

## **Steele Peak Inaugural Trail**

**Initial Study - Mitigated Negative Declaration (IS-MND)**

**Appendix A – Air Quality Technical Memorandum**



## MEMORANDUM

**To:** Riana Fisher, Riverside County Habitat Conservation Authority

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**Date:** August 20, 2021

**Subject:** Steele Peak Inaugural Trail Project – Air Quality Technical Memorandum

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### PURPOSE

The purpose of this technical memorandum is to evaluate potential short- and long-term term air quality impacts as a result of the proposed Steele Peak Inaugural Trail Project (Project), located in Unincorporated Riverside County (County), west of the City of Perris, California.

### PROJECT LOCATION

The Project site is located in unincorporated Riverside County near the City of Perris and is regionally accessible from Interstate 215 to the east, Interstate 15 to the west, and Highway 74 to the south.

### EXISTING SITE CONDITIONS

The Project site is within a parcel that is part of Riverside County Habitat Conservation Authority (RCHCA) land, which comprises 250 acres of 1,723 acres of conserved lands for the Stephen's Kangaroo Rat (SKR) in the Steele Peak Reserve (Reserve). The proposed Project site has been historically closed to the public and has been fenced and gated to prevent unauthorized access. However, fencing has been illegally removed in many locations, for unauthorized access to the site.

### PROJECT DESCRIPTION

RCHCA proposes to create a 1.2-mile sustainable trail loop with associated fencing and signage for the public to enjoy while also preserving and restoring disturbed areas outside the proposed trail. The Project intends to utilize existing roads that are between 10 and 12 feet wide. Using this disturbed road within the Reserve is most ideal for the proposed trail as damage to the Reserve has already been done there. The Project would narrow these disturbed existing roads to approximately six (6) feet using vegetation, rocks, and fencing to prevent unauthorized off-highway vehicle (OHV) access on the trail. Narrowing of the trails would result in approximately 0.48 to 0.73 acre of area that can revegetate to become viable SKR habitat. The fencing would keep trail users on the designated paths and prevent damage to the surrounding SKR habitat and vegetation. Both the proposed trail and fencing would not impact undisturbed habitat areas. The proposed trail would only be open to hikers and amenities would be minimal.

Fencing would be placed on both sides of the 6-foot-wide trail. Fencing on the trails would consist of a composite rail with splitting (Trex composite). Perimeter fencing would also be added or replaced along

Forrest Road and end at the intersection of San Jacinto Avenue and Forrest Road to help prevent unauthorized entry and illegal offloading in the Reserve.

Parking for up to 10 cars would be established off site just north of the entrance to the trail system at the end of Forrest Road, on a portion of a landfill site owned by the Riverside County Department of Waste Resources (RCDWR). RCHCA would lease a portion of a decommissioned landfill from the RCDWR to allow parking, a gate and new fencing meant to control access and allow RCHCA to enforce operational hours to the site. Other amenities would include basic wayfinding, interpretive signage, seating boulders, and a trash receptacle to help minimize waste along the trail. Access to the Reserve from the parking lot would occur via an existing Southern California Edison (SCE) easement that runs directly west from the parking area. RCHCA's land lease from RCDWR would ensure existing facility access is maintained for Waste Resources and SCE while trail access is provided without disturbing their operations and maintenance activities.

Construction of the Project is expected to last approximately two (2) months. Equipment that is expected to be used consists of motorized hand augers, hammering for fence posts (not pile driving), power drills and saws, skid-steer/bobcat, plate compactor, and flatbed trucks. It is anticipated that motorized augers and hammering would be used for approximately two (2) weeks for installation of the fencing posts. The skid-steer/bobcat would be used periodically for the two (2) months of construction as-needed. Flatbed trucks would only be on site four times over the construction period for material deliveries. Hand tools such as saws and drills would be used throughout construction.

## **METHODOLOGY**

As described, the Project would consist of a 1.2-mile trail loop with associated fencing, signage, and off-site parking. The expected construction period is approximately two (2) months and construction equipment will primarily consist of hand tools. Additionally, due to the nature of the Project, the Project would not involve any long-term sources of emissions. Therefore, it was determined that a quantitative analysis including air quality emissions modeling was not necessary or applicable in analyzing the potential air quality impacts that may result from the Project. This technical memorandum instead utilizes a qualitative analysis approach in which the Project is compared to a similar but larger project in the area that did not exceed any air quality emissions thresholds and was found not to result in significant air quality impacts. The Project is analyzed and discussed in comparison to the Perris Valley Storm Drain Channel Trail – Phase 2 project, located approximately 5 miles east of the Project site. The Air Quality/Greenhouse Gas Analysis Technical Memorandum for the Phase 2 Perris Valley Storm Drain (PVSD) Channel Trail Project (Webb, October 2018) was prepared for the project's Initial Study/Mitigated Negative Declaration (IS/MND) to evaluate potential air quality impacts resulting from Phase 2 of the PVSD Channel Trail project. The Phase 2 PVSD Channel Trail project was approved by the City of Perris in June 2020 and consists of approximately three (3) miles of multi-use trail, including a 10-foot wide asphalt bicycle path and a 5-foot wide decomposed granite pedestrian path. The purpose of the comparison is to qualitatively analyze and conclude that the Project would similarly not result in significant air quality emissions or significant air quality impacts.

## **ENVIRONMENTAL SETTING**

### **Regional Topography**

The State of California is divided geographically into 15 air basins. The Project site is located within the South Coast Air Basin (Basin), a 6,600-square mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and the San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Geronio Pass area of Riverside County.

The extent and severity of the air pollution problem in the Basin is a function of the area's natural physical characteristics (weather and topography), as well as man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of air pollutants throughout the Basin.

### **Climate**

The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. The climate consists of a semi-arid environment with mild winters, warm summers, moderate temperatures, and comfortable humidity. Precipitation is limited to a few winter storms. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The average annual temperature varies little throughout the Basin, averaging 75 degrees Fahrenheit (°F). However, with a less-pronounced oceanic influence, the eastern inland portions of the Basin show greater variability in annual minimum and maximum temperatures. All portions of the Basin have had recorded temperatures over 100°F in recent years.

Although the Basin has a semi-arid climate, the air near the surface is moist due to the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the Basin by offshore winds, the ocean effect is dominant. Periods with heavy fog are frequent, and low stratus clouds, occasionally referred to as "high fog," are a characteristic climate feature. The annual average relative humidity is 70 percent at the coast and 57 percent in the eastern part of the Basin. Precipitation in the Basin is typically nine (9) to 14 inches annually and is rarely in the form of snow or hail due to typically warm weather. The frequency and amount of rainfall are greater in the coastal areas of the Basin.

The height of the inversion is important in determining pollutant concentration. When the inversion is approximately 2,500 feet above sea level, the sea breezes carry the pollutants inland to escape over the mountain slopes or through the passes. At a height of 1,200 feet, the terrain prevents the pollutants from entering the upper atmosphere, resulting in a settlement in the foothill communities. Below 1,200 feet, the inversion puts a tight lid on pollutants, concentrating them in a shallow layer over the entire coastal Basin. Usually, inversions are lower before sunrise than during the day. Mixing heights for inversions are lower in the summer and more persistent, being partly responsible for the high levels of ozone (O<sub>3</sub>) observed during the summer months in the Basin. Smog in southern California is generally the result of these temperature inversions combining with coastal day winds and local mountains to contain the pollutants for long periods of time, allowing them to form secondary pollutants by reacting with sunlight. The Basin has a limited ability to disperse these pollutants due to typically low wind speeds.

### **Criteria Air Pollutants**

Carbon Monoxide (CO). CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities,

automobile exhaust can cause as much as 95 percent of all CO emissions. CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of carbon monoxide.

Ozone (O<sub>3</sub>). O<sub>3</sub> occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" O<sub>3</sub> layer) extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays. "Bad" O<sub>3</sub> is a photochemical pollutant, and needs volatile organic compounds (VOCs), nitrogen oxides (NO<sub>x</sub>), and sunlight to form; therefore, VOCs and NO<sub>x</sub> are O<sub>3</sub> precursors. To reduce O<sub>3</sub> concentrations, it is necessary to control the emissions of these O<sub>3</sub> precursors. Significant O<sub>3</sub> formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High O<sub>3</sub> concentrations can form over large regions when emissions from motor vehicles and stationery sources are carried hundreds of miles from their origins.

While O<sub>3</sub> in the upper atmosphere (stratosphere) protects the earth from harmful ultraviolet radiation, high concentrations of ground-level O<sub>3</sub> (in the troposphere) can adversely affect the human respiratory system and other tissues. O<sub>3</sub> is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with preexisting lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of O<sub>3</sub>. Short-term exposure (lasting for a few hours) to O<sub>3</sub> at elevated levels can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Nitrogen Dioxide (NO<sub>2</sub>). NO<sub>x</sub> are a family of highly reactive gases that are a primary precursor to the formation of ground-level O<sub>3</sub> and react in the atmosphere to form acid rain. NO<sub>2</sub> (often used interchangeably with NO<sub>x</sub>) is a reddish-brown gas that can cause breathing difficulties at elevated levels. Peak readings of NO<sub>2</sub> occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations). NO<sub>2</sub> can irritate and damage the lungs and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued, or frequent exposure to NO<sub>2</sub> concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO<sub>2</sub> may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM<sub>10</sub>). PM<sub>10</sub> refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM<sub>10</sub> arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM<sub>10</sub> scatters light and significantly reduces visibility. In addition, these particulates penetrate into lungs and can potentially damage the respiratory tract. On June 19, 2003, the California Air Resources Board (CARB) adopted amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter (PM<sub>2.5</sub>). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal PM<sub>2.5</sub> standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the U.S. Environmental Protection Agency (EPA) announced new PM<sub>2.5</sub> standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the United States Supreme Court reversed this decision and upheld the EPA's new standards.

On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a non-attainment area for Federal PM<sub>2.5</sub> standards. On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging. On July 8, 2016, EPA made a finding that the South Coast has attained the 1997 24-hour and annual PM<sub>2.5</sub> standards based on 2011-2013 data. However, the Basin remains in non-attainment as the EPA has not determined that California has met the Federal Clean Air Act requirements for re-designating the Basin non-attainment area to attainment.

Sulfur Dioxide (SO<sub>2</sub>). Sulfur dioxide (SO<sub>2</sub>) is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. Sulfur dioxide is often used interchangeably with SOX. Exposure of a few minutes to low levels of SO<sub>2</sub> can result in airway constriction in some asthmatics.

Volatile Organic Compounds (VOC). VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O<sub>3</sub> to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints.

Exceptions to the VOC designation include CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O<sub>3</sub>, which is a criteria pollutant. The terms VOC and reactive organic gases (ROG) (see below) are often used interchangeably.

Reactive Organic Gases (ROG). Similar to VOCs, ROGs are also precursors in forming O<sub>3</sub> and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O<sub>3</sub>, which is a criteria pollutant. The terms ROG and VOC are often used interchangeably.

### **Local Ambient Air Quality**

The California Air Resources Board (CARB) monitors ambient air quality at approximately 250 air monitoring stations across the State. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-

level concentrations. The closest air monitoring station to the project site that monitors O<sub>3</sub>, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), particulate matter up to 10 microns in diameter (PM<sub>10</sub>), and particulate matter up to 2.5 microns in diameter (PM<sub>2.5</sub>) is the Perris Monitoring Station.

**REGULATORY SETTING**

**South Coast Air Quality Management District**

***Air Quality Thresholds***

Under the California Environmental Quality Act (CEQA), the South Coast Air Quality Management District (SCAQMD) is an expert commenting agency on air quality within its jurisdiction or impacting its jurisdiction. Under the Federal Clean Air Act (FCAA), the SCAQMD has adopted Federal attainment plans for O<sub>3</sub> and PM<sub>10</sub>. The SCAQMD reviews projects to ensure that they would not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any Federal attainment plan.

The *CEQA Air Quality Handbook* also provides significance thresholds for both construction and operation of projects within the SCAQMD jurisdictional boundaries. If the SCAQMD thresholds are exceeded, a potentially significant impact could result. Table 1 below provides the SCAQMD’s emissions thresholds.

**Table 1 – South Coast Air Quality Management District Emissions Thresholds**

Phase	Pollutants (lbs/day)					
	ROG	NOx	CO	SOx	PM <sub>10</sub>	PM <sub>2.5</sub>
Construction	75	100	550	150	150	55
Operational	55	55	550	150	150	55

lbs = pounds; ROG = reactive organic gases; NOx = nitrogen oxides; CO = carbon monoxide; SOx = sulfur oxide; PM<sub>10</sub> = particulate matter up to 10 microns; PM<sub>2.5</sub> = particulate matter up to 2.5 microns.  
Source: South Coast Air Quality Management District, *CEQA Air Quality Handbook*, November 1993

***Localized Significance Thresholds***

Localized Significance Thresholds (LSTs) were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated July 2008) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level proposed projects. The SCAQMD provides the LST lookup tables for one-, two-, and five-acre projects emitting CO, nitrogen oxides (NO<sub>x</sub>), PM<sub>10</sub>, or PM<sub>2.5</sub>. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The SCAQMD recommends that any project over five acres should perform air quality dispersion modeling to assess impacts to nearby sensitive receptors.

***Cumulative Emissions Thresholds***

The SCAQMD's 2016 *Air Quality Management Plan for the South Coast Air Basin* (2016 AQMP) was prepared to accommodate growth, meet State and Federal air quality standards, and minimize the fiscal impact that pollution control measures have on the local economy. According to the SCAQMD *CEQA Air Quality Handbook*, project-related emissions that fall below the established construction and operational

thresholds should be considered less than significant unless there is pertinent information to the contrary. If a project exceeds these emission thresholds, the SCAQMD *CEQA Air Quality Handbook* states that the significance of a project's contribution to cumulative impacts should be determined based on whether the rate of growth in average daily trips exceeds the rate of growth in population.

## **Local**

### ***Riverside County***

#### **Riverside County General Plan**

The Riverside County Integrated Project General Plan (General Plan) was adopted on October 7, 2003 and has had a number of revisions in the intervening years pursuant to adopted General Plan Amendments. The General Plan covers the entire unincorporated portion of the County of Riverside and is augmented by 19 more detailed Area Plans covering Riverside County's territory, with the exception of the undeveloped desert areas and the March Air Joint Reserve Base. The General Plan includes the following elements: Land Use Element, Circulation Element, Multipurpose Open Space Element, Safety Element, Noise Element, Housing Element, Air Quality Element, Healthy Communities Element, and Administration Element.

The following air quality policy applies to the Project:

#### ***Air Quality Element***

**AQ 4.9:** Require compliance with SCAQMD Rules 403 and 403.1 and support appropriate future measures to reduce fugitive dust emanating from construction sites.

### **CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) THRESHOLDS**

The environmental analysis in this memorandum is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines*, as amended. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

- **Threshold AQ-1:** Conflict with or obstruct implementation of the applicable air quality plan.
- **Threshold AQ-2:** Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under and applicable federal or state ambient air quality standard.
- **Threshold AQ-3:** Expose sensitive receptors to substantial pollutant concentrations.
- **Threshold AQ-4:** Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

### **IMPACT ANALYSIS**

**Threshold AQ-1:**            **Would the project conflict with or obstruct implementation of the applicable air quality plan?**

**Less than Significant Impact.** The Project site is located within the South Coast Air Basin and the SCAQMD has jurisdiction in the Basin, which has a history of recorded air quality violations and is an area where both State and Federal ambient air quality standards are exceeded. Areas that meet ambient air quality



standards are classified as attainment areas, while areas that do not meet these standards are classified as non-attainment areas. The SCAQMD is required, pursuant to the Federal Clean Air Act, to reduce emissions of the air pollutants for which the Basin is in non-attainment.

To reduce emissions, the SCAQMD adopted the 2016 AQMP, which establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving State and Federal air quality standards. The 2016 AQMP is a regional and multi-agency effort including the SCAQMD, CARB, the Southern California Association of Governments (SCAG), and Environmental Protection Agency (EPA).

The 2016 AQMP pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including the SCAG's *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016-2040 RTP/SCS), updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. While SCAG has recently adopted the *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS), the SCAQMD has not released an updated AQMP that utilizes information from the 2020-2045 RTP/SCS. The SCAQMD is planning to release the updated AQMP in 2022. The SCAQMD considers projects that are consistent with the 2016 AQMP, which is intended to bring the Basin into attainment for all criteria pollutants, also to have less than significant cumulative impacts.

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's *CEQA Air Quality Handbook*. These criteria for determining consistency with the AQMP are defined by the following criteria:

**Criterion 1:**

- a) *Would the project result in an increase in the frequency or severity of existing air quality violations?*

The Project consists of a 1.2-mile sustainable trail loop with associated fencing and signage as well as parking for up to 10 cars established off site, just north of the entrance to the trail system. As previously described, Project construction is expected to last approximately 2 (two) months, with construction equipment expected to include motorized hand augers, hammering for fence posts (not pile driving), power drills and saws, skid-steer/bobcat, plate compactor, and flatbed trucks. While hand tools (i.e., saws and drills) would be used throughout construction, the largest of the construction equipment would only be used intermittently over the course of construction, with the skid-steer bobcat used periodically as-needed and the flatbed trucks used only four (4) times for material deliveries.

In comparison, the Air Quality/Greenhouse Gas Analysis Technical Memorandum for the Phase 2 Perris Valley Storm Drain (PVSD) Channel Trail Project (Webb, October 2018) was prepared for the project's Initial Study/Mitigated Negative Declaration (IS/MND) to evaluate potential air quality impacts resulting from Phase 2 of the PVSD Channel Trail project. The PVSD Channel Trail project site is located approximately 5.3 miles east of the Project site and consists of approximately three (3) miles of multi-use trail, including a 10-foot wide asphalt bicycle path and a 5-foot wide decomposed granite pedestrian path. Per the project's Air Quality/Greenhouse Gas Analysis, construction for Phase 2 of the PVSD Channel Trail was expected to be approximately 10 months, with equipment including excavators, graders, rubber-tired dozers, scrapers, tractor/loaders/backhoes, pavers, paving equipment, rollers, and cement and mortar mixers. The

table showing the results of the Phase 2 PVSD Channel Trail construction emissions analysis has been included below in Table 2 below for reference. As shown on Table 2, construction emissions resulting from Phase 2 of the PVSD Channel Trail project would not exceed SCAQMD Daily Construction Thresholds for all criteria pollutants, with maximum daily construction emissions falling well below SCAQMD daily construction thresholds.

**Table 2 – Phase 2 PVSD Channel Trail Project: Estimated Daily Construction Emissions**

Construction Activity	Peak Daily Emissions (lb/day)					
	VOC	NOx	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
SCAQMD Daily Construction Thresholds	75	100	550	150	150	55
Grading	4.29	46.73	31.67	0.06	4.72	3.20
Paving	1.45	13.71	15.69	0.03	0.92	0.70
Maximum	5.74	60.44	47.36	0.09	5.64	3.90
Exceeds Threshold?	No	No	No	No	No	No
VOC = volatile organic compound						
Note: Maximum emissions are the sum of grading and paving as these activities overlapped.						

Comparatively, the Project’s construction period is substantially less than that of the Phase 2 PVSD Channel Trail project and would utilize far less in terms of off-road and/or construction-related equipment. Thus, when analyzed in the context of the Phase 2 PVSD Channel Trail project’s air quality analysis findings, the Project would not result in construction emissions or pollutant concentrations that would cause an increase in the frequency or severity of existing air quality violations or exceed SCAQMD daily construction emissions thresholds. Further, as noted above, the Project would consist of a 1.2-mile sustainable trail loop with associated fencing, signage, and off-site parking and would not include any long-term sources of emissions. Operational emissions would stem from infrequent/as-needed visits by maintenance vehicles and from public vehicles utilizing the off-site parking area to access the site and are considered negligible because of the small size of the parking lot that would include a maximum of 10 parking spaces. Therefore, potential impacts would be less than significant regarding this aspect of Criterion 1.

b) *Would the project cause or contribute to new air quality violations?*

As discussed under Criterion 1.a above, due to the nature, size, construction period, and construction equipment associated with the Project, the Project is not expected to result in emissions that would exceed SCAQMD emissions thresholds. Therefore, the Project would not cause or contribute to new air quality violations; potential impacts regarding this aspect of Criterion 1 would be less than significant.

c) *Would the project delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?*

As discussed under Criterion 1.a and Criterion 1.b above, the Project would result in less than significant impacts with regard to construction emissions and pollutant concentrations. Accordingly, the Project would not delay the timely attainment of air quality standards or 2016

AQMP emissions reductions. Potential impacts regarding this aspect of Criterion 1 would be less than significant.

**Criterion 2:**

- a) *Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?*

Growth projections included in the 2016 AQMP form the basis for the projections of air pollutant emissions and are based on General Plan land use designations and SCAG's 2016-2040 RTP/SCS demographics forecasts. The population, housing, and employment forecasts within the 2016-2040 RTP/SCS are based on local general plans as well as input from local governments, such as the County. The SCAQMD has incorporated these same demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment) into the 2016 AQMP.

The Project proposes a 1.2-mile sustainable trail loop with associated fencing, signage, and off-site parking and does not propose any new homes, businesses, facilities, or any uses that would increase population, housing, or employment. Therefore, implementation of the Project would not affect SCAG forecasts for population growth at the Project site and, accordingly, would not cause the SCAG growth forecast to be exceeded. Because the SCAQMD has incorporated these growth forecasts based on population, housing, and employment into the 2016 AQMP, it can be concluded that the Project would be consistent with the 2016 AQMP.

- b) *Would the project implement all feasible air quality mitigation measures?*

As discussed under Criterion 1 above, the Project would not result in significant air quality impacts. Further, the Project would comply with all applicable SCAQMD rules and regulations, including Rules 402 and 403 that require any potential excessive fugitive dust emissions to be controlled by regular watering or other dust prevention measures. The Project would not require any mitigation as it relates to potential air quality impacts and meets this AQMP consistency criterion.

- c) *Would the project be consistent with the land use planning strategies set forth in the AQMP?*

The Project does not require a General Plan Amendment or Zone Change and would be consistent with the General Plan designation. The development with trails in the Project site would be consistent with the Steele Peak Reserve's Multiple Species Habitat Conservation Plan (MSHCP), Cooperative Management Agreement, and management plan with the Stephen's Kangaroo Rate Habitat Conservation Plan (SKR HCP) for lands specifically managed for SKR. Although the Western Riverside County MSHCP has no management authority in the Reserve, it has been evaluated and includes provisions for public access considered in developing trails in the Reserve. Additionally, the Project's proposed design is consistent with the Riverside County Trails Master Plan. The Project would not conflict with land use planning strategies set forth in the 2016 AQMP.

To conclude, the determination of the Project's consistency with the 2016 AQMP is primarily based upon the potential long-term influence of the Project on the Basin's air quality. As discussed, the Project would not result in long-term impacts on the region's ability to meet State and Federal air quality standards.

Further, the Project would not conflict with the goals and policies of the 2016 AQMP, General Plan, or 2016-2040 RTP/SCS. Potential impacts would be less than significant, and no mitigation is required.

**Threshold AQ-2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?**

As previously discussed, the Project involves the creation of a 1.2-mile sustainable trail loop with associated fencing, signage, and off-site parking. Project construction is expected to last approximately two (2) months, with construction equipment expected to include motorized hand augers, hammering for fence posts (not pile driving), power drills and saws, skid-steer/bobcat, plate compactor, and flatbed trucks. While hand tools (i.e., saws and drills) would be used throughout construction, the largest of the construction equipment would only be used intermittently over the course of construction, with the skid-steer bobcat used periodically as-needed and the flatbed trucks used only four (4) times for material deliveries.

As part of the Project's qualitative air quality analysis, the Project has been analyzed in comparison to Phase 2 of the PVSD Channel Trail project, located approximately 5.3 miles east of the Project site. As discussed under Threshold AQ-1 above, the construction period for the Phase 2 PVSD Channel Trail project was estimated to be approximately 10 months and would include the use of excavators, graders, rubber-tired dozers, scrapers, tractor/loaders/backhoes, pavers, paving equipment, rollers, and cement and mortar mixers for the creation of a three-mile (3-mile) multi-use trail. In comparison to the Steele Peak Inaugural Trail Project, the Phase 2 PVSD Channel Trail project is thus larger in scale, involves more off-road construction equipment, and has a longer construction period. However, as shown in Table 2 included above, analysis for the Phase 2 PVSD Channel Trail project concluded the project would not exceed SCAQMD Daily Construction Thresholds for all criteria pollutants and, accordingly, would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment. Therefore, as the Project is comparably smaller in scale, involves the use of mostly hand tools, and has a shorter proposed construction period, it can be determined that the Project would similarly neither exceed any SCAQMD daily thresholds nor would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment. As further discussed under AQ-1, Project operational emissions would stem from infrequent/as-needed visits by maintenance vehicles and from public vehicles utilizing the off-site parking area to access the site and would be considered negligible. Therefore, potential impacts would be less than significant and no mitigation is required.

**Threshold AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations?**

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

The nearest sensitive receptors are residences located approximately 130 meters (0.1 mile/420 feet) south of the southern portion of the proposed trail and 140 meters (0.2 mile/460 feet) east of the northern portion of the proposed trail.

In comparison, the nearest sensitive receptors of the Phase 2 PVSD Channel Trail project were a residential lot and park located approximately 38 meters (125 feet) west of the PVSD Channel. In analyzing potential impacts to sensitive receptors, the Phase 2 PVSD Channel trail project utilized SCAQMD localized significance threshold (LST) methodology, which can be used by public agencies to determine whether a project may generate significant adverse short- or long-term localized air quality impacts. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of state ambient air quality standards. Further, LSTs are developed based on ambient concentrations of a pollutant for each source receptor area (SRA). Similar to the Phase 2 PVSD Channel Trail project, the Project is located within SRA 24: Hemet/Elsinore Area.

The results of the Phase 2 PVSD Channel Trail project have been provided in Table 3 below for reference and comparison for this qualitative analysis. As shown in Table 3, emissions from construction of the Phase 2 PVSD Channel Trail project were found not to exceed SCAQMD LST thresholds for each pollutant analyzed and, accordingly, the project would not expose its nearest sensitive receptors to substantial pollutant concentrations.

**Table 3 – Phase 2 PVSD Channel Trail Project: LST Results for Daily Construction Emissions**

Pollutant	Peak Daily Emissions (lb/day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
LST Threshold for 1-acre at 38 meters <sup>1</sup>	134	750	8	4
Grading	46.40	30.88	4.48	3.13
Paving	13.29	14.96	0.69	0.64
Maximum	59.69	45.84	5.17	3.77
Exceeds Threshold?	No	No	No	No

<sup>1</sup> SCAQMD LST for 38-meter distance was predicted using LST Methodology

As the Phase 2 PVSD Channel Trail project was found not to exceed SCAQMD LST thresholds for daily construction emissions or expose its nearest sensitive receptors to substantial pollutant concentrations, the same can be concluded for the Project. As discussed, the Project’s nearest sensitive receptors are residences located further from the proposed Project site at approximately 130 meters and 140 meters, respectively, than the Phase 2 PVSD Channel trail project’s sensitive receptors are located in relation to the PVSD Channel at approximately 38 meters. Additionally, the Project is smaller in scale, proposes a much shorter construction period, and would primarily utilize hand tools in comparison to the Phase 2 PVSD Channel trail project. Thus, it can be concluded that the Project would similarly not exceed LST thresholds for daily construction emissions, nor would the Project expose its nearest sensitive receptors to substantial pollutant concentrations are a result of construction activities.

Regarding long-term emissions, per SCAQMD LST methodology, LSTs would apply to the operation phase of a project if the project includes stationary sources or attracts mobile sources that may spend long periods queuing and idling on site. As with the Phase 2 PVSD Channel Trail project, the Project does not include such uses as it would consist of a trail loop. As discussed under AQ-1, Project operational emissions would stem from infrequent/as-needed visits by maintenance vehicles and from public vehicles utilizing

the off-site parking area to access the site and would be considered negligible as neither use would involve long periods of queuing or idling on site. Therefore, potential impacts would be less than significant and no mitigation is required.

**Threshold AQ-4:            Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Project does not include any uses identified by the SCAQMD as being associated with odors.

While construction activities associated with projects may generate detectable odors from heavy-duty equipment exhaust or architectural coatings, as discussed, the equipment that is expected to be used for the Project consists of motorized hand augers, hammers, power drills and saws, a skid-steer/bobcat, plate compactor, and flatbed trucks. The skid-steer/bobcat would be used periodically for the two (2) months of construction as-needed and the flatbed trucks would only be on site four times over the construction period for material deliveries. Additionally, the Project would be required to comply with the California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes, which would further reduce the detectable odors from heavy-duty equipment exhaust. Therefore, the Project would not result in other emissions, such as those leading to odors, that would adversely affect a substantial number of people. Potential impacts would be less than significant and no mitigation is required.

## REFERENCES

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