

Comment	Response to Comment
<p>The rationale for the selection of specific benchmarks for identifying the hot spots needs to be beefed up and references need to be added. For PCBs, it is not clear what Doelling Brown's average PCB concentration of 286 (ppb not ppm) is based on and how it relates to the PEL. Similarly, more documentation and a better rationale is needed for the benchmarks used to identify PAH hot spots</p>	<p>The benchmarks (human health, ecological,) for PAHs and PCBs are presented for informational purposes. The hotspot thresholds used in the analysis are calculated from the spatial data.</p>
<p>Check Potomac TMDL document for discussion of the relationships between sediment and fish tissue PCB concentrations</p>	<p>Reviewing the Potomac TMDL document was beyond our scope of work (SOW).</p>
<p>We believe the White Paper should include data that estimates how much benefit can be expected from the proposed hot-spot remediation and its relative contribution to the overall holistic an integrated approach that includes additional measures such as LIDs, bank stabilization and restoration of wetlands, etc. This type of analysis is important to determine whether hot-spot remediation is the best allocation of scarce public and private funds.</p>	<p>There is a section at the end that describes overall efforts to address contamination in the watershed, including LID, etc.</p>
<p>We agree with the White Paper that it is very important to consider how proposed development along the Anacostia River, especially docks and navigation, will affect the choice and timing of remediation. However, until these development plans are finalized, it could be a costly mistake to implement specific remedial actions. For example, the Anacostia Waterfront Initiative has identified AOC #3 as the future "boat house row".</p>	<p>The white paper is not intended to be an implementation plan, those details would be fleshed out in an FS.</p>
<p>More information on "reactive capping costs" needed</p>	<p>This version of the white paper focuses on sand caps and does not include the previous information on reactive caps.</p>
<p>3. - Page 8: Under "Preferred Remediation Strategy", it would be good to emphasize that sand capping is the preferred remediation strategy only where the physical characteristics of the contaminated sediments would support the overlaying capping material. Structural stability of the contaminated sediments must be determined prior to placement since soft and unconsolidated sediments could rise through any capping material.</p>	<p>Determining structural stability is beyond the scope of this paper.</p>

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<p>Disposal is a critical concern with dredging. While most sediment contaminants are clearly below thresholds that would define them as hazardous wastes, placement of dredged materials can be an extremely difficult issue to manage, especially if there are public concerns. Some additional discussion of the potential sites that might be used should be explored. Placement in landfills or use therein as daily cover might be the only easy solution to disposal. Shipment to a site in Virginia may be one other option that should be considered. Open water placement is clearly prohibited for Maryland waters and would be an unlikely option in any case. Blending with pozzalonic materials, such as lime, limestone, and certain fly ash may be viable options for the reclamation of mines or use as road fill material.</p>	<p>Agreed, but showing feasibility of dredging including disposal options beyond scope of White Paper</p>
<p>Page 11: Additional Remediation Considerations – Area 5 The degree of potential de-chlorination should be mentioned from the literature references. Does the process result in total de-chlorination, or does it just yield intermediate congeners that have other concerns?</p>	<p>This isn't germane because the relevant section was eliminated.</p>
<p>The risk management approach for the river is likely to incorporate a combined remedy that includes capping, thin-layer capping, dredging, and monitored natural recovery. This approach is consistent with EPA's Contaminated Sediment Remediation</p>	<p>The risk management approach that incorporates a combined remedy that includes capping, thin-layer capping, dredging, and monitored natural recovery is introduced in the White Paper. This approach is consistent with EPA with combined remedy and supported by key stakeholders in the clean up effort (i.e. CH2M Hill representative of the Navy).</p>
<p>Relative to the use of sand capping, suggest consideration of ad-mixtures to the sand that may promote quicker establishment of benthic communities in/on the cap.</p>	<p>The feasibility of sand capping and methods for habitat restoration beyond scope</p>
<p>In the 2nd paragraph on page 12, it indicates that this area (AOC 6) is depositional. The idea of using a 12" sand cap raises some question as to creating issues relative to shallow draft boats and prop-wash impacting this cover/cap.</p>	<p>Areas of deposition, and water depth are issues that would be addressed in a feasibility study.</p>
<p>p 10- Area 4- This area is mentioned to be shallow. Additionally, potential restoration plans are considering a boat ramp and other water related facilities. Will these proposed activities increase exposure to human users given the shallow bottom? Great care should be take[n] in remediation given this potential. Will hu[rt] the integrity of the cap-from outboard motor disturbance, swimming (?), anchors, etc.?</p>	<p>The feasibility of remedial actions is beyond the scope of the White Paper.</p>
<p>p 12- Area 6- second paragraph, 1st sentence- 'Since this area is depositional, accelerated burial of contaminated sediments may be a viable approach to achieve remedial goals...' This assumes there is no new input of contaminants in current sediments. Is this a valid assumption?</p>	<p>The amount of contaminants entering the system is an important consideration and should be evaluated in a feasibility study or remedial design.</p>
<p>p 12- Area 6- 3rd paragraph, 1st sentence- 'This approach to area assumes that a source of clean material of appropriate grain size would be available from dredging projects in the Potomac River...' How big of an assumption is this?</p>	<p>The source of the capping material is no longer mentioned.</p>

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Increasing volatility of storms can remove a capping project to a different county overnight...	The grain size of the capping material would be selected to be stable under extreme river flow events.
Dredging is a huge, expensive challenge that (like CSO sealing) could make community balk. Dredging one hot spot could be a "legacy step," and provide a sense of accomplishment, thus, vote cast for dredging.	The white paper doesn't focus on dredging. Dredging projects have pros and cons that would be evaluated in an FS.
"Need to reference back up documentation that supports 'AWTA's preliminary recommendation...that sand capping be employed as a remedy for hotspots," (pg 8).	The language has been softened.
Many members of the local community need to be convinced that this cleanup will be worthwhile.	We agree that a public process with be required to get buy in on any remedy.
The White Paper does not mention the work of the Army Corps of Engineers which we understand is developing a management plan for the river. AWTA should coordinate its remedial strategy with the work being done by the Army Corps of Engineers to utilize resources most efficiently and complement each other's efforts. Also, we suggest that demonstrating coordination among government entities could be an important factor in obtaining public funding for remediation.	The USACE plan for the Anacostia has not been completed but we agree that coordination is appropriate.
Monitoring costs should be incorporated into the remediation cost estimates provided in this paper.	There are very rough monitoring costs included in this version. The scope of the monitoring needs definition before the cost can be developed in detail.
"Table 2, Capping technology costs/yard. Do the unit costs for capping include all elements of the remedy implementation, including engineering design, implementation, monitoring, and maintenance?" [(USACE) Engineer R&D Center (ERDC) found total costs for capping projects ranged from \$100K-\$400K per acres of capping (approximately \$20-\$85 per square yard), considerably higher than cap costs in Table 2.]	The costs have been updated to include more factors. These are still very rough "order of magnitude" costs.
"Page 10, Additional Remedial Considerations, Area 1: Please clarify what elements of dredging are included in the assumed per yard cost. Estimates for dewatering, transport, and disposal should also be included... (USACE ERDC unit costs for dredging projects (\$9-\$3000/cy), with a median of \$334/cy)"	Dredging costs are not included/

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Page 13, Table 4. The components of the remedy that are included in these estimates should be listed so that an assessment can be made of whether the approximate total cost of the remedy is reflected.	See new table.
Costs referenced for Area 1 on page 10, indicates that a high end disposal cost for this material may be \$300/cubic yard. I talked with Operations Division to do a check on this, and was told that for a PAH-contaminated sediment disposal from Bolling AFB that was trucked to a landfill in King George County, the total disposal and transportation costs were about \$101 per cubic yard.	Disposal costs are no longer mentioned.
Since the hot spot remedial plan was developed, much additional research has been done in the Anacostia watershed including studies that have identified other, "hotter" spots (sources) of PAHs and PCBs such as feeder streams. We believe that any significant new data should be incorporated into the White Paper and that a balanced technical working group should evaluate all of the data to determine whether or not the original hot spot remediation plan will achieve the greatest benefits on a sustained basis.	It would be worthwhile to assemble such a team and evaluate the data.
In addition it is unclear at what depth MGP-impacted sediments exist given the on-going deposition of sediments from upstream and the fact that WG ceased East Station operations in the 1940s and has been capturing and treating site ground water since 1976.	The white paper focuses on surface sediment as a common denominator.
The data used to characterize AOC #3, the area adjacent to WG's East Station site with which we are most familiar, is incomplete and more than ten years old. Improved forensic analytical techniques are able to fingerprint specific PAHs and determine the types of sources associated with different PAHs. In addition a growing body of research being done by organizations such as the Sediment Contaminant Bioavailability Alliance is demonstrating that toxicity to aquatic organisms is not related to the concentration of total extractable PAHs but rather it is correlated to the concentration of bioavailable PAHs in sediment pore water. The new analytical techniques, which are currently going through the approval process, may also be applicable for other hydrophobic organics such as PCBs. Given the scarcity of remediation resources, it would be prudent to use more refined analytical techniques to characterize the areas that pose the greatest threats.	Identifying and including new data is beyond the scope of the White Paper. Uncertain of ability to "fingerprint specific PAHs and determine the types of sources associated" using existing data and available technology within scope.
Washington Gas believes more data is also needed to determine relative contributions by different sources. For instance in the AOC #3 area the sediments have been impacted not only by the former East Station and Steuart Petroleum but also by the large 11th Street CSO and several boat clubs and marinas immediately upstream.	Beyond Scope to identify/discuss additional sources of contamination

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Need to separate PAHs & PCBs because PCBs may be entering the water but do not constitute continuing new sources, while PAHs are constantly being added from combustion sources and petroleum releases. Fish do not generally accumulate PAHs, although it can cause tumors.	Maps for both PAHs and PCBs are included in the white paper.
list overall average concentrations reported in the study (I have a mean total PCB concentration of 0.159 ppm and mean total PAH concentration of 22.4 ppm, based on n=114)	More detail on the data is provided in the paper.
this 20+ year recovery process will not abate unacceptable ecological or human health risks rapidly enough (need for action p 2) (Comment: “unacceptable” and “rapidly enough” are opinion and value judgments rather than objective facts. They should be presented differently.)	Text has been revised
(Comment: Based on equilibrium partitioning, EPA has published sediment quality criteria for 4 PAHs. These should be referenced as published criteria.) p. 4.	We could not find the EPA criteria for 4 PAHs.
p 2 - "What about deuterium?" Regarding: heavy water inputs	The language has been clarified.
Clarify the relationship and geography of the main stem of the Anacostia and its Northeast and Northwest Branches.	It is unclear what additional information the reviewer is requesting since figures showing the site location and including the NE and NW tributary branches of the Anacostia have already been provided.
Clarify "localized inputs;" does this mean high flows?	It is unclear what additional information the reviewer is requesting since figures showing the site location and including the NE and NW tributary branches of the Anacostia have already been provided.
"It is not clear that the statement 'direct risk to fish health and reproduction' has been demonstrated. Cite references for p 2, Effects on River and Sediment (i.e. fish advisories/tumors)	This section is referencing existing fish advisories.
(Comment: While the future restoration efforts mentioned above are generally true, no representation is made that it is true in this case. If the primary source of these contaminants are locations like the Navy yard - all of these suggestions are extraneous.) p. 3.	The text calls for source control for hotspot areas as well as upstream non-point source.
<i>Effects on River and Sediment</i> section should include citation of references	References are be provided for this section and others that require references.

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It would be helpful to have a couple of paragraphs under the heading "Background on Contaminant Issues" regarding the chemical structures of PCBs and PAHs. Pg 1, background, example provided in file: white paper draft 11-30_pe.doc	Chemical structures of PCB and PAHs will be shown and/or discussed.
Page 8, Remediation Strategy Overview: What is the difference between the 3rd and 5th bullets (natural attenuation with monitoring of natural recovery over time, and recovery followed with monitoring)? Both describe monitored natural recovery (MNR).	We will check for redundancy and revise the text as necessary.
Page 10, Additional Remedial Considerations, Area 1, last sentence: "This figure could be substantially less if beneficial uses could be determined and the material was not classified as hazardous waste (an unlikely scenario)." Please clarify whether the parenthetical statement applies to likelihood of beneficial use, or the classification of dredged material as hazardous waste (or both).	This section was eliminated.
Page 10, Additional Remediation Considerations, Reactive Capping and/or in situ Treatment: "Costs for various innovative techniques are often somewhat similar." The paper should provide the basis for this statement given that the coke breeze and Aquablock or apatite cost estimates provided in Table 2 are very different.	The white paper now focuses on sand caps to provide a consistent basis of cost comparison.
Table 1. Editorial comment: Page 4, last sentence: "She estimated bioaccumulation at the average PCB concentration of 286 ppm and at half of that value." The units should be changed to ppb, and the last part of sentence should be clarified.	The units were corrected.
If the most toxic-laden sediment tends to settle in bottom depressions, producing "hot spots", then changes in tidal Anacostia topography will change "hot spot" locations. Even capping will move the "hot spots". Presumably the caps will not erode as fast as nearby mud-type sediments and creating nearby depressions that will become new "hotspots".	This conceptual model for deposition and erosion of contaminated sediments has not been demonstrated.
Table 1 lacks calculations for Area of Concern 6. It is not clear why AOC2 says "some PCBs" and AOC4 does not. The average PCB concentration at AOC4 is higher (232) than that at AOC2 (191) and the maximum concentrations are similar	This table has been eliminated/
State that "calculations are all based on Velinsky and Ashley's Phase II study of 114 surface sediment samples" and include a "loadings calculation using the following	Citations have been added.
Agrees that it is in sediment, hot spots, and that clean up will help river	Noted.
Clarify whether the Anacostia River is a freshwater or estuarine/marine type environment. This is relevant since the different types of benthic organisms will have different effects levels, i.e., TEL/PEL.	The Anacostia is freshwater tidal.
On the second page, in the paragraph at the bottom of the page, ATWA is used as an ACRONYM, instead of AWTA.	edit text

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Capital Street in the description for Area 6 on page 11 should be "Capitol Street."	edit text
In the description of Area 2 on page 11, reference is made to an outfall for the NW Boundary Swirl Facility. I have no idea what this is, so maybe some explanation would be helpful. Also, a brief internet search, as well as its location on the east side of DC makes me ask whether this may be the NE boundary swirl facility.	This has been removed.
Include the size and volume of contaminated sediments within the discussion of Area 5 on page 11, as was done for the other AOCs	The "Areas" were redefined and this comment does not apply.
In addition, in the 3rd full paragraph on page 12, "This accelerated natural attenuation action" is referred to. It's not clear to this reviewer what this accelerated natural attenuation consists of. Is it simply the upstream deposition of clean sediments with subsequent downstream transport/deposition?	Accelerated natural attenuation refers to introducing clean material into a system to more quickly bury contaminated sediment than would occur otherwise.
Re: "Voluntary Cleanup" paragraph on pg 14: last sentence of this paragraph does not seem to make sense, "A shared effort...federal agencies."	This text has been removed.
p 11- Area 6- Total area of hot-spot is stated as 100 ac. Tables 1 and 3 identify the area as 130 ac.	The areas were redefined.
Include executive summary	The paper is short enough that an Executive Summary does not seem necessary
P. 7 - change "five hot spots" to "six hot spots"	edit text
"PCBs present direct risk to fish health and reproduction, but also to wildlife (like osprey and herons) that eat fish." (added "and herons") Pg 2.	edit text
"How does the CSX [railroad lift bridge] change or not change [characterization of Area 2 and evaluation of electrochemistry as a remedial] action?"	Electrochemistry and innovative tech use beyond scope of the White Paper
p 4 - PCB TELs/PELs: "The PEL/TEL benchmarks will not help reduce bioaccumulation potential; they are meant for benthic organisms and effects."	We recognize that this is not a complete analysis of all pathways. Most PCB levels exceed screening levels thus making it impossible to focus on a hotspot using benchmarks. This is not an Eco Risk Assessment (as noted in intro); the White Paper is just identifying benchmarks for benthic organisms.
Page 4, last sentence: "She estimated bioaccumulation at the average PCB concentration of 286 ppm and at half of that value." The concentration seems to high. Check units. The units should be changed to ng/g dw for all sediment concentrations, and the last part of sentence should be clarified. Also, "Are you trying to use a BASF? Crimmins et al measured a BASF in a marsh in the tidal freshwater Potomac of 2.9.	Confirm and/or edit concentrations and units

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p 2 - "heavy water inputs": clarify what is "heavy water". "I heard of this term in some WW2 movie and deuterium production."	The wording has been changed.
It would be helpful to include a map overlay on Figure 1 showing sediment transport environments ([sediment dynamics and stability]) to support the discussions of the most appropriate remedial approaches for each AOC. [re: Preliminary Identification of Areas Potentially Requiring Active Remediation]	We didn't have such a map.
"Page 7, Table 1. The "Status" column in this Table states that Area of Concern 1 is being investigated under the Washington Navy Yard NPL program. This is not the case. The WNY investigation relative to its NPL listing is focused on the area of the river adjacent to the current WNY, an area that extends from the 11th Street Bridge to the downstream end of the five piers visible in Figure 1. AOC 1 is about a quarter mile downstream of the WNY investigation area."	There is no attribution of source areas in the current draft.
"Since...there are few identified toxic sources in the tidal Anacostia and a number of toxic sources have been identified in the Anacostia watershed it is likely the toxic "hot spots" are where contaminated sediments accumulate from upstream sources. The most toxic sediments are highly organic (which binds the toxics) which is also the most lightweight sediment. This sediment moves around with the tides and settles in low-lying areas."	Comment noted.
Washington Gas intends in the near future to help address some of our concerns by further investigating the sediments adjacent to the former East Station in cooperation with local and federal regulators.	Such data would help improve the study.
The Plan for Action, "should include preparing a comprehensive monitoring plan prior to implementing any risk management actions. The monitoring plan should include collection of baseline (pre-remediation) data, performance monitoring data during remedy implementation, long-term monitoring data to evaluate whether risk reduction goals have been met and to confirm that any engineering controls (i.e., caps) are performing as expected."	These monitoring plans would be useful for long term planning and implementation.
Monitoring data to evaluate the effectiveness of source control measures would also be helpful.	Agreed.
The baseline and post-remediation monitoring data for evaluating risk reduction should be directly comparable to facilitate meaningful data evaluation.	Agreed.
The White Paper should add actions such as a before and after capping toxics monitoring (including active clam biomonitoring) with several years post-capping and cap surface-and-nearby monitoring	Pre-and post remedial monitoring would be very useful. The type of monitoring not discussed in the paper.

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we question the technical and economic effectiveness of remediating hotspots, given the river-wide problem and the high probability of recontamination from on-going uncontrolled sources of contamination.	This is a valid concern but the contaminated sediments will likely require action on multiple fronts.
(Comment: Compared to controlling PCBs, controlling new sources of PAHs is harder, as noted below)	Agreed.
Most, if not all, of the PCB and PAH hot spots identified in the sampling by AWTA appear to coincide with storm sewer and/or CSO outfalls.	Linking data to specific sources is not within the scope of this study.
"Identifying and cutting off the point sources of the hot spots should be as great, or greater, a priority as remediating the sediment; or at least confirming that the likely sources are no longer actively discharging PCBs and PAHs." Without addressing these sources capping may be a wasted effort. Should be in preferred remediation strategy.	Agreed, statement to this effect will be added.
White Paper "acknowledges that recontamination of actively remediated areas could occur, potentially resulting in post-remediation contaminant levels that are similar to those in other areas of the river. These considerations are critical to the overall risk management strategy for the river. But after initially discussing this concern the paper seems to downplay it and ultimately leaves source control out of the preferred strategy."	Source control is very important. The white paper isn't developing an overall strategy for cleanup, it is primarily looking at risk-reduction associated with capping selected hotspots.
Page 8, Preferred Remediation Strategy, last paragraph. Suggested criteria for prioritizing AOCs for remediation include PAH and PCB contamination levels, reuse potential, risk levels, and feasibility analyses. Recontamination potential should also be included as a prioritization criterion.	See above.
I noticed some re-contamination of the sand cap noted in the 30-month monitoring report on the Active Capping by Horne Engineering (September, 2007). I suggest that the authors look closely at those results and interpret them in terms of the degree and magnitude of re-contamination to strengthen argument that clean up will not result in recontamination.	We reviewed that study but did not quantitatively incorporate estimates of recontamination into the risk reduction analysis.
Stress that in the specific areas, source reduction and trackdown studies will be part of the remediation process (not just capping or dredging)	Source control is very important. The white paper isn't developing an overall strategy for cleanup, it is primarily looking at risk-reduction associated with capping selected hotspots.
p 11- Area 6, last paragraph- 'As upstream source reduction and habitat restoration occurs...' Are these upstream source reductions occurring or just planned?	Source control is acknowledged in the report, the status of source control is beyond the scope of this study.
Since the 1970s, Washington Gas has worked cooperatively with local and federal government agencies and voluntarily conducted numerous environmental investigations and remediation activities at the East Station site. We will continue our voluntary efforts related to toxic sediments; however, regulatory authority for sediment remediation is unclear and must be established to ensure responsible parties that they can achieve closure from their efforts.	This paper is not intended to provide regulatory guidance.

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<p>1. The claim that capping 4% of the Anacostia tidal sediments (old "hot spots") will reduce 80% of toxic effects is bogus. Most of the 96% remaining uncapped sediment is just as toxic to bottom life (Phelps, H.L.1993. Sediment toxicity of the Anacostia River estuary, Washington, DC. Bull Environ Contam Toxicol 51:582-587.) and capable of causing fish tumors. No part of the present tidal Anacostia River has a healthy benthic ecosystem. Just compare that lifeless mud to the nearby Potomac clams and plants.</p>	<p>The percent reduction calculations are better documented in this version of the white paper. However, we acknowledge that the "hotspot" concentrations are above risk-based action levels.</p>
<p>Calculate total kg of surface PAHs and PCBs (multiply acres by depth of sample by average concentration) for the whole river, assume that the average concentration within each hot spot is defined by the relevant samples to assume that it will be covered by sand and then re-contaminated to some lower concentration based on a recalculation of the river-wide average without the hot spots calculate the kg contributed by each hot spot</p>	<p>The is essentially the approach that was taken, that is the calculations would lead to the same result.</p>
<p>p 2 - Reference document needed for calculation that determines hot spots make up 4% and/or 28 acres of the river. Compare to amount of biological uptake in area. 180 ng/g dw PCB is sufficient to result in fish tissue concentrations. However, to assume that 4% of the area results in a majority of the uptake seems speculative.</p>	<p>The hotspot areas are better documented.</p>
<p>"Justify how 'reducing exposure levels within 4% of the river would result in average sediment exposures across the entire river being cut nearly in half.' (pg 6). I do not understand how the exposure and accumulation in fish will be reduced this much by cleaning only 4% of the area, when the overall hotspot concentration are only 4 to 5 times the median sediment concentration."</p>	<p>The original statement was not correct.</p>
<p>p 12- Area 6, first paragraph- Bioturbation is mentioned. How healthy is the benthic community given the contamination in the area? Are organisms present that would be causing bioturbation.</p>	<p>Collecting and including benthic community data is beyond the scope of the White Paper.</p>
<p>Some mention should be made of the potential for microbial additions to the contaminated sediments. Soil inoculations have been demonstrated (I believe) as have sediment injections. If this has indeed been demonstrated, it should be included as a possible option for remediation. Even if it was tried and found to be less valuable than the other mentioned methods, it should be presented as an option that was explored.</p>	<p>The feasibility of microbial additions during remediation is beyond scope of White Paper.</p>
<p>Page 8, Preferred Remediation Strategy: The paper cites "economic, logistical, technological, and ecological constraints" associated with dredging and removal, and concludes that there may be significant advantages to managing contaminants in place wherever possible. These constraints should specifically be identified, and the decision criteria used and reasons for selecting sand capping as the primary remedial approach for all AOCs should be explained more thoroughly.</p>	<p>Weighing the pros and cons of dredging vs. other remedies for sediment is appropriate for a feasibility study.</p>

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<p>"Anacostia's contaminated streams are small (see attached picture). Wet ponds are now being considered for both flow attenuation and water quality. An adequate pollution removal pond treating 40 ha of impervious surface was 140 x 60 meters (Comings et.al. 2007) . Pollutant removal efficiency of a multiple stormwater pond system was 88% total suspended solids (Drescher e.a.2007)."</p>	<p>Beyond scope to study feasibility of innovative technologies.</p>
<p>Use wet ponds to improve the water quality of the most highly contaminated Anacostia watershed streams (Indian Creek, Lower Beaverdam Creek and Riverdale East). (Indian Creek runs through the Beltsville Agricultural Research Center which probably has land available for ponds).</p>	<p>Beyond scope to study feasibility of innovative technologies, including wet ponds.</p>
<p>Watershed: "Several Anacostia watershed tributary streams have high levels of PAHs and PCBs up to 5X "hotspot" levels and guidelines for biological protection. Most contaminated streams are downstream from Maryland Industrial Parks, many located in Prince Georges County"</p>	<p>Identifying watershed and upstream sources is beyond the scope of this white paper.</p>
<p>The White Paper should add actions such as a rapid preliminary survey confirming present "hot spot" sites,</p>	<p>A discussion of monitoring will be added.</p>
<p>2. Are the sediment "hot spots" in the tidal Anacostia the same today as in 1999? This needs to be examined with at least one survey as Anacostia hydrography shows it is a very active system.</p>	<p>Sediment hot spots as well as sediment deposition and erosion areas, will be shown graphically according to the most recent data set possible within the scope of this paper. The fact that the river is an actively changing system will be noted in the white paper.</p>
<p>There is much recent information on stream restoration and controlling runoff, which can be applied to controlling the known toxic-laden sediments coming from the Anacostia watershed. Even if the COE cannot implement stream projects it certainly should be able to fund target-related restoration studies of the three or four known most highly contaminated Anacostia tributaries (this would INCLUDE upper Indian Creek, all of Lower Beaverdam Creek and Riverdale East and possibly Watts Branch. It would EXCLUDE the Northwest Branch).</p>	<p>The established scope of the white paper is to identify the areas of concern, which it has done. Additional areas of concern or changes in the scope of the White Paper will be considered under guidance from NOAA.</p>
<p>The White paper should add such actions as support of a targeted watershed stream restoration study to reduce Anacostia watershed sources of toxic sediment (based on preliminary active biomonitoring information of tributary toxic sources)</p>	<p>Although a restoration study will be necessary and supported, the purpose of the white paper is to present current information on contaminated sediment, thus it would be beyond the scope to design a restoration study and to identify or interpret biomonitoring information of tributaries.</p>
<p>may need to take into account grain size distributions and the sampling design</p>	<p>Showing grain size distribution for sampling design is out of scope of the white paper, scope and out of scope listed in intro.</p>
<p>AquaBlok capping is mentioned as a potential option for Area 5, pg 11. Suggest elaborating on this, as this is the first mention of this technique in this paper.</p>	<p>The feasibility of AquaBlok capping in Area 5 is beyond scope of the White Paper</p>

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Re: "Voluntary Cleanup" paragraph on page 14, Suggest consideration of contacting someone such as Golder Associates (license holder for Limnofix) as well as AquaBlok to investigate the possibility of their supporting a demonstration application of their technology within parts of this high visibility location.	Contacting Golder Assoc or others for remedial demo projects is beyond the scope of the White Paper
It would be beneficial to more explicitly address the sources of contamination in the various areas and how they are being addressed/controlled. Some areas contain a short discussion, but others don't mention their source at all. If areas are remediated, will sources continue to be a problem? If the sources are not addressed, restoration will only cap the hotspots and not lead to cleaner waters.	Source control delineation is beyond the scope of the white paper.
I agree that this Policy and Strategy section could be expanded -does AWTA identify who the PRPs are for PCBs and PAHs? What are the waste sites on the river?	The white paper is not intended to identify PRPs.
Not clear what action you'd like the Steering or Leadership Committees to take to move along the cleanup of sediments and control of ongoing sources.	Comment noted.
What is PAH and PCB risk (water concentrations) from initial phase of preliminary identification of areas potentially requiring remedial action?	The paper focuses on sediment contamination, not water column chemistry.
p 4 - RE: "For PCBs, guideline for sediment have yet to be established for the protection of fish by bioaccumulation." Comment: "Correct,..this is where a good model could be used to assess what level would be good but it depends a lot...on how much the specific area is "used" by the food chain. At only 4% of the total area, that is small."	Comment noted.
p 2 - Expand on reasons for capping vs. reducing source areas. Would money be better spent reducing sources and only capping a few areas?	This is a good topic of discussion that could be addressed by developing a sophisticated model.