



## OFFICE OF THE CITY MANAGER

May 13, 2019

Nick Ta  
Project Manager  
Department of Toxic Substances Control  
5796 Corporate Avenue  
Cypress, CA 90630-4732

Dear Mr. Ta:

The City of Pasadena requests that the Department of Toxic Substances Control (“DTSC”) consider our comments to the December 11, 2017 Draft Removal Action Workplan (“DRAW”). The DRAW, prepared by Ninyo and Moore Geotechnical and Environmental Consultants, proposes soil removal activities at the NIRF Site. The objective of the proposed work, as stated in the DRAW, is to “Mitigate potential on-site exposure through ingestion, inhalation, and direct contact with soil impacted by [chemicals of potential concern] COPCs and mitigate their impact on human health or the environment in order to allow for the site’s planned residential/commercial use.”

A brief summary of the DRAW and City comments to the technical document are provided below.

### Summary of the DRAW

The DRAW proposes excavation and off-site disposal of soil impacted by metals, polycyclic aromatic hydrocarbons (PAHs), petroleum hydrocarbons (TPH), and volatile organic compounds (VOCs). Site-specific cleanup goals for the COPCs were selected based on DTSC-Modified Screening Levels (DTSC-SLs) and US Environmental Protection Agency Regional Screening Levels (RSLs). Soil and soil vapor confirmation sampling is proposed in order to assess the effectiveness of the planned soil removal. To the extent practicable, soil removal activities will continue until cleanup goals are met. If the cleanup goals for metals and PAHs are not achieved, a slurry cap will be installed at the bottom of excavation. If the results of confirmation soil vapor sampling indicate residual vapor impacts at concentrations above cleanup goals, then sub-slab impermeable vapor barriers and venting systems (vapor mitigation systems [VMSs]) will be installed beneath all slab-on-grade residential structures.

*City Hall*  
100 N. Garfield Avenue, Room S228  
Mailing Address: P.O. Box 7115 • Pasadena 91109-7215  
(626) 744-6936 • Fax (626) 744-4774  
[smermell@cityofpasadena.net](mailto:smermell@cityofpasadena.net)

In the event that a slurry cap or VMS is utilized to achieve cleanup goals, a land use covenant (LUC) will be required.

### **CITY OF PASADENA COMMENTS**

The City generally concurs with the scope of work presented in the DRAW, but requests that the following comments be addressed:

- 1) Section 1.3.2 (Historical Site Use from 1945 to 1977) identifies various historical uses of the NIRF Site by the Navy, including research and development “primarily involving the design and testing of underwater weapons systems”. Section 1.3.2 also discusses that “Numerous and varied laboratories were identified at the site including: combustion, chemistry, hydro-propellants, welding, hydrodynamics, structures, metallurgy, experimental physics, ballistics, and simulator labs.”

According to the US EPA’s November 2017 Technical Factsheets for hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)<sup>1</sup> and for 2,4,6-trinitrotoluene (TNT)<sup>2</sup>, these chemicals were “Used extensively in the manufacture of munitions and accounts for a large part of the explosives contamination at active and former U.S. military installations.” Based on this information, the City recognizes a potential for RDX and TNT to be a COPC for the NIRF Site and as such, recommends the development and implementation of a DTSC-approved sampling plan to investigate the presence of these chemicals onsite.

- 2) Section 6.3.2 (Evaluation of Removal Action Alternatives – Alternative 2) discusses the installation of a slurry cap as a mitigation measure to be implemented in the event that concentrations of metals and PAHs in soil are above cleanup goals when the limits of practicable soil removal have been met. However, we found no discussion of mitigation measures for concentrations of TPH in soil above cleanup goals. The City recommends clarification of the mitigation measures that would be employed if residual concentrations of TPH are identified above cleanup goals following confirmation sampling.
- 3) Section 6.3.2 also discusses soil vapor confirmation sampling and the mitigation measures to be implemented in the event that soil vapor cleanup goals are not initially met. As currently written, an initial soil vapor survey will be completed following impacted soil removal operations. If VOC concentrations above cleanup goals are identified, the DRAW states that additional step-out soil removal activities will be performed, and a second soil vapor survey will be completed following mass site grading activities.

---

<sup>1</sup> <https://www.epa.gov/fedfac/technical-fact-sheet-hexahydro-135-trinitro-135-triazine-rdx>

<sup>2</sup> <https://www.epa.gov/fedfac/technical-fact-sheet-246-trinitrotoluene-tnt>

The City questions the plan to conduct mass grading of an area with known elevated concentrations of VOCs in soil vapor. The presence of elevated soil vapor concentrations would indicate that the source of the VOCs has not been adequately removed and any mass grading operations would have the potential to spread these soil impacts across the NIRF Site. The City recommends clarifying the subject mass grading procedure and recommends including requirements to mitigate the potential for moving VOC-impacted soil to other parts of the property.

- 4) The term Land Use Covenant, and in one instance Land Use Control, is referenced multiple times throughout Sections 6.3.2, 6.4.1, 6.4.2, and 6.4.9. as being required in the event that mitigation measures are needed for the protection of future site users. The City recommends that additional discussion be added to Section 6.3.2 for the purpose of informing the reader about the general use and benefit of LUCs and that no LUC shall be utilized if doing so could potentially expose children or adults to direct contact exposure to any contaminated soils.
- 5) The response action proposed in the DRAW is limited to relatively shallow soils beneath the NIRF Site. The City understands that a groundwater study implemented under DTSC oversight is planned for the subject site. However, at this time the groundwater and deeper soils beneath the NIRF Site have not been fully investigated or characterized. Therefore, the City recommends incorporating additional language to the DRAW discussing this topic and identifying the workplan as a shallow soil-only DRAW.
- 6) The City, having an interest in the NIRF Site, has engaged an environmental consulting firm to provide third-party oversight of the RAW implementation. The City recommends memorializing the use of third-party oversight, on behalf of the City, in the DRAW's Soil Management Plan.

Thank you in advance for your cooperation in amending the DRAW to incorporate the City's comments.

Sincerely,

Steve Mermell  
City Manager

SM:dr