

EXECUTIVE SUMMARY

This report presents the results of the Phase II Environmental Site Assessment (ESA) conducted by Weston Solutions, Inc. (WESTON®) for the City of San Antonio (COSA) Metropolitan Health District for the former Van De Walle Property in San Antonio, Texas. The Van De Walle Property was used for the placement of fill that was previously excavated and transported from Area 3 from the COSA Henry B Gonzalez Convention Center Expansion (HBGCCE) project. Soil samples collected from the HBGCCE prior to excavation indicated the presence of metals within the soil, and at potentially elevated concentrations. This Phase II ESA was intended to evaluate whether or not the soils placed as fill on the property contained concentrations of chemicals of concern (COCs) at levels at, or above applicable regulatory criteria.

The sampling objective of this investigation was to collect samples for laboratory analysis from both undisturbed native soils and from fill material placed at the subject property. These sampling data were used to evaluate the potential for native soil and groundwater at the property to be impacted by COCs present in fill soil. This Phase II ESA included collection and analyses of 12 surface soil samples from locations selected to be representative of background concentrations (adjacent to, but outside of the fill placement area). Additionally, assessment activities included the collection and analyses of soil samples from 48 soil borings located in the fill material. Composite samples (depth-integrated) were collected from the fill material and also from underlying native soils. The soils were analyzed for metals concentrations, including arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver (a.k.a., “RCRA 8 Metals”). In addition, selected samples were analyzed for the presence of volatile organic compounds (VOCs), semi-volatile compounds (SVOCs), and total petroleum hydrocarbons (TPH).

The reported analyte concentrations were compared to the Texas Commission on Environmental Quality (TCEQ) default Tier 1 direct human health Protective Concentration Levels (PCLs), which are promulgated under the Texas Risk Reduction Program (TRRP) (30 Texas Administrative Code [TAC], Chapter 350). The PCLs include values protective of human health from direct contact and ingestion, known as the “total soil combined” ($^{Tot}Soil_{Comb}$) PCL. The PCLs also include values considered protective of the “soil to groundwater pathway”, which are intended to determine whether COCs in soil may migrate to the underlying groundwater via soil leaching. These PCLs are referred to as the “groundwater protective” ($^{GW}Soil_{Ing}$) PCL.

No COCs (VOCs, SVOCs, TPH, or metals) were reported at concentrations above the residential Tier 1 $TotSoil_{Comb}$ PCL. The reported fill soil concentrations do not exceed TCEQ criteria for residential exposure.

Concentrations of arsenic, lead, and mercury were reported at levels above the Tier 1 groundwater protective PCL. TCEQ's TRRP rules allow the development of Tier 2 PCLs, which consider site-specific conditions when evaluating leachability of COCs. The reported concentrations of arsenic, lead and mercury were all below Tier 2 PCLs for groundwater protection calculated by WESTON using TRRP procedures, which considered site-specific information including the depth the groundwater and soil properties.

To confirm that concentrations of COCs in the fill material will not leach to the native soil or groundwater below the fill, soil samples with the highest concentrations of arsenic, lead and mercury were also analyzed for these metals using synthetic precipitation leaching procedure (SPLP) analysis. The results of the analysis demonstrate that the fill soil will not leach COCs at concentrations above TCEQ's groundwater ingestion PCLs.

In addition to the analysis of the background soil samples and fill material samples, samples from native soil beneath the fill were analyzed to confirm that concentrations of COCs in the fill material have not affected the native soil. Native soil samples collected from beneath the fill material samples with the highest concentrations of arsenic, lead and mercury were analyzed for the specific metals of concern. The reported concentrations of metals from the native soil samples were consistent with background concentrations, and indicate that the native soil has not been affected by the fill material.

Concentrations of COCs reported from samples of the fill material placed at the Van De Walle property are below TCEQ TRRP PCLs for residential exposure and groundwater protection, and the fill material does not pose a risk to human health and the environment at the former Van De Walle property.