

*Prepared for*

**SCIND Massachusetts Point, LLC**  
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# **Site Summary Report**

**New Basis and Student Transport of America Sites**  
**1989 Massachusetts Avenue, 2069 Massachusetts Avenue, and**  
**2626 Kansas Avenue**  
**Riverside, California**

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### Attachments:

Figure 1 – Project Site Layout

Figure 2a – Conceptual Site Model Vertical Profile (Circa 1990s)

Figure 2b – Conceptual Site Model Vertical Profile (2018 - Pre-SVE)

Figure 2c – Conceptual Site Model Vertical Profile (Post-SVE)

Attachment 1 – November 2024 *Phase I Environmental Site Assessment, 1989 Massachusetts Avenue and 2626 Kansas Avenue, Riverside, California* by Geosyntec Consultants, Inc.

Attachment 2 – June 2021 *Phase I Environmental Site Assessment, 1989 Massachusetts Avenue and 2626 Kansas Avenue, Riverside, California* by Geosyntec Consultants, Inc.

Attachment 3 – 1 November 2024 *Master Site Plan, Massachusetts Ave. and Kansas Ave. by Staley Point* by HPA Inc.

Attachment 4 – (No Date) *Preliminary Precise Grading Plan, 2626 Kansas Avenue, 1989 & 2069 Massachusetts Avenue, Riverside, CA 92507* by Huitt Zollars.

Attachment 5 – 21 July 2021 (revised 30 January 2025) *Geotechnical Investigation Two Proposed Warehouses, EC Massachusetts Avenue and Kansas Avenue Riverside, California for Staley Point Capital* by Southern California Geotechnical

## 1. INTRODUCTION

Geosyntec Consultants, Inc. (Geosyntec) has prepared this Site Summary Report (Report) on behalf of SCIND Massachusetts Point, LLC (“Client”) in support of the proposed redevelopment project located at 1989 Massachusetts Avenue, 2069 Massachusetts Avenue, and 2626 Kansas Avenue in Riverside, California (the “Site” or “Project Site”). The Project Site consists of an approximately 14.42-acre property encompassing three parcels (Assessor’s Parcel Numbers [APNs] 210130015, 210130016, and 210130020; **Figure 1**). As of the time of this report, the North Parcel (APN 210130015, associated with the 2626 Kansas Avenue address) is occupied by New Basis, a former plastics manufacturer and current polymer concrete manufacturer, and was developed with two commercial/industrial buildings. The Eastern Parcel (APN 210130020, associated with the 1989 Massachusetts Avenue address) is occupied by Student Transportation of America (STA), a bus charter/transportation company, and was developed with two commercial/industrial buildings. The South Parcel (APN 210130016, associated with the 2069 Massachusetts Avenue address) is an unpaved parking area also utilized by STA.

The Project Site is planned for redevelopment (the “Project”), which proposes demolition of the structures located on the North Parcel and redevelopment of the North and South Parcels with two single-story buildings encompassing approximately 99,900 and 99,990 square feet, respectively, intended for a light industrial/warehouse use. Buildings located on the Eastern Site Parcel are planned to remain.

### 1.1 Overview and Purpose

The purpose of this Report is to provide: 1) an overview of environmental conditions at the Project Site; 2) a summary of the historical environmental investigations and remedial activities historically/currently being conducted at the Project Site; 3) a general summary of environmental impacts in subsurface media as indicated by prior investigations; and 4) key findings regarding the effects of environmental conditions on the Project with conclusions and recommendations regarding mitigation measures to address the potential construction and operational impacts that may occur as a result of the construction of the Project, as well as remedial measures to protect construction workers and future occupants of the Project from existing historical hazard conditions. The historical environmental information summarized in this Report has been derived from the following primary references:

- Environmental case files associated with Santa Ana Regional Water Quality Control Board (SARWQCB) that are available for review on the State Water Resources Control Board (SRWQCB) GeoTracker online database<sup>1,2</sup>;
- November 2024 *Phase I Environmental Site Assessment, 1989 Massachusetts Avenue and 2626 Kansas Avenue, Riverside, California* by Geosyntec Consultants, Inc.
- June 2021 *Phase I Environmental Site Assessment, 1989 Massachusetts Avenue and 2626 Kansas Avenue, Riverside, California* by Geosyntec Consultants, Inc.
- 1 November 2024 *Master Site Plan, Massachusetts Ave. and Kansas Ave. by Staley Point* by HPA Inc.
- (No Date) *Preliminary Precise Grading Plan, 2626 Kansas Avenue, 1989 & 2069 Massachusetts Avenue, Riverside, CA 92507* by Huitt Zollars.
- 21 July 2021 (revised 30 January 2025) *Geotechnical Investigation Two Proposed Warehouses, EC Massachusetts Avenue and Kansas Avenue Riverside, California for Staley Point Capital* by Southern California Geotechnical.

Documents relied on in this Report that are not publicly available for review on the GeoTracker online database are included as appendices to this Report.

## **1.2 Report Organization**

This document is organized into the following sections:

- Section 1 – Introduction.
- Section 2 – “Physical Setting and Project Description” provides a summary of the Project Site setting, geological and hydrogeological conditions, history, and the overall redevelopment project proposed for the Project Site (the “Project”);
- Section 3 – “Environmental Conditions Summary” provides a description of historical uses, historical environmental investigations, and a summary of remedial actions previously or planned to be conducted; and
- Section 4 – “Key Findings and Mitigation Recommendations,” describes the overall conditions of the subsurface media at the Project Site and the planned mitigation strategies for Project implementation.

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<sup>1</sup> [https://geotracker.waterboards.ca.gov/profile\\_report?global\\_id=T10000010448](https://geotracker.waterboards.ca.gov/profile_report?global_id=T10000010448)

<sup>2</sup> [https://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T10000005944](https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000005944)

## **2. PHYSICAL SETTING AND PROJECT DESCRIPTION**

The background Project Site information provided herein is derived from the documentation identified in **Section 1.1**.

### **2.1 Setting and Surrounding Uses**

The Project Site consists of an approximately 14.42-acre property encompassing three parcels (APNs 210130015, 210130016, and 210130020; **Figure 1**). As of the time of this report, the North Site Parcel (210130015, associated with the 2626 Kansas Avenue address) is occupied by New Basis, a former plastics manufacturer and current polymer concrete manufacturer, and is developed with two commercial/industrial building. The Eastern Site Parcel (210130020, associated with the 1989 Massachusetts Avenue address) is occupied by Student Transportation of America (STA), a bus charter/transportation company, and is developed with two small commercial/industrial buildings. The South Parcel (210130016, associated with the 2069 Massachusetts avenue address) is an unpaved parking area also utilized by STA. The Project Site is bound by Kansas Avenue to the west, Roberta Street to the north, Massachusetts Avenue to the south, and commercial properties to the east.

The adjacent uses in the vicinity of the Project Site are primarily commercial and industrial, with a single residential property to the north (1961 Roberta Street) that is boarded up and appears to be vacant. The broader area is characterized primarily by commercial and industrial uses.

### **2.2 Topography and Geology**

The Project Site has an elevation of approximately 890 to 903.5 feet above mean sea level (AMSL) with a decreasing land surface topographic gradient toward the northwest. The Site is located in the northern part of the Peninsular Ranges Province within the central part of the Perris block, which represents a relatively stable area located between the Elsinore and San Jacinto fault zones. Sedimentary units at the Project Site and vicinity consist of late to middle Pleistocene alluvial fan deposits. Based on boring logs prepared for the Site associated with ongoing environmental activities, subsurface lithological units consist primarily of sands and silty sands to depths of at least 300 feet below ground surface (ft bgs). Periodic finer-grained intervals (clays, silts, clayey sands) are also present, with an interval of silt to clayey sand consistently observed at depths between approximately 40 to 50 ft bgs, and an interval of clay consistently observed at depths between approximately 110 to 120 ft bgs.

### **2.3 Hydrology**

The Project Site is located in the “Riverside-E” subunit of the Middle Santa Ana River Basin, which is listed as having potential beneficial uses for municipal, agricultural, industrial, and industrial process supply. Groundwater is observed at depths starting around 120 ft bgs. A hydraulic gradient in the south-southwesterly direction has been observed since at least 2018 when groundwater monitoring was initiated at the Site. Historically, however, the direction of groundwater flow is anticipated to have been north to northwest in the late 1980s to mid-1990s (at least<sup>3</sup>) based on environmental case files associated with a property located at 2625 Durahart Street<sup>4</sup> (the “Former Devoe Marine Coatings Case” located approximately 300 feet to the east of the Site), where groundwater monitoring was conducted from approximately 1988 to 1995.

### **2.4 Proposed Project Description**

The Project Site is planned to be partially redeveloped, resulting in a mix of new commercial construction and the maintenance of existing commercial buildings. The overall proposed project plan (as of November 2024) generally consists of redevelopment of the North Parcel and South Parcel with two single-story light industrial/warehouse buildings encompassing approximately 99,900 (north building) and 99,990 (south building) square feet. Buildings located on the Eastern Site Parcel are planned to remain with minor improvements to existing infrastructure (landscaping, paved surfaces, etc.).

The geotechnical report for the project identified surface soils unsuitable for supporting structural loads from approximately 2.5 to 8.5+ feet, with a recommendation to remove these materials. Building pad areas were recommended to be over excavated to depths of at least 5 feet below existing grade and to depths of at least 5 feet below proposed pad grades, whichever is greater. Over excavation within the foundation areas was recommended to extend to a depth at least 4 feet below the proposed foundation bearing grade.

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<sup>3</sup> Information on hydrological conditions was identified associated with a nearby property for the years 1988 to 1995, which document a consistent north to northwestward groundwater flow direction for the duration of monitoring conducted as part of an associated environmental case. Records were not identified to further assess the timeframe in which these conditions persisted before and after groundwater monitoring was conducted at this nearby property.

<sup>4</sup> [https://geotracker.waterboards.ca.gov/profile\\_report?global\\_id=T0606500056](https://geotracker.waterboards.ca.gov/profile_report?global_id=T0606500056)

### **3. ENVIRONMENTAL CONDITIONS SUMMARY**

This section overviews the status of environmental conditions at the Project Site and discusses and incorporates environmental documents available on the SWRCB GeoTracker online database, as well as the supplemental environmental documents specified in **Section 1.1**.

#### **3.1 Historical and Current Site Uses**

The North Parcel (2626 Kansas Avenue) is currently occupied by New Basis, a polymer concrete fabrication company. Operations include manufacturing of pads and underground enclosures for utilities, woodworking, storage/handling, and offices. From approximately 2002 to 2009, New Basis was also a plastic fabrication company; however plastic manufacturing ceased when that portion of the business was sold. A sister company, Lattice Composites LLC (Lattice), operated work areas, an oven, and chemical storage area within the New Basis tenant space as of 2021; however, this entity was no longer present by 2024.

Historically, the North Parcel was developed for commercial use beginning in 1946. The two existing commercial/industrial buildings in the northwest portion of the Site were constructed by 1953. Owners and entities operating in these buildings have included Revere Copper and Brass (at least 1951-1960), Bridgeport Brass (1964), Homepool Equipment (1981), Little Lake Industries (1981), Muskin Corp. (1981), Associated Plastics (1986-2001), and New Basis (2002-present).

The East Parcel (1989 Massachusetts Avenue) is currently improved with a school bus yard and maintenance shop occupied by STA, a bus charter/transportation company. Historically, the East Parcel appears to have been residential/agricultural through 1967, when it was graded and improved with a paved parking lot by 1978. The East Parcel was redeveloped with the bus storage and maintenance facility in 1986, with the bus washing structure present by 2002. Occupants have included STA, Penske Truck Leasing, Laidlaw Transit, and Transportation Concepts.

The South Parcel (2069 Massachusetts Avenue) appears to have been residential/agricultural through 1959, with a rail spur through the center of the parcel by 1949. By 1967, the land was cleared of vegetation and has since remained vacant. The rail spur was removed by 2002, and the South Parcel remained an unpaved lot. By 2009, the South Parcel was utilized as a parking lot associated with the bus storage operations on the East Parcel and has remained relatively unchanged since.

## **3.2 Summary of Environmental Conditions**

### **3.2.1 Environmental Investigations Conducted Prior to Current Ownership**

Environmental investigations have been ongoing at the Site since 2013 and have identified chlorinated volatile organic compound (VOC) impacts to soil vapor and groundwater underlying all three parcels, primarily tetrachloroethene (PCE) and trichloroethene (TCE). The contamination was caused by historic releases that occurred prior to SCIND Massachusetts Point LLC's acquisition of the Site.

While one or more low-level releases of PCE and TCE on the North Parcel have been identified by historic investigations, these releases are low magnitude, are restricted to shallow soils, and do not extend to groundwater. Whereas, the majority of the soil vapor and groundwater VOC impacts on the Project Site are located on the South and East Parcels, with the highest concentrations near the southern property boundary. The presence and distribution of the primary volumes of VOCs observed on the southern portion of the Project Site have not been linked to an onsite release. Though a clarifier system installed in the late 1980s associated with a vehicle washing depot was previously removed by a prior operator in 2018 due to its assumed potential to have been a release mechanism for VOCs, no significant concentrations of VOCs were detected in soil underlying the clarifier and associated piping during removal, which indicates that this feature was unlikely to have been a source of subsurface VOCs. The distribution and magnitude of TCE and PCE concentrations in soil vapor detected during prior Site investigations were also inconsistent with the clarifier system as a potential source of VOC contamination. Further, the clarifier system's installation timeframe (late 1980s) and use associated with a bus maintenance and washing station is also inconsistent with the use of chlorinated VOCs, which are not associated with this use and were largely no longer used generally by that time.

Although no onsite source of VOCs has been identified that could explain the soil vapor and groundwater impacts identified at the STA property, soil vapor extraction (SVE) remediation was conducted on the East Parcel from February 2020 to July 2021 by the prior Site owner under the oversight of the SARWQCB to reduce the elevated concentrations of VOCs present in soil vapor through a series of four dual-nested SVE wells. The wells were oriented linearly from north to south and were generally equidistant from one another (**Figure 1**). The southmost extraction well (SVE-4) was located approximately 100 feet north of Massachusetts Avenue, and the northmost extraction well (SVE-1) was located approximately 80 feet north of the primary building on the East Parcel. SVE remediation was discontinued upon discovery that the source of the VOC impacted soil vapors was offsite to the south (discussed in **Section 3.2.2** below), because

this remedial technology is not capable of addressing distal (i.e., offsite) sources. During monitoring conducted following shutdown of the SVE system, soil vapor impacts have been observed to slowly encroach from the southward direction, further indicating that the source of these impacts is offsite in this direction<sup>5</sup>.

### 3.2.2 Conceptual Site Model

A review of historical documents conducted by Geosyntec in support of a property transaction in 2020 and 2021 identified several inconsistencies with the conceptual site model (CSM) previously developed for the Site by the prior operator and consulting firm, particularly in regard to their assertion that the source of VOCs in underlying groundwater and soil vapor originated from the onsite clarifier system. As a result, Geosyntec conducted an in-depth desktop investigation at that time, as well as additional soil vapor and groundwater field investigations. The results of the historical data review and the data from the additional investigations supported substantial revisions to the CSM. Most notably, the data supported the conclusion that the predominant source of the subsurface VOC impacts detected on the south end of the Project Site migrated onto the Site from release(s) on the south-adjointing property across Massachusetts Avenue located at 3016 Kansas Avenue (referred to herein as the ‘3016 Kansas Avenue Property’).

Based on the cumulative environmental information collected at the Site, the following is a summary of the CSM specific to affected media (i.e., soil, soil vapor, and groundwater). The CSM is depicted visually in **Figures 2a-2c**. Information on environmental conditions at the 3016 Kansas Avenue Property (the predominant offsite source of the environmental contamination present on the South and East Parcels) is also provided.

#### ***3.2.2.1 VOC Source Evaluation – Soil Vapor***

##### *South and East Parcels*

The historical vertical and lateral distribution of VOCs detected in soil vapor underlying the South and East Parcels are consistent with an offsite source of VOCs to the south. The results of soil vapor sampling conducted in 2020 as part due diligence associated with the property transaction (while the SVE system was operating at the Site) indicated that there are no persistent sources of shallow VOCs on the South and East Parcels, but provided indication of a regenerating ‘cloud’ of VOC-impacted soil vapor encroaching from the

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<sup>5</sup>[https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo\\_report/5187544643/T10000010448.PDF](https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/5187544643/T10000010448.PDF)

3016 Kansas Avenue Property to the south. Historical operations at the South and East Parcels are not consistent with the use of chlorinated solvents, but available historical documentation provide a history of significant and long-term use of chlorinated VOCs at the south-adjointing 3016 Kansas Avenue Property, including PCE and TCE (discussed further in **Section 3.2.2.3**). Therefore, the magnitude and distribution of VOC-impacted soil vapor detected beneath the South and East Parcels prior to operation of the SVE system are consistent with decades of accumulated VOC-impacted soil vapor encroaching onto the Site from the 3016 Kansas Avenue Property followed by significant removal by the SVE system, and there is no indication that a release of PCE or TCE may have occurred from the clarifier system or other areas on the South and East Parcels.

#### *North Parcel*

While no documentation was identified that specifically indicated the use of PCE or TCE during historical operations on the North Parcel, early operations associated with copper and brass manufacturing are consistent with the potential use of these chlorinated VOCs to some degree. However, based on extensive shallow soil vapor investigations conducted since 2013, there is no indication that a significant release of PCE or TCE historically occurred on the New Basis Property. Rather, there is indication that a low magnitude release of TCE likely occurred in the northwest corner of the building, where moderate TCE impacts have been detected in shallow and intermediate soil vapor. Additionally, PCE and TCE were historically detected at marginally elevated concentrations relative to surrounding conditions in shallow soil vapor probes located in the south-central and southeast corner of the North Parcel, which may indicate that very low level releases of these VOCs may have occurred in these areas.

### **3.2.2.2 VOC Source Evaluation – Groundwater**

#### *South and East Parcels*

Groundwater underlying the South and East Parcels is impacted with PCE and TCE, with the most elevated concentrations consistently detected near the southern Site boundary. There is no indication of a historical release of PCE or TCE from the South and East Parcels, and the historical Site use is inconsistent with the use of these compounds. Coupled with the increasing magnitude of VOCs in soil vapor with depth below the Site, and the lateral and vertical distribution of vapor-phase VOCs that provide clear indication of an encroaching VOC-impacted soil vapor cloud migrating onto the Site from the south-adjointing 3016 Kansas Avenue Property, the groundwater impacts detected on the South and East Parcels appear to be derived from releases on the 3016 Kansas Avenue Property despite the Project Site's hydraulically upgradient location. The following two

mechanisms are anticipated to be primarily responsible for VOCs derived from the 3016 Kansas Avenue Property to be impacting hydraulically upgradient groundwater underlying the South and East Parcels:

- **Soil vapor to groundwater partitioning**: Concentrations of PCE and TCE in soil vapor underlying the South and East Parcels increase significantly with both depth and proximity to the south property line, with a lateral distribution very similar to the distribution of PCE and TCE in underlying groundwater. Significant concentrations of VOCs in soil vapor immediately above the water table would be expected to impact underlying groundwater to some degree. At a fundamental level, soil vapor/groundwater VOC concentration equilibrium can be estimated using Henry's Law:

$C_{GW} = C_{SV} / H$ ; where:

$C_{SV}$  = The concentration of a given VOC in soil vapor, in micrograms per liter ( $\mu\text{g/L}$ );

$C_{GW}$  = The concentration of a given VOC in groundwater, in  $\mu\text{g/L}$ ; and

$H$  = the Henry's Law Constant for a given VOC at the measured groundwater temperature.

Calculations using these basic principles indicate that the magnitude of PCE and TCE concentrations observed in groundwater on the South and East Parcels are generally consistent with the magnitude of PCE and TCE detected in soil vapor samples collected from the deepest multi-nested soil vapor probe (SVP) intervals (nearest to the groundwater table), such that partitioning from overlying VOC-impacted soil vapor could be resulting in the observed groundwater VOC impacts.

For example, the Henry's Law Constant ( $H$ ) for TCE at a groundwater temperature of  $21^{\circ}\text{C}$  (the approximate average temperature measured during groundwater sampling conducted by Geosyntec in February 2021) is 0.336. The concentration of TCE detected in soil vapor from the deepest interval of SVP-3 during baseline monitoring in 2018 was 1,260 micrograms per liter ( $\mu\text{g/L}$ )<sup>6</sup>. Applying Henry's Law to this detected concentration results in a theoretical groundwater TCE concentration of 3,750  $\mu\text{g/L}$ , which is within the same order of magnitude as the detected concentration of 1,100  $\mu\text{g/L}$  in MW-2 (located

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<sup>6</sup>[https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo\\_report/2925613641/T10000010448.PDF](https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/2925613641/T10000010448.PDF)

approximately 90 feet north of SVP-3) measured within approximately two months of collection of the soil vapor sample. While soil vapor/groundwater equilibrium and associated partitioning is highly dependent on various Site-specific factors (soil types, thickness of the capillary fringe, etc.), these first-order calculations indicate that it is plausible that the significant VOC impacts present in soil vapor migrating onsite from the 3016 Kansas Avenue Property, likely since the 1940s, is responsible for the VOC impacts observed in underlying groundwater despite the Site's hydraulically upgradient location.

- **Historical change in groundwater flow direction:** Based on historical environmental records associated with the Former Devoe Marine Coatings Case<sup>7</sup>, the historical direction of groundwater flow in the vicinity of the Site was to the northwest for at least the late 1980s to the mid-1990s. Therefore, it is likely that PCE and TCE impacted groundwater derived from the 3016 Kansas Avenue Property was historically flowing onto the Site, potentially for a significant period. Groundwater elevations were comparatively higher in the late 1980's to mid-1990's (relative to the present day) based on case files associated with the Former Devoe Marine Coatings Case, which showed lowering groundwater elevation trends in associated monitoring reports. Higher groundwater levels with a trend of reducing elevations over time during a period in which groundwater flowed to the northwest is anticipated to have resulted in the deposition and accumulation of PCE and TCE in onsite soils within the capillary fringe. Following the reversal in groundwater flow direction to present-day conditions (i.e., southerly), residual VOC impacts to deep onsite soils that accumulated during this historical period of northwestward groundwater flow are likely back-diffusing into groundwater within the saturated zone and into soil vapor in the unsaturated zone, contributing to the persistence of present-day groundwater and deep soil vapor impacts.

Indication of accumulated VOCs in deep soil during this period is observed in soil samples collected from borings advanced on the South and East Parcels, in which elevated PCE and TCE were detected in soil samples collected from just above groundwater in several borings, often at an order of magnitude or more above concentrations detected in the next deepest interval, and especially in locations closest to the south property line (most notably in SVP-3 and SVP-9)<sup>8</sup>. This provides indication that PCE and TCE impacts accumulated in deep onsite soils

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<sup>7</sup> [https://geotracker.waterboards.ca.gov/profile\\_report?global\\_id=T0606500056](https://geotracker.waterboards.ca.gov/profile_report?global_id=T0606500056)

<sup>8</sup> [https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo\\_report/2925613641/T10000010448.PDF](https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/2925613641/T10000010448.PDF)

within the capillary fringe prior to the historical change in flow direction and when groundwater elevations were higher.

#### *North Parcel*

Shallow subsurface residual VOCs are anticipated to be present on the North Parcel, as described in **Section 3.2.2.1** above. The most elevated concentrations of VOCs in soil vapor are present in the northwest portion of the New Basis Property. However, decreasing VOC concentrations are observed with depth in the multi-nested SVPs advanced in this area, and concentrations of PCE and TCE in the nearest hydraulically downgradient groundwater monitoring wells are consistently below California Maximum Contaminant Levels (MCLs) or are else not detected above laboratory reporting limits. Therefore, VOCs present in this area do not appear to be impacting groundwater.

PCE and TCE-impacted groundwater is present below the southernmost portion of the North Parcel. While potential minor VOC source areas have been identified along the south-central and southeast portions of the North Parcel that are located above VOC-impacted groundwater, the low to very low magnitude of PCE and TCE detected in shallow soil vapor in these areas indicate that it is very unlikely that these VOC impacts are extending to groundwater. Further, the distribution and magnitude of TCE and PCE concentrations in groundwater beneath the southern portion of the North Parcel correspond to the northern margins of the groundwater VOC plume underlying the South and East Parcels, which is attributed to sources on the 3016 Kansas Avenue Property via the mechanisms described in **Section 3.2.2.2**. Therefore, it does not appear that residual sources of shallow VOCs located on the New Basis Property are contributing to VOC impacted groundwater, and in the unlikely event that they are to some degree, their contribution to adverse groundwater conditions is *de minimis*.

1,1-DCE has been consistently detected in some groundwater monitoring wells on the North Parcel. However, concentrations of 1,1-DCE are consistently the most elevated in the monitoring well located on the northwestern edge of the North Parcel and hydraulically upgradient to cross-gradient of the Site (MW-6), where 1,1-DCE was historically detected at a concentration as high as 40 µg/L<sup>9</sup>. An offsite well (MW-13) was installed in 2024 along Roberta Avenue to the north (**Figure 1**), in which 1,1-DCE has been consistently detected at similar concentrations as in MW-6 during follow-on

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<sup>9</sup>[https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo\\_report/5187544643/T10000010448.PDF](https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/5187544643/T10000010448.PDF)

monitoring<sup>10</sup>. Based on the distribution of 1,1-DCE in groundwater at the Site, this compound appears to be derived from an unidentified hydraulically upgradient location and is not associated with historical Site operations.

### **3.2.2.3 Offsite Source Information**

The 3016 Kansas Avenue Property has a documented history of significant chlorinated solvent uses associated with historical manufacturing operations since the 1940s. Sanborn fire insurance maps ascertained as part of the Phase I ESAs conducted for the Project Site depict a 15,000 gallon above-ground tank labeled as containing TCE near the northern 3016 Kansas Avenue Property boundary from 1953 to 1969 (the duration in which Sanborn maps were available). While the 3016 Kansas Avenue Property is relatively early in the investigation process after conducting a Phase II investigation in 2021 (followed by issuance of a directive to conduct further subsurface investigations by SARWQCB [Order No. R8-2024-0055<sup>11</sup>]), available reporting<sup>12</sup> documents numerous releases and potential subsurface release mechanisms and areas in which chlorinated VOCs (including TCE and PCE) and other hazardous materials were historically utilized. The recent 4 September 2024 *Historical Document Submittal*<sup>13</sup> associated with the 3016 Kansas Avenue Property provides documentation of historical use information and environmental investigation activities, and notes the historical presence of 21 underground storage tanks (USTs), 8 above-ground storage tanks (ASTs), clarifiers, and other potential subsurface release mechanisms. A brief summary of environmental investigations conducted in the late 1980s associated with the removal of 15 USTs indicates that they had “...encountered releases of chlorinated solvents to soil and groundwater and polychlorinated biphenyls (PCBs) to soil”. No further information was provided regarding groundwater conditions at this time, but the report indicates that PCE and TCE were detected in soil samples at maximum concentrations of 313,000 milligrams per kilogram (mg/kg) and 252,000 mg/kg, respectively. The report provides no indication that the identified impacts were remediated or otherwise addressed, and concludes that historical records have identified “...multiple chemical releases from Site operations...” with associated subsurface impacts anticipated to consist of petroleum hydrocarbons, VOCs, polycyclic aromatic hydrocarbons (PAHs), PCBs, and metals. There is also a historical environmental case associated with the property south-adjointing to the 3016

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<sup>10</sup>[https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo\\_report/1196044802/T10000010448.PDF](https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/1196044802/T10000010448.PDF)

<sup>11</sup>[https://documents.geotracker.waterboards.ca.gov/regulators/deliverable\\_documents/4462033927/Kansas\\_13267\\_061124.pdf](https://documents.geotracker.waterboards.ca.gov/regulators/deliverable_documents/4462033927/Kansas_13267_061124.pdf)

<sup>12</sup> [https://geotracker.waterboards.ca.gov/profile\\_report?global\\_id=T10000017401](https://geotracker.waterboards.ca.gov/profile_report?global_id=T10000017401)

<sup>13</sup>[https://documents.geotracker.waterboards.ca.gov/regulators/deliverable\\_documents/9993748307/Kansas%20Street%20Historical%20Memo.pdf](https://documents.geotracker.waterboards.ca.gov/regulators/deliverable_documents/9993748307/Kansas%20Street%20Historical%20Memo.pdf)

Kansas Avenue Property at 1995 Third Street<sup>14</sup>, which pertained to a release from a chlorinated solvent UST that was historically used as part of the industrial operations conducted at the 3016 Kansas Avenue Property.

### 3.2.3 Additional Environmental Investigations Conducted Under Current Ownership

Following the due diligence investigations conducted in 2020 and 2021 and the associated revisions to the CSM, a meeting was conducted to discuss the Site on March 29, 2021 between representatives of the following parties:

- SARWQCB;
- DREP Magellan Riverside I, LLC (Magellan; the previous property owner);
- SCIND Massachusetts Point LLC (the purchaser of the Site at the time of the meeting and current property owner); and
- Geosyntec.

At the conclusion of this meeting, SARWQCB concurred that historical documentation and data collected to date are supportive of the revised CSM, but that additional data would be necessary to further establish:

1. The 3016 Kansas Avenue Property as the principal source of soil vapor and groundwater impacts underlying the South and East Parcels;
2. Releases from the former clarifier system on the East Parcel, if any, are not contributing to VOC impacts in underlying groundwater as was assumed in previous reporting; and
3. Very minor sources of VOCs on the North Parcel do not extend to underlying groundwater, or their potential contribution is *de minimis*.

Following acquisition of the Site by SCIND Massachusetts Point from prior ownership in 2021, environmental consulting services for the Site were formally transitioned to Geosyntec. The September 2021 *Revised Conceptual Site Model and Work Plan for Additional Site Investigation*<sup>15</sup> was prepared to develop a path forward for additional investigations to be conducted in support of these data objectives, and was conditionally approved by SARWQCB 19 October 19, 2021. The work plan investigations were conducted in early 2022 and were documented in the March 2022 *Site Assessment Report*

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<sup>14</sup> [https://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=SL0606583253](https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL0606583253)

<sup>15</sup> [https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo\\_report/8548454999/T10000010448.PDF](https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/8548454999/T10000010448.PDF)

and *Request for Closure*<sup>16</sup> (SAR), which provided a comprehensive summary of investigations conducted to date and the revised CSM (as presented in **Section 3.2.2** above). The additional investigations are consistent with and reinforce the conclusions of the revised CSM, and the SAR concluded the following:

- **New Basis Property (North Parcel):** While minor shallow sources of residual VOCs appear to be present on the North Parcel associated with early historical operations, these residual impacts are stable, are not adversely affecting groundwater, and are not resulting in an unacceptable soil vapor intrusion risk. Associated minor surficial soil impacts can be fully addressed with the implementation of a soil management plan with air monitoring for VOCs conducted in accordance with South Coast Air Quality Management District (SCAQMD) Rule 1166. With the implementation of a soil management plan during redevelopment, no additional remediation, investigation, or associated monitoring is recommended for the North Parcel.
- **STA Property (South and East Parcels):** Soil vapor and groundwater VOC impacts on the South and East Parcels appear to be derived from historical releases of VOCs on the south-adjointing 3016 Kansas Avenue Property. The overall results of soil vapor rebound monitoring following the conclusion of the SVE remedy indicate that the cloud of VOC-impacted soil vapor that migrated onto the Site from the 3016 Kansas Avenue Property over the past seven to eight decades had been largely removed by the SVE system, leaving *de minimis* concentrations within the shallow to intermediate portions of the vadose zone. Considering that the VOCs detected on the South and East Parcels appear to be sourced from the south-adjointing 3016 Kansas Avenue Property, and the prior SVE remedy has removed the majority of the vapor-phase VOCs within the shallow to intermediate portions of the vadose zone to result in negligible present-day vapor intrusion risk, no additional remediation, investigation, or associated monitoring is recommended for the South and East Parcels.

In their a letter response to the SAR dated 21 August 2023 (August 2023 Comment Letter), SARWQCB requested additional investigations to address nine bulletized items that were considered by SARWQCB to represent barriers to formal regulatory closure of the Project Site. A follow-up meeting between the following parties occurred on 4 October 2023 to discuss SARWQCB's comments:

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<sup>16</sup>[https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo\\_report/8276934981/T10000010448.PDF](https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/8276934981/T10000010448.PDF)

- SARWQCB;
- SCIND Massachusetts Point, LLC; and
- Geosyntec.

During the meeting, Geosyntec presented data and information specific to the items provided in the August 2023 Comment Letter to drive a discussion regarding path-forward for the Project Site and what additional investigation and/or remedial actions SARWQCB deemed to be potentially warranted. Based on this discussion, the following additional investigation work was generally agreed upon:

1. Initiation of quarterly groundwater monitoring on existing and proposed onsite monitoring wells (11 monitoring wells existed at the time [MW-1 through MW-11], five additional monitoring wells were constructed during the next investigation phase [MW-12, MW-13, MW-2D, MW-8D, and MW-9D; **Figure 1**]), at least in the near term, to evaluate groundwater temporal trends;
2. Installation of one groundwater monitoring well on the southeast corner of the East Parcel (MW-12) to evaluate the eastern on-Site extent of groundwater VOC impacts;
3. Provide a strategy for vertical delineation of VOCs in groundwater;
4. Evaluate the potential presence of 1,4-dioxane in groundwater;
5. Further evaluate the source of minor concentrations of 1,1-DCE (presumed to be offsite) detected in groundwater predominantly within the monitoring wells on the northwest portion of the Project Site via installation of an additional hydraulically upgradient groundwater monitoring well offsite to the north;
6. Obtain information on sewer laterals on the Project Site;
7. Conduct an additional round of soil vapor sampling (on the existing Site-wide SVP network) to evaluate long-term rebound trends for vapor-phase VOCs in the vadose zone following SVE system shutdown in 2021; and
8. At a future date when Site redevelopment activities are planned, prepare a soil management plan for SARWQCB approval that addresses minor shallow VOC-impacted soils anticipated to be present on the New Basis Property (North Parcel).

During the meeting, it was also agreed that restart of the SVE system was not warranted as requested in the August 2021 Comment Letter. Further, it was discussed that SCIND Massachusetts Point, LLC would not be responsible for delineating soil vapor or groundwater impacts off the Project Site as long as the data continue to suggest that off-Site soil vapor and groundwater impacts are not derived from the Site, with the exception of the proposed offsite well to the northwest of the property intended to evaluate Geosyntec's assertion that 1,1-DCE impacts on the North Parcel that appear to be from

an upgradient source. The December 2023 *Additional Site Investigation Work Plan*<sup>17</sup> (2024 Work Plan) was prepared to address the additional Investigation Elements above, and was conditionally approved by SARWQCB on 29 March 2024.

These additional investigation activities were conducted in April and May of 2024, and were documented within the 14 June 2024 *Additional Site Investigation Report*<sup>18</sup> (2024 Report). Based on the results of these investigations, the 2024 Report concluded that the additional data remain consistent with the revised CSM presented within the SAR, that the previously identified data gaps have been addressed (and the Site can thus be considered fully characterized), and that no further investigation is warranted other than routine periodic groundwater monitoring. There is no evidence of a potential historical release of PCE or TCE on the South and East Parcels, where historical uses (agricultural and vacant until the mid-1980's, after which the property has been used to store and maintain school buses) are not associated with the significant use of these compounds. Rather, the presence of significant concentrations of PCE and TCE in soil vapor underlying the South and East Parcels is the result of vapor encroachment from the 3016 Kansas Avenue Property to the south, where data indicates significant volumes of chlorinated solvents were utilized throughout a significant portion of the 20<sup>th</sup> century (discussed in **Section 3.2.2.3**). In turn, additional data obtained through vertical groundwater profiling and groundwater monitoring support the CSM's conclusion that the PCE and TCE in groundwater underlying the Project Site are derived from a combination of 1) vapor-to-groundwater partitioning and historical deposition; and 2) residual presence of VOCs in the deep vadose zone/capillary fringe immediately above groundwater from historical periods when groundwater levels were higher and groundwater flowed to the northwest (see **Section 3.2.2.2**). These trends will continue to be evaluated over additional routine groundwater monitoring events on a go forward basis.

While there is evidence of potential minor shallow vadose zone sources of PCE and TCE on the North Parcel, the 2024 Report concludes that these impacts are restricted to shallow intervals and are not impacting groundwater based on ongoing soil vapor and groundwater monitoring results. Moreover, previous indoor air sampling indicates that these minor sources are not resulting in unacceptable soil vapor intrusion risk to commercial Site occupants. As such, these minor shallow impacts on the New Basis Property do not result in significant environmental or human health risk and can be

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<sup>17</sup>[https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo\\_report/5205917239/T10000010448.PDF](https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/5205917239/T10000010448.PDF)

<sup>18</sup>[https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo\\_report/5187544643/T10000010448.PDF](https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/5187544643/T10000010448.PDF)

addressed via direct excavation during the upcoming planned Site redevelopment under a SMP that will be prepared in accordance with SCAQMD Rule 1166.

### **3.3 Planned Environmental Path Forward**

While the CSM will continue to be updated based on ongoing groundwater monitoring and the results of future investigations conducted at the 3016 Kansas Avenue Property to the south, subsurface media at the Site have been sufficiently characterized vertically and laterally such that there are no significant data gaps remaining that warrant further investigation. There is no evidence of a potential historical release of chlorinated VOCs on the South and East Parcels, and minor shallow impacts on the North Parcel are not resulting in an environmental or human health risk and will be addressed during redevelopment. Similarly, groundwater and soil vapor trends remain consistent with the 1,1-DCE (and 1,4-dioxane) detected in the northwest corner of the Site being related to a regional issue rather than a potential historical on-Site release.

Accordingly, the 2024 Report recommended no additional Site investigation activities at this time other than routine groundwater monitoring. On 17 October 2024, SARWQCB verbally indicated that did not have questions or substantive comments on the 2024 Report. On November 6, 2024, a virtual meeting was conducted between Geosyntec, SCIND Massachusetts Point LLC, and SARWQCB to discuss the proposed redevelopment and associated environmental components that would need to be addressed. Overall, these components were agreed to consist of:

- Installation of a vapor intrusion mitigation system (VIMS) within new buildings designed and installed in accordance with the 2022 Vapor Intrusion Mitigation Guidance<sup>19</sup> (2022 VIMG);
- Addressing low-level VOC impacts present in shallow soil/soil vapor on the North Parcel via a SMP prepared in accordance with SCAQMD Rule 1166 to be implemented during construction; and
- Maintaining/relocating sufficient monitoring infrastructure on the Project Site to enable any ongoing environmental monitoring deemed necessary in the future associated with ongoing environmental investigation and remediation at the 3016 Kansas Avenue Property.

During this meeting, SARWQCB agreed with the overall approach proposed, and did not identify other barriers to redevelopment regarding matters related to the environmental case to which they provide regulatory oversight.

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<sup>19</sup> [https://www.waterboards.ca.gov/rwqcb2/water\\_issues/programs/sitecleanup/2022\\_VIM\\_Guidance.pdf](https://www.waterboards.ca.gov/rwqcb2/water_issues/programs/sitecleanup/2022_VIM_Guidance.pdf)

## 4. KEY FINDINGS AND MITIGATION RECOMMENDATIONS

VOCs are present in soil, soil vapor, and groundwater underlying the Project Site. Subsurface VOC impacts on the South and East Parcels are attributed to sources on the south-adjointing property at the 3016 Kansas Avenue Property, where VOCs were heavily used during historical manufacturing operations and subsurface releases of hazardous substances are documented. On the North Parcel, there is evidence that low magnitude VOC impacts may be present in shallow soils that are not resulting in groundwater impacts.

The following is a media-specific discussion of how known environmental conditions at the Site could potentially affect the Project.

### 4.1 Soil

Soil disturbance activities generally consisting of grading and excavation are anticipated to occur during the Project. It is unlikely that earth working activities would be conducted for the Project at depths greater than 10 ft bgs, though for conservatism, risk potential during earth disturbing activities is considered for depths up to 20 ft bgs on the North and South Parcels. While no grading or significant excavation activities are anticipated on the East Parcel given that it is planned to remain effectively as-is, the East Parcel is also included in this evaluation for conservatism in the event that some amount of earth working activities are necessary (i.e., for utilities, landscaping, etc.).

#### 4.1.1 South and East Parcels

There is no evidence of a historical release of VOCs to soil on the South or East Parcels. While trace concentrations of PCE and TCE have been detected in some shallow soil samples collected from these properties (attributed to adsorption from VOC-impacted soil vapors derived from the 3016 Kansas Avenue Property), the highest detected concentrations are several orders of magnitude below levels that may be considered to represent a possible risk to construction workers or to the community. For example, the Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) for direct exposure of construction workers to impacted soil (i.e., during excavation, etc.) is 33,000 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ) and 130,000  $\mu\text{g}/\text{kg}$  for PCE and TCE, respectively. Whereas, the highest concentrations of PCE and TCE detected in soil samples collected from depths of 20 ft bgs or shallower are 29  $\mu\text{g}/\text{kg}$  and 16.5  $\mu\text{g}/\text{kg}$ , respectively. Thus, potential health risks associated with soil exposure during grading, excavation, and other earth working activities conducted during Project execution are less than significant.

#### 4.1.2 North Parcel

While PCE and TCE have not been detected in soil samples collected from the North Parcel at depths of 20 ft bgs or shallower, there is evidence of minor historical releases of one or both of these VOCs to the subsurface during early industrial operations on the North Parcel based on historical soil vapor sampling data. Mitigation measures associated with potential VOC-impacted soils that could potentially be encountered on the North Parcel are discussed in **Section 4.4** below.

#### 4.2 Soil Vapor and Indoor Air

Soil vapor risk potential is considered from a community exposure, construction worker, and future commercial occupant perspective.

##### 4.2.1 South and East Parcels

There is no evidence of a historical release of VOCs to soil on the South and East Parcels, and as such, exposure risk potential to the community and construction workers associated with vapor-phase VOCs offgassing from VOC-impacted soils is less than significant. Out of an abundance caution, the soil management plan described in **Section 4.4** below will outline protocols for identifying previously undiscovered VOC impacts during earth moving activities throughout the Project.

Significant PCE and TCE concentrations have historically been detected in SVPs on the South and East Parcels associated with soil vapor encroachment from the 3016 Kansas Avenue Property. However, the prior SVE remediation conducted on the Project Site removed the majority of the vapor-phase VOCs present in on-Site shallow soil vapors on these parcels, such that potential risk to the community and to construction workers during Project execution is less than significant.

While there is not a significant present-day risk to commercial Site occupants due to soil vapor intrusion based on prior indoor air sampling, the 2023 *Supplemental Guidance: Screening and Evaluating Vapor Intrusion, Final Draft*<sup>20</sup> recommends that soil vapor data be used to evaluate potential future vapor intrusion risk potential. While predominantly attributed to offsite source(s), shallow PCE and TCE concentrations in some SVPs on the South and East Parcels are above conservative default levels considered to represent a potential vapor intrusion risk to future commercial Site occupants. Given the presence of unaddressed VOC sources at the 3016 Kansas Avenue Property, VOCs are anticipated to continue encroaching onto the Site until they are addressed at a future date. Thus, a vapor

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<sup>20</sup>[https://www.waterboards.ca.gov/water\\_issues/programs/site\\_cleanup\\_program/vapor\\_intrusion/docs/2023/Final-Draft-Supplemental-VI-Guidance-Feb2023.pdf](https://www.waterboards.ca.gov/water_issues/programs/site_cleanup_program/vapor_intrusion/docs/2023/Final-Draft-Supplemental-VI-Guidance-Feb2023.pdf)

intrusion mitigation system (VIMS) is planned for future buildings as a project design feature to mitigate potential future risk to commercial Site occupants, as discussed in **Section 4.4** below. An associated operation, maintenance, and monitoring (OMM) plan for the VIMS will be prepared in conjunction with the design, which will outline long-term monitoring requirements under SARWQCB's regulatory oversight, along with associated risk thresholds and response actions.

#### **4.2.2 North Parcel**

Minor VOC impacted soils are anticipated to be encountered on the North Parcel during earth working activities. The SMP discussed in **Section 4.4** below will develop a plan to address VOC impacted soils on the North Parcel to the extent practicable; however, some amount of residual VOC impacts may still be present in these soils post-redevelopment, which may in turn generate VOC impacted soil vapors over time such that a future soil vapor intrusion risk condition could potentially develop. Thus, the VIMS planned as a project design feature to mitigate potential future risk to commercial Site occupants, as discussed in **Section 4.4** below, will also be incorporated into the design of the new structures planned on the North Parcel.

#### **4.3 Groundwater**

Groundwater underlying the Site is impacted with VOCs. However, the water table is located at approximately 120 ft bgs at the Site and is well below the maximum vertical extent of earth working activities planned for the Project. Additionally, potential risk associated with vapor-phase VOCs offgassing from impacted groundwater is negligible at these depths. Therefore, risk potential for the Project associated with VOC impacted groundwater is less than significant.

#### **4.4 Proposed Mitigation Measures and Project Design Features**

The following mitigation measures and project design features are proposed for the Project to ensure that potential risk associated with known and reasonably anticipated environmental conditions at the Site area reduced to levels that are less than significant:

- **Project Design Feature - Vapor Intrusion Mitigation in Future Buildings (Slab-on-Grade)**: Newly constructed slab-on-grade structures planned for regular occupancy on the Project Site will include a passive engineered sub-slab ventilation (SSV) VIMS capable of being converted to an active system (if necessary) in the future. SSV VIMS are engineered into a building's design and consist of a high-permeability sub-slab layer (typically gravel) with a series of collection pipes designed to safely ventilate VOCs and other potentially harmful vapors (such as naturally occurring radon gas) to the atmosphere before they can accumulate beneath a concrete slab and potentially enter an overlying building.

The SSV VIMS will be designed to meet the minimum objective standards within Section 3 of the 2022 VIMG. The SSV VIMS will consist of the following components (at a minimum):

- A ventilation layer beneath the concrete slab that is a minimum of 4-inches thick, consisting of highly permeable clean engineered gravel;
- Collection piping within the venting layer that are in communication with all areas beneath the floor slab, spaced no less than 50 feet apart and a minimum of 15 feet from exterior walls;
- Vent riser pipes with inlets located a minimum of 10 feet from any building opening and at least 1 foot above the roof or parapet walls;
- A vapor barrier located above the ventilation layer and below the concrete slab composed of a suitable material to prevent diffusive transport of VOCs through the material, and of a suitable thickness to be protective against puncture during construction activities; and
- Sampling infrastructure sufficient for routine monitoring in accordance with applicable portions of Section 4 within the 2022 VIMG to evaluate continued system effectiveness. Monitoring infrastructure will include (at a minimum) vent riser sampling ports and permanent sub-slab probes located within and above the venting layer to evaluate concentrations of VOCs beneath the building, collect pressure measurements (if converted to an active system in the future), and evaluate ventilation effectiveness.

An OMM Plan will be developed in conjunction with the VIMS design for SARWQCB's review and approval in accordance with Section 8C within the 2022 VIMG. The OMM Plan which will outline routine monitoring and maintenance of the VIMS, potential risk thresholds, response criteria, and similar information.

- **Mitigation Measure 1 – Impacted Soils Identification and Management:** Prior to issuance of a grading or excavation permit a SMP shall be approved by the Santa Ana Regional Water Quality Control Board. The SMP shall describe general methods for the identification and management of soils potentially impacted by VOCs Site-wide. In areas where VOCs are suspected to potentially be present in soil (i.e., in the vicinity of areas previously identified on the North Parcel and any other areas in which potential VOC impacted soils are otherwise identified), earth working activities will be conducted by a contractor with a current SCAQMD Rule 1166 Various Locations Plan, and the SMP will describe the methods to identify, manage, and dispose of “VOC Contaminated Soil” as defined in Rule 1166 (i.e., soils emitting VOCs at concentrations greater than 50 parts per million [ppm] as hexane). The SMP will also describe more conservative monitoring criteria and thresholds for targeted excavation of soils in suspected historical VOC release areas on the North Parcel (and potentially other locations

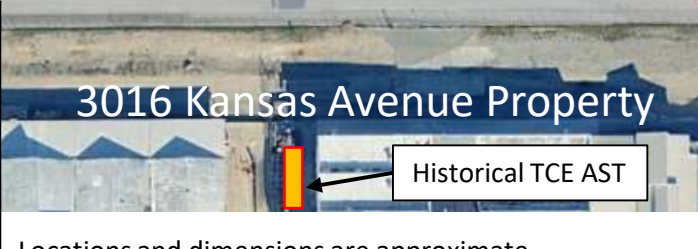
in the event that a previously unidentified VOC or petroleum hydrocarbon release area is discovered during earth working activities).

Per SCAQMD Rule 1166, the SMP shall include protocols for minimizing VOC emissions into the atmosphere during construction, including excavation, grading, handling, and treatment of VOC-impacted soils, and will describe associated notification requirements, monitoring requirements, soil handling protocols, and recordkeeping requirements. In the event that “VOC-contaminated soil” is identified as defined within Rule 1166, the soil will be handled in accordance with the Rule and the associated Various Locations Plan. A project-specific Health and Safety Plan (HASP) will also be prepared in accordance with California Occupational Safety and Health Administration (OSHA) standards and other applicable rules and regulations, which will incorporate appropriate health and safety precautions to be implemented to protect workers and the public from exposure to potentially hazardous substances that may be encountered during these earth working activities.

# FIGURES

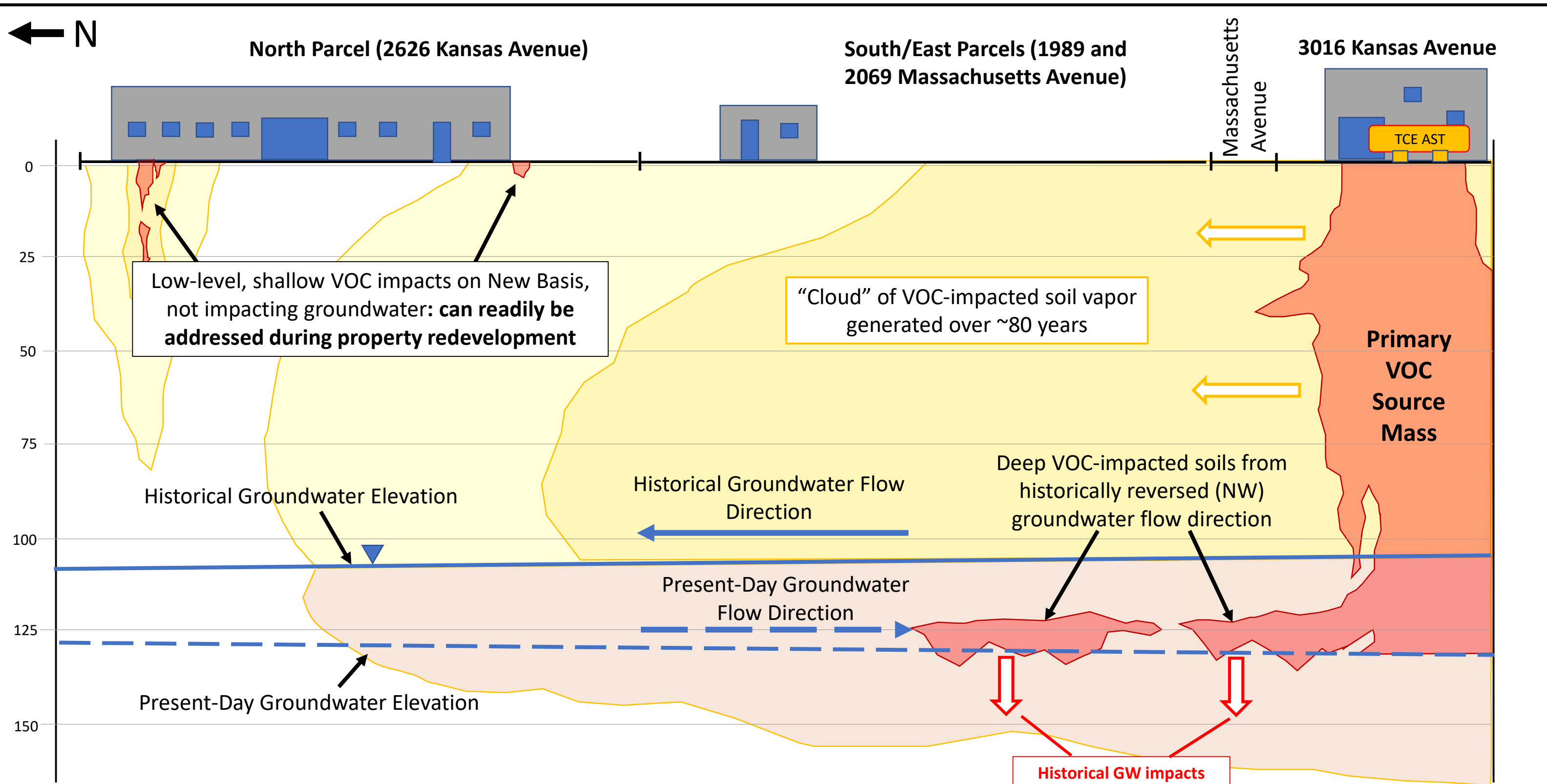


- North Parcel (2626 Kansas Avenue)
- South Parcel (2069 Massachusetts Avenue)
- East Parcel (1989 Massachusetts Avenue)
- ⊗ Existing Nested Soil Vapor Probe
- ⊗ Groundwater Monitoring Well
- ⊕ Soil Vapor Extraction Well
- Former Clarifier and Piping
- Above-Ground Storage Tank (AST)



Locations and dimensions are approximate

<b>Project Site Layout</b>	
1899 and 2069 Massachusetts Avenue; 2626 Kansas Avenue Riverside, California	
SC1143	April 2025
<b>Figure 1</b>	



Low-level, shallow VOC impacts on New Basis, not impacting groundwater: can readily be addressed during property redevelopment

“Cloud” of VOC-impacted soil vapor generated over ~80 years

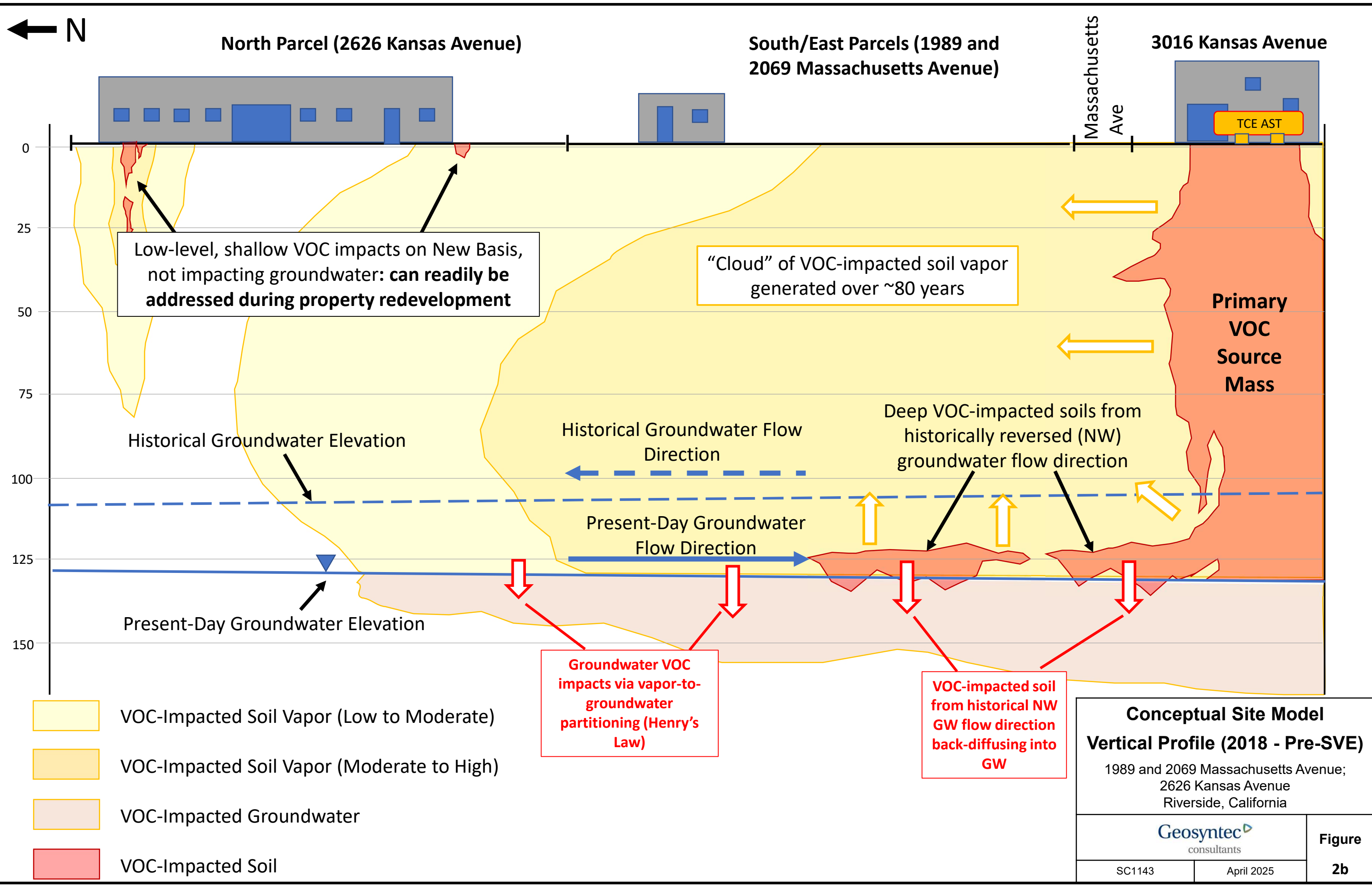
Primary VOC Source Mass

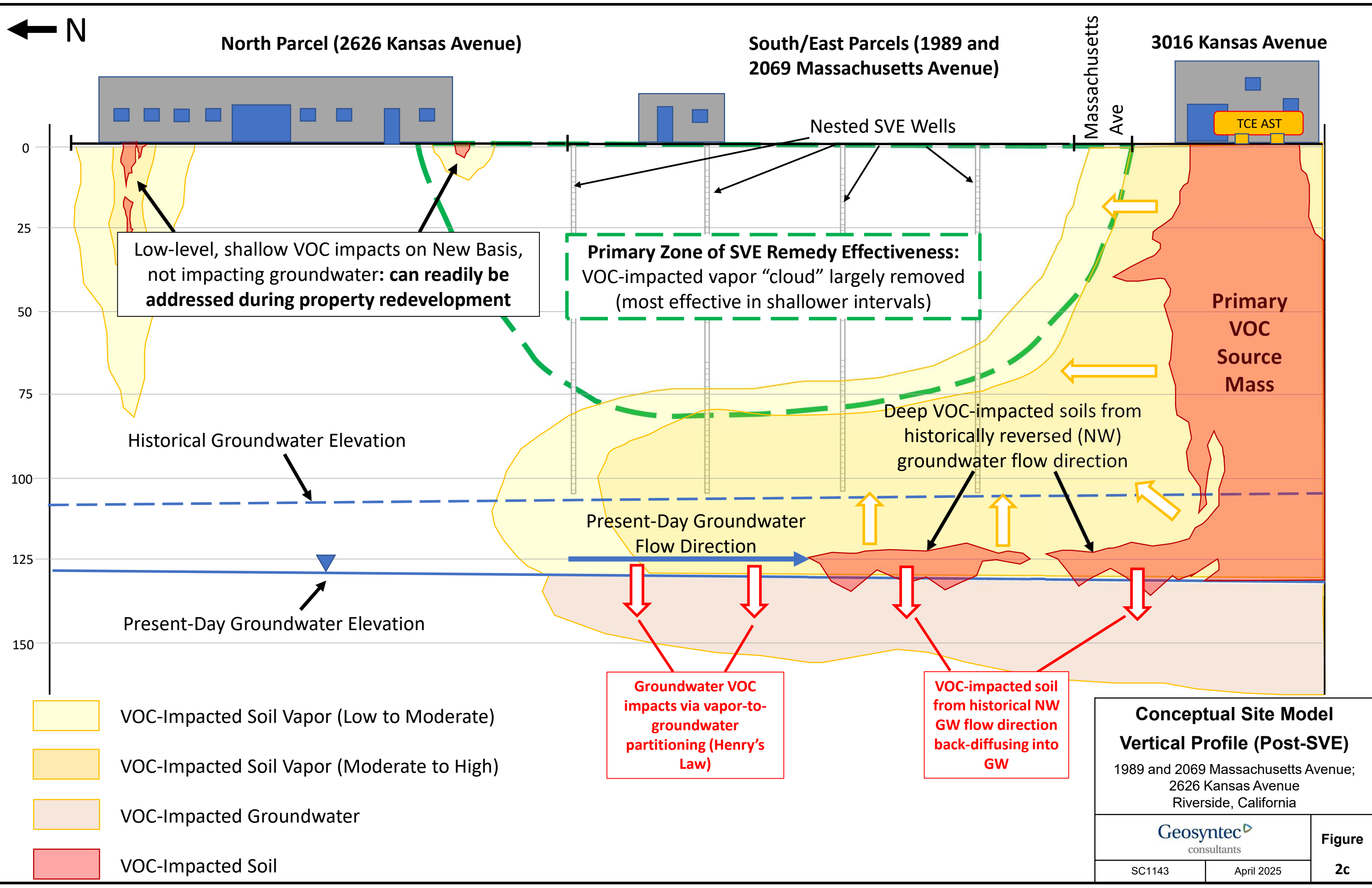
Deep VOC-impacted soils from historically reversed (NW) groundwater flow direction

Historical GW impacts from VOC-impacted soil during previous NW GW flow direction

**Conceptual Site Model Vertical Profile (Circa 1990s)**  
 1989 and 2069 Massachusetts Avenue;  
 2626 Kansas Avenue  
 Riverside, California

- VOC-Impacted Soil Vapor (Low to Moderate)
- VOC-Impacted Soil Vapor (Moderate to High)
- VOC-Impacted Groundwater
- VOC-Impacted Soil





## ATTACHMENT 1

November 2024 Phase I Environmental Site  
Assessment, 1989 Massachusetts Avenue and  
2626 Kansas Avenue, Riverside, California by  
Geosyntec Consultants, Inc.

## ATTACHMENT 2

June 2021 Phase I Environmental Site  
Assessment, 1989 Massachusetts Avenue and  
2626 Kansas Avenue, Riverside, California by  
Geosyntec Consultants, Inc.

## ATTACHMENT 3

1 November 2024 Master Site Plan,  
Massachusetts Ave. and Kansas Ave. by Staley  
Point by HPA Inc.

## ATTACHMENT 4

Preliminary Precise Grading Plan, 2626 Kansas  
Avenue, 1989 & 2069 Massachusetts Avenue,  
Riverside, CA 92507 by Huitt Zollars

## ATTACHMENT 5

21 July 2021 (revised 30 January 2025)  
Geotechnical Investigation Two Proposed  
Warehouses, EC Massachusetts Avenue and  
Kansas Avenue Riverside, California for Staley  
Point Capital by Southern California  
Geotechnical