

RESPONSES TO REGULATORY AGENCY COMMENTS
PRELIMINARY ENVIRONMENTAL ASSESSMENT REPORT OF PROPOSED KATHERINE JOHNSON MIDDLE SCHOOL

Dated June 6, 2023

August 2023

REVIEWER Lisa Holcomb, Project Manager, Northern California Schools Unit, Department of Toxic Substances Control (DTSC) DATE June 27, 2023

REVIEWER Alicia Taylor, PhD, Staff Toxicologist, Human and Ecological Risk Office (HERO), DTSC DATE June 22, 2023

ITEM	PAGE OR REFERENCE	COMMENT	RESPONSE OR ACTION
GENERAL COMMENTS			
1		The response to comments and cover letter for the revised document should indicate and identify any changes and/or modifications made to the revised document not requested specifically in the comments below.	Redlines on the subject document will be submitted with the portable document format (PDF) of the revised document.
2		Specific comments generally reference a specific occurrence, it is the responsibility of the consultant to ensure that each occurrence be identified and corrected throughout the document as appropriate.	Each occurrence will be identified and corrected through the document as appropriate.
3		Once DTSC has issued notice to submit the revised document, please provide an electronic copy of the revised document in portable document format (PDF) without password protection, in a file size no more than 100-megabytes. Please use a searchable form of Adobe Acrobat to facilitate review of the revised document and future PDF document submittals. Signature pages must be included and have either original or electronic signature. An electronic copy of the revised/final document will be posted on the DTSC EnviroStor database public access web site.	Comment noted.
SPECIFIC COMMENTS			
1	Page 3-1, Section 3	Page 3-1, Section 3 Subject Property Location and Description: The assessor's map is not included in Appendix A of the Draft PEA Report.	An assessor map has been added to the figures section of the report. Figure 6: Sacramento County GIS Map and Assessor Information
2	Page 9-1, Section 9.2	Page 9-1, Section 9.2 Public Comment Period and Public Hearing, second paragraph: Please remove Lisa Holcomb as a point of contact for comments.	The text has been revised as suggested.
3	Appendix D	Appendix D is missing a public comment and response.	The Kassouni Law Letter and Response has been added to Appendix D

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HERO reviewed the revised PEA Report relative to the comments provided in the HERO memo from A. Taylor to L. Holcomb dated May 4, 2023. The following comments use the same numbering system found in the HERO May 4, 2023 memo.			
GENERAL COMMENTS			
1	Executive Summary	<u>Cumulative Cancer Risk:</u> In the Executive Summary, the cancer risk is stated as being less than 1×10^{-6} and is therefore considered acceptable. Rather, the 3×10^{-4} estimated in the PEA for cumulative potential cancer risk is greater than 1×10^{-6} and is not considered acceptable. When cancer risk is calculated for only soil gas using default assumptions, the calculated residential risk ranges between 1.1×10^{-4} to 1.4×10^{-4}, depending on soil depth (5 or 10 ft bgs). In addition, the residential hazard index is 18. Based on the soil gas data and cumulative residential cancer risk specific to soil gas, HERO agrees with the determination of further action for the Site and supports an additional investigation of soil gas. HERO requests that the cumulative risk is updated once additional soil gas data is available. In addition, updates to the text should be made where the cumulative risk is noted as below DTSC's point of departure. HERO Response: HERO notes that residential cumulative risk from the April 2023 version of the PEA Report was 3.4×10^{-4} and the updated cumulative risk in the June 2023 PEA Report is now 4.0×10^{-8}. The original hazard index was 18, and the updated hazard index is now 3. HERO also finds that in the June 2023 PEA Report, the residential cancer risk for soil and soil vapor are calculated separately. HERO did not find a description in the text for the current soil vapor intrusion to indoor air risk, which has a cumulative risk of 5×10^{-5}, and is considered an unacceptable level of risk.	The cancer and noncancer risk values cited in this comment are from previous versions of the report and are no longer applicable as the values have been updated to reflect additional sampling. Risk in the current version of the report is characterized in the context of the cancer risk management range (10^{-6} to 10^{-4}) and noncancer (hazard index [HI]) point of departure value of 1. The risk values cited in this comment are from previous versions of the report and are no longer applicable as the values have been updated to reflect additional sampling. The vapor intrusion risk discussion has been updated in the Executive Summary, Section 8, and Section 14.

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		HERO requests that a detailed response to comment document is provided that describes the changes made in the cumulative risk assessment between the April 2023 and June 2023 PEA Reports. Please see the new comment (Comment #4) that addresses the soil vapor risk.	Additional soil vapor samples were collected to the north and northeast of the original samples and then within the footprints of each proposed new structure. Also additional soil samples were collected at four different depths around the former structures foundations.
2		<u>Organochlorine Pesticides from Termiticides</u>: Termiticides are the primary source of organochlorine pesticides (OCPs) around building structures at the Site, therefore, higher OCP concentrations could be anticipated at depth. This is due to the method of application around building perimeters, which was to inject OCPs to a depth of approximately two to three ft bgs. The potential presence of OCPs should be vertically characterized at two and three ft bgs until clean soil is identified. When termiticides are suspected of being previously used at a Site, HERO will recommend that proposed soil samples for OCPs around structures are zero to six inches and 24-36 inches, instead of only zero to six inches. Currently, only a six-inch depth was investigated around buildings for OCPs. HERO recommends reviewing DTSC's guidance on termiticide evaluation (revised 2006). HERO recommends that the deeper depths are sampled for OCPs. If OCPs are not a concern at the Site, HERO requests that a rationale is provided on why additional OCP sampling is not necessary. HERO Response: HERO still recommends that additional samples for OCPs are collected around structures at a depth of two to three ft bgs in a future Supplemental Site Investigation.	A technical memorandum was submitted on July 10, 2023 to DTSC outlining the workplan addendum for the suggested additional sampling approach. Approval of the workplan addendum, additional soil samples for OCPs that will be collected around the building perimeters was received on July 17, 2023. Sixteen additional OCPs and/or termiticides soil sample locations were sampled at 0-6 inches, 2 to 3 feet, and 4 feet for a total of 48 samples plus 5 duplicates on July 10, 23, and 14, 2023. This sampling event has been incorporated throughout the PEA Investigation Report. Results are located in Section 7.4.1

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3		<u>Ecological Receptors</u>: HERO recommends a DTSC ecotoxicologist is consulted on potentially complete exposure pathways to ecological receptors, given the proximity of the slough. HERO Response: HERO defers to the Project Manager to review potentially complete exposure pathways to ecological receptors.	Section 9 Ecological Screening Evaluation has been added.
4		<u>Soil Vapor and Proposed Vapor Intrusion Mitigation System (VIMS)</u>: HERO finds that no significant releases of volatile organic compounds (VOCs) occurred at the Site based on site history. A dry cleaner was previously located near the Site (approximately 560 ft to the south). Elevated concentrations of volatile organic compounds (VOCs) such as PCE, trichloroethene (TCE), benzene, total petroleum hydrocarbons, and chloroform have been detected onsite in soil vapor at 5 and 10 ft bgs (chloroform detected only at 5 ft bgs). HERO notes that this is a new comment, which was not previously found in the HERO May 4, 2023 memo. HERO has the following comments regarding soil vapor intrusion: a. <u>Additional Soil Vapor (SV) Sampling</u>: HERO notes that the June 2023 PEA Report shows additional soil vapor data collected on April 28, 2023 and May 1, 2023. These additional sampling locations were submitted as part of the April 2023 PEA Report and were proposed as a Supplemental Site Investigation. The new SV data are presented in the June 2023 PEA Report. b. <u>Use of DTSC Screening Levels</u>: HERO requests that Table 5 is updated with DTSC Screening Levels (SLs), rather than using the San Francisco Regional Water Quality Control Board's Environmental Screening Levels (ESLs). DTSC SLs should also be used in the cumulative risk assessment.	a. Comment noted. b. Table 5 has been updated to include DTSC SLs. c. Risk Assessment has been updated

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		c. <u>Use of 0.001 Attenuation Factor</u>: A bioattenuation factor for petroleum hydrocarbons may be applied if data for oxygen in soil gas is available, per Attachment 2 of the February 2023 Supplemental Guidance: Screening and Evaluation of Vapor Intrusion, available at https://dtsc.ca.gov/wpcontent/uploads/sites/31/2023/02/VI_SupGuid_Screening-Evaluating.pdf?emrc=a47a35. Therefore, application of a bioattenuation Factor (BAF) for petroleum hydrocarbons may result in vapor concentrations being below DTSC SLs. For use of a 0.001 AF, data for oxygen content in soil vapor needs to be presented in the PEA Report. If the Site meets the oxygen requirements, then HERO also requests that Table 5 is updated to present DTSC SLs with applied bioattenuation factor for petroleum hydrocarbons and a 0.03 AF for all other chemicals. The cumulative risk assessment should then be updated accordingly. d. <u>Vapor Intrusion Mitigation System (VIMS) Recommendation</u>: The June 2023 PEA Report recommends a soil vapor barrier beneath foundations of the proposed buildings. For any voluntary or stipulated VIMS at the Site, HERO recommends incorporating sub-slab vapor probes into the future VIMS design for performance monitoring. HERO recommends the VIMS design details should be evaluated by DTSC's Engineering and Special Projects Office.	d. Sampling did not include oxygen concentration, therefore, no bioattenuation factor was used for petroleum hydrocarbons d. PEA Report recommending a soil vapor barrier beneath the foundations only. No VIMS is required per the updated Risk Assessment conducted for each proposed building.

Notes:

PhD = Doctor of Philosophy