	CB-COMP	60.0	18.0	23.0	49.0	88.0	91.0	120.0	88.0	53.0	92.0	19.0
	172843.18	438569.18	CB1	CB1	92.0	27.0	37.0	75.0	120.0	130.0	170.0	120.0	70.0	140.0	27.0
	172733.27	438417.16	CB2	CB2	93.0	25.0	37.0	76.0	130.0	150.0	190.0	150.0	76.0	160.0	32.0
	172724.34	436936.25	CB3	CB3	50.0	16.0	16.0	44.0	77.0	79.0	110.0	74.0	36.0	88.0	17.0
	171394.67	436286.08	CC-COMP	CC-COMP	25.0	8.4	15.0	31.0	62.0	68.0	110.0	63.0	43.0	82.0	15.0
	172379.25	436734.92	CC1	CC1	130.0	48.0	46.0	130.0	280.0	250.0	350.0	220.0	110.0	320.0	53.0
	171394.67	436286.08	CC2	CC2	130.0	47.0	48.0	130.0	220.0	210.0	280.0	190.0	120.0	300.0	43.0
	170581.46	436482.73	CC3	CC3	89.0	27.0	58.0	98.0	200.0	260.0	410.0	240.0	140.0	290.0	54.0
	169833.58	437197.43	CC4	CC4	55.0	17.0	33.0	75.0	150.0	160.0	260.0	140.0	99.0	220.0	32.0
	174193.89	440053.33	DDE-COMI	DDE-COMI	33.0	10.0	13.0	26.0	46.0	58.0	73.0	56.0	32.0	58.0	12.0
	173765.18	439797.92	DDE1	DDE1	49.0	15.0	24.0	44.0	72.0	86.0	110.0	82.0	48.0	76.0	19.0
	174193.89	440053.33	DDE2	DDE2	95.0	27.0	43.0	74.0	130.0	160.0	200.0	150.0	95.0	150.0	34.0
	174533.87	440322.11	DDE3	DDE3	5.2	2.3	2.1	3.1	6.2	7.9	11.0	8.5	5.2	9.5	1.7
	175268.67	439637.82	DDW-COM	DDW-COM	13.0	9.5	14.0	33.0	63.0	69.0	87.0	59.0	29.0	74.0	13.0
	174826	439547.96	DDW1	DDW1	28.0	10.0	13.0	24.0	39.0	44.0	50.0	39.0	23.0	46.0	8.3
	175268.67	439637.82	DDW2	DDW2	11.0	6.0	9.4	20.0	37.0	42.0	56.0	40.0	19.0	45.0	8.3
	174806.09	440004.18	DDW3	DDW3	25.0	12.0	21.0	34.0	73.0	83.0	96.0	68.0	44.0	83.0	16.0
	176503.68	435960.48	FB1	FB1	60.0	20.0	29.0	71.0	120.0	130.0	170.0	130.0	75.0	140.0	30.0
	176399.99	435123.71	FB2	FB2	43.0	15.0	24.0	46.0	90.0	110.0	150.0	120.0	54.0	120.0	27.0
	174668.76	438810.61	FTM-COMI	FTM-COMI	200.0	56.0	78.0	150.0	260.0	330.0	420.0	310.0	170.0	310.0	69.0
	171852.14	440913.03	FTM1	FTM1	140.0	42.0	58.0	110.0	210.0	280.0	310.0	200.0	150.0	210.0	52.0
	174668.76	438810.61	FTM2	FTM2	140.0	37.0	55.0	98.0	220.0	230.0	290.0	220.0	110.0	220.0	48.0
	176085.02	437442.71	FTM3	FTM3	140.0	42.0	54.0	110.0	240.0	260.0	350.0	240.0	150.0	250.0	53.0
	174259.93	439572.39	HA-COMP	HA-COMP	34.0	11.0	14.0	31.0	48.0	53.0	62.0	48.0	29.0	59.0	10.0
	175569.01	438639.29	HA1	HA1	64.0	19.0	28.0	53.0	91.0	100.0	120.0	90.0	54.0	110.0	19.0
	174259.93	439572.39	HA2	HA2	12.0	8.7	15.0	31.0	55.0	70.0	77.0	59.0	29.0	65.0	12.0
	177548.7	436674.87	NWBE-COI	NWBE-COI	140.0	38.0	54.0	130.0	250.0	240.0	300.0	230.0	120.0	280.0	53.0
	176793.65	437043.77	NWBE1	NWBE1	97.0	24.0	33.0	74.0	160.0	150.0	210.0	150.0	72.0	170.0	34.0
	177548.7	436674.87	NWBE2	NWBE2	98.0	24.0	38.0	82.0	140.0	160.0	200.0	160.0	79.0	150.0	35.0
	178248.68	436795.3	NWBE3	NWBE3	140.0	45.0	82.0	240.0	400.0	370.0	460.0	320.0	180.0	540.0	79.0
	178895.88	435496.56	NWBW-CO	NWBW-CO	120.0	47.0	83.0	190.0	300.0	300.0	390.0	260.0	170.0	440.0	61.0
	178539.17	435992.89	NWBW1	NWBW1	59.0	18.0	31.0	69.0	120.0	130.0	180.0	140.0	72.0	150.0	30.0
	178895.88	435496.56	NWBW2	NWBW2	140.0	56.0	100.0	310.0	480.0	380.0	490.0	320.0	160.0	600.0	78.0
	179003.49	435149.5	NWBW3	NWBW3	130.0	48.0	95.0	220.0	390.0	390.0	520.0	330.0	200.0	520.0	81.0
	176436.72	438622.09	SGT-COMI	SGT-COMI	22.0	8.2	8.7	21.0	44.0	41.0	53.0	33.0	20.0	48.0	7.4
	176232.2	438039.03	SGT1	SGT1	27.0	9.0	13.0	26.0	45.0	48.0	60.0	45.0	21.0	58.0	9.2
	176436.72	438622.09	SGT2	SGT2	57.0	17.0	29.0	58.0	95.0	100.0	120.0	97.0	45.0	120.0	22.0
	176641.79	438559.22	SGT3	SGT3	8.1	6.2	5.9	13.0	23.0	21.0	23.0	17.0	8.4	25.0	3.7
	177240.04	434708.59	SLP-COMF	SLP-COMF	33.0	13.0	25.0	38.0	72.0	84.0	100.0	94.0	40.0	92.0	20.0
	176678.1	434834.78	SLP1	SLP1	44.0	16.0	28.0	45.0	93.0	110.0	140.0	120.0	63.0	120.0	24.0
	177240.04	434708.59	SLP2	SLP2	62.0	22.0	46.0	66.0	120.0	130.0	170.0	130.0	65.0	160.0	29.0
	176956.14	435360.02	SLP3	SLP3	35.0	14.0	24.0	40.0	77.0	85.0	110.0	85.0	44.0	94.0	17.0
	169319.6	445074.39	BR-COMP-	BR-COMP-	1.4	1.4	1.3	1.3	1.3	1.3	1.7	1.4	1.7	1.3	1.3
	168547.57	447518.15	BR-1	BR-1	1.4	1.4	1.2	1.2	2.4	2.2	3.7	1.6	1.7	2.3	1.2
	169319.6	445074.39	BR-2	BR-2	1.2	1.2	1.1	1.1	1.4	1.2	2.0	1.2	1.5	1.3	1.1
	169881.74	444031.66	BR-3*	BR-3*	1.6	1.4	1.3	1.3	2.8	2.9	5.1	2.7	1.7	2.9	1.3
	170465.47	442165.53	BRA-COMI	BRA-COMI	3.0	1.3	1.2	2.1	4.3	5.3	5.2	3.7	4.0	4.8	1.2
	170449.04	442891.19	BRA-1	BRA-1	1.5	1.5	1.4	1.4	3.4	4.4	7.0	3.3	1.8	4.1	1.4
	170465.47	442165.53	BRA-2	BRA-2	3.2	1.2	1.6	2.3	5.3	6.9	11.0	4.7	1.4	5.7	1.6
	170940.53	442079.48	BRA-3*	BRA-3*	1.2	1.2	1.1	1.1	2.4	2.7	4.1	1.6	1.5	2.5	1.1
	172729.4	438384.09	CB-COMP-	CB-COMP-	1.7	1.7	1.6	1.6	1.6	1.6	2.1	1.7	2.1	1.6	1.6
	172827.97	439972.49	CB-1	CB-1	1.4	1.4	1.2	1.2	1.7	1.4	2.1	1.4	1.7	1.3	1.2
	172729.4	438384.09	CB-2	CB-2	2.0	2.0	1.8	1.8	2.1	1.8	2.9	2.2	2.4	1.8	1.8
	172729.92	436939.09	CB-3*	CB-3*	1.2	1.2	1.1	1.1	1.1	1.1	1.4	1.2	1.4	1.1	1.1
	171574.63	436388.9	CC-COMP-	CC-COMP-	1.9	1.9	1.7	1.7	2.1	1.7	3.8	1.9	2.3	3.2	1.7
	172362.54	436722.04	CC-1	CC-1	2.1	2.1	1.9	1.9	2.9	2.3	4.7	2.1	2.5	3.1	1.9
	171574.63	436388.9	CC-2*	CC-2*	1.6	1.6	1.5	1.5	2.9	2.6	4.7	2.2	2.0	3.3	1.5
	170489.12	436520.6	CC-3	CC-3	2.1	2.1	1.9	1.9	3.6	3.2	9.5	3.2	2.5	6.3	1.9
	169859.58	437220.33	CC-4	CC-4	1.8	1.8	1.6	1.6	2.8	2.0	4.6	1.8	2.1	3.8	1.6
	175657.83	435081	FB-COMP-	FB-COMP-	2.5	1.7	1.9	2.3	6.5	8.5	15.0	7.3	2.1	8.9	2.4
	176507.3	435940.32	FB-1	FB-1	1.7	1.7	1.6	1.6	1.6	1.6	2.2	1.8	2.1	1.6	1.6
	175657.83	435081	FB-2*	FB-2*	1.6	1.6	1.5	1.5	3.7	3.8	7.1	3.2	2.0	4.5	1.5
	174661.37	438812.09	FTM-COMI	FTM-COMI	1.3	1.3	1.2	1.2	2.4	2.4	4.2	1.6	1.5	2.4	1.2
	171839.29	440934.68	FTM-1	FTM-1	1.0	1.0	0.9	0.9	2.1	1.9	3.2	1.2	1.2	2.1	0.9
	174661.37	438812.09	FTM-2	FTM-2	1.4	1.4	1.3	1.3	1.5	1.3	2.2	1.4	1.7	1.3	1.3

	Soil Standards:	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE*	BENZO(B)FLUORANTHENE	BENZO(GHI)PERYLENE	BENZO(K)FLUORANTHENE	CHRYSENE	DIBENZO(A,H)ANTHRACENE
Habitat Reconstruct	Habitat Reconstruction (TELs)		6.7	5.9	47	75	22				108	6
MD Residentia	MD Residential Clean-up	31,000	470,000	470,000	2,300,000	220	22	220	230,000	2,200	22,000	22
MD Non-Residentia	MD Non-Residential Clean-up	410,000	6,100,000	6,100,000	31,000,000	3,900	390	3,900	3,100,000	39,000	390,000	390

PAH

Station Assessment	Northing	Easting	Station	Station	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE*	BENZO(B)FLUORANTHENE	BENZO(GHI)PERYLENE	BENZO(K)FLUORANTHENE	CHRYSENE	DIBENZO(A,H)ANTHRACENE
	176061.11	437475.9	FTM-3*	FTM-3*	1.4	1.4	1.2	1.2	1.2	1.2	1.7	1.4	1.7	1.2	1.2
	175373.05	437525.22	HA-COMP-	HA-COMP-	1.4	1.4	1.3	1.3	1.3	1.3	1.9	1.4	1.7	1.3	1.3
	175674.65	438671.85	HA-1*	HA-1*	1.6	1.6	1.4	1.4	2.3	2.1	3.5	1.9	1.9	2.1	1.4
	175373.05	437525.22	HA-2	HA-2	1.4	1.4	1.3	1.3	2.6	2.6	4.7	2.4	1.8	2.7	1.3
	177250.89	436692.08	NWBE-COI	NWBE-COI	1.7	1.7	1.5	1.8	4.6	4.6	7.9	3.9	2.0	5.1	1.5
	176660.89	437140.78	NWBE-1	NWBE-1	1.6	1.6	1.5	1.5	4.4	4.0	6.7	2.6	2.0	4.9	1.5
	177250.89	436692.08	NWBE-2	NWBE-2	1.7	1.7	1.5	1.5	2.5	2.4	4.4	1.9	2.1	2.7	1.5
	178257.92	436793.82	NWBE-3*	NWBE-3*	2.3	1.7	1.6	3.0	8.6	7.9	13.0	5.6	2.1	9.9	2.3
	178542	435800.17	NWBW-CO	NWBW-CO	1.7	1.7	1.6	1.6	3.6	3.8	6.9	3.2	2.1	3.8	1.6
	178542	435800.17	NWBW-2	NWBW-2	1.5	1.3	1.1	1.3	3.3	3.3	6.3	2.5	1.5	3.6	1.1
	179010.84	435140.83	NWBW-3*	NWBW-3*	2.0	2.0	1.8	1.9	6.1	6.9	13.0	5.7	2.4	7.1	1.9
	163913.11	448555.58	B1	B1	3.6	3.3	1.4	3.4	3.4	5.8	9.1	4.2	2.1	4.1	
	169418.3	445558.02	B10	B10	336.0	73.0	91.5	215.4	370.1	631.1	591.2	426.6	509.9	383.8	57.6
	167406.62	444837.54	B11	B11	659.4	406.4	194.8	654.5	1072.8	1247.9	1106.3	826.4	843.5	877.1	123.2
	168377.13	443579.2	B12	B12	703.4	197.5	316.1	401.0	540.7	707.5	721.0	481.2	0.0	515.9	65.5
	167707.86	443563.69	B13	B13	482.5	124.1	137.8	351.1	540.7	762.5	744.8	502.1	661.9	583.0	51.8
	166366.8	443633.52	B14	B14	489.9	271.0	213.7	385.3	553.9	738.6	749.0	489.1	614.6	603.6	48.3
	165144.97	442953.58	B15	B15	256.1	63.7	79.0	249.6	302.5	378.6	444.3	281.4	308.5	326.5	36.5
	165144.97	442953.58	B15J	B15J	614.7	322.1	387.9	478.0	476.3	624.9	690.0	464.4	571.4	540.6	44.1
	164492.49	442044.66	B16	B16	416.1	93.5	215.0	607.3	1035.1	1141.9	1533.2	891.8	1011.4	1212.0	102.4
	167372.58	442591	B17	B17	134.9	69.3	55.0	161.1	180.2	214.8	190.1	149.0	191.1	198.6	14.0
	166864.26	441527.92	B18	B18	418.4	101.1	145.3	290.5	640.0	706.5	763.1	503.9	588.5	643.9	71.6
	165811.79	440765.2	B19	B19	679.2	391.2	673.3	480.7	630.6	881.1	1136.4	580.4	894.6	711.8	66.2
	166700.54	448000.7	B2	B2	453.7	80.3	97.0	230.9	314.8	391.1	424.8	268.0	324.2	338.7	30.6
	164755.91	439305.96	B20	B20	181.1	40.1	168.4	269.3	407.1	512.8	741.4	407.5	535.9	496.9	35.2
	166269.57	439826.57	B21	B21	260.3	55.0	98.9	204.2	328.2	472.5	569.5	363.8	439.8	438.3	34.6
	168253.52	441823.02	B22	B22	308.1	134.9	234.6	289.7	406.4	472.1	497.2	293.1	387.0	388.3	40.3
	169368.16	441502.74	B23	B23	480.4	85.6	129.3	302.7	619.4	861.3	944.4	576.9	658.3	620.1	74.2
	170606.68	443010.22	B24	B24	944.9	257.8	453.7	1118.7	1595.1	2569.9	2557.8	1741.4	1808.0	1506.5	237.0
	171085.53	440853.11	B25	B25	384.4	78.9	101.8	667.9	613.3	769.5	857.0	547.4	632.7	617.4	78.0
	172221.76	441706.02	B26	B26	100.7	21.3	77.8	240.5	827.6	821.5	754.8	438.4	674.1	667.3	57.8
	172941.34	441903.7	B27	B27	32.1	6.4	14.6	23.1	45.7	59.3	66.2	45.7	52.1	48.8	5.9
	174935.77	442900.28	B29	B29	438.6	76.7	264.4	325.7	907.5	1424.9	1584.5	1125.9	1311.3	939.4	174.6
	164615.78	447470.71	B3	B3	16.1	18.4	14.0	28.4	86.0	142.4	109.1	79.6	147.0	94.6	6.3
	175203.17	443858.01	B30	B30	408.6	79.3	235.3	358.6	948.6	1283.7	1604.6	1090.5	1040.8	970.9	167.1
	175691.69	442968.1	B31	B31	474.6	98.1	287.0	253.3	828.1	1256.5	1345.0	1057.8	1138.7	941.7	127.2
	175916.41	444561.38	B32	B32	381.3	90.3	357.5	355.5	813.3	1195.0	1541.6	1032.3	1005.2	881.7	29.6
	176283.29	443995.86	B33	B33	278.3	75.0	211.3	182.6	582.6	855.1	1119.1	768.5	779.0	732.3	97.8
	176244.03	445230.87	B34	B34	187.9	76.8	185.3	204.5	441.4	609.0	791.1	496.8	56.8	487.1	65.4
	176782.79	445071.94	B35	B35	435.0	58.8	171.0	146.8	429.4	551.1	694.1	465.2	533.3	540.5	51.3
	173401.11	441373.58	B36	B36	33.4	6.7	32.2	9.7	12.2	16.1	20.2	13.6	14.0	14.6	1.9
	174322.58	439452.56	B37	B37	141.8	51.7	66.3	139.9	172.3	212.6	201.1	141.6	159.0	175.8	17.9
	176570.57	440038.3	B38	B38	199.0	68.0	88.3	154.0	381.2	425.8	561.4	333.1	357.5	452.6	42.7
	175823.82	438711.33	B39	B39	375.6	84.3	100.8	214.6	386.6	476.3	565.7	335.3	416.7	384.8	36.7
	173058.28	439466.09	B40	B40	284.3	64.3	118.7	213.5	329.9	439.7	479.4	317.0	346.7	355.4	37.3
	173327.63	439059.39	B41	B41	239.1	53.5	76.5	149.4	266.5	355.8	367.1	250.5	288.6	300.1	29.4
	173284.32	438404.8	B42	B42	405.2	128.0	236.5	211.3	323.9	404.0	467.1	308.2	339.3	359.7	38.7
	172296.69	439489.09	B43	B43	437.4	134.4	179.0	445.5	504.7	621.1	675.5	459.2	497.3	546.0	57.3
	172396.83	437900.58	B44	B44	345.8	58.2	81.2	231.3	347.5	459.7	545.4	346.2	382.0	347.2	55.4
	172242.52	436569.96	B45	B45	522.3	113.4	91.1	289.9	498.0	598.5	705.3	431.5	522.2	623.3	56.5
	171399.91	436413.12	B46	B46	1052.3	548.9	568.6	221.2	484.0	568.2	673.9	403.6	498.8	608.4	51.4
	170677.79	436301.29	B47	B47	182.4	63.8	114.6	198.8	371.7	478.7	576.6	356.1	447.7	461.5	42.6
	169739.36	436761.54	B48	B48	246.2	72.7	123.6	271.0	828.0	896.3	1305.2	658.7	922.1	958.6	70.0
	168874.58	436477.59	B49	B49	224.4	89.9	121.6	183.7	296.6	445.1	680.6	434.0	486.3	396.9	46.0
	166979.72	445680.13	B5	B5	35.9	41.6	11.8	29.6	53.3	60.6	62.4	30.7	64.8	50.4	3.3
	168314.05	435280.16	B50	B50	66.7	22.2	28.5	94.8	352.1	596.2	919.2	580.8	614.2	510.2	54.3
	167855.19	436098.27	B51	B51	70.8	23.0	49.7	81.3	224.8	343.7	483.6	329.2	345.6	354.2	36.6
	166836.03	435766.87	B52	B52	47.6	17.5	39.1	60.8	227.6	390.0	567.7	396.9	419.5	371.0	38.1
	175277.79	437395.15	B53	B53	149.2	45.4	63.3	195.9	250.8	331.0	349.9	258.5	260.4	340.1	28.0
	176772.8	437256.2	B54	B54	123.6	77.0	18.7	105.4	152.9	136.5	115.6	81.7	101.8	143.2	9.9
	176635.09	436161.18	B55	B55	317.1	107.6	185.9	385.5	328.7	427.7	520.5	338.7	314.7	420.4	51.3
	176274.47	436203.6	B56	B56	209.4	185.7	255.4	174.6	344.7	451.9	513.6	317.4	376.8	455.3	41.9
	176332.23	435340.19	B57	B57	163.2	56.8	61.6	169.7	305.2	450.5	446.6	309.9	352.5	341.1	44.0
	176133.99	435144.47	B58	B58	193.8	163.8	221.8	61.9	157.2	199.4	248.8	164.1	192.8	188.3	16.6
	175590.57	434995.84	B59	B59	94.9	40.3	72.0	139.5	311.1	466.8	561.5	400.5	451.7	415.6	44.0
	170392.33	446536.17	B6	B6	578.2	92.4	218.2	448.9	959.6	1258.0	1174.7	761.3	1027.7	891.5	108.7
	176159.8	434705.59	B60	B60	263.2	47.4	51.6	114.2	413.6	538.3	609.2	439.8	473.6	521.1	50.1
	176421.13	434524.62	B62	B62	89.1	30.7	48.3	83.7	237.9	318.0	365.3	296.0	273.7	340.0	30.5
	176573.65	434140.35	B63	B63	118.6	34.4	47.3	123.0	272.8	398.6	478.0	314.5	350.0	369.3	37.3
	176616.11	433253.08	B64	B64	130.0	37.7	82.8	137.8	469.6	641.3	682.8	527.2	539.9	579.9	58.4
	176746.41	432703.51	B65	B65	152.0	97.5	176.0	224.5	844.4	1176.7	1301.1	999.3	1049.4	1035.1	119.7
	177721.37	436328.79	B67	B67	176.5	79.9	160.3	208.5	617.2	725.4	799.1	486.6	558.0	806.1	69.8
	178925.43	435951.73	B68	B68	1506.9	3742.0	1787.8	506.4	739.8	1026.5	1103.5	824.0	742.8	775.1	84.6

Station Assessment	Northing	Easting	Station		Station	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE*	BENZO(B)FLUORANTHENE	BENZO(GHI)PERYLENE	BENZO(K)FLUORANTHENE	CHRYSENE	DIBENZO(A,H)ANTHRACENE
				Soil S	**Soil Standards:**	2-METHYLNAPHTHALENE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE*	BENZO(B)FLUORANTHENE	BENZO(GHI)PERYLENE	BENZO(K)FLUORANTHENE	CHRYSENE	DIBENZO(A,H)ANTHRACENE
				Habitat Reconstruct	**Habitat Reconstruction (TELs)**		6.7	5.9	47	75	22				108	6
				MD Residentia	**MD Residential Clean-up**	31,000	470,000	470,000	2,300,000	220	22	220	230,000	2,200	22,000	22
				MD Non-Residentia	**MD Non-Residential Clean-up**	410,000	6,100,000	6,100,000	31,000,000	3,900	390	3,900	3,100,000	39,000	390,000	390
					PAH											
	179340.66	435710.17	B69		B69	481.0	164.2	177.2	1577.6	1664.5	1737.7	2131.6	1311.2	1175.4	1214.8	242.7
	171649.36	446859.82	B7		B7	331.4	102.3	101.6	278.3	610.7	929.3	982.2	658.0	698.3	632.6	47.5
	178936	434873.12	B70		B70	366.6	258.1	255.0	422.2	1039.3	1277.3	1775.6	1385.7	970.6	1186.2	204.7
	178605.41	434733.17	B71		B71	465.9	252.4	320.3	539.6	1295.7	1475.8	1716.0	1152.1	1245.7	1319.7	41.2
	179287.8	434224.45	B72		B72	215.5	265.1	179.1	732.2	2576.3	2766.2	3690.2	2477.6	2174.7	3148.9	303.2
	179501.4	433696.27	B73		B73	498.3	211.4	200.6	710.1	2015.1	2479.3	2962.6	1976.6	2096.4	2021.7	261.4
	175282.97	451914.72	B74		B74	217.9	27.8	56.0	105.8	133.4	185.2	226.6	155.1	194.0	175.8	18.7
	175282.97	451914.72	B74J		B74J	187.1	22.7	47.7	113.5	127.8	166.9	195.9	138.1	166.3	177.5	16.2
	175237.45	449636.94	B75		B75	167.9	32.6	57.7	105.8	111.6	122.2	180.6	136.9	129.9	132.0	17.4
	176445	447927.02	B76		B76	184.1	24.8	36.6	95.8	265.2	312.1	521.4	304.7	284.1	296.5	34.0
	177413.77	447489.62	B77		B77	287.6	51.2	96.6	121.8	269.4	305.1	438.5	283.9	286.7	326.3	30.5
	177293.47	447993.78	B78		B78	253.1	105.3	280.0	117.1	262.1	318.2	443.7	293.9	319.6	329.3	30.0
	178680.87	447937.39	B79		B79	192.8	39.6	80.0	85.7	261.3	300.2	394.0	301.0	330.2	369.1	34.8
	172017.65	447594.11	B8		B8	293.6	113.6	75.3	309.4	875.9	1410.9	1508.7	1114.7	933.0	964.8	134.5
	179936.03	446395.97	B80		B80	151.3	33.9	72.1	88.1	356.8	446.9	640.1	430.1	403.1	485.7	48.5
	181313.22	444566.8	B81		B81	70.4	37.4	71.3	138.5	635.3	863.4	1030.7	725.8	789.1	885.2	83.6
	172751.59	446558.23	B9		B9	247.6	77.8	77.3	229.4	643.1	955.7	1109.7	809.7	757.2	717.8	98.8

			Soil S	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE	PHENANTHRENE	PYRENE
			Habitat Reconstruct	113	21		35	87	153
			MD Residentia	310,000	310,000	220	160,000	2,300,000	230,000
			MD Non-Residentia	4,100,000	4,100,000	3,900	2,000,000	31,000,000	3,100,000
Station Assessment	Northing	Easting	Station	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE	PHENANTHRENE	PYRENE
	169321.33	445054.22	BR-COMP	480.0	80.0	150.0	430.0	270.0	370.0
	168576.92	447476.23	BR1	300.0	52.0	110.0	170.0	180.0	290.0
	169321.33	445054.22	BR2	310.0	77.0	100.0	230.0	180.0	250.0
	169914.88	444002.69	BR3	380.0	75.0	180.0	500.0	200.0	360.0
	170474.59	442140.99	BRA-COMI	340.0	65.0	150.0	220.0	230.0	350.0
	170435.58	442797.68	BRA1	540.0	93.0	230.0	600.0	290.0	420.0
	170474.59	442140.99	BRA2	340.0	70.0	170.0	350.0	270.0	390.0
	170981.03	442038.96	BRA3	230.0	57.0	140.0	310.0	200.0	310.0
	172733.27	438417.16	CB-COMP	140.0	31.0	70.0	110.0	100.0	160.0
	172843.18	438569.18	CB1	220.0	48.0	100.0	190.0	160.0	230.0
	172733.27	438417.16	CB2	240.0	46.0	120.0	180.0	150.0	260.0
	172724.34	436936.25	CB3	150.0	29.0	60.0	74.0	92.0	170.0
	171394.67	436286.08	CC-COMP	130.0	17.0	54.0	36.0	51.0	140.0
	172379.25	436734.92	CC1	500.0	81.0	180.0	190.0	290.0	490.0
	171394.67	436286.08	CC2	480.0	80.0	150.0	170.0	300.0	470.0
	170581.46	436482.73	CC3	400.0	55.0	200.0	110.0	160.0	490.0
	169833.58	437197.43	CC4	310.0	26.0	120.0	66.0	110.0	460.0
	174193.89	440053.33	DDE-COMI	95.0	19.0	47.0	71.0	56.0	95.0
	173765.18	439797.92	DDE1	140.0	31.0	69.0	110.0	85.0	130.0
	174193.89	440053.33	DDE2	260.0	53.0	130.0	210.0	150.0	240.0
	174533.87	440322.11	DDE3	15.0	3.8	6.8	8.1	12.0	15.0
	175268.67	439637.82	DDW-COM	130.0	18.0	45.0	13.0	83.0	120.0
	174826	439547.96	DDW1	75.0	17.0	28.0	62.0	52.0	75.0
	175268.67	439637.82	DDW2	78.0	13.0	29.0	11.0	44.0	77.0
	174806.09	440004.18	DDW3	120.0	20.0	54.0	50.0	72.0	110.0
	176503.68	435960.48	FB1	240.0	28.0	110.0	110.0	110.0	220.0
	176399.99	435123.71	FB2	190.0	28.0	100.0	73.0	90.0	180.0
	174668.76	438810.61	FTM-COMI	460.0	100.0	250.0	440.0	310.0	570.0
	171852.14	440913.03	FTM1	330.0	58.0	190.0	340.0	210.0	340.0
	174668.76	438810.61	FTM2	290.0	68.0	180.0	300.0	210.0	370.0
	176085.02	437442.71	FTM3	330.0	72.0	200.0	270.0	230.0	490.0
	174259.93	439572.39	HA-COMP	95.0	19.0	35.0	75.0	65.0	94.0
	175569.01	438639.29	HA1	190.0	34.0	67.0	140.0	120.0	160.0
	174259.93	439572.39	HA2	110.0	15.0	43.0	12.0	66.0	120.0
	177548.7	436674.87	NWBE-COI	420.0	46.0	180.0	270.0	180.0	420.0
	176793.65	437043.77	NWBE1	260.0	46.0	120.0	170.0	170.0	280.0
	177548.7	436674.87	NWBE2	250.0	49.0	130.0	180.0	140.0	280.0
	178248.68	436795.3	NWBE3	780.0	63.0	250.0	200.0	260.0	680.0
	178895.88	435496.56	NWBW-CO	750.0	63.0	210.0	170.0	230.0	550.0
	178539.17	435992.89	NWBW1	240.0	38.0	110.0	94.0	110.0	220.0
	178895.88	435496.56	NWBW2	950.0	82.0	250.0	210.0	280.0	770.0
	179003.49	435149.5	NWBW3	970.0	62.0	260.0	180.0	290.0	720.0
	176436.72	438622.09	SGT-COMI	91.0	13.0	25.0	42.0	46.0	78.0
	176232.2	438039.03	SGT1	73.0	15.0	31.0	52.0	53.0	57.0
	176436.72	438622.09	SGT2	210.0	31.0	72.0	96.0	110.0	140.0
	176641.79	438559.22	SGT3	55.0	8.8	12.0	19.0	29.0	47.0
	177240.04	434708.59	SLP-COMI	180.0	23.0	70.0	53.0	76.0	150.0
	176678.1	434834.78	SLP1	210.0	30.0	84.0	65.0	92.0	180.0
	177240.04	434708.59	SLP2	260.0	41.0	100.0	92.0	130.0	230.0
	176956.14	435360.02	SLP3	180.0	24.0	61.0	60.0	78.0	150.0
	169319.6	445074.39	BR-COMP-	1.3	1.4	1.4	1.3	1.3	1.8
	168547.57	447518.15	BR-1	2.9	1.3	1.3	1.3	1.7	4.1
	169319.6	445074.39	BR-2	1.5	1.2	1.2	1.1	1.1	2.1
	169881.74	444031.66	BR-3*	3.9	1.4	2.1	5.3	3.0	5.2
	170465.47	442165.53	BRA-COMI	6.3	1.7	3.2	11.0	4.2	7.3
	170449.04	442891.19	BRA-1	5.0	1.4	2.9	4.6	2.2	5.9
	170465.47	442165.53	BRA-2	8.1	1.9	4.1	9.4	4.8	9.2
	170940.53	442079.48	BRA-3*	3.0	1.2	1.5	2.2	1.3	3.3
	172729.4	438384.09	CB-COMP-	1.6	1.6	1.7	1.6	1.6	2.2
	172827.97	439972.49	CB-1	1.3	1.3	1.3	1.3	1.2	1.8
	172729.4	438384.09	CB-2	1.8	1.9	1.9	1.8	1.8	2.6
	172729.92	436939.09	CB-3*	1.1	1.1	1.1	1.1	1.1	1.5
	171574.63	436388.9	CC-COMP-	3.0	1.8	1.9	1.8	1.7	4.3
	172362.54	436722.04	CC-1	4.1	2.0	2.0	1.9	2.6	5.6
	171574.63	436388.9	CC-2*	4.5	1.5	1.6	1.5	2.4	5.4
	170489.12	436520.6	CC-3	8.6	2.0	2.5	1.9	3.1	11.0
	169859.58	437220.33	CC-4	2.9	1.7	1.7	1.6	1.6	3.6
	175657.83	435081	FB-COMP-	10.0	1.6	5.6	1.6	5.2	14.0
	176507.3	435940.32	FB-1	1.8	1.7	1.7	2.6	1.6	2.7
	175657.83	435081	FB-2*	5.4	1.5	2.5	3.1	2.5	7.9
	174661.37	438812.09	FTM-COMI	3.2	1.2	1.4	3.9	1.7	4.8
	171839.29	440934.68	FTM-1	2.3	1.0	1.0	1.8	1.1	2.6
	174661.37	438812.09	FTM-2	1.3	1.4	1.4	1.3	1.3	1.8

Soil Standards:	4,4'-DDD	4,4'-DDE	4,4'-DDT	ALDRIN	ALPHA-BHC	BETA-BHC	CHLORDANE (TECHNICAL)	DELTA-BHC	DIELDRIN
Habitat Reconstruction (TELs)	1.2	2.1	1.2				2.26		0.72
MD Residential Clean-up	2700	1900	1900	38	100	350	1800	490	40
MD Non-Residential Clean-up	12,000	8400	8400	170	450	1600	8200	2200	180
Pesticides									
Station	4,4'-DDD	4,4'-DDE	4,4'-DDT	ALDRIN	ALPHA-BHC	BETA-BHC	CHLORDANE (TECHNICAL)	DELTA-BHC	DIELDRIN
BR-COMP	1.5	1.9	1.7	1.9	1.3	2.0	7.2	1.7	1.5
BR1	1.5	2.0	2.7	2.0	1.4	2.1	7.3	1.7	1.5
BR2	1.4	1.7	5.0	1.8	1.2	1.9	6.5	1.5	1.3
BR3	1.7	2.2	4.8	2.2	1.5	2.3	8.2	1.9	1.7
BRA-COMI	1.6	2.0	1.8	2.1	1.4	2.2	7.6	1.8	1.6
BRA1	1.7	2.1	1.8	2.1	1.4	2.2	7.8	1.8	1.6
BRA2	1.6	2.0	1.8	2.1	1.4	2.2	7.6	1.8	1.6
BRA3	1.6	2.0	1.8	2.1	1.4	2.2	7.6	1.8	1.6
CB-COMP	1.8	2.2	1.9	2.3	1.5	2.4	8.3	2.0	1.7
CB1	1.8	2.2	1.9	2.3	1.5	2.4	8.3	2.0	1.7
CB2	2.1	2.7	12.0	2.7	1.8	2.9	10.0	2.4	2.1
CB3	1.6	2.0	6.3	2.1	1.4	2.2	7.6	1.8	1.6
CC-COMP	1.8	2.3	7.4	8.0	1.6	2.5	8.8	2.1	2.4
CC1	19.0	9.7	24.0	11.0	1.5	2.3	8.0	1.9	1.7
CC2	18.0	9.7	26.0	13.0	1.6	2.5	8.6	2.0	2.4
CC3	2.2	6.2	30.0	6.9	1.9	2.9	10.0	2.4	2.4
CC4	0.8	20.0	32.0	17.0	0.7	12.0	3.6	18.0	7.9
DDE-COMI	1.0	1.2	6.6	1.3	0.9	1.3	4.6	1.1	1.0
DDE1	1.6	2.0	8.9	5.7	1.4	2.1	7.4	1.7	1.5
DDE2	1.8	2.2	18.0	2.3	1.5	2.4	8.4	2.0	1.7
DDE3	0.8	1.0	5.1	1.1	1.1	1.1	3.9	0.9	0.8
DDW-COM	0.3	1.0	0.3	0.4	0.3	0.4	1.4	0.3	0.3
DDW1	0.3	0.6	0.3	0.4	0.3	0.4	1.4	0.3	0.3
DDW2	0.3	0.7	0.3	0.4	0.3	0.4	1.4	0.3	0.3
DDW3	0.2	0.8	0.3	0.3	0.2	0.3	1.1	0.3	0.2
FB1	2.1	2.9	14.0	2.7	1.8	2.8	9.8	2.3	2.0
FB2	1.9	3.7	13.0	2.5	1.7	2.6	9.1	2.1	1.9
FTM-COMI	1.8	2.3	2.0	2.3	1.6	2.5	8.6	2.0	1.8
FTM1	1.8	2.3	2.0	2.3	1.6	2.4	8.4	2.0	1.8
FTM2	1.8	2.3	2.0	2.3	1.6	2.4	8.4	2.0	1.8
FTM3	1.9	2.4	6.9	2.5	1.7	2.6	9.1	2.1	1.9
HA-COMP	0.4	0.4	0.4	0.5	0.3	0.5	1.7	0.4	0.3
HA1	0.4	0.5	0.4	0.5	0.3	0.5	1.8	0.4	0.4
HA2	0.3	0.4	0.4	0.4	0.3	0.4	1.5	0.4	0.3
NWBE-COI	0.9	0.3	0.3	0.4	0.3	0.4	1.6	0.3	0.3
NWBE2	2.0	3.8	11.0	2.6	1.7	2.7	9.5	2.2	2.0
NWBE3	14.0	17.0	27.0	10.0	1.8	2.8	9.6	2.3	6.0
NWBW-CO	1.0	0.3	0.4	0.4	0.3	0.4	1.7	0.3	0.3
NWBW1	1.5	4.4	7.6	2.0	1.3	2.1	7.2	1.7	1.5
NWBW2	14.0	25.0	1.7	20.0	1.4	2.1	7.4	1.7	7.4
NWBW3	1.5	12.0	1.7	13.0	1.3	2.0	7.1	1.7	4.6
SGT-COMI	0.2	0.4	0.3	0.3	0.2	0.3	1.1	0.3	0.2
SGT1	2.2	0.8	6.6	0.3	0.2	0.4	1.2	0.3	0.3
SGT2	0.3	1.5	0.4	0.4	0.3	0.4	1.5	0.4	0.3
SGT3	0.2	0.8	0.2	0.2	0.1	0.2	0.8	0.2	0.2
SLP-COMI	0.3	0.9	0.3	0.4	0.3	0.4	1.5	0.4	0.3
SLP1	0.4	1.0	0.4	0.5	0.3	0.5	1.8	0.4	0.4
SLP2	0.4	0.6	0.4	0.5	0.4	0.5	1.9	0.5	0.4
SLP3	0.2	0.4	0.3	0.3	0.2	0.3	1.2	0.3	0.2
BR-COMP-	0.8	0.3	0.3	0.3	0.2	0.3	1.4	0.2	0.2
BR-1	0.8	0.2	0.3	0.3	0.2	0.3	1.3	0.2	0.2
BR-2	0.7	0.2	0.2	0.3	0.2	0.3	1.2	0.2	0.2
BR-3*	0.8	0.3	0.3	0.3	0.2	0.3	1.4	0.2	0.2
BRA-COMI	0.7	0.2	0.3	0.3	0.2	0.3	1.2	0.2	0.2
BRA-1	0.8	0.3	0.3	0.3	0.2	0.4	1.4	0.2	0.3
BRA-2	0.7	0.2	0.2	0.3	0.2	0.3	1.1	0.2	0.2
BRA-3*	0.7	0.2	0.2	0.3	0.2	0.3	1.2	0.2	0.2
CB-COMP-	1.0	0.3	0.3	0.4	0.3	0.4	1.6	0.3	0.3
CB-1	0.8	0.2	0.3	0.3	0.2	0.3	1.3	0.2	0.2
CB-2	1.1	0.3	0.4	0.4	0.3	0.5	1.9	0.3	0.3
CB-3*	0.6	0.2	0.2	0.2	0.2	0.3	1.1	0.2	0.2
CC-COMP-	1.1	0.3	0.4	0.4	0.3	0.5	1.8	0.3	0.3
CC-1	1.1	0.4	0.8	0.4	0.3	0.5	2.0	0.3	0.3
CC-2*	0.9	0.3	0.5	0.3	0.3	0.4	1.5	0.2	0.3
CC-3	1.1	0.4	0.4	0.4	0.3	0.5	2.0	0.3	0.4
CC-4	1.0	0.3	0.3	0.4	0.3	0.4	1.7	0.3	0.3
FB-COMP-	0.9	0.3	0.3	0.4	0.3	0.4	1.6	0.3	0.3
FB-1	1.0	0.3	0.3	0.4	0.3	0.4	1.7	0.3	0.3
FB-2*	0.9	0.3	0.4	0.3	0.3	0.4	1.5	0.2	0.3
FTM-COMI	0.7	0.2	0.2	0.3	0.2	0.3	1.2	0.2	0.2
FTM-1	0.6	0.2	0.2	0.2	0.2	0.2	1.0	0.2	0.2
FTM-2	0.8	0.3	0.3	0.3	0.2	0.3	1.4	0.2	0.2

			Soil S	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE	PHENANTHRENE	PYRENE
			Habitat Reconstruct	113	21		35	87	153
			MD Residentia	310,000	310,000	220	160,000	2,300,000	230,000
			MD Non-Residentia	4,100,000	4,100,000	3,900	2,000,000	31,000,000	3,100,000
Station Assessment	Northing	Easting	Station	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE	PHENANTHRENE	PYRENE
	176061.11	437475.9	FTM-3*	1.2	1.3	1.3	1.3	1.2	1.8
	175373.05	437525.22	HA-COMP-	1.3	1.3	1.4	1.3	1.3	1.8
	175674.65	438671.85	HA-1*	2.6	1.5	1.5	1.5	1.5	3.5
	175373.05	437525.22	HA-2	3.0	1.4	1.9	1.4	1.7	3.7
	177250.89	436692.08	NWBE-CO	8.0	1.6	3.0	3.1	3.8	9.2
	176660.89	437140.78	NWBE-1	7.9	1.6	2.3	1.5	5.1	8.6
	177250.89	436692.08	NWBE-2	3.8	1.6	1.7	3.2	2.2	4.5
	178257.92	436793.82	NWBE-3*	15.0	1.6	4.3	3.1	4.6	19.0
	178542	435800.17	NWBW-CO	6.2	1.6	2.4	1.6	3.2	9.2
	178542	435800.17	NWBW-2	5.6	1.2	2.0	1.2	2.9	7.7
	179010.84	435140.83	NWBW-3*	11.0	1.9	4.4	1.8	4.6	16.0
	163913.11	448555.58	B1	10.9	2.0	2.2	14.1	11.4	12.1
	169418.3	445558.02	B10	803.0	132.6	651.0	1078.6	589.2	769.3
	167406.62	444837.54	B11	1848.7	305.2	1031.2	1927.5	1727.0	1742.3
	168377.13	443579.2	B12	842.3	201.1	554.8	1172.5	903.7	844.1
	167707.86	443563.69	B13	1041.5	154.5	640.8	1374.0	559.1	1002.8
	166366.8	443633.52	B14	1134.0	141.0	627.1	1015.6	898.6	1125.2
	165144.97	442953.58	B15	570.8	131.7	368.5	582.1	579.2	539.6
	165144.97	442953.58	B15J	952.2	195.3	842.9	1003.0	1156.1	861.5
	164492.49	442044.66	B16	2050.6	188.6	1324.5	970.7	1285.2	1749.1
	167372.58	442591	B17	319.4	66.4	261.3	369.9	385.2	332.6
	166864.26	441527.92	B18	1017.9	127.8	669.6	883.8	688.9	1007.9
	165811.79	440765.2	B19	1306.4	168.0	974.3	986.2	1145.8	1231.8
	166700.54	448000.7	B2	681.7	139.2	353.0	937.2	658.8	652.3
	164755.91	439305.96	B20	772.3	66.1	648.3	378.9	384.2	722.8
	166269.57	439826.57	B21	843.2	107.9	467.7	563.9	450.8	702.9
	168253.52	441823.02	B22	669.4	90.2	443.3	612.2	698.7	627.7
	169368.16	441502.74	B23	989.6	132.8	773.6	1358.1	672.9	1045.0
	170606.68	443010.22	B24	2484.1	388.9	3458.8	7727.0	2042.3	2309.2
	171085.53	440853.11	B25	997.3	121.4	735.5	1150.1	122.1	1040.7
	172221.76	441706.02	B26	1347.2	54.2	838.8	434.9	324.8	1091.4
	172941.34	441903.7	B27	84.4	9.2	63.8	113.8	52.3	77.6
	174935.77	442900.28	B29	2333.4	128.9	1366.8	1402.2	619.6	2125.6
	164615.78	447470.71	B3	175.6	8.9	118.3	73.3	51.7	177.6
	175203.17	443858.01	B30	1527.9	138.5	1312.2	1921.8	673.3	1327.0
	175691.69	442968.1	B31	2158.8	111.8	1456.9	1119.8	560.0	1843.1
	175916.41	444561.38	B32	1886.1	96.2	1698.2	1089.1	658.2	1603.9
	176283.29	443995.86	B33	1546.3	82.8	1085.8	726.0	491.6	1360.8
	176244.03	445230.87	B34	1128.1	80.7	613.6	390.8	544.5	918.6
	176782.79	445071.94	B35	1007.6	53.1	674.6	825.3	406.8	873.5
	173401.11	441373.58	B36	20.0	3.7	18.4	30.8	23.5	20.6
	174322.58	439452.56	B37	373.6	60.3	175.8	330.9	309.4	382.5
	176570.57	440038.3	B38	920.7	73.0	419.7	165.7	460.2	845.3
	175823.82	438711.33	B39	783.8	99.2	588.0	583.3	573.1	741.0
	173058.28	439466.09	B40	665.5	83.9	450.9	570.5	576.8	657.3
	173327.63	439059.39	B41	563.8	88.1	305.2	510.2	412.1	552.8
	173284.32	438404.8	B42	598.4	85.4	433.1	491.3	530.1	617.4
	172296.69	439489.09	B43	927.3	202.0	839.7	845.8	1053.7	910.5
	172396.83	437900.58	B44	740.6	128.9	404.3	564.0	583.0	717.3
	172242.52	436569.96	B45	1237.2	165.5	532.0	741.6	797.5	1118.0
	171399.91	436413.12	B46	1204.8	115.1	509.7	554.0	672.4	1055.8
	170677.79	436301.29	B47	862.0	68.8	523.5	260.9	525.5	785.7
	169739.36	436761.54	B48	1770.9	106.2	1142.1	369.2	108.5	1795.5
	168874.58	436477.59	B49	827.4	79.8	804.9	217.4	487.3	777.1
	166979.72	445680.13	B5	95.7	16.4	45.7	80.8	85.8	79.0
	168314.05	435280.16	B50	1169.0	35.4	1001.3	101.9	362.9	983.5
	167855.19	436098.27	B51	701.1	36.1	452.8	115.4	251.9	617.4
	166836.03	435766.87	B52	777.7	24.0	483.6	60.4	244.9	657.1
	175277.79	437395.15	B53	500.6	72.6	417.4	245.8	427.1	531.0
	176772.8	437256.2	B54	354.7	43.3	110.3	122.5	357.6	395.5
	176635.09	436161.18	B55	698.2	161.5	386.4	413.0	1028.4	690.4
	176274.47	436203.6	B56	921.5	69.8	428.8	270.8	452.7	794.3
	176332.23	435340.19	B57	584.6	66.7	356.2	279.7	417.8	701.9
	176133.99	435144.47	B58	344.3	21.2	268.1	133.8	194.2	388.8
	175590.57	434995.84	B59	789.8	38.5	565.9	134.4	461.8	724.3
	170392.33	446536.17	B6	131.1	170.9	1415.7	1992.8	950.1	1266.0
	176159.8	434705.59	B60	889.6	56.6	628.7	514.6	517.1	873.1
	176421.13	434524.62	B62	568.3	34.1	372.2	124.5	289.0	533.1
	176573.65	434140.35	B63	701.0	53.2	357.9	150.1	437.2	645.1
	176616.11	433253.08	B64	1008.8	51.5	735.0	213.8	442.6	955.7
	176746.41	432703.51	B65	2030.4	72.5	1428.8	240.8	963.4	1851.2
	177721.37	436328.79	B67	1126.0	64.9	578.5	276.8	561.9	1077.8
	178925.43	435951.73	B68	1660.4	133.7	1316.2	883.5	1023.8	1882.8

Soil Standards:	4,4'-DDD	4,4'-DDE	4,4'-DDT	ALDRIN	ALPHA-BHC	BETA-BHC	CHLORDANE (TECHNICAL)	DELTA-BHC	DIELDRIN
Habitat Reconstruction (TELs)	1.2	2.1	1.2				2.26		0.72
MD Residential Clean-up	2700	1900	1900	38	100	350	1800	490	40
MD Non-Residential Clean-up	12,000	8400	8400	170	450	1600	8200	2200	180
Pesticides									
Station	4,4'-DDD	4,4'-DDE	4,4'-DDT	ALDRIN	ALPHA-BHC	BETA-BHC	CHLORDANE (TECHNICAL)	DELTA-BHC	DIELDRIN
FTM-3*	0.8	0.2	0.3	0.3	0.2	0.3	1.3	0.2	0.2
HA-COMP-	0.8	0.2	0.3	0.3	0.2	0.3	1.3	0.2	0.2
HA-1*	0.9	0.3	0.3	0.3	0.3	0.4	1.5	0.2	0.3
HA-2	0.8	0.3	0.5	0.3	0.2	0.3	1.4	0.2	0.2
NWBE-1	0.9	0.3	0.3	0.3	0.3	0.4	1.6	0.2	0.3
NWBE-2	0.9	0.3	0.3	0.4	0.3	0.4	1.6	0.3	0.3
NWBE-3*	1.0	0.3	0.3	0.4	0.3	0.4	1.6	0.3	0.3
NWBW-2	0.7	0.2	0.3	0.3	0.2	0.3	1.2	0.2	0.2
NWBW-3*	1.1	0.3	0.5	0.4	0.3	0.5	1.9	0.3	0.3
B13		3.0					2.6		
B15		0.7					1.8		0.5
B2	1.4	1.3					0.7		3.6
B23	2.5	4.3					3.7		1.6
B24	4.3	3.8					4.4		2.4
B31	12.2	8.5					23.0		3.6
B32	6.9	2.9					9.7		2.0
B35	4.8						10.4		
B37	1.1	1.0					1.1		
B38	2.0						2.1		
B44	6.4	6.5					7.3		2.5
B46	6.3	6.0					13.9		4.7
B49	6.5						10.6		
B52	1.6	1.6					2.4		
B54	1.7	0.8					1.8		
B6	1.6	2.4					2.2		1.0
B62		2.5					1.5		
B67	0.9						3.5		0.5

Soil S	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE	PHENANTHRENE	PYRENE
Habitat Reconstruct	113	21		35	87	153
MD Residentia	310,000	310,000	220	160,000	2,300,000	230,000
MD Non-Residentia	4,100,000	4,100,000	3,900	2,000,000	31,000,000	3,100,000

Station Assessment	Northing	Easting	Station	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE	PHENANTHRENE	PYRENE
	179340.66	435710.17	B69	**2983.1**	**248.4**	**2043.6**	**530.0**	**1166.0**	**2941.7**
	171649.36	446859.82	B7	**971.2**	**137.9**	**766.2**	**709.4**	**677.0**	**933.9**
	178936	434873.12	B70	**1950.7**	**130.5**	**1865.9**	**409.4**	**1104.3**	**2120.0**
	178605.41	434733.17	B71	**2937.9**	**181.5**	**1397.8**	**411.0**	**1099.9**	**2902.1**
	179287.8	434224.45	B72	**5698.9**	**346.9**	**3999.1**	**222.6**	**4398.8**	**4798.2**
	179501.4	433696.27	B73	**4526.5**	**272.3**	**2601.9**	**694.5**	**2153.0**	**4323.1**
	175282.97	451914.72	B74	**339.8**	**61.4**	**223.9**	**260.5**	**338.9**	**332.1**
	175282.97	451914.72	B74J	**329.7**	**68.3**	**173.0**	**224.8**	**357.5**	**320.8**
	175237.45	449636.94	B75	**257.1**	**60.3**	**244.4**	**175.9**	**294.8**	**254.2**
	176445	447927.02	B76	**576.1**	**64.5**	**519.0**	**217.7**	**335.2**	**562.9**
	177413.77	447489.62	B77	**599.0**	**67.7**	**399.1**	**341.7**	**370.5**	**581.0**
	177293.47	447993.78	B78	**595.2**	**53.6**	**412.0**	**184.8**	**397.3**	**570.9**
	178680.87	447937.39	B79	**602.9**	**60.9**	**390.3**	**181.8**	**308.1**	**593.5**
	172017.65	447594.11	B8	**1157.2**	**128.6**	**1406.8**	**578.3**	**725.6**	**1136.5**
	179936.03	446395.97	B80	**846.2**	**54.8**	**593.6**	**159.7**	**316.0**	**857.9**
	181313.22	444566.8	B81	**1658.6**	**46.7**	**873.9**	**75.0**	**625.6**	**1548.1**
	172751.59	446558.23	B9	**926.3**	**101.3**	**1171.3**	**425.0**	**543.6**	**930.7**

Soil Standards:	*4,4'-DDD*	*4,4'-DDE*	*4,4'-DDT*	*ALDRIN*	*ALPHA-BHC*	*BETA-BHC*	*CHLORDANE (TECHNICAL)*	*DELTA-BHC*	*DIELDRIN*
Habitat Reconstruction (TELs)	1.2	2.1	1.2				2.26		0.72
MD Residential Clean-up	2700	1900	1900	38	100	350	1800	490	40
MD Non-Residential Clean-up	12,000	8400	8400	170	450	1600	8200	2200	180
Pesticides									
Station	*4,4'-DDD*	*4,4'-DDE*	*4,4'-DDT*	*ALDRIN*	*ALPHA-BHC*	*BETA-BHC*	*CHLORDANE (TECHNICAL)*	*DELTA-BHC*	*DIELDRIN*
B72		**9.8**					**11.6**		
B74	**1.9**	**2.9**					**0.5**		**1.0**
B79		**9.2**					**2.5**		
B81		**1.7**					**2.1**		
B9		**4.8**					**0.5**		

Station Assessment	Northing	Easting	Station	ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	GAMMA-BHC (LINDANE)	HEPTACHLOR	HEPTACHLOR EPOXIDE	METHOXYCHLOR	TOXAPHENE
			Soil S	ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	GAMMA-BHC (LINDANE)	HEPTACHLOR	HEPTACHLOR EPOXIDE	METHOXYCHLOR	TOXAPHENE
			Habitat Reconstruct						0.32				0.1
			MD Residentia	4700	4700	4700	2300	2300	490	140	70	39,000	580
			MD Non-Residentia	610,000	610,000	610,000	31,000	31,000	2200	640	310	510,000	2600
	169321.33	445054.22	BR-COMP	1.5	2.4	2.1	1.5	3.3	1.3	1.5	1.9	3.4	21.0
	168576.92	447476.23	BR1	1.5	2.5	2.2	1.6	3.4	1.3	1.5	1.9	3.5	21.0
	169321.33	445054.22	BR2	1.4	2.2	1.9	1.4	3.0	1.2	1.3	1.7	3.1	19.0
	169914.88	444002.69	BR3	1.7	2.7	2.4	1.8	3.8	1.5	1.7	2.1	3.9	24.0
	170474.59	442140.99	BRA-COMI	1.6	2.5	2.2	1.6	3.5	1.4	1.6	2.0	3.6	22.0
	170435.58	442797.68	BRA1	1.6	2.6	2.3	1.7	3.6	1.4	1.6	2.1	3.7	23.0
	170474.59	442140.99	BRA2	1.6	2.5	2.3	1.8	3.5	1.4	1.6	2.0	3.6	22.0
	170981.03	442038.96	BRA3	1.6	2.6	2.3	1.6	3.6	1.4	1.6	2.0	3.6	22.0
	172733.27	438417.16	CB-COMP	1.7	2.8	2.5	1.8	3.9	1.5	1.7	2.2	3.9	24.0
	172843.18	438569.18	CB1	1.7	4.7	2.5	2.4	3.9	1.5	1.7	2.2	3.9	24.0
	172733.27	438417.16	CB2	2.1	3.3	3.0	2.1	4.7	1.8	2.1	2.6	4.7	29.0
	172724.34	436936.25	CB3	1.6	2.5	2.3	1.6	3.5	1.4	1.6	2.0	3.6	22.0
	171394.67	436286.08	CC-COMP	1.8	3.3	2.6	6.5	4.1	1.6	1.8	2.3	4.1	26.0
	172379.25	436734.92	CC1	1.7	37.0	8.5	7.8	3.7	1.5	1.7	2.1	3.8	23.0
	171394.67	436286.08	CC2	1.8	27.0	2.5	8.5	4.0	1.6	1.8	2.3	4.1	25.0
	170581.46	436482.73	CC3	2.2	3.4	3.0	8.0	4.8	1.9	2.1	2.7	4.9	30.0
	169833.58	437197.43	CC4	0.8	37.0	19.0	0.8	68.0	0.7	0.8	6.5	1.7	10.0
	174193.89	440053.33	DDE-COMI	1.0	1.6	1.4	1.0	2.2	0.8	1.0	1.2	2.2	14.0
	173765.18	439797.92	DDE1	1.6	2.5	2.2	1.6	3.4	1.3	1.5	1.9	3.5	22.0
	174193.89	440053.33	DDE2	1.8	2.8	2.5	1.8	3.9	1.5	1.7	2.2	4.0	24.0
	174533.87	440322.11	DDE3	0.8	1.3	1.1	0.8	1.8	0.7	0.8	1.0	1.8	11.0
	175268.67	439637.82	DDW-COM	0.3	0.5	0.4	0.6	0.7	0.3	0.3	0.4	0.7	4.0
	174826	439547.96	DDW1	0.3	0.5	0.4	0.5	0.7	0.3	0.3	0.4	0.7	4.2
	175268.67	439637.82	DDW2	0.3	0.5	0.4	0.6	0.6	0.3	0.3	0.4	0.6	4.0
	174806.09	440004.18	DDW3	0.2	0.4	0.3	1.4	0.5	0.2	0.2	0.3	0.5	3.2
	176503.68	435960.48	FB1	2.0	3.3	2.9	2.5	4.5	1.8	2.0	2.6	4.6	28.0
	176399.99	435123.71	FB2	1.9	3.0	2.7	2.1	4.2	1.6	1.9	2.4	4.3	26.0
	174668.76	438810.61	FTM-COMI	1.8	2.9	2.5	1.8	4.0	1.6	1.8	2.2	4.0	25.0
	171852.14	440913.03	FTM1	1.8	2.8	2.5	1.8	3.9	1.5	1.8	2.2	4.0	25.0
	174668.76	438810.61	FTM2	1.8	2.8	2.5	1.8	3.9	1.5	1.8	2.2	4.0	25.0
	176085.02	437442.71	FTM3	1.9	3.0	2.7	1.9	4.2	1.6	1.9	2.4	4.3	26.0
	174259.93	439572.39	HA-COMP	0.4	0.6	0.5	0.4	0.8	0.3	0.3	0.4	0.8	4.8
	175569.01	438639.29	HA1	0.4	0.6	0.5	0.4	0.8	0.3	0.4	0.5	0.9	5.2
	174259.93	439572.39	HA2	0.3	0.5	0.5	0.3	0.7	0.3	0.3	0.4	0.7	4.4
	177548.7	436674.87	NWBE-COI	0.7	0.4	0.4	0.3	0.3	0.3	0.5	0.3	1.1	7.1
	176793.65	437043.77	NWBE1										
	177548.7	436674.87	NWBE2	2.0	3.2	2.8	2.7	4.4	1.7	2.0	2.5	4.5	28.0
	178248.68	436795.3	NWBE3	2.0	3.2	2.8	2.1	4.5	1.7	2.0	2.5	4.5	28.0
	178895.88	435496.56	NWBW-CO	0.7	0.4	0.4	0.3	0.3	0.3	0.4	0.3	1.2	7.3
	178539.17	435992.89	NWBW1	1.5	2.4	2.1	1.5	3.3	1.3	1.5	1.9	3.4	21.0
	178895.88	435496.56	NWBW2	1.5	2.5	2.2	1.6	3.4	1.3	1.5	7.2	3.5	21.0
	179003.49	435149.5	NWBW3	1.5	2.4	2.1	1.5	3.3	1.3	1.5	1.9	3.3	21.0
	176436.72	438622.09	SGT-COMI	0.2	0.4	0.3	0.4	0.5	0.2	0.2	0.3	0.5	3.2
	176232.2	438039.03	SGT1	0.3	0.4	0.4	0.7	0.6	0.2	0.3	0.3	0.6	3.6
	176436.72	438622.09	SGT2	0.3	0.5	0.5	1.5	0.7	0.3	0.3	0.4	0.7	4.4
	176641.79	438559.22	SGT3	0.2	0.3	0.2	0.6	0.4	0.1	0.2	0.2	0.4	2.2
	177240.04	434708.59	SLP-COMI	0.3	0.5	0.4	0.8	0.7	0.3	0.3	0.4	0.7	4.3
	176678.1	434834.78	SLP1	0.4	0.6	0.5	0.9	0.8	0.3	0.4	0.5	0.9	5.2
	177240.04	434708.59	SLP2	0.4	0.6	0.6	0.7	0.9	0.3	0.4	0.5	0.9	5.5
	176956.14	435360.02	SLP3	0.2	0.4	0.3	0.4	0.5	0.2	0.2	0.3	0.6	3.4
	169319.6	445074.39	BR-COMP-	0.6	0.3	0.3	0.3	0.3	0.3	0.4	0.2	1.0	6.1
	168547.57	447518.15	BR-1	0.5	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.9	5.8
	169319.6	445074.39	BR-2	0.5	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.8	5.2
	169881.74	444031.66	BR-3*	0.6	0.3	0.3	0.3	0.3	0.3	0.4	0.2	1.0	6.0
	170465.47	442165.53	BRA-COMI	0.5	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.9	5.4
	170449.04	442891.19	BRA-1	0.6	0.3	0.4	0.3	0.3	0.3	0.4	0.3	1.0	6.4
	170465.47	442165.53	BRA-2	0.5	0.3	0.3	0.2	0.2	0.2	0.4	0.2	0.8	5.0
	170940.53	442079.48	BRA-3*	0.5	0.3	0.3	0.2	0.2	0.2	0.5	0.2	0.8	5.2
	172729.4	438384.09	CB-COMP-	0.7	0.4	0.4	0.3	0.3	0.3	0.4	0.3	1.2	7.3
	172827.97	439972.49	CB-1	0.5	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.9	5.8
	172729.4	438384.09	CB-2	0.8	0.4	0.5	0.4	0.4	0.4	0.5	0.3	1.3	8.4
	172729.92	436939.09	CB-3*	0.5	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.8	4.9
	171574.63	436388.9	CC-COMP-	0.7	0.4	0.5	0.3	0.4	0.4	0.5	0.3	1.3	8.1
	172362.54	436722.04	CC-1	0.8	0.4	0.5	0.4	0.4	0.4	0.5	0.3	1.4	8.7
	171574.63	436388.9	CC-2*	0.6	0.4	0.4	0.3	0.3	0.3	0.4	0.3	1.1	6.8
	170489.12	436520.6	CC-3	0.8	0.5	0.5	0.4	0.4	0.4	0.5	0.3	1.4	8.8
	169859.58	437220.33	CC-4	0.7	0.4	0.4	0.3	0.3	0.4	0.5	0.3	1.2	7.5
	175657.83	435081	FB-COMP-	0.7	0.4	0.4	0.3	0.3	0.3	0.4	0.3	1.1	7.2
	176507.3	435940.32	FB-1	0.7	0.4	0.4	0.3	0.3	0.4	0.5	0.3	1.2	7.4
	175657.83	435081	FB-2*	0.6	0.3	0.4	0.3	0.3	0.3	0.4	0.3	1.1	6.8
	174661.37	438812.09	FTM-COMI	0.5	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.9	5.4
	171839.29	440934.68	FTM-1	0.4	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.7	4.3
	174661.37	438812.09	FTM-2	0.6	0.3	0.3	0.3	0.3	0.3	0.4	0.2	1.0	6.1

	1,1,1-TRICHLOROETHANE
Soil Standards:	1,1,1-TRICHLOROETHANE
MD Residential Clean-up	16,000,000
MD Non-Residential Clean-up	200,000,000
VOC	
Station	1,1,1-TRICHLOROETHANE
BR1	1.0
BR2	0.9
BR3	1.2
BRA1	1.1
BRA2	1.0
BRA3	1.0
CB1	1.0
CB2	1.4
CB3	1.0
CC1	1.1
CC2	1.2
CC3	1.4
CC4	1.3
DDE1	1.1
DDE2	1.1
DDE3	0.4
DDW1	0.9
DDW2	1.0
DDW3	0.6
FB1	1.4
FB2	1.2
FTM1	1.2
FTM2	1.1
FTM3	1.3
HA1	1.2
HA2	1.0
NWBE1	1.2
NWBE2	1.3
NWBE3	1.3
NWBW1	1.0
NWBW2	0.9
NWBW3	0.9
SGT1	0.9
SGT2	1.0
SGT3	0.6
SLP1	1.2
SLP2	1.3
SLP3	0.9
BR-1	8.5
BR-2	7.6
BR-3*	8.9
BRA-1	9.3
BRA-2	7.4
BRA-3*	7.6
CB-1	8.5
CB-2	12.0
CB-3*	7.2
CC-1	13.0
CC-2*	10.0
CC-3	13.0
CC-4	11.0
FB-1	11.0
FB-2*	10.0
FTM-1	6.3
FTM-2	8.9

Station Assessment	Northing	Easting	Station	ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	GAMMA-BHC (LINDANE)	HEPTACHLOR	HEPTACHLOR EPOXIDE	METHOXYCHLOR	TOXAPHENE
			Soil S	ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	GAMMA-BHC (LINDANE)	HEPTACHLOR	HEPTACHLOR EPOXIDE	METHOXYCHLOR	TOXAPHENE
			Habitat Reconstruct						0.32				0.1
			MD Residentia	4700	4700	4700	2300	2300	490	140	70	39,000	580
			MD Non-Residentia	610,000	610,000	610,000	31,000	31,000	2200	640	310	510,000	2600
	176061.11	437475.9	FTM-3*	0.5	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.9	5.8
	175373.05	437525.22	HA-COMP-	0.5	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.9	5.9
	175674.65	438671.85	HA-1*	0.6	0.3	0.4	0.3	0.3	0.3	0.4	0.3	1.1	6.7
	175373.05	437525.22	HA-2	0.6	0.3	0.3	0.3	0.3	0.3	0.4	0.2	1.0	6.1
	177250.89	436692.08	NWBE-COI										
	176660.89	437140.78	NWBE-1	0.6	0.4	0.4	0.3	0.3	0.3	0.6	0.3	1.1	7.0
	177250.89	436692.08	NWBE-2	0.7	0.4	0.4	0.3	0.3	0.3	0.5	0.3	1.1	7.2
	178257.92	436793.82	NWBE-3*	0.7	0.4	0.4	0.3	0.3	0.3	0.5	0.3	1.2	7.3
	178542	435800.17	NWBW-CO										
	178542	435800.17	NWBW-2	0.5	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.9	5.4
	179010.84	435140.83	NWBW-3*	0.8	0.4	0.5	0.3	0.4	0.4	0.5	0.3	1.3	8.3
	163913.11	448555.58	B1										
	169418.3	445558.02	B10										
	167406.62	444837.54	B11										
	168377.13	443579.2	B12										
	167707.86	443563.69	B13				11.1				0.7		
	166366.8	443633.52	B14										
	165144.97	442953.58	B15										
	165144.97	442953.58	B15J										
	164492.49	442044.66	B16										
	167372.58	442591	B17										
	166864.26	441527.92	B18										
	165811.79	440765.2	B19										
	166700.54	448000.7	B2										
	164755.91	439305.96	B20										
	166269.57	439826.57	B21										
	168253.52	441823.02	B22										
	169368.16	441502.74	B23										
	170606.68	443010.22	B24				2.9						
	171085.53	440853.11	B25										
	172221.76	441706.02	B26										
	172941.34	441903.7	B27										
	174935.77	442900.28	B29										
	164615.78	447470.71	B3										
	175203.17	443858.01	B30										
	175691.69	442968.1	B31							2.2			
	175916.41	444561.38	B32										
	176283.29	443995.86	B33										
	176244.03	445230.87	B34										
	176782.79	445071.94	B35										
	173401.11	441373.58	B36										
	174322.58	439452.56	B37										
	176570.57	440038.3	B38										
	175823.82	438711.33	B39										
	173058.28	439466.09	B40										
	173327.63	439059.39	B41										
	173284.32	438404.8	B42										
	172296.69	439489.09	B43										
	172396.83	437900.58	B44										
	172242.52	436569.96	B45										
	171399.91	436413.12	B46		2.1		2.2			3.3			
	170677.79	436301.29	B47										
	169739.36	436761.54	B48										
	168874.58	436477.59	B49		0.5					1.2			
	166979.72	445680.13	B5										
	168314.05	435280.16	B50										
	167855.19	436098.27	B51										
	166836.03	435766.87	B52	0.2									
	175277.79	437395.15	B53										
	176772.8	437256.2	B54		2.1		1.5						
	176635.09	436161.18	B55										
	176274.47	436203.6	B56										
	176332.23	435340.19	B57										
	176133.99	435144.47	B58										
	175590.57	434995.84	B59										
	170392.33	446536.17	B6				0.7						
	176159.8	434705.59	B60										
	176421.13	434524.62	B62								0.7		
	176573.65	434140.35	B63										
	176616.11	433253.08	B64										
	176746.41	432703.51	B65										
	177721.37	436328.79	B67										
	178925.43	435951.73	B68										

	1,1,1-TRICHLOROETHANE
Soil Standards:	1,1,1-TRICHLOROETHANE
MD Residential Clean-up	16,000,000
MD Non-Residential Clean-up	200,000,000
VOC	
Station	1,1,1-TRICHLOROETHANE
FTM-3*	8.5
HA-1*	9.8
HA-2	9.0
NWBE-1	10.0
NWBE-2	11.0
NWBE-3*	11.0
NWBW-2	7.9
NWBW-3*	12.0

			Soil S	ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	GAMMA-BHC (LINDANE)	HEPTACHLOR	HEPTACHLOR EPOXIDE	METHOXYCHLOR	TOXAPHENE
			Habitat Reconstruct						0.32				0.1
			MD Residentia	4700	4700	4700	2300	2300	490	140	70	39,000	580
			MD Non-Residentia	610,000	610,000	610,000	31,000	31,000	2200	640	310	510,000	2600
Station Assessment	Northing	Easting	Station	ENDOSULFAN I	ENDOSULFAN II	ENDOSULFAN SULFATE	ENDRIN	ENDRIN ALDEHYDE	GAMMA-BHC (LINDANE)	HEPTACHLOR	HEPTACHLOR EPOXIDE	METHOXYCHLOR	TOXAPHENE
	179340.66	435710.17	B69										
	171649.36	446859.82	B7										
	178936	434873.12	B70										
	178605.41	434733.17	B71										
	179287.8	434224.45	B72							22.0			
	179501.4	433696.27	B73										
	175282.97	451914.72	B74										
	175282.97	451914.72	B74J										
	175237.45	449636.94	B75										
	176445	447927.02	B76										
	177413.77	447489.62	B77										
	177293.47	447993.78	B78										
	178680.87	447937.39	B79		1.3		1.2				1.3		
	172017.65	447594.11	B8										
	179936.03	446395.97	B80										
	181313.22	444566.8	B81										
	172751.59	446558.23	B9										

Soil Standards:	1,1,1-TRICHLOROETHANE
MD Residential Clean-up	16,000,000
MD Non-Residential Clean-up	200,000,000
VOC	
Station	1,1,1-TRICHLOROETHANE

Station Assessment	Northing	Easting	Station	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHENE	1,2-DICHLOROBENZENE	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	1,3-DICHLOROBENZENE	1,4-DICHLOROBENZENE	2-BUTANONE (MEK)	BENZENE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE
			Soil S														
			Habitat Reconstruct	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHENE	1,2-DICHLOROBENZENE	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	1,3-DICHLOROBENZENE	1,4-DICHLOROBENZENE	2-BUTANONE (MEK)	BENZENE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE
			MD Residentia	3200	11,000	16,000,000	390,000	700,000	7000	9400	23,000	27,000	4,700,000	12,000	10,000	81,000	11,000
			MD Non-Residentia	14,000	50,000	200,000,000	51,000,000	9,200,000	31,000	42,000	310,000	120,000	64,000,000	52,000	46,000	360,000	140,000
	169321.33	445054.22	BR-COMP														
	168576.92	447476.23	BR1	1.7	2.6	1.1	2.2	3.5	1.1	2.4	3.5	2.6	18.0	2.1	1.0	2.3	3.0
	169321.33	445054.22	BR2	1.5	2.3	1.0	2.0	3.1	1.0	2.1	3.1	2.3	8.2	1.8	0.8	2.0	3.0
	169914.88	444002.69	BR3	1.9	2.9	1.2	2.5	4.0	1.3	2.7	3.9	3.0	6.0	2.4	1.1	2.6	4.0
	170474.59	442140.99	BRA-COMI														
	170435.58	442797.68	BRA1	1.8	2.8	1.2	2.4	3.8	1.2	2.6	3.7	2.8	5.7	2.2	1.0	2.5	3.0
	170474.59	442140.99	BRA2	1.7	2.6	1.1	2.3	3.5	1.2	2.4	3.5	2.6	10.0	2.1	1.0	2.3	3.0
	170981.03	442038.96	BRA3	1.7	2.6	1.1	2.2	3.5	1.2	2.4	3.5	2.6	5.3	2.1	1.0	2.3	3.0
	172733.27	438417.16	CB-COMP														
	172843.18	438569.18	CB1	1.7	2.6	1.1	2.2	3.5	1.2	2.4	3.5	2.6	5.3	2.1	1.0	2.3	3.0
	172733.27	438417.16	CB2	2.3	3.4	1.5	3.0	4.7	1.5	3.2	4.6	3.5	7.1	2.8	1.3	3.1	4.0
	172724.34	436936.25	CB3	1.7	2.5	1.1	2.2	3.5	1.1	2.3	3.4	2.5	5.2	2.0	0.9	2.3	3.0
	171394.67	436286.08	CC-COMP														
	172379.25	436734.92	CC1	1.9	2.8	1.2	2.5	3.9	1.3	2.6	3.8	2.8	29.0	2.3	1.0	2.5	3.0
	171394.67	436286.08	CC2	2.0	3.0	1.3	2.6	4.1	1.3	2.8	4.1	3.0	6.2	2.4	1.1	2.7	4.0
	170581.46	436482.73	CC3	2.4	3.6	1.5	3.1	4.9	1.6	3.3	4.9	3.6	7.5	2.9	1.3	3.3	5.0
	169833.58	437197.43	CC4	2.1	3.2	1.4	2.8	4.4	1.4	3.0	4.3	3.2	6.6	2.6	1.2	2.9	4.0
	174193.89	440053.33	DDE-COMI														
	173765.18	439797.92	DDE1	1.9	2.8	1.2	2.4	3.8	1.2	2.6	3.8	2.8	5.8	2.3	1.0	2.5	3.0
	174193.89	440053.33	DDE2	1.7	2.6	1.1	2.3	3.6	1.2	2.4	3.5	2.6	5.4	2.1	1.0	2.4	3.0
	174533.87	440322.11	DDE3	0.7	1.1	0.5	1.0	1.5	0.5	1.0	1.5	1.1	2.3	0.9	0.4	1.0	1.0
	175268.67	439637.82	DDW-COM														
	174826	439547.96	DDW1	1.5	2.3	1.0	2.0	3.2	1.0	2.2	3.1	2.3	4.8	1.9	0.9	2.1	3.0
	175268.67	439637.82	DDW2	1.7	2.5	1.1	2.2	3.4	1.1	2.3	3.4	2.5	5.2	2.0	0.9	2.3	3.0
	174806.09	440004.18	DDW3	1.0	1.5	0.7	1.3	2.1	0.7	1.4	2.1	1.5	3.2	1.2	0.6	1.4	2.0
	176503.68	435960.48	FB1	2.2	3.4	1.4	2.9	4.6	1.5	3.1	4.6	3.4	7.0	2.7	1.2	3.0	4.0
	176399.99	435123.71	FB2	2.0	3.0	1.3	2.6	4.2	1.4	2.8	4.1	3.1	6.3	2.4	1.1	2.7	4.0
	174668.76	438810.61	FTM-COMI														
	171852.14	440913.03	FTM1	2.0	3.0	1.3	2.6	4.1	1.3	2.8	4.0	3.0	6.2	2.4	1.1	2.7	4.0
	174668.76	438810.61	FTM2	1.9	2.8	1.2	2.4	3.8	1.3	2.6	3.8	2.8	5.8	2.3	1.0	2.5	3.0
	176085.02	437442.71	FTM3	2.1	3.2	1.4	2.8	4.4	1.4	3.0	4.3	3.2	6.6	2.6	1.2	2.9	4.0
	174259.93	439572.39	HA-COMP														
	175569.01	438639.29	HA1	2.1	3.1	1.3	2.7	4.3	1.4	2.9	4.2	3.1	6.4	2.5	1.1	2.8	4.0
	174259.93	439572.39	HA2	1.6	2.5	1.0	2.1	3.4	1.1	2.3	3.3	2.5	9.7	2.0	0.9	2.2	3.0
	177548.7	436674.87	NWBE-COI														
	176793.65	437043.77	NWBE1	2.0	3.0	1.3	2.6	4.1	1.3	2.7	4.0	3.0	6.1	2.4	1.1	2.7	4.0
	177548.7	436674.87	NWBE2	2.2	3.3	1.4	2.8	4.5	1.5	3.0	4.4	3.3	6.7	2.6	1.2	2.9	4.0
	178248.68	436795.3	NWBE3	2.1	3.1	1.3	2.7	4.3	1.4	2.9	4.2	3.1	6.4	2.5	1.2	2.8	4.0
	178895.88	435496.56	NWBW-CO														
	178539.17	435992.89	NWBW1	1.7	2.5	1.1	2.2	3.5	1.1	2.3	3.4	2.5	5.2	2.0	0.9	2.3	3.0
	178895.88	435496.56	NWBW2	1.5	2.3	1.0	2.0	3.1	1.0	2.1	3.1	2.3	4.7	1.9	0.9	2.1	3.0
	179003.49	435149.5	NWBW3	1.5	2.3	1.0	2.0	3.2	1.0	2.2	3.1	2.3	4.8	1.9	0.9	2.1	3.0
	176436.72	438622.09	SGT-COMI														
	176232.2	438039.03	SGT1	1.5	2.3	1.0	2.0	3.1	1.0	2.1	3.0	2.3	4.7	1.8	0.8	2.0	3.0
	176436.72	438622.09	SGT2	1.7	2.6	1.1	2.3	3.6	1.2	2.4	3.5	2.6	5.4	2.1	1.0	2.4	3.0
	176641.79	438559.22	SGT3	1.0	1.5	0.6	1.3	2.1	0.7	1.4	2.0	1.5	3.1	1.2	0.6	1.4	2.0
	177240.04	434708.59	SLP-COMI														
	176678.1	434834.78	SLP1	2.0	3.1	1.3	2.7	4.2	1.4	2.8	4.1	3.1	6.4	2.5	1.1	2.8	4.0
	177240.04	434708.59	SLP2	2.1	3.2	1.4	2.8	4.4	1.4	3.0	4.3	3.2	6.6	2.6	1.2	2.9	4.0
	176956.14	435360.02	SLP3	1.5	2.3	1.0	2.0	3.1	1.0	2.1	3.1	2.3	4.7	1.8	0.8	2.1	3.0
	169319.6	445074.39	BR-COMP-														
	168547.57	447518.15	BR-1	3.6	4.3	5.6	7.1	4.3	5.3	4.9	4.7	4.6	3.2	5.6	4.8	4.4	16.0
	169319.6	445074.39	BR-2	3.2	3.8	5.0	6.3	3.8	4.7	4.3	4.2	4.1	2.9	5.0	4.3	4.0	14.0
	169881.74	444031.66	BR-3*	3.8	4.5	5.8	7.4	4.5	5.6	5.1	4.9	4.9	3.4	5.9	5.0	4.6	16.0
	170465.47	442165.53	BRA-COMI														
	170449.04	442891.19	BRA-1	4.0	4.7	6.1	7.8	4.7	5.8	5.3	5.2	5.1	3.6	6.2	5.3	4.9	17.0
	170465.47	442165.53	BRA-2	3.2	3.7	4.9	6.2	3.7	4.6	4.2	4.1	4.0	2.8	4.9	4.2	3.9	14.0
	170940.53	442079.48	BRA-3*	3.3	3.8	5.0	6.4	3.8	4.8	4.4	4.3	4.2	2.9	5.1	4.3	4.0	14.0
	172729.4	438384.09	CB-COMP-														
	172827.97	439972.49	CB-1	3.6	4.3	5.6	7.1	4.3	5.3	4.9	4.7	4.7	3.3	5.7	4.8	4.4	16.0
	172729.4	438384.09	CB-2	5.2	6.2	8.0	10.0	6.2	7.7	7.0	6.8	6.7	4.7	8.2	6.9	6.4	23.0
	172729.92	436939.09	CB-3*	3.1	3.6	4.7	6.1	3.6	4.5	4.1	4.0	4.0	2.8	4.8	4.1	3.8	13.0
	171574.63	436388.9	CC-COMP-														
	172362.54	436722.04	CC-1	5.5	6.4	8.4	11.0	6.4	8.0	7.3	7.1	7.0	4.9	8.5	7.2	6.7	24.0
	171574.63	436388.9	CC-2*	4.3	5.1	6.6	8.4	5.0	6.3	5.8	5.6	5.5	3.8	6.7	5.7	5.3	19.0
	170489.12	436520.6	CC-3	5.5	6.5	8.5	11.0	6.5	8.1	7.4	7.2	7.1	5.0	8.6	7.3	6.8	24.0
	169859.58	437220.33	CC-4	4.7	5.5	7.2	9.2	5.5	6.9	6.3	6.1	6.0	4.2	7.3	6.2	5.7	20.0
	175657.83	435081	FB-COMP-														
	176507.3	435940.32	FB-1	4.7	5.5	7.1	9.1	5.5	6.8	6.2	6.1	6.0	4.2	7.2	6.2	5.7	20.0
	175657.83	435081	FB-2*	4.3	5.0	6.5	8.4	5.0	6.3	5.7	5.6	5.5	3.8	6.6	5.6	5.2	18.0
	174661.37	438812.09	FTM-COMI														
	171839.29	440934.68	FTM-1	2.7	3.2	4.1	5.3	3.2	3.9	3.6	3.5	3.4	2.4	4.2	3.6	3.3	12.0
	174661.37	438812.09	FTM-2	3.8	4.5	5.8	7.4	4.5	5.6	5.1	5.0	4.9	3.4	5.9	5.0	4.7	16.0

Station Assessment	Northing	Easting	Station	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHENE	1,2-DICHLOROBENZENE	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	1,3-DICHLOROBENZENE	1,4-DICHLOROBENZENE	2-BUTANONE (MEK)	BENZENE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE
			Soil S														
			Habitat Reconstruct	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHENE	1,2-DICHLOROBENZENE	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	1,3-DICHLOROBENZENE	1,4-DICHLOROBENZENE	2-BUTANONE (MEK)	BENZENE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE
			MD Residentia	3200	11,000	16,000,000	390,000	700,000	7000	9400	23,000	27,000	4,700,000	12,000	10,000	81,000	11,000
			MD Non-Residentia	14,000	50,000	200,000,000	51,000,000	9,200,000	31,000	42,000	310,000	120,000	64,000,000	52,000	46,000	360,000	140,000
	176061.11	437475.9	FTM-3*	3.7	4.3	5.6	7.1	4.3	5.4	4.9	4.8	4.7	3.3	5.7	4.8	4.5	16.0
	175373.05	437525.22	HA-COMP-														
	175674.65	438671.85	HA-1*	4.2	4.9	6.4	8.2	4.9	6.2	5.6	5.5	5.4	3.8	6.5	5.5	5.1	18.0
	175373.05	437525.22	HA-2	3.9	4.5	5.9	7.6	4.5	5.7	5.2	5.0	4.9	3.5	6.0	5.1	4.7	17.0
	177250.89	436692.08	NWBE-COI														
	176660.89	437140.78	NWBE-1	4.4	5.2	6.7	8.6	5.2	6.4	5.9	5.7	5.6	3.9	6.8	5.8	5.4	19.0
	177250.89	436692.08	NWBE-2	4.5	5.3	6.9	8.8	5.3	6.6	6.0	5.9	5.7	4.0	7.0	5.9	5.5	19.0
	178257.92	436793.82	NWBE-3*	4.6	5.4	7.0	9.0	5.4	6.7	6.1	6.0	5.9	4.1	7.1	6.1	5.6	20.0
	178542	435800.17	NWBW-CO														
	178542	435800.17	NWBW-2	3.4	3.9	5.2	6.6	3.9	4.9	4.5	4.4	4.3	3.0	5.2	4.4	4.1	14.0
	179010.84	435140.83	NWBW-3*	5.2	6.1	8.0	10.0	6.1	7.7	7.0	6.8	6.7	4.7	8.1	6.9	6.4	23.0
	163913.11	448555.58	B1														
	169418.3	445558.02	B10														
	167406.62	444837.54	B11														
	168377.13	443579.2	B12														
	167707.86	443563.69	B13														
	166366.8	443633.52	B14														
	165144.97	442953.58	B15														
	165144.97	442953.58	B15J														
	164492.49	442044.66	B16														
	167372.58	442591	B17														
	166864.26	441527.92	B18														
	165811.79	440765.2	B19														
	166700.54	448000.7	B2														
	164755.91	439305.96	B20														
	166269.57	439826.57	B21														
	168253.52	441823.02	B22														
	169368.16	441502.74	B23														
	170606.68	443010.22	B24														
	171085.53	440853.11	B25														
	172221.76	441706.02	B26														
	172941.34	441903.7	B27														
	174935.77	442900.28	B29														
	164615.78	447470.71	B3														
	175203.17	443858.01	B30														
	175691.69	442968.1	B31														
	175916.41	444561.38	B32														
	176283.29	443995.86	B33														
	176244.03	445230.87	B34														
	176782.79	445071.94	B35														
	173401.11	441373.58	B36														
	174322.58	439452.56	B37														
	176570.57	440038.3	B38														
	175823.82	438711.33	B39														
	173058.28	439466.09	B40														
	173327.63	439059.39	B41														
	173284.32	438404.8	B42														
	172296.69	439489.09	B43														
	172396.83	437900.58	B44														
	172242.52	436569.96	B45														
	171399.91	436413.12	B46														
	170677.79	436301.29	B47														
	169739.36	436761.54	B48														
	168874.58	436477.59	B49														
	166979.72	445680.13	B5														
	168314.05	435280.16	B50														
	167855.19	436098.27	B51														
	166836.03	435766.87	B52														
	175277.79	437395.15	B53														
	176772.8	437256.2	B54														
	176635.09	436161.18	B55														
	176274.47	436203.6	B56														
	176332.23	435340.19	B57														
	176133.99	435144.47	B58														
	175590.57	434995.84	B59														
	170392.33	446536.17	B6														
	176159.8	434705.59	B60														
	176421.13	434524.62	B62														
	176573.65	434140.35	B63														
	176616.11	433253.08	B64														
	176746.41	432703.51	B65														
	177721.37	436328.79	B67														
	178925.43	435951.73	B68														

			Soil S														
			Habitat Reconstruct	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHENE	1,2-DICHLOROBENZENE	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	1,3-DICHLOROBENZENE	1,4-DICHLOROBENZENE	2-BUTANONE (MEK)	BENZENE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE
			MD Residentia	3200	11,000	16,000,000	390,000	700,000	7000	9400	23,000	27,000	4,700,000	12,000	10,000	81,000	11,000
			MD Non-Residentia	14,000	50,000	200,000,000	51,000,000	9,200,000	31,000	42,000	310,000	120,000	64,000,000	52,000	46,000	360,000	140,000
Station Assessment	Northing	Easting	Station	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHENE	1,2-DICHLOROBENZENE	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	1,3-DICHLOROBENZENE	1,4-DICHLOROBENZENE	2-BUTANONE (MEK)	BENZENE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE
	179340.66	435710.17	B69														
	171649.36	446859.82	B7														
	178936	434873.12	B70														
	178605.41	434733.17	B71														
	179287.8	434224.45	B72														
	179501.4	433696.27	B73														
	175282.97	451914.72	B74														
	175282.97	451914.72	B74J														
	175237.45	449636.94	B75														
	176445	447927.02	B76														
	177413.77	447489.62	B77														
	177293.47	447993.78	B78														
	178680.87	447937.39	B79														
	172017.65	447594.11	B8														
	179936.03	446395.97	B80														
	181313.22	444566.8	B81														
	172751.59	446558.23	B9														

Station Assessment	Northing	Easting	Station	CARBON TETRACHLORIDE	CHLOROETHANE	CHLOROFORM	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	ETHYLBENZENE	METHYLENE CHLORIDE	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	VINYL CHLORIDE
			Soil S													
			Habitat Reconstruct	CARBON TETRACHLORIDE	CHLOROETHANE	CHLOROFORM	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	ETHYLBENZENE	METHYLENE CHLORIDE	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	VINYL CHLORIDE
			MD Residentia	4900	220,000	78,000	6400	7600	780,000	85,000	1200	630,000	160,000	6400	1600	90
			MD Non-Residentia	22,000	990,000	1,000,000	29,000	34,000	10,000,000	380,000	5300	8,200,000	2,000,000	29,000	7200	4000
	169321.33	445054.22	BR-COMP													
	168576.92	447476.23	BR1	1.0	3.6	1.0	1.1	1.0	3.5	5.0	2.9	2.2	2.5	1.0	3.3	2.5
	169321.33	445054.22	BR2	0.8	3.2	0.8	1.0	0.9	3.1	4.4	2.6	2.0	2.2	0.9	2.9	2.2
	169914.88	444002.69	BR3	1.1	4.1	1.1	1.2	1.1	4.0	5.7	3.3	2.6	2.8	1.2	3.7	2.8
	170474.59	442140.99	BRA-COMI													
	170435.58	442797.68	BRA1	1.0	3.8	1.0	1.2	1.1	3.8	10.0	3.1	2.4	2.7	1.1	3.5	2.7
	170474.59	442140.99	BRA2	1.0	3.6	1.0	1.1	1.0	3.6	5.1	2.9	2.3	2.5	1.1	3.3	2.5
	170981.03	442038.96	BRA3	1.0	3.6	1.0	1.1	1.0	3.5	11.0	2.9	2.2	2.5	1.1	3.3	2.5
	172733.27	438417.16	CB-COMP													
	172843.18	438569.18	CB1	1.0	3.6	1.0	1.1	1.0	3.5	11.0	2.9	2.3	2.5	1.1	3.3	2.5
	172733.27	438417.16	CB2	1.3	4.8	1.3	1.5	1.3	4.7	14.0	3.9	3.0	3.3	1.4	4.4	3.3
	172724.34	436936.25	CB3	0.9	3.5	0.9	1.1	1.0	3.5	12.0	2.9	2.2	2.4	1.0	3.2	2.5
	171394.67	436286.08	CC-COMP													
	172379.25	436734.92	CC1	1.0	3.9	1.0	1.2	1.1	3.9	14.0	3.2	2.5	2.7	1.1	3.6	2.7
	171394.67	436286.08	CC2	1.1	4.2	1.1	1.3	1.2	4.1	18.0	3.4	2.6	2.9	1.2	3.8	2.9
	170581.46	436482.73	CC3	1.3	5.0	1.3	1.5	1.4	5.0	17.0	4.1	3.1	3.5	1.5	4.6	3.5
	169833.58	437197.43	CC4	1.2	4.4	1.2	1.4	1.2	4.4	16.0	3.6	2.8	3.1	1.3	4.1	3.1
	174193.89	440053.33	DDE-COMI													
	173765.18	439797.92	DDE1	1.0	3.9	1.0	1.2	1.1	3.8	22.0	3.2	2.4	2.7	1.1	3.6	2.7
	174193.89	440053.33	DDE2	1.0	3.6	1.0	1.1	1.0	3.6	20.0	3.0	2.3	2.5	1.1	3.3	2.5
	174533.87	440322.11	DDE3	0.4	1.5	0.4	0.5	0.4	1.5	12.0	1.3	1.0	1.1	0.5	1.4	1.1
	175268.67	439637.82	DDW-COM													
	174826	439547.96	DDW1	0.9	3.2	0.9	1.0	0.9	3.2	11.0	2.6	2.0	2.2	1.0	3.0	2.3
	175268.67	439637.82	DDW2	0.9	3.5	0.9	1.1	1.0	3.4	16.0	2.8	2.2	2.4	1.0	3.2	2.4
	174806.09	440004.18	DDW3	0.6	2.1	0.6	0.7	0.6	2.1	8.6	1.7	1.3	1.5	0.6	1.9	1.5
	176503.68	435960.48	FB1	1.2	4.7	1.2	1.4	1.3	4.6	23.0	3.8	2.9	3.3	1.4	4.3	3.3
	176399.99	435123.71	FB2	1.1	4.2	1.1	1.3	1.2	4.2	14.0	3.4	2.6	2.9	1.2	3.9	2.9
	174668.76	438810.61	FTM-COMI													
	171852.14	440913.03	FTM1	1.1	4.2	1.1	1.3	1.2	4.1	23.0	3.4	2.6	2.9	1.2	3.8	2.9
	174668.76	438810.61	FTM2	1.0	3.9	1.0	1.2	1.1	3.9	13.0	3.2	2.4	2.7	1.1	3.6	2.7
	176085.02	437442.71	FTM3	1.2	4.4	1.2	1.4	1.2	4.4	13.0	3.6	2.8	3.1	1.3	4.1	3.1
	174259.93	439572.39	HA-COMP													
	175569.01	438639.29	HA1	1.1	4.3	1.1	1.3	1.2	4.3	15.0	3.5	2.7	3.0	1.3	3.9	3.0
	174259.93	439572.39	HA2	0.9	3.4	0.9	1.0	0.9	3.4	11.0	2.8	2.1	2.4	1.0	3.1	2.4
	177548.7	436674.87	NWBE-COI													
	176793.65	437043.77	NWBE1	1.1	4.1	1.1	1.3	1.1	4.1	16.0	3.4	2.6	2.9	1.2	3.8	2.9
	177548.7	436674.87	NWBE2	1.2	4.5	1.2	1.4	1.3	4.5	17.0	3.7	2.8	3.1	1.3	4.1	3.2
	178248.68	436795.3	NWBE3	1.2	4.3	1.2	1.3	1.2	4.3	15.0	3.5	2.7	3.0	1.3	4.0	3.0
	178895.88	435496.56	NWBW-CC													
	178539.17	435992.89	NWBW1	0.9	3.5	0.9	1.1	1.0	3.5	9.8	2.9	2.2	2.4	1.0	3.2	2.5
	178895.88	435496.56	NWBW2	0.9	3.2	0.9	1.0	0.9	3.2	8.8	2.6	2.0	2.2	0.9	2.9	2.2
	179003.49	435149.5	NWBW3	0.9	3.2	0.9	1.0	0.9	3.2	11.0	2.6	2.0	2.2	1.0	3.0	2.3
	176436.72	438622.09	SGT-COMI													
	176232.2	438039.03	SGT1	0.8	3.1	0.8	1.0	0.9	3.1	13.0	2.6	2.0	2.2	0.9	2.9	2.2
	176436.72	438622.09	SGT2	1.0	3.6	1.0	1.1	1.0	3.6	15.0	3.0	2.3	2.5	1.1	3.3	2.5
	176641.79	438559.22	SGT3	0.6	2.1	0.6	0.6	0.6	2.1	7.2	1.7	1.3	1.5	0.6	1.9	1.5
	177240.04	434708.59	SLP-COMI													
	176678.1	434834.78	SLP1	1.1	4.3	1.1	1.3	1.2	4.2	13.0	3.5	2.7	3.0	1.3	3.9	3.0
	177240.04	434708.59	SLP2	1.2	4.5	1.2	1.4	1.2	4.4	14.0	3.6	2.8	3.1	1.3	4.1	3.1
	176956.14	435360.02	SLP3	0.8	3.2	0.8	1.0	0.9	3.1	11.0	2.6	2.0	2.2	0.9	2.9	2.2
	169319.6	445074.39	BR-COMP-													
	168547.57	447518.15	BR-1	9.3	7.2	4.9	4.4	5.0	5.1	6.2	8.5	5.7	6.9	4.2		7.5
	169319.6	445074.39	BR-2	8.3	6.4	4.3	3.9	4.5	4.6	5.5	7.6	5.1	6.2	3.8		6.7
	169881.74	444031.66	BR-3*	9.8	7.5	5.1	4.6	5.2	5.3	6.5	8.9	6.0	7.2	4.4		7.9
	170465.47	442165.53	BRA-COMI													
	170449.04	442891.19	BRA-1	10.0	7.9	5.4	4.8	5.5	5.6	6.8	9.3	6.3	7.6	4.7		8.3
	170465.47	442165.53	BRA-2	8.1	6.3	4.3	3.8	4.4	4.5	5.4	7.4	5.0	6.0	3.7		6.6
	170940.53	442079.48	BRA-3*	8.4	6.5	4.4	3.9	4.5	4.6	5.6	7.7	5.1	6.2	3.8		6.8
	172729.4	438384.09	CB-COMP-													
	172827.97	439972.49	CB-1	9.4	7.2	4.9	4.4	5.0	5.1	6.2	8.5	5.7	6.9	4.2		7.6
	172729.4	438384.09	CB-2	13.0	10.0	7.1	6.3	7.2	7.4	8.9	12.0	8.2	10.0	6.1		11.0
	172729.92	436939.09	CB-3*	8.0	6.1	4.2	3.7	4.3	4.3	5.3	7.2	4.8	5.9	3.6		6.4
	171574.63	436388.9	CC-COMP-													
	172362.54	436722.04	CC-1	14.0	11.0	7.4	6.6	7.5	7.7	9.3	13.0	8.6	10.0	6.4		11.0
	171574.63	436388.9	CC-2*	11.0	8.5	5.8	5.2	5.9	6.0	7.3	10.0	6.7	8.2	5.0		8.9
	170489.12	436520.6	CC-3	14.0	11.0	7.4	6.7	7.6	7.8	9.4	13.0	8.7	11.0	6.5		11.0
	169859.58	437220.33	CC-4	12.0	9.3	6.3	5.7	6.5	6.6	8.0	11.0	7.4	8.9	5.5		9.7
	175657.83	435081	FB-COMP-													
	176507.3	435940.32	FB-1	12.0	9.2	6.3	5.6	6.4	6.5	9.8	11.0	7.3	8.8	5.4		9.7
	175657.83	435081	FB-2*	11.0	8.5	5.7	5.2	5.9	6.0	8.7	10.0	6.7	8.1	5.0		8.9
	174661.37	438812.09	FTM-COMI													
	171839.29	440934.68	FTM-1	6.9	5.3	3.6	3.2	3.7	3.8	4.6	6.3	4.2	5.1	3.1		5.6
	174661.37	438812.09	FTM-2	9.8	7.6	5.1	4.6	5.2	5.3	6.5	8.9	6.0	7.2	4.4		7.9

			Soil S													
			Habitat Reconstruct	CARBON TETRACHLORIDE	CHLOROETHANE	CHLOROFORM	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	ETHYLBENZENE	METHYLENE CHLORIDE	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	VINYL CHLORIDE
			MD Residentia	4900	220,000	78,000	6400	7600	780,000	85,000	1200	630,000	160,000	6400	1600	90
			MD Non-Residentia	22,000	990,000	1,000,000	29,000	34,000	10,000,000	380,000	5300	8,200,000	2,000,000	29,000	7200	4000
Station Assessment	Northing	Easting	Station	CARBON TETRACHLORIDE	CHLOROETHANE	CHLOROFORM	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	ETHYLBENZENE	METHYLENE CHLORIDE	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	VINYL CHLORIDE
	176061.11	437475.9	FTM-3*	9.4	7.2	4.9	4.4	5.0	5.1	6.2	8.6	5.7	6.9	4.3		7.6
	175373.05	437525.22	HA-COMP-													
	175674.65	438671.85	HA-1*	11.0	8.3	5.6	5.1	5.8	5.9	7.1	9.8	6.6	8.0	4.9		8.7
	175373.05	437525.22	HA-2	9.9	7.7	5.2	4.7	5.3	5.4	6.6	9.0	6.1	7.3	4.5		8.0
	177250.89	436692.08	NWBE-COI													
	176660.89	437140.78	NWBE-1	11.0	8.7	5.9	5.3	6.0	6.2	7.5	10.0	6.9	8.3	5.1	7.2	9.1
	177250.89	436692.08	NWBE-2	12.0	8.9	6.0	5.4	6.2	6.3	7.7	11.0	7.1	8.5	5.2	7.4	9.3
	178257.92	436793.82	NWBE-3*	12.0	9.1	6.2	5.5	6.3	6.4	7.8	11.0	7.2	8.7	5.4	7.5	9.5
	178542	435800.17	NWBW-CO													
	178542	435800.17	NWBW-2	8.6	6.7	4.5	4.1	4.6	4.7	5.7	7.9	5.3	6.4	3.9	5.5	7.0
	179010.84	435140.83	NWBW-3*	13.0	10.0	7.0	6.3	7.2	7.3	8.9	12.0	8.2	9.9	6.1	8.6	11.0
	163913.11	448555.58	B1													
	169418.3	445558.02	B10													
	167406.62	444837.54	B11													
	168377.13	443579.2	B12													
	167707.86	443563.69	B13													
	166366.8	443633.52	B14													
	165144.97	442953.58	B15													
	165144.97	442953.58	B15J													
	164492.49	442044.66	B16													
	167372.58	442591	B17													
	166864.26	441527.92	B18													
	165811.79	440765.2	B19													
	166700.54	448000.7	B2													
	164755.91	439305.96	B20													
	166269.57	439826.57	B21													
	168253.52	441823.02	B22													
	169368.16	441502.74	B23													
	170606.68	443010.22	B24													
	171085.53	440853.11	B25													
	172221.76	441706.02	B26													
	172941.34	441903.7	B27													
	174935.77	442900.28	B29													
	164615.78	447470.71	B3													
	175203.17	443858.01	B30													
	175691.69	442968.1	B31													
	175916.41	444561.38	B32													
	176283.29	443995.86	B33													
	176244.03	445230.87	B34													
	176782.79	445071.94	B35													
	173401.11	441373.58	B36													
	174322.58	439452.56	B37													
	176570.57	440038.3	B38													
	175823.82	438711.33	B39													
	173058.28	439466.09	B40													
	173327.63	439059.39	B41													
	173284.32	438404.8	B42													
	172296.69	439489.09	B43													
	172396.83	437900.58	B44													
	172242.52	436569.96	B45													
	171399.91	436413.12	B46													
	170677.79	436301.29	B47													
	169739.36	436761.54	B48													
	168874.58	436477.59	B49													
	166979.72	445680.13	B5													
	168314.05	435280.16	B50													
	167855.19	436098.27	B51													
	166836.03	435766.87	B52													
	175277.79	437395.15	B53													
	176772.8	437256.2	B54													
	176635.09	436161.18	B55													
	176274.47	436203.6	B56													
	176332.23	435340.19	B57													
	176133.99	435144.47	B58													
	175590.57	434995.84	B59													
	170392.33	446536.17	B6													
	176159.8	434705.59	B60													
	176421.13	434524.62	B62													
	176573.65	434140.35	B63													
	176616.11	433253.08	B64													
	176746.41	432703.51	B65													
	177721.37	436328.79	B67													
	178925.43	435951.73	B68													

			Soil S													
			Habitat Reconstruct	CARBON TETRACHLORIDE	CHLOROETHANE	CHLOROFORM	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	ETHYLBENZENE	METHYLENE CHLORIDE	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	VINYL CHLORIDE
			MD Residentia	4900	220,000	78,000	6400	7600	780,000	85,000	1200	630,000	160,000	6400	1600	90
			MD Non-Residentia	22,000	990,000	1,000,000	29,000	34,000	10,000,000	380,000	5300	8,200,000	2,000,000	29,000	7200	4000
Station Assessment	Northing	Easting	Station	CARBON TETRACHLORIDE	CHLOROETHANE	CHLOROFORM	CIS-1,3-DICHLOROPROPENE	DIBROMOCHLOROMETHANE	ETHYLBENZENE	METHYLENE CHLORIDE	TETRACHLOROETHENE	TOLUENE	TRANS-1,2-DICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE	TRICHLOROETHENE	VINYL CHLORIDE
	179340.66	435710.17	B69													
	171649.36	446859.82	B7													
	178936	434873.12	B70													
	178605.41	434733.17	B71													
	179287.8	434224.45	B72													
	179501.4	433696.27	B73													
	175282.97	451914.72	B74													
	175282.97	451914.72	B74J													
	175237.45	449636.94	B75													
	176445	447927.02	B76													
	177413.77	447489.62	B77													
	177293.47	447993.78	B78													
	178680.87	447937.39	B79													
	172017.65	447594.11	B8													
	179936.03	446395.97	B80													
	181313.22	444566.8	B81													
	172751.59	446558.23	B9													

Station Assessment	Northing	Easting	Station	Station	1,2,4-TRICHLOROBENZENE	2,4,6-TRICHLOROPHENOL	2,4-DICHLOROPHENOL	2,4-DIMETHYLPHENOL	2,4-DINITROPHENOL	2,4-DINITROTOLUENE	2,6-DINITROTOLUENE	2-CHLORONAPHTHALENE	2-CHLOROPHENOL	2-METHYLPHENOL	4-METHYLPHENOL
			Soil S	Soil Standards:	1,2,4-TRICHLOROBENZENE	2,4,6-TRICHLOROPHENOL	2,4-DICHLOROPHENOL	2,4-DIMETHYLPHENOL	2,4-DINITROPHENOL	2,4-DINITROTOLUENE	2,6-DINITROTOLUENE	2-CHLORONAPHTHALENE	2-CHLOROPHENOL	2-METHYLPHENOL	4-METHYLPHENOL
			Habitat Reconstruct	Habitat Reconstruction (TELs)											
			MD Residentia	MD Residential Clean-up	78,000	58,000	23,000	160,000	16,000	16,000	7800	630,000	39,000	390,000	39,000
			MD Non-Residentia	MD Non-Residential Clean-up	1,000,000	260,000	310,000	2,000,000	200,000	200,000	100,000	8,200,000	510,000	5,100,000	510,000
				sVOC											
	169321.33	445054.22	BR-COMP	BR-COMP	25.0	21.0	23.0	20.0	3100.0	13.0	17.0	26.0	19.0	27.0	63.0
	168576.92	447476.23	BR1	BR1	25.0	22.0	24.0	20.0	3100.0	13.0	18.0	27.0	20.0	28.0	47.0
	169321.33	445054.22	BR2	BR2	11.0	9.5	10.0	8.9	1400.0	5.8	7.9	12.0	8.8	12.0	53.0
	169914.88	444002.69	BR3	BR3	28.0	24.0	26.0	23.0	3500.0	15.0	20.0	30.0	22.0	31.0	49.0
	170474.59	442140.99	BRA-COMI	BRA-COMI	26.0	22.0	24.0	21.0	3200.0	14.0	18.0	27.0	20.0	29.0	190.0
	170435.58	442797.68	BRA1	BRA1	27.0	23.0	25.0	22.0	3400.0	14.0	19.0	28.0	21.0	30.0	160.0
	170474.59	442140.99	BRA2	BRA2	26.0	22.0	25.0	21.0	3300.0	14.0	19.0	28.0	21.0	29.0	160.0
	170981.03	442038.96	BRA3	BRA3	27.0	22.0	25.0	21.0	3300.0	14.0	19.0	28.0	21.0	29.0	220.0
	172733.27	438417.16	CB-COMP	CB-COMP	29.0	24.0	27.0	23.0	3600.0	15.0	20.0	30.0	22.0	32.0	32.0
	172843.18	438569.18	CB1	CB1	29.0	24.0	27.0	23.0	3600.0	15.0	20.0	30.0	23.0	32.0	73.0
	172733.27	438417.16	CB2	CB2	35.0	29.0	32.0	28.0	4300.0	18.0	24.0	36.0	27.0	38.0	38.0
	172724.34	436936.25	CB3	CB3	26.0	22.0	25.0	21.0	3300.0	14.0	19.0	28.0	21.0	29.0	29.0
	171394.67	436286.08	CC-COMP	CC-COMP	30.0	26.0	28.0	24.0	3800.0	16.0	21.0	32.0	24.0	34.0	57.0
	172379.25	436734.92	CC1	CC1	28.0	24.0	26.0	22.0	3400.0	14.0	20.0	29.0	22.0	31.0	64.0
	171394.67	436286.08	CC2	CC2	30.0	25.0	28.0	24.0	3700.0	15.0	21.0	31.0	23.0	33.0	110.0
	170581.46	436482.73	CC3	CC3	36.0	30.0	33.0	28.0	4400.0	18.0	25.0	37.0	28.0	39.0	39.0
	169833.58	437197.43	CC4	CC4	31.0	26.0	29.0	25.0	3900.0	16.0	22.0	33.0	24.0	34.0	35.0
	174193.89	440053.33	DDE-COMI	DDE-COMI	16.0	14.0	15.0	13.0	2000.0	8.3	11.0	17.0	13.0	18.0	27.0
	173765.18	439797.92	DDE1	DDE1	26.0	22.0	24.0	20.0	3200.0	13.0	18.0	27.0	20.0	28.0	40.0
	174193.89	440053.33	DDE2	DDE2	29.0	25.0	27.0	23.0	3600.0	15.0	20.0	30.0	23.0	32.0	81.0
	174533.87	440322.11	DDE3	DDE3	13.0	11.0	13.0	11.0	1700.0	7.0	9.5	14.0	11.0	15.0	15.0
	175268.67	439637.82	DDW-COM	DDW-COM	24.0	20.0	22.0	19.0	3000.0	12.0	17.0	25.0	19.0	27.0	27.0
	174826	439547.96	DDW1	DDW1	25.0	21.0	23.0	20.0	3100.0	13.0	18.0	26.0	19.0	27.0	28.0
	175268.67	439637.82	DDW2	DDW2	24.0	20.0	22.0	19.0	2900.0	12.0	17.0	25.0	18.0	26.0	26.0
	174806.09	440004.18	DDW3	DDW3	19.0	16.0	18.0	15.0	2400.0	10.0	14.0	20.0	15.0	21.0	21.0
	176503.68	435960.48	FB1	FB1	85.0	72.0	79.0	67.0	10000.0	44.0	60.0	89.0	66.0	93.0	94.0
	176399.99	435123.71	FB2	FB2	79.0	67.0	73.0	63.0	9700.0	41.0	55.0	83.0	61.0	87.0	87.0
	174668.76	438810.61	FTM-COMI	FTM-COMI	30.0	25.0	28.0	24.0	3700.0	15.0	21.0	31.0	23.0	33.0	64.0
	171852.14	440913.03	FTM1	FTM1	29.0	25.0	27.0	23.0	3600.0	15.0	21.0	31.0	23.0	32.0	60.0
	174668.76	438810.61	FTM2	FTM2	29.0	25.0	27.0	23.0	3600.0	15.0	21.0	31.0	23.0	32.0	87.0
	176085.02	437442.71	FTM3	FTM3	31.0	27.0	29.0	25.0	3900.0	16.0	22.0	33.0	25.0	35.0	74.0
	174259.93	439572.39	HA-COMP	HA-COMP	29.0	24.0	27.0	23.0	3500.0	15.0	20.0	30.0	22.0	32.0	32.0
	175569.01	438639.29	HA1	HA1	31.0	26.0	29.0	25.0	3900.0	16.0	22.0	33.0	24.0	34.0	35.0
	174259.93	439572.39	HA2	HA2	26.0	22.0	25.0	21.0	3300.0	14.0	19.0	28.0	21.0	29.0	29.0
	177548.7	436674.87	NWBE-COI	NWBE-COI	81.0	69.0	76.0	65.0	10000.0	42.0	57.0	85.0	63.0	89.0	90.0
	176793.65	437043.77	NWBE1	NWBE1	79.0	67.0	73.0	63.0	9700.0	41.0	55.0	83.0	61.0	87.0	87.0
	177548.7	436674.87	NWBE2	NWBE2	82.0	70.0	76.0	65.0	10000.0	42.0	58.0	86.0	64.0	91.0	91.0
	178248.68	436795.3	NWBE3	NWBE3	84.0	71.0	78.0	66.0	10000.0	43.0	59.0	88.0	65.0	92.0	96.0
	178895.88	435496.56	NWBW-CO	NWBW-CO	60.0	51.0	56.0	48.0	7500.0	31.0	43.0	63.0	47.0	67.0	67.0
	178539.17	435992.89	NWBW1	NWBW1	62.0	53.0	58.0	50.0	7700.0	32.0	44.0	65.0	49.0	69.0	69.0
	178895.88	435496.56	NWBW2	NWBW2	64.0	54.0	59.0	51.0	7900.0	33.0	45.0	67.0	50.0	70.0	71.0
	179003.49	435149.5	NWBW3	NWBW3	61.0	52.0	57.0	49.0	7600.0	32.0	43.0	64.0	48.0	68.0	68.0
	176436.72	438622.09	SGT-COMI	SGT-COMI	19.0	16.0	18.0	15.0	2300.0	9.8	13.0	20.0	15.0	21.0	21.0
	176232.2	438039.03	SGT1	SGT1	22.0	18.0	20.0	17.0	2700.0	11.0	15.0	23.0	17.0	24.0	24.0
	176436.72	438622.09	SGT2	SGT2	26.0	22.0	25.0	21.0	3300.0	14.0	19.0	28.0	21.0	29.0	29.0
	176641.79	438559.22	SGT3	SGT3	13.0	11.0	12.0	10.0	1600.0	6.7	9.2	14.0	10.0	14.0	14.0
	177240.04	434708.59	SLP-COMI	SLP-COMI	26.0	22.0	24.0	20.0	3200.0	13.0	18.0	27.0	20.0	28.0	28.0
	176678.1	434834.78	SLP1	SLP1	31.0	26.0	29.0	25.0	3900.0	16.0	22.0	33.0	24.0	34.0	35.0
	177240.04	434708.59	SLP2	SLP2	33.0	28.0	31.0	26.0	4100.0	17.0	23.0	35.0	26.0	36.0	36.0
	176956.14	435360.02	SLP3	SLP3	20.0	17.0	19.0	16.0	2500.0	10.0	14.0	21.0	16.0	22.0	22.0
	169319.6	445074.39	BR-COMP-	BR-COMP-	67.0	45.0	67.0	56.0	970.0	58.0	48.0	58.0	110.0	95.0	140.0
	168547.57	447518.15	BR-1	BR-1	64.0	43.0	64.0	53.0	920.0	55.0	46.0	55.0	110.0	90.0	140.0
	169319.6	445074.39	BR-2	BR-2	57.0	38.0	57.0	47.0	820.0	49.0	41.0	49.0	94.0	80.0	120.0
	169881.74	444031.66	BR-3*	BR-3*	67.0	45.0	67.0	56.0	970.0	58.0	48.0	58.0	110.0	94.0	140.0
	170465.47	442165.53	BRA-COMI	BRA-COMI	60.0	40.0	60.0	50.0	870.0	52.0	43.0	52.0	99.0	85.0	130.0
	170449.04	442891.19	BRA-1	BRA-1	70.0	47.0	70.0	58.0	1000.0	61.0	50.0	60.0	120.0	99.0	150.0
	170465.47	442165.53	BRA-2	BRA-2	56.0	37.0	56.0	46.0	810.0	48.0	40.0	48.0	92.0	79.0	120.0
	170940.53	442079.48	BRA-3*	BRA-3*	58.0	39.0	58.0	48.0	830.0	50.0	41.0	49.0	95.0	81.0	120.0
	172729.4	438384.09	CB-COMP-	CB-COMP-	81.0	54.0	81.0	67.0	1200.0	70.0	58.0	69.0	130.0	110.0	170.0
	172827.97	439972.49	CB-1	CB-1	64.0	43.0	64.0	53.0	930.0	55.0	46.0	55.0	110.0	90.0	140.0
	172729.4	438384.09	CB-2	CB-2	93.0	62.0	93.0	77.0	1300.0	80.0	66.0	80.0	150.0	130.0	200.0
	172729.92	436939.09	CB-3*	CB-3*	55.0	37.0	55.0	45.0	790.0	47.0	39.0	47.0	90.0	77.0	120.0
	171574.63	436388.9	CC-COMP-	CC-COMP-	90.0	60.0	90.0	75.0	1300.0	78.0	64.0	77.0	150.0	130.0	190.0
	172362.54	436722.04	CC-1	CC-1	97.0	65.0	97.0	80.0	1400.0	83.0	69.0	83.0	160.0	140.0	210.0
	171574.63	436388.9	CC-2*	CC-2*	76.0	51.0	76.0	63.0	1100.0	65.0	54.0	65.0	130.0	110.0	160.0
	170489.12	436520.6	CC-3	CC-3	98.0	65.0	98.0	81.0	1400.0	84.0	70.0	84.0	160.0	140.0	210.0
	169859.58	437220.33	CC-4	CC-4	83.0	55.0	83.0	69.0	1200.0	71.0	59.0	71.0	140.0	120.0	180.0
	175657.83	435081	FB-COMP-	FB-COMP-	80.0	54.0	80.0	66.0	1200.0	69.0	57.0	69.0	130.0	110.0	170.0
	176507.3	435940.32	FB-1	FB-1	82.0	55.0	82.0	68.0	1200.0	71.0	59.0	71.0	140.0	120.0	180.0
	175657.83	435081	FB-2*	FB-2*	75.0	50.0	75.0	62.0	1100.0	65.0	54.0	65.0	120.0	110.0	160.0
	174661.37	438812.09	FTM-COMI	FTM-COMI	60.0	40.0	60.0	49.0	860.0	51.0	42.0	51.0	98.0	84.0	130.0
	171839.29	440934.68	FTM-1	FTM-1	47.0	32.0	47.0	39.0	680.0	41.0	34.0	41.0	78.0	67.0	100.0
	174661.37	438812.09	FTM-2	FTM-2	67.0	45.0	67.0	56.0	970.0	58.0	48.0	58.0	110.0	95.0	140.0

			Soil S
			Habitat Reconstruct
			MD Residentia
			MD Non-Residentia
Station Assessment	Northing	Easting	Station
	176061.11	437475.9	FTM-3*
	175373.05	437525.22	HA-COMP-
	175674.65	438671.85	HA-1*
	175373.05	437525.22	HA-2
	177250.89	436692.08	NWBE-COI
	176660.89	437140.78	NWBE-1
	177250.89	436692.08	NWBE-2
	178257.92	436793.82	NWBE-3*
	178542	435800.17	NWBW-CO
	178542	435800.17	NWBW-2
	179010.84	435140.83	NWBW-3*
	163913.11	448555.58	B1
	169418.3	445558.02	B10
	167406.62	444837.54	B11
	168377.13	443579.2	B12
	167707.86	443563.69	B13
	166366.8	443633.52	B14
	165144.97	442953.58	B15
	165144.97	442953.58	B15J
	164492.49	442044.66	B16
	167372.58	442591	B17
	166864.26	441527.92	B18
	165811.79	440765.2	B19
	166700.54	448000.7	B2
	164755.91	439305.96	B20
	166269.57	439826.57	B21
	168253.52	441823.02	B22
	169368.16	441502.74	B23
	170606.68	443010.22	B24
	171085.53	440853.11	B25
	172221.76	441706.02	B26
	172941.34	441903.7	B27
	174935.77	442900.28	B29
	164615.78	447470.71	B3
	175203.17	443858.01	B30
	175691.69	442968.1	B31
	175916.41	444561.38	B32
	176283.29	443995.86	B33
	176244.03	445230.87	B34
	176782.79	445071.94	B35
	173401.11	441373.58	B36
	174322.58	439452.56	B37
	176570.57	440038.3	B38
	175823.82	438711.33	B39
	173058.28	439466.09	B40
	173327.63	439059.39	B41
	173284.32	438404.8	B42
	172296.69	439489.09	B43
	172396.83	437900.58	B44
	172242.52	436569.96	B45
	171399.91	436413.12	B46
	170677.79	436301.29	B47
	169739.36	436761.54	B48
	168874.58	436477.59	B49
	166979.72	445680.13	B5
	168314.05	435280.16	B50
	167855.19	436098.27	B51
	166836.03	435766.87	B52
	175277.79	437395.15	B53
	176772.8	437256.2	B54
	176635.09	436161.18	B55
	176274.47	436203.6	B56
	176332.23	435340.19	B57
	176133.99	435144.47	B58
	175590.57	434995.84	B59
	170392.33	446536.17	B6
	176159.8	434705.59	B60
	176421.13	434524.62	B62
	176573.65	434140.35	B63
	176616.11	433253.08	B64
	176746.41	432703.51	B65
	177721.37	436328.79	B67
	178925.43	435951.73	B68

Soil Standards:	1,2,4-TRICHLOROBENZENE	2,4,6-TRICHLOROPHENOL	2,4-DICHLOROPHENOL	2,4-DIMETHYLPHENOL	2,4-DINITROPHENOL	2,4-DINITROTOLUENE	2,6-DINITROTOLUENE	2-CHLORONAPHTHALENE	2-CHLOROPHENOL	2-METHYLPHENOL	4-METHYLPHENOL
Habitat Reconstruction (TELs)											
MD Residential Clean-up	78,000	58,000	23,000	160,000	16,000	16,000	7800	630,000	39,000	390,000	39,000
MD Non-Residential Clean-up	1,000,000	260,000	310,000	2,000,000	200,000	200,000	100,000	8,200,000	510,000	5,100,000	510,000
sVOC											
Station	1,2,4-TRICHLOROBENZENE	2,4,6-TRICHLOROPHENOL	2,4-DICHLOROPHENOL	2,4-DIMETHYLPHENOL	2,4-DINITROPHENOL	2,4-DINITROTOLUENE	2,6-DINITROTOLUENE	2-CHLORONAPHTHALENE	2-CHLOROPHENOL	2-METHYLPHENOL	4-METHYLPHENOL
FTM-3*	64.0	43.0	64.0	53.0	930.0	56.0	46.0	55.0	110.0	91.0	140.0
HA-COMP-	65.0	43.0	65.0	54.0	940.0	56.0	46.0	56.0	110.0	91.0	140.0
HA-1*	74.0	50.0	74.0	61.0	1100.0	64.0	53.0	64.0	120.0	100.0	160.0
HA-2	68.0	46.0	68.0	56.0	980.0	59.0	49.0	58.0	110.0	96.0	150.0
NWBE-COI	79.0	53.0	79.0	65.0	1100.0	68.0	56.0	68.0	130.0	110.0	170.0
NWBE-1	77.0	52.0	77.0	64.0	1100.0	67.0	55.0	66.0	130.0	110.0	170.0
NWBE-2	79.0	53.0	79.0	66.0	1100.0	68.0	57.0	68.0	130.0	110.0	170.0
NWBE-3*	81.0	54.0	81.0	67.0	1200.0	70.0	58.0	69.0	130.0	110.0	170.0
NWBW-CO	81.0	54.0	81.0	67.0	1200.0	70.0	58.0	70.0	130.0	110.0	170.0
NWBW-2	59.0	40.0	59.0	49.0	860.0	51.0	42.0	51.0	98.0	84.0	130.0
NWBW-3*	92.0	62.0	92.0	76.0	1300.0	79.0	66.0	79.0	150.0	130.0	200.0

Soil S
Habitat Reconstruct
MD Residentia
MD Non-Residentia

Soil Standards:	1,2,4-TRICHLOROBENZENE	2,4,6-TRICHLOROPHENOL	2,4-DICHLOROPHENOL	2,4-DIMETHYLPHENOL	2,4-DINITROPHENOL	2,4-DINITROTOLUENE	2,6-DINITROTOLUENE	2-CHLORONAPHTHALENE	2-CHLOROPHENOL	2-METHYLPHENOL	4-METHYLPHENOL
Habitat Reconstruction (TELs)											
MD Residential Clean-up	78,000	58,000	23,000	160,000	16,000	16,000	7800	630,000	39,000	390,000	39,000
MD Non-Residential Clean-up	1,000,000	260,000	310,000	2,000,000	200,000	200,000	100,000	8,200,000	510,000	5,100,000	510,000

sVOC

Station	1,2,4-TRICHLOROBENZENE	2,4,6-TRICHLOROPHENOL	2,4-DICHLOROPHENOL	2,4-DIMETHYLPHENOL	2,4-DINITROPHENOL	2,4-DINITROTOLUENE	2,6-DINITROTOLUENE	2-CHLORONAPHTHALENE	2-CHLOROPHENOL	2-METHYLPHENOL	4-METHYLPHENOL

Station Assessment	Northing	Easting	Station
	179340.66	435710.17	B69
	171649.36	446859.82	B7
	178936	434873.12	B70
	178605.41	434733.17	B71
	179287.8	434224.45	B72
	179501.4	433696.27	B73
	175282.97	451914.72	B74
	175282.97	451914.72	B74J
	175237.45	449636.94	B75
	176445	447927.02	B76
	177413.77	447489.62	B77
	177293.47	447993.78	B78
	178680.87	447937.39	B79
	172017.65	447594.11	B8
	179936.03	446395.97	B80
	181313.22	444566.8	B81
	172751.59	446558.23	B9

			Soil S	BIS(2-CHLOROETHYL) ETHER	BIS(2-CHLOROISOPROPYL) ETHER	BIS(2-ETHYLHEXYL) PHTHALATE	DIBENZOFURAN	DIETHYL PHTHALATE	DI-N-BUTYL PHTHALATE	HEXACHLOROBENZENE	HEXACHLOROBUTADIENE	HEXACHLOROCYCLOPENTADIENE	HEXACHLOROETHANE	ISOPHORONE	NITROBENZENE
			Habitat Reconstruct		182										
			MD Residentia	580	9100	4600	7800	6,300,000	780,000	400	8200	47,000	46,000	670,000	3900
			MD Non-Residentia	2600	41,000	200,000	100,000	83,000,000	1,000,000	1800	37,000	610,000	200,000	3,000,000	51,000
Station Assessment	Northing	Easting	Station	BIS(2-CHLOROETHYL) ETHER	BIS(2-CHLOROISOPROPYL) ETHER	BIS(2-ETHYLHEXYL) PHTHALATE	DIBENZOFURAN	DIETHYL PHTHALATE	DI-N-BUTYL PHTHALATE	HEXACHLOROBENZENE	HEXACHLOROBUTADIENE	HEXACHLOROCYCLOPENTADIENE	HEXACHLOROETHANE	ISOPHORONE	NITROBENZENE
	169321.33	445054.22	BR-COMP	24.0	18.0	76.0	370.0	25.0	150.0	25.0	24.0	98.0	24.0	23.0	40.0
	168576.92	447476.23	BR1	24.0	18.0	78.0	370.0	25.0	150.0	25.0	25.0	100.0	24.0	24.0	41.0
	169321.33	445054.22	BR2	11.0	8.0	34.0	180.0	11.0	68.0	11.0	11.0	44.0	11.0	11.0	18.0
	169914.88	444002.69	BR3	27.0	20.0	87.0	420.0	28.0	170.0	28.0	28.0	110.0	27.0	27.0	46.0
	170474.59	442140.99	BRA-COMI	25.0	19.0	80.0	390.0	26.0	160.0	26.0	25.0	100.0	25.0	25.0	42.0
	170435.58	442797.68	BRA1	26.0	19.0	83.0	410.0	27.0	160.0	27.0	26.0	110.0	26.0	26.0	43.0
	170474.59	442140.99	BRA2	25.0	19.0	100.0	390.0	26.0	160.0	26.0	26.0	100.0	25.0	25.0	42.0
	170981.03	442038.96	BRA3	25.0	19.0	81.0	390.0	26.0	160.0	26.0	26.0	100.0	25.0	25.0	42.0
	172733.27	438417.16	CB-COMP	28.0	21.0	88.0	32.0	29.0	170.0	29.0	28.0	110.0	27.0	27.0	46.0
	172843.18	438569.18	CB1	28.0	21.0	88.0	32.0	29.0	170.0	29.0	28.0	110.0	27.0	27.0	46.0
	172733.27	438417.16	CB2	33.0	25.0	110.0	39.0	35.0	210.0	34.0	34.0	140.0	33.0	33.0	56.0
	172724.34	436936.25	CB3	25.0	19.0	81.0	29.0	26.0	160.0	26.0	26.0	100.0	25.0	25.0	42.0
	171394.67	436286.08	CC-COMP	29.0	22.0	410.0	46.0	30.0	180.0	30.0	29.0	120.0	29.0	29.0	49.0
	172379.25	436734.92	CC1	27.0	20.0	450.0	62.0	28.0	200.0	28.0	27.0	110.0	26.0	26.0	45.0
	171394.67	436286.08	CC2	29.0	21.0	630.0	52.0	30.0	180.0	30.0	29.0	120.0	28.0	28.0	48.0
	170581.46	436482.73	CC3	34.0	26.0	270.0	40.0	36.0	210.0	35.0	34.0	140.0	34.0	34.0	57.0
	169833.58	437197.43	CC4	30.0	22.0	400.0	35.0	31.0	190.0	31.0	30.0	120.0	30.0	30.0	50.0
	174193.89	440053.33	DDE-COMI	15.0	12.0	120.0	18.0	16.0	97.0	16.0	16.0	64.0	15.0	15.0	26.0
	173765.18	439797.92	DDE1	25.0	18.0	160.0	29.0	26.0	150.0	26.0	25.0	100.0	24.0	24.0	41.0
	174193.89	440053.33	DDE2	28.0	21.0	390.0	41.0	29.0	180.0	29.0	28.0	120.0	28.0	27.0	47.0
	174533.87	440322.11	DDE3	13.0	9.7	41.0	15.0	13.0	81.0	13.0	13.0	53.0	13.0	13.0	22.0
	175268.67	439637.82	DDW-COM	23.0	17.0	74.0	27.0	24.0	150.0	24.0	23.0	95.0	23.0	23.0	39.0
	174826	439547.96	DDW1	24.0	18.0	76.0	28.0	25.0	150.0	25.0	24.0	99.0	24.0	24.0	40.0
	175268.67	439637.82	DDW2	23.0	17.0	72.0	26.0	23.0	140.0	23.0	23.0	93.0	22.0	22.0	38.0
	174806.09	440004.18	DDW3	19.0	14.0	59.0	22.0	19.0	120.0	19.0	19.0	77.0	18.0	18.0	31.0
	176503.68	435960.48	FB1	81.0	61.0	390.0	94.0	490.0	510.0	84.0	82.0	330.0	80.0	80.0	140.0
	176399.99	435123.71	FB2	76.0	56.0	290.0	88.0	420.0	470.0	78.0	76.0	310.0	75.0	74.0	130.0
	174668.76	438810.61	FTM-COMI	29.0	21.0	190.0	440.0	30.0	180.0	30.0	29.0	120.0	28.0	28.0	48.0
	171852.14	440913.03	FTM1	28.0	21.0	90.0	430.0	29.0	180.0	29.0	28.0	120.0	28.0	28.0	47.0
	174668.76	438810.61	FTM2	28.0	21.0	90.0	440.0	29.0	180.0	29.0	28.0	120.0	28.0	28.0	47.0
	176085.02	437442.71	FTM3	30.0	22.0	240.0	470.0	31.0	190.0	31.0	30.0	120.0	30.0	30.0	50.0
	174259.93	439572.39	HA-COMP	28.0	21.0	88.0	32.0	29.0	170.0	28.0	28.0	110.0	27.0	27.0	46.0
	175569.01	438639.29	HA1	30.0	22.0	96.0	35.0	31.0	190.0	31.0	30.0	120.0	30.0	30.0	50.0
	174259.93	439572.39	HA2	25.0	19.0	81.0	29.0	26.0	160.0	26.0	25.0	100.0	25.0	25.0	42.0
	177548.7	436674.87	NWBE-COI	78.0	58.0	590.0	90.0	650.0	490.0	81.0	78.0	320.0	77.0	77.0	130.0
	176793.65	437043.77	NWBE1	76.0	56.0	370.0	88.0	780.0	470.0	78.0	76.0	310.0	75.0	74.0	130.0
	177548.7	436674.87	NWBE2	79.0	59.0	330.0	91.0	680.0	500.0	82.0	79.0	330.0	78.0	78.0	130.0
	178248.68	436795.3	NWBE3	80.0	60.0	1200.0	110.0	550.0	500.0	83.0	81.0	330.0	79.0	79.0	130.0
	178895.88	435496.56	NWBW-CO	58.0	43.0	1000.0	67.0	280.0	360.0	60.0	58.0	240.0	57.0	57.0	97.0
	178539.17	435992.89	NWBW1	60.0	45.0	500.0	69.0	360.0	380.0	62.0	60.0	250.0	59.0	59.0	100.0
	178895.88	435496.56	NWBW2	61.0	46.0	1700.0	110.0	320.0	390.0	63.0	62.0	250.0	61.0	60.0	100.0
	179003.49	435149.5	NWBW3	59.0	44.0	1600.0	74.0	340.0	370.0	61.0	59.0	240.0	58.0	58.0	98.0
	176436.72	438622.09	SGT-COMI	18.0	14.0	58.0	21.0	19.0	110.0	19.0	18.0	75.0	18.0	18.0	30.0
	176232.2	438039.03	SGT1	21.0	15.0	66.0	24.0	22.0	130.0	21.0	21.0	85.0	20.0	20.0	35.0
	176436.72	438622.09	SGT2	25.0	19.0	81.0	29.0	26.0	160.0	26.0	26.0	100.0	25.0	25.0	42.0
	176641.79	438559.22	SGT3	13.0	9.3	40.0	14.0	13.0	78.0	13.0	13.0	52.0	12.0	12.0	21.0
	177240.04	434708.59	SLP-COMI	24.0	18.0	78.0	28.0	25.0	150.0	25.0	25.0	100.0	24.0	24.0	41.0
	176678.1	434834.78	SLP1	30.0	22.0	96.0	35.0	31.0	190.0	31.0	30.0	120.0	30.0	29.0	50.0
	177240.04	434708.59	SLP2	32.0	24.0	100.0	37.0	33.0	200.0	33.0	32.0	130.0	31.0	31.0	53.0
	176956.14	435360.02	SLP3	19.0	14.0	62.0	22.0	20.0	120.0	20.0	19.0	79.0	19.0	19.0	32.0
	169319.6	445074.39	BR-COMP-	74.0		63.0	61.0	59.0	58.0	53.0	88.0	43.0	89.0	84.0	80.0
	168547.57	447518.15	BR-1	70.0		60.0	58.0	56.0	55.0	50.0	84.0	41.0	84.0	80.0	76.0
	169319.6	445074.39	BR-2	62.0		53.0	52.0	50.0	49.0	45.0	75.0	37.0	75.0	72.0	68.0
	169881.74	444031.66	BR-3*	73.0		63.0	60.0	59.0	57.0	52.0	88.0	43.0	88.0	84.0	80.0
	170465.47	442165.53	BRA-COMI	66.0		56.0	54.0	53.0	52.0	47.0	79.0	39.0	79.0	76.0	72.0
	170449.04	442891.19	BRA-1	77.0		66.0	63.0	62.0	60.0	55.0	93.0	45.0	93.0	88.0	84.0
	170465.47	442165.53	BRA-2	61.0		52.0	50.0	49.0	48.0	44.0	73.0	36.0	74.0	70.0	67.0
	170940.53	442079.48	BRA-3*	63.0		54.0	52.0	51.0	49.0	45.0	76.0	37.0	76.0	72.0	69.0
	172729.4	438384.09	CB-COMP-	88.0		76.0	73.0	71.0	69.0	63.0	110.0	52.0	110.0	100.0	96.0
	172827.97	439972.49	CB-1	70.0		60.0	58.0	57.0	55.0	50.0	84.0	41.0	85.0	81.0	77.0
	172729.4	438384.09	CB-2	100.0		86.0	83.0	82.0	79.0	72.0	120.0	60.0	120.0	120.0	110.0
	172729.92	436939.09	CB-3*	60.0		51.0	49.0	48.0	47.0	43.0	72.0	35.0	72.0	68.0	65.0
	171574.63	436388.9	CC-COMP-	99.0		84.0	81.0	79.0	77.0	71.0	120.0	58.0	120.0	110.0	110.0
	172362.54	436722.04	CC-1	110.0		90.0	87.0	85.0	83.0	76.0	130.0	63.0	130.0	120.0	120.0
	171574.63	436388.9	CC-2*	83.0		71.0	68.0	67.0	65.0	59.0	100.0	49.0	100.0	95.0	90.0
	170489.12	436520.6	CC-3	110.0		91.0	88.0	86.0	84.0	76.0	130.0	63.0	130.0	120.0	120.0
	169859.58	437220.33	CC-4	90.0		77.0	75.0	73.0	71.0	65.0	110.0	53.0	110.0	100.0	99.0
	175657.83	435081	FB-COMP-	88.0		75.0	72.0	71.0	69.0	63.0	110.0	52.0	110.0	100.0	96.0
	176507.3	435940.32	FB-1	90.0		77.0	74.0	72.0	70.0	64.0	110.0	53.0	110.0	100.0	98.0
	175657.83	435081	FB-2*	82.0		70.0	68.0	66.0	65.0	59.0	99.0	49.0	99.0	95.0	90.0
	174661.37	438812.09	FTM-COMI	65.0		56.0	54.0	52.0	51.0	47.0	78.0	38.0	79.0	75.0	71.0
	171839.29	440934.68	FTM-1	52.0		44.0	43.0	42.0	41.0	37.0	62.0	31.0	63.0	60.0	57.0
	174661.37	438812.09	FTM-2	73.0		63.0	61.0	59.0	58.0	53.0	88.0	43.0	88.0	84.0	80.0

			Soil S	BIS(2-CHLOROETHYL) ETHER	BIS(2-CHLOROISOPROPYL) ETHER	BIS(2-ETHYLHEXYL) PHTHALATE	DIBENZOFURAN	DIETHYL PHTHALATE	DI-N-BUTYL PHTHALATE	HEXACHLOROBENZENE	HEXACHLOROBUTADIENE	HEXACHLOROCYCLOPENTADIENE	HEXACHLOROETHANE	ISOPHORONE	NITROBENZENE
			Habitat Reconstruct		182										
			MD Residentia	580	9100	4600	7800	6,300,000	780,000	400	8200	47,000	46,000	670,000	3900
			MD Non-Residentia	2600	41,000	200,000	100,000	83,000,000	1,000,000	1800	37,000	610,000	200,000	3,000,000	51,000
Station Assessment	Northing	Easting	Station	BIS(2-CHLOROETHYL) ETHER	BIS(2-CHLOROISOPROPYL) ETHER	BIS(2-ETHYLHEXYL) PHTHALATE	DIBENZOFURAN	DIETHYL PHTHALATE	DI-N-BUTYL PHTHALATE	HEXACHLOROBENZENE	HEXACHLOROBUTADIENE	HEXACHLOROCYCLOPENTADIENE	HEXACHLOROETHANE	ISOPHORONE	NITROBENZENE
	176061.11	437475.9	FTM-3*	70.0		60.0	58.0	57.0	55.0	50.0	85.0	42.0	85.0	81.0	77.0
	175373.05	437525.22	HA-COMP-	71.0		61.0	58.0	57.0	56.0	51.0	85.0	42.0	85.0	81.0	77.0
	175674.65	438671.85	HA-1*	81.0		69.0	67.0	65.0	64.0	58.0	97.0	48.0	98.0	93.0	88.0
	175373.05	437525.22	HA-2	74.0		64.0	61.0	60.0	58.0	53.0	90.0	44.0	90.0	85.0	81.0
	177250.89	436692.08	NWBE-COI	86.0		74.0	71.0	69.0	68.0	62.0	100.0	51.0	100.0	99.0	94.0
	176660.89	437140.78	NWBE-1	85.0		72.0	70.0	68.0	66.0	61.0	100.0	50.0	100.0	97.0	92.0
	177250.89	436692.08	NWBE-2	87.0		74.0	72.0	70.0	68.0	62.0	100.0	51.0	100.0	100.0	95.0
	178257.92	436793.82	NWBE-3*	88.0		76.0	73.0	71.0	69.0	63.0	110.0	52.0	110.0	100.0	96.0
	178542	435800.17	NWBW-CO	89.0		76.0	73.0	71.0	70.0	64.0	110.0	52.0	110.0	100.0	97.0
	178542	435800.17	NWBW-2	65.0		55.0	53.0	52.0	51.0	46.0	78.0	38.0	78.0	74.0	71.0
	179010.84	435140.83	NWBW-3*	100.0		86.0	83.0	81.0	79.0	72.0	120.0	60.0	120.0	120.0	110.0
	163913.11	448555.58	B1												
	169418.3	445558.02	B10												
	167406.62	444837.54	B11												
	168377.13	443579.2	B12												
	167707.86	443563.69	B13												
	166366.8	443633.52	B14												
	165144.97	442953.58	B15												
	165144.97	442953.58	B15J												
	164492.49	442044.66	B16												
	167372.58	442591	B17												
	166864.26	441527.92	B18												
	165811.79	440765.2	B19												
	166700.54	448000.7	B2												
	164755.91	439305.96	B20												
	166269.57	439826.57	B21												
	168253.52	441823.02	B22												
	169368.16	441502.74	B23												
	170606.68	443010.22	B24												
	171085.53	440853.11	B25												
	172221.76	441706.02	B26												
	172941.34	441903.7	B27												
	174935.77	442900.28	B29												
	164615.78	447470.71	B3												
	175203.17	443858.01	B30												
	175691.69	442968.1	B31												
	175916.41	444561.38	B32												
	176283.29	443995.86	B33												
	176244.03	445230.87	B34												
	176782.79	445071.94	B35												
	173401.11	441373.58	B36												
	174322.58	439452.56	B37												
	176570.57	440038.3	B38												
	175823.82	438711.33	B39												
	173058.28	439466.09	B40												
	173327.63	439059.39	B41												
	173284.32	438404.8	B42												
	172296.69	439489.09	B43												
	172396.83	437900.58	B44												
	172242.52	436569.96	B45												
	171399.91	436413.12	B46												
	170677.79	436301.29	B47												
	169739.36	436761.54	B48												
	168874.58	436477.59	B49												
	166979.72	445680.13	B5												
	168314.05	435280.16	B50												
	167855.19	436098.27	B51												
	166836.03	435766.87	B52												
	175277.79	437395.15	B53												
	176772.8	437256.2	B54												
	176635.09	436161.18	B55												
	176274.47	436203.6	B56												
	176332.23	435340.19	B57												
	176133.99	435144.47	B58												
	175590.57	434995.84	B59												
	170392.33	446536.17	B6												
	176159.8	434705.59	B60												
	176421.13	434524.62	B62												
	176573.65	434140.35	B63												
	176616.11	433253.08	B64												
	176746.41	432703.51	B65												
	177721.37	436328.79	B67												
	178925.43	435951.73	B68												

Station Assessment	Northing	Easting	Station	BIS(2-CHLOROETHYL) ETHER	BIS(2-CHLOROISOPROPYL) ETHER	BIS(2-ETHYLHEXYL) PHTHALATE	DIBENZOFURAN	DIETHYL PHTHALATE	DI-N-BUTYL PHTHALATE	HEXACHLOROBENZENE	HEXACHLOROBUTADIENE	HEXACHLOROCYCLOPENTADIENE	HEXACHLOROETHANE	ISOPHORONE	NITROBENZENE
			Soil S	BIS(2-CHLOROETHYL) ETHER	BIS(2-CHLOROISOPROPYL) ETHER	BIS(2-ETHYLHEXYL) PHTHALATE	DIBENZOFURAN	DIETHYL PHTHALATE	DI-N-BUTYL PHTHALATE	HEXACHLOROBENZENE	HEXACHLOROBUTADIENE	HEXACHLOROCYCLOPENTADIENE	HEXACHLOROETHANE	ISOPHORONE	NITROBENZENE
			Habitat Reconstruct		182										
			MD Residentia	580	9100	4600	7800	6,300,000	780,000	400	8200	47,000	46,000	670,000	3900
			MD Non-Residentia	2600	41,000	200,000	100,000	83,000,000	1,000,000	1800	37,000	610,000	200,000	3,000,000	51,000
	179340.66	435710.17	B69												
	171649.36	446859.82	B7												
	178936	434873.12	B70												
	178605.41	434733.17	B71												
	179287.8	434224.45	B72												
	179501.4	433696.27	B73												
	175282.97	451914.72	B74												
	175282.97	451914.72	B74J												
	175237.45	449636.94	B75												
	176445	447927.02	B76												
	177413.77	447489.62	B77												
	177293.47	447993.78	B78												
	178680.87	447937.39	B79												
	172017.65	447594.11	B8												
	179936.03	446395.97	B80												
	181313.22	444566.8	B81												
	172751.59	446558.23	B9												

			Soil S	N-NITROSODI-N-PROPYLAMINE	N-NITROSODIPHENYLAMINE	PENTACHLOROPHENOL	PHENOL
			Habitat Reconstruct				
			MD Residentia	91	130,000	5300	2,300,000
			MD Non-Residentia	410	580,000	24,000	31,000,000
Station Assessment	Northing	Easting	Station	N-NITROSODI-N-PROPYLAMINE	N-NITROSODIPHENYLAMINE	PENTACHLOROPHENOL	PHENOL
	169321.33	445054.22	BR-COMP	25.0	250.0	1700.0	25.0
	168576.92	447476.23	BR1	26.0	260.0	1700.0	26.0
	169321.33	445054.22	BR2	11.0	120.0	760.0	11.0
	169914.88	444002.69	BR3	29.0	290.0	1900.0	29.0
	170474.59	442140.99	BRA-COMI	26.0	270.0	1800.0	31.0
	170435.58	442797.68	BRA1	27.0	280.0	1800.0	28.0
	170474.59	442140.99	BRA2	27.0	270.0	1800.0	39.0
	170981.03	442038.96	BRA3	27.0	270.0	1800.0	27.0
	172733.27	438417.16	CB-COMP	29.0	300.0	2000.0	29.0
	172843.18	438569.18	CB1	29.0	300.0	2000.0	29.0
	172733.27	438417.16	CB2	35.0	360.0	2400.0	35.0
	172724.34	436936.25	CB3	27.0	270.0	1800.0	27.0
	171394.67	436286.08	CC-COMP	30.0	310.0	2100.0	31.0
	172379.25	436734.92	CC1	28.0	290.0	1900.0	28.0
	171394.67	436286.08	CC2	30.0	310.0	2000.0	30.0
	170581.46	436482.73	CC3	36.0	370.0	2400.0	36.0
	169833.58	437197.43	CC4	31.0	320.0	2100.0	32.0
	174193.89	440053.33	DDE-COMI	16.0	170.0	1100.0	16.0
	173765.18	439797.92	DDE1	26.0	260.0	1700.0	26.0
	174193.89	440053.33	DDE2	29.0	300.0	2000.0	30.0
	174533.87	440322.11	DDE3	14.0	140.0	910.0	14.0
	175268.67	439637.82	DDW-COM	24.0	250.0	1600.0	24.0
	174826	439547.96	DDW1	25.0	260.0	1700.0	25.0
	175268.67	439637.82	DDW2	24.0	240.0	1600.0	24.0
	174806.09	440004.18	DDW3	19.0	200.0	1300.0	20.0
	176503.68	435960.48	FB1	85.0	870.0	5700.0	86.0
	176399.99	435123.71	FB2	79.0	810.0	5300.0	80.0
	174668.76	438810.61	FTM-COMI	30.0	300.0	2000.0	30.0
	171852.14	440913.03	FTM1	29.0	300.0	2000.0	30.0
	174668.76	438810.61	FTM2	29.0	300.0	2000.0	30.0
	176085.02	437442.71	FTM3	32.0	320.0	2100.0	32.0
	174259.93	439572.39	HA-COMP	29.0	290.0	1900.0	29.0
	175569.01	438639.29	HA1	31.0	320.0	2100.0	32.0
	174259.93	439572.39	HA2	26.0	270.0	1800.0	27.0
	177548.7	436674.87	NWBE-COI	81.0	830.0	5500.0	82.0
	176793.65	437043.77	NWBE1	79.0	810.0	5300.0	80.0
	177548.7	436674.87	NWBE2	82.0	840.0	5600.0	83.0
	178248.68	436795.3	NWBE3	84.0	860.0	5700.0	85.0
	178895.88	435496.56	NWBW-CO	61.0	620.0	4100.0	61.0
	178539.17	435992.89	NWBW1	62.0	640.0	4200.0	63.0
	178895.88	435496.56	NWBW2	64.0	650.0	4300.0	65.0
	179003.49	435149.5	NWBW3	62.0	630.0	4200.0	62.0
	176436.72	438622.09	SGT-COMI	19.0	190.0	1300.0	19.0
	176232.2	438039.03	SGT1	22.0	220.0	1500.0	22.0
	176436.72	438622.09	SGT2	26.0	270.0	1800.0	27.0
	176641.79	438559.22	SGT3	13.0	130.0	880.0	13.0
	177240.04	434708.59	SLP-COMF	26.0	260.0	1700.0	26.0
	176678.1	434834.78	SLP1	31.0	320.0	2100.0	32.0
	177240.04	434708.59	SLP2	33.0	340.0	2200.0	34.0
	176956.14	435360.02	SLP3	20.0	210.0	1400.0	20.0
	169319.6	445074.39	BR-COMP-	65.0	72.0	44.0	71.0
	168547.57	447518.15	BR-1	61.0	68.0	42.0	67.0
	169319.6	445074.39	BR-2	55.0	61.0	38.0	60.0
	169881.74	444031.66	BR-3*	64.0	72.0	44.0	70.0
	170465.47	442165.53	BRA-COMI	58.0	64.0	40.0	63.0
	170449.04	442891.19	BRA-1	68.0	75.0	46.0	74.0
	170465.47	442165.53	BRA-2	54.0	60.0	37.0	59.0
	170940.53	442079.48	BRA-3*	55.0	62.0	38.0	60.0
	172729.4	438384.09	CB-COMP-	78.0	87.0	53.0	85.0
	172827.97	439972.49	CB-1	62.0	69.0	42.0	67.0
	172729.4	438384.09	CB-2	89.0	99.0	61.0	97.0
	172729.92	436939.09	CB-3*	52.0	58.0	36.0	57.0
	171574.63	436388.9	CC-COMP-	87.0	97.0	59.0	94.0
	172362.54	436722.04	CC-1	93.0	100.0	64.0	100.0
	171574.63	436388.9	CC-2*	73.0	81.0	50.0	80.0
	170489.12	436520.6	CC-3	94.0	100.0	64.0	100.0
	169859.58	437220.33	CC-4	79.0	89.0	54.0	87.0
	175657.83	435081	FB-COMP-	77.0	86.0	53.0	84.0
	176507.3	435940.32	FB-1	79.0	88.0	54.0	86.0
	175657.83	435081	FB-2*	72.0	81.0	49.0	79.0
	174661.37	438812.09	FTM-COMI	57.0	64.0	39.0	62.0
	171839.29	440934.68	FTM-1	46.0	51.0	31.0	50.0
	174661.37	438812.09	FTM-2	65.0	72.0	44.0	70.0

Station Assessment	Northing	Easting	Station	N-NITROSODI-N-PROPYLAMINE	N-NITROSODIPHENYLAMINE	PENTACHLOROPHENOL	PHENOL
			Soil S	N-NITROSODI-N-PROPYLAMINE	N-NITROSODIPHENYLAMINE	PENTACHLOROPHENOL	PHENOL
			Habitat Reconstruct				
			MD Residentia	91	130,000	5300	2,300,000
			MD Non-Residentia	410	580,000	24,000	31,000,000
	176061.11	437475.9	FTM-3*	62.0	69.0	42.0	68.0
	175373.05	437525.22	HA-COMP-	62.0	69.0	43.0	68.0
	175674.65	438671.85	HA-1*	71.0	79.0	49.0	78.0
	175373.05	437525.22	HA-2	65.0	73.0	45.0	71.0
	177250.89	436692.08	NWBE-COI	76.0	85.0	52.0	83.0
	176660.89	437140.78	NWBE-1	74.0	83.0	51.0	81.0
	177250.89	436692.08	NWBE-2	76.0	85.0	52.0	83.0
	178257.92	436793.82	NWBE-3*	78.0	87.0	53.0	85.0
	178542	435800.17	NWBW-CO	78.0	87.0	53.0	85.0
	178542	435800.17	NWBW-2	57.0	64.0	39.0	62.0
	179010.84	435140.83	NWBW-3*	89.0	99.0	60.0	97.0
	163913.11	448555.58	B1				
	169418.3	445558.02	B10				
	167406.62	444837.54	B11				
	168377.13	443579.2	B12				
	167707.86	443563.69	B13				
	166366.8	443633.52	B14				
	165144.97	442953.58	B15				
	165144.97	442953.58	B15J				
	164492.49	442044.66	B16				
	167372.58	442591	B17				
	166864.26	441527.92	B18				
	165811.79	440765.2	B19				
	166700.54	448000.7	B2				
	164755.91	439305.96	B20				
	166269.57	439826.57	B21				
	168253.52	441823.02	B22				
	169368.16	441502.74	B23				
	170606.68	443010.22	B24				
	171085.53	440853.11	B25				
	172221.76	441706.02	B26				
	172941.34	441903.7	B27				
	174935.77	442900.28	B29				
	164615.78	447470.71	B3				
	175203.17	443858.01	B30				
	175691.69	442968.1	B31				
	175916.41	444561.38	B32				
	176283.29	443995.86	B33				
	176244.03	445230.87	B34				
	176782.79	445071.94	B35				
	173401.11	441373.58	B36				
	174322.58	439452.56	B37				
	176570.57	440038.3	B38				
	175823.82	438711.33	B39				
	173058.28	439466.09	B40				
	173327.63	439059.39	B41				
	173284.32	438404.8	B42				
	172296.69	439489.09	B43				
	172396.83	437900.58	B44				
	172242.52	436569.96	B45				
	171399.91	436413.12	B46				
	170677.79	436301.29	B47				
	169739.36	436761.54	B48				
	168874.58	436477.59	B49				
	166979.72	445680.13	B5				
	168314.05	435280.16	B50				
	167855.19	436098.27	B51				
	166836.03	435766.87	B52				
	175277.79	437395.15	B53				
	176772.8	437256.2	B54				
	176635.09	436161.18	B55				
	176274.47	436203.6	B56				
	176332.23	435340.19	B57				
	176133.99	435144.47	B58				
	175590.57	434995.84	B59				
	170392.33	446536.17	B6				
	176159.8	434705.59	B60				
	176421.13	434524.62	B62				
	176573.65	434140.35	B63				
	176616.11	433253.08	B64				
	176746.41	432703.51	B65				
	177721.37	436328.79	B67				
	178925.43	435951.73	B68				

					N-NITROSODI-N-PROPYLAMINE	N-NITROSODIPHENYLAMINE	PENTACHLOROPHENOL	PHENOL
				Soil S				
				Habitat Reconstruct				
				MD Residentia	91	130,000	5300	2,300,000
				MD Non-Residentia	410	580,000	24,000	31,000,000
Station Assessment	Northing	Easting	Station		N-NITROSODI-N-PROPYLAMINE	N-NITROSODIPHENYLAMINE	PENTACHLOROPHENOL	PHENOL
	179340.66	435710.17	B69					
	171649.36	446859.82	B7					
	178936	434873.12	B70					
	178605.41	434733.17	B71					
	179287.8	434224.45	B72					
	179501.4	433696.27	B73					
	175282.97	451914.72	B74					
	175282.97	451914.72	B74J					
	175237.45	449636.94	B75					
	176445	447927.02	B76					
	177413.77	447489.62	B77					
	177293.47	447993.78	B78					
	178680.87	447937.39	B79					
	172017.65	447594.11	B8					
	179936.03	446395.97	B80					
	181313.22	444566.8	B81					
	172751.59	446558.23	B9					

Figures D1-D12. Maps of Off-Channel Locations

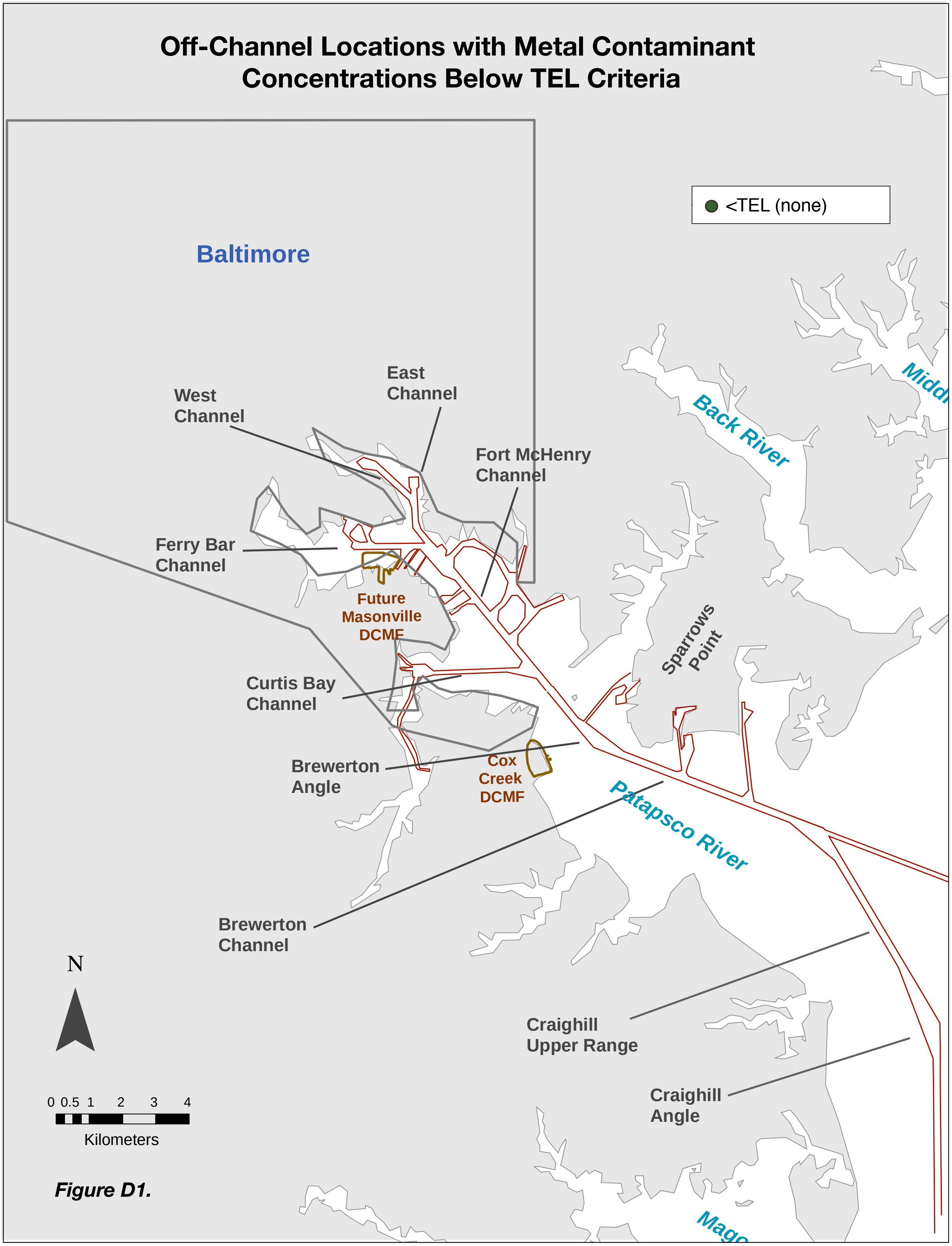
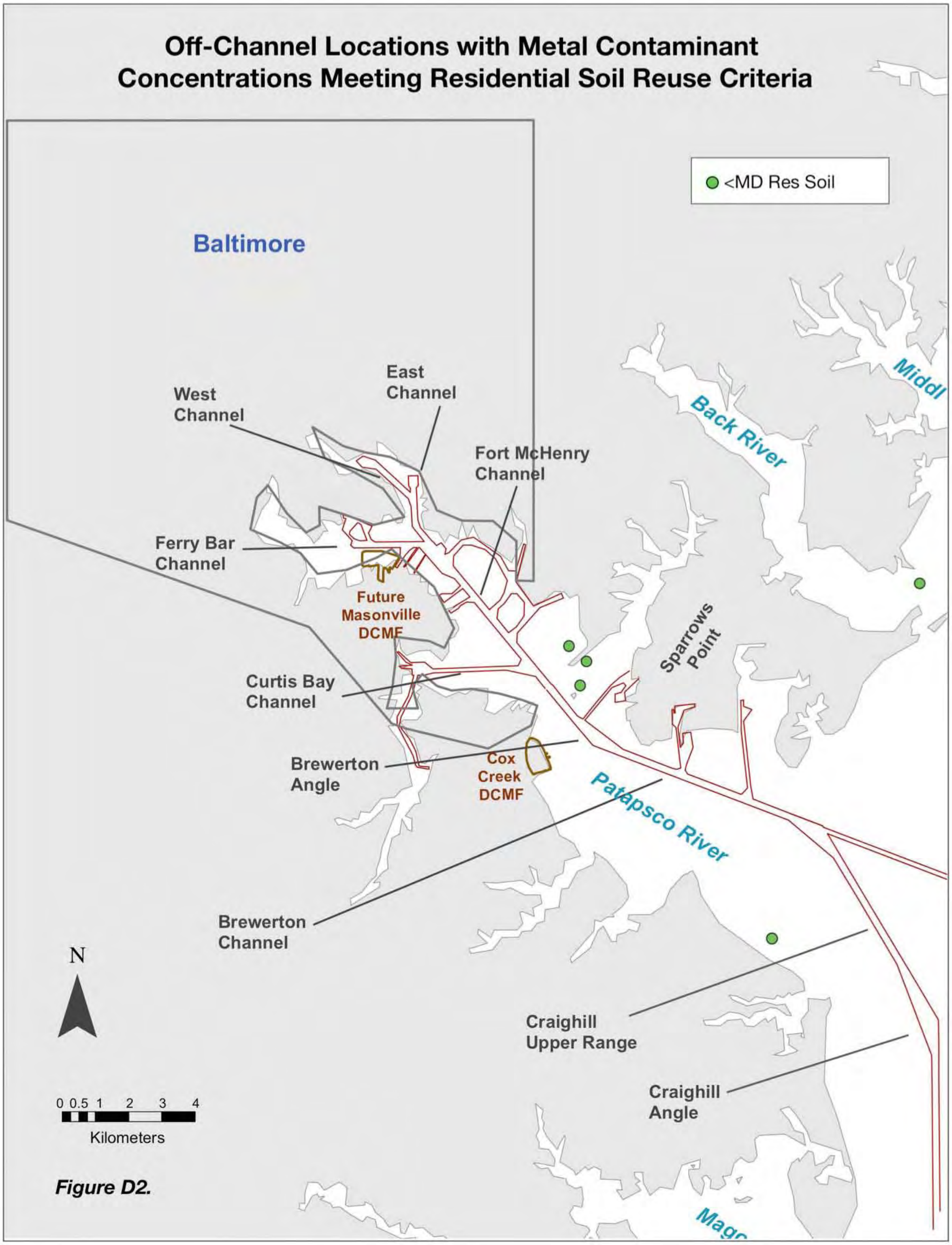


Figure D1.



Off-Channel Locations with Metal Contaminant Concentrations Meeting Residential Soil Reuse Criteria
<MD Res Soil
Baltimore
East Channel
West Channel
Fort McHenry Channel
Back River
Ferry Bar Channel
Future Masonville DCMF
Sparrows Point
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Patapsco River
Brewerton Channel
N
Craighill Upper Range
Craighill Angle
0 0.5 1 2 3 4
Kilometers

Figure D2.

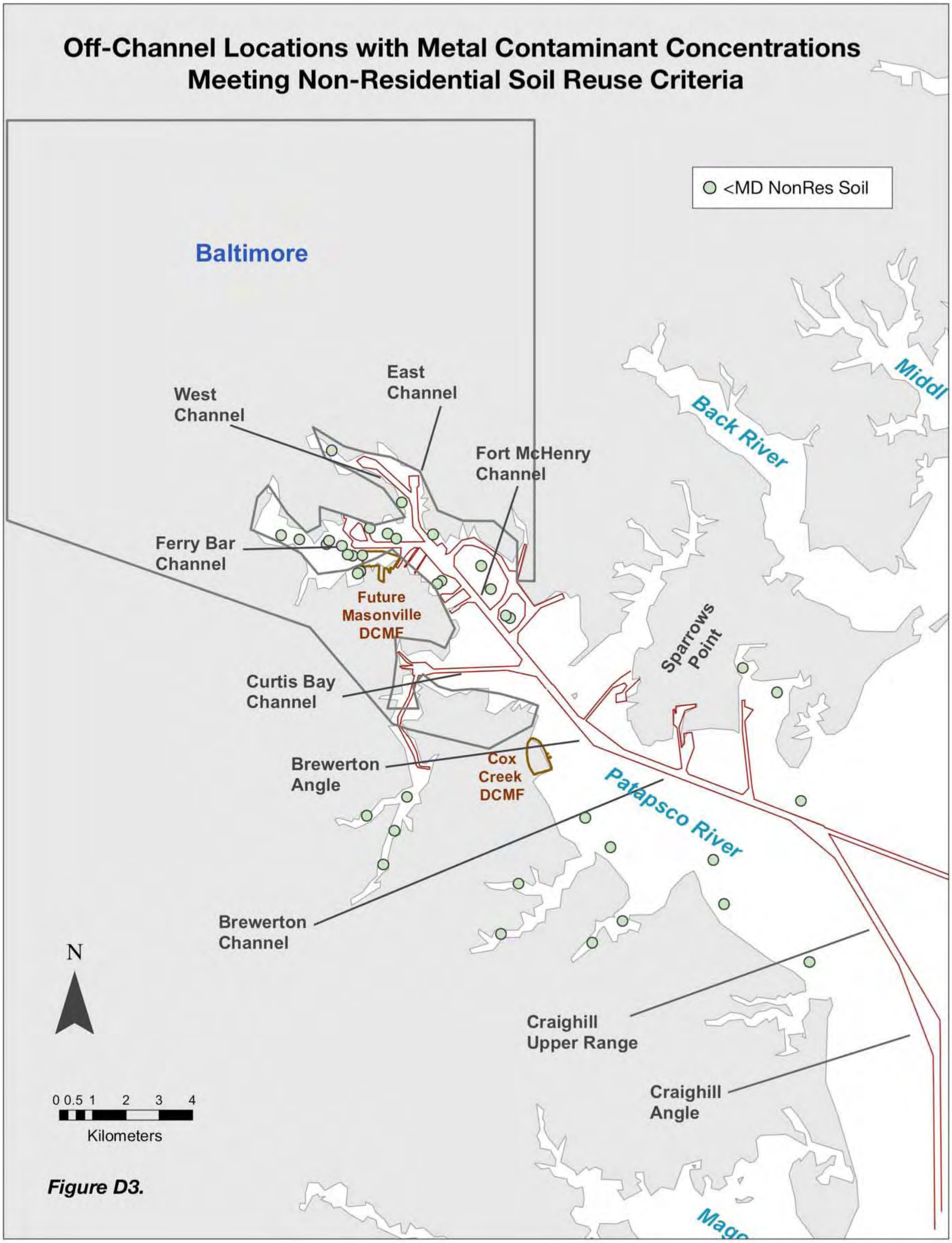

Off-Channel Locations with Metal Contaminant Concentrations
Meeting Non-Residential Soil Reuse Criteria
<MD NonRes Soil
Baltimore
West Channel
East Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Sparrows Point
Back River
Patapsco River
Craighill Upper Range
Craighill Angle
N
0 0.5 1 2 3 4
Kilometers

Figure D3.

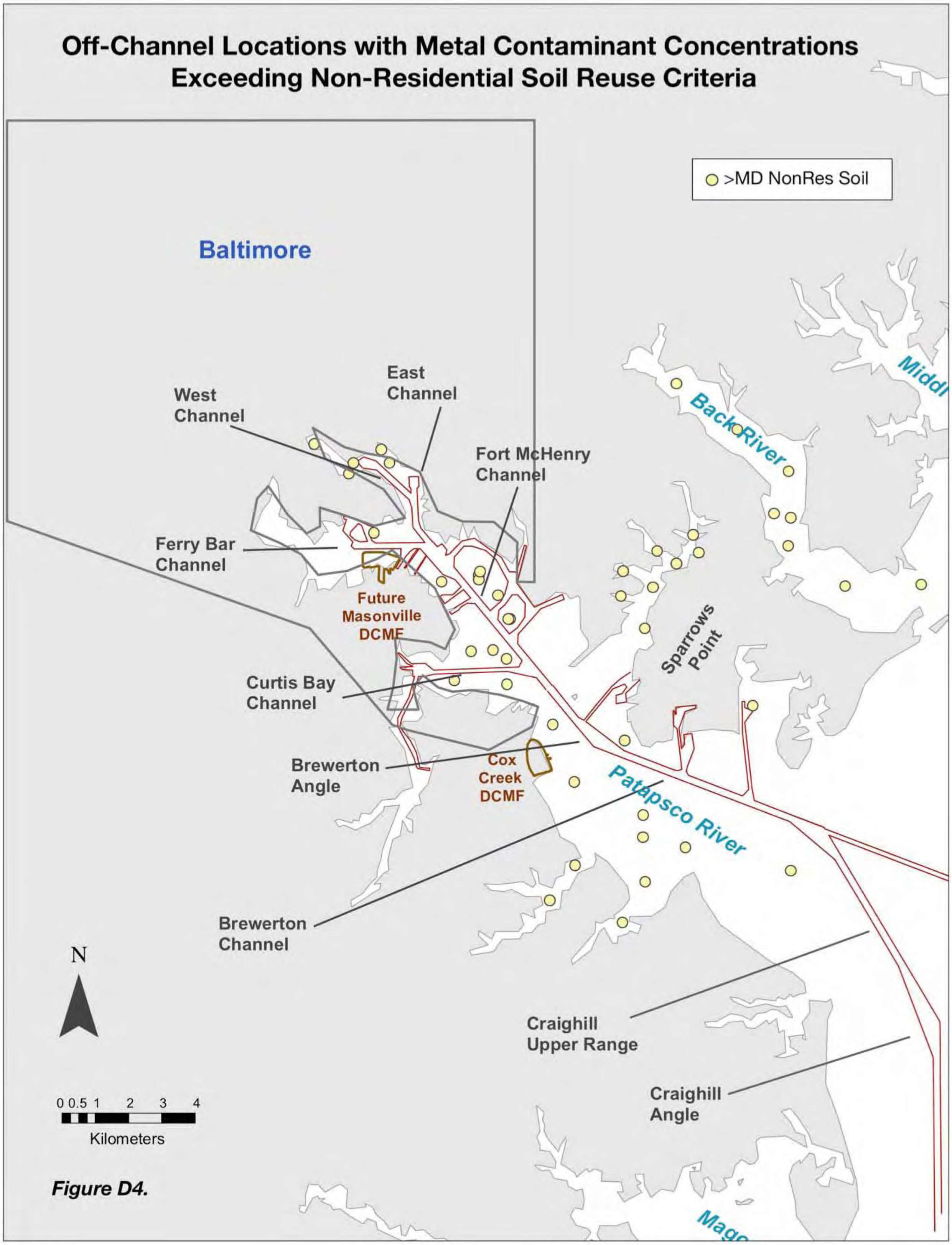

Off-Channel Locations with Metal Contaminant Concentrations Exceeding Non-Residential Soil Reuse Criteria
>MD NonRes Soil
Baltimore
West Channel
East Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Craighill Upper Range
Craighill Angle
Back River
Sparrows Point
Patapsco River
N
0 0.5 1 2 3 4
Kilometers

Figure D4.

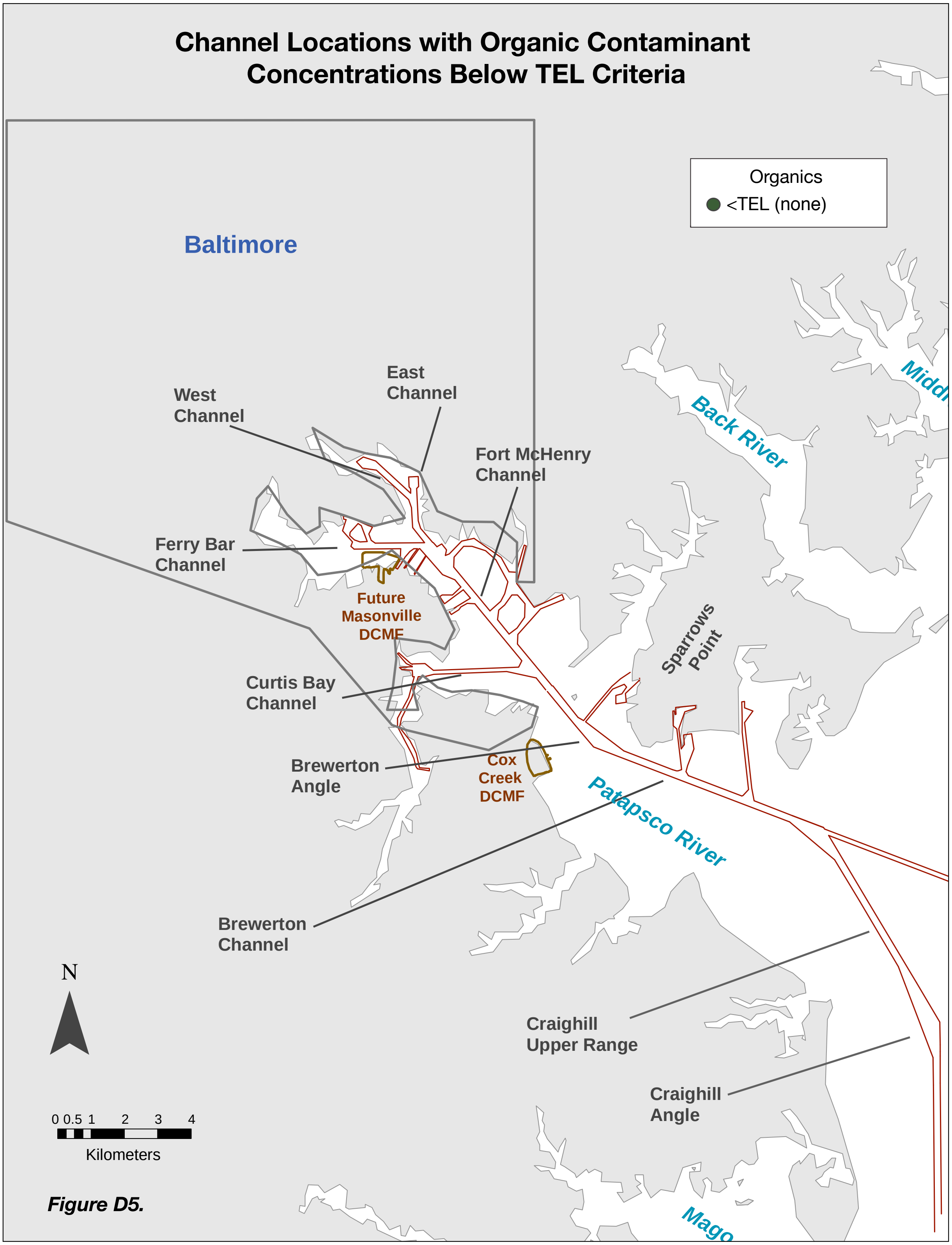
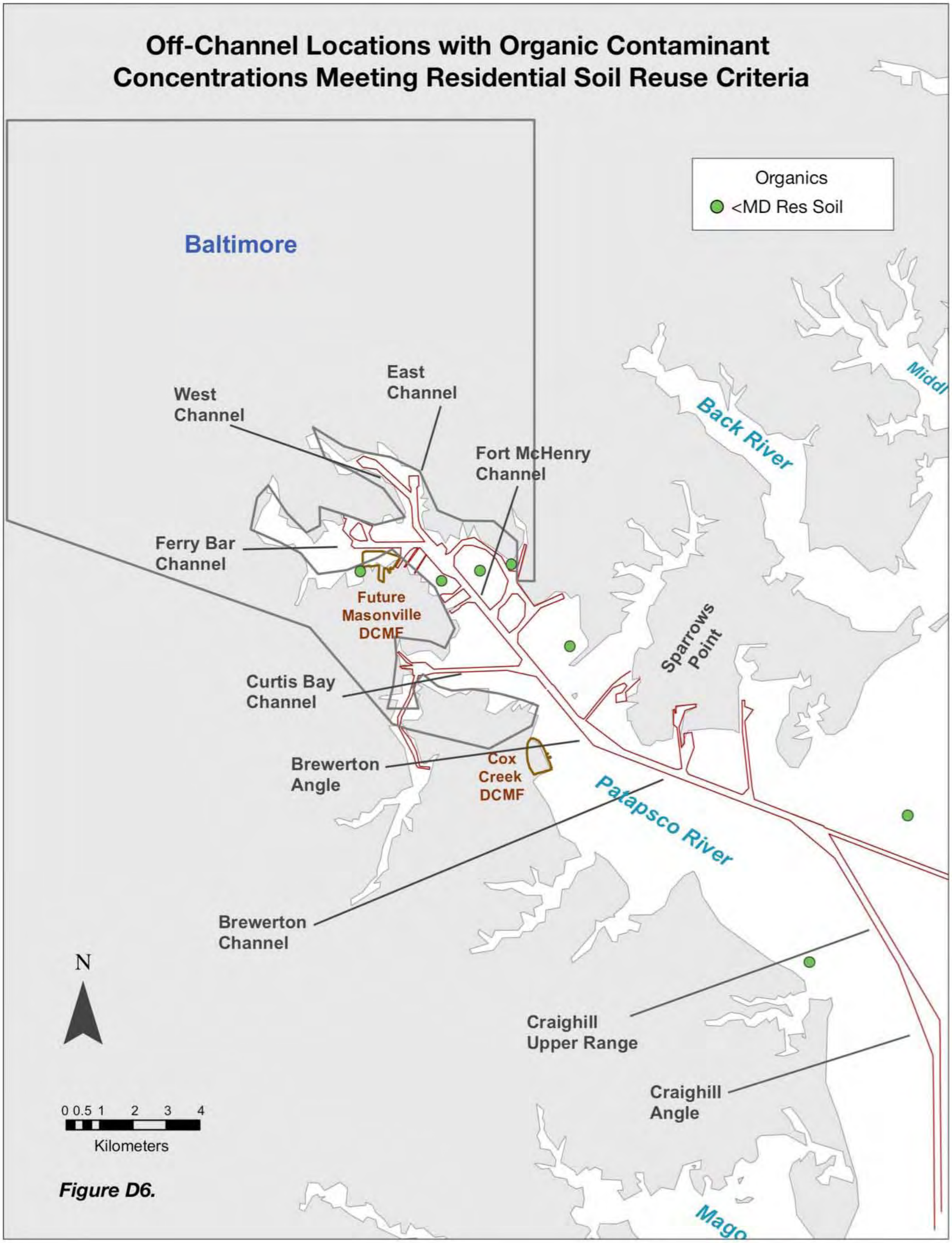

Channel Locations with Organic Contaminant
Concentrations Below TEL Criteria
Organics
<TEL (none)
Baltimore
West
Channel
East
Channel
Fort McHenry
Channel
Ferry Bar
Channel
Future
Masonville
DCMF
Curtis Bay
Channel
Brewerton
Angle
Cox
Creek
DCMF
Brewerton
Channel
Craighill
Upper Range
Craighill
Angle
Back River
Patapsco River
Sparrows
Point
N
0 0.5 1 2 3 4
Kilometers

Figure D5.


Off-Channel Locations with Organic Contaminant Concentrations Meeting Residential Soil Reuse Criteria
Organics
<MD Res Soil
Baltimore
East Channel
West Channel
Fort McHenry Channel
Back River
Ferry Bar Channel
Future Masonville DCMF
Sparrows Point
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Patapsco River
Brewerton Channel
N
Craighill Upper Range
Craighill Angle
0 0.5 1 2 3 4
Kilometers
Mago
Figure D6.

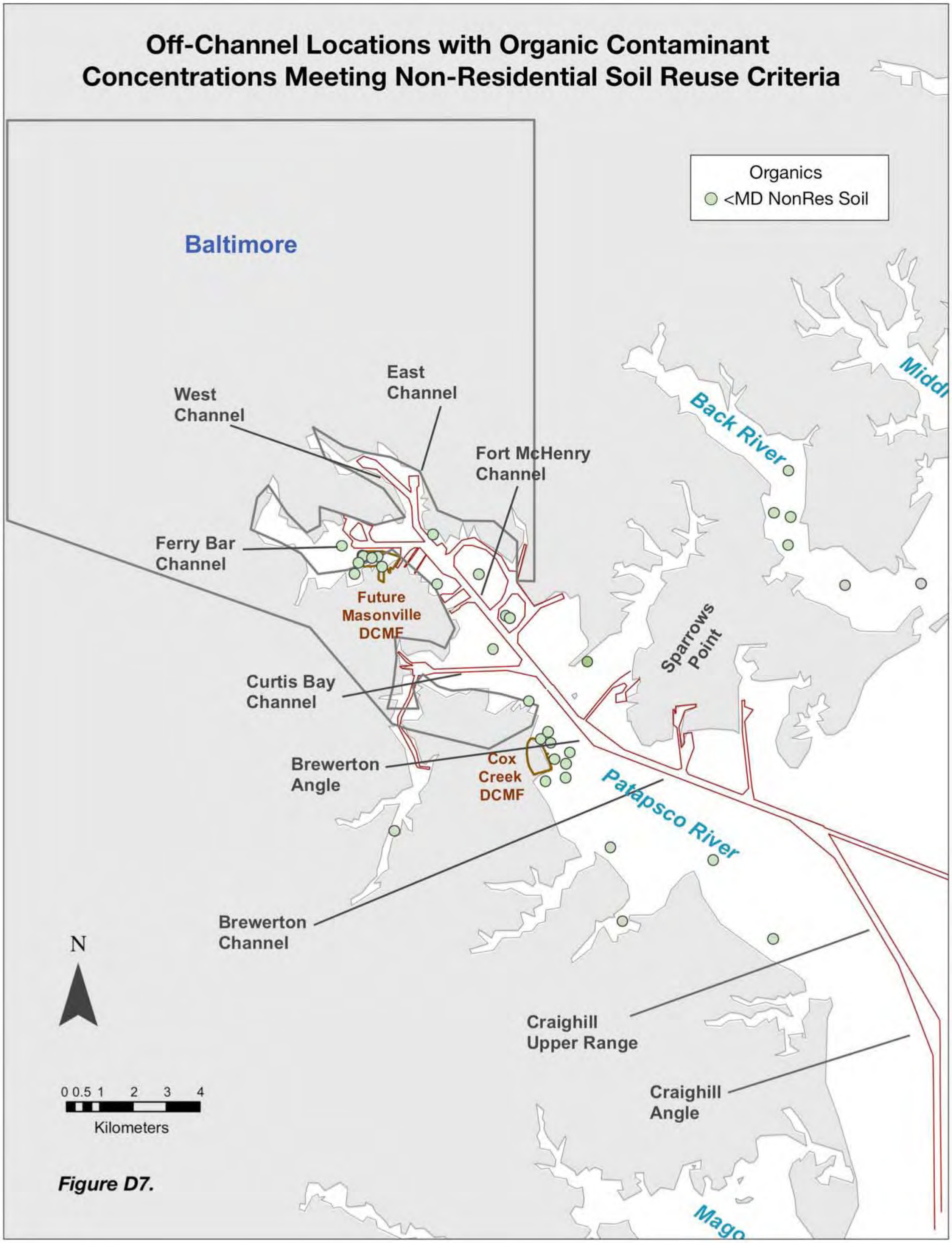
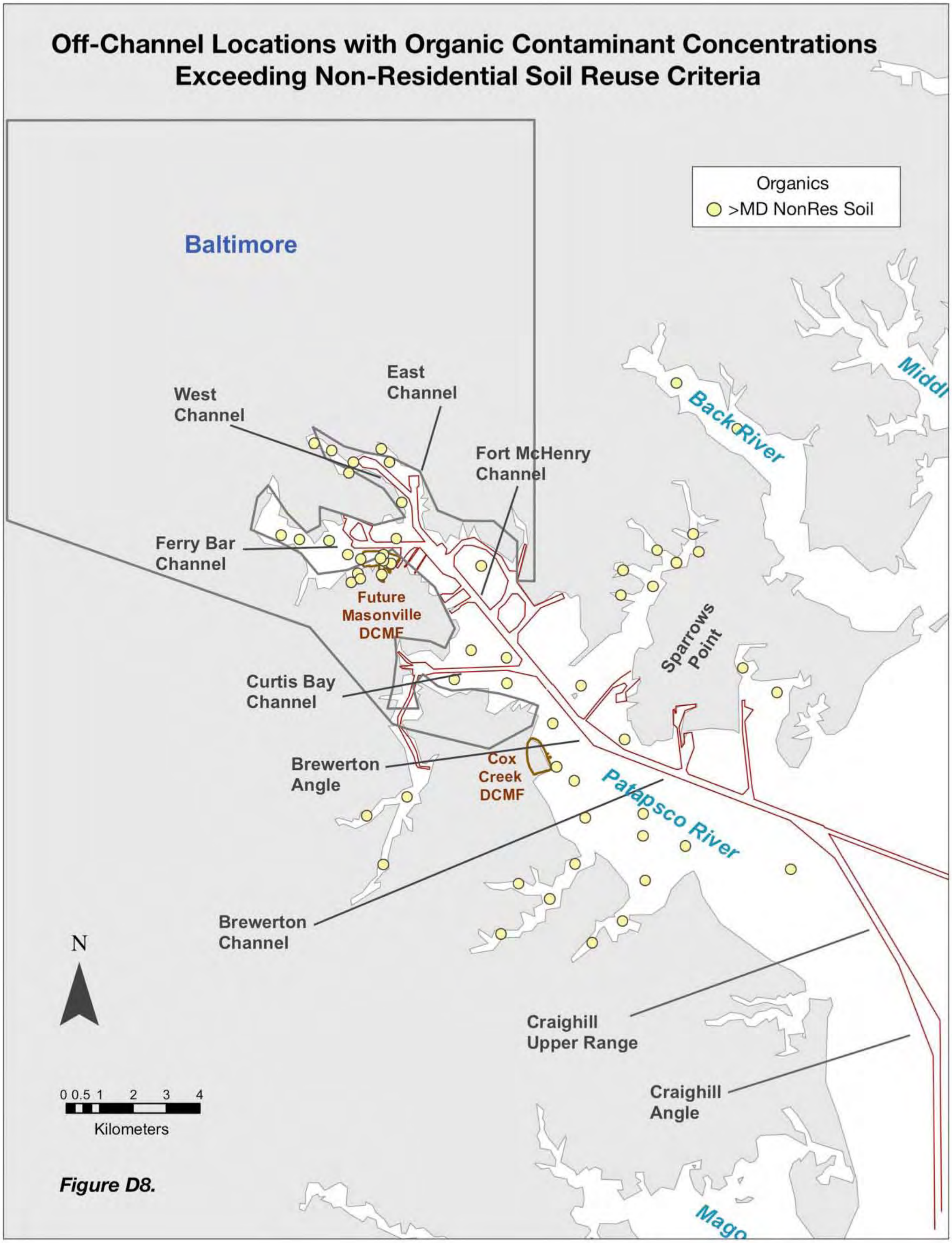

Off-Channel Locations with Organic Contaminant Concentrations Meeting Non-Residential Soil Reuse Criteria
Organics
<MD NonRes Soil
Baltimore
East Channel
West Channel
Fort McHenry Channel
Back River
Ferry Bar Channel
Future Masonville DCMF
Sparrows Point
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Patapsco River
Brewerton Channel
N
Craighill Upper Range
0 0.5 1 2 3 4
Kilometers
Craighill Angle

Figure D7.



Off-Channel Locations with Organic Contaminant Concentrations Exceeding Non-Residential Soil Reuse Criteria
Organics
>MD NonRes Soil
Baltimore
West Channel
East Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Back River
Sparrows Point
Patapsco River
Craighill Upper Range
Craighill Angle
N
0 0.5 1 2 3 4
Kilometers

Figure D8.

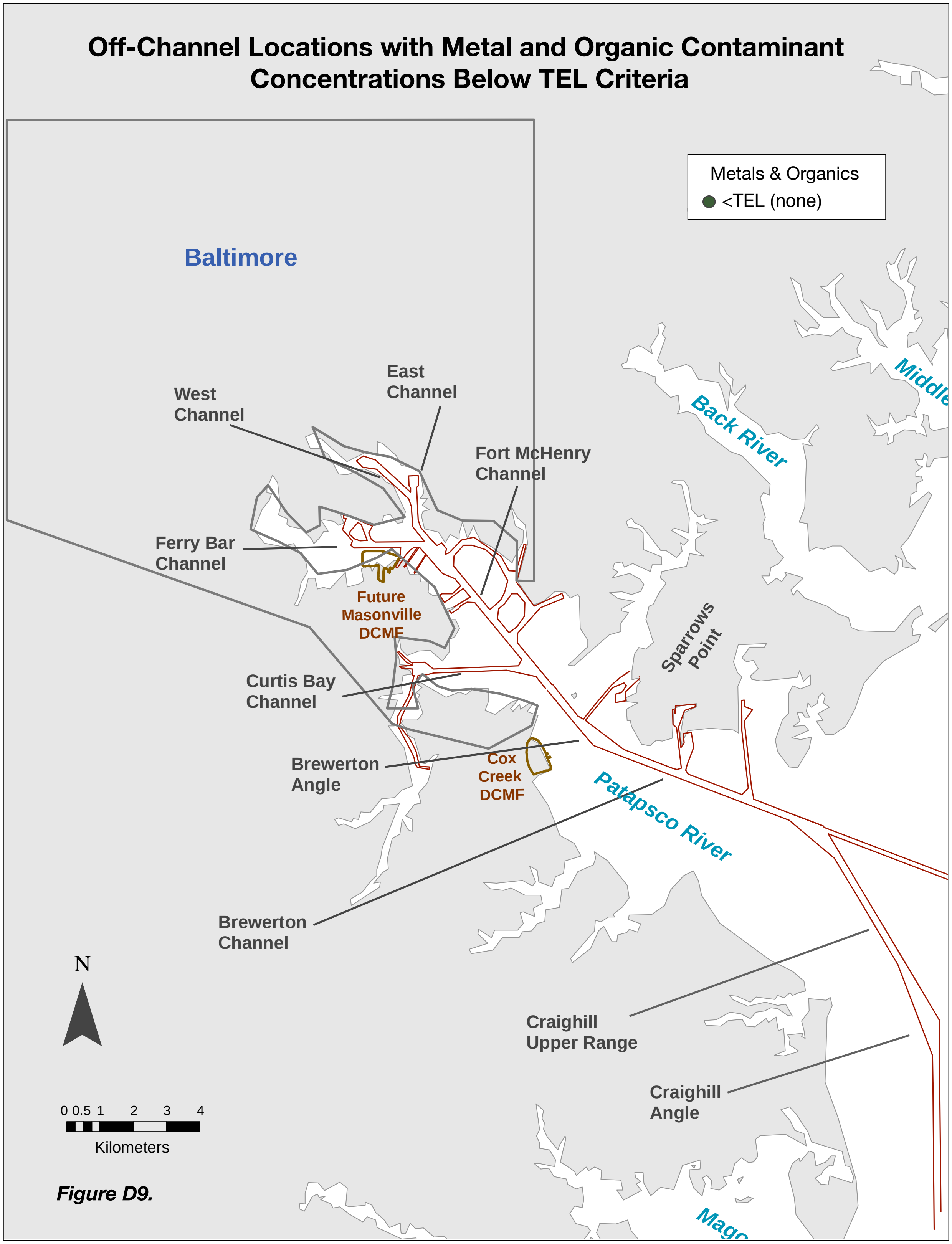

Off-Channel Locations with Metal and Organic Contaminant Concentrations Below TEL Criteria
Metals & Organics
<TEL (none)
Baltimore
West Channel
East Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Back River
Middle
Sparrows Point
Patapsco River
Craighill Upper Range
Craighill Angle
N
0 0.5 1 2 3 4
Kilometers

Figure D9.

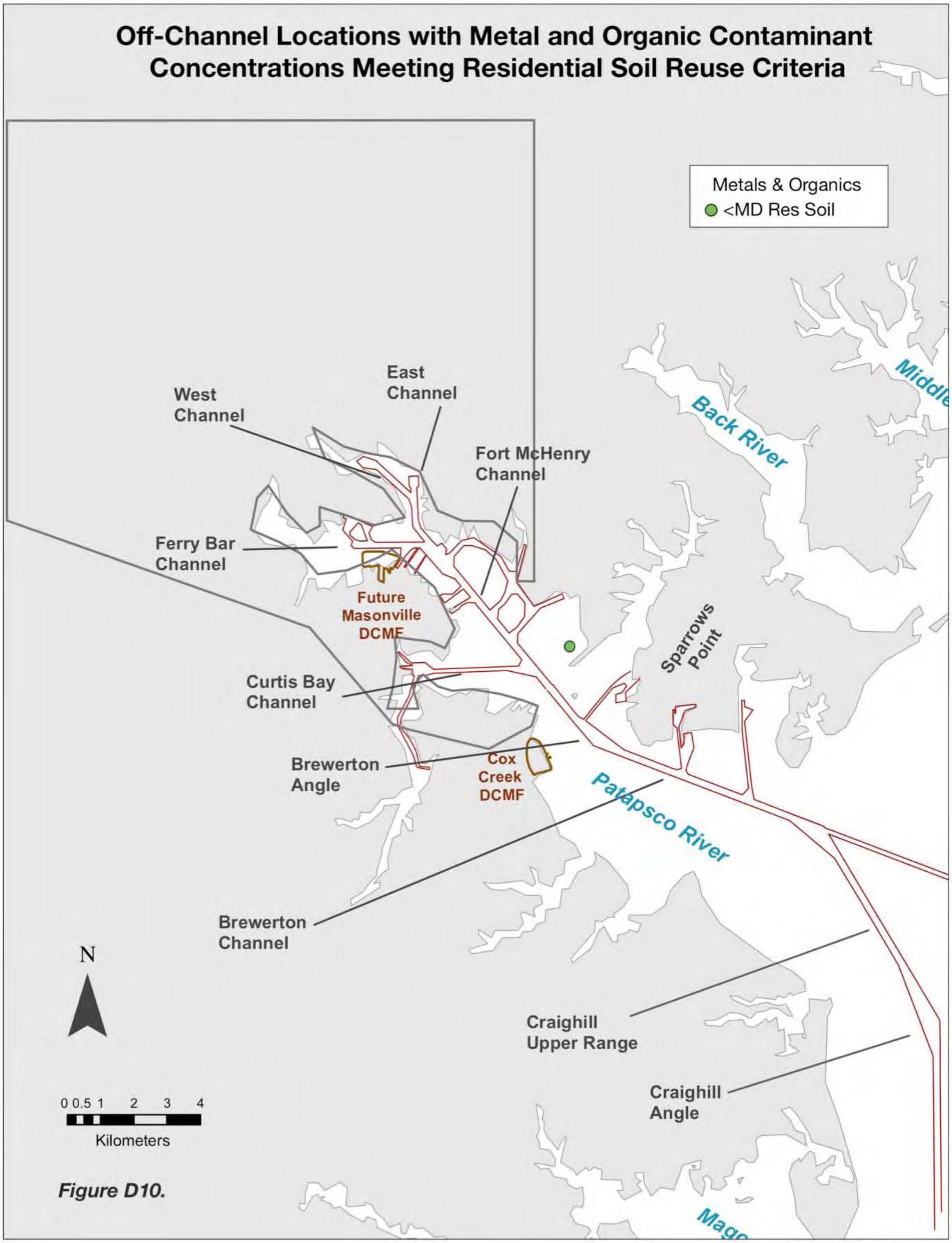

Off-Channel Locations with Metal and Organic Contaminant Concentrations Meeting Residential Soil Reuse Criteria
Metals & Organics
<MD Res Soil
East Channel
West Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Craighill Upper Range
Craighill Angle
Back River
Middle
Sparrows Point
Patapsco River
N
0 0.5 1 2 3 4
Kilometers

Figure D10.

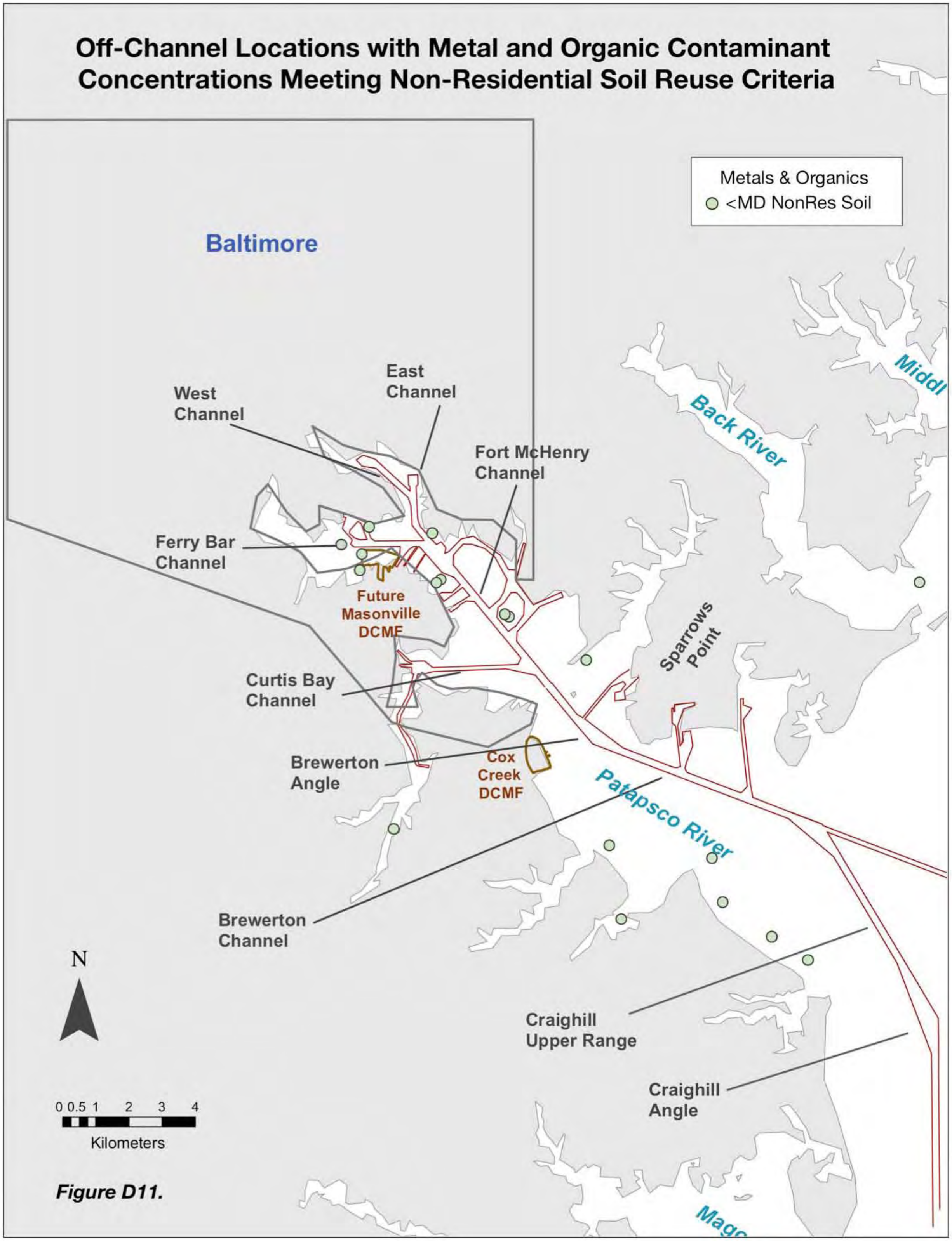
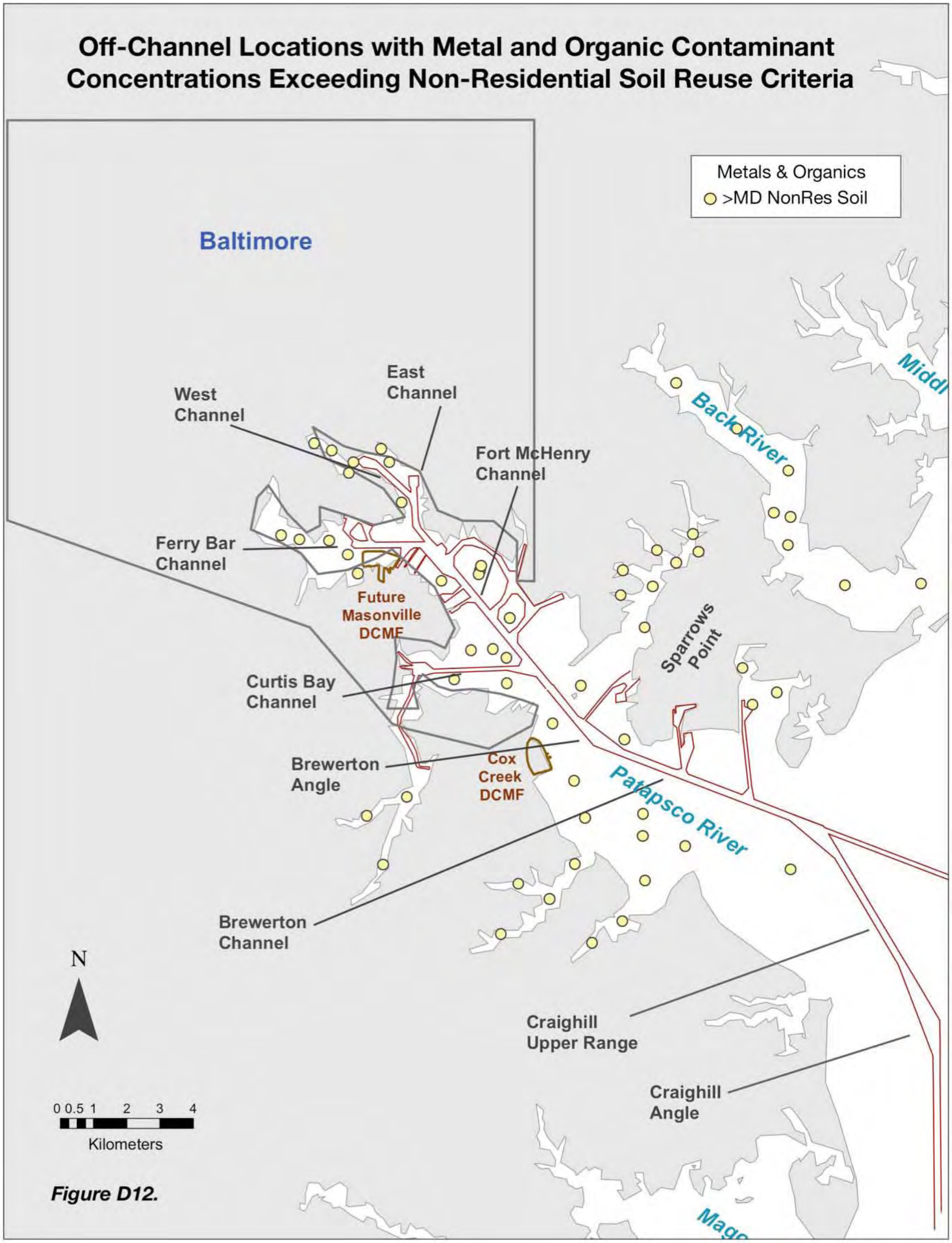

Off-Channel Locations with Metal and Organic Contaminant Concentrations Meeting Non-Residential Soil Reuse Criteria
Metals & Organics
<MD NonRes Soil
Baltimore
West Channel
East Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Craighill Upper Range
Craighill Angle
Back River
Middl
Sparrows Point
Patapsco River
Mago
N
0 0.5 1 2 3 4
Kilometers

Figure D11.


Off-Channel Locations with Metal and Organic Contaminant
Concentrations Exceeding Non-Residential Soil Reuse Criteria
Metals & Organics
>MD NonRes Soil
Baltimore
West Channel
East Channel
Fort McHenry Channel
Ferry Bar Channel
Future Masonville DCMF
Curtis Bay Channel
Brewerton Angle
Cox Creek DCMF
Brewerton Channel
Back River
Sparrows Point
Patapsco River
Craighill Upper Range
Craighill Angle
N
0 0.5 1 2 3 4
Kilometers
Figure D12.