City of Montgomery, Alabama

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March 11, 2014

Mr. Scott Miller
Remedial Project Manager
United States Environmental Protection Agency
Region IV
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

Subject: Capitol City Plume Superfund Site, Environmental Action Plan

Dear Mr. Miller:

We appreciated you and Carol meeting with our consultants, CH2M HILL, on February 28 at ADEM's offices to discuss our Environmental Action Plan and the process which EPA and ADEM will be for deferral of the Capitol City Plume site to regulation under and ADEM led arrangement. CH2M HILL reported that the conversations were very productive and that substantial agreement occurred between the three parties present regarding changes to be made in the Action Plan which will make our plan acceptable to EPA.

To that end, I am attaching the revised Action Plan. This revision includes the addition of goals related to groundwater remediation and remediation of source areas (see the introduction to Section 2, page 2-1) which were discussed during the meeting. We are confident that these modifications will address EPA's concerns, based on the meeting.

In addition, regarding the process for moving forward, our understanding is that upon EPA approval of the Environmental Action Plan, and notice to us of that approval, that EPA will prepare a 30 day public notice of the proposed deferral to ADEM. Concurrent with these events, EPA and ADEM will be working to establish a Memorandum of Agreement, formally confirming the deferral. Also concurrent with these events, the Alliance will work to finalize its Agreement, followed by establishing an agreement between ADEM and the Alliance. A reference to these agreements has also been added to the end of Section 4 in this revised Action Plan, as requested in our meeting. As we discussed in our meeting, the Alliance has made substantial progress on its Agreement, and we are confident that this can be finalized once the approval is given by EPA Action Plan, and hence the path forward for our group, is confirmed. If our understanding of the process is not correct, please let us know.

We appreciate EPA's consideration of the attached Environmental Action Plan, and look forward to hearing back from EPA in the very near future on the Plan. In the interim, if you have questions, please feel free to contact me at 334.241.2000, or contact our consultant, JP Martin of CH2M HILL at 334.215.9036.

Sincerely,

Todd Strange
Mayor

Enclosures: Environmental Action Plan (3)

c: Carol Monell/US EPA Region IV
Lance LaFleur/ADEM w/ enc (2)
JP Martin/CH2M HILL

Action Plan

Environmental Action Plan; Downtown Environmental Assessment Project; Montgomery, Alabama

Prepared for

City of Montgomery, Alabama

March 2014

CH2MHILL®

Contents

Acronyms and Abbreviations

ADEM	Alabama Department of Environmental Management
AG	Attorney General
ALDOT	Alabama Department of Transportation
Alliance	Downtown Environmental Alliance
bgs	below ground surface
Board	Water Works and Sanitary Sewer Board of the City of Montgomery, Alabama
BTEX	benzene, toluene, ethylbenzene, and xylenes
City	City of Montgomery, Alabama
COC	contaminant of concern
CSM	conceptual site model
DEAP	Downtown Environmental Assessment Project
EAP	Environmental Action Plan
EI/AA	Environmental Investigation/Alternatives Analysis
EPA	U.S. Environmental Protection Agency
FS	Feasibility Study
IC	institutional control
MOA	Memorandum of Agreement
PCE	perchloroethene
ppb	parts per billion
ppm	parts per million
RI	Remedial Investigation
RSA	Retirement Systems of Alabama
TCE	trichloroethene
TPH	total petroleum hydrocarbons
USGS	U.S. Geological Study
VIMS	vapor intrusion monitoring system
VISL	vapor intrusion screening level

SECTION 1

Action Plan; Downtown Environmental Assessment Project; Montgomery, Alabama

This report presents the Environmental Action Plan (EAP) to address the Downtown Environmental Assessment Project (DEAP) (formally known as the "Capitol City Plume") for the City of Montgomery, Alabama (City). The purpose of this report is to present the technical strategy for addressing the remaining environmental issues related to potential contamination, which were outlined in the U.S. Environmental Protection Agency's (EPA's) letter dated November 14, 2012. The EAP also is intended to address the additional new technical comments that were outlined in EPA's letter to the City of Montgomery dated September 19, 2013, which was submitted in response to the original EAP (dated February 2013).

1.1 Statement of Agreement

The City facilitated the development of a group of voluntary participants to respond to the environmental issues described in the November 2012 letter from EPA to the City. This group will be referred to as the Downtown Environmental Alliance (the Alliance). The Alliance is a proponent of the EAP and currently consists of the following members:

- City of Montgomery–Facilitator
- Alabama Department of Education
- Alabama Department of Transportation (ALDOT)
- Alabama Department of Public Safety
- The Advertiser Company
- The Montgomery County Commission
- The Water Works and Sanitary Sewer Board of the City of Montgomery, Alabama (Board)

The Alliance has reviewed the contents of this EAP, provided feedback with respect to its content and scope, and agreed in principle with providing the support necessary to successfully implement the various components of the plan. Note that other partners might be joined in this effort moving forward, as the investigation and community efforts to support this important project unfold.

As the DEAP progresses beyond this EAP, the Alliance reserves the right to seek out and recruit other entities to the Alliance, if there is sufficient reason to include these other entities in the DEAP. The Alliance will coordinate these activities with the Alabama Department of Environmental Management (ADEM) and the City will facilitate communications with these entities for inclusion in the Alliance.

1.2 Purpose and Background

As stated previously, the purpose of this report is to present the strategies and actions planned to address the remaining environmental issues related to contamination in downtown Montgomery, which were outlined in the EPA letter dated November 14, 2012, noting three main items of concern that should be addressed in this EAP:

- Develop a strategy to evaluate the potential for soil vapor contamination.
- Further evaluate the presence of the soil vapor contamination previously identified in the vicinity of the County Annex III Building, at the vapor intrusion monitoring system (VIMS) located across the street from 101 South Lawrence Street and Washington Avenue.
- Further evaluate the need for additional environmental sampling in the vicinity of the current Alabama Attorney General's (AG's) Building, at 501 Dexter Avenue.

This report also is intended to address the new technical issues presented in the EPA letter dated September 19, 2013, which was submitted in response to the first draft EAP (dated February 2013). The three new technical issues presented by the EPA were as follows:

- Identify and delineate any contaminant source areas in order to evaluate the feasibility of eliminating or controlling ongoing impacts by soil vapor and groundwater at the site.
- Evaluate the nature and extent of contaminated groundwater and surface water in Cypress Creek in support of the objectives to restore groundwater to beneficial use within a reasonable timeframe at the site.
- Provide an assessment of the pathways and quantitative risks posed by the site, including potential exposure to contaminated groundwater and soil vapor linked to previously identified source areas.

This EAP was developed to address these issues using both scientifically defensible methodologies and industry-accepted practices and testing methods.

1.2.1 Project Background

This section provides a brief summary of the major events and milestones associated with the DEAP to date:

- In approximately 1991 to 1992, detectible concentrations of perchloroethene (PCE) were encountered in Well 9W, located within the Board's North Well Field (approximately 0.25 to 0.5 mile northwest of the Retirement Systems of Alabama [RSA] Tower energy plant). In response to this discovery, the Board immediately removed well 9W from service. Subsequently, the Board has closed the entire North Well Field and abandoned all of the wells associated with it, except for Well 9W, which remains in-place for environmental testing.
- In approximately 1993, construction workers performing excavation work for the construction of an energy plant associated with the RSA Tower discovered strong odors and free-phase liquid emanating from their excavation. Construction activities were ceased and an emergency removal action was conducted for the soil and free-phase liquid associated with the excavation. The soil and free-phase liquid were removed before the construction of the energy plant.
- In 1995, ADEM conducted a Preliminary Investigation of the area around the RSA Tower energy plant, which included the installation of four shallow monitoring wells to assess the impact to groundwater in the area of the soil contamination. The Preliminary Investigation results reported PCE concentrations as high as 7,843 parts per million (ppm) in soil and 607 parts per billion (ppb) in groundwater from the wells near the energy plant.
- From 1999 through 2001, EPA contracted Black & Veatch to conduct a Remedial Investigation (RI) to evaluate the nature and extent of the groundwater contamination encountered during ADEM's Preliminary Investigation. The RI was conducted in three phases–sampling of the vadose zone soil, installing dual-well monitoring systems to monitor both the top and bottom of the uppermost aquifer; and installing temporary monitoring wells to further evaluate the extent of groundwater contamination to the north of the original preliminary investigation area. Although little to no PCE or trichloroethene (TCE) contamination was encountered in the vadose zone soil samples collected during the RI, groundwater concentrations of PCE were encountered as high as approximately 300 ppb near the northern extent of the project area near Cypress Creek (a tributary of the Alabama River).
- Using the information presented in the RI Report submitted in November 2002, the City contracted Malcolm Pirnie to develop a Feasibility Study (FS) for the project area. The FS Report, which was submitted in October 2003, provided a summary of the environmental remedial alternatives for the site compared against EPA's evaluation criteria. The FS identified several potential remedial options for the site, which ranged from institutional controls (ICs) with monitoring to active remediation options, such

as in-situ chemical treatment and air sparging. However, the FS Report did not recommend a site-specific remedial option for the site.

- In 2004, the U.S. Department of Health and Human Services issued a Public Health Assessment Report for the site. With the closure of the North Well Field, the report did not identify any current or past human health risks associated with drinking water for the site. However, workers who continue using industrial wells for equipment washing in the area could be exposed to contaminants in the shallow groundwater. Also, humans working or living in buildings with basements that are within the groundwater contamination footprint potentially could be exposed to vapors from the groundwater contamination.
- From 2005 to 2007, the City prepared a work plan and conducted one comprehensive groundwater monitoring event for the wells in the downtown area. Groundwater samples collected during this monitoring event had reported PCE concentrations as high as 300 ppb at MW-12S (in the northern portion of the area) and TCE concentrations (maximum of 11 ppb at MW-4S near the central portion of the area).
- From 2008 through 2010, the U.S. Geological Survey (USGS) (in cooperation with EPA) conducted a tree core survey, where tree-core samples were collected from a population of 69 trees in the downtown area. As a result of this tree core survey, detected concentrations of PCE and TCE were reported in several tree core samples. Subsequently, USGS installed a VIMS at the corner of Washington and South Lawrence Street. The VIMS consists of five monitoring points that monitor soil vapors in 10-foot depth intervals (10, 20, 30, 40, 50 feet below ground surface [bgs]). The monitoring results from the VIMS indicated TCE concentrations in subsurface soil that appear to increase with depth. On the basis of complaints from workers in the County Annex III building, USGS and EPA collected three rounds of indoor air samples at the County Annex III building between August 2011 and May 2012. In August 2011, EPA responded to a complaint from an employee at the Alabama AG's Building (formerly used by the Highway Department and the Department of Public Safety) that strong odors were present in the subbasement (lowest floor) of the building. As a result of EPA's subsequent investigation, TCE was encountered in a floor drain located in a small storage room, which previously was used by the Highway Department as a soils laboratory (even though TCE was never documented as being used in this laboratory); and by the Department of Public Safety as a heating, ventilating, and air conditioning maintenance room. EPA also installed passive air samplers inside the lower floor offices, which yielded detectable levels of total petroleum hydrocarbons (TPHs), but no PCE or TCE. There were concentrations of PCE detected in a few soil vapor samples outside the building, at levels below soil vapor screening levels. As a follow-up to this EPA investigation, it was discovered that the carpet in the lower offices of the AG Building was the source of the odors. The environmental consultant for the state had the carpet material sampled; the results indicated that the indoor odors and TPH concentrations were attributable to the carpet and not to subsurface soil vapors or vapors from the former laboratory floor drain. Since the carpet in the lower floors was removed and replaced, no additional complaints have been filed from the employees in the lower floors of the AG Building.
- In October 2011, EPA conducted a groundwater monitoring event for the wells in the downtown area. The results of this groundwater monitoring event had reported PCE concentrations as high as 120 ppb at MW-12S and TCE concentrations (maximum of 2.8 ppb at MW-4S).

1.2.2 Summary of the Conceptual Site Model

As indicated by the historical information reviewed, the shallow geology within the project investigation area primarily consists of terrace and alluvial material deposited by the Alabama River, which is underlain by the Eutaw and Gordo formations. Soil types encountered range from fine- to coarse-grained sands to silty and clayey-sands with clay interbeds. Shallow groundwater across the project site ranges from about 25 feet bgs in the northern portion of the site to about 115 feet bgs within the southern portions of the site. The

predominant groundwater flow direction is to the north-northwest toward the major surface water bodies, including Cypress Creek and the Alabama River. The conceptual site model (CSM) will be updated and refined to better understand if groundwater to surface water interactions would be expected given the depth to groundwater in the area, and if contaminated groundwater from the downtown plume area could potentially be a source of contamination to Cypress Creek.

Because of the closure and abandonment of the City's North Well Field and existing City ordinances prohibiting groundwater use in downtown Montgomery, the direct contact exposure pathways related to groundwater ingestion have been eliminated. The only remaining pathways for direct groundwater exposure are reported to be associated with one or possibly two industrial water wells that are used primarily for equipment washing activities. Groundwater is not anticipated to be a significant source of contaminants to surface water or a significant pathway for human exposure. Thus, the primary potential exposure pathway is vapor intrusion into overlying buildings in areas where elevated groundwater concentrations of contaminants are present.

1.2.3 Site Overview and Conclusions

On the basis of the review of the project background information, the following conclusions have been developed for the project site:

- The RI activities conducted from 1999 through 2001 included the development of a technically sound and comprehensive groundwater monitoring network to evaluate the horizontal and vertical extents of the groundwater conditions within the uppermost aquifer at the project site. The monitoring well network provides an array of monitoring wells (mostly dual-well systems installed within the upper and lower portions of the uppermost aquifer) to assess the horizontal extent of contaminant migration. The existing well network monitors groundwater quality from the suspected PCE source (the RSA Tower energy plant) at MW-1S/1I, toward the west at MW-4S/4I, to the east at MW-6S and MW-11S/11I, to the south toward the County Annex III Building (MW-9S), and to the north at the closest surface water bodies (Cypress Creek and the Alabama River) at MW-12S/12I and former supply well 9W.
- On the basis of the significant current and historical groundwater monitoring database that has been assembled from the site over the past 20 years (the most recent groundwater monitoring event was conducted by EPA in October 2011), it appears that groundwater quality conditions likely have been assessed adequately with respect to applicable risk pathways. However, limited additional groundwater investigation might be appropriate to evaluate areas where additional data are needed, after compilation and review of the available data for the site. The need for additional data will be evaluated after the existing site data are assessed and the site CSM has been updated.
- Given the analysis of the possible exposure pathways, a potential exposure pathway warranting additional investigation is vapor intrusion from elevated groundwater contamination. On the basis of the current groundwater PCE and TCE concentrations and depths to groundwater at many of the site monitoring wells (in some cases, more than 100 feet bgs), the potential for vapor intrusion is unlikely. However, this potential exposure pathway might warrant further evaluation, following the completion of the data review and refinement of the CSM.
- The history of elevated TCE soil vapor readings at the VIMS located at the corner of South Lawrence and Washington indicates that additional investigation, using scientifically defensible and industry-accepted practices, might be appropriate to evaluate the potential source of these elevated vapor readings and to evaluate the soil vapor near the building and VIMS. Based on background data, soil, groundwater, and soil-vapor sampling at 101 South Lawrence Street (formerly 200 Washington Avenue) indicates that TCE, PCE, and benzene, toluene, ethylbenzene, and xylenes (BTEX) are not present on the property in quantities that pose a threat to human health or the environment. In 2003, Environmental Materials Consultants, Inc., sampled groundwater and soil at County Annex III, and did not detect the presence of PCE or BTEX (TCE was not analyzed or reported). USGS's soil-vapor sampling at the Annex in August 2011

detected concentrations of PCE, BTEX, and TCE below risk-based screening levels and indicated there is no soil-vapor intrusion occurring at the building. Likewise, USGS's indoor air sampling in August 2011 did not detect TCE, and detected PCE and BTEX compounds at concentrations below risk-based screening levels. Soil-vapor sampling by USGS in February 2012 at the VIMS located across the street from 101 South Lawrence Street detected concentrations of PCE and BTEX below risk-based screening levels, but indicated concentrations of TCE that were above screening levels.

- Further evaluation of soil vapor concentrations near the Alabama AG Building also might be appropriate near this building.
- If warranted, following the update and refinement of the CSM, further evaluation might be appropriate to assess the groundwater and surface water conditions in the area of Cypress Creek, which includes areas of known historical groundwater contamination at monitoring well MW-12S and well 9W. The refinement of the CSM will include the consideration of surface water data collected from Cypress Creek.

SECTION 2

Path Forward and Scope of Work

On the basis of the site overview and conclusions presented herein, CH2M HILL, on behalf of the City and in conjunction with the Alliance, has developed a path forward and scope of work. This Scope of Work also has been informed by the technical issues presented in EPA's September 19, 2013, letter, and is intended to further address the remaining environmental issues at the DEAP.

Over the past 10 to 15 years, several entities (EPA, USGS, City of Montgomery, The Advertiser Company, ALDOT, private developers, etc.) have performed extensive environmental investigations and site characterization activities, most of which have occurred subsequent to the completion of the original RI Report submitted by Black & Veatch in November 2002. These efforts have provided insight (both qualitative and quantitative) to the environmental issues at the site and introduced new areas requiring investigation. However, the available data should be compiled, mapped, and analyzed to develop a site-specific work plan for addressing the remaining environmental issues in downtown Montgomery. Thus, the overarching goals of this EAP are as follows:

- Assemble the investigation data collected to date and compile it into a master database.
- Develop site-specific groundwater and soil vapor screening levels for vapor intrusion.
- Develop a scientific-based protocol (based on EPA and ADEM guidance) for evaluating areas of concern for potential vapor intrusion within the project area.
- Prepare an Environmental Investigation/Alternatives Analysis (EI/AA) report to supplement the existing RI and FS reports and summarize the historical and recent data, including the proposed soil vapor data.
- Confirm that soil-vapor-related risks within the designated area have been identified and, if appropriate, sufficiently mitigated, using investigative and risk approaches that are based on sound, current science.
- To remediate soil source areas that are contributing significantly to groundwater contamination, to the extent feasible.
- To ultimately restore groundwater in the downtown area to beneficial use protective of human health.

The following subsections provide additional details related to the execution of this EAP.

2.1 Obtain Environmental Data from Downtown Area, Perform Comprehensive Data Evaluation, and Develop Screening Levels

The first step of the EAP for the DEAP is to evaluate the investigation data collected to date and compile these data into a master database. Performing this initial step will provide a concise, manageable database of information from which to analyze recent concentration trends, develop a current CSM, and evaluate sampling media collected at the site (groundwater, soil, soil vapor, and indoor air) to identify areas of elevated concentrations across different media types. This step also will facilitate revising the CSM to reflect current site conditions and potential transport pathways. Completion of this initial step also will facilitate the evaluation of additional soil vapor and groundwater investigation needs to assess the nature and extent of contamination, per EPA's September 19, 2013, response letter.

Also, as part of this step, a search for other available data sources will be conducted to obtain additional environmental data that might not be found in regulatory archives (Phases I and II Environmental Site Assessments, Environmental Impact Studies, etc.). ADEM has provided additional data related to several downtown construction projects, such as the Biscuits stadium, the Urban Garden, and the RSA excavation

site. Other data also might be available. By evaluating these additional environmental data sources, the Alliance will be able to compile a more complete and comprehensive environmental database on which to base its investigation path forward. Additional environmental data that can be obtained from other sources will be added to the master database.

2.2 Conduct Environmental Investigation Efforts for the Site

When the environmental data are in a usable format, the next step will be to identify potential data gaps. This assessment will be based on the adequacy of the existing data to identify and delineate contaminant source areas, which can then be used to evaluate the feasibility of eliminating or controlling ongoing impacts by soil vapor and groundwater at the site. Following the completion of the data gaps assessment, a program will be developed to collect data for the purposes of filling the identified data gaps, from both a media and a geographic perspective.

2.2.1 Soil Vapor

The second step of the EAP is to develop a scientific-based protocol (based on EPA guidance) for evaluating the remaining areas of concern within the project area. Using the site-specific vapor intrusion screening levels (VISLs) developed in the previous step, historical groundwater concentrations for PCE and its degradation products (TCE, dichloroethene, and vinyl chloride) and BTEX constituents (which were identified as contaminants of concern [COCs] in the historical documents) will be screened to identify areas where the potential for additional delineation of groundwater and soil vapor intrusion is most likely, based on the updated CSM. These COCs have been selected based on site history and the available environmental investigation information reviewed to date.

If areas requiring additional groundwater investigation are identified, temporary groundwater sampling locations will be installed in these data gap areas to evaluate the groundwater contaminant. If the areas of potential vapor intrusion are identified, representative buildings that have a potential for vapor intrusion, based on a comparison of groundwater and soil vapor concentrations with VISLs, will be identified for one round of external soil gas sampling near the building foundations. Ideally, the soil gas sampling efforts will be completed during warm weather conditions.

Additional external soil vapor sampling will be conducted using industry-acceptable sampling equipment (Summa canisters) and methodology (which will be discussed in a work plan document to be submitted subsequent to this EAP).

Collected data will be screened against the risk-based VISLs. If the screening results indicate a potential for indoor vapor intrusion at concentrations exceeding the target risk level of $1x10^{-6}$ or target non-cancer hazard index of 1, the buildings will be identified for further evaluation of the indoor air pathway (collection of subslab vapor and/or indoor air samples).

2.2.2 Groundwater Data Collection

On the basis of the review of existing sitewide groundwater data obtained from the compilation and evaluation of additional existing data and the refinement of the CSM, the Alliance will identify areas within the site that might require additional groundwater investigation to evaluate groundwater and assess potential site risks. The Alliance will focus the groundwater data gap evaluation in areas that are downgradient of known groundwater contaminant plumes. The anticipated areas of focus are primarily to the north-northwest, toward Cypress Creek. If data gaps are identified, the Alliance will propose locations for additional groundwater sampling locations as part of the Supplemental EI/AA Work Plan (see Future Deliverables, Section 3).

2.2.3 County Annex III Building (101 South Lawrence Street).

To further evaluate the nature and extent of TCE concentrations in soil vapor near the VIMS area, it might be appropriate to collect additional soil vapor samples around the VIMS and monitoring well MW-9S, which is about 40 feet east of the VIMS. Additional soil vapor data will be screened against the VISLs. If the data screening indicates exceedances of VISLs, additional samples might be collected to evaluate the potential for soil vapor intrusion and to potentially identify the sources of the elevated vapor concentrations. The locations and numbers of additional soil vapor sampling locations will be discussed in further detail in the Supplemental EI/AA Work Plan (see Future Deliverables, Section 3).

Once these activities have been completed at the County Annex III Building, the findings and results of this investigative effort, along with previous investigative efforts, chemical usage history, building construction details, and historical indoor air sampling, will be consolidated into a comprehensive summary document, which will be incorporated into the overall EI/AA report findings.

2.2.4 Alabama AG's Building (501 Dexter Avenue).

To further evaluate the nature and extent of potential vapor concentrations near the Alabama AG's Building, additional soil vapor samples will be collected around the slab of the building's north annex, which is the only inhabited portion of the lower floor of the building. The additional soil vapor data will be screened against the VISLs to evaluate whether additional investigation is warranted. Because the north annex of the building was constructed with a vapor barrier, subslab testing will not be conducted, but vapor barrier details will be compiled and documented.

Once these activities have been completed at the Alabama AG's Building, a report will be compiled summarizing this investigative effort, along with previous investigative efforts, chemical usage history, building construction details, and historical indoor air sampling. This summary report will be incorporated into the overall EI/AA report findings.

2.2.5 Cypress Creek and Alabama River Additional Investigation

On the basis of the elevated groundwater concentrations encountered at monitoring wells located near the northern portion of the site (MW-12S and former Well 9W), a limited investigation of the uppermost groundwater downgradient of these wells and adjacent to Cypress Creek and the Alabama River might be appropriate. This determination will be made following the update and refinement of the CSM. If the updated and refined CSM indicates that there is a potential for groundwater and surface water interactions, the additional groundwater data will be collected and screened against applicable and relevant screening criteria. Should these additional groundwater samples suggest that elevated concentrations of site-specific volatile organic compounds (VOCs) (PCE, TCE, vinyl chloride, and BTEX) are present in the groundwater, the Alliance might collect limited surface water samples from Cypress Creek to evaluate potential risks to receptors from the site. Should these additional surface water samples indicate that elevated VOCs are encountered in Cypress Creek such that the Alabama River could be affected, the Alliance will consider the need to collect surface water samples from the Alabama River, where Cypress Creek discharges. However, it should be noted that surface water data collected as recently as 2008 by the USGS indicates that only low-level VOCs were encountered at Cypress Creek. The levels detected were below typical analytical reporting levels.

2.2.6 Updated Human Health Risk Screening.

Once the additional groundwater and soil vapor samples are evaluated, an updated human health risk screening will be prepared using the most recent site data.

2.3 Conduct Alternatives Analysis Efforts for the Site

Once the additional EI activities have been completed, the data will be used to prepare an AA report for the DEAP. As part of the AA evaluation process, potential remedial alternatives (such as no action, ICs with monitoring, capping, removal and disposal, and treatment) will be evaluated against the two AA threshold criteria and the seven balancing criteria, which are as follows:

- Threshold criteria:
  - Protection of human health and the environment
  - All applicable or relevant and appropriate requirement compliance
- Balancing criteria:
  - Short-term effectiveness
  - Long-term effectiveness
  - Reduction of toxicity, mobility, and volume
  - Implementability
  - Cost
  - Community acceptance
  - State acceptance

Once the AA evaluation process is complete, an appropriate remedial path forward can be recommended for the DEAP that is appropriate to the level of potential risks to human health and the environment.

SECTION 3

Future Deliverables

To properly communicate the technical aspects of the action items previously discussed, the subsequent deliverables are recommended for submittal to ADEM for review, once this path forward is agreed upon and the EAP is approved.

3.1 Supplemental EI/AA Work Plan

This document will provide the technical details of the additional EI work described previously in this EAP, including a revised and updated sitewide analytical database, tables summarizing the most recent site data, and figures illustrating the most recent site conditions, including groundwater and soil vapor plumes and an updated CSM for the site. On the basis of recent site conditions, this document also will provide the locations for external soil vapor sampling at representative buildings that have a the potential for vapor intrusion, based on a comparison of the groundwater and soil vapor concentrations with the VISLs. This document also will summarize the additional sampling to be performed at the County Annex III Building and the Alabama AG's Building, and will provide the sampling methodology and protocols to be followed in the field, which will be based on accepted EPA and ADEM guidelines. Finally, this work plan will provide a tentative schedule for the additional EI field activities.

3.2 Supplemental EI/AA Report

Once the Supplemental EI/AA Work plan is approved by ADEM and additional EI sampling activities are complete, a Supplemental EI/AA Report will be prepared. This document will provide the results of the EI activities described previously in this EAP. This document also will present the remedial alternatives comparison evaluation associated with the AA portion of the EAP, which will include recommendations for an appropriate remedial alternative for the DEAP and a plan to implement the preferred alternative.

These summary reports for the County Annex III Building and the Alabama AG's Building will be incorporated into the Supplemental EI/AA Report as supporting documents (attachments or appendix material).

3.3 Updated Public Health Assessment

Once the Supplemental EI/AA Report is approved by ADEM, the Alabama Department of Public Health should consider updating the 2004 Public Health Assessment, based on the findings of the supplemental EI activities and the recommended remedial alternative proposed in the Supplemental AA.

3.4 Community Relations Plan

This document will summarize the details of the Supplemental EI/AA Report and updated Public Health Assessment for public review and comment (similar to a Proposed Plan Document prepared for a Comprehensive Environmental Response, Compensation, and Liability Act site). For more details regarding this document, refer to the following Community Participation section.

3.5 Downtown Montgomery Environmental Alliance Agreement

This document will provide the details for the Agreement among the parties.

3.6 ADEM Voluntary Agreement

This document will be signed between ADEM and the Alliance members and will outline the expectations and processes to be followed to complete the DEAP outlined in this report.

SECTION 4

Community Participation

Once the conclusions and recommendations in the Supplemental EI/AA Report and updated Public Health Assessment are agreed upon between the Alliance and ADEM, the Alliance will encourage community participation from business owners, developers, and state agencies located within the downtown area. As noted previously, a Community Relations Plan will summarize the activities performed to investigate and, if necessary, remediate the DEAP. The Alliance also will consider providing periodic press releases to update the public regarding the progress of the project. This Community Relations Plan will focus on the needs of the public related to the DEAP and will be modified based on feedback from the community. The provisions for community participation will be addressed through an agreement with ADEM, and the deferral Memorandum of Agreement (MOA) between EPA and ADEM.

SECTION 5

Schedule

The City and the Alliance appreciate the opportunity to develop this EAP and are interested in moving this project forward to a swift and decisive conclusion. The tentative schedule provided in Figure 5-1 has been developed to provide a general timeframe for completing various project milestones following concurrence of this EAP by EPA and ADEM.

FIGURE 5-1

Estimated Project Schedule

Downtown Environmental Assessment Project

Montgomery Alabama

Work Element	2014												2015												2016											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Agency Review/Approval of EAP																																				
Complete ADEM/Partnership Agreements																																				
Recruit Additional Partners																																				
Develop Supplemental EI/AA Work Plan																																				
Develop Community Relations Plan																																				
ADEM Review/Approval of EI/AA Work Plans*																																				
Supplemental EI Field Activities Prep*																																				
Supplemental EI Field Activities*																																				
Prepare EI Report*																																				
ADEM Review/Approval of EI/AA Report*																																				
Update Public Health Assessment																																				
Public Comment on EI/AA Report																																				
ADEM Approves Final Action on Project																																				

* actions apply to the Alabama AG complex, County Annex, and 47 block activities

Notes: Schedule assumes delineation is as outlined in work plan, and does not include building assessment activities by building owners

Yellow denotes Agency Review

Blue denotes Partnership Activities

Orange denotes Public Review

Red denotes Project Completion