



THE CITY OF SAN DIEGO

April 5, 2010

Electronic Delivery to: TAlo@waterboards.ca.gov

Tom C. Alo, Water Resource Control Engineer
Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Reference: Comments on the PCB Characterization Report dated March 1, 2010. Geosyntec Consultants

Dear Mr. Alo:

MWH conducted a review of the PCB Characterization Report submitted by TDY Industries Inc., to the Regional Water Quality Control Board on March 1, 2010. The document, was prepared as a summary of known polychlorinated biphenyl (PCB) sources on the TDY site, evaluated the relative significance of each source with regard to its potential to impact current and future on-site receptors, as well as the potential for PCBs to migrate off-site to the Convair Lagoon via storm water and groundwater pathways. Our general comments are described in the following sections. Specific comments are provided in a table included with this document.

PCB Characterization Report

One of the stated objectives of the report is to summarize historical data documents, removal actions and an understanding of known PCB sources on the TDY site. Although individual summaries are provided for numerous historical studies, it appears that some of the findings reported in the original reports have been re-interpreted based on data collected subsequent to the original investigation. Because the re-interpretation of original findings is not identified in Section 2, the summarization of the original data documents becomes difficult to evaluate because it is not known which findings reported in Section 2 represent original findings or revised findings. All re-interpretation of original data requires identification and the original text should be provided as track changes or as a footnote. The authors assume that reviewers of this report will agree with the revised findings without an opportunity to compare the original findings to current interpretations. The authors state no effort was made to verify historical data as to its representativeness, accuracy, or completeness. The condition of the original dataset needs to be discussed for it to be re-interpreted with the new data.



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The Report's Section 2 becomes a summarization of historical data documents, but there are some historical documents and new interpretations of other historical documents not included in the report. The reader should be made aware of the source of findings being summarized, since the statements are used later in conjunction with Section 3 discussions to develop an understanding of current site conditions (Section 4). Because current site conditions are used in part to develop conclusions about current and future potential PCB impacts on the TDY site to on-site and off-site receptors, it is important to consistently present the data in its correct spatial and temporal context.

No comprehensive listing of historical or current on-site PCB sources was provided, characterized or clearly delineated in the text. The report should include a set of comprehensive figures that presents the locations of historical PCB data collected, the locations of PCB impacted soils excavated, the locations of sediments removed from on-site storm water conveyance system (SWCS), and a comprehensive inventory of current PCB sources identified on the TDY site. As a result, the evaluation of each potential PCB impact on the TDY site is based on data that is not compiled in one location for efficient review. Historical datasets are not presented clearly to demonstrate sufficient characterization has occurred or whether further characterization is required. As a consequence, the characterization of several PCB sources identified in Section 6 of the report may be incomplete due to the lack of sufficient documentation.

The second objective of this report is to evaluate the relative significance of each PCB source identified on the TDY site in regard to its potential to impact current and future on-site receptors, as well as the potential for PCBs to migrate off-site to Convair Lagoon via storm water and groundwater pathways. No detailed evaluation was provided in the text. Section 6 simply provides a summary table of on-site and off-site PCB sources and impacts, and refers any evaluation of potential current and future impacts to discussions incorporated in the March 2010 draft Risk Assessment Appendix A document (Geosyntec, 2010). The focus of this report does not appear to be the characterization of the TDY site, as opposed to a summary and re-interpretation of previous studies and investigations. Additional text is required that incorporates contradictory findings of historical data documents and removal activities into a cohesive characterization of the site. Once that is accomplished, an evaluation of potential current and future impacts to on-site and off-site receptors can be better refined.

Characterization of On-Site Sources

Based on the historical data documents presented in Section 2, numerous on-site PCB source areas were identified for excavation during the removal activities described in Section 3. Historical samples collected originally to delineate the extent of on-site PCB contamination in a targeted excavation area should have been provided in a summary data table as well as in a figure showing the area targeted. Prior to scheduled site demolition, the spatial relationship between the historical delineation samples collected prior to excavation and confirmation samples collected after removal activities were completed should be compared to determine the

adequacy of these previous excavations. The results of that comparison should be incorporated into currently scheduled site demolition activities.

No documentation was provided regarding the identification of some historical PCB use areas that are not currently scheduled for removal during planned site demolition activities. The report indicated that there were additional areas where equipment potentially containing PCBs had been removed (e.g. spot welders and some 40 capacitors) and remained uncharacterized. It is unclear how these areas will be addressed during site demolition.

Additional discussion should be included in the text regarding the characterization of areas containing PCB impacts that are to be left in place at the TDY site. The rationale for their exclusion from the scheduled site demolition activities and how they will not potentially impact current and future on-site receptors should be provided.

Conceptual Site Model

The Conceptual Site Model (CSM) as presented in Figure 3 does not appear to include all relevant environmental inputs. For example, it is unclear if the CSM represents all four SWCS or just the 60- inch SWCS. The interpretation of data and conclusions provided in the report regarding potential impacts to the Convair Lagoon appear to focus solely on the 60-inch SWCS, even though some of the reported data associated with the 54-inch SWCS and 30-inch (East) SWCS may suggest that these two SWCS have or continue to potentially impact the lagoon. Figure 3 appears to support that focus.

The CSM shows SWCS flow only in one direction in those sections of the SWCS under the influence of tidal fluxes. Flow in those particular sections of the SWCS should be shown as bi-directional. The migration of contaminated, fine-grained sediments in the silt and clay size fraction discharged to the various SWCS from TDY conduits can be significantly influenced by tidal fluxes and storm surges into the SWCS from San Diego Bay and the Convair Lagoon. Fine-grained sediments, including entrained organic material, provide the largest amount of surface area for the adsorption, absorption, and complexation of PCBs, metals, and other contaminants. This fraction will be the most impacted fraction in the SWCS from tidal fluxes and storm surges. Because tidal fluxes in the SWCS probably migrate farther up the system than currently displayed, the potential impact from the migration of contaminated fine-grained sediments is potentially greater than suggested in the figure.

The reported texture of sediments present in the SWCS most likely represents the result of frequent sorting that occurs over many tidal events and storm water discharges. The clay and silt fractions were probably transported from their original point of deposition shortly after discharge to the SWCS. The detection of PCBs in SWCS sediments is almost always associated with these finer fractions and organic matter, not the sand fraction.

It is not clear why the designation of "surface sediment" on the TDY site is used instead of surface soil. The fact that soil becomes wet during periods of rainfall and may runoff to the

nearest SWCS does not inherently make this media sediment. The term “surface soil” should be used instead of “surface sediment” unless it can be demonstrated that there are impacted areas on site that are covered year-round with water. Describing a media as surface sediment or surface soil implies unique human health and ecological exposure pathways and receptors and our understanding of the site conditions leads us to believe that this site media is more accurately described as soil. So as to not create confusion with the media already identified as “soil,” the designation of these former sediments as “surface soil” will help in their distinction as would designation of the other soils as “subsurface soils.” Note that the subsurface depth interval characterized should be specified.

The figure should include the presence of PCBs, metals, and other environmental contaminants on the clean cap and in the general Convair Lagoon area. The presence of any of these contaminants on the clean cap adjacent to SWCS discharge locations provide a potentially continuing source of contaminants back into the SWCS during incoming tides and storm surges. This is particularly true for organic materials and solids in the clay and silt fractions.

Figure 3 is not to scale and that should be stated on the figure. Because tidal fluxes in the SWCS probably migrate farther up the system than currently displayed, the potential impact from the migration of contaminated fine-grained sediments is potentially greater than suggested in the figure.

There is a pipe shown in the figure leading from a building to the SWCS. It is recommended that the pipe be identified as to what it represents. It is assumed the pipe probably represents floor drains, dry sumps, below-grade trenches, etc., which are potentially significant pathways for PCBs, metals, VOCs to the subsurface environment.

The figure appears to suggest that PCBs detected in groundwater in the vicinity of the MWCL monitoring wells are not related to the TDY site (green background), similar to other up gradient PCB sources described as not related to the TDY site. Figure 3 is apparently referencing the results of modeling reported in the March 2010 draft Risk Assessment Appendix A document. Contrary to the results presented in that document, the modeling does not currently support the classification of PCBs in groundwater adjacent to the Convair Lagoon as not related to the TDY site. VOC and metals data in addition to PCB data for the area encompassed by the 60” and 54” SWCS suggest a possible connection with the TDY site.

Landscaping is identified in section 4.1 as a source of PCBs to surface sediment and should be included in Figure 3. Ambient PCBs from the atmosphere may occur on the TDY site from wet or dry deposition and currently only wet deposition (rainfall) is identified. The source identified as “PCBs in Surface Sediment Runoff” should be modified to just say “PCBs in Surface Runoff”, since we are concerned about both particulate and water concentrations in the runoff.

As currently discussed in Section 4.1 on page 79, “Rainfall” and “Stormwater” are used synonymously, even though they are not the same. Rainfall contains ambient PCB concentrations, while storm water contains concentrations from rainfall added to concentrations

from site-related sources (e.g., building materials and soil). We recommend that storm water be identified as a unique PCB source.

Potential PCB Impacts to Off-Site Groundwater and the Convair Lagoon

In Section 4.1 on page 78, a statement is made regarding the potential source of PCBs in the vicinity of the Convair Lagoon. It is unclear what data or groundwater modeling inputs were utilized in this report to conclude that “it is unlikely that these PCBs are site related or that they will reach Convair Lagoon at concentrations exceeding California toxics rule (CTR) standards.” However, it is likely this statement is referencing some screening transport modeling reported in the March 2010 draft Risk Assessment Appendix A document.

The application of the screening transport model, AT 123D, to determine if PCBs present in groundwater adjacent to the Convair Lagoon are related to the TDY site or will migrate to the Convair Lagoon is not warranted. The model relied on the use of a very limited PCB dataset and model inputs and assumptions that were not sufficiently documented. The conclusions are beyond in their scope and are not supported by the model.

Specifically, the modeling conducted in the RA Appendix A document should have included the development of appropriate modeling scenarios, documentation and verification of all model inputs, discussion of the various modeling assumptions evaluated, and the selection process used to obtain critical model inputs.

The modeling should have also consisted of two model scenarios which considered the potential migration of environmental contaminants (e.g. PCBs) at historical concentrations from the TDY site to the Convair Lagoon, and the potential migration of environmental contaminants (e.g. PCBs) at current concentrations from the MWCL monitoring wells to the Convair Lagoon. The two modeling scenarios vary significantly in contaminant concentrations and the numerous critical physical and chemical characteristics present in the two subsurface environments.

The AT 123D modeling conducted should have included modeling runs for a worst case scenario, a best case scenario, and what would be considered a realistic scenario. In lieu of that approach, the model input data should have used a range of values representing expected variations in the saturated subsurface environment or truly representative median or average values for critical input parameters.

The text should be substantially revised to discuss the source of information used to support such statements that it is “unlikely PCBs will reach Convair Lagoon at concentrations exceeding California Toxics Rule” or that “it is unlikely these PCBs are site related.” Presenting these conclusions in this document without fully referencing the source document is unacceptable. At a minimum, the sections discussing the modeling conducted in the March 2010 draft Risk Assessment Appendix A, including Attachment B should be included in this report’s appendices as reference.

Background and Ambient PCB Concentrations

Ambient PCB concentrations in various media are presented in Section 2.13, but they are somewhat unsubstantiated except for citation of a secondary reference (DTSC, 2003). Most of the ambient concentrations cited from the DTSC (2003) report (i.e., receiving water concentrations, air concentrations, and food concentrations) are not relevant to the PCB Source Characterization Report, with the exception of storm water/rainwater concentrations which were reported by DTSC (2003) as ranging from 0.1 to 20 ng/L. This range of values contrasts with the cited WHO (1992) report which reports that rainwater concentrations of PCBs range an order of magnitude higher from 1 to 250 ng/L. This report would benefit from further explanation for the basis of these ranges and why they may differ by an order of magnitude. Without this support, the selection of a concentration of 0.25 ug/L PCBs (cited in the Executive Summary, page v and the Summary, Section 6, page 98) as representative of ambient rainfall concentrations is not warranted. Atmospheric particulate global transport and deposition of PCBs occurs in either wet (rainfall) or dry forms. We note that ambient soil PCB concentrations were not cited in the report and the addition of this information may be relevant to the discussion.

It is unclear why the discussions of up gradient PCB concentrations in the SWCS are split between two sections – 2.12.10 (Up gradient PCB Impacts) and 2.12.15 (Up gradient Portions of the Storm Water conveyance System). PCB concentrations are not cited in section 2.12.10. Perhaps the discussion of ambient and background (up gradient of the site) concentrations would be best discussed in a single section of the report, and should include up gradient SWCS samples, and off-site samples discussed in Section 4.2.3.

Additionally, to understand the relevance of these data in relation to the site data, it would be useful to have a summary of PCB concentrations in a single table that would include: background concentration range, ambient concentration range, site concentration range, site detection limit range, and applicable risk-based screening level concentrations. A sediment screening level of 4.6 mg/kg PCBs is cited in section 2.12.15, but the source of this screening level and its context (i.e., ecological health, human health, other) is not provided. A consensus value PCB sediment screening level representative of threshold adverse effects to benthic invertebrates has been reported at 0.040 mg/kg (MacDonald et al. 2000, Environ. Tox. & Chem. 19(5):1403-1413), two orders of magnitude lower than the screening level cited in the report.

It is relevant to report the regional background marine sediment level for PCBs of 0.084 mg/kg and the proposed target post-remedial surface-weighted average concentration for PCBs in sediment of 0.194 mg/kg as cited in the Draft Technical Report for the Shipyard Sediment Site, San Diego Bay, San Diego, CA (Tentative Cleanup and Abatement Order No. R9-2010-0002).

With this in mind, the 1 mg/kg ambient level of PCBs in the SWCS sediment used as a cleanup goal for storm drain cleanout efforts during the summer/fall of 2006 (see section 3.4.2, page 45, second bullet) indicates that residual sediment PCB concentrations are above acceptable risk levels.

In the paragraphs summarizing surface sediment and SWCS sediment (Section 4.1), as previously mentioned, the 1 mg/kg benchmark is not adequate as a risk-based sediment cleanup goal. While it is appropriate to reference that this was the target cleanup level for the SWCS cleanup activities, the text should be modified to indicate that residual levels at and below 1 mg/kg PCBs are potentially above risk levels and have been characterized as part of current site conditions.

Analytical Methods and Data Quality

The report would benefit from a summary of analytical methods used for PCBs, the detection limits achieved with these methods, and data quality issues (e.g., method blank contamination interference). Since Total PCB concentrations may represent the sum of Aroclor concentrations or the sum of congeners or homologues, it is important to clarify the basis of the total PCB concentrations reported. Additionally, the report should clarify how non-detect concentrations were treated in the determination of Total PCB – were these concentrations assumed to be zero (0).

Site Demolition Activities

The protocol by which previously inaccessible areas will be tested for PCBs and other environmental contaminants is not discussed in this report. New areas of contaminated soils are frequently detected during demolition of contaminated sites. It is unclear what sampling procedures or closure verification programs will be implemented to confirm PCB impacted soils and soils impacted by other environmental contaminants do not exist at concentrations greater than site cleanup criteria in areas that were previously inaccessible (e.g. under building concrete slabs, etc.). A summary should be provided in the Executive Summary and discussed in detail in later sections, where appropriate, regarding the sampling of soils and groundwater that were previously inaccessible due to surface and subsurface barriers. Site demolition discussions in this document and the draft RA and RI/FS Appendix A documents do not currently address this issue and the potential presence of these areas can directly impact the potential for PCBs and other contaminants to migrate off-site via storm water and groundwater pathways.

If you have additional questions, please contact Ruth Kolb, Program Manager, at (858) 541-4328 or Edith Gutierrez at (858) 541-4361.

Sincerely,



Kris McFadden
Deputy Director

KMrk

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Tom C. Alo, Water Resource Control Engineer
April 5, 2010

Enclosure: PCB Characterization Table

cc: Ruth Kolb, Program Manager, Storm Water Department
Edith Gutierrez, Associate Planner, Storm Water Department
Fritz Ortlieb, Deputy City Attorney

City of San Diego Comments on PCB characterization Report 2701 North harbor Drive, San Diego, CA			
Technical Report Section	Page	Section Title/Topic	Reason for Proposed Changes/Comments
Executive Summary			Comments/Proposed Changes
	i	Report Objective, First Paragraph, First Sentence	<p>"... as well as the potential for the for the migration of impacts..."</p> <p>The stated objective of this document is to "... summarize the current understanding of known ... (PCB) sources.... and to evaluate the relative significance of each source with regard to the potential to impact current and future on-site receptors, as well as the potential for the migration of impacts off-site to Convair Lagoon." However, the document appears incomplete in regard to the evaluation of potential impacts PCBs present on-site and off-site.</p>
	i	Report Objective, First Paragraph, First Sentence	<p>Delete one set of the "for the" in text.</p> <p>A set of figures should be provided and discussed in the text including a comprehensive excavation map of the TDY site, a figure displaying all historical samples for COPCs, and a figure showing the location of all remaining PCB source areas.</p> <p>It is difficult to follow the timeline of the many site investigations and remediation activities conducted without a set of figures and maps clearly presenting the multiple rounds of sampling and excavation described in text. It is particularly difficult when excavations remove historical sample data and replace the data with new sample data.</p> <p>The text should discuss in detail how areas with reported PCB concentrations remaining in place will impact current and future on-site receptors, as well as the potential for migration of on-site impacts to the Convair Lagoon via stormwater and groundwater pathways.</p> <p>One example is the area located near the northern boundary of the TDY site adjacent to</p>

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				the 60" SWCS, east of Building 115. The 60" SWCS has been a continuing source of PCBs to the Convair Lagoon, primarily because of stormwater discharge from the TDY site. Residual PCBs in surface and subsurface media can provide a potential continuing source of PCBs unless specifically mitigated in some fashion.
	i	Report Objective	"Potential off-site migration of the sources identified within this document will be evaluated within Appendix A of the Risk Assessment (Geosyntec, 2010). Those pathways which are deemed complete will be further evaluated for remedial action alternatives within Appendix A to the RI/FS."	Since these two referenced documents have been already issued, the phrase "will be" should be changed to "have been".
	i	Report Objective, Last Paragraph, Last Sentence	"Statements and conclusions from historical reports have been revised where necessary to accurately reflect current Site knowledge as it has changed with the acquisition of more recent Site data."	It is necessary that any revisions to the original statements and conclusions in historical Site documents be fully referenced and footnoted. Reviewers need to be aware of what was stated originally and why it has changed based on new data. Not all parties tend to agree what data represent and revised text in this document represent the opinions of the authors only.

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	i and ii	Summary of Previous Investigations and Historical PCB Removal Activities	<p>The timing overlap between these events and the locations (on-site or off-site) is not clear</p> <p>A timeline figure that clearly shows investigation dates and removal dates should be provided, particularly in Sections 2 and 3. Overlap should be indicated on the timeline.</p> <p>Several of the bulleted removal activities do not have dates listed. Given that the summary (page v) specifies on-site and off-site activities it would be helpful to have these clarified earlier in the Executive Summary.</p>
	iii	Current Site Conditions, Surface Sediments, Last Sentence	<p>Source of PCBs probably require some clarification as to what source(s) are being removed during site demolition. Atmospheric deposition of sediments and potentially PCBs will continue after site demolition, PCB sources associated with landscaping are not addressed in the summary table (page v).</p> <p>"The source of PCBs to surface sediment will be removed during Site demolition."</p>
	iii	Current Site Conditions, SWCS Sediment, Third and Fourth Sentences	<p>Remedial activities associated with the removal of all stormwater tributaries connected to the 60" SWCS do not mention the procedures for delineating and removing all PCB impacted soils adjacent to these conveyances nor the procedures for other existing SWCS (e.g. 54" and 30" East).</p> <p>A summary should be provided here and discussed in detail in later sections as appropriate, regarding how the presence of PCB impacted soils adjacent to these tributaries for all SWCS on the TDY site will be delineated and mitigated as required.</p> <p>Without a detailed mitigation plan, the potential for PCBs to continue to migrate into the remaining SWCS and subsequently discharge to the Convair Lagoon exists.</p>

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	iii	Current Site Conditions, Soil	It is unclear what procedures are in place to confirm PCB impacted soils and soils impacted by other environmental contaminants do not exist in areas that were previously inaccessible (e.g. under building concrete slabs, etc.).	<p>A summary should be provided here and discussed in detail in later sections as appropriate, regarding the process for sampling soils that were previously inaccessible due to surface and subsurface barriers.</p> <p>It frequently occurs during site demolition of a contaminated site that new areas of contaminated soils are detected. Site demolition discussions in this document and the draft RA and RI/FS Appendix A documents do not address this issue.</p> <p>Post excavation residual soil concentrations should be reported since concentrations for PCBs associated with other sources are reported.</p>
	iv	Current Site Conditions, Soil	Soil PCB concentrations	
	iv	Current Site Conditions, Storm Water	"...trace levels in urban rainfall due to the ubiquitous presence of PCBs at low levels throughout the global environment."	A reference should be provided for this statement both here and wherever the issue is mentioned in the document.

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	iv	Current Site Conditions, Scope of Site Demolition Activities	The process for which previously inaccessible areas will be tested for PCBs and other environmental contaminants is not discussed. It is unclear what sampling procedures or closure verification programs will be implemented to confirm PCB impacted soils and soils impacted by other environmental contaminants do not exist in areas that were previously inaccessible (e.g. under building concrete slabs, etc.).	A summary should be provided here and discussed in detail in later sections, as appropriate regarding the sampling of soils that were previously inaccessible due to surface and subsurface barriers. It frequently occurs during demolition of a contaminated site that new areas of contaminated soils are detected. Site demolition discussions in this document and the draft RA and RI/FS Appendix A documents do not currently address this issue.
	iv	Current Site Conditions, Scope of Site Demolition Activities	Define acronyms used in document.	The acronyms BMP and SUSWMP should be defined.
	iv	Current Site Conditions, Scope of Site Demolition Activities	On-site sediment removal during demolition.	Sediment removal as part of the scope of demolition activities should also be stated. For clarification, it would be helpful to specify "SWCS" before "tributaries".
	iv	Current Site Conditions, Summary, First Paragraph	Storm water is also an impacted media	Add storm water to the list of media investigated.

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	v	Summary	Off-site source exposure pathways and risk evaluation	The report should clarify whether site activities have resulted in PCB migration off-site and where or when risk from off-site exposure pathways will be evaluated. This is a concern given that off-site impacted media were identified in the table on page v. It appears that the list of off-site media may include both sources and receiving media impacted by site activities, which should be clarified.
	v	Current Site Conditions, Summary, Table	The Table's title is inconsistent with the table's purpose described in the last sentence of the first paragraph on page iv. Also, one of the media listed in the table should be classified as off-site, not on-site.	Recommend the title "On-Site to be Removed by Demolition" be deleted. The table is supposed to list identified sources of PCB impacts. Additional, comments are: 1. In the box titled, <u>On-Site Other</u> , Soil at other locations on the TDY site should be added to "On-site soil in the vicinity of the 30-inch East SWCS." PCB impacts have been documented in soils at other locations (e.g. Buildings 120 and 180) on the TDY site. 2. Also, under <u>On-Site Other, Groundwater</u> : "Convair Lagoon vicinity groundwater with concentrations of less than 10 ng/L." should be moved to <u>Off-Site</u> and inserted in a new box titled, <u>Groundwater</u>
	vi	Current Site Conditions, Summary	"... on-site sources will be evaluated..." and "... risk assessment will be..."	Since the referenced documents have been issued, "will be" should become "have been". Also, to be accurate, the draft Risk

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			Comments/Proposed Changes Assessment Appendix A document actually evaluated both potential off-site impacts from on-site sources (e.g. groundwater in the vicinity of the Convair Lagoon) and the potential impacts of on-site sources to those on-site sections of the 60" SWCS and its subsequent discharge to off-site locations (i.e. Convair Lagoon).
1. Introduction			
1.1	1	PCB Characterization Report Objective, First Sentence	"The objectives of this Report are to summarize the current understanding of known PCB sources on the Site and to evaluate the relative significance of each source with regard to the potential to impact current and future on-site receptors, as well as the potential for the migration of impacts off-site to Convair Lagoon."
1.1	1	PCB Characterization Report Objective, First paragraph, Second sentence	The phrase "...the potential for the migration of impacts off-site to Convair Lagoon." is awkward since impacts do not migrate. Recommend rewording to reflect the potential for PCBs to migrate off-site and impact receptors using Convair Lagoon. This report should include comprehensive figures and maps that summarize the data being discussed in the text. Currently, multiple maps through time result in confusion because they do not present a complete understanding of past to current conditions on the TDY site. A map should be included that presents conditions left in place at the Site or what has been removed. It is recommended that a comprehensive historical data figure be included in this section for reference. It is difficult to assess

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1.1	1	PCB Characterization Report Objective, First paragraph, Second sentence	"... so that remedial action can be planned to address"	remedial actions without a comprehensive understanding of the spatial context of the historical data. It is not useful to reference figures and tables located in one of the many appendices attached to this report. Summary data tables and figures should be provided in this section to aid in understanding the discussion.
	1	PCB Characterization Report Objective, First paragraph, Second sentence	"... on-site sources will be evaluated..." and "... risk assessment will be..."	The text should be updated to read either "can be planned" or "has been planned". Since the referenced documents have been issued, "will be" should become "have been". Also, to be accurate, the draft Risk Assessment Appendix A document actually evaluated both potential off-site impacts from on-site sources (e.g. groundwater in the vicinity of the Convair Lagoon) and the potential impacts of on-site sources to those on-site sections of the 60" SWCS and its subsequent discharge to off-site locations (i.e. Convair Lagoon).

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1.1	1	PCB Characterization Report Objective, First paragraph, Fourth sentence	“Those pathways which are determined to be complete will be further evaluated...”	<p>Text should be added to define and discuss the characteristics used to determine when a pathway is considered 'complete'. It is unclear which pathways among those identified remain and what evaluated characteristics lacked completeness.</p> <p>A figure should be added to demonstrate the identified pathways and the delineation of impact.</p> <p>The text should include which pathways were determined to be complete.</p>
1.1	1	PCB Characterization Report, Third paragraph, Last sentence	Any revisions to historical reports should be noted specifically in the text	<p>Revision of any statements and conclusions from the original documents must be referenced and the original text footnoted for comparison. One of this report's focuses is to summarize and report historical site data (Section 2) without interpretation, not revise historical site data. The revised text reflects the opinions of the authors only.</p> <p>Figures should be updated with a Current Conditions Map to reflect those revisions of historical text.</p>

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1.2	1-2	Limitations, First paragraph, Second Sentence	"...no attempt has been made to verify whether the data are representative, accurate, or complete."	Data that has not been or cannot be verified as to its representativeness, accuracy, or completeness should be identified wherever it is presented in the text. The data are used without qualification in Sections 4, 5, and 6 to describe the Site, present conclusions about current site conditions, and planned demolition based on the data. At a minimum, the data used to support discussions in Sections 4, 5, and 6 should be discussed in terms of reliability.
1.3	2	Report Organization, Third Bullet	Section 4, "Current site conditions"	Presumably the current conditions of the Site are described by data collected after all removal activities were completed. The time period covered by the data used to support current site conditions should be specified.
1.3	2	Report Organization, Fifth Bullet	Section 6, "Summary"	The phrase "and in the vicinity of the site" should be added to the sentence to indicate off-site sources were identified and characterized as well.

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2. Summary of Previous Investigations			
2	3	Summary of Previous Investigations	<p>No explanation is offered as to why Section 2 is limited to only those investigative reports generated after 2001.</p>
			<p>An explanation should be provided supporting the choice of including only those documents generated after 2001.</p> <p>According to the Executive Summary and Section 1, Introduction, the PCB Characterization Report is supposed to present the results of investigation and removal activities that have been performed through January 2010. That statement suggests pre-2001 documents should be included.</p> <p>Similar subsections of a report should be summarized similarly. When the description varies in the level of detail, it can become confusing. It is hard to tell if the original report lacked the details or the subsequent summarization of the report for this section left out the details.</p> <p>One example is Section 2.2 where transformers and capacitors are discussed, including final disposition of the equipment. However, in the next two subsections, machinery and storage areas, the areas are described but no other information is provided regarding final disposition. Data should be summarized consistently (i.e. what was the focus, what was sampled, summarize the</p>
2	3	Summary of Previous Investigations	<p>The focus of Section 2 is to summarize previous investigation reports. However, what is described between similar subsections is inconsistent and it appears new interpretation of the data from the original reports is also being discussed.</p>

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				<p>data, and any final actions).</p> <p>Also, it is unclear if the interpretation of the data discussed for the various reports included in Section 2 is the original report's interpretation of the data or a revised interpretation of the data based on data collected subsequent to the issuance of the report.</p> <p>As mentioned in the Executive Summary comments, if the data from the original reports are being revised based on recent data or a revised understanding of current site conditions, those revisions must be referenced and the original data interpretation footnoted. Revising original interpretations of site data with data collected at a later date and for different purposes is incorrect. Currently, it is difficult to determine what is strictly from the original reports and what has been revised.</p>
2	3	Summary of Previous Investigations	The listing of numerous investigation documents with potential overlapping timeframes is confusing.	<p>A timeline figure should be provided that lists all documents discussed or summarized in this section. The addition of such figure will aid in understanding the sequence of various investigations, the timing of each investigation and overlap of various on-site and off-site investigations. This type of figure should be provided for each section (e.g. Sections 2 and 3) where numerous documents are listed, discussed, or summarized.</p>

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2	3	Summary of Previous Investigations	The summarization of sample locations and associated data in the numerous reports included in this Section is confusing because the relevant figure and summary tables are scattered throughout the numerous Appendices of the document.	For each report summarized in the section, a summary figure showing the areas investigated in that report should be provided at the point of discussion. Wherever data are summarized in text for these reports, a table should be provided accordingly.
2	3	Summary of Previous Investigations, Bulleted List	Not all reports discussed in Section 2 are contained in the list	Section 2 subsections match the report list up to the fifth bullet. Between the fifth and sixth bullets, three additional reports should be listed to correspond to the reports summarized in Sections 2.6, 2.7, and 2.8. The reports listed for the sixth and seventh bullets should be switched, so that the listing matches the sequence of discussion in Section 2. One additional bullet should be added to correspond to the ambient PCB concentrations paper discussion in Section 2.13.

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2.2.2.2	5	PCB Investigation Technical Report, PCB Use, Storage and Disposal, Transformers and Capacitors, Second Paragraph, Fourth Sentence	Locations are not provided for the remaining 40 capacitors described.	<p>The text should identify the location(s) of the additional equipment including building number and samples taken to delineate any potential impacts.</p> <p>A summary figure should be included to present the locations described. In the event the location of the two spot welders is unknown, likely locations should be identified.</p>
2.2.2.2	5-6	PCB Investigation Technical Report, PCB Use, Storage and Disposal, Transformers and Capacitors, Second Paragraph, Fifth Sentence	"...the removal of other remaining capacitors was completed..."	<p>The location(s) and description of the other remaining capacitors should be identified in the text and a summary figure.</p> <p>If the location(s) of the other remaining capacitors remains unknown, likely locations should be presented.</p>

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2.2.2.3	6	PCB Investigation Technical Report, PCB Use, Storage and Disposal, Machinery, First Paragraph	<p>The text implies that no investigation was conducted to identify those specific areas where machinery historically had been used.</p> <p>The text should be revised to include other potential areas of machinery use based on site data included in the original report that were not provided in this subsection. The potential locations of machinery should be provided in a summary figure along with transformer and capacitor locations, and storage areas.</p> <p>It is unclear what the phrase "no documentation located" has to do with investigating the potential presence of PCBs at locations where hydraulic and cutting oils were known to be used.</p>
2.2.2.3	6	PCB Investigation Technical Report, PCB Use, Storage and Disposal, Machinery, First Paragraph	<p>No discussion is provided regarding actions taken to delineate areas on the Site that used machinery.</p> <p>No discussion is provided regarding actions taken to delineate areas on the Site that were used as storage areas.</p>

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2.6	10	1997 General Dynamics Storm Drain Cleanout, First Paragraph	No presentation of data for sediments removed during the cleanout of the trunk line of the 60-inch SWCS.	<p>The text should be revised to include summary of the data collected during the cleanout of the trunk line of the 60-inch SWCS. Currently, the text only provides two sample results, which is insufficient data to conclude potential impacts contributed by General Dynamics.</p> <p>All data should be provided in the Appendix due to the significant volume of sediment removed (700 tons).</p>
2.8	10	2004 General Dynamics Storm Drain Cleanout, First Paragraph	No spatial information provided for samples collected	<p>The text should be revised to provide a clear understanding of where the 100 tons of sediment removed originated from within the tributaries to the 60-inch SWCS. It is noted that neither the text nor referenced Appendix YY included this information.</p> <p>A summary figure should be provided at the point of discussion.</p> <p>If available in the original document, all data for this cleanout effort should be provided and referenced in the Appendices. PCB concentrations ranged up to 249 mg/kg were detected in 2004 in the tributary sediments. Downgradient samples within the trunk line of the 60-inch SWCS have not been provided.</p> <p>The text should be revised to include a</p>

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2.10	13-14	2003 Report on Exterior Surface Material Sampling for PCBs, Fourth Bullet	Comparison values are discussed but not provided in text.	<p>discussion on the significance of a "generally shallow" tributary. The meaning for the sentence is unclear.</p> <p>Summary text should be revised to include discussion of the comparison values for both the USEPA Region 9 developed health-based protection guideline, the RWQCB-established Convair Lagoon sand cap action level (ecological-based)(once listed) and the sampling results.</p> <p>Not providing this analysis is confusing to the reader and does not substantiate the interpretation of data in text.</p>	
2.10	14	2003 Report on Exterior Surface Material Sampling for PCBs, Fifth Bullet	Lack of data provided requires further discussion in text	<p>The text should be revised to discuss PSD for the samples that the report states "indicates a contributing source". Additional text might include visual field observations if paint chips or concrete were noted during sample collection within the catch basins.</p> <p>The presentation of field observations and subsequent PSD data should be provided as an Attachment.</p>	
2.10	14	2003 Report on Exterior Surface Material Sampling for PCBs,	Lack of data and figure presentation to substantiate relationship between catch basin detections and Site material sources.	The text does not adequately present a relationship between catch basin detections and on Site sources. The text should provide examples for the reader.	

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		Sixth Bullet		<p>A figure indicating the spatial relationship between elevated PCB concentrations detected in catch basins and onsite surface material samples should be included in the text at the point of discussion.</p> <p>The text should be revised to specifically identify the "historical locations" used to make this conclusion.</p> <p>Although it is difficult to determine if this is the original interpretation or current interpretation of data presented in the 2005 document, it should be noted the data represent one day of tidal fluxes. To use the calculated flow rates to represent a full year of tidal fluxes and storm surges is not accurate.</p>
2.12.6	18	2005 Characterization Report, Flow Analysis, Second Paragraph, Last sentence	"It appears unlikely that significant volumes of sediment could be re-mobilized and transported upgradient of the Site based on observed conditions"	<p>Second, the grain size data most likely represent sediments after many sorting events (i.e. tidal fluxes). What was originally deposited in the 60" SWCS, other SWCS and what is present now can be significantly different. Contaminants sorbed to organic material and clay and silt fractions will be significantly influenced by tidal fluxes and storm surges. To apply one day of data to represent the sorting and migration of different size fractions is incorrect.</p>

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2.12.11	25	Onsite PCB Impacts	Presentation of data incomplete	Provide a figure displaying the 15 PCB usage areas identified at the Site at the point of discussion.
2.12.12	27	PCB Impacts in Convair Lagoon	Presentation of data incomplete	Provide a figure and summary data table describing the PCB impacts at the point of discussion.
2.12.13	27	Extent of PCBs in Soil	Presentation of data incomplete	Provide a figure and summary data table describing the extent of PCBs in soil at the point of discussion.
2.12.14	28	Extent of PCBs in Groundwater	Presentation of data incomplete	Provide a figure and summary data table describing the extent of PCBs in groundwater at the point of discussion.
3. Historical PCB Removal Activities				
3.	31	Historical PCB Removal Activities	The description of the many removal activities conducted at the Site in this Section are difficult to follow because of basic formatting issues and the absence of any figures, including a timeline figure, or summary data tables.	<p>The removal activities with their many subparts discussed in this section (apparently there are seven major programs) require a bulleted list like that presented in Section 2.</p> <p>Also, a timeline figure should be presented that shows how the various removal programs occurred and where programs overlapped. Currently, there is no understanding how the Site was addressed under the many removal programs.</p> <p>Figures showing the focus of each removal program as well as summary data tables should be provided at the point of discussion for each program.</p>

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3.2	33	Transformers and Capacitors, Second Paragraph, Fourth Sentence	Vague description of PCB containing equipment	<p>The text should identify the location(s) of the additional equipment including building number and any samples collected to delineate potential impacts.</p> <p>A figure should also be included to present the locations mentioned above. In the event the location of the two other spot welders is unknown, likely locations should be presented on the figure.</p>
3.2	33	Transformers and Capacitors, Second Paragraph, Fifth Sentence	"...the removal of other remaining capacitors was completed..."	<p>The text should be revised to include the location and description of the other remaining capacitors. Similar to the discussion above, if the location of the other remaining capacitors remains unknown, likely locations should be presented on the figure and discussed.</p>
3.3.1	35	Determination of PCB Contamination, Third paragraph, last two sentences	"These analyses showed a good correlation. After the first thirty samples, most samples..."	<p>It is unclear if this statement was the original conclusion or a recent conclusion based on review of data in the original report.</p> <p>Nonetheless, any statistical analysis conducted in support of the conclusion that the two methods showed a "good correlation" should be provided. Without the presentation of the data in a summary data table, the current conclusion is unsupported.</p>

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4. Current Site Conditions			
4.0	78	Conceptual Site Model	<p>A bulleted list of studies or sampling events used to support the identification of each source included in the description of current site conditions should be provided within each source category (similar to Section 2 and as recommended for Section 3).</p> <p>Figure 3 should specify if the CSM presented represents all four SWCS or just the 60" SWCS. Interpretation and conclusions regarding potential stormwater impacts to the Convair Lagoon appear to focus solely on the 60" SWCS, even though data associated with the 54" SWCS and 30" (East) SWCS present evidence that these two SWCS may have or continue to potentially impact the lagoon.</p>
4.0		Figure 3 – Conceptual Site Model	<p>The conceptual site model (CSM) as presented appears incomplete and missing key components.</p> <p>If the conceptual site model represents only PCBs, it should be stated in the title. If the CSM represents PCBs, metals, and other contaminants then the title is correct, but the other contaminants should be added wherever PCBs are mentioned in the figure.</p> <p>Flow in those sections of the SWCS under the influence of tidal fluxes should be shown as bi-directional. The migration of contaminated, fine-grained sediments in the silt and clay size fraction discharged to the various SWCS from TDY conduits can be significantly impacted by</p>

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			<p>Comments/Proposed Changes</p> <p>tidal fluxes and storm surges into the SWCS from San Diego Bay and the Convair Lagoon. Fine-grained sediments including entrained organic material provide the largest amount of surface area for the adsorption, absorption, and complexation of PCBs, metals, and other contaminants. This fraction will be the most impacted fraction in the SWCS from tidal fluxes and storm surges.</p> <p>Figure 3 is not scale and that should be stated on the figure. Because tidal fluxes in the SWCS probably migrate farther up the system than currently displayed, the potential impact from the migration of contaminated fine-grained sediments is potentially greater than suggested in the figure.</p> <p>There is pipe shown in the figure leading from a building to the SWCS. It is recommended that the pipe be identified as to what it represents. It is assumed, the pipe probably represents floor drains, dry sumps, below grade trenches, etc., which are potentially significant pathways for PCBs, metals, VOCs to the subsurface environment.</p> <p>The figure should include the presence of PCBs, metals, and other environmental contaminants on the clean cap and in the general Convair Lagoon area. The presence</p>

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				<p>of any of these contaminants on the clean cap adjacent to SWCS discharge locations provide a potentially continuing source of contaminants to the SWCS during incoming tides and storm surges.</p> <p>It appears the CSM is suggesting that PCBs detected in groundwater in the vicinity of the MWCL monitoring wells are not related to the Site (green background) similar to other upgradient PCB sources described as not related to the Site. The data and the modeling results discussed in the March 2010 draft Risk Assessment Appendix A document do not support the classification of PCBs in groundwater adjacent to the Convair Lagoon as not related to the Site. VOC and metals data in addition to PCB data for the area encompassed by the 60" and 54" SWCS suggest a possible connection with the TDY site.</p>
4.0	78	Conceptual Site Model	No figure or summary data tables are provided for each source category to aid in reviewing the discussion. Referencing one of the many appendices, figures, and tables makes the review process difficult.	<p>Figures should be provided for each source category showing the areas impacted by the various sources identified (e.g. soil). Also, summary data tables should be provided at the point of discussion to support the summary data interpretation summaries presented.</p>

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4.1	78	Conceptual Site Model, Second Sentence	Reference to previous investigations	<p>Previous investigations are cited in Section 2, not Section 3.</p> <p>The PCB sources listed in Section 4.1 appear to correspond to the order in which they are discussed in the text with the exception that the groundwater text comes before the soil text.</p> <p>Also, there is no presentation of rainfall (storm water) data in the text.</p>
4.1	78	Conceptual Site Model, Surface Sediment	The last sentence under "surface sediment" states that "The source of PCBs to surface sediment will be removed..."	The sentence should be revised to reflect multiple sources of PCBs. Also, the sentence should clarify that only site-sources will be removed during site demolition.
4.1	78	Conceptual Site Model, Soils	"PCBs impacts in soil are not widespread."	<p>Based on the various discussions regarding previous site investigation in Section 2 and removal activities in Section 3 there is some uncertainty in whether soils have been truly characterized.</p> <p>It is assumed that historical aerial photographs have been reviewed to characterize the development of the Site over the past 70 years. It was a common practice prior to the 1980s to apply waste hydrocarbon products including transformer, hydraulic, and cutting oils to unpaved areas near industrial facilities for dust suppression purposes. This was particularly true for areas adjacent to</p>

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				<p>electrical distribution systems (transformers, circuit breakers, capacitors, etc.), cooling and ventilation systems, and parking lots. Such areas could have become paved as the Site developed and expanded its footprint and would have no relation to areas where PCBs were actually stored or used. If such an analysis has not been conducted, it is recommended.</p> <p>It is also a common occurrence that when site demolition occurs on a contaminated industrial site, the removal of aboveground structures including concrete foundations and slabs results in the discovery of unknown infrastructure (e.g. sumps, dry wells, etc.) and previously undetected contamination. It is unclear how this potential issue is going to be addressed. It is unlikely that adequate evaluation of potentially contaminated soils under existing buildings can be accomplished until all infrastructure has been removed. The approach for mitigating such an occurrence should be described in this section and Section 5, and other relevant site documents where site demolition activities are discussed.</p> <p>It appears this discussion is referencing some screening transport modeling reported in the March 2010 draft Risk Assessment Appendix A document. The application of the screening transport model, AT 123D, in the RA</p>
4.1	78	Conceptual Site Model, Groundwater	<p>"... based on analytical groundwater modeling results it is unlikely that these PCBs are site related or that they will reach Convair Lagoon at concentrations exceeding California Toxics Rule (CTR)</p>	

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			standards.”, is not supported by the modeling conducted in the March 2010 draft Risk Assessment Appendix A document.	<p>Appendix A document to determine if PCBs present in groundwater adjacent to the Convair Lagoon are related to the TDY site or will migrate to the Convair Lagoon is not warranted. The model relied on the use of a very limited PCB dataset and model inputs and assumptions that were not sufficiently documented. The conclusions are overbroad in their scope and are not supported by the model.</p> <p>Specifically, the modeling conducted in the RA Appendix A document should have included the development of the appropriate modeling scenarios, documentation and verification of all model inputs, discussion describing the various modeling assumptions evaluated, and the selection process should have been included.</p> <p>The modeling should have also consisted of two model scenarios which considered the potential migration of environmental contaminants at historical concentrations from the TDY site to the Convair Lagoon and the potential migration of environmental contaminants at current concentrations from the MWCL monitoring wells to the Convair Lagoon. The two modeling scenarios vary significantly in contaminant concentrations and the numerous critical physical and</p>

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			<p>Comments/Proposed Changes</p> <p>chemical characteristics present in the two subsurface environments.</p> <p>The AT 123D modeling conducted in the draft RA Appendix A should have included modeling runs for a worst case scenario, a best case scenario, and what would be considered a realistic scenario. In lieu of that approach, the model input data should have used a range of model inputs representing expected variations in the saturated subsurface environment or truly representative median or average values for critical input parameters.</p> <p>The text should be substantially revised to discuss the "unlikely PCBs will reach Convair Lagoon at concentrations exceeding California Toxics Rule" or that "it is unlikely these PCBs are site related". Making such statements in this document without fully referencing the source document is incorrect.</p> <p>At a minimum, the sections discussing the modeling conducted in the March 2010 draft Risk Assessment Appendix A, including Attachment B be included in this report's appendices as reference.</p>

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4.2.2	79-80	First Paragraph, Second Sentence	Definition of interior sediment versus exterior sediment not clear.	The phrases "interior sediment" and "exterior sediment" are not clearly defined. The "exterior sediment" samples could be either sediment or soil, and if "interior" refers to the inside a building, than it may be more appropriate to identify this material as dust.
4.2.2	80	Second Paragraph	Detection limits	The reported detection limits of 34 mg/kg and 3.3 mg/kg are very high and an explanation should be provided for the high detection limits reported with the data.
4.4.2.3	82	Chromatogram Interpretation	"The chromatograms give strong indications...", are based on subjective interpretations phrased as "...shifted slightly..." and "...are broader, interpreted as a mix of Aroclor 1248 and 1260..."	The interpretation of the chromatograms requires an objective analysis. The subjective terms "shifted slightly" and "are broader" do not offer sufficient support or documentation for the reported interpretations.
4.4.4.1	83	60-Inch SWCS Infiltration Observations, Third Sentence	Infiltration rate for one of the two seeps near the 60" SWCS discharge outfall was estimated at 85 to 100 gpm (in a previous section). Is this groundwater infiltrating or some other water source?	It is not clear what the source of the water infiltrating at this location may be. If it is groundwater, how does the estimated inflow of 85-100 gpm at this location correlates with an estimated daily groundwater discharge of 700 gallons to the Convair Lagoon (the area encompassed by the 54" SWCS on the west and the 30" (East) SWCS on the east represented by MWCL monitoring wells 1-8) reported in the March 2010 draft Risk Assessment Appendix A document. Discussion should be added to identify the likely source of this water.

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4.4.6	88	Sediment Movement Monitoring Report, Conclusions and Recommendations	Data insufficient for concluding the migration of sediment at the TDY site.	Text should be added to discuss the impact on reported results from the short duration of the sediment movement study. The sediment movement study provided interesting results in that over a five month period, significant quantities of sediment were transported from the boundary between GD and MCRD down to the middle of the airport. Duration of the study should have been extended to monitor the impacts of sediment transport to the Site (CB-131) as presented in Appendix Q, Table 1 and Figure 3.
4.5	89	Groundwater, First Paragraph	None of the groundwater PCB data from MWCL monitoring wells collected in 2006 and 2007 was reported in the March 2010 draft Risk Assessment Appendix A document.	The groundwater PCB data reported here for 2006 and 2007 in various MWCL monitoring wells should be included in the dataset for the draft RA Appendix A. The data should be included regardless of the analytical method employed (i.e. EPA Methods 8082 or 1668A).
4.5.2	89	Area D Light Non-aqueous Phase Liquid Results	Reporting units.	Should the concentration of PCBs in LNAPL be reported as mass per liter (e.g. ug/L)? Reporting PCBs in mg/kg for a liquid does not appear to be the correct concentration units.
4.5.3	89-90	Building 120 South LNAPL Results	Reporting units.	Should the concentration of PCBs in LNAPL be reported as mass per liter (e.g. ug/L)? Reporting PCBs in mg/kg for a liquid does not appear to be the correct concentration units.

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4.5.5	90	Groundwater, Site-Wide Groundwater Results	No data is provided in text	It is recommended that the text be revised to include the results of sampling for comparison purposes.
4.6	90	Soil	No figure or summary data table presented.	A figure showing the sampling locations and summary data table should be provided in this section at the point of discussion to aid in reviewing the results presented.
4.6.6	92	60-Inch SWCS Backfill Sampling	No samples collected from backfill under the 60" SWCS.	<p>It should be noted that although samples from backfill at the sides and the top of the 60" SWCS reported essentially no PCBs, the potential for PCBs to be present beneath the 60" SWCS also exists.</p> <p>The discussion in Section 3 of this report regarding the detection of elevated PCB concentrations and other contaminants under sections of the 30" East SWCS which were subsequently removed is evidence of this particular issue. Elevated PCB concentrations were reported under sections of the 30" SWCS not associated with inlet tributaries or catch basins suggesting the migration of PCBs and other environmental contaminants along the SWCS right-of-way or some other preferential pathway or from SWCS pipe failures (e.g. cracks, holes, collapsed pipe, etc.).</p>

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				<p>If an opportunity presents itself during site demolition activities to obtain a backfill sample from beneath the 60" SWCS, a sample should be collected from those locations where elevated PCB concentrations are repeatedly reported or where holes or cracks have existed.</p>
4.6.7	92	2007 H&A Sub-Slab Sampling	<p>Soils beneath heavily stained concrete slabs were sampled in Buildings 120, 166, and 121.</p>	<p>After all infrastructure has been removed during site demolition, a representative soil sampling program should be implemented within the former building footprints.</p> <p>Hydrocarbon staining is no guarantee that PCBs will be associated with that staining. The color of pure PCB products can range from pale yellow to dark brown and can be masked by naturally occurring soil color. Visually, soils can look relatively unimpacted, but contain very high PCB concentrations.</p> <p>The collection of only nine samples, seven from Building 120, and one sample each from Buildings 166 and 121 does not adequately represent potential subsurface soil conditions.</p>

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5. Description of Planned Site Demolition				
5.1	95	Scope of Site Demolition Activities	No discussion regarding the sampling of areas potentially containing contaminated soil or groundwater. No discussion regarding the management of any contaminated soil or water encountered during site demolition.	Discussion should be included in this section regarding what contingencies have been developed in the event contaminated soils and groundwater are encountered after the removal of all site infrastructure.
5.2	95	Post Demolition Site Condition, Fourth Sentence	"... or suitable surface treatment that will help protect the Project site from stormwater runoff..."	This general mitigation technique has been shown to be ineffective at the GD property. Significant amounts of surface sediments have reportedly migrated through the SWCS (Figure 2, Geosyntec May 2007). Detectable levels of PCBs were reported on the GD property through 2009, which is currently covered with a gravel material.
5.2	95	Post Demolition Site Condition	No discussion on follow up sampling protocol during demolition activities.	Language should be added to this section discussing post demolition sampling techniques that may be used to delineate sources discovered during demolition.

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6. Summary			
	97	Table	<p>The Table's title is inconsistent with the table's purpose described in the preceding paragraph. Also, one of the media listed in the table should be classified as off-site, not on-site.</p> <p>Recommend the title "On-Site to be Removed by Demolition" be deleted. The table is supposed to list identified sources of PCB impacts. Additional, comments are:</p> <ol style="list-style-type: none"> 1. In the box titled, <u>On-Site Other</u>, soil at other locations on the TDY site should be added to "On-site soil in the vicinity of the 30-inch East SWCS." PCB impacts have been documented in soils at other locations (e.g. Buildings 120 and 180) on the TDY site. 2. Also, under <u>On-Site Other Groundwater</u>, "Convair Lagoon vicinity groundwater with concentrations of less than 10 ng/L." should be moved to <u>Off-Site</u> and inserted in a new box titled, Groundwater

