

EXECUTIVE SUMMARY

This Draft Feasibility Study/Remedial Action Plan (DRAFT FS/RAP) was prepared by Geosyntec Consultants, Inc. (Geosyntec) on behalf of Universal Paragon Corporation (UPC) to address soil, soil vapor, and groundwater contamination at the former Southern Pacific – Brisbane South Area site and Industrial Way Properties in Brisbane, California (the Site). The Site is part of a larger group of properties under environmental investigation/remediation that have been designated as operable units (OUs) under agreements with the California Department of Toxic Substances Control (DTSC) and the San Francisco Regional Water Quality Control Board (RWQCB). The Site is referred to as OU-2 and the RWQCB is the lead regulatory agency.

The Site is approximately 130 acres and occupies the southern portion of the former Southern Pacific Transportation Company (SPTC) Brisbane Railyard, which was used as a railroad switching yard from approximately 1907 to 1982 [Lipps, 2013]. After 1982, the railyard was unused. In 1989, Tuntex, USA (now known as UPC) purchased the property. The Site also includes properties along Industrial Way which have been occupied by various commercial/industrial tenants over the last approximately 100 years. The Site is included as a portion of a larger mixed-use development project known as the Brisbane Baylands Development, which will include housing, commercial businesses, civic uses, and public open space. UPC is the master developer for OU-2.

Numerous environmental investigations have been conducted at the Site since 1982 to characterize the presence, nature, and extent of contaminants resulting from historical operations. Investigations have identified metals (primarily arsenic, lead, and mercury); polynuclear aromatic hydrocarbons (PAHs); organochlorine pesticides (OCPs); polychlorinated biphenyls (PCBs); chlorinated volatile organic compounds (CVOCs); and petroleum hydrocarbons, including Bunker C oil, gasoline-range hydrocarbons (TPH-g), diesel-range hydrocarbons (TPH-d), and motor oil-range hydrocarbons (TPH-mo) as chemicals of potential concern (COPCs).

Site remediation completed to date includes the removal of underground storage tanks (USTs) and the safe removal of hydrocarbon-impacted soil associated with the USTs adjacent to Industrial Way.

A Baseline Health Risk Assessment (HRA) for the Site was conducted for the COPCs that were identified during the investigations conducted at the Site. The HRA was prepared under the conservative assumption that no remediation or mitigation would be implemented. The HRA used this assumption to evaluate potential risks to current and future populations that could be exposed to COPCs at the Site under different land use scenarios. The results of the HRA found that present conditions are protective for current Site users, but under different scenarios, future commercial/industrial workers, construction workers, and residents could be at risk if remediation were not conducted. The HRA concluded that action to remediate or mitigate potential exposure to COPCs in soil and soil vapor is warranted to protect future users under a high intensity, mixed-use redevelopment scenario.

The HRA was used as the basis to establish Remedial Action Objectives (RAOs) for the Site. RAOs are site-specific, quantitative goals that define the extent of cleanup required to achieve the

appropriate level of protectiveness for human health and the environment. The RAOs for the Site include:

- Soil – Prevent exposure to soil with COPCs at concentrations exceeding cleanup levels (CULs) by eliminating the exposure pathway for future Site users including the incidental ingestion, inhalation of windblown dust particles, and dermal contact exposure pathways.
- Soil Vapor – Prevent exposure to volatile organic compounds (VOCs) in soil vapor at concentrations that exceed the CULs for soil vapor by blocking or minimizing the vapor intrusion pathway;
- Groundwater – Prevent exposure to VOCs in groundwater by eliminating inhalation risks through the vapor intrusion pathway, preventing ingestion and dermal contact through the use of groundwater for potable and agricultural purposes.

To identify the most appropriate remedy for achieving the RAOs for the Site, four remedial alternatives were developed and analyzed in detail pursuant to the nine criteria of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and the six criteria of Section 25356.1 of the California Health and Safety Code (HSC). A comparative analysis of the alternatives identified the advantages and disadvantages of each alternative when compared to other alternatives. Redevelopment activities that would serve to eliminate pathways of exposure for future Site users (e.g., the placement of up to 30 feet of fill over existing soils) were integrated into the remedial technology screening and development of remedial alternatives.

Based on the evaluation and comparison of the four alternatives, Alternative 3 was identified as the preferred remedial alternative for implementation at the Site. Alternative 3 includes capping of impacted soils, excavation with partial offsite disposal and partial onsite relocation, and land use controls. More specifically, this alternative includes:

- Capping of soil in portions of the Site that contain COPCs at concentrations exceeding CULs. Capping includes placement of clean soil, building foundations, roads, parking pavement, or other hardscape over the existing or future land surface;
- Excavation of soil in portions of the Site that contains COPCs at concentrations exceeding CULs and where capping is not possible. Some excavated soil will be off-hauled and disposed of offsite and some soil will be relocated onsite and capped. As an option to excavation, onsite treatment and reuse of soil containing potentially mobile petroleum hydrocarbons may be conducted;
- Treatment of CVOC-impacted groundwater and post-remediation groundwater monitoring;
- Land use controls consisting of the following components:
 - Soil vapor mitigation systems as part of future building construction, if required based on a soil vapor intrusion evaluation that will be conducted after mass grading and prior to building construction. This evaluation will consist of a multiple lines of evidence approach, including estimating the time that future soil vapor

concentrations will reach steady state at different depths in the imported soil by the method of Johnson et al. [1999] and field testing to establish a depth-specific soil vapor profile. The evaluation will be conducted in accordance with current RWQCB soil vapor guidance. The detailed evaluation will be specified in the Remedial Design and Implementation Plan (RDIP);

- Land use restrictions including administrative actions and engineered actions;
- Ongoing operation and maintenance of caps and any engineered systems such as soil vapor mitigation systems.

After approval of the FS/RAP by the RWQCB, UPC will submit for RWQCB review and approval one or more RDIPs. Following completion of remediation activities, which may be completed in phases, UPC will submit to RWQCB one or more Remedial Action Completion Reports documenting the implementation of remediation activities and noting any deviations from the approved plan(s). The completion report(s) will include a post-remediation risk assessment that will evaluate the overall effectiveness of the remediation. The completion reports will also provide the technical basis for any mitigation measures (such as soil vapor mitigation systems) to ensure the long-term protection of human health. Soil vapor assessment and vapor mitigation design and implementation will occur prior to and as part of building construction and will also be conducted with oversight by the RWQCB.