

Appendix III: Environmental Factors

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Geology & Soils

The surface soils on the Fairground site belong to the Yolo and the Orestimba soil associations. Yolo silty clay loam soils are rated as prime farmland according to the US Department of Agriculture Soil Candidate Listing, and Orestimba clay loam soils are listed as farmland of statewide importance.¹ The Fairgrounds, however, are neither prime nor important farmland. The project site is designated as Urban and Built-Up land on the Santa Clara County Important Farmland Map.² While the native underlying soils on the site are fertile in their undisturbed state, the site has not been used for agricultural purposes for over fifty years and is surrounded by industrial, commercial, and residential uses. There is no rated farmland in the vicinity of the site that would be affected by redevelopment activities.

There are no forest land uses located on or adjacent to the project site.

Soils on and in the vicinity of the Fairgrounds are old river channel deposits that consist of fine-grained sands, silts, and clays. The surface soils on the Fairgrounds site belong to the Yolo and the Orestimba soil associations.

Orestimba clay loam, which covers the bulk of the site, is a very deep, poor to poorly drained, moderately and very fine textured soil. Orestimba silty clay loam is found in the southeast corner of the fairgrounds and is characterized by deep, poorly drained soils with moderately high salt

¹ County of Santa Clara. *Santa Clara County Fairgrounds Revitalization Project Draft EIR*. 1999.

² Urban and Built-Up land is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately six structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures. Source: California Department of Conservation, Division of Land Resource Protection. Santa Clara County Important Farmland Map. 2011. Available at: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/sc110.pdf>. Accessed October 1, 2014.

concentrations. These soils present no erosion hazard, but have a high shrink-swell capacity, a characteristic distinguished by the drying and shrinking of clays causing cracks in the soil which can damage building foundations and other structures.³

The southwest corner of the Fairgrounds site has Yolo soils. Yolo soils are well drained, moderately fine textured soils. These soils pose no permanent development limitations or hazards. The Yolo soils onsite exhibit very slow runoff, low erosion hazard, and moderate shrink-swell capacity.⁴

Santa Clara County and the rest of the Bay Area are in one of the most active seismic regions in the United States. Three major branches of the active San Andreas fault system, the San Andreas, Hayward and Calaveras fault zones, exist within Santa Clara County. The known faults closest to the project site are the Coyote Creek fault, Silver Creek fault, and San Jose fault, none of which are thought to be active. No known active faults cross the Fairgrounds and ground rupture would not occur on the site. Groundwater is more than 25 feet below ground surface (bgs). There is a low potential for liquefaction at the site.⁵

The most severe impacts of ground shaking occur on fine, unconsolidated soils, for which bedrock lies at great depths, such as occurs throughout the alluvial soils of the Santa Clara Valley. Depth to bedrock in the immediate vicinity of the project site varies dramatically, ranging from 200 to 700 feet below ground surface (bgs). Borings taken across the street from the Fairgrounds on the west side of Monterey Road indicate bedrock is at 271 feet bgs and alluvium at 200 to 500 feet bgs in the general vicinity of the Fairgrounds site. There are no steep slide-prone slopes on or adjacent to the site. The Fairgrounds appear flat, with elevations ranging from 120 to 140 feet. The site slopes gently down to the north.⁶

Hydrology & Water Quality

The Fairgrounds are not located in a 100-year floodplain. According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map, the site is designated "Zone D," which is defined as areas where flood hazards are undetermined, but possible.⁷

Based on Dam Failure Inundation Hazard Maps prepared by the Association of Bay Area Governments (ABAG), the Fairgrounds are not located within a dam failure inundation hazard zone.⁸ Due to the Fairground site's inland location and distance from large bodies of water (e.g., the San Francisco Bay), it is not subject to seiche or tsunami hazards. There are no slopes on or adjacent to the Fairgrounds that would make the site subject to mudflows.

The water quality of streams, creeks, ponds, and other surface water bodies can be greatly affected by pollution carried in contaminated surface runoff. Pollutants from unidentified sources, known as

³ Ibid.

⁴ Ibid.

⁵ Ibid.

⁶ County of Santa Clara. *Santa Clara County Fairgrounds Revitalization Project Draft EIR*. 1999.

⁷ Federal Emergency Management Agency. *Flood Insurance Rate Map. Panel 06085C0261H*. May 18, 2009.

⁸ Association of Bay Area Governments (ABAG). *Dam Failure Inundation Hazard Maps for SE San Jose*. Available at: <http://www.abag.ca.gov/cgi-bin/pickdamx.pl>. Accessed October 7, 2014.

“non-point” source pollutants, are washed from streets, construction sites, parking lots, and other exposed surfaces into storm drains. Surface runoff from the project area is collected by storm drains which discharge runoff into Los Gatos Creek. Urban runoff can contain contaminants such as oil and grease, plant and animal debris (e.g., leaves, dust, and animal feces), pesticides, litter, coolants, and heavy metals. In sufficient concentration, these pollutants have been found to adversely affect the aquatic habitats to which they drain.

The project site is used for urban recreational purposes. Runoff from the site may contain sediment, oil, grease, and pesticides from landscaped areas.

Groundwater

Groundwater beneath the Fairgrounds site is more than 25 feet bgs. Fluctuations in groundwater levels may occur due to variations in rainfall, underground drainage patterns, and other factors. The project site is not located within a natural or facility groundwater recharge area.⁹

Mineral Resources

The Fairgrounds are in an area that overlies a buried stream channel. Although it is known that sand and gravel deposits are often left by ancient meandering streams, there is no data available on the suitability of this material as an aggregate mineral resource. As a result, the California Division of Mines and Geology has classified most of the Fairgrounds site as Mineral Resource Zone (MRZ) 3(e), which indicates that the significance of the resources cannot be evaluated from available data. A portion of the Fairgrounds (along its western border) is classified as MRZ-I, meaning that there is enough information to indicate that no significant mineral deposits are present or that there is little likelihood of their presence.¹⁰

Even if aggregate resources on-site are determined with further data to be significant, there is little likelihood that they could readily be extracted. The Fairgrounds are located within an urbanized residential and commercial area, meaning that mineral extraction would result in significant land use compatibility issues. Additionally, sand and gravel deposits, if they exist, are at a depth of at least 40 feet, making mining particularly expensive and invasive.¹¹

Climate

Climate data for Santa Clara County Fairground was obtained from nearby San Jose International Airport. The site has a subtropical Mediterranean climate. The daily average temperatures range from 50F in the winter to about 70F in the summer. San Jose lies inland from the Pacific making it relatively rain sheltered. There is light precipitation occurring predominantly between November and May. The summer months are generally quite dry. Wind speeds are moderate throughout the year with the prevailing winds coming from the north-westerly and northerly directions for most of the year. In the winter there are also significant winds from the south-easterly direction. It should be noted that the city experiences a variety of different microclimatic conditions. South San Jose experiences more rainfall and extreme of temperatures compared to the downtown area.

⁹ Santa Clara Valley Water District. *Groundwater Management Plan*. 2012.

¹⁰ County of Santa Clara. *Santa Clara County Fairgrounds Revitalization Project Draft EIR*. 1999.

¹¹ Ibid.

The warm season last from June to October with an average daily temperature of above 65°F. Maximum temperatures of 90-95 °F are reached around June. The cold season is from between November to February with temperatures averaging below 54°F. The diurnal temperature swing tends to be about 20°F throughout most of the year. Diurnal temperature swings do not vary too much throughout the year. There is about 20F average swing in temperature from day to night.

Wind speeds typically vary from 0 to 8.5 m/s throughout the year (calm to moderate) rarely exceeding 8.5 m/s. The highest average wind speeds are between 3.5-4.1 m/s occurring from May to June. For the majority of the year the prevailing winds are from the north-west and north. In the winter there are also significant south-easterly winds.

Noise

The Fairgrounds are located adjacent to Tully Road and Monterey Road. Areas of the site immediately adjacent to these two roads are 65 dBA to 70 dBA. Approximately 800 and 600 feet from Tully Road and Monterey Road, respectively, the site is within the 60 to 65 dBA DNL Noise Contour. The remaining southeastern majority of the site is in an area below 60 dBA DNL.¹² (Appendix_)



The City of San Jose has the following thresholds for noise which should be considered as part of redevelopment of the Fairgrounds site to avoid impacts to existing sensitive receptors in the area.

General Plan Land Use Compatibility Guidelines						
Land Use Category	Exterior DNL Value in Decibels					
	55	60	65	70	75	80
1. Residential, Hotels and Motels, Hospitals and Residential Care ¹						
2. Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
3. Schools, Libraries, Museums, Meeting Halls, and Churches						
4. Office Buildings, Business Commercial, and Professional Offices						
5. Sports Arena, Outdoor Spectator Sports						
6. Public and Quasi-Public Auditoriums, Concert Halls, and Amphitheaters						

Notes: ¹Noise mitigation to reduce interior noise levels pursuant to Policy EC-1.1 is required.

Normally Acceptable:

¹² City of San Jose. *Envision 2040 San Jose General Plan*. Available at: <http://www.sanjoseca.gov/index.aspx?nid=1736>. Accessed October 6, 2014.

General Plan Land Use Compatibility Guidelines						
Land Use Category	Exterior DNL Value in Decibels					
	55	60	65	70	75	80
	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.					
	Conditionally Acceptable: Specified land use may be permitted only after detailed analysis of the noise reduction requirements and noise mitigation features included in the design.					
	Unacceptable: New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies. Development will only be considered when technically feasible mitigation is identified that is also compatible with relevant design guidelines.					

The Airport Influence Area (AIA) is a composite of the areas surrounding the Airport that are affected by noise, height, and safety considerations. The Fairgrounds are not located within the AIA.¹³

Air Quality

Criteria Air Pollutants

Major criteria pollutants, listed in “criteria” documents by the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and suspended particulate matter (PM). These pollutants can have health effects such as respiratory impairment and heart/lung disease symptoms.

Violations of ambient air quality standards are based on air pollutant monitoring data and are judged for each air pollutant. The Bay Area as a whole does not meet state or federal ambient air quality standards for ground level ozone and PM_{2.5}, or state standards for PM₁₀. The Bay Area is considered in attainment or unclassified for all other pollutants. Emissions of criteria air pollutants from construction and operation of any future project on the Fairgrounds site will be dependent on the size of the project, and the type of land use/project proposed.

Toxic Air Contaminants

Besides criteria air pollutants, there is another group of substances found in ambient air referred to as Toxic Air Contaminants (TACs). These contaminants tend to be localized and are found in relatively low

¹³ County of Santa Clara. Comprehensive Land Use Plan. 2011. Available at: http://www.sccgov.org/sites/planning/PlansPrograms/ALUC/Documents/ALUC_20110525_SJC_CLUP.pdf Accessed October 6, 2014.

concentrations in ambient air; however, exposure to low concentrations over long periods can result in adverse chronic health effects. Diesel exhaust is a predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). Fine Particulate Matter (PM_{2.5}) is a complex mixture of substances that includes elements such as carbon and metals; compounds such as nitrates, organics, and sulfates; and complex mixtures such as diesel exhaust and wood smoke. Long-term and short-term exposure to PM_{2.5} can cause a wide range of health effects. Common stationary sources of TACs and PM_{2.5} include gasoline stations, dry cleaners, and diesel backup generators. The other more significant, common source is motor vehicles on roadways and freeways.

The San Francisco Bay Area Air Quality Management District (BAAQMD) is responsible for management of air quality in the Bay Area. BAAQMD defines sensitive receptors as facilities where sensitive receptor population groups (children, the elderly, the acutely ill and the chronically ill) are likely to be located. These land uses include residences, school playgrounds, child-care centers, retirement homes, convalescent homes, hospitals and medical clinics. According to the BAAQMD Air Quality Guidelines (Air Quality Guidelines), any project that proposes placement of a new sensitive receptor should evaluate sources of TACs within 1,000 feet of the receptor. Sources of TACs within 1,000 feet of the Fairgrounds are listed below.¹⁴

There are approximately five businesses/agencies that are sources of TACs located north of the Fairgrounds including:

- ABMAC Inc. Maaco Collision & Auto Repair at 275 Tully Road;
- Earl Scheib, Inc. at 169 Tully Road;
- Santa Clara Valley Transportation Authority at 2240 S. 7th Street;
- Valley Health Center at Franklin-McKinley at 500 Tully Road; and
- San Jose Fire Department Station No. 26 at 528 Tully Road.

There is one business that is a source of TACs located east of the Fairgrounds:

- Classic Concepts Collision Inc. at 2670 Pacer Lane.

There are approximately eight businesses that are sources of TACs located south of the Fairgrounds including:

- Dynamic Auto Body at 230 Umbarger Road, Suite 9;
- Skills Auto Body at 230 Umbarger Road, Suite 14;
- Nguyen Auto Body and Repair at 170D Umbarger Road;
- Fairgrounds Collision Repair Center at 230 Umbarger Road, Suite 15;
- WGN Manufacturing Company at 210 Umbarger Road;

¹⁴ Stationary sources of TACs are listed based on best-available data in the BAAQMD Stationary Source Screening Tool. Available at: <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx>. Accessed October 3, 2014.

- B7H Finishing at 354 Umbarger Road, Unit 2;
- Collision Repair Specialists at 354 Umbarger Road, Unit 16; and
- Aptek Inc. at 414F Umbarger Road.

There are no businesses located west of the Fairground that are a source of TACs.

There is one business that is a source of TACs located on the Fairgrounds, in the northern portion of the site:

- USA Gasoline c/o Stratus Environmental at 2345 S. 7th Street.

In addition to stationary sources of TACs listed above, the Fairgrounds are within 1,000 feet of several roadways with average daily trips (ADT) of over 10,000 vehicles including:¹⁵

- Monterey Road (61,000 ADT)
- Tully Road (48,200 ADT)
- Senter Road (28,200 ADT)
- S. 10th Street (24,700 ADT)
- S. 7th Street (12,000 ADT)

The Fairgrounds encompass approximately 150 acres, therefore, whether TAC sources are located within 1,000 feet of any future sensitive receptors will be dependent on the location of the new sensitive receptor within the Fairgrounds boundary.

In addition to a proposed project considering impacts from existing sources of TACs to new sensitive receptors, the Air Quality Guidelines also require evaluation of impacts from a new proposed source of TACs to existing sensitive receptors. Sensitive receptors in the vicinity of the Fairgrounds could be affected by TAC emissions if future development on the site includes the placement of a TAC source within 1,000 feet of an existing sensitive receptor, and/or if construction activities on the Fairgrounds include the use of heavy diesel equipment for an extended period of time. Sensitive receptors in the vicinity of the Fairgrounds are listed below:

- Students attending Franklin McKinley Elementary School located adjacent to the northeastern portion of the Fairgrounds;
- Residents of the single-family, multi-family, and mobile home residential neighborhoods located adjacent to the east of the Fairgrounds;
- Residents of the mobile home and single-family residential neighborhoods, located south of the Fairgrounds, across Umbarger Road; and
- Residents of the multi-family and mobile home neighborhoods, located west of the Fairgrounds across Monterey Road.

¹⁵ ADT is based on best-available data from 2004, as listed by the California Department of Public Health. Available at: http://www.ehib.org/traffic_tool.jsp. Accessed October 3, 2014.

Greenhouse Gas Emissions

The City of San Jose has adopted a Greenhouse Gas Reduction Strategy (adopted with the *Envision San José 2040 General Plan*). Any redevelopment proposed at the Fairgrounds will be required to demonstrate compliance to the City's Green Building Codes, including LEED certification or an equivalent standard, as applicable. With conformance to the City's Greenhouse Gas Reduction Strategy, development on the Fairgrounds site will not result in significant emissions of greenhouse gases.

Onsite Hazardous Materials

In 1999, an EIR was prepared for a formerly proposed redevelopment project at the Fairgrounds site which included an evaluation of hazardous materials. Hazardous materials conditions on the site may have changed over the last 15 years and new studies will be required as part of redevelopment activities. (Appendix_)

(Move to Appendix_) In 1999, Fairground operations included use of hazardous materials primarily for maintenance and fuel purposes. The types of hazardous materials found at the Fairgrounds included fuels (gasoline and diesel), oils (motor oil and hydraulic oil), paints (latex and oil-based), solvents (degreasers, paint thinners, and aerosol propellants), acids and bases (cleaners), compressed gases (propane), disinfectants, and pesticides. Nearly all of these materials were stored in 55-gallon or smaller containers. Many were stored in 1-gallon or smaller containers. The exceptions included above-ground storage tanks (ASTs) containing gasoline and diesel (500 gallons of gasoline and 500 gallons of diesel), a 200-gallon container of propane, and a 250-gallon waste oil tank, all at the corporation yard.¹⁶ The Fairgrounds site has one closed leaking underground storage tank (LUST) case in the southern portion of the site.¹⁷

The existing buildings on site were constructed between the late 1940s and the early 1960s. Existing buildings could contain asbestos, PCBs, lead, mercury, or other hazardous materials historically used in construction materials. Asbestos, PCBs, and lead were commonly installed in insulation, floor tiles, roofing tar, electrical transformers, fluorescent light ballasts, and paint.

The project site has been used as Fairgrounds since the early 1940s and previous to that, the site was used for agriculture. A variety of chemical pesticides and herbicides were likely applied to the site in the past for agricultural activities, and more recently herbicides and pesticides may also have been applied to the site to maintain the Fairgrounds.

Automotive and horse racing historically occurred at the Fairgrounds on the former one-mile and ½-mile racetracks, and demolition derbies occurred about once a year in the center of these race areas. These areas were not paved and soil contamination may be present on-site in these areas.

¹⁶ Ibid.

¹⁷ State Water Resources Control Board (SWRCB). Geotracker Database. Available at: <http://geotracker.waterboards.ca.gov/>. Accessed October 6, 2014.

Offsite Hazardous Materials

Geotracker¹⁸ is a database maintained by the State Water Resources Control Board (SWRCB) and provides online access to environmental data. It tracks regulatory data pertaining to LUST, Department of Defense, Site Cleanup Program, and Landfill sites.

The Envirostor¹⁹ database is maintained by the Department of Toxic Substances Control (DTSC) and contains information on investigation, cleanup, permitting, and/or corrective actions that are planned, being conducted, or that have been completed under DTSC’s oversight. The Envirostor database includes Federal Superfund sites, State Response sites, Voluntary Cleanup sites, and school sites.

The following table lists open hazardous materials cases within ½-mile of the Fairgrounds, as shown on the Geotracker and Envirostor Databases:

Open Case Hazardous Materials Database Listing						
Site Name	Database	Source of Contaminants	Affected Resource	Status	Distance from Fairgrounds	Address
Burke Industries	• Geotracker	Unidentified	Tetrachloroethylene (PCE) and Trichloroethylene (TCE) affecting other groundwater (uses other than drinking water).	Open-Site Assessment	1,545 ft northeast	2250 South 10 th Street
Former GE San Jose Facility	• Geotracker	Historic use of the site for manufacturing activities.	TCE affecting affecting other groundwater (uses other than drinking water) and soil.	Open-Remediation (Geotracker) Inactive-Needs Evaluation (Envirostor)	2,500 ft northwest	2153 Monterey Highway
Texaco	• Geotracker	Leaking Underground	Benzene, gasoline, MTBE, TBA, and	Open-assessment	2,450 feet	2895 Senter

¹⁸ State Water Resources Control Board (SWRCB). Geotracker Database. Available at: <http://geotracker.waterboards.ca.gov/>. Accessed October 6, 2014.

¹⁹ Department of Toxic Substance Control (DTSC). Envirostor Database. Available at: <http://www.envirostor.dtsc.ca.gov/public/>. Accessed October 6, 2014.

Open Case Hazardous Materials Database Listing

Site Name	Database	Source of Contaminants	Affected Resource	Status	Distance from Fairgrounds	Address
		Storage Tank (LUST)	other fuel oxygenates affecting other groundwater (uses other than drinking water).	and Interim Remedial Assessment (Geotracker)	southeast	Road
California Car Wash	<ul style="list-style-type: none"> • Geotracker 	LUST	Gasoline affecting other groundwater (uses other than drinking water).	Open-Remediation (Geotracker)	303 feet north	2345 South 7 th Street
Santa Clara County Transit District (Don Pedro Chaboya Station)	<ul style="list-style-type: none"> • Geotracker • Envirostor 	Liquid Waste from Pipe Leak	Diesel affecting other groundwater (uses other than drinking water).	Open-Remediation (Geotracker) Refer-RWQCB (Envirostor)	1,300 feet north	2240 South 7 th Street
Orvieto B	<ul style="list-style-type: none"> • Geotracker • Envirostor 	Site previously used as an auto wrecking and salvage yard, and for agriculture.	Lead, petroleum hydrocarbons, polychlorinated biphenyls (PCBs) and TPH motor oil (TPHmo) affecting soil.	Active (Geotracker and Envirostor)	2,030 feet southwest	88 Montecito Vista Drive
Orvieto Family Apartments	<ul style="list-style-type: none"> • Geotracker • Envirostor 	Site previously used as an auto wrecking and salvage yard, and for agriculture.	Lead, petroleum hydrocarbons, PCBs and TPHmo, TPH as gasoline (TPHg), and TPH as diesel (TPHd) affecting soil.	Certified / Operation & Maintenance Land Use Restrictions (Geotracker and	1,600 feet southwest	80 Montecito Vista Drive

Open Case Hazardous Materials Database Listing

Site Name	Database	Source of Contaminants	Affected Resource	Status	Distance from Fairgrounds	Address
				Envirostor)		
The Montecito Vista Project	<ul style="list-style-type: none"> • Geotracker • Envirostor 	Site previously used as an auto wrecking and salvage yard, and for agriculture.	Lead, petroleum hydrocarbons, PCBs, TPHmo, and TPHd affecting soil.	Active (Geotracker and Envirostor)	895 feet southwest	2745 Monterey Road

In addition to the above open hazardous materials cases, there are an additional 18 closed LUST cases and three closed 'other' cases within ½ mile of the project site (approximate).