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NEIGHBORHOOD SAMPLING PLAN

Riverside Neighborhood Evaluation
Riverside, California 92503

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1. Introduction

1.1 PURPOSE

This Neighborhood Sampling Plan (NSP) describes the sampling investigation that will be conducted to collect data in the neighborhood adjacent to the Riverside Agricultural Park property (Ag Park). The Ag Park, located at 7020 Crest Avenue, Riverside, California (Figure 1) consists of approximately 62 acres. Based on previous sampling at the Ag Park, polychlorinated biphenyls (PCBs) are known to be present within the property boundaries of the Ag Park (Section 2.0). The Ag Park is bounded to the north by the Santa Ana River and open space, to the east, south, and west by residential neighborhoods. The areas being investigated (Figure 2 and 3) are immediately adjacent to the Ag Park and will be referred to as the Ag Park Neighborhood (Neighborhood).

1.2 OBJECTIVES OF SAMPLING EFFORT AND AREA

The primary objectives of the Neighborhood investigations are:

- To determine if PCBs in wind-borne particulates from the Ag Park may have migrated to the Neighborhood,
- To evaluate if PCBs that migrated in wind-borne particulates from the Ag Park are above established screening levels (Section 3.3) in soil,
- To investigate the potential for past spreading of sewage sludge during treatment plant operations at the Ag Park.

Sample locations (Figures 2 and 3) include 30 properties within the Neighborhood. These properties are:

- East and west of Crest Avenue, north of Mandalay Court and Manitoba Place, east of the northern extension of Keating Drive, north Altadena Drive and Farrier Avenue, west of Rutland Avenue (both north and south of Jurupa Avenue), and Rutland Park.

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1.3 RESPONSIBLE AGENCY, SUPPORTING AGENCIES, AND PARTICIPATING ENTITIES

DTSC is the responsible agency providing oversight of this sampling investigation. Other supporting agencies include: the United States Environmental Protection Agency (U.S. EPA) Region IX, the California Air Resources Board (CARB), California Department of Public Health (CDPH) and the City of Riverside (City). The U.S. EPA and the City provided assistance to DTSC in the development and the review of the NSP. The CARB assisted DTSC in air dispersion modeling. The CDPH is working with DTSC and the Neighborhood Work Group to address the community's health concerns. The Center for Community Action and Environmental Justice (CCAEJ) and the Neighborhood Work Group are participating entities which have provided assistance in the development and review of the NSP.

1.4 PROJECT ORGANIZATION

The following table presents the list of key project personnel, their contact information and responsibilities.

Key Project Personnel Contact Information and Responsibilities

Title	Name	Phone Number	Responsibilities
DTSC Project Manager	Amit Pathak	(714) 484-5468	Coordinates, organizes, and plans for sample collection activities.
DTSC Quality Assurance Officer (QAO)/Toxicologist	Riz Sarmiento	(818) 717-6596	Develops data quality objectives and decision inputs for risk assessment.
DTSC Field Team Leader	Greg Sweel	(714) 484-5413	Sample collection, documentation, packaging and shipment.

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2. Ag Park and Neighborhood Background

The Ag Park and Neighborhood were formerly part of the 1,247-acre United States Army (Army) Camp Anza. Soil contamination at the Ag Park resulted from the operation of a former sewage treatment plant located at the Ag Park. The sewage treatment plant was constructed by the Army in 1942 to treat wastes generated at Camp Anza and occupied about 46 acres of Ag Park. The easternmost 11 acres of the Ag Park and the northwestern most 2 acres of the Ag Park were separated from the former treatment plant area by natural drainages, and have been historically undeveloped. The Army operated the sewage treatment plant from 1942 to 1947. Anza Realty Company operated sewage treatment plant from about 1947 to 1953. The Anza Utility Company, later known as Arlington Utility Company, operated the sewage treatment plant from 1953 to 1962. In 1962, the City took ownership of the property and continued operating the treatment plant until 1965, when it was decommissioned, and the waste flow was diverted to another sewage treatment plant. During the period of operation, the sewage treatment plant reportedly accepted wastewater effluent from industrial, commercial, and residential customers. At various times since 1965, there were intermittent recreational uses of the Ag Park such as bicycle motocross events and agricultural livestock shows (Geomatrix, 2006).

2.1 GEOLOGICAL AND METEOROLOGICAL INFORMATION

The Ag Park and Neighborhood are relatively flat with elevations generally decreasing to the north. The average Ag Park elevation is approximately 740 feet above mean sea level. There are two drainage features at the Ag Park which are both oriented in a north-south alignment, with one located along the western side of the site and the other located along the eastern side. The eastern drainage veers to the west along the northern side of the property and connects with the western drainage feature in the northwestern corner of the property. The drainage from the Neighborhood is generally towards the Ag Park. The site is located in the Upper Santa Ana River Drainage Area, which includes the Upper Santa Ana Valley, San Jacinto Valley, and Elsinore Valley. The boundaries of the Upper Santa Ana River Drainage Area are the San Gabriel, San Bernardino, and San Jacinto Mountains (northern and eastern boundaries), and the Chino Hills and Santa Ana Mountains (western and southern boundaries). The bordering mountain ranges and basement rock include Mesozoic-age granitic, metamorphosed clastic and volcanic rocks. The Upper Santa Ana River Valley in the vicinity of the site includes Recent-age alluvium, Pleistocene-age non-marine sedimentary rocks, and exposed areas of Mesozoic-age granitic basement rocks.

The Santa Ana River, located approximately 1,800 feet north of the Neighborhood, is the principal surface water drainage feature in the area. The Santa Ana River begins in the San Bernardino Mountains and flows to the southwest across the Upper Santa Ana River Valley to the Santa Ana Canyon below Prado Dam. The Santa Ana River then crosses the coastal plain of Orange County and discharges to the Pacific Ocean between Newport and Huntington Beaches.

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The Ag Park soils from the ground surface to a depth of approximately 4 feet below ground surface (bgs) are predominantly fine-grained, reddish brown to brown clay, silt, sandy silt, and silty sand. This typical lithology generally grades to weathered granite throughout the site. From approximately 7 to 10 feet bgs the granite is less weathered and harder. In some locations, samples could not be collected between 5 and 9 feet because of the hardness of the granitic bedrock. The off-site northwest drainage consists of approximately 6 inches to 3 feet of loose, sand, underlain by weathered granite and granitic bedrock.

The average annual temperature in Riverside is 65.45 degrees Fahrenheit (°F). The average annual high temperature is 79.5°F and the average annual low temperature is 51.4°F. The average annual precipitation is 10.32 inches of rainfall. Typical average wind speeds vary from 0 mph to 14 mph, occasionally exceeding 20 mph. The wind direction is most often out of the northwest (25% of the time) and west (15% of the time). The wind is least often out of the southwest (3% of the time), northeast (4% of the time), and east (5% of the time) (www. weatherspark.com).

2.2 PCB RELEASE AT THE AG PARK

In July 2003, during demolition of the treatment plant structures on the Ag Park, a contractor working on behalf of a residential developer (The Friends of the Riverside Airport) punctured the sidewall of the digester and sludge was released to the adjacent soil. The City was notified of the sludge release and initially responded by removing approximately 51,000 gallons of sludge from the spill and 30 cubic yards of sludge-impacted soil. The City, as owner, stopped work and tested soil samples. Following the City's discovery that the released digester sludge contained PCBs, the City notified the developer to cease all further demolition activities and restricted access to the site.

In August 2003, another City contractor collected soil samples at the site in response to the discovery of PCBs in the sludge. The highest concentration of PCB detected (499 mg/kg) was detected in samples near the digester. In December 2003, a contractor working on behalf of the Friends of the Riverside Airport collected soil samples to depths up to 10 feet near the digester bgs and from around the perimeter of the Ag Park. Generally, PCBs were detected in samples shallower than 3 bgs.

On June 21, 2004, the County of Riverside approved a "Sampling, Analysis, Demolition and Debris Consolidation Plan", dated June 15, 2004, and prepared by Geomatrix Consultants, Inc. (EnviroStor).

In July 2004, a contractor employed by the City excavated and sampled 47 test pits to depths up to 11 feet bgs at locations around the former treatment plant facilities, on-site drainages, and the perimeter of the site. A second phase of sampling was performed in August 2004 during which 18 additional test pits were excavated to 2.5 feet bgs and sampled in the on-site drainages and the perimeter of the site.

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In September 2004, a third phase of sampling was performed at 18 additional test pits in and around the south and southwestern portions of the Ag Park, and from 8 test pits at four (4) residential properties in the Neighborhood (2 test pits at each residential property) to depths of 2.5 feet bgs.

The 4 Neighborhood properties investigated were located immediately adjacent to the southern perimeter of the former Ag Park (Figure 4). Reported concentrations of PCBs collected from these locations were either non-detect (11 of 16 samples) or below the Preliminary Remedial Goal (PRG) of 0.22 mg/kg for residential uses (5 of 16 samples) (Table 1). The PRG and Regional Screening Levels (RSL) of 0.22 mg/kg was the U.S. EPA Region 9 screening level for residential use at the time the Response Plan was prepared and approved. U.S. EPA later consolidated EPA Region 3, Region 6 and the Region 9 screening levels and has issued the RSL that is currently the sole source of screening levels for all the EPA Regions.

Based on the findings of three phases of sampling, three (3) further phases of sampling were performed in October 2004 at on-site and at the off-site drainage northwest of the Ag Park. In total, 16 additional test pits were excavated on-site and 16 additional test pits were excavated in the off-site drainage northwest of the Ag Park during the fourth through sixth phases of investigation. Reported detections of PCBs in the northwest drainage were above the residential PRG near the Ag Park boundary, but did not persist further than 1,000 feet from the Ag Park boundary.

Analytical test results from samples collected during 2004 indicated that the highest PCB concentrations were present in soils near the former treatment plant at depths up to 4 feet bgs. Lower concentrations of PCBs were detected at depths to 10 feet bgs in the former treatment plant area. PCBs were also detected in surficial and shallow soils across much of the central portion of the Ag Park at levels above the residential PRG that was established by the U.S. EPA in 2004. Reported concentrations of PCBs in samples collected from south of the central portion of the Ag Park and along the majority of the Ag Park boundary were either non-detect or below the residential PRG, except for the south-southwestern portion where PCBs were detected above the residential PRG in two (2) areas. In 2006, the City prepared a "Revised Remedial Investigation Report" which presented the findings from the investigations performed in 2004.

In May 2006, the Friends of the Riverside Airport LLC purchased the property from the City and prepared a response plan to excavate soils impacted by PCBs to concentrations below the residential PRG prior to development of the site. Implementation of the response plan occurred in April 2009 when the first phase was initiated to excavate soils with PCB concentrations greater than 50 mg/kg. The first phase was completed in July 2009. Approximately 8,666 tons of soil was excavated. All excavated soil with PCB concentrations at or above 50 mg/kg was transported offsite to the Waste Management, Incorporated (WMI), located in Kettleman City, California. Additional items removed from the site included: brush debris (green waste); PCB contaminated concrete, sewer pipe, and utility poles. The second phase of the response plan was to excavate soils with PCB concentrations greater

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than the residential PRG of 0.22 mg/kg. In August 2013, the second phase of response plan was implemented. Approximately 165,226 tons of soil were excavated and transported for off-site disposal.

In October 2015, an addendum Soil Sampling Work Plan was prepared and proposed the collection of surface soil samples on a 125-foot grid pattern across the entire Ag Park. This sampling was to completely characterize the elevated PCB concentrations detected at two grids (B4 and F3). In February 2016, DTSC received the Soil Sampling and Excavation Work Plan for additional assessment and cleanup activities at the site. In September 2016 the excavation work began and is currently underway.

3. Data Quality Objectives

The data collection activities are premised on the data quality objectives that were developed for the project. The U.S. EPA initially developed the Data Quality Objectives (DQOs) process in 1994, and the development of these project-specific DQOS is consistent with the "Guidance on Systematic Planning using the Data Quality Objectives Process" (EPA, 2006). The DQO-based approach ensures that the information being collected, the quality and quantity of the samples meet the objective of evaluating the neighborhood beyond the Park.

The DQO process consists of seven steps and each step defines the criteria that will be used to develop the sampling design. The goal of these investigations is to collect data that can support the decision-making process. In the event that multiple phases may be required, the DQO process makes it possible for the project team to define the requirements for each phase.

3.1 STEP 1: STATE THE PROBLEM

There are three stated problems that will be addressed by the data that will be collected, namely:

- It is unknown if PCB-containing particulates from the Ag Park had been deposited in the Neighborhood soil by wind, and
- It is unknown if concentrations of PCB-containing particulates in the surficial soil are above established soil screening levels, and
- To investigate the potential for past spreading of sewage sludge during treatment plant operations at the Ag Park.

The inputs for identifying the stated problems include the site-specific conceptual site model (CSM), supporting agencies and the Work Group. The CSM (Figure 5) shows how PCBs in particulates could

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potentially come in contact with human receptors in the neighborhood through specific exposure routes. Soils in the neighborhood area will be sampled to determine if PCB-containing particulates from Ag Park were deposited, and soils at deeper depths will be sampled to evaluate the potential for past spreading of sewage sludge.

The human receptors who could be potentially exposed include neighborhood adult and child residents. In addition, to address community concerns, samples will be collected to evaluate potential exposures, if any, of recreational users in a nearby park (Rutland Park).

3.2 STEP 2: IDENTIFY THE GOALS OF THE STUDY

The second step of the DQO process identifies the question that will be addressed by these investigations, and the corresponding actions that may result when the study question is answered.

- Study Question: Were PCBs from the Ag Park deposited in the Neighborhood due to wind dispersion or the spreading of sewage sludge?

Actions:

1) No further action if PCBs are not detected.

2) If PCBs are detected, then compare highest PCB concentrations to established soil screening levels.

3) If highest PCB concentration is below the established soil screening levels, then no further action.

4) If highest PCB concentration is above the established soil screening levels, then

   a) Engage the Responsible Parties for additional investigations and potential remedial actions, and/or

   b) Calculate the 95% Upper Confidence Limit (UCL) of the PCB concentration Calculation of the 95% UCL will require collection of additional samples,

      If the 95% UCL concentration is below the established soil screening levels/risk-based levels, then no further action.

5) If the 95% UCL concentration is above the established soil screening levels/risk-based levels, then engage Responsible Parties for additional investigations and potential remedial actions.

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3.3 STEP 3: IDENTIFY INFORMATION INPUTS

- Results of the air dispersion modeling conducted by the CARB – The approach is to collect the soil samples in the areas where the predicted maximum concentration of PCBs may have been deposited in the Neighborhood. The results will represent the worst-case scenario, thus, if the soil data demonstrate that there was no deposition of particulate-borne PCBs above health protective concentrations, then no additional sampling is warranted.

- Evaluation Area – It is anticipated that soil data will be collected from up to 30 properties which include 28 residential properties, Rutland Park (identified by the Work Group), and at another location owned by the City immediately southwest of the Ag Park (Figure 2).

- Analyte List – Results of several investigations at the Ag Park demonstrated that PCBs (Aroclors) have been identified as the key chemicals of potential concern (COPCs), in the human health risk assessment. Other chemicals were ruled out as they did not pose a significant risk.

- Analytical DQOs – Laboratory requirements for precision, accuracy, representativeness, completeness, comparability (PARCC) will be determined with the analytical laboratory. PARCC are criteria established to assess the quality and usability of the data.

- Exposure Pathways - The RSLs published by the U.S. EPA are based on potential exposure routes through ingestion, dermal contact, and inhalation of vapors/particulates.

3.4 STEP 4: DEFINE STUDY BOUNDARIES

The lateral boundaries of the sampling activities include areas identified by the air dispersion modeling, as discussed below. The air dispersion modeling results depict the predicted highest concentration of particulate-borne PCBs.

The vertical boundaries of the sampling activities will be from the ground surface and not deeper than six inches below the ground surface (bgs) because PCBs bind tightly to soil, have a very low solubility, and do not migrate deeper into the soil column. However, based on input from the Work Group and City, a subset of samples will be collected from up to 5 feet bgs to evaluate the potential for soil disturbances post-deposition and possible spreading of sludge generated from the treatment plant.

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3.4.1 AIR DISPERSION MODELING

Air modeling is a mathematical simulation of how air pollutants disperse in the atmosphere. It is performed with computer programs that solve the mathematical equations and algorithms which simulate the pollutant dispersion. The CARB Modeling and Meteorology Branch assigned staff specialized in air modeling to assist DTSC with this effort.

AERMOD and CALPUFF models were used to calculate and project potential PCB deposition via wind-blown particulates. Both models are recommended by the U.S. EPA for regulatory usage. They have been extensively evaluated and well documented, and have been widely used in various applications.

The Ag Park PCB data used for the air modeling are: (a) data collected prior to the Phase 1 cleanup (2003 to 2009); (b) data collected during the Phase 1 cleanup period (4/2009 to 7/2009); (c) data prior to Phase 2 cleanup (8/2009 to 7/2013); (d) Phase 2 cleanup period (8/2013 to 1/2014) and; (e) post Phase 2 period (2014 to current). The Ag Park was divided into five areas for air modeling (Eastern Edge Area A1, Western Edge Area A2, Phase II cleanup Area A3, Phase I cleanup Area A4, and remaining Area 5). Three different scenarios were considered for both AERMOD and CALPUFF models. The scenarios considered were based on PCBs 1) Central Tendency Values or Average Concentrations 2) High End Values 3) Maximum Values. These values were based on the PCBs data from Year 2003 to 2015. These three scenarios were used to evaluate model sensitivity.

Surface weather (wind speed, direction, etc.) and precipitation measurements from Riverside Municipal Airport, along with upper air radiosonde data from Miramar Naval Air Station (near San Diego), were used to generate model-ready meteorological data sets.

Appendix 1 contains the CARB air dispersion modeling inputs and Appendix 2 contains the modeling output. Both AERMOD and CALPUFF models outputs show overall agreements for the scenarios considered and also agreements among the three scenarios. The output of the models show predicted relative PCB concentrations in the neighborhood represented by different colors (Appendix 2). For example, the orange color shows the area with predicted highest PCB concentrations and the lighter blue color shows the area with lowest predicted PCB concentrations.

The most conservative output scenario (based on maximum PCB concentration values at the Park) was selected under AERMOD for identifying neighborhood areas for soil sampling (See Appendix 2, AERMOD Scenario 3). The output of AERMOD Scenario 3 was overlaid on the neighborhood area map to show the properties where samples will be collected (Figure 2). Figures 2 and 3 show proposed residential properties, Rutland Park and City owned areas proposed for soil sampling.

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3.5 STEP 5: DEVELOP THE ANALYTIC APPROACH

This step identifies the action level and the data set parameters that will be used to support the decision-making process.

Action Levels – initial screening criterion is the residential soil RSL for PCBs (sum of high risk Aroclors), i.e., 0.22 mg/kg based on a target cancer risk of 1E-06 (EPA, May 2016). Also, health risk-based scenarios will be utilized to evaluate potential exposures to recreational (Rutland Park) users based on data collected in the park. The comparison to residential RSL is the most conservative approach. Risk-based levels for the recreational scenario will be calculated if detected PCBs in the park exceed the residential RSL.

The data set parameters (e.g., maximum or 95% UCL) are the concentration that will be compared to the action level to support a decision. The outputs of Step 5 are Decision Rules (listed below).

Decision Rules:

Actions:

1) No further action if PCBs are not detected.

2) If PCBs are detected, then compare highest PCB concentrations to established soil screening levels.

3) If highest PCB concentration is below the established soil screening levels, then no further action.

4) If highest PCB concentration is above the established soil screening levels at a property, then

   a) Engage the Responsible Parties for additional investigations and potential remedial actions, and/or

   b) Calculate the 95% Upper Confidence Limit (UCL) of the PCB concentration Calculation of the 95% UCL will require collection of additional samples,

   If the 95% UCL concentration is below the established soil screening levels/risk-based levels, then no further action.

5) If the 95% UCL concentration is above the established soil screening levels/risk-based levels, then engage Responsible Parties for additional investigations and potential remedial actions.

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3.6 STEP 6: SPECIFY PERFORMANCE OR ACCEPTANCE CRITERIA

Decisions are usually based by performing a statistical hypothesis test on the collected data, i.e., the error rates of the data collection. However, the scope of the data collection activities is limited to a few initial samples rather than on a statistically-based sampling design. Therefore, this step in the DQO process discusses the following uncertainties associated with the sampling design:

- Uncertainties in the air modeling results influence the uncertainties in the proposed sampling locations.
- Collecting a limited number of samples in the neighborhood could potentially underestimate or overestimate the magnitude of exposures and the associated potential health risks.
- Using the highest concentrations to represent human exposure could overestimate the potential health risks.

3.7 DEVELOP THE PLAN FOR OBTAINING DATA

The sampling approach discussed in the following sections is based on the project-specific DQOs discussed in this section.

3.8 DATA REVIEW AND MANAGEMENT

Data review will be performed by DTSC's Environmental Chemistry Laboratory (ECL), or contract laboratory, using qualifiers on the analytical data, if necessary. The ECL will place qualifiers on the data based on the Instrument Detection Limits (IDL), Method Detection Limits (MDL), Laboratory Control Samples (LCS), and possible matrix interference. The ECL will indicate in the laboratory case narrative any corrective actions applied which could include rejection of data, re-analysis or recommendations for resampling.

The Field Team Leader will ensure that data are transferred accurately from collection to analysis to reporting. Use of field notes and photographs will be used to record and review the data collection processes.

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4. Soil Sampling

4.1 DESIGN AND RATIONALE

Surface (0 to 6 inches) soil samples will be collected from a minimum of four (4) locations at each evaluation area. Approximately 10 percent of the total number of locations will be sampled at depths of 2 to 2.5 feet bgs and 4.5 to 5 feet bgs. The location of each sample will be determined in advance by consulting the property owner to gain access. A Consent for Access to Property will be provided to each property owner for review and signature prior to sample collection. Site specific restrictions which may limit sample collection could include extensive hardscape, irrigation systems, known electrical or plumbing lines. After access has been granted by each property owner, an initial site walk will occur to view the area for optimal sample collection. Sketches of each property will be created which depict the sample locations.

4.2 FIELD EQUIPMENT

A list of all the equipment that will be used in the field to collect samples, including decontamination equipment, is included in Table 2.

4.3 METHODS AND PROCEDURES

Surface soil samples will be collected within 6 inches of the ground surface. Single use, individually wrapped and sealed hand trowels/scoops will be used to collect the surface samples and then transfer samples to the appropriate containers. For deeper samples (up to 5 feet bgs) a hand-auger will be used. Attempts will be made to collect samples at 2.5 and 5 feet bgs. Care will be taken to ensure that any surface debris such as leaves, rocks, twigs, lawn cuttings, etc. will be excluded from the sampling containers.

The exact soil sampling locations will be determined in the field. The criteria that will be used to determine sampling locations will include accessibility and input from property owners. Soil sample locations will be recorded in the field logbook as sampling is completed. A sketch of the sample location will be entered into the logbook and any physical reference points will be labeled. If possible, measured distances to the reference points will be given.

Surface soil samples will be collected as grab samples (independent, discrete samples) from a depth of 0 to 6 inches (bgs). Surface soil samples will be collected using a hand trowel/scoop. Samples to be analyzed for PCBs will be placed in a sample-dedicated disposable pail or bucket and homogenized. Material in the pail will then be transferred from the pail to the appropriate sample containers. Sample containers will be filled to the top, taking care to prevent soil from remaining in the lid threads prior to being closed to prevent potential contaminant migration to or from the sample. See Section 11.0 for preservation and shipping procedures. Duplicate samples will be collected at a rate of 10 percent.

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A subset of sampling locations will be selected for deeper sample collection using a decontaminated hand-auger. The exact location for the deeper samples will be determined at the time of sample collection and may be randomly selected or based on information pertaining to possible sludge spreading provided by the Work Group or the City. Each deeper sample will be hand-augered at the same location as the companion surface sample. Soil removed from the hole created by the hand-auger will be placed into a sample dedicated pail or bucket and homogenized. Sample containers will be filled to the top, taking care to prevent soil from remaining in the lid threads prior to being closed to prevent potential contaminant migration to or from the sample. Soil cuttings will be placed back into the holes created by the hand-auger and supplemented with potting soil to original grade.

Each sample container will be labeled and sealed with tamperproof custody tape (Section 11). Section 13 describes sample documentation and chain-of-custody procedures.

Personnel involved in sampling must wear clean, disposable gloves of the appropriate type specified in the approved "Hazard Appraisal and Recognition Plan" (Section 16).

Dedicated sampling will be utilized for the surface sample collection; therefore, no decontamination of equipment will be necessary. Disposable equipment intended for one-time use will be packaged for appropriate disposal. Each hand-auger will be washed prior to use in a 5-gallon plastic bucket using powdered detergent and water followed by two additional rinses with clean water. Each hand-auger will be inspected after cleaning to ensure all visible soil is removed prior to use. Equipment blanks will be collected to evaluate the effectiveness of the decontamination procedures. The equipment blanks will be collected after decontamination by pouring clean water over the hand-auger and allowing the water to collect in a glass jar for analysis of PCBs. Equipment blanks will be collected at a rate of 10 percent.

4.4 ANALYSIS NARRATIVE

All samples will be analyzed for PCBs (as Aroclors) by the ECL, or their contract laboratory, utilizing U.S. EPA Method 8082 and using the Soxhlet Extraction procedures. A standard turnaround time will be requested for this project. Each sample will be placed into cleaned and certified glass jars. No preservatives are required for Method 8082 other than maintaining the samples at 4^0 Celsius (+/- 2^0) during shipment and pending analysis. The laboratory holding time after sample extraction is 30 days.

The analytical laboratory will utilize matrix spike (MS) and matrix spike duplicate (MSD) samples by spiking known quantities of PCBs at the laboratory. The analytes used as spiking compounds will depend upon the analytical method used. MS and MSD samples are a form of laboratory quality assurance/quality control (QA/QC) for determining matrix effects and the reliability of the analytical processes and equipment. The matrix effect is a condition in which sample composition interferes with the analysis of the desired analyte. Spiked sample recovery supplies percentage recovery information so that the laboratory can evaluate its measurement accuracy. MS and MSD samples are equal portions of a single initial sample that has been spiked in the laboratory with specific analytes in known quantities and the analytical results must meet laboratory requirements to be acceptable.

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4.5 SAMPLE CONTAINERS, PACKAGING AND SHIPPING

All soil samples will be placed into pre-cleaned and certified glass jars. Soil samples for PCBs will be homogenized and transferred from the sample-dedicated homogenization pail or bucket into wide-mouth glass jars. The samples will be placed into an ice chest chilled to 4 degrees Celsius immediately upon collection.
All sample containers will be placed in a strong-outside shipping container (a cooler). The following outlines the packaging procedures that will be followed:

1. Wet ice will be packed in Ziploc, double plastic bags. The drain plug of the cooler will be sealed with tape to prevent melting ice from leaking out of the cooler.

2. The bottom of the cooler will be lined with bubble wrap to prevent container breakage during shipment.

3. All screw caps will be checked for tightness prior to sealing the cooler for shipment.

4. All container tops will be secured with custody seals.

5. Sample labels will be affixed onto each container.

6. All sample containers will be wrapped in bubble wrap to prevent breakage.

7. All sample containers will be placed into heavy duty plastic zip-lock bags. Sample numbers will be written on the outside of each plastic bag with indelible ink.

8. Samples will be placed into a sturdy cooler(s) lined with a large plastic trash bag. The appropriate COC(s) will be placed in a zip-lock plastic bag affixed to the underside of the cooler lid.

9. Any empty space in the cooler with bubble wrap or Styrofoam peanuts to prevent movement and breakage during shipment.

   Each ice chest will be securely taped shut with tape, and custody seals will be affixed to the front, right and back of each cooler.

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4.6 DISPOSAL OF RESIDUAL MATERIALS

In the process of collecting samples, different types of potentially contaminated Investigation Derived Waste (IDW) will be generated that include the following:

- Used personal protective equipment (PPE)
- Disposable sampling equipment
- Decontamination water

Used PPE and disposable equipment will be double bagged and placed in a municipal refuse dumpster. These wastes are not considered hazardous and can be sent to a municipal landfill. Any PPE and disposable equipment that is to be disposed of which can still be reused will be rendered inoperable before disposal in the refuse dumpster. The decontamination water will be tested and managed appropriately.

4.7 SAMPLE DOCUMENTATION

Detailed record keeping will be made in the field. These records will include field logbook(s) and photographs.

Field logbooks will be used to document where, when, how, and from whom any vital project information was obtained. Logbook entries will be complete and accurate enough to permit reconstruction of field activities. Logbooks will have consecutively numbered pages. All entries should be legible, written in black ink, and signed by the individual making the entries. At a minimum, the following information will be recorded during the collection of each sample:

- Sample location and description
- Site or sampling area sketch showing sample location and measured distances
- Sampler's name(s)
- Date and time of sample collection
- Designation of sample as composite or grab
- Type of sample (i.e., soil)
- Type of sampling equipment used
- Field observations and details related to analysis or integrity of samples (e.g., weather conditions, noticeable odors, colors, etc.)

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- Preliminary sample descriptions (e.g., for soils: silty sand, dry)
- Lot numbers of the sample containers, sample identification numbers and any explanatory codes, and chain-of-custody form numbers
- Shipping arrangements (overnight air bill number)
- Name of recipient laboratory

In addition to the sampling information, the following specific information will also be recorded in the field logbook for each day of sampling:

- Team members and their responsibilities
- Time of arrival/entry on site and time of site departure
- Other personnel on site
- Summary of any meetings or discussions with others
- Deviations from sampling plans, site safety plans, and QAPP procedures
- Changes in personnel and responsibilities with reasons for the changes
- Levels of safety protection

Photographs will be taken at the sampling locations and at other areas of interest on site or sampling area. They will serve to verify information entered in the field logbook. For each photograph taken, the following information will be written in the logbook or recorded in a separate field photography log:

- Time, date, location, and weather conditions
- Description of the subject photographed
- Name of person taking the photograph

All samples collected will be labeled in a clear and precise way for proper identification in the field and for tracking in the laboratory. The samples will have pre-assigned, identifiable, and unique numbers. At a minimum, the sample labels will contain the following information: location, date of collection, and analytical parameter. Every sample will be assigned a unique sample number.

All sample shipments for analyses will be accompanied by a chain-of-custody record. Form(s) will be completed and sent with the samples for each shipment (i.e., each day). If multiple coolers are sent to a single laboratory on a single day, form(s) will be completed and sent with the samples for each cooler.

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The chain-of-custody form will identify the contents of each shipment and maintain the custodial integrity of the samples. Generally, a sample is considered to be in someone's custody if it is either in someone's physical possession, in someone's view, locked up, or kept in a secured area that is restricted to authorized personnel. Until the samples are shipped, the custody of the samples will be the responsibility of DTSC. The sampling team leader or designee will sign the chain-of-custody form in the "relinquished by" box and note date, time, and air bill number.

A self-adhesive custody seal will be placed across the lid of each sample container. The shipping containers in which samples are stored (usually a sturdy ice chest) will be sealed with self-adhesive custody seals any time they are not in someone's possession or view before shipping. All custody seals will be signed and dated.

4.8 FIELD QUALITY CONTROL SAMPLES

Field quality control samples will include field duplicates and equipment blanks. As mentioned in Section 9, field duplicates will be collected and analyzed in the same manner as the initial sample to evaluate variability in heterogeneity, sample collection, and analysis. As mentioned in Section 9, equipment blanks will be collected to evaluate the effectiveness of cleaning the hand-augers. The rate of collection for both field duplicates and equipment blanks will be 10 percent.

4.9 FIELD VARIANCES

As conditions in the field may vary, it may become necessary to implement minor modifications to sampling as presented in this plan. Modifications to the approved plan will be documented in the sampling project report.

4.10 FIELD HAZARD APPRAISAL AND RECOGNITION PLAN

DTSC's project-specific health and safety procedures will be followed in the field, including safety equipment and clothing that may be required, explanation of potential hazards that may be encountered, and location and route to the nearest hospital or medical treatment facility. A copy of the approved "Hazard Appraisal and Recognition Plan" is included as Appendix C.

4.11 PUBLIC COMMENT

DTSC invited public comments on a Draft NSP. A formal public comment period for the Draft NSP began on March 9, 2017 and ended on April 7, 2017. DTSC received written comments from sixteen parties during the public comment period, and subsequently prepared a "Response to Comments" (RTC) document. Based on a careful review of the comments received, modifications to the Draft NSP were not required. The RTC is attached as Appendix D.

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4.12 SAMPLING RESULTS AND REPORTING

Following sample collection and laboratory analysis, the results will be compiled and evaluated. The results will then be discussed with the supporting agencies and participating entities. Based on these discussions any future course of actions will be determined, if required. A final sampling report will be prepared and made available for review.

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5. References

DTSC/HERO HHRA Note 2, 2009

EnviroStor (http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=33490087)

Geomatrix, Revised RI Report, April 4, 2006

Guidance on Systematic Planning using the Data Quality Objectives Process" (EPA, 2006)

Weatherspark.com/averages/31430/Riverside-California-United States

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Figures

ED_005263_00002095-00024

Figure 1 - Riverside Ag Park Neighborhood Area

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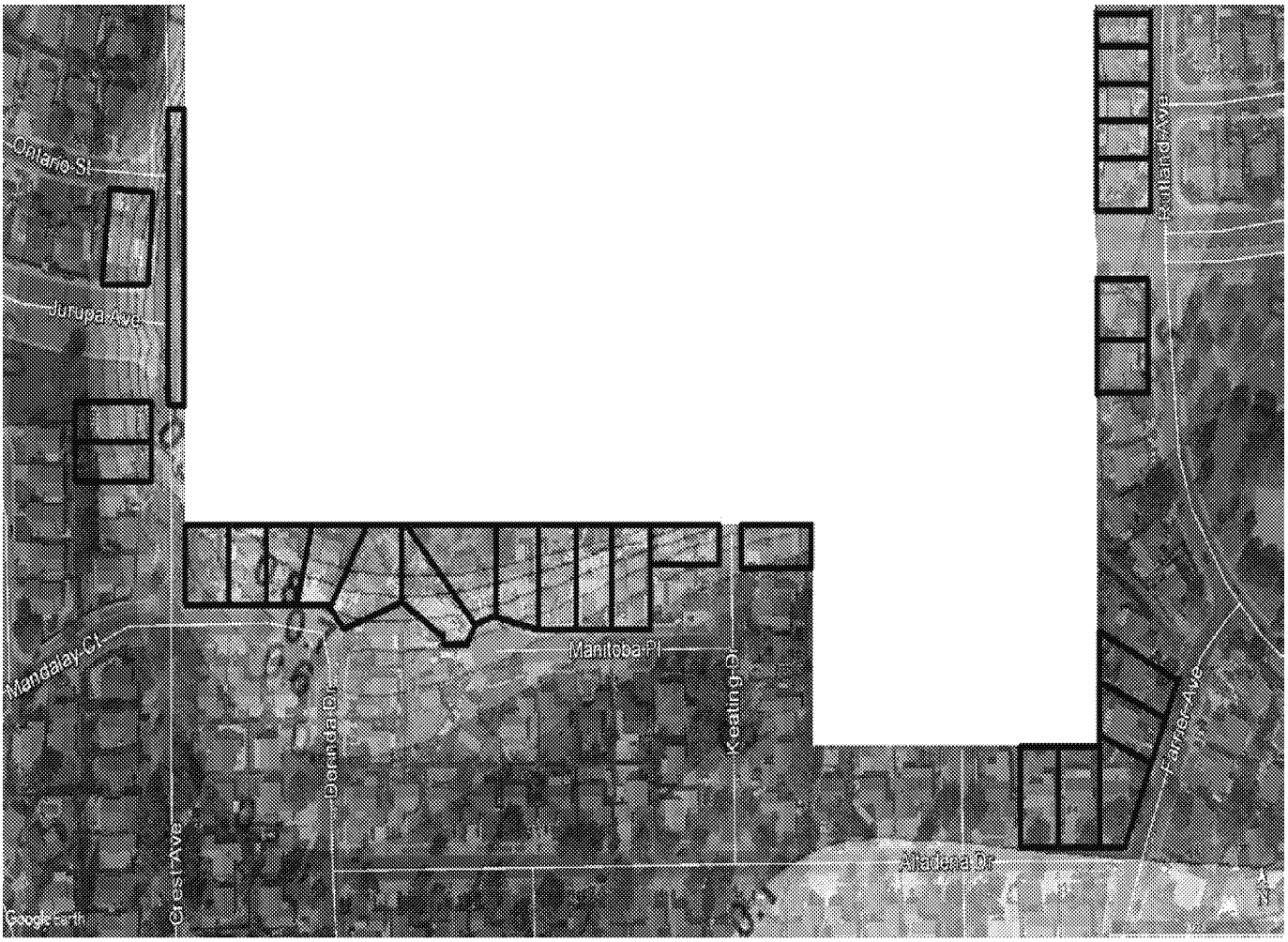

Figure 2 - Properties selected for sampling

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Figure 3 - Rutland Park sampling locations

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Figure 4 - Location of 4 properties sampled in 2004

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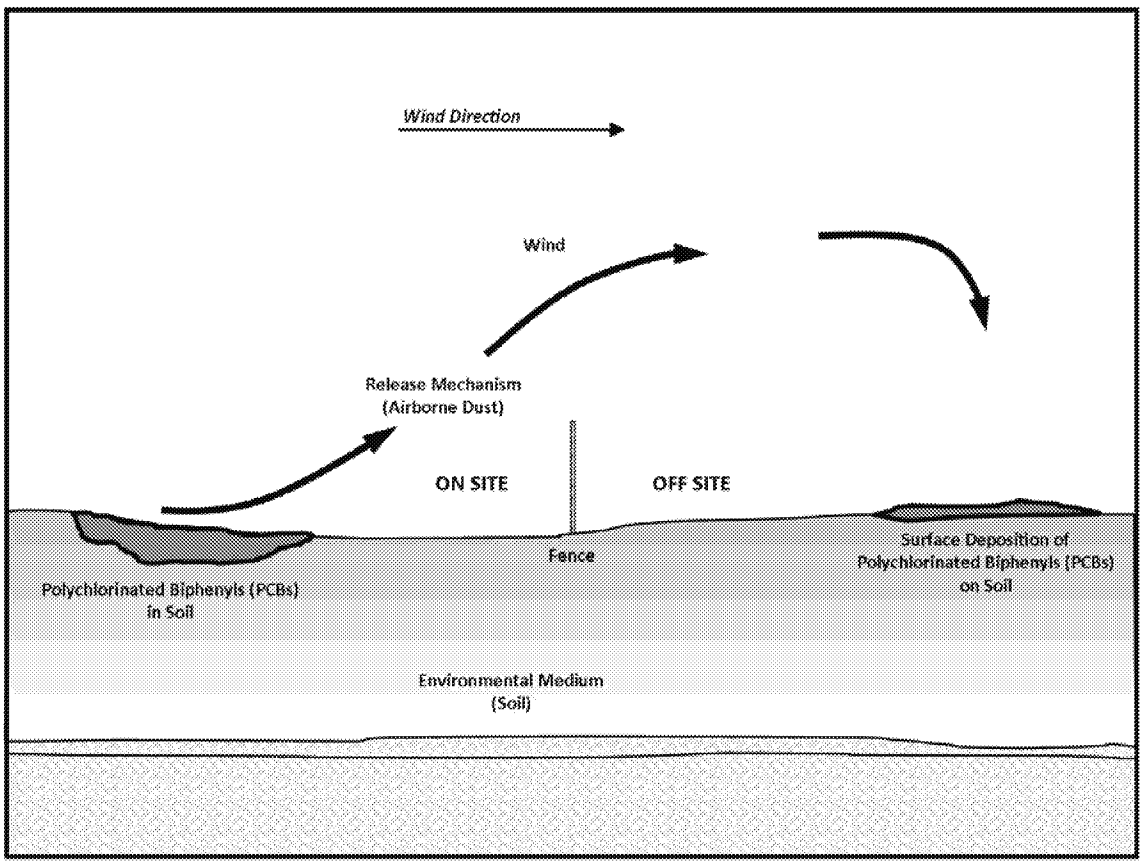

Figure 5 - Conceptual Site Model of Potential Release Mechanism

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Tables

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Table 1 Analytical Results from Test Pits

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TABLE 1
DATA SUMMARY FOR PCBs COLLECTED
FROM TEST PITS SAMPLED IN 2004

Sample	Depth	Aroclor 1254 (mg/kg)
TP82	0.5	**0.13**
TP82	2.5	0.025
TP83	0.5	0.025
TP83	2.5	0.025
TP84	0.5	0.025
TP84	2.5	0.025
TP85	0.5	0.025
TP85	2.5	0.025
TP86	0.5	0.025
TP86	2.5	**0.17**
TP87	0.5	**0.062**
TP87	2.5	**0.057**
TP88	0.5	**0.079**
TP88	2.5	0.025
TP89	0.5	0.025
TP89	2.5	0.025

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Table 2 Field Equipment Inventory Form

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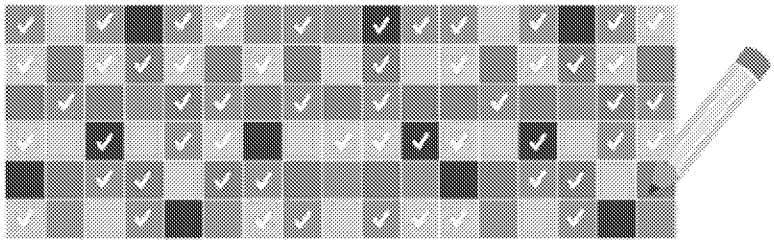

Field Equipment Form

Date

Location

Item	Quantity	
Sample Scoops		☐
Hand-Augers		☐
Handles & Rods for Augers		☐
Plastic Sheets		☐
Tape Measure		☐
Camera		☐
Field Notebook		☐
Ziplock Bags		☐
Wet Ice		☐
Paper Towels		☐
Cooler		☐
Glass Jars		☐
Sample Labels		☐
Waterproof Pens		☐
		☐

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Appendices

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Appendix A CARB Procedures to Calculate PCB Emission from Ag Park

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Appendix A

Procedures to calculate PCB emissions from the Riverside Ag Park (DRAFT)

As suggested by DTSC staff, the whole modeling period is divided into three sub-periods:

a) Prior to and during Phase 1 cleanup: 7/2003 – 7/2009, during cleanup PCB emission rate is assumed to be same as in the period prior to the Phase 1 cleanup;
b) Prior to and during Phase 2 cleanup: 8/2009 – 1/2014, during cleanup PCB emission rate is assumed to be same as in the period prior to the Phase 2 cleanup; and
c) Post Phase 2 period: 2/2014 – 9/2016, this period includes part of the Phase 3 cleanup.

Based on the original request from DTSC, this analysis considers only the windblown emissions of PCBs from the park; vapor phase emissions of PCBs are not considered. Because PCB is emitted predominately by soil erosion in the park, it is reasonable to assume that the mechanism for PCB laden dust emissions is the same as that of the total suspended particulates (TSP). There is an important difference between PCB and TSP emissions: PCB emissions are high in patches of ground-level soil where PCB contents are high, and low in locations where PCB contents are low, while TSP emissions are approximately the same throughout the park.

PCB emissions are estimated in three steps. The first step is to estimate PCB concentrations in the soil from soil sampling data. The second step is to estimate TSP emissions based on meteorological data and soil type. The last step is to multiply TSP emissions by PCB concentrations in the soil to get PCB emissions.

1. Procedures to determine PCB concentrations in the park soil

The GIS geo-data provided by DTSC indicate a non-uniform PCB distribution for the post-Phase 2, 2015-2016 sampling in the Park (see Figure 1).

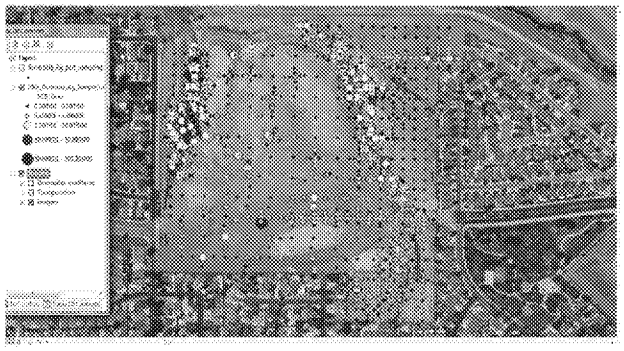

Figure 1. PCB distribution in the Park (post phase 2)

Based on the data and sampling locations shown in Figure 1, PCB concentrations in the soil will be estimated separately for five areas during each phase (see Figure 2):

Appendix A

Table 1. Five areas used for PCB emissions estimation based on the soil sampling data

Area	Size	Description
A1	~ 3.4 acres	The area having high PCB concentrations in the eastern part of the park, shown in green
A2	~ 2.3 acres	The area having high PCB concentrations near the west edge of the park, shown in blue
A3	~ 15 acres	Area cleaned up in Phase 2 but not in Phase 1, shown in [redacted]
A4	~ 15 acres	Phase 1 cleanup area, shown in yellow
A5	~ 30 acres	The remaining areas within the park with near-zero PCB concentrations, shown in white

Figure 2. The five areas used for PCB emission estimation based on post-phase 2 sampling data. The numbers are PCB concentrations. Please note only concentrations greater than 1 mg/kg are shown.

For each area and each phase, PCB concentration in the soil is assumed to be uniformly distributed.

Because A1, A2 and A5 have never been excavated, PCB concentrations are assumed to be constant during all modeling periods. Average concentrations in those three areas for all phases are estimated from the post-

Appendix A

Phase 2 soil sampling data. The following table describes how average PCB concentrations are assigned to each area for all phases.

Table 2. Estimation of average PCB concentrations in five areas

A1	A1 has not been subjected to any cleanups so far, thus the average PCB concentration for all phases can be estimated from the post-Phase 2 soil sampling data. The average concentration is estimated to be [redacted].
A2	Similar to how the concentration is estimated for A1, the average PCB concentration in A2 is estimated to be [redacted].
A3	*The entire period up and including Phase 2 cleanup* The average PCB concentration is assumed to be [redacted] because the Phase 1 cleanup area was determined to be anywhere with PCB concentrations greater than 50 mg/kg. The exact average concentration cannot be calculated from available data, so 50 mg/kg is solely based on the cleanup criterion.
	After the Phase 2 Cleanup Based on the soil sample data, the average PCB concentration is [redacted].
A4	*Prior to and during Phase 1 Cleanup* Assumptions: • The PCB concentrations outside of A3 have not changed throughout the modeling period, and the concentrations in A1 and A2 were 2.9 and 11.9 mg/kg, respectively; PCB concentration in A5 was 0.05 mg/kg. • The PCB concentration in A3 prior to Phase 1 was 7.5 mg/kg. • The average PCB concentration prior to Phase 1 for the entire park is 63.6 mg/kg. This is from a spreadsheet provided by DTSC, in the worksheet 'Summary' and the row for a sample depth of 0.5-2.5 ft. Calculations • The acreage for the entire park is 65 acres. The acreage of A3 is 15 acres. The acreage of A4 is 15 acres. The acreage outside of A3 is 35 acres. • Since we have estimates of the average PCB concentration prior to the Phase 1 cleanup for areas A1, A2, and A3, as well as for the entire park, we can now calculate the average PCB concentration in A4, which is denoted by 'X' below: $63.6 * 65 = (X * 15) + (7.5 * 15) + (2.9 * 3.4) + 11.9 * 2.3 - 0.05 * 29.3$ X = [redacted]
	Prior to and including Phase 2 Cleanup Assumption: • Each of the two cleanups reduced PCB concentrations with similar efficiency Conclusion: • The PCB concentration for A4 is estimated to be [redacted] because the average concentration

	within A4 after the Phase 1 cleanup should be about the same as the post-Phase 2 cleanup level in A3.
	After Phase 2 Cleanup Based on the post-Phase 2 soil sampling data, the average PCB concentration is [redacted] (after 2nd excavation/cleanup).
A5	A5 has not been subjected to any cleanups, because the average PCB concentrations for all phases are very small. For the baseline analysis, concentrations in A5 will be set to 0.05 mg/kg.

Note: the sampling depth for post-phase 2 data is 0 - 0.5 ft, and the depth for pre-phase 1 data is 0.5 ~ 2.5 ft.

In addition to the baseline scenario (referred to as central-tendency values) presented in Table 2, DTSC staff have requested three other scenarios for modeling. Table 3 provides PCB concentrations for all modeling periods and scenarios.

2. TSP emission rate calculations

TSP emissions are determined by the friction velocity, a micrometeorological parameter affected primarily by wind speed and secondarily by the vertical variation of temperature, and precipitation. For any hour with a measurable amount of precipitation (no less than 0.01 inch) recorded at the Riverside Municipal Airport, the TSP emission rate for that hour and the following five hours will be set to zero. For all other hours, hourly TSP emissions are calculated with a formula derived from wind tunnel soil dust measurement data (Macpherson et al, 2008, Journal of Geophysical Research, Vol. 113, F02S04):

$$E = 5.64 \times 10^{-12} u_*^{1.9744} \; in \; g/(cm^2 s)$$

where u_* is the friction velocity in cm/s (calculated from meteorological modeling). This formula, valid for an undisturbed surface, is taken from a 2008 Maricopa Co. PM_{10} Emission Inventory document. A correction factor of 100/52.3 has been applied to the formula so that the formula is valid for TSP other than PM_{10}. 52.3 is the percentage of PM_{10} in TSP for road and soil dust (US EPA, 1997, Guidance For Network Design and Optimum Site Exposure For $PM_{2.5}$ And PM_{10}, EPA-454/R-99-022).

It should be noted that methods for calculating an annual emission rate are not used here because they can't take the temporal variation of emissions into consideration. Examples of those methods include the US EPA's AP-42 and the ARB's method of estimating wind-blown dust from agricultural lands.

3. PCB emission rate calculation

As mentioned earlier, the PCB emission rate is calculated by multiplying the TSP emission rate by the PCB concentration in the soil. As such, the PCB emission rate varies hourly and by area in the park, and is determined by the friction velocity, precipitation, and PCB concentration in the soil.

Appendix A

Table 3. PCB concentrations to be used in the four modeling scenarios

Scenario 1 (central-tendency values)				
	Acres	Pre/During Phase 1	Pre/During Phase 2	Post-Phase 2
A1	3.4	2.9	2.9	2.9
A2	2.3	11.9	11.9	11.9
A3	15	7.5	7.5	7.2
A4	15	265.7	7.2	2
A5	29.3	0.05	0.05	0.05
Scenario 2 (high-end values)				
	Acres	Pre/During Phase 1	Pre/During Phase 2	Post-Phase 2
A1	3.4	2.9	2.9	2.9
A2	2.3	11.9	11.9	11.9
A3	15	25	25	7.2
A4	15	468	7.2	2
A5	29.3	0.22	0.22	0.22
Scenario 3 (maximum values)				
	Acres	Pre/During Phase 1	Pre/During Phase 2	Post-Phase 2
A1	3.4	37.0	37.0	37.0
A2	2.3	250	250	250
A3	15	50	50	500
A4	15	9650	50	95
A5	29.3	21.0	21.0	21.0
Scenario 4 (TSP only)				
	Acres	Pre/During Phase 1	Pre/During Phase 2	Post-Phase 2
A1	3.4	0	0	0
A2	2.3	0	0	0
A3	15	0	0	0
A4	15	0	0	0
A5	29.3	0	0	0

Appendix B CARB Air Dispersion Modeling Results

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Results from Riverside Ag Park PCB Air Modeling Study

The objective of the study is to assist DTSC in identifying sampling locations where windblown PCB concentrations in the soil are most likely the highest.

Air dispersion modeling was conducted to estimate the relative distribution of PCB deposited over a 13¼-year period (from July 2003 through September 2016).

Both AERMOD and CALPUFF will be used to calculate PCB deposition. Both models are recommended by the U.S. EPA for regulatory usage. They have been extensively evaluated and well documented, and have been widely used in various applications.

Surface and precipitation measurements from Riverside Municipal Airport, along with upper air radiosonde data from Miramar Naval Air Station (near San Diego), were used to generate model-ready meteorological data sets. Miramar is the closest radiosonde site to the study area with a complete set of data for the entire modeling period. Although radiosonde data are required by AERMOD and CALPUFF, the choice of upper air site do not influence the air modeling results because for this study the maximum source-receptor distance is a few hundred meters, and during the transport and diffusion processes pollutants stay near the surface. Vertical profiles of meteorological variables within a few tens of meters of the surface are determined by surface observations only.

AERMET is AERMOD's meteorological pre-processor that generates all meteorological data needed by AERMOD. The meteorological field for AERMOD is horizontally uniform but vertically variable to reflect the vertical variations of meteorological variables such as wind shear. The CALPUFF model needs a 3-dimensional meteorological field to calculate transport and diffusion of the pollutants of interest. The 3-D meteorological data for CALPUFF are generated by CALMET, CALPUFF's companion model.

Since PCBs are emitted predominantly by soil erosion in the park, it is reasonable to assume the mechanism of PCB emissions is the same as that for total suspended particulates (TSP). However, there is an important difference between PCB and TSP emissions: PCB emissions are highest in areas where PCB concentrations are high, and lower in areas where PCB concentrations are low, while TSP emissions are approximately the same everywhere in the park. A detailed description of the steps to calculate emissions follows.

The entire modeling period is divided into three phases:

a) 7/1/2003 to the end of the 2009 clean up;
b) The period between the end of the 2009 cleanup and the end of the 2013/14 cleanup; and
c) From the end of the 2013/14 cleanup period to September 2016.

The temporal variation of PCB emissions is determined by wind speed and precipitation:

- In any hour during which a measurable amount of precipitation (no less than 0.01 inch) is recorded at the Riverside Municipal Airport, PCB emission in that hour and the following five hours is set to zero;
- In any hour during which a trace amount of precipitation is recorded, PCB emission is set to zero for that hour alone;
- In all other periods the hourly PCB emission rate is determined by wind speed because PCB emissions are assumed to be caused by soil erosion.

Due to the many uncertainties associated with this study, and with the objective of assisting subsequent sampling efforts, the air dispersion modeling results are presented in a normalized manner. That is, if the model results show that the estimated level at point A is higher than that at point B, then it is likely the measured level of windblown PCB deposition at point A is higher than that at point B. The result generated with the present air dispersion modeling is intended solely to provide an indication where the highest PCB levels due to windblown dust are likely to be found.

In the modeling, properties of PCBs are treated the same as those for TSP (total suspended particles) because PCB-laden soil particles are the carrier of PCBs.

CALPUFF and AERMOD modeling results are shown as follows.

The overall agreement between the CALPUFF and AERMOD modeling results for PCB deposition totals is good, with the exception that CALPUFF results do not have the high deposition levels on the lower half of the west boundary of the park.

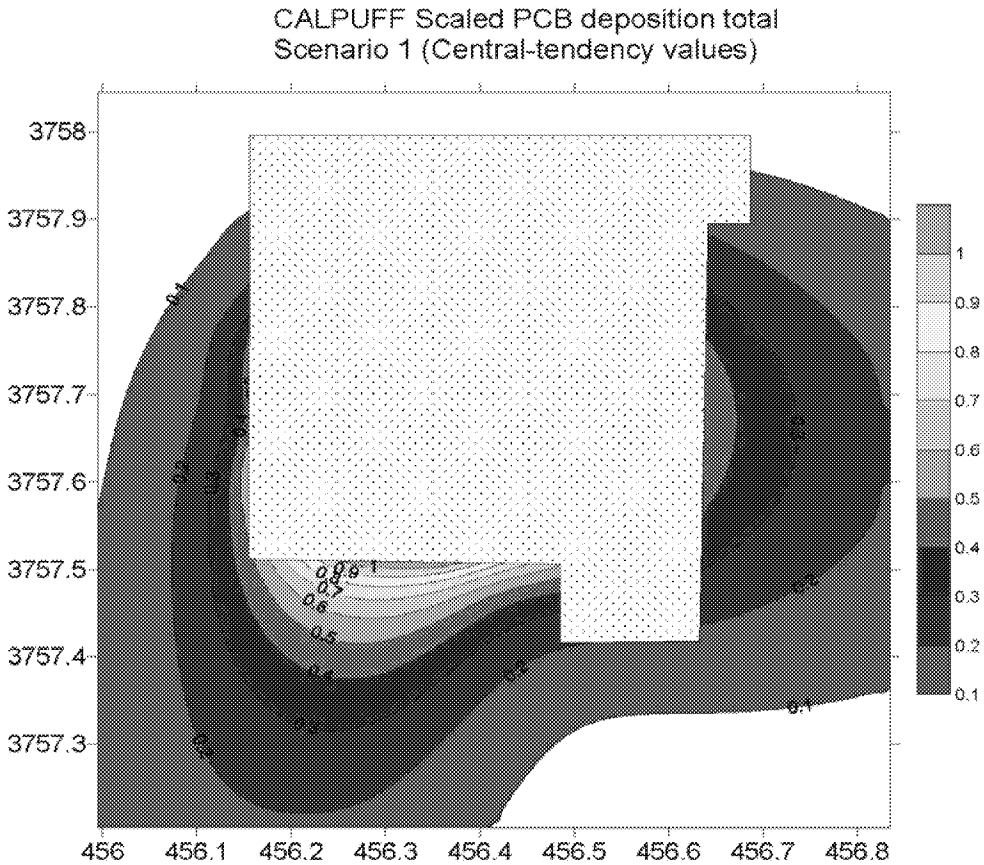

Figure 1A. Normalized (relative) distribution of PCB deposition from windblown dust obtained from CALPUFF modeling of Scenario 1. Coordinates along the x- and y-axis are UTM coordinates (km).

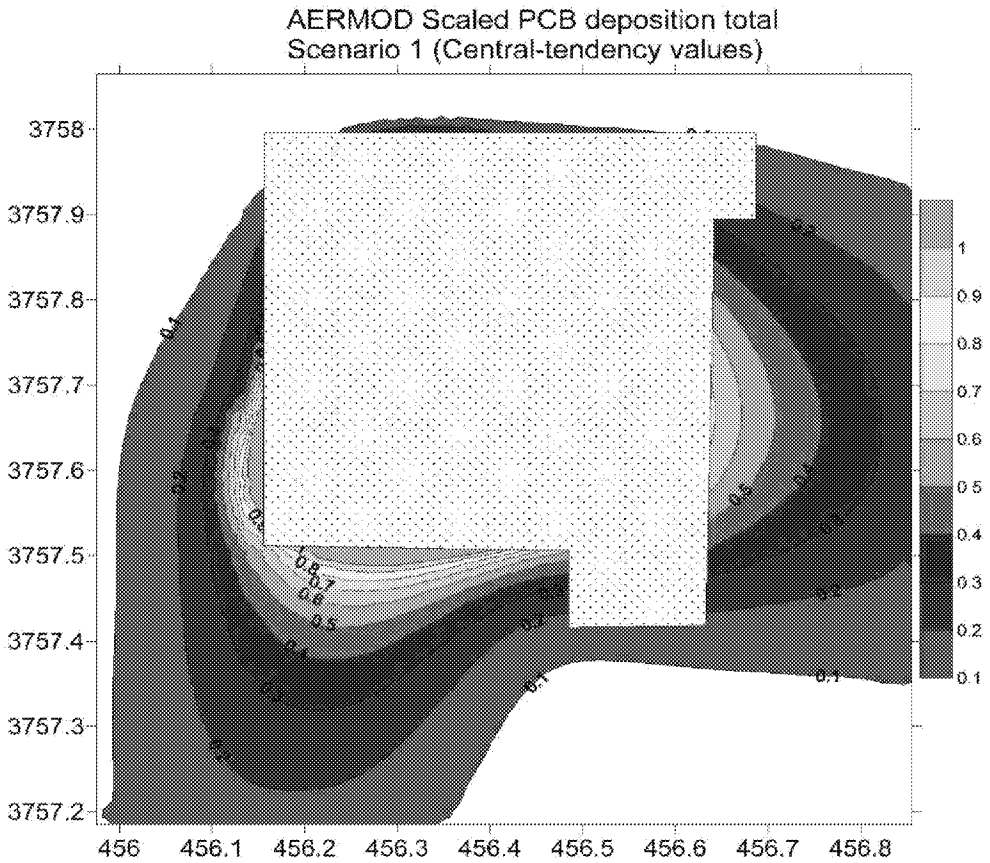

Figure 1B. Normalized (relative) distribution of PCB deposition from windblown dust obtained from AERMOD modeling of Scenario 1. Coordinates along the x- and y-axis are UTM coordinates (km).

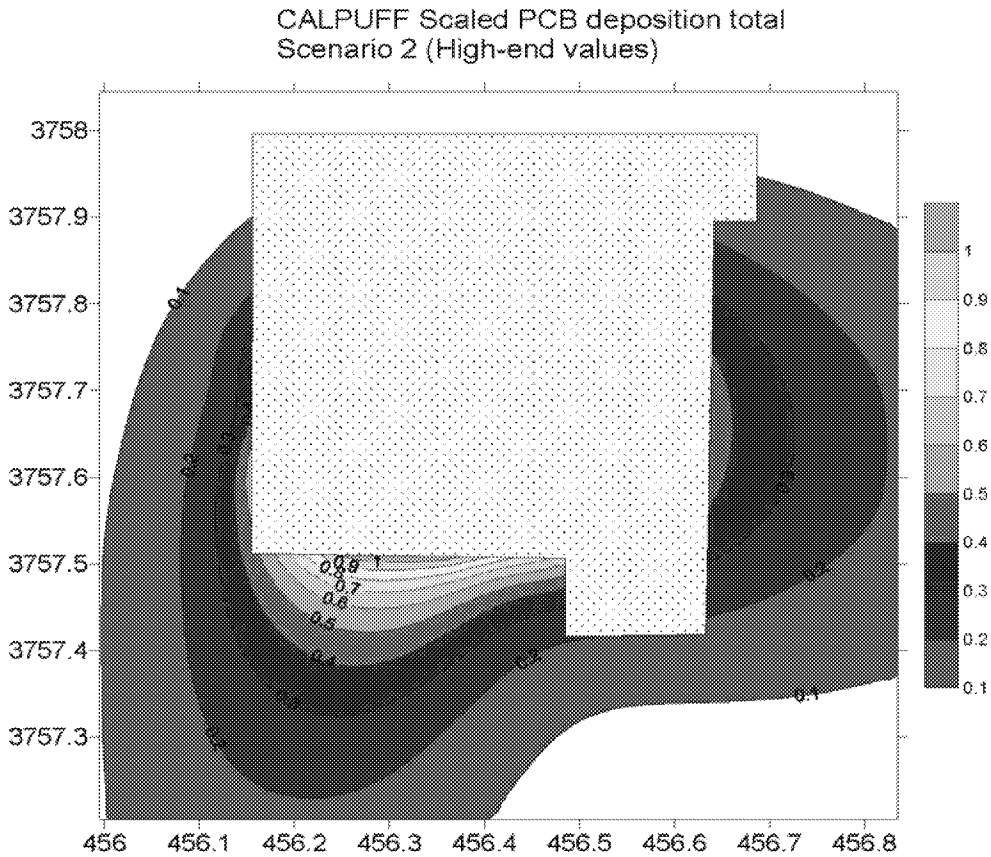

Figure 2A. Normalized (relative) distribution of PCB deposition from windblown dust obtained from CALPUFF modeling of Scenario 2. Coordinates along the x- and y-axis are UTM coordinates (km).

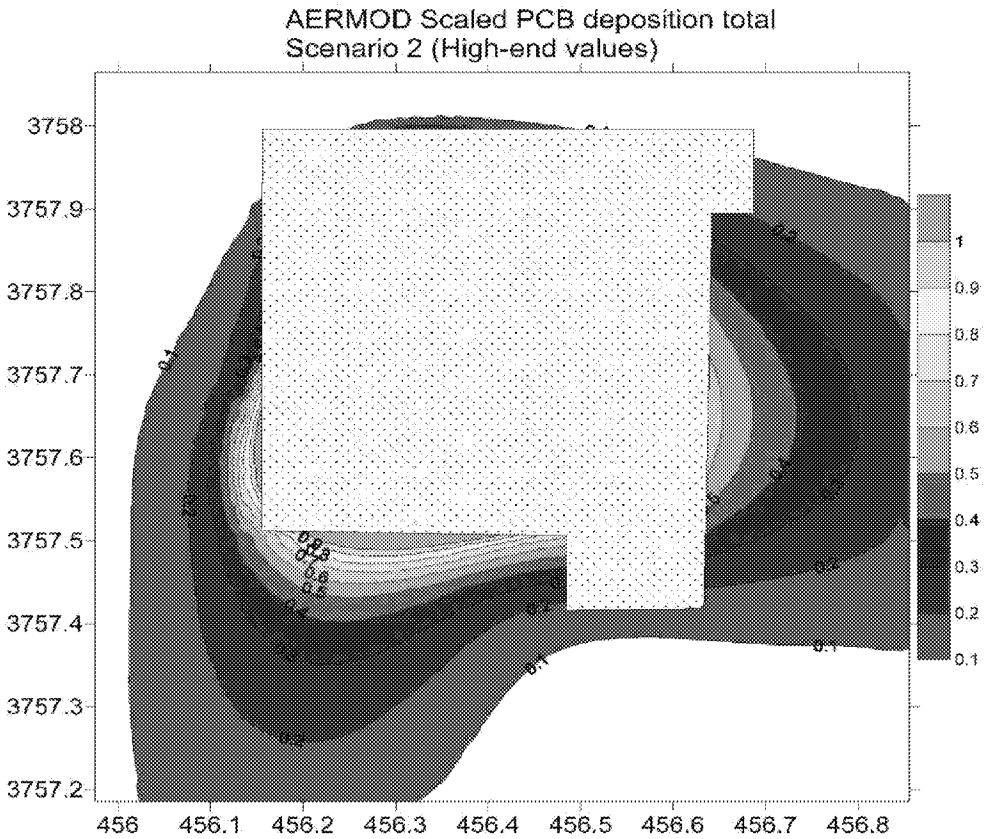

Figure 2B. Normalized (relative) distribution of PCB deposition from windblown dust obtained from AERMOD modeling of Scenario 2. Coordinates along the x- and y-axis are UTM coordinates (km).

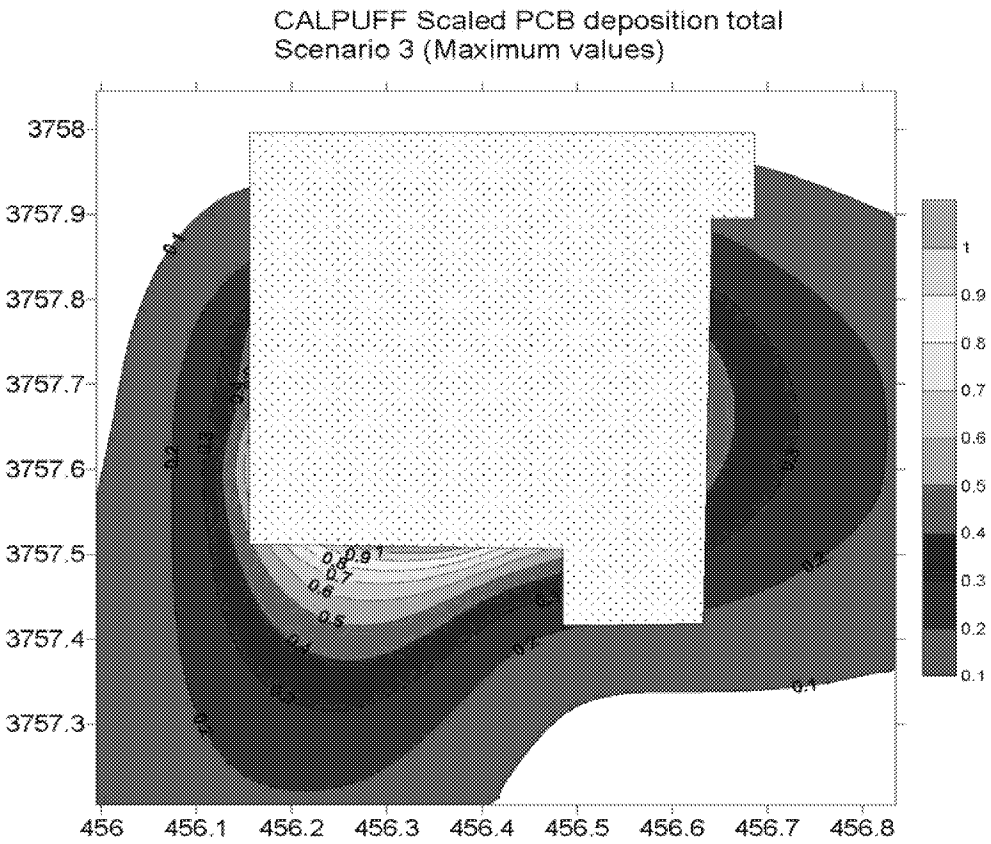

Figure 3A. Normalized (relative) distribution of PCB deposition from windblown dust obtained from CALPUFF modeling of Scenario 3. Coordinates along the x- and y-axis are UTM coordinates (km).

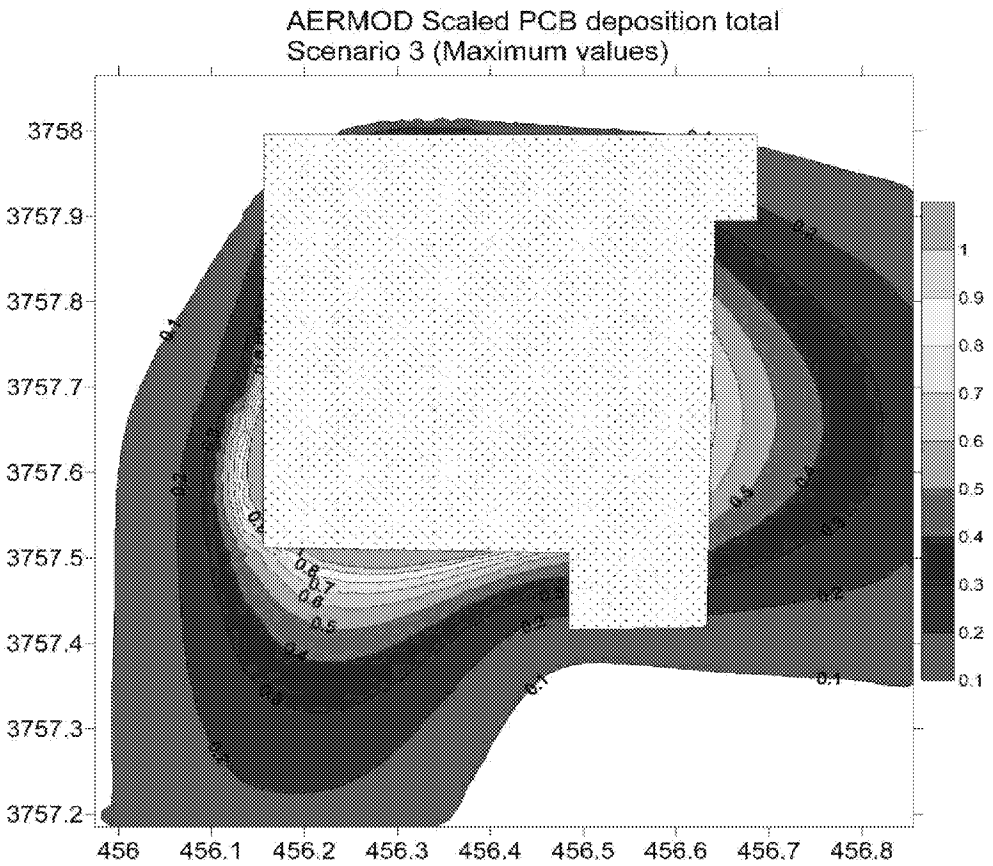

Figure 3B. Normalized (relative) distribution of PCB deposition from windblown dust obtained from AERMOD modeling of Scenario 3. Coordinates along the x- and y-axis are UTM coordinates (km).

Appendix C Hazard Appraisal and Recognition Plan

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State of California – California Environmental Protection Agency | Department of Toxic Substances Control

HAZARD APPRAISAL AND RECOGNITION PLAN PRESITE VISIT FORM

Original Pre- and Post HARPs must be submitted within 5 working days of site visit. Please retain a copy for your file.

SECTION A. FIELD TEAM

Prepared by: Greg Sweel
Date: 4/24/2017
Phone: (714) 484-5413

	Name	DTSC Employee #	Unit/Agency	Responsibility (Lead, Field Staff, SSO)
1.	Greg Sweel	10832	BERP	SSO
2.	Amit Pathak	11189	BERP	Lead
3.				
4.				
5.				
6.				

It is incumbent upon the supervisor to verify field eligibility

SECTION B. SITE DESCRIPTION

Site Name: Riverside Neighborhood Evaluation
PCA #: 11025 Project #: ____ WP: ____ MPC: ____
Address: Various residential properties near Jurupa and Rutland Avenue
City: Riverside State: CA Zip: 92503
Site Phone No: ( )
Has DTSC visited site before? ☐ Yes, when: ____ ☒ No

NOTE: Attach Map of Site and Directions to Hospital

Contact Person:
Type of Operation/Waste Stream (Describe): Residential area

Purpose of Visit (Describe): Collect shallow soil samples.

Site Visit Date (s): May 1, 2017 - April 30, 2018
Estimated Time on Site: Hours/Day: 8 Days: 15
Nearest Hospital: Kaiser Permanente Riverside Medical Center
Address: 10800 Magnolia Avenue
City: Riverside State: CA Zip: 92505
Phone #: (951) 353-2000

SECTION C. NUMBER OF SAMPLES TO BE COLLECTED

Samples to be collected by: ☒ DTSC ☐ Contractor

Air:		Surface Impoundment:	
Drum (s):		Surface Water:	
Groundwater:		Tank (s):	
Soil/Sediment:	168	Waste/Sludge:	
Sump/Pit:		Indoor Air:	
Soil Vapor:		Other:	

SECTION D. POTENTIAL HAZARDS

1. Chemical Hazards
☐ Carcinogens:
☐ Corrosives:
☐ Developmental Health Hazards (Teratogen):
☐ Explosives:
☐ Dusts:
☐ Flammables:
☐ Inorganic Vapor Gases:
☐ Metals:
☐ Oxidizers:
☒ PCBs: PCBs
☐ Pesticides:
☐ Reproductive Health Hazards:
☐ Skin Absorption:
☐ Solvents:

2. Physical Hazards
☐ Confined Space (Source:)
☒ Heat or Cold Stress (Expected (Temp: °F)
☐ Machinery/Construction:
☐ Noise (Source/Decibels):
☐ Oxygen Deficiency:
☐ Radioactive Materials:
☒ Biohazards: Dogs, cats, etc
☐ Other (specify):

(*Use this space to describe hazards*):

SECTION E. BASIC INFORMATION ON POTENTIAL HAZARDS

(Attach copies of HARP Chemical Data Sheets or other appropriate information as suggested in instructions.)

SECTION F. EXPOSURE CONTROL METHODS

☐ Engineering (E) ☒ Administrative (A) ☒ Work Practices (WP)

Describe: Adjust work time to avoid heat. Take breaks and remain hydrated. Protect skin from sun exposure. Use appropriate PPE and prevent contact with soil. Be aware of houshold pets/animals and work with residents, as appropriate, to ensure pets/animals are secured while staff is working on-site.

SECTION G. REQUIRED PERSONAL PROTECTIVE EQUIPMENT

Level of Protection: ☐ B ☐ C ☒ D

Gloves (s) Outer = O, Inner = I
☐ Cotton/Vinyl
☐ Silver Shield/4H
☐ Neoprene
☒ Nitrile
☐ Grip/Glove/Kevlar (when needed)
☐ Viton
☐ Other (specify):

Suit:
☐ Kleenguard
☐ Tyvek
☐ Tychem QC
☐ Tychem SL
☐ PVC

Respirator: ☐ A/P Cartridge: ____ ☐ SCBA ☐ Escape
Change-out Schedule:

Other Safety Gear:
☐ Boot Covers ☐ Hearing Protection ☐ Plugs ☐ Muffs
☒ Boots ☒ Eye Protection ☒ Safety Vest
☐ Hard Hats ☐ Cooling Vest ☐ Other:

SECTION H. SURVEY EQUIPMENT

☐ Combustible Gas/Oxygen Meter
☐ Photoionization Detector
☐ Flame Ionization Detector
☐ CMS Chip (specify):
☐ PAC III Sensor:
☐ Other (specify):
Action Levels:
☐ Radiation Meter
☐ Aerosol/Particle Monitor
☐ Noise Dosimeter
☐ Heat Stress Monitor

SECTION I. OTHER HYGIENE AND SAFETY EQUIPMENT

Available On Site	Bring	
☐	☐	Canopy/Tarp/Umbrella
☐	☒	Drinking Water
☐	☐	Shower/Eye Wash
☐	☐	Fire Extinguisher
☐	☒	First Aid Kit
☐	☒	Plastic Sheeting/Buckets/Bags

SECTION J. PERSONAL MONITORING

Do You Need Industrial Hygiene Monitoring? ☐ Yes ☒ No

SECTION K. REVIEW/APPROVAL

Industrial Hygienist (Review) — Date: 4/26/17
Supervisor (Approval) — Date: 05/01/2017
Supervisor (Approval) — Date:

DTSC 1031 (06/02/2010)
(Formerly DHS 8299 A)

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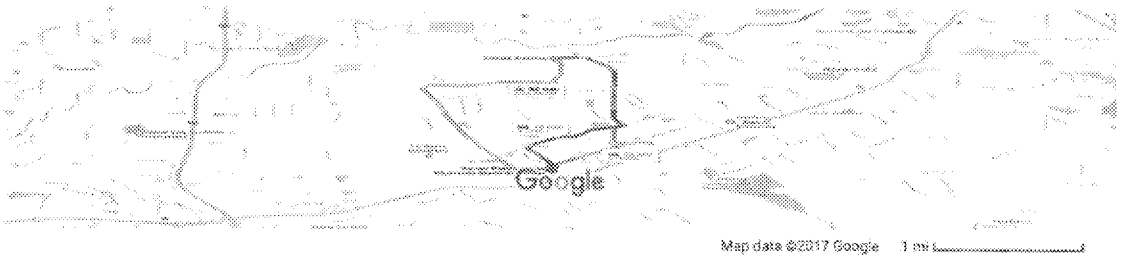
Jurupa Ave, Riverside, CA 92503 to Kaiser Permanente Riverside Medical Center - Google Maps Page 1 of 2

Google Maps Jurupa Ave, Riverside, CA 92503 to Kaiser Permanente Riverside Medical Center Drive 5.4 miles, 16 min



Jurupa Ave
Riverside, CA 92503

1. Head east on Jurupa Ave toward Bradford St

1 min (0.4 mi)

Follow Van Buren Boulevard and California Ave to Polk St

11 min (4.0 mi)

2. Turn right onto Van Buren Boulevard

2.4 mi

3. Turn right onto California Ave

1.5 mi

4. Continue onto Collett Ave

0.1 mi

Continue on Polk St to your destination

4 min (1.0 mi)

5. Turn left onto Polk St

0.7 mi

6. Turn right

253 ft

7. Continue straight

0.1 mi

8. Keep left
   Destination will be on the left

394 ft

Kaiser Permanente Riverside Medical Center
10800 Magnolia Ave, Riverside, CA 92505

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

https://www.google.com/maps/dir/33.9580802,-117.4688566/Kaiser+Permanente+Riverside+Medical+C... 4/24/2017

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Appendix D Response to Comments Table

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Comments Received During Public Meeting	
COMMENT	RESPONSE
1. I have lived here since 1994. I started feeling sick in 1996. Out of breath, pain throughout my body, headaches, and a lot of stress. My 5 children were raised in the home. They have health problems. My son feels very tired all the time. My daughter has thyroid problems.	1. DTSC has forwarded your health concerns to the California Department of Public Health (CDPH). CDPH staff is evaluating potential exposures and health concerns in the vicinity of the Riverside Ag Park under a cooperative agreement it has with the federal Agency for Toxic Substances and Disease Registry (ATSDR). CDPH's investigation is being conducted in response to a petition submitted to ATSDR by the City of Riverside. We are hopeful that the CDPH can assist you with understanding the situation.
2. Our property is adjacent to the AG Park and has the widest swatch of land of any of the other properties because we are at the wide part of the cul-de-sac, and when the wind blows, our backyard is inundated with tumbleweed, indicating that dust from Ag Park is also blowing in which we can also tell by the amount of dust inside the house. When our backyard is tested, could the 2 raised gardens, especially, be tested. Currently our gardening is on hold due to fear of contamination. But also, please test around the orange tree and other citrus trees and at the rosemary bush at porch.	2. We will schedule a site visit with you to evaluate potential sample locations on your property, and will evaluate the particular areas you are concerned about.
3. I believe that the area you will be testing and taking samples from needs to be broadened. It need to cover a very large area. At least to Van Buren to the east and Tyler St. to the West. The Elementary School should also be tested, as well as the Field at the High School. Norte Vista High School their track and field was under construction at the time of the Airborne contamination. Also, the poket park in the neighborhood near Astoria Ave., needs to be teste4d. As well as the corner property on Van Buren, which is also slated to have houses built in the near future.	3. The Neighborhood Sampling Plan is based on the likelihood of PCB dispersion, using a scientific approach. Additional properties may be added if initial sampling indicates a widespread problem exists.
4. In 2003, I drove down Van Buren twice every day to work and there was so much	4. The purpose of the Neighborhood Sampling plan is to determine if PCBs were dispersed to surrounding properties by wind action. The sampling is being

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dust It blanketed all lanes and was so thick it would fill my car with dust so much you could taste it. 2003 – 2004 were the years I drove down Van Buren.	completed to determine if dust originating from the site contained PCBs and, if so, in high enough concentrations to potentially impact human health.
5 You could smell the toxic spill from Tyler St., when it happened. You did not take 4000 samples at deep enough in depths in 2004 - & -. What 4 residential homes did you test & How many samples and what were the depths? "16 not enough". Chronic asthma, allergies, living on aspirin for headaches for years, skin rashes, wake up from not breathing (i.e. machines) nothing growing yards. Dogs dying. All from living by Ag Park. Kids used to ride bikes & comeback w/ rashes after digging in dirt building ramps.	5. The four residential properties are shown on Figure 4 in the draft Neighborhood Sampling Plan. These properties, bordering the southern side of the Agricultural Park Site, were tested by an environmental consultant in 2004, prior to DTSC involvement with the project. A total of 16 samples were collected from depths up to 2.5 feet below ground surface. These same four residential properties are included in the 30 properties that DTSC is proposing to collect samples, as described in the Neighborhood Sampling Plan. DTSC has forwarded your health concerns to the California Department of Public Health (CDPH). CDPH staff is evaluating exposures and health concerns related to the Riverside Ag Park under a cooperative agreement it has with the federal Agency for Toxic Substances and Disease Registry (ATSDR). CDPH's investigation is being conducted in response to a petition submitted to ATSDR by the City of Riverside. We are hopeful that the CDPH can assist you with understanding the situation.
6. More properties should be sample(tested). I would like to have my property sample. The sampling should be deeper. There should be sampling in my opinion from all around the areas; around this site.	6. The focus for the Neighborhood Sampling is on surface samples in close proximity to the Riverside Agricultural Park Site, because that is the area of highest likelihood of exposure to human receptors. The sampling strategy is to begin with the properties that are most likely to have potential for deposition of PCBs. Additional sampling may be needed based on sample results. The Neighborhood Sampling Plan describes the proposal to collect soil samples from 30 properties and includes the rationale for selecting the properties. Based on an evaluation of the initial sampling results, additional properties may be included.
7 Why are my animals dying? Why is my sister not able to have kids? Why are there tumors on & in stomach. Why does my grass & worms in dirt grown in the dark? Why are my kids always sick? We need answers.	7. DTSC has forwarded your health concerns to the California Department of Public Health (CDPH). CDPH staff is evaluating exposures and health concerns related to the Riverside Ag Park under a cooperative agreement it has with the federal Agency for Toxic Substances and Disease Registry (ATSDR). CDPH's investigation is being conducted in response to a petition submitted to ATSDR by the City of Riverside. We are hopeful that the CDPH can assist you with understanding the situation.
8. Concern as to goals a priori.	8. The intent of the commenter is unclear. For any information related to the Ag Park, please refer to www.dtsc.ca.gov/AgPark. For information on the Neighborhood Sampling Plan, please access the link below: https://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60002460.
9. The property surrounding the Ag Park should not be above zero for Aroclor 1248. Aroclor 1248 is not used in electrical transformer oil but was especially used by Rohr, a discharger, to	9. Common Uses of Aroclor 1248 included hydraulic fluids, additives to rubbers, synthetic resins and adhesives that were manufactured prior to 1980. Due to their prevalent uses in the past, Aroclor 1248 and other PCB compounds have been found at low levels in the environment in accordance with the Agency for Toxic Substances and Disease Registry (ATSDR) and the United States

the sewer treatment plant. The responsible party should be required to clean up the residential properties offsite to non-detect At a minimum, sample analysis over .078 mg/kg should require additional samples to fully evaluate each residential property	Environmental Protection Agency (USEPA). Thus, the Sampling Plan proposes to compare PCB sampling results with the Screening Level of 0.22 mg/kg for residential soil as referenced in Neighborhood Sampling Plan. Please note that DTSC no longer uses the California Human Health Screening Level (CHHSL) of 0.089 mg/kg as it was based on an outdated cancer slope factor, which has since been revised by the California Office of Environmental Health Hazard Assessment (OEHHA http://www.oehha.ca.gov/tcdb/index.asp).
10. 1) Entire Ag Park site must be retested and using elevations back from before digesters were broken open and test based upon, historic elevations, sludge ponds, result of ground penetrating radar to disclose cans of toxins buried there by city employees and who knows, else dumped toxins there. Since then dirt has been moved around sit, moved together and moved offsite. 2) Testing should not just be soil, but should include testing housing. Slides contained extensive misinformation and omissions. 3) On page 3, "DTSC's Site Mission is to protect public health and the environment from harmful effects of toxic substances by restoring contaminated resources" well DTSC has not met this mission as 54 people and 45 animals are DEAD, . cleanup -so called- has been dragged out for years and the site is NOT cleaned up. 4) A dirt has been moved around the site or an ongoing basis sampling is meaningless, since bad areas can be covered in feet of clean dirt, or bad dirt moved around and mixed. 5) Wind has blown dirt beyond the adjacent properties, topography is not taken into consideration. The fact that	10. Thank you for your comments. 1) This comment does not pertain to the Neighborhood Sampling Plan; for detailed information on the historical and current work conducted at Ag Park, please refer to www.dtsc.ca.gov/AgPark. The Ag Park was re-sampled in September 2015, November 2015 and in March 2016. The Phase 3 cleanup process, which is currently underway, also includes confirmation sampling of the soil and daily air sampling. 2) The sampling strategy described in the Neighborhood Sampling Plan is to collect samples in the locations with the highest likelihood of PCB deposition from wind. Thus, 30 properties located closest to the Riverside Agricultural Park Site are selected. 3) DTSC has forwarded your health concerns to the California Department of Public Health (CDPH). CDPH staff is evaluating exposures and health concerns related to the Riverside Ag Park under a cooperative agreement it has with the federal Agency for Toxic Substances and Disease Registry (ATSDR). CDPH's investigation is being conducted in response to a petition submitted to ATSDR by the City of Riverside. We are hopeful that the CDPH can assist you with understanding the situation. 4) This comment does not pertain to the Neighborhood Sampling Plan; for detailed information on the historical and current work conducted at Ag Park, please refer to www.dtsc.ca.gov/AgPark. DTSC has determined that both the additional sampling that has already been conducted, and the sampling that is currently being conducted to support the Phase 3 cleanup, provide information that is vital to the evaluation of the Ag Park. 5) The air dispersion modeling considered air data from 2003 through 2015. The wind velocity, directions and onsite PCBs data along with other parameters were included in the modeling exercise, and topography was

the dirt was stacked over block walls and blown directly over the fences. Areas beyond the chain link fences where wind blows basically unimpeded are not being tested. Wind changes direction and blows strongly in both directions at a minimum, not just one direction. Old data used as a basis for wind/offsite sampling may be from....biased sources.	considered. Additionally, DTSC is aware of a stockpile of soil that we believe was placed there during recent construction and was not related to the cleanup activities. Nonetheless, because of uncertainty associated with the stockpile, certain properties scheduled to be sampled were added specifically to address this concern.
6) Toxic contamination on site includes sewage ponds, Rohr military waste, PCB and numerous other heavy metals and more including one toxin that can rise through soil and cement foundations of new homes and negatively impact health of new homeowners that may live there.	6) Although this comment does not pertain to the Neighborhood Sampling Plan, extensive investigation and excavation has occurred at the Riverside Ag Park site. The excavation activities at the Riverside Ag Park site are expected to be completed by mid-June, and a full report available by the end of summer.
7) The developer/builder that was advertising home in the Ag Park Site SOLD at least one site to a man who was lead to believe he was going to have a safe new home. HOW COULD DTSC give out information that Ag Park was cleaned up which caused harm to citizens who later bought a home site?	7) This comment is not related to the Neighborhood Sampling Plan. DTSC is not aware of any homes being sold at the Ag Park, and there are no homes on the Ag Park property at this time. For more information on the previous cleanup actions at the Ag Park, please refer to www.dtsc.ca.gov/AgPark.
8) DTSC is dishonest. No info offsite testing has been presented, before today, yet today March 23, 2017, we are told there is a 30 day comment period BUT comments close on or before April 7 that is only 15 days away. 15 days is insufficient. AG PARK SITE STATUS SLIDE LIES	8) DTSC conducted extensive community involvement prior to completing the draft Neighborhood Sampling Plan. In June 2016, DTSC established a community work group and held three community meetings to provide early understanding of its intent to the local community and to solicit feedback. Five meetings were held with the community work group and the plan was adjusted to meet community concerns. When the draft plan was ready for general public input, DTSC mailed out over 3,000 flyers to properties surrounding the Agricultural Park Site. The flyer noted the start of the 30-day comment period. The Community Meeting held on March 23rd was in the mid-point of the comment period, as is typical for community meetings.
9) "No significant risk of exposure to the community from contamination on the Ag Park Site as it sits today". This is a lie 54 neighbors and 45 dogs/animals are dead.	9) DTSC has forwarded your health concerns to the California Department of Public Health (CDPH). CDPH staff is evaluating exposures and health concerns related to the Riverside Ag Park under a cooperative agreement it has with the federal Agency for Toxic Substances and Disease Registry (ATSDR). CDPH's investigation is being conducted in response to a petition

	submitted to ATSDR by the City of Riverside. We are hopeful that the CDPH can assist you with understanding the situation.
10) "In its current condition, the Ag Park is suitable for uses other than residential development". Oh? How is that, when people are dying from illnesses known to be associated with the PCBs, heavy metals, etc… associated with Ag Park Site.	10) Please note that Human Health Risk Assessment (HHRA) is a scientific process used by toxicologists and other scientific experts to estimate the nature and probability of adverse health effects in people who may be exposed to contamination. The HHRA considers different media such as soil, soil gas or groundwater, in the present or in the future. To help you better understand the process of calculating risk, please refer to US EPA's website on Human Health Risk Assessment at https://www.epa.gov/risk/human-health-risk-assessment. For further information related to the Ag Park, please refer to www.dtsc.ca.gov/AgPark.
11) "The Ag Park Site developers, FRA, is in the site preparation and cleanup process due to its planned residential use". Friends of Riverside Hills (Chuck Cox) has paid $40,000 to DTSC to help them say the site is ok to develop or something on that order. Cox's hired folks are the ones that broke into the digester. Cox sold site to at least one person knowing site was contaminated.	11) Our sincere sympathy towards anyone who is feeling unwell, and we are hopeful that the California Department of Public Health (CDPH) can assist the community with understanding the situation.
12) Spanish speaking lady is saying how Ill her family is. Something in air makes her sick, feel tired outdoors. First time I heard about Ag Park. Fibromyalgia (?)	12) DTSC has forwarded your health concerns to the California Department of Public Health (CDPH). CDPH staff is evaluating exposures and health concerns related to the Riverside Ag Park under a cooperative agreement it has with the federal Agency for Toxic Substances and Disease Registry (ATSDR). CDPH's investigation is being conducted in response to a petition submitted to ATSDR by the City of Riverside. We are hopeful that the CDPH can assist you with understanding the situation.
13) Someone said Chuck Cox admitted CUT DIGESTER open, through it was illegal to do so. Yet the….	
14) Ag Park and DTSC	
Other Comments Received Via E-mails and One Spanish Comment	
11. I am aware of the first round of testing will be done to 30 homes around the site. But I have a one year old and I would like	11. You may contact a licensed environmental contractor of your choosing to test your property.

my property to be tested. I was wondering is it possible to pay out of pocket for that testing?	
12. I would like to be added to your mailing list A day or two before this meeting my sister informed me that she had been watching the news and saw something about some kind of contamination spill that took place in the area where I live. In addition, she told me that it is alleged that a lot of people have gotten cancer and other serious illnesses from it and that many have even lost their lives. Furthermore, a number of animals have also died. Imagine the fear and anger that I felt having lived in a home for nearly three years with no knowledge of any of this. The sudden news of all of this changed how I felt about being a first time home owner. The pride that I carried with me in finally attaining a piece of the American Dream was no longer as strong. To be honest, in an instant my home no longer even looked or felt quite the same to me. My plan had never been to stay in this house forever, but I had always hoped to be able to leave on my own terms. Prior to attending the meeting I still held out hope that this situation wasn't really as bad as the news that I had gotten from my sister, and that maybe even the upsetting information that I read online would turn out to not apply to my address. Well, that meeting did nothing to calm my fears. If anything, I am even more worried. I no longer open my windows as wide as I used to, and on windy days I just want to come and go from outside as quickly as possible for fear of breathing in too much	12. You have been added to our mailing list. In addition, DTSC has forwarded your health concerns to the California Department of Public Health (CDPH). CDPH staff is evaluating exposures and health concerns related to the Riverside Ag Park under a cooperative agreement it has with the federal Agency for Toxic Substances and Disease Registry (ATSDR). CDPH's investigation is being conducted in response to a petition submitted to ATSDR by the City of Riverside. We are hopeful that the CDPH can assist you with understanding the situation.

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contaminated dust. Believe me, I could go on, but since this is an email I will end it by saying that no one anywhere should have to live with this kind of uncertainty and to say that I would like to have the soil in my yard tested. Thank you	
13. My suggestions and concerns are as follows: when a truck is carrying the dirt out I have noticed that they do not cover it with a canvas. I want them to use it so they do not pollute the city anymore, I want them to take evidence of the whole neighborhood too. In my house, when my wife cleans there is a lot of fine dust, my whole family has allergies, my wife and I were diagnosed with thyroid in the throat and my son has asthma and my suggestion is that they will also take samples of the dust that is in my house. Since we moved to Riverside my whole family got sick, in 2003 my wife had a seizure and I was about to lose my daughter since she was pregnant. NOTE: instead of fighting with each other, why don't you seek a solution? since all the meetings I've been in are always the same. Please cover trucks with canvas so they do not pollute the environment anymore	13. DTSC has forwarded your health concerns to the California Department of Public Health (CDPH). CDPH staff is evaluating exposures and health concerns related to the Riverside Ag Park under a cooperative agreement it has with the federal Agency for Toxic Substances and Disease Registry (ATSDR). CDPH's investigation is being conducted in response to a petition submitted to ATSDR by the City of Riverside. We are hopeful that the CDPH can assist you with understanding the situation. Your comment relates to the investigation and excavations occurring at the Ag Park Site. All trucks leaving the Ag Park with excavated soil have been covered by a tarp. They follow a rigorous process to mitigate the spread of dust. This includes cleaning of the tires, all the trucks are covered with a tarp prior to exiting the Ag Park, and a street sweeper is used when trucks exit. DTSC monitors this effort to ensure that these protocols are enforced. If there is ever a situation where you see a truck leaving the Ag Park property and it is not covered, please call DTSC's dust complaint phone number at (714) 334-0624. For more information on the dust protection protocols that are in place for the Ag Park cleanup, please refer to DTSC's August 2016 Approval to Implement Additional Cleanup Activities Under the 2006 CLRRA Response Plan, which can be found on the main page of www.dtsc.ca.gov/AgPark under Latest News section. For more information related to the Ag Park or a truck related concern, please refer to www.dtsc.ca.gov/AgPark.
Response to Comments Received via Mail on April 6, 2017	
14. Why isn't Mr. Nazemi addressing this issue? He would know. Dust monitoring logs indicate differential PM10 levels ranging from 51.0 ug/m3 to 275.3 ug/m3 for 13 days covering the period from July 2013 – Jan 2014. This exceeds the maximum health level of 50 ug/m3 for PM 10 set by AQMD rule 403 thus causing the contamination of	14. This comment pertains to the Riverside Agricultural Park site rather than to the Neighborhood Sampling Plan. South Coast Air Quality Management District provided support to DTSC with regards to the approved air monitoring, and DTSC deferred to their expertise in this matter. Many of the questions regarding the historical air monitoring have been addressed, in particular, please refer to the July 28th DTSC letter to Mr. Bruce Bailey "Response to E-mail questions dated 4-11-16 reg Riv Ag Park-Mr Bailey.pdf" and the August 4th DTSC letter to Ms. Penny Newman "RiversideAgPark_ResponseToCCAEJ_Letters_08.04.16.pdf" , both of which can be found on the EnviroStor database at www.dtsc.ca.gov/EnviroStor. For any more information related to the Ag Park,

adjoining residential property and injuring the lungs of residents. DTSC needs to report this AQMD rule 403 violation. "Riverside city disposal site for excavated sidewalks and (to AQMD) roadways". Needs to advise SCAQMD and submit "AQMD Rule 1150". Excavation management plan as the "AQMD Rule 1150" requires a permit. The action level plan sent stated PCB contamination of a PM 10 of 7 ug/m3 above which indicates elevated PCBs in the Air. SCAQMD need to approve mitigation measures. If homes are not to be built on the AG Park Site it needs to be cleaned to "NON-DETECT". PCBs are persistent, bio accumulative and identified by IRAC as a human-carcinogen. I am asking the DTSC to please acknowledge AG Park as a Superfund site connected with ROHR Industry (BF Goodrich) site as the source of contamination. This must be done in order to achieve a more comprehensive remediation approach for the community. Also, the DTSC should be testing nearby neighbor's properties outside as well as insidetheir homes. The residents of the properties you have agreed to test need their attics and ducting (ac/heating) tested in addition to soil samples. The contamination was airborne therefore vents in homes need to be cleaned.	please refer to www.dtsc.ca.gov/AgPark.
15. If so much contaminated soil was removed from this site, was the removal procedure supervised by the DTSC? The project background states that "12,000 + truckloads have been excavated and hauled offsite", I would like to know, where was that dirt taken to? That many	15. This comment does not pertain to the draft Neighborhood Sampling Plan. The removal of soil was done under DTSC oversight, and in many cases, was excavated clear to bedrock. Most of the impacted soil was taken to Azusa Landfill. The current investigation and remediation is anticipated to be completed in June 2017, and a report submitted to DTSC for review by the end of summer. For any information related to the Ag Park, please refer to www.dtsc.ca.gov/AgPark.

truckloads of dirt is a massive quantity for a 62 acre site. If the DTSC wishes to do sampling Project correctly, they will retake and test samples ONSITE as it sits today. but from a much deeper core. In 2015 truckloads of fresh dirt were dumped on site to replace the dirt that was taken away. I believe that the DTSC has a right to know this in order for their study to be done correctly. If samples are not taken deep enough to bypass 12,000 truckloads of clean dirt you are just wasting your time. That would not be fair to the residents or the DTSC. The curbs that have been installed at the AG Park site for the extension of Jarupa Ave need to be tested by the DTSC. The concrete tanks and structures which held the toxic waste were crushed on site. This concrete was then used to construct the curbs of gutters at the AG Park Site. This concrete was NEVER decontaminated according to TSCA requirements prior to demolition. If a small sample is taken from the curbs/gutters along the proposes extension of Jarupa Ave (In AG PARK)) site I am positive they will have substantial amounts of contamination, thus should be cleaned and handled properly and immediately. Re: Data of wind monitoring devices @ Riverside Airport When comparing and/or referring to "wind data" collected from the Riverside Airport, it is vital for you and your team to know this first. You must understand that they very same entity who owns the property in which you are testing has numerous ties to this Airport and has in fact a very big part in everything that goes on there. This data should not be	The State Air Resources Board used the wind data that were collected by scientific instruments for air dispersion modeling input parameters. Please note that this is a typical procedure where nearby weather station data is selected for modeling purpose.

trusted as true factual data at all. Same said entity who broke the digestor in the first place and failed to alert the proper authorities to insure safe handling of such a toxic disaster. Please take this into consideration as you do this study project. Thank you. This evaluation Project has 3-4 areas of nearby Rutland Park listed for sampling. Does it matter that Rutland Park was only constructed within the last 8 years, when the contamination of the area occurred in 2003? How will this affect the samples taken from the Park? It is important that the staff working on this project know that park did not exist in 2003. That corner was only a vacant lot back then. Just Dirt. Which is why it was so easy for the contaminated dust/dirt particles to be picked up by the wind and blown off site all the way down the Van Buren Blvd. What changes will be made to the Rutland Park sampling areas in order to accommodate this? Looking forward to your answer. Thank you for your help.	Rutland Park was selected to evaluate if there are PCBs present above the screening level in surficial dust deposition blown from Ag Park Site. Additional samples may be collected based on the initial sampling results.
Comments From the City of Riverside	
16. Thank you for providing the City of Riverside with the opportunity to review Draft Neighborhood Sampling Plan (NSP) for the Riverside Agricultural Park (Ag Park). Since the exact location and depth of the borings (i.e. soil samples) for each evaluation area has not been conclusively	I6. DTSC will prepare a site visit report for the City's properties and will upload the report on the EnviroStor database. Due to potential privacy issues, site visit reports for residential properties will not be provided to the public.

determined (per Section 4.1), the City is requesting that daily "site visit" reports be prepared and be made available for review, similar to what DTSC is preparing now for the on-site Ag Park work taking place. These reports would highlight, but not be necessarily limited to, the exact location, depth and number of soil samples. Any other pertinent observations of note as well as photos could be included. This would give the City, along with the public, an opportunity to review the work as it progresses and request work plan revisions as necessary.	
Figure 2 (Properties selected for Sampling) on Page 21 identifies the 28 residential properties from which soil samples will be collected. Similar to the comments provided on December 16, 2016 during a briefing on the preliminary Neighborhood Sampling Plan, and similar to the comments submitted on January 17, 2017, City staff again reiterates the need to include five additional properties within the scope of the Draft Neighborhood Sampling Plan. The three residential properties on the westerly side of Crest Avenue between Mandalay Court and Jurupa Avenue that are not currently included need to be included as well as the two residential properties on the westerly side of Crest Avenue between Chula Vista Way and Ontario Street. Given that these residences are nearly adjacent to Ag Park and that the model generally identifies this area as "most impacted" (or more likely soil could be deposited than other areas), the City recommends that testing also be conducted on these additional properties.	DTSC has identified the sampling properties based on the areas predicted to have the highest potential concentrations (shown in orange color) by the air dispersion model. The City property east of Crest Avenue (Figure 2) was selected based on the air dispersion modeling output. The three selected properties for sampling, west of Crest Avenue (Figure 2), are based on community feedback and the City's initial feedback we received during our meeting with the City on December 16, 2016. While we appreciate the City's desire for adding additional properties to the sampling plan scope of work, we will initiate sampling with the properties identified in the sampling plan at this time. Please keep in mind that sampling may be expanded to other properties, including those recommended by the City, based on results from the initial sampling.

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