Appendix A

NOP and NOP Comments/Letters

Notice of Preparation for a Environmental Impact Report

Connected 2050 – Santa Barbara County Regional Transportation Plan & Sustainable Communities Strategy

Notice is hereby given that the Santa Barbara County Association of Governments (SBCAG) will be the lead agency for the preparation of an Environmental Impact Report (EIR) for Connected 2050, the update of SBCAG's Regional Transportation Plan ("RTP") and Sustainable Communities Strategy ("SCS"). Pursuant to section 15082 of the California Environmental Quality Act (CEQA), SBCAG is soliciting comments from all interested persons, responsible and trustees agencies and organizations concerned with the project as to the scope and content of the of the EIR and the environmental information to be analyzed in connection with the proposed project.

The project description, location, environmental review requirements, and probable environmental issues to be addressed in the EIR are attached. An Initial Study is not attached and is not required, in accordance with State CEQA Guidelines Section 15060(d).
The RTP will guide the development of the Regional and Federal Transportation Improvement Programs (RTIP and FTIP) as well as other transportation programming documents and plans throughout Santa Barbara County. Specifically, the project is to update the County's regional goals and policies for meeting current and future mobility needs and identify programs, actions, and a revised plan of projects intended to address these needs consistent with adopted goals and policies.

The SCS is required by California Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008 ("SB 375"). SB 375 mandates regional greenhouse gas ("GHG") reduction targets for passenger vehicles and, pursuant to that law, the California Air Resources Board (CARB) has established 2020 and 2035 GHG reduction targets for each region covered by one of the state's metropolitan planning organizations (MPOs). As the MPO for the Santa Barbara County region, SBCAG is required to prepare an SCS or Alternative Planning Strategy (APS) that demonstrates how GHG reduction targets will (or, in the case of an APS, can) be met through integrated land use, housing, and transportation planning. SBCAG will identify multiple potential growth scenarios to will meet the goals of SB 375.

SBCAG will host a virtual EIR Scoping Meeting/Public Workshop. The purpose of the meeting is to solicit input on the scope and content of the environmental analysis that will be included in the EIR, to inform the public of the updates to the RTP and SCS, as well as solicit public input on the RTP and SCS, including changes to the preferred future scenario for the SCS and a range of transportation and land use alternatives. The date, time and virtual location of the meeting is:

- Tuesday January 5, 2021 from noon to 1:00 PM (Can log in starting at 11:45 AM)
- https://us02web.zoom.us/j/87825984392?pwd=RHF6TVZid0tJUy85SEhGbnJuMnFPUT09
- Meeting ID: 878 2598 4392; Passcode: 626049

Mail comments to Jared Carvalho at SBCAG, 260 North San Antonio Road, Suite B, Santa Barbara, CA 93110, or e-mail comments to JCarvalho@sbcag.org no later than thirty days after receipt of this notice or by

For more information, visit www.connected2050.org Spanish website www.conectados2050.org or call 805-961-8900.

PROJECT DESCRIPTION AND SCOPE OF ENVIRONMENTAL ANALYSIS

Project Title

The RTP/SCS update is referred to as Connected 2050. This EIR will be prepared to evaluate the update to the SBCAG's Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS).

Project Location

The geographical extent of the updated RTP/SCS includes the area within the limits of Santa Barbara County, California, including the incorporated cities of Buellton, Carpinteria, Goleta, Guadalupe, Lompoc, Santa Barbara, Santa Maria, and Solvang, and all unincorporated areas under the jurisdiction of the County of Santa Barbara. Capital improvement projects identified in the RTP/SCS are primarily located on state highways, county roads and locally owned streets, as well as on airport property, transit district property and public utility lands.

Project Description

The proposed project is the update of SBCAG's RTP/SCS. SBCAG is in the process of revising the RTP/SCS as required by California Government Code Section 65080 et seq., and federal guidelines pursuant to the federal Fixing America's Surface Transportation Act (FAST Act). SBCAG's previous RTP (Fast Forward 2040) was adopted in 2017. Connected 2050 (also referred to as the "Plan" herein) is the culmination of a multi-year effort that aims to improve the balance between land use and transportation systems. SBCAG is required by federal and state law to develop an RTP/SCS that determines the needs of the transportation system and prioritizes proposed transportation projects. The RTP/SCS has a preferred scenario that includes a future land use pattern for the region and identifies policies, programs, actions, and a plan of projects intended to meet regional transportation needs and policy goals, including a regional greenhouse gas emission target for passenger vehicles for 2035 and climate goal for 2050.

RTP Framework

Connected 2050 includes several core components that will influence the future development of the region and local communities over the next 30 years. These core components include:

- The region's Sustainable Communities Strategy, which includes a preferred growth scenario. The preferred growth scenario recommends regional land-use patterns, development policies, and transportation strategies for local communities. These recommendations are intended to reduce GHG emissions, which cause climate change, so the region's current and future generations can thrive.
- Forecasts to help stakeholders and the public anticipate future needs related to housing, population, land use, and employment.
- An update of the Regional Housing Needs Assessment, which determines what types and how much new housing each of our local governments must develop for their communities under state law.

- A social equity and environmental justice evaluation to determine how the plan affects the region's "disadvantaged" communities, including communities of color and low-income households that are more affected by poverty, pollution, and histories of marginalization.
- A Financial Element, which provides a reasonable estimate of the funding that will be available to meet transportation needs over the next 30 years and a list of transportation and mobility projects that are expected to be finished before 2050.
- An Action Element which evaluates the region's key needs, opportunities, and issues affecting local communities, such as:
    - Access to transportation, biking and walking (active transportation), passenger rail, and access to public transit services
    - Community health, environmental justice, clean mobility equity, transportation safety, and security
    - Goods movement, trucking, and related economic needs or opportunities
    - Improvements to highways, busy local roads (arterial streets)
    - Traffic congestion, long-distance commuting, and safer streets that serve all road users
    - Access to and conservation of open spaces, farms, natural lands, recreational opportunities, and community centers
    - The compendium of projects, policies and programs that make up the Programmed and the Planned projects together comprise the 2050 RTP/SCS.

Sustainable Communities Strategy

Connected 2050 will include an update to the Sustainable Communities Strategy (SCS) in the 2017 RTP/SCS pursuant to the requirements of SB 375. The State of California legislature passed SB 375 in 2008, which requires all of our state's MPOs, including SBCAG, to develop a SCS when they update their Regional Transportation Plan. The primary goal of SB 375 and the SCS is to coordinate transportation and land-use planning at the local and regional level in ways that will reduce GHG emissions and help meet important public needs. The SCS includes recommendations for land-use and transportation that are consistent with predictions about future growth and housing needs in the region.

The transportation component of the SCS will include the network of road and transit networks, non-motorized transportation and transportation policies, as discussed in the 2050 RTP framework. Furthermore, SB 375 requires that the SCS identify general land uses, residential densities, and building intensities as well as areas to house future residents (see California Government Code Section 65080(b)(2)(B) for the full list of SB 375 requirements).

Issues to Be Addressed in the EIR

The impact categories listed below have been preliminarily identified as anticipated issues to be addressed in the Program EIR.

- Aesthetics/Visual Resources
- Air Quality
- Biological Resources
- Cultural/Tribal Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions/Climate Change

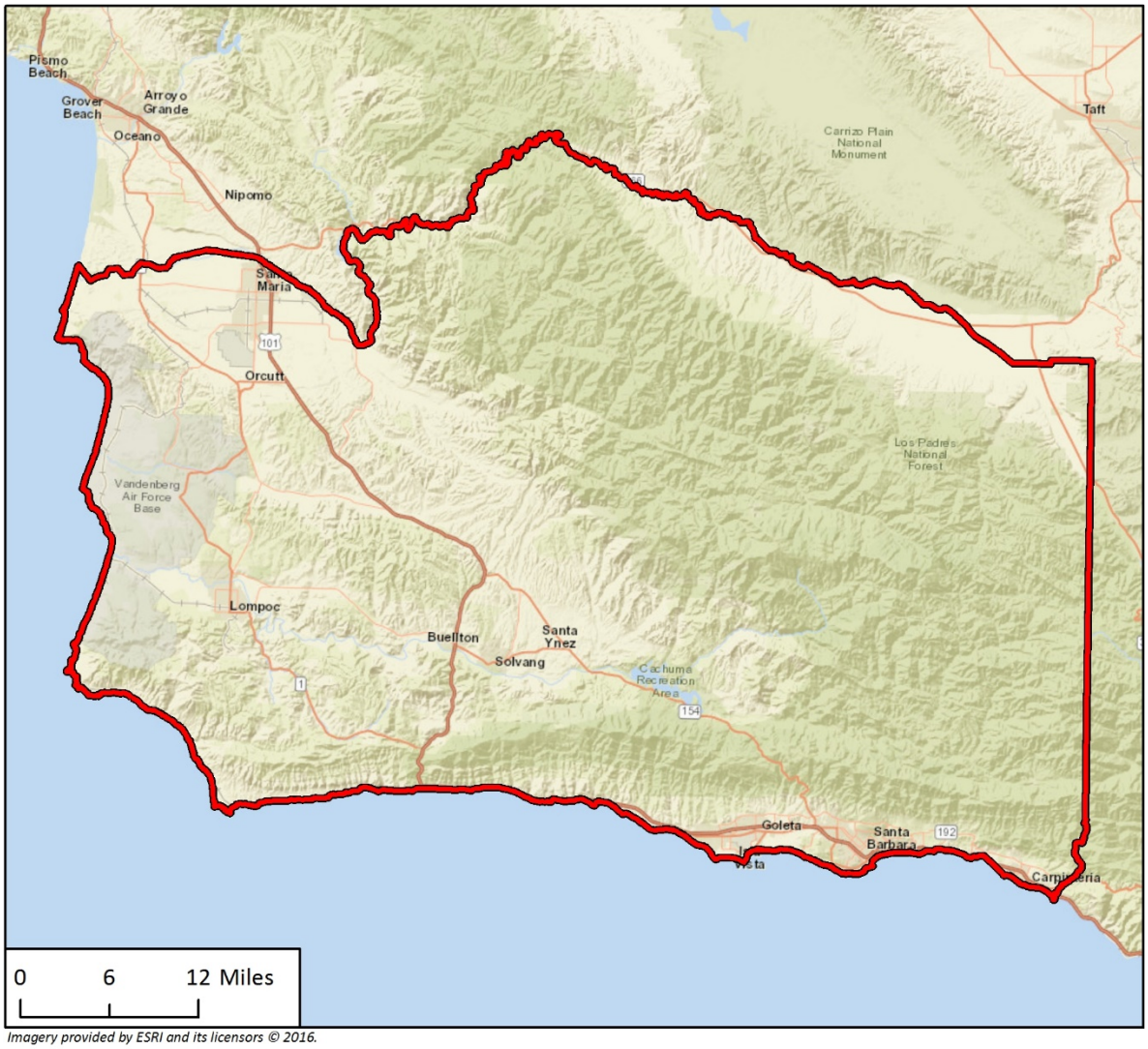
- Hydrology/Water Resources
- Land Use (including Agricultural Resources)
- Noise
- Transportation

As a Program EIR, the RTP/SCS EIR will have two primary purposes: (1) to provide a broad overview of the potential environmental consequences of adopting and implementing the proposed RTP/SCS; and (2) to serve as a mid-tier environmental document that will focus and streamline the subsequent project level review of individual future actions that will be undertaken under the RTP/SCS program. Therefore, the SBCAG Board will ultimately consider the Program EIR which would replace the Supplemental EIR for the 2040 RTP/SCS, which was certified in August 2017.

CEQA Streamlining

SB 375 contains CEQA incentives, or streamlining provisions, to encourage coordinated land use and transportation planning. Certain types of development projects (i.e., transit priority projects or residential/mixed use residential projects, as defined by the statute) may qualify for CEQA streamlining as long as the requisite criteria are met. Generally, meeting such criteria means that the proposed project is determined to be consistent with an adopted SCS. Consistency will be determined by the local jurisdiction that is the lead agency for each project to be streamlined. SBCAG's primary role is to include appropriate information in the SCS, such as land use information as required by SB 375 and/or guidance to aid in interpreting land use information that will allow a jurisdiction to make a consistency determination with respect to appropriate streamlining options on a project-by-project basis.

Project Map



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Santa Barbara County

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Fig 2 Regional Location

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

January 13, 2021

Jared Carvalho
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260 North San Antonio Road, Suite B
Santa Barbara, CA 93110
JCarvalho@sbcag.org

Subject: Comments on the Notice of Preparation of a Draft Program Environmental Impact Report for Connected 2050 – Santa Barbara County Regional Transportation Plan & Sustainable Communities Strategy, SCH #2020120233, Santa Barbara County

Dear Mr. Carvalho:

The California Department of Fish and Wildlife (CDFW) has reviewed the Notice of Preparation (NOP) of a Draft Program Environmental Impact Report (DPEIR) for Connected 2050 – Santa Barbara County Regional Transportation Plan & Sustainable Communities Strategy (Project). Santa Barbara County Association of Governments (SBCAG) is the lead agency preparing a DPEIR pursuant to the California Environmental Quality Act (CEQA; Pub. Resources Code, § 15082 et. seq.) with the purpose of informing decision-makers and the public regarding potential environmental effects related to the Project.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW's ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & Game Code, §§ 711.7, subdivision (a) & 1802; Public Resources Code, § 21070; California Environmental Quality Act (CEQA) Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect state fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Public Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & Game Code, § 1600 *et seq*.). Likewise, to the extent implementation of the Project as proposed may result in "take" (see Fish & Game Code, § 2050) of any species protected under the California Endangered Species Act (CESA; Fish & Game

Code, § 2050 *et seq*.) or the Native Plant Protection Act (NPPA; Fish & Game Code, § 1900 *et seq.*), CDFW recommends the Project proponent obtain appropriate authorization under the Fish and Game Code.

Project Location: The Project includes the area within the limits of Santa Barbara County, California, including the incorporated cities of Buellton, Carpinteria, Goleta, Guadalupe, Lompoc, Santa Barbara, Santa Maria, and Solvang, and all unincorporated areas under the jurisdiction of the County of Santa Barbara.

Project Description/Objectives: SBCAG is required by federal and state law to develop a Regional Transportation Plan that determines the needs of the transportation system and prioritizes proposed transportation projects. The Project will include a future land use pattern for the region and identify policies, programs, actions, and a plan of projects intended to meet regional transportation needs and policy goals.

As a PEIR, the Project will have two primary purposes: (1) to provide a broad overview of the potential environmental consequences of adopting and implementing the proposed Regional Transportation Plan; and (2) to serve as a mid-tier environmental document that will focus and streamline the subsequent project level review of individual future actions that will be undertaken under the PEIR.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist SBCAG in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

Specific Comments

1) Program Level Review Considerations. Realizing that the project is a Program Level planning document, CDFW recommends that the DPEIR include descriptions on how the project will address the below general comments at the Program level to maximize consideration for biological resources during subsequent project reviews and to ensure that these reviews are consistent with the Project's planning intent.

2) Impacts to Mountain Lions. Santa Barbara County mountain lions (*Puma concolor*) are grouped within the "Central Coast Central" subpopulation that includes San Luis Obispo and Monterey counties. Biologists estimate 113 to 226 adult lions roam the region. Statewide, their numbers are believed to have dipped below 4,000. Vehicle collisions with Mountain lions on California roads and highways are reported up to twice per week. In a typical year, this rate either stays constant or increases slightly in the transition from winter to summer (Nguyen, et al, 2020). numerous mountain lion vehicle strikes have been documented throughout Santa Barbara County including two deaths within 30-days of each other near Vandenburg Air Force Base.

    a) The mountain lion is a specially protected mammal in California (Fish & G. Code, § 4800). In addition, on April 21, 2020, the Commission accepted a petition to list an Evolutionarily Significant Unit (ESU) of mountain lion in southern and central coast California as threatened under CESA. Therefore, any new development project should analyze the potential for mountain lion to be impacted.

b) Mountain lions may be impacted by increased traffic, human presence, light, and noise. CDFW recommends the DPEIR evaluate potential adverse impacts to mountain lions during and after Project construction as a result of stressors described. CDFW recommends the Project be designed to allow safe passage of mountain lion under or over transportation projects that cross mountain lion movement corridors.

c) Given suitable habitat within the Project site and documented use of areas adjacent to the Project site, to reduce impacts to less than significant, CDFW recommends the DPEIR analyze habitat, use, and movement corridors of mountain lion. CDFW recommends a qualified biologist familiar with the species behavior and life history should conduct surveys in areas that may provide possible habitat and movement corridors for mountain lion to determine the potential presence/absence of the species. Surveys should be conducted when the species is most likely to be detected, during crepuscular periods at dawn and dusk (Pierce and Bleich 2003). If "take" or adverse impacts to mountain lion cannot be avoided either during project development activities or over the life of the development project, the project proponent must consult CDFW to determine if a CESA Incidental Take Permit is required (pursuant to Fish & Game Code, § 2080 *et seq*.)

3) California Endangered Species Act (CESA). Project related activities may adversely impact potential habitat for this species. CDFW considers adverse impacts to a species protected by CESA to be significant without mitigation under CEQA. As to CESA, take of any endangered, threatened, candidate species, or State-listed rare plant species that results from the Project is prohibited, except as authorized by state law (Fish and Game Code, §§ 2080, 2085; Cal. Code Regs., tit. 14, §786.9). Consequently, if the Project, Project construction, or any Project-related activity during the life of the Project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, CDFW recommends that the Project proponent seek appropriate take authorization under CESA prior to implementing the Project. Appropriate authorization from CDFW may include an Incidental Take Permit (ITP) or a consistency determination in certain circumstances, among other options [Fish & Game Code, §§ 2080.1, 2081, subds. (b) and (c)]. Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that CDFW issue a separate CEQA document for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.

4) Fully Protected Species. CDFW cannot authorize the take of any fully protected species as defined by State law. State fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for its take except for collecting those species for necessary scientific research and relocation of the bird species for protection of livestock (Fish & G. Code, §§ 3511, 4700, 5050, 5515). Take of any species designated as fully protected under the Fish and Game Code is prohibited.

General Comments

1) Project Description and Alternatives. To enable CDFW to adequately review and comment on the proposed Project from the standpoint of the protection of plants, fish, and wildlife, we recommend the following information be included in the DPEIR:

   a) A complete discussion of the purpose and need for, and description of, the proposed Project, including all staging areas and access routes to the construction and staging areas; and,

   b) A range of feasible alternatives to Project component location and design features to ensure that alternatives to the proposed Project are fully considered and evaluated. The alternatives should avoid or otherwise minimize direct and indirect impacts to sensitive biological resources and wildlife movement areas.

2) Lake and Streambed Alteration (LSA) Agreements. As a Responsible Agency under CEQA, CDFW has authority over activities in streams and/or lakes that will divert or obstruct the natural flow; or change the bed, channel, or bank (including vegetation associated with the stream or lake) of a river or stream; or use material from a streambed. For any such activities, the project applicant (or "entity") must provide written notification to CDFW pursuant to section 1600 et seq. of the Fish and Game Code. Based on this notification and other information, CDFW determines whether a LSA Agreement with the applicant is required prior to conducting the proposed activities. CDFW's issuance of an LSA Agreement for a project that is subject to CEQA will require related environmental compliance actions by CDFW as a Responsible Agency. As a Responsible Agency, CDFW may consider the CEQA document prepared by the local jurisdiction (Lead Agency) for the Project. To minimize additional requirements by CDFW pursuant to section 1600 *et seq.* and/or under CEQA, the DPEIR should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the LSA Agreement[1].

   a) The Project area supports aquatic, riparian, and wetland habitats; therefore, a preliminary jurisdictional delineation of the streams and their associated riparian habitats should be included in the DPEIR. The delineation should be conducted pursuant to the U. S. Fish and Wildlife Service (USFWS) wetland definition adopted by the CDFW (Cowardian, 1970). Some wetland and riparian habitats subject to CDFW's authority may extend beyond the jurisdictional limits of the U.S. Army Corps of Engineers' section 404 permit and Regional Water Quality Control Board section 401 Certification.

   b) In areas of the Project site which may support ephemeral streams, herbaceous vegetation, woody vegetation, and woodlands also serve to protect the integrity of ephemeral channels and help maintain natural sedimentation processes; therefore, CDFW recommends effective setbacks be established to maintain appropriately-sized vegetated buffer areas adjoining ephemeral drainages.

   c) Project-related changes in drainage patterns, runoff, and sedimentation should be included and evaluated in the DPEIR.

[1] A notification package for a LSA may be obtained by accessing the CDFW's web site at www.wildlife.ca.gov/habcon/1600.

3) Wetlands Resources. CDFW, as described in Fish and Game Code section 703(a), is guided by the Fish and Game Commission's policies. The Wetlands Resources policy (http://www.fgc.ca.gov/policy/) of the Fish and Game Commission "…seek[s] to provide for the protection, preservation, restoration, enhancement and expansion of wetland habitat in California. Further, it is the policy of the Fish and Game Commission to strongly discourage development in or conversion of wetlands. It opposes, consistent with its legal authority, any development or conversion that would result in a reduction of wetland acreage or wetland habitat values. To that end, the Commission opposes wetland development proposals unless, at a minimum, project mitigation assures there will be 'no net loss' of either wetland habitat values or acreage. The Commission strongly prefers mitigation which would achieve expansion of wetland acreage and enhancement of wetland habitat values."

   a) The Wetlands Resources policy provides a framework for maintaining wetland resources and establishes mitigation guidance. CDFW encourages avoidance of wetland resources as a primary mitigation measure and discourages the development or type conversion of wetlands to uplands. CDFW encourages activities that would avoid the reduction of wetland acreage, function, or habitat values. Once avoidance and minimization measures have been exhausted, the Project must include mitigation measures to assure a "no net loss" of either wetland habitat values, or acreage, for unavoidable impacts to wetland resources. Conversions include, but are not limited to, conversion to subsurface drains, placement of fill or building of structures within the wetland, and channelization or removal of materials from the streambed. All wetlands and watercourses, whether ephemeral, intermittent, or perennial, should be retained and provided with substantial setbacks, which preserve the riparian and aquatic values and functions for the benefit to on-site and off-site wildlife populations. CDFW recommends mitigation measures to compensate for unavoidable impacts be included in the DPEIR and these measures should compensate for the loss of function and value.

   b) The Fish and Game Commission's Water policy guides CDFW on the quantity and quality of the waters of this state that should be apportioned and maintained respectively so as to produce and sustain maximum numbers of fish and wildlife; to provide maximum protection and enhancement of fish and wildlife and their habitat; encourage and support programs to maintain or restore a high quality of the waters of this state; prevent the degradation thereof caused by pollution and contamination; and, endeavor to keep as much water as possible open and accessible to the public for the use and enjoyment of fish and wildlife. CDFW recommends avoidance of water practices and structures that use excessive amounts of water, and minimization of impacts that negatively affect water quality, to the extent feasible (Fish & Game Code, § 5650).

4) Biological Baseline Assessment. To provide a complete assessment of the flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, sensitive, regionally and locally unique species, and sensitive habitats, the DPEIR should include the following information:

   a) Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region [CEQA Guidelines, § 15125(c)];

   b) A thorough, recent, floristic-based assessment of special status plants and natural communities, following CDFW's *Protocols for Surveying and Evaluating Impacts to*

Special Status Native Plant Populations and Natural Communities (see https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline). Anyone who collects scientific plant specimens of state-listed species, or who may encounter a state-listed species that needs to be identified during field surveys should have a plant voucher collection permit (see https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=44384&inline);

c) Floristic, alliance- and/or association-based mapping and vegetation impact assessments conducted at the Project site and within the neighboring vicinity. *The Manual of California Vegetation*, second edition, should also be used to inform this mapping and assessment (Sawyer, 2008). Adjoining habitat areas should be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions;

d) A complete, recent, assessment of the biological resources associated with each habitat type on site and within adjacent areas that could also be affected by the project. CDFW's California Natural Diversity Data Base (CNDDB) in Sacramento should be contacted to obtain current information on any previously reported sensitive species and habitat. CDFW recommends that CNDDB Field Survey Forms be completed and submitted to CNDDB to document survey results. Online forms can be obtained and submitted at http://www.dfg.ca.gov/biogeodata/cnddb/submitting_data_to_cnddb.asp;

e) A complete, recent, assessment of rare, threatened, and endangered, and other sensitive species on site and within the area of potential effect, including California SSC and California Fully Protected Species (Fish & Game Code, §§ 3511, 4700, 5050 and 5515). Species to be addressed should include all those which meet the CEQA definition of endangered, rare or threatened species (CEQA Guidelines, § 15380). Seasonal variations in use of the project area should also be addressed. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with CDFW and the USFWS; and,

f) A recent, wildlife and rare plant survey. CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of two years, in non-drought conditions. Some aspects of the proposed project may warrant periodic updated surveys for certain sensitive taxa, particularly if build out could occur over a protracted time frame, or in phases.

5) Biological Direct, Indirect, and Cumulative Impacts. To provide a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts, the following should be addressed in the DPEIR:

a) A discussion of potential adverse impacts from lighting, noise, human activity, exotic species, and drainage. The latter subject should address Project-related changes on drainage patterns and downstream of the project site; the volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and, post-Project fate of runoff from the

project site. The discussion should also address the proximity of the extraction activities to the water table, whether dewatering would be necessary and the potential resulting impacts on the habitat (if any) supported by the groundwater. Mitigation measures proposed to alleviate such Project impacts should be included;

b) A discussion regarding indirect Project impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands (e.g., preserve lands associated with a Natural Community Conservation Plan (NCCP, Fish & Game Code, § 2800 et. seq.). Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated in the DPEIR;

c) An analysis of impacts from land use designations and zoning located nearby or adjacent to natural areas that may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the DPEIR; and,

d) A cumulative effects analysis, as described under CEQA Guidelines section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

6) Avoidance, Minimization, and Mitigation for Sensitive Plants. The DPEIR should include measures to fully avoid and otherwise protect sensitive plant communities from Project-related direct and indirect impacts. CDFW considers these communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3 and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDB and are included in *The Manual of California Vegetation*.

7) Compensatory Mitigation. The DPEIR should include mitigation measures for adverse Project-related impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of Project impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed. Areas proposed as mitigation lands should be protected in perpetuity with a conservation easement, financial assurance and dedicated to a qualified entity for long-term management and monitoring. Under Government Code section 65967, the lead agency must exercise due diligence in reviewing the qualifications of a governmental entity, special district, or nonprofit organization to effectively manage and steward land, water, or natural resources on mitigation lands it approves.

8) Long-term Management of Mitigation Lands. For proposed preservation and/or restoration, the DPEIR should include measures to protect the targeted habitat values from direct and indirect negative impacts in perpetuity. The objective should be to offset the Project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include (but are not limited to) restrictions on access, proposed land dedications, monitoring

and management programs, control of illegal dumping, water pollution, and increased human intrusion. An appropriate non-wasting endowment should be set aside to provide for long-term management of mitigation lands.

9) Nesting Birds. CDFW recommends that measures be taken to avoid Project impacts to nesting birds. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (Title 50, § 10.13, Code of Federal Regulations). Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). Proposed Project activities including (but not limited to) staging and disturbances to native and nonnative vegetation, structures, and substrates should occur outside of the avian breeding season which generally runs from February 1 through September 1 (as early as January 1 for some raptors) to avoid take of birds or their eggs. If avoidance of the avian breeding season is not feasible, CDFW recommends surveys by a qualified biologist with experience in conducting breeding bird surveys to detect protected native birds occurring in suitable nesting habitat that is to be disturbed and (as access to adjacent areas allows) any other such habitat within 300-feet of the disturbance area (within 500-feet for raptors). Project personnel, including all contractors working on site, should be instructed on the sensitivity of the area. Reductions in the nest buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors.

10) Translocation/Salvage of Plants and Animal Species. Translocation and transplantation is the process of moving an individual from the Project site and permanently moving it to a new location. CDFW generally does not support the use of, translocation or transplantation as the primary mitigation strategy for unavoidable impacts to rare, threatened, or endangered plant or animal species. Studies have shown that these efforts are experimental and the outcome unreliable. CDFW has found that permanent preservation and management of habitat capable of supporting these species is often a more effective long-term strategy for conserving sensitive plants and animals and their habitats.

11) Moving out of Harm's Way. The proposed Project is anticipated to result in clearing of natural habitats that support many species of indigenous wildlife. To avoid direct mortality, we recommend that a qualified biological monitor approved by CDFW be on-site prior to and during ground and habitat disturbing activities to move out of harm's way special status species or other wildlife of low mobility that would be injured or killed by grubbing or Project-related construction activities. It should be noted that the temporary relocation of on-site wildlife does not constitute effective mitigation for the purposes of offsetting project impacts associated with habitat loss. If the project requires species to be removed, disturbed, or otherwise handled, we recommend that the DPEIR clearly identify that the designated entity shall obtain all appropriate state and federal permits.

12) Revegetation/Restoration Plan. Plans for restoration and re-vegetation should be prepared by persons with expertise in southern California ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include, at a minimum: (a) the location of restoration sites and assessment of appropriate reference sites; (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control non-native vegetation on site; (g) specific, measurable

success criteria; (h) a detailed qualitative monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought. Monitoring should demonstrate a positive trend for native species cover, diversity, and abundance, and a negative trend for non-native species cover with no further manipulation of the site occurring during this period. If manipulation of the site is still occurring (replacing dead plants, irrigation, weeding) then this is still considered the installation period and should not be used as monitoring data to determine success. The monitoring period should start after the installation period has been completed and the site is not being actively manipulated, as manipulation of the site skews any data collection toward prematurely meeting success criteria that might not have been met had the site been left alone.

a) CDFW recommends that local on-site propagules from the Project area and nearby vicinity be collected and used for restoration purposes. On-site seed collection should be initiated in the near future to accumulate sufficient propagule material for subsequent use in future years. On-site vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various Project components as appropriate.

b) Restoration objectives should include providing special habitat elements where feasible to benefit key wildlife species. These physical and biological features can include (for example) retention of woody material, logs, snags, rocks and brush piles (see Mayer and Laudenslayer, 1988).

CONCLUSION

CDFW appreciates the opportunity to comment on the NOP to assist SBCAG in identifying and mitigating Project impacts on biological resources. If you have any questions or comments regarding this letter, please contact Kelly Schmoker, Senior Environmental Scientist, at (626) 335-9092 or by email at Kelly.Schmoker@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Erinn Wilson-Olgin
B6E58CFE24724F5...

Erinn Wilson-Olgin
Environmental Program Manager I

ec: CDFW
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CALIFORNIA COASTAL COMMISSION
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89 SOUTH CALIFORNIA STREET, SUITE 200
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January 15, 2021

Jared Carvalho
Santa Barbara County Association of Governments
260 North San Antonio Road, Suite B
Santa Barbara, CA 93110

RE: Notice of Preparation for Connected 2050 – Santa Barbara County Regional Transportation and Sustainable Communities Strategy

Mr. Carvalho:

Thank you for the opportunity to provide comments on the Notice of Preparation (NOP) for an Environmental Impact Report (EIR) for Connected 2050, the update of Santa Barbara County Association of Governments' (SBCAG) Regional Transportation Plan (RTP) and Sustainable Communities Strategies (SCS). The project is an update of SBCAG's existing RTP/SCS which aims to improve the balance between land use and transportation systems, including identifying future land use patterns for the region and policies, programs, actions, and a plan of projects intended to meet regional transportation needs and policy goals.

Given the California Coastal Commission's mandate to protect coastal resources through planning and regulation of the use of land and water within the Coastal Zone, we request that the EIR analyze consistency of the RTP/SCS with relevant certified Local Coastal Programs (LCPs), sea level rise (SLR), and possible impacts to coastal resources such as public access. Commission staff would note that these comments are in line with comments provided by staff on previous NOPs and EIRs for SBCAG RTP/SCS updates.

1) **Local Coastal Programs (LCPs).** Local Coastal Programs (LCPs) are basic planning tools used by local governments to guide development in the coastal zone, in partnership with the Coastal Commission. LCPs contain the ground rules for future development and protection of coastal resources in the 76 coastal cities and counties. The LCPs specify appropriate location, type, and scale of new or changed uses of land and water. Each LCP includes a land use plan and measures to implement the plan (such as zoning ordinances). Prepared by local government, these programs govern decisions that determine the short- and long-term conservation and use of coastal resources. Thus, the EIR should include an evaluation of the consistency of the RTP/SCS with the certified LCPs in SBCAG's jurisdiction, such as County of Santa Barbara, City of Santa Barbara, City of Carpinteria, etc.

2) **Sea Level Rise.** Coastal Act Section 30253 requires that new development minimize risks to life and property from hazards and to assure stability and structural integrity without the use of a shoreline protective device. Thus, ensuring that new coastal

infrastructure is designed to avoid or adapt to the effects of sea level rise for the expected life of the infrastructure is a principal concern of the Coastal Commission, as described in the Commission's Sea Level Rise (SLR) policy guidance[1] as well as through recent Commission actions on key infrastructure projects throughout California. The Commission's Guidance references best available science, including SLR projection tables, from the Ocean Protection Council's SLR Guidance (2018).[2] Understanding the potential impacts of climate change and sea level rise is critically important when conducting long-range planning efforts to ensure that housing, jobs, and transportation infrastructure are not located in areas that will be at risk from coastal hazards.

Given the proximity of essential regional infrastructure to the coast of Santa Barbara County, the RTP/SCS should carefully evaluate the vulnerability of existing and proposed transportation infrastructure and housing/jobs investments to the effects of sea level rise and associated hazards. The EIR should also analyze potential climate change impacts on the investments proposed under the RTP/SCS for the expected life of those investments, which in the case of transportation infrastructure is typically considered to be 100 years. Potential impacts should include modeling of both tidal and fluvial flooding across the range of projected increases in global mean sea level (including under the medium-high and extreme risk aversion scenarios) as applied to the local area (e.g., Santa Barbara County's open coast), combined with potential impacts from storm surge, wave run-up, and coastal erosion.

If the RTP/SCS recommends infrastructure improvements that are likely to be temporarily flooded or perpetually inundated in the next 75 to 100 years, then the RTP/SCS and the EIR for the plan update should describe and analyze potential adaptation measures that would minimize adverse impacts to coastal resources and enhance public access to the coast. For example, if the proposed infrastructure investments are proposed to be protected from coastal hazards with shoreline armoring devices, such as seawalls and revetments, which adversely affect public access because they block access to the beach and result in the loss of public recreational areas, then the EIR should analyze a) alternative infrastructure projects that would minimize the need for shoreline armoring, b) alternative adaptation strategies for protecting the proposed infrastructure from coastal hazards, and/or c) include options for relocation of existing infrastructure segments away from hazardous conditions.

3) **Public Access.** A pillar of the Coastal Act[3] is the protection and provision of public access to, and along, the coast. Maximum opportunities for public access and

[1] https://www.coastal.ca.gov/climate/slrguidance.html
[2] https://opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf
[3] Coastal Act Section 30252. The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing nonautomobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of

recreation are required by the Coastal Act to be provided in new development projects, consistent with public safety, private property rights, and natural resource protection. Additionally, new development should maintain and enhance public access through such actions as facilitating transit service, providing non-automobile options, and providing adequate parking. Accordingly, the EIR should evaluate the consistency of the RTP/SCS with the above-mentioned Coastal Act policies. In particular, there should be an analysis of how access to the coast would be maximized, including options for non-motorized, bicycle, and pedestrian routes and related amenities throughout the region. This analysis should incorporate evaluation of ways to facilitate access to beaches and coastal areas from the inland portions of the region, as well as options for enhancing coastal access via public transit, the California Coastal Trail (CCT), the Coastal Rail Trail, and other visitor-serving recreational opportunities.

4) **Marine Resources and Environmentally Sensitive Habitat Area.** The transportation corridors within the Santa Barbara region bisect or are located directly adjacent to sensitive marine resources including coastal bluffs, coastal lagoons, and the Pacific Ocean. Impacts to these resources are restricted by Coastal Act policies[4]. Except for certain specific instances, fill of a wetland or other coastal waters is prohibited, and the marine resources, water quality, and environmentally sensitive habitat areas often associated with the coastal environment are also protected. Many of these coastal systems have already deteriorated due to existing transportation infrastructure development. Future transportation improvements planned for the Coastal Zone should seek to ameliorate previous deterioration and enhance coastal resources. The Coastal Commission has previously approved roadway expansion projects in sensitive coastal locations, but only where impacts to coastal resources were reduced to the minimum extent required to improve the public transportation system. Thus, the EIR should analyze the potential impacts to marine resources and Environmentally Sensitive Habitat Areas and the consistency of proposed development with Coastal Act policies.

5) **California State Rail Plan and "101 in Motion" (Add a Lane and a Train)**. Coastal Act Section 30253 also requires that "New development shall do all of the following: (c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development; (d) Minimize energy consumption and vehicle miles traveled…" The Coastal Commission has previously approved transportation projects and programs that balance roadway expansion with provision of transportation alternatives including rail, bicycle corridors, and pedestrian access ways (e.g., the San Diego North Coast Corridor Public Works Plan / Transportation and Resource Enhancement Program). In its recent approval of the Santa Barbara 101 HOV Lane project, the Coastal Commission found that the roadway improvements were consistent with Coastal Act policies requiring maximum public access and a reduction in vehicle miles traveled, based on the expectation that the region would contemporaneously be increasing passenger rail service and providing transportation alternatives. For example, SBCAG's "101 in Motion" report,

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onsite recreational facilities to serve the new development. See also Coastal Act Sections 30211, 30212, and 30212.5.

[4] See Coastal Act Sections 30230, 30231, 30232, and 30233 30240.

published in 2006, included a key project element labeled “Add a Lane and a Train,” proposing to add a HOV lane in both directions south of Milpas to the Ventura County line, while also adding commuter rail service from Camarillo/Oxnard to Goleta with stops in Carpinteria, Santa Barbara and Goleta. If the RTP/SCS proposes roadway expansion, the EIR for the plan update should describe and analyze the provision of transportation alternatives.

The 2018 California State Rail Plan and the 2012 LOSSAN Corridor-wide Strategic Implementation Plan reference a potential expansion of intrastate passenger rail service through implementation of a “Coast Daylight” train service, “proposed to initially operate with one daily round trip as an extension of the state-supported Pacific Surfliner service. Expansion of the Coast Daylight service to two daily round trips will be accomplished by adding a new overnight train between San Francisco and Los Angeles.” One goal of the Coast Daylight is to “increase the use of intercity passenger rail service as part of a multi-modal strategy identified in regional and county goals and plans.”

The EIR should analyze the consistency of the RTP/SCS with Coastal Act requirements related to reducing VMT and protecting air quality, as well as previous Santa Barbara area government and citizen commitments to minimize vehicle miles traveled and prioritize funding and implementation of expanded passenger rail and alternative transportation options. The 2018 California State Rail Plan (Chapter 4 – Proposed Passenger Improvements and Investments) identifies many rail improvements for priority implementation, including: increasing frequency of trains by at least one train per day in each direction; improving reliability; and integrating intercity and regional rail services. These types of infrastructure improvements are necessary to facilitate faster and more frequent passenger / commuter rail service and should be considered and analyzed in the RTP/SCS and EIR.

6) **Concentration of Development.** The Coastal Act[5] also requires that new development within the Coastal Zone be located within, contiguous with, or in close proximity to existing developed areas, and requires new development to be sited in a manner that will minimize energy consumption and vehicle miles travelled. In this way, the Coastal Act encourages smart growth patterns that recognize a strong urban-rural boundary to ensure protection of coastal resources. Accordingly, the EIR should analyze the extent to which proposed transportation, jobs and housing investments would be consistent with Coastal Act policies related to concentration of development.

[5] Coastal Act Section 30250. (a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources…

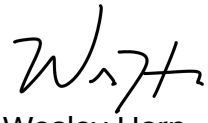
7) **Visual Resources.** The Coastal Act[6] requires that the scenic and visual qualities of coastal areas should be considered and protected as a resource of public importance. Permitted development should be sited and designed to protect views to and along the ocean and scenic coastal areas. In order to preserve and enhance visual resources and scenic views of the coastal environment from Highway 101 and scenic roadways adjacent to the coast, new bridge and highway projects should incorporate aesthetic see-through bridge rails at the lowest height necessary to guarantee safety, consistent with the bridge rails and barriers guidance previously developed by the Coastal Commission and Caltrans Road's Edge Subcommittee. The EIR should analyze whether any bridges proposed in the RTP/SCS are consistent with the requirement that new bridges and roadways include guardrails designed to preserve visual resources, as well as other Coastal Act policies related to visual resource protection.

   Additionally, special care should be taken to preserve visual resources and scenic views on State Scenic Highways, including but not limited to the Gaviota Coast section of Highway 101. Caltrans approved the Gaviota Coast section of Highway 101 as a State Scenic Highway in December of 2016. This designation was made possible by the County of Santa Barbara LCP's coastal visual policies, California State Parks' natural and cultural preservation mandates, and the local community's effort and involvement over many years to protect the scenic quality along the Gaviota Coast. Designation as a State Scenic Highway affirms that scenic vistas along Santa Barbara County's highways are a valuable resource to the community. Also, in November 2018 the Coastal Commission certified the Gaviota Coast Plan as an overlay of the County's existing certified LCP. Chapter Six of the Gaviota Coast Plan is devoted to protection of visual resources in this area and there are policies, guidelines and standards with which any new development within the Gaviota Coast must be consistent. The EIR should analyze the consistency of proposed development with restrictions on State Scenic Highways and the Gaviota Coast Plan.

[6] Coastal Act Section 30251. The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

Please note that the comments provided herein are preliminary in nature and Coastal Commission staff may have additional comments as the project develops. Coastal Commission staff requests notification of any future activity associated with this project or related projects. Additionally, the comments contained herein are those of Coastal Commission staff only and should not be construed as representing the opinion of the Coastal Commission itself. Thank you for the opportunity to comment on the Notice of Preparation.

Sincerely,



Wesley Horn
Transportation Program Analyst
Cc:
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Tami Grove, Statewide Development and Transportation Program Manager, CCC
Barbara Carey, South Central Coast District Manager, CCC
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NATIVE AMERICAN HERITAGE COMMISSION

December 14, 2020

Jared Cravalho
Santa Barbara County Association of Governments
260 North San Antonio Road, Suite B
Santa Barbara, CA 93110

Re: 2020120233, Connected 2050 – Regional Transportation Plan & Sustainable Communities Strategy EIR Project, Santa Barbara County

Dear Mr. Cravalho:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

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AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

a. A brief description of the project.

b. The lead agency contact information.

c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).

d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

a. Alternatives to the project.

b. Recommended mitigation measures.

c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

a. Type of environmental review necessary.

b. Significance of the tribal cultural resources.

c. Significance of the project's impacts on tribal cultural resources.

d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

a. Whether the proposed project has a significant impact on an identified tribal cultural resource.

b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).

2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.

3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).

4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:

- **a.** The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
- **b.** Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:

- **a.** If part or all of the APE has been previously surveyed for cultural resources.
- **b.** If any known cultural resources have already been recorded on or adjacent to the APE.
- **c.** If the probability is low, moderate, or high that cultural resources are located in the APE.
- **d.** If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- **a.** The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.

b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:

a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.

b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.

b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.

c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,

Nancy Gonzalez-Lopez
Cultural Resources Analyst

cc: State Clearinghouse

County of Santa Barbara
Planning and Development

Lisa Plowman, Director
Steve Mason, Assistant Director

January 13, 2021

Jared Carvalho
Santa Barbara County Association of Governments
260 North San Antonio Road, Suite B
Santa Barbara, CA 93110

Email: JCarvalho@sbcag.org

RE: Santa Barbara County Association of Governments (SBCAG) Connected 2050 Environmental Impact Report (EIR)

Dear Mr. Carvalho:

Thank you for the opportunity to comment on the scope and content of the EIR for the update to the Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS) (collectively, "Connected 2050"). During SBCAG's virtual hearing on January 5, 2021, SBCAG staff stated that the draft Connected 2050 would not be complete and released until this summer. As a result, County staff can only provide preliminary comments on the general methodology for preparing the EIR. We have no basis for "identifying the range of actions, alternatives, mitigation measures, and significant effects to be analyzed" or offering other comments at this time according to California Environmental Quality Act (CEQA) Guidelines Section 15083.

County staff offer the following preliminary comments regarding the EIR:

1. Environmental Checklist: The County recognizes that SBCAG will use the Environmental Checklist from Appendix G of the CEQA Guidelines (Appendix G). County departments are likely to serve as responsible agencies for the project; must rely on the EIR for the environmental analysis of discretionary decisions that they make regarding the project; and must use the County's initial study assessment guidelines when conducting the environmental analysis of the project. As such, please analyze the project pursuant to the requirements of the County's assessment guidelines (http://countyofsb.org/plndev/permitting/environmentalreview.sbc), as well as Appendix G.

The County's assessment guidelines rely on the County's recently adopted vehicles miles traveled (VMT) thresholds of significance. The EIR should include these thresholds of significance in the analysis of project impacts. The County's Environmental Thresholds and Guidelines Manual contains these and other adopted thresholds of significance: https://cosantabarbara.app.box.com/s/vtxutffe2n52jme97lgmv66os7pp3lm5

In addition, on January 26, 2021, the County of Board of Supervisors (Board) will be considering amendments to the County's greenhouse gas (GHGs) emissions thresholds of significance. Assuming that the Board adopts these amendments, the EIR should include the analysis that is required pursuant to the amended thresholds.

2. Transportation Impacts (Senate Bill (SB) 743): The County and several other local jurisdictions are working on implementing SB 743. The County also is currently working on adopting an Active Transportation Plan (ATP), which will be followed by an update to the Circulation Element. (See the descriptions of these projects at http://countyofsb.org/plndev/projects/projects.sbc.) Please consider and disclose the relationships between, and the cumulative impacts of, these projects and similar projects of other local jurisdictions.

We look forward to reviewing the draft Connected 2050 and draft EIR and anticipate providing additional comments as the documents become available. If you have any questions or require further information, please contact me at (805) 568-2086 or Dan Klemann at (805) 568-2072.

Regards,

Lisa Plowman, Director
Planning and Development Department

cc: Dan Klemann, Deputy Director, Long Range Planning Division, P&D
Selena Evilsizor Whitney, Senior Planner, P&D
Zoë Carlson, Senior Planner, P&D
File

G:\GROUP\COMP\Resp. Agency Review\RAR Projects by Agency\SBCAG

County Of Santa Barbara

Mona Miyasato
County Executive Officer

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Executive Office

Assistant County Executive Officers
Nancy Anderson
Jeff Frapwell
Bernard Melekian
Terri Nisich

January 14, 2021

Jared Carvalho
Santa Barbara County Association of Governments
260 North San Antonio Road, Suite B
Santa Barbara, CA 93110

Email: JCarvalho@sbcag.org

RE: Santa Barbara County Association of Governments (SBCAG) Connected 2050 Environmental Impact Report (EIR)

Dear Mr. Carvalho:

Thank you for the opportunity to comment on the scope and content of the EIR for the update to the Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS) (collectively, "Connected 2050"). At this time, the County submits comments from the Planning and Development Department.

If you should have further questions, please do not hesitate to contact my office directly, or Lisa Plowman, Director of the Planning and Development Department, at (805) 568-2086.

Sincerely,

Nancy Anderson
Assistant County Executive Officer

cc: Lisa Plowman, Director, Santa Barbara County Planning and Development Department
Daniel Klemann, Deputy Director of Long Range Planning, Planning and Development Department

Enclosure: Santa Barbra County Planning and Development Department Letter, dated January 13, 2021

SANTA BARBARA COUNTY
Trails Council

- Submitted Via Email –

January 15, 2021

Jared Carvalho
Santa Barbara County Association of Governments
260 North San Antonio Rd., Ste. B
Santa Barbara, CA 93110

Subject: Connected2050 Notice of Preparation (NOP) Comments

Dear Mr. Carvalho,

I am writing on behalf of the Santa Barbara County Trails Council (Trails Council) regarding the issues that should be addressed in the Environmental Impact Report (EIR) for the update of the Regional Transportation Plan: Connected2050. We want to thank the Santa Barbara County Association of Governments for its increasing focus on the importance of active transportation and increased emphasis on trail planning.

The Santa Barbara County Trails Council (Trails Council) is a broad-based trails advocacy, construction and maintenance organization consisting of hikers, trail runners, equestrians and mountain bikers. The Trails Council was formed in 1967 to advocate for planning and construction of new trails and to help organize work parties to maintain existing trails. The Trails Council Board of Directors includes members with unique expertise in trail planning, design, construction and maintenance from agencies such as the United States Forest Service, County Planning and Development Department and City of Goleta, as well as those with extensive volunteer trail experience. We have over 50 years of trail planning, design, construction and maintenance experience and have recently assisted with construction of public trails in Carpinteria, Solvang, Orcutt and along the Gaviota Coast. Most recently, we completed the *California Coastal Trail, Northern Santa Barbara County Interim Alignment and Improvement Study*. Our interest lies in protecting public trail access, building and maintaining safe and sustainable trails, and promoting public engagement in land stewardship and trail use for all types of outdoor recreation. We provide trail-related planning, design, mapping, construction, and maintenance for city, county, state, and federal agencies to achieve these goals.

Pedestrian and bicycle trails play a vital role in Santa Barbara County's transportation environment. The Trails Council supports developing a transportation system that provides more travel choices while limiting the transportation system footprint and preserving environmental quality and open space. A well-established network encourages healthy recreational activities, reduces vehicle demand on roadways, and enhances a livable community's safety.

We anticipate that the Connect 2050 report will include identifying a regional non-motorized active transportation system that offers an essential alternative to motor vehicle use. Bicycle and pedestrian facilities, hiking, horseback riding, mountain biking trails, and pathways can help

reduce traffic congestion, dependency on motorized vehicles, roadway noise, and air pollution while promoting improved public health.

Our understanding is that the EIR scope will acknowledge all of the active transportation-related plans and initiatives at various development and implementation stages on a countywide basis. Following is a list of projects that are on our watch list:

- California Coastal Trail | Various Carpinteria Segments
- California Coastal Trail | Various Gaviota Coast Segments
- California Coastal Trail | Hollister Ranch Coastal Access Program (AB1680)
- California Coastal Trail | Dangermond Preserve
- California Coastal Trail | North County Interim CCT Trail Study
- North County Off-Road Recreational Trails
- County of Santa Barbara Active Transportation Plan
- County of Santa Barbara Recreation Master Plan | Connectivity to Parks and Open Space
- County of Santa Barbara One Climate Plan

We believe it is essential to address and include the potential *adverse or beneficial* impacts of all pending cumulative active transportation projects.

1.0 ON- and OFF-ROAD TRAILS for ACTIVE TRANSPORATION

1.1 CALIFORNIA COASTAL TRAIL | Gaviota Coast Segments

The status of the following California Coastal Trail (CCT) segments should be disclosed and potential impacts and mitigation measures (if any) discussed. The EIR should build upon previous EIR's prepared by the County for projects such as the Gaviota Coast Plan and Las Varas Ranch development project where the County's thoroughly reviewed potential impacts of trails, including the California Coastal Trail and found that, with typical management measures (e.g., signs, fencing), trails and agriculture are consistent.

Key CCT Segments	Status
Ellwood Mesa	CDP received. Currently seeking funding
8501 Hollister	Presently in the planning and design process
Paradiso del Mare	Presently in the planning and design process
Naples/Santa Barbara Ranch	TBD - Trail easements offered on private property
Dos Pueblos Ranch	TBD - Private property for sale
Las Varas Ranch	TBD - Ownership transferred to UCSB in 2019
Gaviota Marine Terminal	TBD -

Please note that the County of Santa Barbara Board of Supervisors has repeatedly found that trails are consistent with agriculture as part of the proposed Las Varas Ranch development and the Gaviota Coast Plan. The County, which oversees 500,000 acres of agricultural land, has found

that agriculture and trails are consistent. The Board of Supervisors has found a multi-use trail to be consistent with *continuing* agriculture on Las Varas Ranch and elsewhere. Trails do not create a significant and unavoidable impact on agriculture with proper management techniques.

1.2 CALIFORNIA COASTAL TRAIL | Hollister Ranch and Dangermond Preserve

Similar to Las Varas Ranch, a trail through Hollister Ranch would not unduly interfere with agriculture, particularly as much of the ranch is now more oriented to residential uses, including parcels with multiple vacation homes, 2nd units, barn conversions, etc. Completing a multi-use trail through Hollister Ranch and Dangermond Preserve should be a high priority, and the EIR should programmatically identify potential impacts. We note that portions of the coastal areas of the Dangermond Preserve have experienced almost 100 years of oil development, including oil extraction, processing, and transport via pipeline corridors. In addition, the Dangermond Preserve has been subject to over 200 years of grazing, areas of intensive agricultural production, and firewood harvesting. While the Preserve supports important cultural and biological resources, a future segment of the California Coastal Trail could be aligned parallel to existing roads, so it is improbable that the number of trail users that pass through the area would create significant impacts. When measured against existing residential uses at Hollister Ranch and the ongoing Nature Conservancy operations at Dangermond Preserve, a roadside trail will not create a significant and unavoidable impact.

Both areas have been subject to past disturbance. Hollister Ranch has substantial residential development that is existing and ongoing. Dangermond Preserve has had more than 200 years of cattle grazing, active agriculture, and oil development. The EIR should identify typical management measures (e.g., signs, fencing), to ensure that trails and agriculture and protection of cultural and biological resources are adequate.

Completing the California Coastal Trail in this context is unlikely to create potentially significant environmental impacts. We believe that the eventual Regional Transportation Plan should recommend completing a multi-use trail through Hollister Ranch and Dangermond Preserve to link with Jalama Beach County Park.

1.3 CALIFORNIA COASTAL TRAIL | North County Trail Segments

The California Coastal Trail (CCT) status through Northern Santa Barbara County should be disclosed and the potential impacts of completing the CCT discussed. The Trails Council supports on-road multi-use trails countywide and specifically in the North County, where on-road or roadside routes are the only option available in many areas. The recently proposed secondary or interim CCT between Guadalupe and Gaviota State Park should be a high priority, and the EIR should at least programmatically identify impacts to help advance the completion of various trail segments. These on-road trails would create minimal environmental impacts.

1.4 OFF-ROAD TRAILS IN NORTH COUNTY RECREATION AREAS

We also support and wish the EIR to address the off-road multiple use CCT trail segments at Jalama Beach County Park, Surf Beach/Ocean Beach County Park, Point Sal State Park and the County's Point Sal Reserve, Rancho Guadalupe Dunes County Park, and within the La Purisima

Mission State Historic Park/Burton Mesa Ecological Preserve. We would like the EIR to programmatically discuss potential impacts, which we believe will all be mitigated.

1.5 GAVIOTA COAST TRANSPORTATION CORRIDOR

We believe that the Regional Transportation Plan should advance concept level planning for the potential long-term realignment of portions of the Union Pacific Railroad and Highway 101 to address the impacts of sea-level rise and the completion of the CCT along the Gaviota Coast. We note that the County's certified Gaviota Coast Plan recommends the formation of a multi-agency workgroup to plan for these major transportation corridor changes. For example, in many locations, the Union Pacific Railroad has installed substantial armoring along the coast with adverse impacts to natural coastal processes, including sand transport, beach environments, and bluff environments. We recommend the EIR address the *managed retreat* of the Union Pacific Railroad and potentially portions of Highway 101along with the California Coastal Trail's alignment seaward of both those transportation corridors. The EIR needs to discuss the programmatic impacts and benefits of moving the Union Pacific Railroad and Highway 101 landward. Future decisions about all modes of transportation in the corridor have the potential to impact the public's access to Gaviota Coast beaches.

There are indications that Caltrans is making plans to move away from a limited-access expressway toward a full freeway for U.S. Highway 101 along the Gaviota Coast. The EIR should discuss the impacts of this pending change on coastal access and coastal access parking. The Trails Council is particularly concerned about the potential loss of hundreds of existing informal public parking places along the highway, potentially significant impacts to coastal access and recreation from such a project and access to the planned California Coastal Trail.

We recommend that the EIR fully described and identify wherever improvements to U.S. Highway 101, along the Gaviota Coast, cause displacement of existing parking or coastal access, mitigating measures should include replacement parking lots, so there is no net loss of parking on the Gaviota Coast. Also, mitigation measures should be required that new or replacement bridges be designed to facilitate public access underneath U.S. Highway 101. For example, we recommend that the EIR identify mitigation measures required for any new bridge at Arroyo Quemado Creek to accommodate public access underneath the bridge from the County's Baron Ranch property. Similarly, we would recommend any Caltrans improvements at Las Flores Canyon also accommodate public access under the freeway. As the oil plant is decommissioned, over the long term, policymakers may consider improvements in this watershed, such as a new public campground and foothill trail system. We note that the Trails Council's *Gaviota Coastal Trail and Access Study* provides detailed information on the location and numbers of informal roadside coastal access parking in this area.

The recently adopted Gaviota Coast Plan includes the following policies that directly correlate to the EIR scope for active transportation along the Gaviota Coast.

> **Policy REC-12:** Interagency Coordination. The County shall work cooperatively with organizations including but not limited to the California Coastal Conservancy, California Department of Parks and Recreation, Caltrans, Union Pacific Railroad or its successor, non-profits, and the US Forest Service to establish an effective network of inland and coastal trails where jurisdictions overlap.

Policy REC-13: Roadside Parking. Existing free roadside parking on county roads and U.S. Highway 101 are key to public use and enjoyment of the Gaviota Coast and shall be protected.

Policy REC-13a: Public Parking. (COASTAL) Provide adequate parking to serve recreation uses. Existing parking areas serving recreational uses shall not be displaced unless a comparable replacement area is provided. New parking areas and associated facilities shall be distributed throughout the Plan area to minimize the impacts, social and otherwise, of overcrowding or overuse by the public of any single.

Policy REC-14: Transportation Improvements and Public Access. All improvements to the U.S. Highway101, County roads, and the Union Pacific Railroad or its successor agency shall be designed to protect and expand public access to and along the coast.

2.0 HUMAN HEALTH

We think the EIR should identify the *beneficial impacts* of increased active transportation on public health and well being to address chronic health issues in Santa Barbara County. The increase in walking and cycling on urban and rural trails during the pandemic is a clear indication that access to more trails is needed. Research demonstrates that exposure to nature and outdoor exercise has significant health benefits, such as improved wellness and mental health, reduced stress, lower blood pressure, and health concerns related to obesity, such as diabetes and heart disease.

We appreciate the opportunity to provide feedback on the extent and content of the environmental analysis in the pending EIR.

Sincerely,

Mark Wilkinson

Executive Director

mwilkinson@sbtrails.org

From: Jared Carvalho
To: Eric VonBerg
Subject: [EXT] FW: Transportation Plan
Date: Tuesday, January 19, 2021 10:40:35 AM

Hi Eric,

I checked my junk mail and I had received this email below one week ago. I figure it can be included with the others.

Thanks,
Jared

-----Original Message-----
From: Fred Collins <fcollins@northernchumash.org>
Sent: Tuesday, January 12, 2021 9:04 AM
To: Jared Carvalho <JCarvalho@sbcag.org>
Subject: Transportation Plan

Hello Jared,

NCTC supports the local tribal governments recommendations for this proposed project, thank you.

Fred Collins

Chairman

Northern Chumash Tribal Council

P. O. Box 6533

Los Osos, CA 93412

805-801-0347

fcollins@northernchumash.org

1/13/21

To: SBCAG

From: Tom Becker

Subject: Connected 2050 RTP EIR scoping comments, due by 1/15/21

1- The EIR should study how high density housing developments spread the Covid-19 virus, and should include a comparative analysis between low density housing and high density housing virus infection rates and rate of virus spread.
2- The EIR should include a comparative analysis of Covid-19 infection rates between Hispanic populations living in high density housing and Hispanic populations living in low density housing.
3- The EIR should include a comparative analysis of Covid-19 death rates for Hispanic populations living in high density housing and Hispanic populations living in low density housing.
4- The EIR should include a comparative analysis in Hispanic home ownership rates between populations living in high density housing and populations living in low density housing.
5- The EIR should include a comparative analysis of the poverty rate in the Hispanic populations living in high density housing and Hispanic populations living in low density housing.
6- The EIR should include an analysis of how the addition of HOV lanes on Highway 101 between Carpinteria and Santa Barbara will induce Vehicle Miles Traveled (VMT) on the highway and surrounding streets and intersections.
7- The EIR should determine if the addition of HOV lanes on Highway 101 conforms with Coastal Act section 30253(4) and county CLUP section 3.11.1, which both state that new developments in the coastal zone shall minimize energy consumption and VMT.
8- The EIR should include SBCAG's definition of the word "minimize", as applied to Coastal Act section 30253(4) and county CLUP section 3.11.1, and should include SBCAG's source for their definition.
9- The EIR should include a determination if the increase in VMT associated with the addition of HOV lanes on Highway 101 conforms with the VMT reduction goals of Connected 2050 RTP.
10- The EIR should determine if the approval of Coastal Development Permits (CDP) for segments 4D and 4E of the HOV project conforms with the VMT reduction goals of Connected 2050 RTP.
11- The EIR should include a determination if the approval of CDP's for HOV segments 4D and 4E conform with the VMT minimization requirements of Coastal Act section 30253(4) and county CLUP section 3.11.1.
12- The EIR should include an analysis of possible VMT reductions on Highway 101 between Carprinteria and Santa Barbara if the proposed HOV lanes were converted to exclusive transit bus lanes.
13- The EIR should include a study of the reductions in VMT on Highway 101 between Carpinteria and Santa Barbara that are possible by implementing the VMT reduction policies and strategies found in the following documents, and other similar documents prepared to implement SB 743;

D1- Technical Advisory on Evaluating Transportation Impacts in CEQA (Governor's Office of Planning and Research, April, 2018.) D2- Transportation Under CEQA, First Edition (CalTrans, September, 2020). D3- Transportation Analysis Updates in Santa Barbara County (County of Santa Barbara, Planning and Development, July, 2020).

14- The EIR should analyze the reduction of induced VMT into the intersections of San Ysidro Lane/ Jameson Lane and Coast Village Road/ Olive Mill Road if the proposed Highway 101 HOV lanes are converted into exclusive transit bus lanes.
15- The EIR should determine which configuration of lanes on Highway 101 will achieve the greatest reduction of VMT- HOV lanes or exclusive transit bus lanes.
16- The EIR should study the combined effects of reducing VMT on Highway 101 from point #13 and converting HOV lanes to exclusive transit bus lanes, and determine if reducing VMT will meet or exceed the goals of traffic improvements originally sought by the construction of HOV lanes.

I will be submitting additional comments during the Connect 2050 process.

Thank you

Tom Becker

tsbecker069@gmail.com

1/14/21

Subject: Additional Connect 2050 EIR scoping public comments

From: Tom Becker

1A)- The EIR should study the impact Port of Los Angeles/Long Beach truck transportation has on regional transportation in the tri-county area.

2A) – The EIR should study the reduction in Port of Los Angeles/Long Beach truck traffic that can be achieved by reducing imports into the United States from countries, such as China, and what impact that reduction would have on regional transportation in the tri-county area.

3A) – The EIR should study what reduction in VMT, if any, occurred county wide between 2010 and 2019 as a result of bicycle usage.

4A) – The EIR should determine if the Hispanic population is being overly targeted by county wide government agencies as potential occupants of high density housing, compared to the white population.

5A) – The EIR should study the potential for reducing commuter VMT by relocating government employment closer to employee's homes, such as relocating long distance commuter's government jobs located in The City of Santa Barbara to Carpinteria or Santa Maria.

6A) – The EIR should study VMT impacts that are induced by the tourist and hospitality industry in the county. The EIR should study what reductions in overall VMT can be achieved by reducing the size of the tourist industry in the county, and replacing the tourist industry with other industries that do not induce tourist VMT.

7A) – The EIR should study the potential reduction in VMT that can be achieved by encouraging businesses located in high housing cost areas in Santa Barbara County to relocate to communities where employees can afford housing costs, eliminating long distance commuting that occurs when employees are unable to afford housing near their places of employment.

8A) The EIR should study the health and economic impact disparities between the Hispanic community and the White community caused by the Hispanic population being overly represented in high density housing developments.

From: Jared Carvalho
To: Eric VonBerg
Cc: Michael Becker
Subject: [EXT] FW: Additional comments for Connect 2050 EIR
Date: Friday, January 22, 2021 4:56:12 PM

Hi Eric,

Please see the additional comments below from Tom Becker. Please let Mike and I know if they can be included in the analysis. Either way, we will respond to Tom to let him know.

Thanks,
Jared

From: S T <tsbecker069@gmail.com>
Sent: Friday, January 22, 2021 2:56 PM
To: Jared Carvalho <JCarvalho@sbcag.org>; Michael Becker <MBecker@sbcag.org>
Subject: Additional comments for Connect 2050 EIR

I am hoping that the following additional points can be included with my original points submitted on or before 1/15/21:

1A1- The EIR should analyze the risk of COVID-19 infection for commuters using mass transit systems, such as SBMTD buses and the commuter train service that was part of the "Lane and a Train" 101 HOV mitigation.

1A2- The EIR should include a comparative analysis of COVID-19 infection risk for commuters using mass transit systems and commuters traveling alone in single occupancy cars.

1A3- The EIR should include a comparative analysis of COVID-19 infection risk for the Hispanic population that commutes using mass transit systems and the Hispanic population that commutes in single occupancy vehicles.

1A4- The EIR should include a comparative analysis of COVID-19 infection risk for commuters using mass transit systems between Ventura and Santa Barbara and commuters driving the same commute in single occupancy vehicles.

Thank you
Tom Becker
tsbecker069@gmail.com

To SBCAG,

I have submitted 2 documents containing 24 itemized points of interest for the Connect 2050 EIR scoping process. My purpose and intent for submitting those comments is to analyze the environmental and social justice impacts of Connect 2050 projects and policies, and analyze alternatives to Connect 2050 projects and policies that provide greater environmental protections and environmental justice when compared to Connect 2050 projects and policies. Among those projects and policies are the following:

- Highway 101 HOV project and mitigations. This includes segments and mitigations that have not yet received permits, and can be denied permits if they are determined not to conform with, to conflict with or damage the VMT/greenhouse gas reductions goals and legal requirements of Connect 2050 and/or state statutes and policies.

- The promotion or support of high density housing development.

- The promotion or support of the tourist and hospitality industry.

I have been invited by Michael Becker to discuss my scoping comments with him. I will be contacting Michael to ensure my comments are properly formatted and worded so they meet the requirements for analysis in the EIR.

Please attach this page to my previously submitted comments. Please confirm that this email was received.

Thank you
Tom Becker
tsbecker069@gmail.com

Appendix B

Air Quality Calculations

Row Labels	Sum of CO_TOTEX	Sum of NOx_TOTEX	Sum of PM10_TOTAL	Sum of PM2_5_TOTAL	Sum of SOx_TOTEX
HHDT - DSL	0.376057626	0.562658775	0.029747116	0.011700096	0.004241382
LDA - DSL	0.007833631	0.000535246	0.003769769	0.001524235	0.000141887
LDT1 - DSL	1.4658E-05	3.88593E-06	7.74473E-06	3.38961E-06	2.88189E-07
LDT2 - DSL	0.000579026	0.000133095	0.000274466	0.000121031	1.19213E-05
LHDT1 - DSL	0.011379561	0.007699315	0.006600028	0.002881643	0.000292148
LHDT2 - DSL	0.005056105	0.002164831	0.003774398	0.001660149	0.000159837
MDV - DSL	0.003783754	0.000261327	0.001571315	0.000638552	9.52456E-05
MH - DSL	0.000319966	0.003688505	0.000255369	0.000119843	1.48478E-05
MHDT - DSL	0.050082904	0.366690733	0.032564116	0.013831108	0.002475299
OBUS - DSL	0.008865909	0.051305337	0.004189451	0.001790377	0.000359029
SBUS - DSL	0.004997028	0.037432163	0.011857029	0.005074595	0.000199593
UBUS - DSL	0.040733138	0.013587624	0.008582322	0.003695584	0.000129948
Grand Total	**0.509703307**	**1.046160837**	**0.103193123**	**0.043040604**	**0.008121425**

Area	Sub-Area	Cal. Year	Season	Veh_Tech	EMFAC2007 Category	Population	VMT	Trips	TOG_RUNEX	TOG_IDLEX
SBCAG	All Sub-Areas	2050	Summer	All Vehicles	All Vehicles	364,142.7	10,987,201.5	2,222,079.0	0.3326	0.0051
SBCAG	All Sub-Areas	2050	Summer	ALL OTHER BUSES - DSL	OBUS - DSL	340.6	18,664.0		0.0010	0.0000
SBCAG	All Sub-Areas	2050	Summer	LDA - DSL	LDA - DSL	2,418.6	75,373.5	15,183.4	0.0003	
SBCAG	All Sub-Areas	2050	Summer	LDA - GAS	LDA - GAS	205,207.2	6,400,066.0	1,288,696.2	0.0283	
SBCAG	All Sub-Areas	2050	Summer	LDT1 - DSL	LDT1 - DSL	4.54	145.5	28.7	0.0000	
SBCAG	All Sub-Areas	2050	Summer	LDT1 - GAS	LDT1 - GAS	8,164.3	261,938.5	51,714.9	0.0014	
SBCAG	All Sub-Areas	2050	Summer	LDT2 - DSL	LDT2 - DSL	183.1	5,123.8	1,132.6	0.0001	
SBCAG	All Sub-Areas	2050	Summer	LDT2 - GAS	LDT2 - GAS	83,187.7	2,325,489.6	514,190.0	0.0164	
SBCAG	All Sub-Areas	2050	Summer	LHD1 - DSL	LHDT1 - DSL	2,111.7	63,745.8	26,562.9	0.0021	0.0003
SBCAG	All Sub-Areas	2050	Summer	LHD1 - GAS	LHDT1 - GAS	1,378.9	40,420.8	20,543.8	0.0002	0.0005
SBCAG	All Sub-Areas	2050	Summer	LHD2 - DSL	LHDT2 - DSL	966.5	31,842.3	12,157.8	0.0010	0.0001
SBCAG	All Sub-Areas	2050	Summer	LHD2 - GAS	LHDT2 - GAS	391.5	12,895.0	5,832.9	0.0001	0.0001
SBCAG	All Sub-Areas	2050	Summer	MCY - GAS	MCY - GAS	9,136.7	62,062.3	18,271.7	0.1606	
SBCAG	All Sub-Areas	2050	Summer	MDV - DSL	MDV - DSL	1,150.6	31,300.6	7,040.1	0.0001	
SBCAG	All Sub-Areas	2050	Summer	MDV - GAS	MDV - GAS	40,820.2	1,095,201.3	247,707.2	0.0084	
SBCAG	All Sub-Areas	2050	Summer	MH - DSL	MH - DSL	180.1	1,408.9	18.0	0.0001	
SBCAG	All Sub-Areas	2050	Summer	MH - GAS	MH - GAS	635.9	5,000.1	63.6	0.0001	
SBCAG	All Sub-Areas	2050	Summer	MOTOR COACH - DSL	OBUS - DSL	56.8	7,356.8		0.0007	0.0001
SBCAG	All Sub-Areas	2050	Summer	OBUS - GAS	OBUS - GAS	220.4	12,250.4	4,409.5	0.0002	0.0002
SBCAG	All Sub-Areas	2050	Summer	PTO - DSL	HHDT - DSL	0	13,205.7		0.0033	
SBCAG	All Sub-Areas	2050	Summer	SBUS - DSL	SBUS - DSL	418.4	14,153.1		0.0010	0.0000
SBCAG	All Sub-Areas	2050	Summer	SBUS - GAS	SBUS - GAS	74.1	3,713.9	296.4	0.0001	0.0010
SBCAG	All Sub-Areas	2050	Summer	T6 AG - DSL	MHDT - DSL	199.2	2,940.9		0.0002	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 CAIRP HEAVY - DSL	MHDT - DSL	8.34	377.8		0.0000	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 CAIRP SMALL - DSL	MHDT - DSL	21.2	1,159.6		0.0001	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 INSTATE CONSTRUCTION HEAVY - DSL	MHDT - DSL	60.3	4,659.9		0.0003	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 INSTATE CONSTRUCTION SMALL - DSL	MHDT - DSL	416.3	18,847.6		0.0010	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 INSTATE HEAVY - DSL	MHDT - DSL	961.3	48,593.6		0.0026	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 INSTATE SMALL - DSL	MHDT - DSL	2,495.2	122,533.0		0.0064	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 OOS HEAVY - DSL	MHDT - DSL	4.78	216.4		0.0000	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 OOS SMALL - DSL	MHDT - DSL	12.2	664.4		0.0000	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 PUBLIC - DSL	MHDT - DSL	135.7	2,260.9		0.0001	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 UTILITY - DSL	MHDT - DSL	53.3	1,003.1		0.0000	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6TS - GAS	MHDT - GAS	366.4	19,945.9	7,331.4	0.0004	0.0004
SBCAG	All Sub-Areas	2050	Summer	T7 AG - DSL	HHDT - DSL	121.3	1,453.0		0.0002	0.0001
SBCAG	All Sub-Areas	2050	Summer	T7 CAIRP - DSL	HHDT - DSL	157.4	38,380.9		0.0038	0.0004
SBCAG	All Sub-Areas	2050	Summer	T7 CAIRP CONSTRUCTION - DSL	HHDT - DSL	16.4	3,305.7		0.0003	0.0000
SBCAG	All Sub-Areas	2050	Summer	T7 NNOOS - DSL	HHDT - DSL	200.9	47,592.3		0.0041	0.0007
SBCAG	All Sub-Areas	2050	Summer	T7 NOOS - DSL	HHDT - DSL	62.2	15,160.4		0.0015	0.0002
SBCAG	All Sub-Areas	2050	Summer	T7 OTHER PORT - DSL	HHDT - DSL	65.7	11,746.6		0.0013	0.0000
SBCAG	All Sub-Areas	2050	Summer	T7 POAK - DSL	HHDT - DSL	0.0000	0.0001		0	0
SBCAG	All Sub-Areas	2050	Summer	T7 POLA - DSL	HHDT - DSL	10.7	2,298.7		0.0002	0.0000
SBCAG	All Sub-Areas	2050	Summer	T7 PUBLIC - DSL	HHDT - DSL	219.7	5,037.1		0.0004	0.0002
SBCAG	All Sub-Areas	2050	Summer	T7 SINGLE - DSL	HHDT - DSL	495.6	58,770.1		0.0049	0.0002
SBCAG	All Sub-Areas	2050	Summer	T7 SINGLE CONSTRUCTION - DSL	HHDT - DSL	90.9	8,551.4		0.0007	0.0000
SBCAG	All Sub-Areas	2050	Summer	T7 SWCV - DSL	HHDT - DSL	316.5	14,581.3		0.0651	0.0002
SBCAG	All Sub-Areas	2050	Summer	T7 TRACTOR - DSL	HHDT - DSL	369.8	48,318.5		0.0048	0.0002
SBCAG	All Sub-Areas	2050	Summer	T7 TRACTOR CONSTRUCTION - DSL	HHDT - DSL	76.5	6,375.7		0.0007	0.0000
SBCAG	All Sub-Areas	2050	Summer	T7 UTILITY - DSL	HHDT - DSL	15.0	342.3		0.0000	0.0000
SBCAG	All Sub-Areas	2050	Summer	T7IS - GAS	HHDT - GAS	20.6	2,674.0	412.4	0.0014	
SBCAG	All Sub-Areas	2050	Summer	UBUS - DSL	UBUS - DSL	60.8	9,040.7	243.1	0.0062	
SBCAG	All Sub-Areas	2050	Summer	UBUS - GAS	UBUS - GAS	60.6	9,012.0	242.3	0.0003	

TOG_STREX	TOG_TOTEX	TOG_DIURN	TOG_HTSK	TOG_RUNLS	TOG_RESTL	TOG_TOTAL	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_TOTEX	ROG_DIURN
0.0727	0.4103	0.0739	0.1085	0.3584	0.0708	1.02	0.2065	0.0039	0.0665	0.2770	0.0739
	0.0010					0.0010	0.0009	0.0000		0.0009	
	0.0003					0.0003	0.0002			0.0002	
0.0101	0.0384	0.0153	0.0422	0.1650	0.0167	0.2776	0.0194		0.0092	0.0286	0.0153
	0.0000					0.0000	0.0000			0.0000	
0.0005	0.0019	0.0007	0.0016	0.0073	0.0008	0.0123	0.0010		0.0004	0.0014	0.0007
	0.0001					0.0001	0.0001			0.0001	
0.0089	0.0253	0.0156	0.0266	0.0950	0.0186	0.1810	0.0112		0.0081	0.0193	0.0156
	0.0024					0.0024	0.0019	0.0003		0.0021	
0.0022	0.0029	0.0001	0.0014	0.0074	0.0000	0.0119	0.0001	0.0003	0.0020	0.0025	0.0001
	0.0012					0.0012	0.0009	0.0001		0.0010	
0.0005	0.0007	0.0000	0.0003	0.0013	0.0000	0.0023	0.0000	0.0001	0.0005	0.0006	0.0000
0.0401	0.2008	0.0275	0.0136	0.0223	0.0166	0.2807	0.1279		0.0368	0.1648	0.0275
	0.0001					0.0001	0.0001			0.0001	
0.0050	0.0134	0.0147	0.0222	0.0564	0.0180	0.1248	0.0057		0.0046	0.0103	0.0147
	0.0001					0.0001	0.0001			0.0001	
0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0002	0.0001		0.0000	0.0001	0.0000
	0.0008					0.0008	0.0007	0.0001		0.0007	
0.0013	0.0018	0.0000	0.0001	0.0010	0.0000	0.0029	0.0001	0.0001	0.0012	0.0015	0.0000
	0.0033					0.0033	0.0029			0.0029	
	0.0011					0.0011	0.0009	0.0000		0.0009	
0.0002	0.0013	0.0000	0.0000	0.0001	0.0000	0.0015	0.0000	0.0007	0.0002	0.0009	0.0000
	0.0002					0.0002	0.0002	0.0000		0.0002	
	0.0000					0.0000	0.0000	0.0000		0.0000	
	0.0001					0.0001	0.0000	0.0000		0.0000	
	0.0003					0.0003	0.0002	0.0000		0.0002	
	0.0010					0.0010	0.0009	0.0000		0.0009	
	0.0026					0.0026	0.0023	0.0000		0.0023	
	0.0065					0.0065	0.0056	0.0000		0.0057	
	0.0000					0.0000	0.0000	0.0000		0.0000	
	0.0000					0.0000	0.0000	0.0000		0.0000	
	0.0001					0.0001	0.0001	0.0000		0.0001	
	0.0000					0.0000	0.0000	0.0000		0.0000	
0.0030	0.0038	0.0000	0.0004	0.0020	0.0000	0.0062	0.0002	0.0003	0.0027	0.0033	0.0000
	0.0002					0.0002	0.0001	0.0001		0.0002	
	0.0042					0.0042	0.0033	0.0004		0.0037	
	0.0004					0.0004	0.0003	0.0000		0.0003	
	0.0048					0.0048	0.0036	0.0006		0.0042	
	0.0017					0.0017	0.0013	0.0002		0.0015	
	0.0013					0.0013	0.0011	0.0000		0.0011	
	0					0	0	0		0	
	0.0003					0.0003	0.0002	0.0000		0.0002	
	0.0005					0.0005	0.0003	0.0001		0.0005	
	0.0051					0.0051	0.0043	0.0002		0.0045	
	0.0008					0.0008	0.0006	0.0000		0.0007	
	0.0652					0.0652	0.0009	0.0000		0.0009	
	0.0050					0.0050	0.0042	0.0002		0.0044	
	0.0007					0.0007	0.0006	0.0000		0.0006	
	0.0000					0.0000	0.0000	0.0000		0.0000	
0.0003	0.0018	0.0000	0.0000	0.0001	0.0000	0.0019	0.0010		0.0003	0.0013	0.0000
	0.0062					0.0062	0.0002			0.0002	
0.0004	0.0008	0.0000	0.0000	0.0002	0.0000	0.0010	0.0002		0.0004	0.0006	0.0000

ROG_HTSK	ROG_RUNLS	ROG_RESTL	ROG_TOTAL	CO_RUNEX	CO_IDLEX	CO_STREX	CO_TOTEX	NOx_RUNEX	NOx_IDLEX	NOx_STREX	NOx_TOTEX
0.1085	0.3584	0.0708	0.8885	4.68	0.0261	1.20	5.91	1.02	0.0868	0.3224	1.43
			0.0009	0.0048	0.0000		0.0049	0.0229	0.0007	0.0100	0.0335
			0.0002	0.0078			0.0078	0.0005			0.0005
0.0422	0.1650	0.0167	0.2678	1.54		0.4083	1.95	0.1198		0.0162	0.1360
			0.0000	0.0000			0.0000	0.0000			0.0000
0.0016	0.0073	0.0008	0.0119	0.0721		0.0183	0.0904	0.0059		0.0007	0.0066
			0.0001	0.0006			0.0006	0.0001			0.0001
0.0266	0.0950	0.0186	0.1751	0.9090		0.2804	1.19	0.0641		0.0121	0.0761
			0.0021	0.0093	0.0021		0.0114	0.0056	0.0021		0.0077
0.0014	0.0074	0.0000	0.0115	0.0048	0.0047	0.0533	0.0628	0.0013	0.0000	0.0143	0.0157
			0.0010	0.0041	0.0010		0.0051	0.0013	0.0008		0.0022
0.0003	0.0013	0.0000	0.0022	0.0015	0.0014	0.0153	0.0182	0.0004	0.0000	0.0034	0.0038
0.0136	0.0223	0.0166	0.2447	1.09		0.1872	1.28	0.0712		0.0060	0.0773
			0.0001	0.0038			0.0038	0.0003			0.0003
0.0222	0.0564	0.0180	0.1217	0.4583		0.1519	0.6102	0.0324		0.0068	0.0392
			0.0001	0.0003			0.0003	0.0037			0.0037
0.0000	0.0000	0.0000	0.0001	0.0009		0.0003	0.0012	0.0005		0.0000	0.0006
			0.0007	0.0039	0.0001		0.0040	0.0128	0.0017	0.0033	0.0178
0.0001	0.0010	0.0000	0.0026	0.0025	0.0012	0.0181	0.0218	0.0011	0.0000	0.0029	0.0040
			0.0029	0.0169			0.0169	0.0573			0.0573
			0.0009	0.0048	0.0002		0.0050	0.0207	0.0044	0.0122	0.0374
0.0000	0.0001	0.0000	0.0011	0.0009	0.0056	0.0035	0.0099	0.0004	0.0001	0.0003	0.0007
			0.0002	0.0008	0.0000		0.0008	0.0041	0.0004	0.0058	0.0103
			0.0000	0.0001	0.0000		0.0001	0.0004	0.0000	0.0003	0.0007
			0.0000	0.0003	0.0000		0.0003	0.0012	0.0000	0.0007	0.0019
			0.0002	0.0012	0.0000		0.0012	0.0059	0.0001	0.0018	0.0078
			0.0009	0.0046	0.0000		0.0046	0.0212	0.0008	0.0122	0.0342
			0.0023	0.0122	0.0001		0.0123	0.0570	0.0019	0.0281	0.0870
			0.0057	0.0297	0.0002		0.0299	0.1370	0.0049	0.0730	0.2149
			0.0000	0.0001	0.0000		0.0001	0.0002	0.0000	0.0002	0.0004
			0.0000	0.0001	0.0000		0.0001	0.0007	0.0000	0.0004	0.0011
			0.0001	0.0004	0.0000		0.0005	0.0019	0.0003	0.0039	0.0061
			0.0000	0.0002	0.0000		0.0002	0.0007	0.0001	0.0016	0.0024
0.0004	0.0020	0.0000	0.0057	0.0042	0.0035	0.0396	0.0473	0.0019	0.0000	0.0056	0.0074
			0.0002	0.0008	0.0001		0.0010	0.0027	0.0017	0.0060	0.0104
			0.0037	0.0197	0.0010		0.0207	0.0560	0.0122	0.0091	0.0773
			0.0003	0.0017	0.0001		0.0019	0.0050	0.0013	0.0009	0.0072
			0.0042	0.0215	0.0017		0.0232	0.0581	0.0194	0.0116	0.0891
			0.0015	0.0078	0.0005		0.0083	0.0221	0.0060	0.0036	0.0317
			0.0011	0.0065	0.0001		0.0066	0.0192	0.0008	0.0040	0.0240
			0	0	0		0	0.0000	0	0	0.0000
			0.0002	0.0013	0.0000		0.0013	0.0037	0.0003	0.0007	0.0046
			0.0005	0.0018	0.0004		0.0022	0.0051	0.0050	0.0107	0.0208
			0.0045	0.0252	0.0006		0.0258	0.0673	0.0070	0.0246	0.0988
			0.0007	0.0037	0.0001		0.0038	0.0098	0.0013	0.0045	0.0156
			0.0009	0.2347	0.0006		0.2352	0.0072	0.0069	0.0000	0.0141
			0.0044	0.0251	0.0004		0.0255	0.0718	0.0052	0.0184	0.0954
			0.0006	0.0035	0.0001		0.0035	0.0101	0.0011	0.0038	0.0149
			0.0000	0.0001	0.0000		0.0001	0.0003	0.0003	0.0007	0.0013
0.0000	0.0001	0.0000	0.0014	0.0906		0.0184	0.1090	0.0085		0.0014	0.0099
			0.0002	0.0407			0.0407	0.0136			0.0136
0.0000	0.0002	0.0000	0.0009	0.0045		0.0037	0.0082	0.0036		0.0007	0.0042

CO2_RUNEX	CO2_IDLEX	CO2_STREX	CO2_TOTEX	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_TOTEX	PM10_PMTW	PM10_PMBW	PM10_TOTAL	PM2_5_RUNEX
3,065.4	32.1	104.2	3,201.7	0.0092	0.0001	0.0022	0.0114	0.1064	0.5078	0.6256	0.0085
23.7	0.2490		23.9	0.0001	0.0000		0.0001	0.0002	0.0027	0.0030	0.0001
14.9			14.9	0.0001			0.0001	0.0007	0.0031	0.0038	0.0000
1,076.8		49.8	1,126.6	0.0034		0.0011	0.0045	0.0564	0.2593	0.3202	0.0031
0.0302			0.0302	0.0000			0.0000	0.0000	0.0000	0.0000	0.0000
55.3		2.50	57.8	0.0002		0.0001	0.0002	0.0023	0.0106	0.0131	0.0001
1.25			1.25	0.0000			0.0000	0.0000	0.0002	0.0003	0.0000
577.0		29.4	606.4	0.0015		0.0006	0.0021	0.0205	0.0942	0.1168	0.0014
30.3	0.2861		30.6	0.0004	0.0000		0.0004	0.0008	0.0054	0.0066	0.0003
30.2	0.1621	1.26	31.6	0.0000		0.0000	0.0001	0.0004	0.0034	0.0038	0.0000
16.5	0.2099		16.7	0.0002	0.0000		0.0002	0.0004	0.0031	0.0038	0.0002
10.3	0.0532	0.4142	10.8	0.0000		0.0000	0.0000	0.0001	0.0013	0.0014	0.0000
11.4		0.8282	12.2	0.0001		0.0001	0.0002	0.0003	0.0008	0.0013	0.0001
9.98			9.98	0.0000			0.0000	0.0003	0.0013	0.0016	0.0000
353.8		18.6	372.3	0.0007		0.0003	0.0010	0.0097	0.0444	0.0550	0.0007
1.56			1.56	0.0000			0.0000	0.0000	0.0002	0.0003	0.0000
6.67		0.0050	6.68	0.0000		0.0000	0.0000	0.0001	0.0007	0.0008	0.0000
13.0	0.6744		13.7	0.0000	0.0000		0.0000	0.0001	0.0011	0.0012	0.0000
16.3	0.0848	0.3459	16.8	0.0000		0.0000	0.0000	0.0002	0.0018	0.0019	0.0000
26.4			26.4	0.0001			0.0001	0	0	0.0001	0.0001
19.3	1.66		20.9	0.0000	0.0000		0.0001	0.0002	0.0116	0.0119	0.0000
2.57	0.1908	0.0387	2.80	0.0000		0.0000	0.0000	0.0000	0.0030	0.0031	0.0000
3.74	0.1461		3.88	0.0000	0.0000		0.0000	0.0000	0.0004	0.0005	0.0000
0.4688	0.0061		0.4749	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000
1.47	0.0155		1.49	0.0000	0.0000		0.0000	0.0000	0.0002	0.0002	0.0000
5.90	0.0440		5.95	0.0000	0.0000		0.0000	0.0001	0.0007	0.0007	0.0000
23.9	0.3036		24.2	0.0001	0.0000		0.0001	0.0002	0.0027	0.0030	0.0001
60.3	0.7008		61.0	0.0002	0.0000		0.0002	0.0006	0.0070	0.0078	0.0002
155.3	1.82		157.1	0.0004	0.0000		0.0004	0.0016	0.0176	0.0196	0.0004
0.2686	0.0035		0.2721	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
0.8423	0.0089		0.8512	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000
2.87	0.0992		2.97	0.0000	0.0000		0.0000	0.0000	0.0003	0.0004	0.0000
1.27	0.0388		1.31	0.0000	0.0000		0.0000	0.0000	0.0001	0.0002	0.0000
26.6	0.2120	0.8646	27.6	0.0000		0.0000	0.0000	0.0003	0.0029	0.0032	0.0000
2.40	0.6577		3.06	0.0000	0.0000		0.0000	0.0001	0.0001	0.0002	0.0000
60.8	4.52		65.3	0.0002	0.0000		0.0002	0.0015	0.0026	0.0044	0.0002
5.34	0.4714		5.81	0.0000	0.0000		0.0000	0.0001	0.0002	0.0004	0.0000
75.6	7.22		82.9	0.0002	0.0000		0.0002	0.0019	0.0032	0.0054	0.0002
24.0	2.22		26.2	0.0001	0.0000		0.0001	0.0006	0.0010	0.0017	0.0001
19.0	0.2961		19.2	0.0001	0.0000		0.0001	0.0005	0.0008	0.0013	0.0001
0.0000	0.0000		0.0000	0	0		0	0	0	0	0
3.71	0.0962		3.81	0.0000	0.0000		0.0000	0.0001	0.0002	0.0003	0.0000
8.20	1.73		9.93	0.0000	0.0000		0.0000	0.0002	0.0003	0.0006	0.0000
95.0	2.57		97.6	0.0003	0.0000		0.0003	0.0023	0.0040	0.0066	0.0003
13.8	0.4715		14.3	0.0000	0.0000		0.0000	0.0003	0.0006	0.0010	0.0000
49.4	2.48		51.9	0.0000	0.0000		0.0001	0.0006	0.0010	0.0016	0.0000
76.4	1.91		78.4	0.0003	0.0000		0.0003	0.0019	0.0033	0.0055	0.0003
10.3	0.3957		10.7	0.0000	0.0000		0.0000	0.0003	0.0004	0.0007	0.0000
0.5527	0.1171		0.6698	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
4.75		0.0573	4.81	0.0000		0.0000	0.0000	0.0001	0.0002	0.0002	0.0000
20.1			20.1	0.0001			0.0001	0.0001	0.0084	0.0086	0.0001
16.0		0.0779	16.1	0.0000		0.0000	0.0000	0.0001	0.0013	0.0014	0.0000

PM2_5_IDLEX	PM2_5_STREX	PM2_5_TOTEX	PM2_5_PMTW	PM2_5_PMBW	PM2_5_TOTAL	SOx_RUNEX	SOx_IDLEX	SOx_STREX	SOx_TOTEX	Fuel_GAS	Fuel_DSL
0.0000	0.0020	0.0106	0.0266	0.2176	0.2548	0.0298	0.0003	0.0011	0.0311	245.1	81.8
0.0000		0.0001	0.0001	0.0011	0.0013	0.0002	0.0000		0.0002		2.15
		0.0000	0.0002	0.0013	0.0015	0.0001			0.0001		1.34
	0.0011	0.0041	0.0141	0.1111	0.1294	0.0108		0.0005	0.0113	120.3	
		0.0000	0.0000	0.0000	0.0000	0.0000			0.0000		0.0027
	0.0000	0.0002	0.0006	0.0045	0.0053	0.0006		0.0000	0.0006	6.17	
		0.0000	0.0000	0.0001	0.0001	0.0000			0.0000		0.1124
	0.0005	0.0019	0.0051	0.0404	0.0474	0.0058		0.0003	0.0061	64.8	
0.0000		0.0004	0.0002	0.0023	0.0029	0.0003	0.0000		0.0003		2.75
	0.0000	0.0001	0.0001	0.0015	0.0016	0.0003	0.0000	0.0000	0.0003	3.38	
0.0000		0.0002	0.0001	0.0013	0.0017	0.0002	0.0000		0.0002		1.51
	0.0000	0.0000	0.0000	0.0005	0.0006	0.0001	0.0000	0.0000	0.0001	1.15	
	0.0001	0.0002	0.0001	0.0003	0.0006	0.0001		0.0000	0.0001	1.58	
		0.0000	0.0001	0.0005	0.0006	0.0001			0.0001		0.8979
	0.0003	0.0009	0.0024	0.0190	0.0224	0.0035		0.0002	0.0037	39.8	
		0.0000	0.0000	0.0001	0.0001	0.0000			0.0000		0.1400
	0.0000	0.0000	0.0000	0.0003	0.0003	0.0001		0.0000	0.0001	0.7113	
0.0000		0.0000	0.0000	0.0005	0.0005	0.0001	0.0000		0.0001		1.23
	0.0000	0.0000	0.0000	0.0008	0.0008	0.0002	0.0000	0.0000	0.0002	1.79	
		0.0001	0	0	0.0001	0.0003			0.0003		2.38
0.0000		0.0000	0.0000	0.0050	0.0051	0.0002	0.0000		0.0002		1.88
	0.0000	0.0000	0.0000	0.0013	0.0013	0.0000	0.0000	0.0000	0.0000	0.3003	
0.0000		0.0000	0.0000	0.0002	0.0002	0.0000	0.0000		0.0000		0.3495
0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0427
0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.1337
0.0000		0.0000	0.0000	0.0003	0.0003	0.0001	0.0000		0.0001		0.5353
0.0000		0.0001	0.0001	0.0012	0.0013	0.0002	0.0000		0.0002		2.18
0.0000		0.0002	0.0002	0.0030	0.0033	0.0006	0.0000		0.0006		5.49
0.0000		0.0004	0.0004	0.0075	0.0083	0.0015	0.0000		0.0015		14.1
0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0245
0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0766
0.0000		0.0000	0.0000	0.0001	0.0002	0.0000	0.0000		0.0000		0.2669
0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.1179
	0.0000	0.0000	0.0001	0.0012	0.0013	0.0003	0.0000	0.0000	0.0003	2.95	
0.0000		0.0000	0.0000	0.0000	0.0001	0.0000	0.0000		0.0000		0.2751
0.0000		0.0002	0.0004	0.0011	0.0017	0.0006	0.0000		0.0006		5.87
0.0000		0.0000	0.0000	0.0001	0.0001	0.0001	0.0000		0.0001		0.5233
0.0000		0.0002	0.0005	0.0014	0.0021	0.0007	0.0001		0.0008		7.46
0.0000		0.0001	0.0002	0.0004	0.0007	0.0002	0.0000		0.0003		2.36
0.0000		0.0001	0.0001	0.0003	0.0005	0.0002	0.0000		0.0002		1.73
0		0	0	0	0	0	0		0		0.0000
0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.3425
0.0000		0.0000	0.0000	0.0001	0.0002	0.0001	0.0000		0.0001		0.8939
0.0000		0.0003	0.0006	0.0017	0.0026	0.0009	0.0000		0.0009		8.78
0.0000		0.0000	0.0001	0.0002	0.0004	0.0001	0.0000		0.0001		1.29
0.0000		0.0000	0.0001	0.0004	0.0006	0.0000	0.0000		0.0000		4.67
0.0000		0.0003	0.0005	0.0014	0.0022	0.0007	0.0000		0.0007		7.05
0.0000		0.0000	0.0001	0.0002	0.0003	0.0001	0.0000		0.0001		0.9623
0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0603
	0.0000	0.0000	0.0000	0.0001	0.0001	0.0000		0.0000	0.0000	0.5310	
		0.0001	0.0000	0.0036	0.0037	0.0001			0.0001		1.81
	0.0000	0.0000	0.0000	0.0006	0.0006	0.0002		0.0000	0.0002	1.72	

Row Labels	Sum of CO_TOTEX	Sum of PM10_TOTAL	Sum of PM2_5_TOTAL	Sum of SOx_TOTEX	Sum of NOx_TOTEX
HHDT - DSL	0.246496431	0.026965067	0.013378184	0.003687931	1.22007829
LDA - DSL	0.017809614	0.004687053	0.002448991	0.000207372	0.011601851
LDT1 - DSL	0.000759532	0.000119863	0.000100206	2.04285E-06	0.000735685
LDT2 - DSL	0.000456064	0.000222151	0.000103625	1.39769E-05	0.000215732
LHDT1 - DSL	0.144408644	0.017899557	0.01043594	0.000766637	0.505184815
LHDT2 - DSL	0.040830905	0.006384885	0.003431279	0.000298586	0.117637638
MDV - DSL	0.004268416	0.001357794	0.000656616	0.000109286	0.001605546
MH - DSL	0.001491395	0.000850421	0.000593296	2.76409E-05	0.01510871
MHDT - DSL	0.082347449	0.036444267	0.020813748	0.002110695	0.584761676
OBUS - DSL	0.008363995	0.003198358	0.001525332	0.000264639	0.082315073
SBUS - DSL	0.006800395	0.012776772	0.005793254	0.000214206	0.133505638
UBUS - DSL	0.097573814	0.022601828	0.012554269	0.000408182	0.243426876
Grand Total	**0.651606655**	**0.133508015**	**0.071834739**	**0.008111195**	**2.91617753**

Area	Sub-Area	Cal. Year	Season	Veh_Tech	EMFAC2007 Category	Population	VMT	Trips	TOG_RUNEX	TOG_IDLEX
SBCAG	All Sub-Areas	2020	Summer	All Vehicles	All Vehicles	313,436.4	11,066,810.6	1,954,115.8	0.8186	0.0123
SBCAG	All Sub-Areas	2020	Summer	ALL OTHER BUSES - DSL	OBUS - DSL	206.3	13,120.5		0.0016	0.0000
SBCAG	All Sub-Areas	2020	Summer	LDA - DSL	LDA - DSL	1,937.6	73,666.8	11,918.4	0.0018	
SBCAG	All Sub-Areas	2020	Summer	LDA - GAS	LDA - GAS	158,507.3	6,041,823.7	993,402.0	0.1364	
SBCAG	All Sub-Areas	2020	Summer	LDT1 - DSL	LDT1 - DSL	29.9	523.8	135.7	0.0001	
SBCAG	All Sub-Areas	2020	Summer	LDT1 - GAS	LDT1 - GAS	10,116.0	340,569.8	62,069.5	0.0156	
SBCAG	All Sub-Areas	2020	Summer	LDT2 - DSL	LDT2 - DSL	98.2	3,942.2	627.5	0.0001	
SBCAG	All Sub-Areas	2020	Summer	LDT2 - GAS	LDT2 - GAS	67,044.0	2,254,661.4	414,645.3	0.1023	
SBCAG	All Sub-Areas	2020	Summer	LHD1 - DSL	LHDT1 - DSL	3,808.5	124,215.1	47,905.8	0.0334	0.0005
SBCAG	All Sub-Areas	2020	Summer	LHD1 - GAS	LHDT1 - GAS	5,043.0	141,818.7	75,133.7	0.0306	0.0029
SBCAG	All Sub-Areas	2020	Summer	LHD2 - DSL	LHDT2 - DSL	1,182.8	43,698.5	14,878.1	0.0098	0.0002
SBCAG	All Sub-Areas	2020	Summer	LHD2 - GAS	LHDT2 - GAS	724.6	24,045.0	10,795.2	0.0023	0.0004
SBCAG	All Sub-Areas	2020	Summer	MCY - GAS	MCY - GAS	9,772.3	80,638.4	19,542.7	0.2277	
SBCAG	All Sub-Areas	2020	Summer	MDV - DSL	MDV - DSL	595.2	23,252.8	3,764.3	0.0004	
SBCAG	All Sub-Areas	2020	Summer	MDV - GAS	MDV - GAS	46,166.6	1,416,911.2	283,365.4	0.1049	
SBCAG	All Sub-Areas	2020	Summer	MH - DSL	MH - DSL	292.0	2,493.9	29.2	0.0004	
SBCAG	All Sub-Areas	2020	Summer	MH - GAS	MH - GAS	1,331.7	10,315.7	133.2	0.0041	
SBCAG	All Sub-Areas	2020	Summer	MOTOR COACH - DSL	OBUS - DSL	33.6	4,884.9		0.0010	0.0001
SBCAG	All Sub-Areas	2020	Summer	OBUS - GAS	OBUS - GAS	193.2	12,584.8	3,865.6	0.0017	0.0002
SBCAG	All Sub-Areas	2020	Summer	PTO - DSL	HHDT - DSL	0	7,927.3		0.0029	
SBCAG	All Sub-Areas	2020	Summer	SBUS - DSL	SBUS - DSL	381.7	14,517.3		0.0025	0.0001
SBCAG	All Sub-Areas	2020	Summer	SBUS - GAS	SBUS - GAS	256.6	15,477.9	1,026.4	0.0011	0.0034
SBCAG	All Sub-Areas	2020	Summer	T6 AG - DSL	MHDT - DSL	196.4	3,343.9		0.0027	0.0002
SBCAG	All Sub-Areas	2020	Summer	T6 CAIRP HEAVY - DSL	MHDT - DSL	5.21	285.2		0.0000	0.0000
SBCAG	All Sub-Areas	2020	Summer	T6 CAIRP SMALL - DSL	MHDT - DSL	13.3	875.5		0.0001	0.0000
SBCAG	All Sub-Areas	2020	Summer	T6 INSTATE CONSTRUCTION HEAVY - DSL	MHDT - DSL	48.1	3,562.2		0.0004	0.0000
SBCAG	All Sub-Areas	2020	Summer	T6 INSTATE CONSTRUCTION SMALL - DSL	MHDT - DSL	244.7	14,407.7		0.0024	0.0000
SBCAG	All Sub-Areas	2020	Summer	T6 INSTATE HEAVY - DSL	MHDT - DSL	837.0	39,762.7		0.0042	0.0000
SBCAG	All Sub-Areas	2020	Summer	T6 INSTATE SMALL - DSL	MHDT - DSL	1,698.3	97,954.7		0.0184	0.0001
SBCAG	All Sub-Areas	2020	Summer	T6 OOS HEAVY - DSL	MHDT - DSL	3.05	163.4		0.0000	0.0000
SBCAG	All Sub-Areas	2020	Summer	T6 OOS SMALL - DSL	MHDT - DSL	7.64	501.6		0.0001	0.0000
SBCAG	All Sub-Areas	2020	Summer	T6 PUBLIC - DSL	MHDT - DSL	200.5	3,141.2		0.0003	0.0000
SBCAG	All Sub-Areas	2020	Summer	T6 UTILITY - DSL	MHDT - DSL	46.4	889.8		0.0000	0.0000
SBCAG	All Sub-Areas	2020	Summer	T6TS - GAS	MHDT - GAS	488.2	25,901.3	9,768.1	0.0074	0.0006
SBCAG	All Sub-Areas	2020	Summer	T7 AG - DSL	HHDT - DSL	99.6	1,652.1		0.0021	0.0005
SBCAG	All Sub-Areas	2020	Summer	T7 CAIRP - DSL	HHDT - DSL	134.9	28,976.7		0.0049	0.0006
SBCAG	All Sub-Areas	2020	Summer	T7 CAIRP CONSTRUCTION - DSL	HHDT - DSL	10.6	2,527.0		0.0004	0.0000
SBCAG	All Sub-Areas	2020	Summer	T7 NNOOS - DSL	HHDT - DSL	140.4	35,931.2		0.0038	0.0005
SBCAG	All Sub-Areas	2020	Summer	T7 NOOS - DSL	HHDT - DSL	54.3	11,445.8		0.0019	0.0003
SBCAG	All Sub-Areas	2020	Summer	T7 OTHER PORT - DSL	HHDT - DSL	41.4	7,723.6		0.0017	0.0000
SBCAG	All Sub-Areas	2020	Summer	T7 POAK - DSL	HHDT - DSL	0.0000	0.0001		0	0
SBCAG	All Sub-Areas	2020	Summer	T7 POLA - DSL	HHDT - DSL	5.87	886.5		0.0002	0.0000
SBCAG	All Sub-Areas	2020	Summer	T7 PUBLIC - DSL	HHDT - DSL	233.4	5,350.6		0.0007	0.0005
SBCAG	All Sub-Areas	2020	Summer	T7 SINGLE - DSL	HHDT - DSL	373.2	40,113.2		0.0058	0.0003
SBCAG	All Sub-Areas	2020	Summer	T7 SINGLE CONSTRUCTION - DSL	HHDT - DSL	68.7	6,537.0		0.0009	0.0001
SBCAG	All Sub-Areas	2020	Summer	T7 SWCV - DSL	HHDT - DSL	260.1	11,981.4		0.0329	0.0004
SBCAG	All Sub-Areas	2020	Summer	T7 TRACTOR - DSL	HHDT - DSL	257.4	35,792.9		0.0072	0.0002
SBCAG	All Sub-Areas	2020	Summer	T7 TRACTOR CONSTRUCTION - DSL	HHDT - DSL	54.3	4,873.8		0.0010	0.0000
SBCAG	All Sub-Areas	2020	Summer	T7 UTILITY - DSL	HHDT - DSL	13.3	303.6		0.0000	0.0000
SBCAG	All Sub-Areas	2020	Summer	T7IS - GAS	HHDT - GAS	24.6	3,354.0	492.2	0.0029	
SBCAG	All Sub-Areas	2020	Summer	UBUS - DSL	UBUS - DSL	102.0	18,159.2	408.1	0.0168	
SBCAG	All Sub-Areas	2020	Summer	UBUS - GAS	UBUS - GAS	52.4	9,323.1	209.5	0.0185	

TOG_STREX	TOG_TOTEX	TOG_DIURN	TOG_HTSK	TOG_RUNLS	TOG_RESTL	TOG_TOTAL	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_TOTEX	ROG_DIURN
0.5285	1.36	0.1908	0.3808	1.04	0.1752	3.15	0.5967	0.0093	0.4830	1.09	0.1908
	0.0016					0.0016	0.0014	0.0000		0.0014	
	0.0018					0.0018	0.0016			0.0016	
0.1524	0.2889	0.0686	0.1554	0.2771	0.0649	0.8548	0.0936		0.1392	0.2329	0.0686
	0.0001					0.0001	0.0001			0.0001	
0.0156	0.0312	0.0080	0.0157	0.0502	0.0073	0.1124	0.0107		0.0143	0.0250	0.0080
	0.0001					0.0001	0.0001			0.0001	
0.1174	0.2197	0.0484	0.0986	0.3060	0.0461	0.7188	0.0702		0.1072	0.1774	0.0484
	0.0340					0.0340	0.0294	0.0005		0.0298	
0.0523	0.0858	0.0006	0.0172	0.1246	0.0004	0.2285	0.0211	0.0020	0.0477	0.0708	0.0006
	0.0099					0.0099	0.0086	0.0001		0.0087	
0.0053	0.0081	0.0001	0.0016	0.0106	0.0000	0.0203	0.0016	0.0003	0.0049	0.0067	0.0001
0.0473	0.2750	0.0313	0.0192	0.0612	0.0213	0.4081	0.1879		0.0435	0.2314	0.0313
	0.0004					0.0004	0.0003			0.0003	
0.1208	0.2257	0.0334	0.0713	0.2020	0.0350	0.5675	0.0754		0.1104	0.1858	0.0334
	0.0004					0.0004	0.0004			0.0004	
0.0001	0.0042	0.0003	0.0000	0.0005	0.0001	0.0052	0.0029		0.0001	0.0030	0.0003
	0.0011					0.0011	0.0009	0.0001		0.0010	
0.0024	0.0044	0.0000	0.0001	0.0013	0.0000	0.0058	0.0012	0.0001	0.0022	0.0036	0.0000
	0.0029					0.0029	0.0026			0.0026	
	0.0026					0.0026	0.0022	0.0001		0.0023	
0.0010	0.0055	0.0000	0.0001	0.0005	0.0000	0.0061	0.0008	0.0023	0.0009	0.0040	0.0000
	0.0029					0.0029	0.0024	0.0002		0.0025	
	0.0000					0.0000	0.0000	0.0000		0.0000	
	0.0001					0.0001	0.0001	0.0000		0.0001	
	0.0004					0.0004	0.0003	0.0000		0.0003	
	0.0024					0.0024	0.0021	0.0000		0.0021	
	0.0042					0.0042	0.0037	0.0000		0.0037	
	0.0185					0.0185	0.0161	0.0001		0.0162	
	0.0000					0.0000	0.0000	0.0000		0.0000	
	0.0001					0.0001	0.0001	0.0000		0.0001	
	0.0003					0.0003	0.0003	0.0000		0.0003	
	0.0000					0.0000	0.0000	0.0000		0.0000	
0.0122	0.0202	0.0000	0.0014	0.0074	0.0000	0.0290	0.0051	0.0004	0.0112	0.0166	0.0000
	0.0026					0.0026	0.0018	0.0005		0.0023	
	0.0055					0.0055	0.0043	0.0005		0.0049	
	0.0005					0.0005	0.0004	0.0000		0.0004	
	0.0043					0.0043	0.0033	0.0005		0.0038	
	0.0022					0.0022	0.0017	0.0003		0.0020	
	0.0018					0.0018	0.0015	0.0000		0.0015	
	0					0	0	0		0	
	0.0002					0.0002	0.0002	0.0000		0.0002	
	0.0012					0.0012	0.0006	0.0004		0.0010	
	0.0061					0.0061	0.0051	0.0003		0.0053	
	0.0009					0.0009	0.0008	0.0001		0.0008	
	0.0332					0.0332	0.0010	0.0002		0.0012	
	0.0074					0.0074	0.0063	0.0002		0.0065	
	0.0010					0.0010	0.0008	0.0000		0.0009	
	0.0000					0.0000	0.0000	0.0000		0.0000	
0.0010	0.0039	0.0000	0.0001	0.0003	0.0000	0.0043	0.0020		0.0009	0.0029	0.0000
	0.0168					0.0168	0.0110			0.0110	
0.0006	0.0191	0.0000	0.0001	0.0004	0.0000	0.0196	0.0127		0.0005	0.0132	0.0000

ROG_HTSK	ROG_RUNLS	ROG_RESTL	ROG_TOTAL	CO_RUNEX	CO_IDLEX	CO_STREX	CO_TOTEX	NOx_RUNEX	NOx_IDLEX	NOx_STREX	NOx_TOTEX
0.3808	1.04	0.1752	2.88	13.8	0.0616	5.76	19.7	4.17	0.1690	0.7856	5.13
			0.0014	0.0046	0.0001		0.0047	0.0477	0.0012	0.0035	0.0523
			0.0016	0.0178			0.0178	0.0116			0.0116
0.1554	0.2771	0.0649	0.7988	4.36		1.88	6.24	0.4289		0.1445	0.5735
			0.0001	0.0008			0.0008	0.0007			0.0007
0.0157	0.0502	0.0073	0.1062	0.4807		0.2060	0.6868	0.0509		0.0138	0.0647
			0.0001	0.0005			0.0005	0.0002			0.0002
0.0986	0.3060	0.0461	0.6765	2.95		1.38	4.33	0.4128		0.1493	0.5621
			0.0298	0.1406	0.0038		0.1444	0.4947	0.0105		0.5052
0.0172	0.1246	0.0004	0.2136	0.3935	0.0171	0.4645	0.8751	0.0777	0.0002	0.1506	0.2285
			0.0087	0.0396	0.0012		0.0408	0.1145	0.0031		0.1176
0.0016	0.0106	0.0000	0.0190	0.0289	0.0025	0.0470	0.0784	0.0080	0.0000	0.0194	0.0275
0.0192	0.0612	0.0213	0.3644	1.73		0.1929	1.92	0.0962		0.0065	0.1027
			0.0003	0.0043			0.0043	0.0016			0.0016
0.0713	0.2020	0.0350	0.5276	2.78		1.32	4.11	0.3875		0.1513	0.5388
			0.0004	0.0015			0.0015	0.0151			0.0151
0.0000	0.0005	0.0001	0.0040	0.0836		0.0016	0.0852	0.0101		0.0002	0.0103
			0.0010	0.0035	0.0002		0.0037	0.0259	0.0030	0.0011	0.0300
0.0001	0.0013	0.0000	0.0050	0.0277	0.0010	0.0363	0.0651	0.0066	0.0000	0.0059	0.0125
			0.0026	0.0109			0.0109	0.0691			0.0691
			0.0023	0.0062	0.0006		0.0068	0.1103	0.0194	0.0037	0.1335
0.0001	0.0005	0.0000	0.0046	0.0174	0.0193	0.0151	0.0518	0.0048	0.0002	0.0013	0.0063
			0.0025	0.0058	0.0006		0.0064	0.0221	0.0016	0.0018	0.0255
			0.0000	0.0001	0.0000		0.0001	0.0006	0.0000	0.0001	0.0007
			0.0001	0.0003	0.0000		0.0003	0.0016	0.0001	0.0004	0.0020
			0.0003	0.0011	0.0000		0.0012	0.0128	0.0003	0.0008	0.0139
			0.0021	0.0070	0.0001		0.0071	0.0349	0.0013	0.0050	0.0412
			0.0037	0.0133	0.0002		0.0135	0.1321	0.0047	0.0153	0.1520
			0.0162	0.0516	0.0009		0.0525	0.2798	0.0101	0.0325	0.3224
			0.0000	0.0000	0.0000		0.0000	0.0003	0.0000	0.0001	0.0004
			0.0001	0.0002	0.0000		0.0002	0.0009	0.0000	0.0002	0.0011
			0.0003	0.0008	0.0001		0.0008	0.0197	0.0018	0.0018	0.0232
			0.0000	0.0002	0.0000		0.0002	0.0008	0.0001	0.0013	0.0022
0.0014	0.0074	0.0000	0.0255	0.1201	0.0047	0.1842	0.3090	0.0260	0.0000	0.0258	0.0519
			0.0023	0.0074	0.0010		0.0084	0.0191	0.0024	0.0011	0.0226
			0.0049	0.0201	0.0016		0.0217	0.1301	0.0177	0.0056	0.1534
			0.0004	0.0017	0.0001		0.0018	0.0112	0.0015	0.0004	0.0131
			0.0038	0.0181	0.0014		0.0194	0.0732	0.0156	0.0074	0.0962
			0.0020	0.0079	0.0008		0.0087	0.0520	0.0087	0.0022	0.0629
			0.0015	0.0057	0.0001		0.0058	0.0427	0.0011	0.0015	0.0453
			0	0.0000	0		0.0000	0.0000	0	0	0.0000
			0.0002	0.0007	0.0000		0.0007	0.0057	0.0003	0.0002	0.0062
			0.0010	0.0025	0.0013		0.0037	0.0574	0.0219	0.0042	0.0834
			0.0053	0.0214	0.0008		0.0222	0.2352	0.0100	0.0115	0.2567
			0.0008	0.0032	0.0002		0.0034	0.0291	0.0020	0.0022	0.0333
			0.0012	0.1087	0.0011		0.1098	0.1034	0.0200	0.0001	0.1234
			0.0065	0.0256	0.0007		0.0263	0.2061	0.0082	0.0077	0.2220
			0.0009	0.0034	0.0001		0.0035	0.0281	0.0017	0.0017	0.0314
			0.0000	0.0001	0.0000		0.0001	0.0003	0.0003	0.0006	0.0013
0.0001	0.0003	0.0000	0.0033	0.1302		0.0276	0.1578	0.0120		0.0022	0.0142
			0.0110	0.0976			0.0976	0.2434			0.2434
0.0001	0.0004	0.0000	0.0137	0.0981		0.0073	0.1054	0.0175		0.0009	0.0185

CO2_RUNEX	CO2_IDLEX	CO2_STREX	CO2_TOTEX	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_TOTEX	PM10_PMTW	PM10_PMBW	PM10_TOTAL	PM2_5_RUNEX
4,692.6	28.8	158.6	4,879.9	0.0503	0.0004	0.0054	0.0562	0.1052	0.5314	0.6928	0.0475
17.8	0.1701		18.0	0.0002	0.0000		0.0002	0.0002	0.0019	0.0023	0.0002
21.7			21.7	0.0011			0.0011	0.0006	0.0030	0.0047	0.0010
1,746.2		68.7	1,814.9	0.0100		0.0027	0.0127	0.0533	0.2448	0.3108	0.0092
0.2140			0.2140	0.0001			0.0001	0.0000	0.0000	0.0001	0.0001
118.4		5.10	123.5	0.0007		0.0002	0.0010	0.0030	0.0138	0.0178	0.0007
1.46			1.46	0.0000			0.0000	0.0000	0.0002	0.0002	0.0000
924.6		40.1	964.7	0.0043		0.0013	0.0055	0.0199	0.0913	0.1168	0.0039
79.7	0.5874		80.3	0.0057	0.0001		0.0058	0.0016	0.0105	0.0179	0.0054
132.7	0.6446	4.63	138.0	0.0005		0.0002	0.0007	0.0013	0.0119	0.0139	0.0005
31.0	0.2899		31.3	0.0015	0.0000		0.0015	0.0006	0.0043	0.0064	0.0014
25.0	0.1071	0.7914	25.9	0.0001		0.0000	0.0001	0.0002	0.0024	0.0026	0.0001
14.1		1.05	15.2	0.0002		0.0001	0.0003	0.0004	0.0010	0.0017	0.0002
11.4			11.4	0.0002			0.0002	0.0002	0.0009	0.0014	0.0002
774.7		36.3	811.0	0.0026		0.0009	0.0035	0.0125	0.0574	0.0734	0.0024
2.90			2.90	0.0004			0.0004	0.0000	0.0004	0.0009	0.0004
14.7		0.0116	14.7	0.0000		0.0000	0.0000	0.0001	0.0015	0.0017	0.0000
9.31	0.4491		9.76	0.0001	0.0000		0.0001	0.0001	0.0007	0.0009	0.0001
17.6	0.0786	0.3205	18.0	0.0000		0.0000	0.0000	0.0002	0.0018	0.0020	0.0000
18.3			18.3	0.0004			0.0004	0	0	0.0004	0.0004
20.8	1.68		22.5	0.0006	0.0000		0.0007	0.0002	0.0119	0.0128	0.0006
11.6	0.7129	0.1445	12.4	0.0000		0.0000	0.0000	0.0001	0.0127	0.0129	0.0000
4.59	0.1449		4.73	0.0011	0.0000		0.0012	0.0000	0.0005	0.0017	0.0011
0.3698	0.0041		0.3739	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
1.14	0.0103		1.15	0.0000	0.0000		0.0000	0.0000	0.0001	0.0002	0.0000
4.77	0.0393		4.80	0.0001	0.0000		0.0001	0.0000	0.0005	0.0006	0.0001
19.1	0.1940		19.3	0.0009	0.0000		0.0010	0.0002	0.0021	0.0032	0.0009
52.5	0.6837		53.2	0.0007	0.0000		0.0007	0.0005	0.0057	0.0069	0.0006
129.9	1.35		131.2	0.0075	0.0000		0.0075	0.0013	0.0141	0.0229	0.0072
0.2121	0.0024		0.2145	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
0.6554	0.0059		0.6613	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000
4.20	0.1606		4.36	0.0001	0.0000		0.0001	0.0000	0.0005	0.0006	0.0001
1.20	0.0355		1.23	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000
36.4	0.3015	1.23	37.9	0.0000		0.0000	0.0001	0.0003	0.0037	0.0041	0.0000
3.17	0.3084		3.48	0.0010	0.0001		0.0011	0.0001	0.0001	0.0013	0.0010
50.6	4.24		54.8	0.0006	0.0000		0.0006	0.0011	0.0020	0.0037	0.0006
4.48	0.3259		4.81	0.0001	0.0000		0.0001	0.0001	0.0002	0.0003	0.0001
58.7	5.18		63.9	0.0003	0.0000		0.0003	0.0014	0.0024	0.0042	0.0003
20.0	2.10		22.1	0.0002	0.0000		0.0002	0.0005	0.0008	0.0015	0.0002
14.3	0.2255		14.5	0.0002	0.0000		0.0002	0.0003	0.0005	0.0010	0.0002
0.0000	0.0000		0.0000	0	0		0	0	0	0	0
1.66	0.0637		1.73	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000
10.1	2.15		12.3	0.0003	0.0001		0.0004	0.0002	0.0004	0.0009	0.0003
73.3	1.92		75.3	0.0013	0.0000		0.0014	0.0016	0.0027	0.0057	0.0013
11.8	0.3732		12.2	0.0001	0.0000		0.0001	0.0003	0.0004	0.0008	0.0001
51.7	2.34		54.1	0.0001	0.0000		0.0001	0.0005	0.0008	0.0014	0.0001
63.6	1.47		65.1	0.0010	0.0000		0.0010	0.0014	0.0024	0.0049	0.0010
8.86	0.2979		9.16	0.0002	0.0000		0.0002	0.0002	0.0003	0.0007	0.0001
0.5460	0.1153		0.6613	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
6.62		0.0819	6.70	0.0000		0.0000	0.0000	0.0001	0.0002	0.0003	0.0000
46.3			46.3	0.0055			0.0055	0.0002	0.0169	0.0226	0.0053
17.5		0.0712	17.6	0.0000		0.0000	0.0000	0.0001	0.0013	0.0015	0.0000

PM2_5_IDLEX	PM2_5_STREX	PM2_5_TOTEX	PM2_5_PMTW	PM2_5_PMBW	PM2_5_TOTAL	SOx_RUNEX	SOx_IDLEX	SOx_STREX	SOx_TOTEX	Fuel_GAS	Fuel_DSL
0.0004	0.0050	0.0529	0.0263	0.2277	0.3069	0.0464	0.0003	0.0017	0.0484	429.5	79.1
0.0000		0.0002	0.0000	0.0008	0.0011	0.0002	0.0000		0.0002		1.62
		0.0010	0.0002	0.0013	0.0024	0.0002			0.0002		1.95
	0.0025	0.0117	0.0133	0.1049	0.1299	0.0175		0.0007	0.0182	194.4	
		0.0001	0.0000	0.0000	0.0001	0.0000			0.0000		0.0193
	0.0002	0.0009	0.0008	0.0059	0.0075	0.0012		0.0001	0.0012	13.3	
		0.0000	0.0000	0.0001	0.0001	0.0000			0.0000		0.1318
	0.0012	0.0051	0.0050	0.0391	0.0492	0.0093		0.0004	0.0097	103.5	
0.0001		0.0055	0.0004	0.0045	0.0104	0.0008	0.0000		0.0008		7.23
	0.0002	0.0006	0.0003	0.0051	0.0061	0.0013	0.0000	0.0001	0.0014	14.9	
0.0000		0.0014	0.0001	0.0018	0.0034	0.0003	0.0000		0.0003		2.81
	0.0000	0.0001	0.0001	0.0010	0.0011	0.0003	0.0000	0.0000	0.0003	2.77	
	0.0001	0.0002	0.0001	0.0004	0.0008	0.0002		0.0000	0.0002	2.02	
		0.0002	0.0001	0.0004	0.0007	0.0001			0.0001		1.03
	0.0008	0.0032	0.0031	0.0246	0.0309	0.0078		0.0004	0.0082	87.1	
		0.0004	0.0000	0.0002	0.0006	0.0000			0.0000		0.2606
	0.0000	0.0000	0.0000	0.0006	0.0007	0.0001		0.0000	0.0001	1.58	
0.0000		0.0001	0.0000	0.0003	0.0004	0.0001	0.0000		0.0001		0.8781
	0.0000	0.0000	0.0000	0.0008	0.0008	0.0002	0.0000	0.0000	0.0002	1.93	
		0.0004	0	0	0.0004	0.0002			0.0002		1.64
0.0000		0.0006	0.0000	0.0051	0.0058	0.0002	0.0000		0.0002		2.02
	0.0000	0.0000	0.0000	0.0054	0.0055	0.0001	0.0000	0.0000	0.0001	1.33	
0.0000		0.0011	0.0000	0.0002	0.0013	0.0000	0.0000		0.0000		0.4261
0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0337
0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.1039
0.0000		0.0001	0.0000	0.0002	0.0003	0.0000	0.0000		0.0000		0.4324
0.0000		0.0009	0.0000	0.0009	0.0018	0.0002	0.0000		0.0002		1.73
0.0000		0.0006	0.0001	0.0024	0.0032	0.0005	0.0000		0.0005		4.79
0.0000		0.0072	0.0003	0.0060	0.0136	0.0012	0.0000		0.0013		11.8
0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0193
0.0000		0.0000	0.0000	0.0000	0.0001	0.0000	0.0000		0.0000		0.0595
0.0000		0.0001	0.0000	0.0002	0.0003	0.0000	0.0000		0.0000		0.3928
0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.1110
	0.0000	0.0001	0.0001	0.0016	0.0017	0.0004	0.0000	0.0000	0.0004	4.10	
0.0001		0.0010	0.0000	0.0000	0.0011	0.0000	0.0000		0.0000		0.3134
0.0000		0.0006	0.0003	0.0008	0.0017	0.0005	0.0000		0.0005		4.94
0.0000		0.0001	0.0000	0.0001	0.0002	0.0000	0.0000		0.0000		0.4329
0.0000		0.0003	0.0004	0.0010	0.0017	0.0006	0.0000		0.0006		5.75
0.0000		0.0002	0.0001	0.0003	0.0007	0.0002	0.0000		0.0002		1.99
0.0000		0.0002	0.0001	0.0002	0.0005	0.0001	0.0000		0.0001		1.30
0		0	0	0	0	0	0		0		0.0000
0.0000		0.0000	0.0000	0.0000	0.0001	0.0000	0.0000		0.0000		0.1554
0.0000		0.0003	0.0001	0.0002	0.0006	0.0001	0.0000		0.0001		1.11
0.0000		0.0013	0.0004	0.0012	0.0029	0.0007	0.0000		0.0007		6.77
0.0000		0.0001	0.0001	0.0002	0.0004	0.0001	0.0000		0.0001		1.10
0.0000		0.0001	0.0001	0.0003	0.0006	0.0003	0.0000		0.0003		4.87
0.0000		0.0010	0.0004	0.0010	0.0024	0.0006	0.0000		0.0006		5.86
0.0000		0.0001	0.0000	0.0001	0.0003	0.0001	0.0000		0.0001		0.8240
0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0595
	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001		0.0000	0.0001	0.7414	
		0.0053	0.0001	0.0072	0.0126	0.0004			0.0004		4.17
	0.0000	0.0000	0.0000	0.0006	0.0006	0.0002		0.0000	0.0002	1.90	

Row Labels	Sum of CO_TOTEX	Sum of NOx_TOTEX	Sum of PM10_TOTAL	Sum of PM2_5_TOTAL	Sum of SOx_TOTEX
HHDT - DSL	0.446512795	0.661783456	0.035565159	0.013978676	0.005024003
LDA - DSL	0.009370323	0.000640244	0.00450927	0.001823238	0.00016972
LDT1 - DSL	1.75334E-05	4.64821E-06	9.26399E-06	4.05454E-06	3.44722E-07
LDT2 - DSL	0.000692612	0.000159204	0.000328307	0.000144774	1.42599E-05
LHDT1 - DSL	0.013611844	0.009209658	0.007894729	0.003446924	0.000349457
LHDT2 - DSL	0.006047941	0.002589497	0.004514807	0.001985814	0.000191191
MDV - DSL	0.004525998	0.00031259	0.001879553	0.000763814	0.00011393
MH - DSL	0.000319966	0.003688505	0.000255369	0.000119843	1.48478E-05
MHDT - DSL	0.059907468	0.43862299	0.038952088	0.016544302	0.002960868
OBUS - DSL	0.008865909	0.051305337	0.004189451	0.001790377	0.000359029
SBUS - DSL	0.004997028	0.037432163	0.011857029	0.005074595	0.000199593
UBUS - DSL	0.040733138	0.013587624	0.008582322	0.003695584	0.000129948
Grand Total	**0.595602555**	**1.219335917**	**0.118537347**	**0.049371996**	**0.009527192**

Area	Sub-Area	Cal. Year	Season	Veh_Tech	EMFAC2007 Category	Population	VMT	Trips	TOG_RUNEX	TOG_IDLEX
SBCAG	All Sub-Areas	2050	Summer	All Vehicles	All Vehicles	435,173.4	13,124,115.5	2,656,940.9	0.3926	0.0058
SBCAG	All Sub-Areas	2050	Summer	ALL OTHER BUSES - DSL	OBUS - DSL	340.6	18,664.0		0.0010	0.0000
SBCAG	All Sub-Areas	2050	Summer	LDA - DSL	LDA - DSL	2,893.0	90,159.3	18,161.9	0.0003	
SBCAG	All Sub-Areas	2050	Summer	LDA - GAS	LDA - GAS	245,461.9	7,655,541.4	1,541,494.6	0.0339	
SBCAG	All Sub-Areas	2050	Summer	LDT1 - DSL	LDT1 - DSL	5.43	174.0	34.4	0.0000	
SBCAG	All Sub-Areas	2050	Summer	LDT1 - GAS	LDT1 - GAS	9,765.9	313,322.0	61,859.6	0.0017	
SBCAG	All Sub-Areas	2050	Summer	LDT2 - DSL	LDT2 - DSL	219.1	6,128.9	1,354.8	0.0001	
SBCAG	All Sub-Areas	2050	Summer	LDT2 - GAS	LDT2 - GAS	99,506.3	2,781,671.6	615,056.6	0.0196	
SBCAG	All Sub-Areas	2050	Summer	LHD1 - DSL	LHDT1 - DSL	2,526.0	76,250.6	31,773.6	0.0026	0.0003
SBCAG	All Sub-Areas	2050	Summer	LHD1 - GAS	LHDT1 - GAS	1,649.4	48,350.0	24,573.8	0.0002	0.0006
SBCAG	All Sub-Areas	2050	Summer	LHD2 - DSL	LHDT2 - DSL	1,156.1	38,088.7	14,542.7	0.0012	0.0002
SBCAG	All Sub-Areas	2050	Summer	LHD2 - GAS	LHDT2 - GAS	468.3	15,424.6	6,977.2	0.0001	0.0002
SBCAG	All Sub-Areas	2050	Summer	MCY - GAS	MCY - GAS	10,929.1	74,236.9	21,856.0	0.1895	
SBCAG	All Sub-Areas	2050	Summer	MDV - DSL	MDV - DSL	1,376.3	37,440.7	8,421.1	0.0002	
SBCAG	All Sub-Areas	2050	Summer	MDV - GAS	MDV - GAS	48,827.7	1,310,042.6	296,298.9	0.0100	
SBCAG	All Sub-Areas	2050	Summer	MH - DSL	MH - DSL	180.1	1,408.9	18.0	0.0001	
SBCAG	All Sub-Areas	2050	Summer	MH - GAS	MH - GAS	635.9	5,000.1	63.6	0.0001	
SBCAG	All Sub-Areas	2050	Summer	MOTOR COACH - DSL	OBUS - DSL	56.8	7,356.8		0.0007	0.0001
SBCAG	All Sub-Areas	2050	Summer	OBUS - GAS	OBUS - GAS	220.4	12,250.4	4,409.5	0.0002	0.0002
SBCAG	All Sub-Areas	2050	Summer	PTO - DSL	HHDT - DSL	0	13,205.7		0.0033	
SBCAG	All Sub-Areas	2050	Summer	SBUS - DSL	SBUS - DSL	418.4	14,153.1		0.0010	0.0000
SBCAG	All Sub-Areas	2050	Summer	SBUS - GAS	SBUS - GAS	74.1	3,713.9	296.4	0.0001	0.0010
SBCAG	All Sub-Areas	2050	Summer	T6 AG - DSL	MHDT - DSL	238.2	3,517.9		0.0002	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 CAIRP HEAVY - DSL	MHDT - DSL	9.98	451.9		0.0000	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 CAIRP SMALL - DSL	MHDT - DSL	25.4	1,387.1		0.0001	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 INSTATE CONSTRUCTION HEAVY - DSL	MHDT - DSL	72.2	5,574.0		0.0003	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 INSTATE CONSTRUCTION SMALL - DSL	MHDT - DSL	497.9	22,544.8		0.0012	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 INSTATE HEAVY - DSL	MHDT - DSL	1,149.9	58,126.0		0.0031	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 INSTATE SMALL - DSL	MHDT - DSL	2,984.6	146,569.8		0.0077	0.0001
SBCAG	All Sub-Areas	2050	Summer	T6 OOS HEAVY - DSL	MHDT - DSL	5.72	258.9		0.0000	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 OOS SMALL - DSL	MHDT - DSL	14.5	794.8		0.0000	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 PUBLIC - DSL	MHDT - DSL	162.3	2,704.4		0.0001	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6 UTILITY - DSL	MHDT - DSL	63.8	1,199.9		0.0000	0.0000
SBCAG	All Sub-Areas	2050	Summer	T6TS - GAS	MHDT - GAS	438.3	23,858.6	8,769.6	0.0004	0.0005
SBCAG	All Sub-Areas	2050	Summer	T7 AG - DSL	HHDT - DSL	145.1	1,738.0		0.0002	0.0001
SBCAG	All Sub-Areas	2050	Summer	T7 CAIRP - DSL	HHDT - DSL	188.3	45,909.9		0.0045	0.0005
SBCAG	All Sub-Areas	2050	Summer	T7 CAIRP CONSTRUCTION - DSL	HHDT - DSL	19.6	3,954.2		0.0004	0.0001
SBCAG	All Sub-Areas	2050	Summer	T7 NNOOS - DSL	HHDT - DSL	240.3	56,928.3		0.0050	0.0008
SBCAG	All Sub-Areas	2050	Summer	T7 NOOS - DSL	HHDT - DSL	74.4	18,134.4		0.0018	0.0002
SBCAG	All Sub-Areas	2050	Summer	T7 OTHER PORT - DSL	HHDT - DSL	78.6	14,050.9		0.0015	0.0000
SBCAG	All Sub-Areas	2050	Summer	T7 POAK - DSL	HHDT - DSL	0.0000	0.0002		0	0
SBCAG	All Sub-Areas	2050	Summer	T7 POLA - DSL	HHDT - DSL	12.8	2,749.6		0.0003	0.0000
SBCAG	All Sub-Areas	2050	Summer	T7 PUBLIC - DSL	HHDT - DSL	262.8	6,025.2		0.0004	0.0002
SBCAG	All Sub-Areas	2050	Summer	T7 SINGLE - DSL	HHDT - DSL	592.9	70,298.7		0.0058	0.0003
SBCAG	All Sub-Areas	2050	Summer	T7 SINGLE CONSTRUCTION - DSL	HHDT - DSL	108.7	10,228.9		0.0009	0.0001
SBCAG	All Sub-Areas	2050	Summer	T7 SWCV - DSL	HHDT - DSL	378.5	17,441.6		0.0778	0.0002
SBCAG	All Sub-Areas	2050	Summer	T7 TRACTOR - DSL	HHDT - DSL	442.3	57,796.9		0.0058	0.0002
SBCAG	All Sub-Areas	2050	Summer	T7 TRACTOR CONSTRUCTION - DSL	HHDT - DSL	91.5	7,626.4		0.0008	0.0000
SBCAG	All Sub-Areas	2050	Summer	T7 UTILITY - DSL	HHDT - DSL	17.9	409.4		0.0000	0.0000
SBCAG	All Sub-Areas	2050	Summer	T7IS - GAS	HHDT - GAS	24.7	3,198.5	493.3	0.0017	
SBCAG	All Sub-Areas	2050	Summer	UBUS - DSL	UBUS - DSL	60.8	9,040.7	243.1	0.0062	
SBCAG	All Sub-Areas	2050	Summer	UBUS - GAS	UBUS - GAS	60.6	9,012.0	242.3	0.0003	

TOG_STREX	TOG_TOTEX	TOG_DIURN	TOG_HTSK	TOG_RUNLS	TOG_RESTL	TOG_TOTAL	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_TOTEX	ROG_DIURN
0.0865	0.4850	0.0884	0.1298	0.4284	0.0847	1.22	0.2437	0.0045	0.0792	0.3275	0.0884
	0.0010					0.0010	0.0009	0.0000		0.0009	
	0.0003					0.0003	0.0003			0.0003	
0.0121	0.0460	0.0183	0.0505	0.1974	0.0200	0.3321	0.0232		0.0110	0.0342	0.0183
	0.0000					0.0000	0.0000			0.0000	
0.0006	0.0022	0.0009	0.0019	0.0088	0.0010	0.0148	0.0011		0.0005	0.0017	0.0009
	0.0001					0.0001	0.0001			0.0001	
0.0106	0.0302	0.0186	0.0318	0.1136	0.0223	0.2165	0.0134		0.0097	0.0231	0.0186
	0.0029					0.0029	0.0023	0.0003		0.0026	
0.0027	0.0035	0.0001	0.0017	0.0089	0.0001	0.0142	0.0001	0.0004	0.0025	0.0030	0.0001
	0.0014					0.0014	0.0011	0.0001		0.0012	
0.0006	0.0009	0.0000	0.0003	0.0016	0.0000	0.0028	0.0000	0.0001	0.0006	0.0007	0.0000
0.0480	0.2375	0.0328	0.0163	0.0267	0.0198	0.3332	0.1509		0.0440	0.1950	0.0328
	0.0002					0.0002	0.0001			0.0001	
0.0060	0.0160	0.0176	0.0266	0.0675	0.0215	0.1493	0.0069		0.0055	0.0124	0.0176
	0.0001					0.0001	0.0001			0.0001	
0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0002	0.0001		0.0000	0.0001	0.0000
	0.0008					0.0008	0.0007	0.0001		0.0007	
0.0013	0.0018	0.0000	0.0001	0.0010	0.0000	0.0029	0.0001	0.0001	0.0012	0.0015	0.0000
	0.0033					0.0033	0.0029			0.0029	
	0.0011					0.0011	0.0009	0.0000		0.0009	
0.0002	0.0013	0.0000	0.0000	0.0001	0.0000	0.0015	0.0000	0.0007	0.0002	0.0009	0.0000
	0.0002					0.0002	0.0002	0.0000		0.0002	
	0.0000					0.0000	0.0000	0.0000		0.0000	
	0.0001					0.0001	0.0001	0.0000		0.0001	
	0.0003					0.0003	0.0003	0.0000		0.0003	
	0.0012					0.0012	0.0010	0.0000		0.0011	
	0.0032					0.0032	0.0028	0.0000		0.0028	
	0.0077					0.0077	0.0067	0.0000		0.0068	
	0.0000					0.0000	0.0000	0.0000		0.0000	
	0.0000					0.0000	0.0000	0.0000		0.0000	
	0.0001					0.0001	0.0001	0.0000		0.0001	
	0.0000					0.0000	0.0000	0.0000		0.0000	
0.0036	0.0045	0.0000	0.0005	0.0024	0.0000	0.0074	0.0003	0.0004	0.0033	0.0039	0.0000
	0.0003					0.0003	0.0002	0.0001		0.0002	
	0.0050					0.0050	0.0040	0.0004		0.0044	
	0.0005					0.0005	0.0004	0.0000		0.0004	
	0.0058					0.0058	0.0044	0.0007		0.0051	
	0.0020					0.0020	0.0016	0.0002		0.0018	
	0.0015					0.0015	0.0013	0.0000		0.0014	
	0					0	0	0		0	
	0.0003					0.0003	0.0003	0.0000		0.0003	
	0.0006					0.0006	0.0004	0.0002		0.0006	
	0.0061					0.0061	0.0051	0.0002		0.0054	
	0.0009					0.0009	0.0007	0.0000		0.0008	
	0.0780					0.0780	0.0011	0.0000		0.0011	
	0.0060					0.0060	0.0051	0.0002		0.0053	
	0.0008					0.0008	0.0007	0.0000		0.0007	
	0.0000					0.0000	0.0000	0.0000		0.0000	
0.0004	0.0021	0.0000	0.0000	0.0001	0.0000	0.0023	0.0012		0.0004	0.0015	0.0000
	0.0062					0.0062	0.0002			0.0002	
0.0004	0.0008	0.0000	0.0000	0.0002	0.0000	0.0010	0.0002		0.0004	0.0006	0.0000

ROG_HTSK	ROG_RUNLS	ROG_RESTL	ROG_TOTAL	CO_RUNEX	CO_IDLEX	CO_STREX	CO_TOTEX	NOx_RUNEX	NOx_IDLEX	NOx_STREX	NOx_TOTEX
0.1298	0.4284	0.0847	1.06	5.55	0.0298	1.43	7.00	1.19	0.1025	0.3799	1.67
			0.0009	0.0048	0.0000		0.0049	0.0229	0.0007	0.0100	0.0335
			0.0003	0.0094			0.0094	0.0006			0.0006
0.0505	0.1974	0.0200	0.3204	1.84		0.4884	2.33	0.1433		0.0194	0.1627
			0.0000	0.0000			0.0000	0.0000			0.0000
0.0019	0.0088	0.0010	0.0142	0.0863		0.0218	0.1081	0.0070		0.0009	0.0079
			0.0001	0.0007			0.0007	0.0002			0.0002
0.0318	0.1136	0.0223	0.2094	1.09		0.3354	1.42	0.0766		0.0145	0.0911
			0.0026	0.0111	0.0025		0.0136	0.0067	0.0025		0.0092
0.0017	0.0089	0.0001	0.0137	0.0057	0.0057	0.0638	0.0751	0.0016	0.0000	0.0171	0.0188
			0.0012	0.0049	0.0012		0.0060	0.0016	0.0010		0.0026
0.0003	0.0016	0.0000	0.0027	0.0018	0.0016	0.0183	0.0217	0.0005	0.0000	0.0041	0.0045
0.0163	0.0267	0.0198	0.2907	1.27		0.2239	1.49	0.0846		0.0072	0.0919
			0.0001	0.0045			0.0045	0.0003			0.0003
0.0266	0.0675	0.0215	0.1456	0.5482		0.1817	0.7299	0.0387		0.0082	0.0469
			0.0001	0.0003			0.0003	0.0037			0.0037
0.0000	0.0000	0.0000	0.0001	0.0009		0.0003	0.0012	0.0005		0.0000	0.0006
			0.0007	0.0039	0.0001		0.0040	0.0128	0.0017	0.0033	0.0178
0.0001	0.0010	0.0000	0.0026	0.0025	0.0012	0.0181	0.0218	0.0011	0.0000	0.0029	0.0040
			0.0029	0.0169			0.0169	0.0573			0.0573
			0.0009	0.0048	0.0002		0.0050	0.0207	0.0044	0.0122	0.0374
0.0000	0.0001	0.0000	0.0011	0.0009	0.0056	0.0035	0.0099	0.0004	0.0001	0.0003	0.0007
			0.0002	0.0010	0.0000		0.0010	0.0049	0.0005	0.0069	0.0123
			0.0000	0.0001	0.0000		0.0001	0.0005	0.0000	0.0003	0.0008
			0.0001	0.0003	0.0000		0.0003	0.0014	0.0000	0.0009	0.0023
			0.0003	0.0015	0.0000		0.0015	0.0070	0.0001	0.0021	0.0093
			0.0011	0.0055	0.0000		0.0055	0.0254	0.0010	0.0146	0.0409
			0.0028	0.0146	0.0001		0.0147	0.0682	0.0023	0.0336	0.1040
			0.0068	0.0355	0.0003		0.0358	0.1639	0.0059	0.0873	0.2570
			0.0000	0.0001	0.0000		0.0001	0.0003	0.0000	0.0002	0.0005
			0.0000	0.0002	0.0000		0.0002	0.0008	0.0000	0.0005	0.0013
			0.0001	0.0005	0.0000		0.0005	0.0022	0.0003	0.0047	0.0073
			0.0000	0.0002	0.0000		0.0002	0.0009	0.0001	0.0019	0.0029
0.0005	0.0024	0.0000	0.0068	0.0050	0.0042	0.0473	0.0566	0.0022	0.0000	0.0067	0.0089
			0.0002	0.0010	0.0002		0.0012	0.0032	0.0020	0.0071	0.0124
			0.0044	0.0235	0.0012		0.0248	0.0670	0.0146	0.0109	0.0925
			0.0004	0.0021	0.0001		0.0022	0.0060	0.0015	0.0011	0.0087
			0.0051	0.0257	0.0020		0.0277	0.0695	0.0232	0.0139	0.1065
			0.0018	0.0093	0.0006		0.0099	0.0265	0.0072	0.0043	0.0379
			0.0014	0.0078	0.0001		0.0079	0.0229	0.0010	0.0048	0.0287
			0	0	0		0	0.0000	0	0	0.0000
			0.0003	0.0015	0.0000		0.0016	0.0045	0.0003	0.0008	0.0056
			0.0006	0.0021	0.0005		0.0026	0.0061	0.0060	0.0128	0.0249
			0.0054	0.0302	0.0007		0.0309	0.0805	0.0083	0.0294	0.1182
			0.0008	0.0044	0.0001		0.0045	0.0118	0.0015	0.0054	0.0187
			0.0011	0.2807	0.0007		0.2814	0.0086	0.0083	0.0000	0.0169
			0.0053	0.0300	0.0005		0.0305	0.0859	0.0062	0.0220	0.1141
			0.0007	0.0041	0.0001		0.0042	0.0120	0.0013	0.0045	0.0179
			0.0000	0.0001	0.0000		0.0002	0.0003	0.0004	0.0009	0.0016
0.0000	0.0001	0.0000	0.0017	0.1084		0.0220	0.1304	0.0101		0.0017	0.0119
			0.0002	0.0407			0.0407	0.0136			0.0136
0.0000	0.0002	0.0000	0.0009	0.0045		0.0037	0.0082	0.0036		0.0007	0.0042

CO2_RUNEX	CO2_IDLEX	CO2_STREX	CO2_TOTEX	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_TOTEX	PM10_PMTW	PM10_PMBW	PM10_TOTAL	PM2_5_RUNEX
3,637.7	37.9	124.5	3,800.1	0.0109	0.0001	0.0026	0.0135	0.1270	0.6014	0.7420	0.0101
23.7	0.2490		23.9	0.0001	0.0000		0.0001	0.0002	0.0027	0.0030	0.0001
17.8			17.8	0.0001			0.0001	0.0008	0.0037	0.0045	0.0001
1,288.0		59.6	1,347.6	0.0040		0.0014	0.0054	0.0675	0.3101	0.3830	0.0037
0.0361			0.0361	0.0000			0.0000	0.0000	0.0000	0.0000	0.0000
66.1		2.99	69.1	0.0002		0.0001	0.0003	0.0028	0.0127	0.0157	0.0002
1.49			1.49	0.0000			0.0000	0.0001	0.0002	0.0003	0.0000
690.1		35.2	725.3	0.0018		0.0007	0.0025	0.0245	0.1127	0.1397	0.0017
36.3	0.3423		36.6	0.0004	0.0000		0.0005	0.0010	0.0064	0.0079	0.0004
35.9	0.1939	1.51	37.6	0.0001		0.0000	0.0001	0.0004	0.0041	0.0046	0.0000
19.8	0.2510		20.0	0.0002	0.0000		0.0003	0.0005	0.0037	0.0045	0.0002
12.4	0.0637	0.4955	13.0	0.0000		0.0000	0.0000	0.0001	0.0015	0.0017	0.0000
13.4		0.9906	14.4	0.0002		0.0001	0.0002	0.0003	0.0010	0.0015	0.0002
11.9			11.9	0.0000			0.0000	0.0003	0.0015	0.0019	0.0000
423.2		22.2	445.4	0.0009		0.0003	0.0012	0.0116	0.0531	0.0658	0.0008
1.56			1.56	0.0000			0.0000	0.0000	0.0002	0.0003	0.0000
6.67		0.0050	6.68	0.0000		0.0000	0.0000	0.0001	0.0007	0.0008	0.0000
13.0	0.6744		13.7	0.0000	0.0000		0.0000	0.0001	0.0011	0.0012	0.0000
16.3	0.0848	0.3459	16.8	0.0000		0.0000	0.0000	0.0002	0.0018	0.0019	0.0000
26.4			26.4	0.0001			0.0001	0	0	0.0001	0.0001
19.3	1.66		20.9	0.0000	0.0000		0.0001	0.0002	0.0116	0.0119	0.0000
2.57	0.1908	0.0387	2.80	0.0000		0.0000	0.0000	0.0000	0.0030	0.0031	0.0000
4.47	0.1748		4.64	0.0000	0.0000		0.0000	0.0000	0.0005	0.0006	0.0000
0.5608	0.0073		0.5681	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000
1.76	0.0185		1.78	0.0000	0.0000		0.0000	0.0000	0.0002	0.0002	0.0000
7.06	0.0526		7.11	0.0000	0.0000		0.0000	0.0001	0.0008	0.0009	0.0000
28.6	0.3632		28.9	0.0001	0.0000		0.0001	0.0003	0.0032	0.0036	0.0001
72.1	0.8382		73.0	0.0002	0.0000		0.0002	0.0008	0.0084	0.0093	0.0002
185.7	2.18		187.9	0.0005	0.0000		0.0005	0.0019	0.0211	0.0235	0.0005
0.3213	0.0042		0.3255	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
1.01	0.0106		1.02	0.0000	0.0000		0.0000	0.0000	0.0001	0.0001	0.0000
3.43	0.1187		3.55	0.0000	0.0000		0.0000	0.0000	0.0004	0.0004	0.0000
1.52	0.0465		1.57	0.0000	0.0000		0.0000	0.0000	0.0002	0.0002	0.0000
31.8	0.2536	1.03	33.1	0.0000		0.0000	0.0001	0.0003	0.0034	0.0038	0.0000
2.87	0.7867		3.66	0.0000	0.0000		0.0000	0.0001	0.0001	0.0002	0.0000
72.7	5.41		78.1	0.0003	0.0000		0.0003	0.0018	0.0031	0.0052	0.0003
6.39	0.5639		6.95	0.0000	0.0000		0.0000	0.0002	0.0003	0.0005	0.0000
90.5	8.64		99.1	0.0003	0.0000		0.0003	0.0023	0.0039	0.0064	0.0003
28.7	2.65		31.4	0.0001	0.0000		0.0001	0.0007	0.0012	0.0021	0.0001
22.7	0.3542		23.0	0.0001	0.0000		0.0001	0.0006	0.0010	0.0016	0.0001
0.0000	0.0000		0.0000	0	0		0	0	0	0	0
4.44	0.1150		4.55	0.0000	0.0000		0.0000	0.0001	0.0002	0.0003	0.0000
9.81	2.07		11.9	0.0000	0.0000		0.0000	0.0002	0.0004	0.0007	0.0000
113.6	3.07		116.7	0.0003	0.0000		0.0003	0.0028	0.0048	0.0079	0.0003
16.5	0.5640		17.1	0.0000	0.0000		0.0000	0.0004	0.0007	0.0012	0.0000
59.1	2.97		62.1	0.0001	0.0000		0.0001	0.0007	0.0012	0.0019	0.0001
91.4	2.29		93.7	0.0004	0.0000		0.0004	0.0023	0.0039	0.0066	0.0003
12.3	0.4734		12.8	0.0000	0.0000		0.0000	0.0003	0.0005	0.0009	0.0000
0.6611	0.1401		0.8012	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
5.69		0.0685	5.75	0.0000		0.0000	0.0000	0.0001	0.0002	0.0003	0.0000
20.1			20.1	0.0001			0.0001	0.0001	0.0084	0.0086	0.0001
16.0		0.0779	16.1	0.0000		0.0000	0.0000	0.0001	0.0013	0.0014	0.0000

PM2_5_IDLEX	PM2_5_STREX	PM2_5_TOTEX	PM2_5_PMTW	PM2_5_PMBW	PM2_5_TOTAL	SOx_RUNEX	SOx_IDLEX	SOx_STREX	SOx_TOTEX	Fuel_GAS	Fuel_DSL
0.0001	0.0024	0.0126	0.0318	0.2577	0.3021	0.0353	0.0003	0.0013	0.0369	292.2	96.0
0.0000		0.0001	0.0001	0.0011	0.0013	0.0002	0.0000		0.0002		2.15
		0.0001	0.0002	0.0016	0.0018	0.0002			0.0002		1.60
	0.0013	0.0050	0.0169	0.1329	0.1547	0.0129		0.0006	0.0135	143.9	
		0.0000	0.0000	0.0000	0.0000	0.0000			0.0000		0.0032
	0.0001	0.0002	0.0007	0.0054	0.0064	0.0007		0.0000	0.0007	7.38	
		0.0000	0.0000	0.0001	0.0001	0.0000			0.0000		0.1344
	0.0006	0.0023	0.0061	0.0483	0.0567	0.0069		0.0004	0.0073	77.5	
0.0000		0.0004	0.0003	0.0028	0.0034	0.0003	0.0000		0.0003		3.29
	0.0000	0.0001	0.0001	0.0017	0.0019	0.0004	0.0000	0.0000	0.0004	4.01	
0.0000		0.0003	0.0001	0.0016	0.0020	0.0002	0.0000		0.0002		1.80
	0.0000	0.0000	0.0000	0.0006	0.0007	0.0001	0.0000	0.0000	0.0001	1.38	
	0.0001	0.0002	0.0001	0.0004	0.0007	0.0002		0.0000	0.0002	1.85	
		0.0000	0.0001	0.0007	0.0008	0.0001			0.0001		1.07
	0.0003	0.0011	0.0029	0.0227	0.0267	0.0042		0.0002	0.0045	47.5	
		0.0000	0.0000	0.0001	0.0001	0.0000			0.0000		0.1400
	0.0000	0.0000	0.0000	0.0003	0.0003	0.0001		0.0000	0.0001	0.7113	
0.0000		0.0000	0.0000	0.0005	0.0005	0.0001	0.0000		0.0001		1.23
	0.0000	0.0000	0.0000	0.0008	0.0008	0.0002	0.0000	0.0000	0.0002	1.79	
		0.0001	0	0	0.0001	0.0003			0.0003		2.38
0.0000		0.0000	0.0000	0.0050	0.0051	0.0002	0.0000		0.0002		1.88
	0.0000	0.0000	0.0000	0.0013	0.0013	0.0000	0.0000	0.0000	0.0000	0.3003	
0.0000		0.0000	0.0000	0.0002	0.0002	0.0000	0.0000		0.0000		0.4180
0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0511
0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.1599
0.0000		0.0000	0.0000	0.0003	0.0004	0.0001	0.0000		0.0001		0.6403
0.0000		0.0001	0.0001	0.0014	0.0015	0.0003	0.0000		0.0003		2.60
0.0000		0.0002	0.0002	0.0036	0.0040	0.0007	0.0000		0.0007		6.57
0.0000		0.0005	0.0005	0.0090	0.0100	0.0018	0.0000		0.0018		16.9
0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0293
0.0000		0.0000	0.0000	0.0000	0.0001	0.0000	0.0000		0.0000		0.0916
0.0000		0.0000	0.0000	0.0002	0.0002	0.0000	0.0000		0.0000		0.3193
0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.1410
	0.0000	0.0000	0.0001	0.0015	0.0016	0.0003	0.0000	0.0000	0.0003	3.53	
0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.3291
0.0000		0.0003	0.0005	0.0013	0.0021	0.0007	0.0001		0.0007		7.03
0.0000		0.0000	0.0000	0.0001	0.0002	0.0001	0.0000		0.0001		0.6259
0.0000		0.0003	0.0006	0.0017	0.0025	0.0009	0.0001		0.0009		8.92
0.0000		0.0001	0.0002	0.0005	0.0008	0.0003	0.0000		0.0003		2.82
0.0000		0.0001	0.0001	0.0004	0.0006	0.0002	0.0000		0.0002		2.07
0		0	0	0	0	0	0		0		0.0000
0.0000		0.0000	0.0000	0.0001	0.0001	0.0000	0.0000		0.0000		0.4097
0.0000		0.0000	0.0001	0.0002	0.0003	0.0001	0.0000		0.0001		1.07
0.0000		0.0003	0.0007	0.0021	0.0031	0.0011	0.0000		0.0011		10.5
0.0000		0.0000	0.0001	0.0003	0.0004	0.0002	0.0000		0.0002		1.54
0.0000		0.0001	0.0002	0.0005	0.0007	0.0000	0.0000		0.0000		5.59
0.0000		0.0003	0.0006	0.0017	0.0026	0.0009	0.0000		0.0009		8.44
0.0000		0.0000	0.0001	0.0002	0.0003	0.0001	0.0000		0.0001		1.15
0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000		0.0721
	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001		0.0000	0.0001	0.6352	
		0.0001	0.0000	0.0036	0.0037	0.0001			0.0001		1.81
	0.0000	0.0000	0.0000	0.0006	0.0006	0.0002		0.0000	0.0002	1.72	

Appendix C

Biological Resources Documentation

Table C-1 Special Status Plant Species Documented in or with the Potential to Occur in Santa Barbara County

Scientific Name	Common Name	FESA/CESA Status	CRPR
Acanthoscyphus parishii var. *abramsii*	Abrams' oxytheca	–/–	1B.2
Acmispon argophyllus var. *niveus*	Santa Cruz Island bird's-foot trefoil	–/SE	4.3
Agrostis hooveri	Hoover's bent grass	–/–	1B.2
Allium howellii var. *clokeyi*	Mt. Pinos onion	–/–	1B.3
Ancistrocarphus keilii	Santa Ynez groundstar	–/–	1B.1
Aphanisma blitoides	aphanisma	–/–	1B.2
Arctostaphylos confertiflora	Santa Rosa Island manzanita	FE/–	1B.2
Arctostaphylos crustacea ssp. *eastwoodiana*	Eastwood's brittle-leaf manzanita	–/–	1B.1
Arctostaphylos glandulosa ssp. *gabrielensis*	San Gabriel manzanita	–/–	1B.2
Arctostaphylos pechoensis	Pecho manzanita	–/–	1B.2
Arctostaphylos purissima	La Purisima manzanita	–/–	1B.1
Arctostaphylos refugioensis	Refugio manzanita	–/–	1B.2
Arctostaphylos rudis	sand mesa manzanita	–/–	1B.2
Astragalus didymocarpus var. *milesianus*	Miles' milk-vetch	–/–	1B.2
Astragalus pycnostachyus var. lanosissimus	Ventura marsh milk-vetch	FE/SE	1B.1
Astragalus traskiae	Trask's milk-vetch	–/SR	1B.2
Atriplex coulteri	Coulter's saltbush	–/–	1B.2
Atriplex pacifica	South Coast saltscale	–/–	1B.2
Atriplex serenana var. davidsonii	Davidson's saltscale	–/–	1B.2
Berberis pinnata ssp. insularis	island barberry	FE/SE	1B.2
Boechera hoffmannii	Hoffmann's rockcress	FE/–	1B.1
Calochortus fimbriatus	late-flowered mariposa lily	–/–	1B.3
Calochortus palmeri var. *palmeri*	Palmer's mariposa lily	–/–	1B.2
Calochortus simulans	La Panza mariposa lily	–/–	1B.3
Calystegia sepium ssp. *binghamiae*	Santa Barbara morning-glory	–/–	1A
Castilleja hololeuca	island white-felted paintbrush	–/–	1B.2
Castilleja mollis	soft-leaved paintbrush	FE/–	1B.1
Caulanthus amplexicaulis var. *barbarae*	Santa Barbara jewelflower	–/–	1B.1
Caulanthus californicus	California jewelflower	FE/SE	1B.1
Caulanthus lemmonii	Lemmon's jewelflower	–/–	1B.2
Ceanothus impressus var. impressus	Santa Barbara ceanothus	–/–	1B.2
Ceanothus impressus var. *nipomensis*	Nimpomo Mesa ceanothus	–/–	1B.1
Centromadia parryi ssp. australis	southern tarplant	–/–	1B.1
Chenopodium littoreum	coastal goosefoot	–/–	1B.2
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	FE/SE	1B.2
Chorizanthe blakleyi	Blakley's spineflower	–/–	1B.3
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	–/–	1B.2
Chorizanthe rectispina	straight-awned spineflower	–/–	1B.3

Scientific Name	Common Name	FESA/CESA Status	CRPR
Cicuta maculata var. *bolanderi*	Bolander's water-hemlock	–/–	2B.1
Cirsium occidentale var. *compactum*	compact cobwebby thistle	–/–	1B.2
Cirsium rhothophilum	Surf thistle	–/ST	1B.2
Cirsium scariosum var. *loncholepis*	La Graciosa thistle	FE/ST	1B.1
Cladium californicum	California sawgrass	–/–	2B.2
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	–/–	1B.2
Constancea nevinii	Nevin's woolly sunflower	–/–	1B.3
Cordylanthus rigidus ssp. *littoralis*	seaside bird's-beak	–/SE	1B.1
Crocanthemum greenei	island rush-rose	FT/–	1B.2
Deinandra increscens ssp. villosa	Gaviota tarplant	FE/SE	1B.1
Delphinium parryi ssp. *blochmaniae*	dune larkspur	–/–	1B.2
Delphinium recurvatum	recurved larkspur	–/–	1B.2
Delphinium umbraculorum	umbrella larkspur	–/–	1B.3
Diplacus brandegeei	Santa Cruz Island monkeyflower	–/–	1A
Diplacus vandenbergensis	Vandenberg monkeyflower	FE/–	1B.1
Dithyrea maritima	beach spectaclepod	–/ST	1B.1
Dudleya blochmaniae ssp. *blochmaniae*	Blochman's dudleya	–/–	1B.1
Dudleya candelabrum	candleholder dudleya	–/–	1B.2
Dudleya gnoma	munchkin dudleya	–/–	1B.1
Dudleya nesiotica	Santa Cruz Island dudleya	FT/SR	1B.1
Dudleya traskiae	Santa Barbara Island dudleya	FE/SE	1B.2
Eremalche parryi ssp. kernensis	Kern mallow	FE/–	1B.2
Erigeron blochmaniae	Blochman's leafy daisy	–/–	1B.2
Eriodictyon capitatum	Lompoc yerba santa	FE/SR	1B.2
Eriodictyon altissimum	Indian Knob mountainbalm	FE/SE	1B.1
Eriogonum giganteum var. *compactum*	Santa Barbara Island buckwheat	–/SR	1B.3
Eriogonum grande var. *rubescens*	red-flowered buckwheat	–/–	1B.2
Eriophyllum lanatum var. *hallii*	Fort Tejon woolly sunflower	–/–	1B.1
Erysimum ammophilum	sand-loving wallflower	–/–	1B.2
Erysimum insulare	island wallflower	–/–	1B.3
Euphorbia misera	cliff spurge	–/–	2B.2
Fritillaria ojaiensis	Ojai fritillary	–/–	1B.2
Galium buxifolium	box bedstraw	FE/SR	1B.2
Gambelia speciosa	showy island snapdragon	–/–	1B.2
Gilia tenuiflora ssp. *hoffmannii*	Hoffmann's slender-flowered gilia	FE/–	1B.1
Heterotheca sessiliflora ssp. sessiliflora	beach goldenaster	–/–	1B.1
Heuchera maxima	island alumroot	–/–	1B.2
Horkelia cuneata var. *puberula*	mesa horkelia	–/–	1B.1
Horkelia cuneata var. *sericea*	Kellogg's horkelia	–/–	1B.1

Scientific Name	Common Name	FESA/CESA Status	CRPR
Hypogymnia schizidiata	island rock lichen	–/–	1B.3
Juncus luciensis	Santa Lucia dwarf rush	–/–	1B.2
Lasthenia conjugens	Contra Costa goldfields	FE/–	1B.1
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	–/–	1B.1
Lavatera assurgentiflora ssp. *assurgentiflora*	island mallow	–/–	1B.1
Layia carnosa	beach layia	FE/SE	1B.1
Layia heterotricha	pale-yellow layia	–/–	1B.1
Lonicera subspicata var. *subspicata*	Santa Barbara honeysuckle	–/–	1B.2
Lyonothamnus floribundus ssp. *aspleniifolius*	Santa Cruz Island ironwood	–/–	1B.2
Madia radiata	showy golden madia	–/–	1B.1
Malacothamnus davidsonii	Davidson's bush-mallow	–/–	1B.2
Malacothamnus fasciculatus var. *nesioticus*	Santa Cruz Island bush-mallow	FE/SE	1B.1
Malacothamnus gracilis	slender bush-mallow	–/–	1B.1
Malacothrix foliosa ssp. *philbrickii*	Philbrick's malacothrix	–/–	1B.2
Malacothrix indecora	Santa Cruz Island malacothrix	FE/–	1B.1
Malacothrix saxatilis var. *arachnoidea*	Carmel Valley malacothrix	–/–	1B.2
Malacothrix similis	Mexican malacothrix	–/–	2A
Malacothrix squalida	island malacothrix	FE/–	1B.1
Monardella hypoleuca ssp. *hypoleuca*	white-veined monardella	–/–	1B.3
Monardella sinuata ssp. *sinuata*	southern curly-leaved monardella	–/–	1B.2
Monardella undulata ssp. *undulata*	San Luis Obispo monardella	–/–	1B.2
Monardella undulata ssp. *arguelloensis*	Point Arguello monardella	–/–	1B.1
Monardella undulata ssp. *crispa*	crisp monardella	–/–	1B.2
Monardella undulata ssp. *undulata*	San Luis Obispo monardella	–/–	1B.2
Monolopia congdonii	San Joaquin woollythreads	FE/–	1B.2
Muhlenbergia utilis	aparejo grass	–/–	2B.2
Nasturtium gambelii	Gambel’s water cress	FE/ST	1B.1
Navarretia peninsularis	Baja navarretia	–/–	1B.2
Nemacladus secundiflorus var. *robbinsii*	Robbins' nemacladus	–/–	1B.2
Phacelia insularis var. *insularis*	northern Channel Islands phacelia	FE/–	1B.2
Pinus torreyana ssp. *insularis*	Santa Rosa Island Torrey pine	–/–	1B.2
Pinus torreyana ssp. *torreyana*	Torrey pine	–/–	1B.2
Platystemon californicus var. *ciliatus*	Santa Barbara Island cream cups	–/–	1B.2
Pleuridium mexicanum	Mexican earthmoss	–/–	2B.1
Quercus dumosa	Nuttall's scrub oak	–/–	1B.1
Ribes thacherianum	Santa Cruz Island gooseberry	–/–	1B.2
Salvia brandegeei	Brandegee's sage	–/–	1B.2
Scrophularia atrata	black-flowered figwort	–/–	1B.2

Scientific Name	Common Name	FESA/CESA Status	CRPR
Senecio aphanactis	chaparral ragwort	–/–	2B.2
Sibara filifolia	Santa Cruz Island winged-rockcress	FE/–	1B.1
Sidalcea hickmanii ssp. *parishii*	Parish's checkerbloom	–/SR	1B.2
Streptanthus campestris	southern jewelflower	–/–	1B.3
Suaeda esteroa	estuary seablite	–/–	1B.2
Symphyotrichum defoliatum	San Bernardino aster	–/–	1B.2
Thelypteris puberula var. *sonorensis*	Sonoran maiden fern	–/–	2B.2
Thermopsis macrophylla	Santa Ynez false lupine	–/SR	1B.3
Thysanocarpus conchuliferus	Santa Cruz Island fringepod	FE/–	1B.2
Tortula californica	California screw-moss	–/–	1B.2

FT: Federally threatened FE: Federally endangered SE: State endangered
ST: State threatened SR: State rare
CRPR: California Rare Plant Rank

Table C-2 Special Status Wildlife Species Documented in or with the Potential to Occur in Santa Barbara County

Scientific Name	Common Name	FESA/CESA Status	Other CDFW & Local Status
Invertebrates			
Bombus crotchii	*Crotch bumble bee*	–/SCE	–
Branchinecta lynchi	Vernal pool fairy shrimp	FT/–	–
Danaus plexippus	monarch butterfly	–/–	Locally Important
Euproserpinus euterpe	Kern primrose sphinx moth	FT/–	–
Haliotis cracherodii	black abalone	FE/–	–
Fish			
Eucyclogobius newberryi	tidewater goby	FE/–	SSC
Gasterosteus aculeatus williamsoni	unarmored threespine stickleback	FE/SE	FP
Gila orcuttii	arroyo chub	–/–	SSC
Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	FT/–	–
Amphibians			
Ambystoma californiense	California tiger salamander	FT/ST	WL
Anaxyrus californicus	arroyo toad	FE/–	SSC
Rana boylii	foothill yellow-legged frog	–/SE	SSC
Rana draytonii	California red-legged frog	FT/–	SSC
Spea hammondii	western spadefoot	–/–	SSC
Taricha torosa	Coast Range newt	–/–	SSC
Reptiles			
Anniella pulchra	Northern California lizard	–/–	SSC
Arizona elegans occidentalis	California glossy snake	–/–	SSC
Aspidoscelis tigris stejnegeri	coastal whiptail	–/–	SSC
Emys marmorata	western pond turtle	–/–	SSC
Gambelia sila	blunt-nosed leopard lizard	FE/SE	FP
Phrynosoma blainvillii	coast horned lizard	–/–	SSC
Salvadora hexalepis virgultea	coast patch-nosed snake	–/–	SSC
Thamnophis hammondii	two-striped garter snake	–/–	SSC
Xantusia riversiana	island night lizard	DL/–	–
Birds			
Accipiter cooperii	Cooper's hawk	–/–	WL
Agelaius tricolor	tricolored blackbird	–/ST	SSC
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	–/–	WL
Ammodramus savannarum	grasshopper sparrow	–/–	SSC
Aquila chrysaetos	golden eagle	–/–	FP, WL
Artemisiospiza belli belli	Bell's sage sparrow	–/–	WL
Asio flammeus	short-eared owl	–/–	SSC
Athene cunicularia	burrowing owl	–/–	SSC

Scientific Name	Common Name	FESA/CESA Status	Other CDFW & Local Status
Buteo regalis	ferruginous hawk	–/–	WL
Buteo swainsoni	Swainson's hawk	–/FT	–
Cerorhinca monocerata	rhinoceros auklet	–/–	WL
Coturnicops noveboracensis	yellow rail	–/–	SSC
Elanus leucurus	white-tailed kite	–/–	FP
Empidonax traillii extimus	southwestern willow flycatcher	FE/SE	–
Eremophila aplestris actia	California horned lark	–/–	WL
Falco mexicanus	prairie falcon	–/–	WL
Falco peregrinus anatum	American peregrine falcon	DL/DL	FP
Fratercula cirrhata	tufted puffin	–/–	SSC
Gymnogyps californianus	California condor	FE/SE	FP
Haliaeetus leucocephalus	bald eagle	DL/SE	FP
Laterallus jamaicensis coturniculus	California black rail	–/ST	FP
Melospiza melodia graminea	Channel Island song sparrow	–/–	SSC
Passerculus sandwichensis beldingi	Belding's savannah sparrow	–/SE	–
Pelecanus occidentalis californicus	California brown pelican	DL/DL	FP
Phalacrocorax auritus	double-crested cormorant	–/–	WL
Progne subis	purple martin	–/–	SSC
Rallus obsoletus levipes	light-footed Ridgway's rail	FE/SE	FP
Riparia riparia	bank swallow	–/ST	–
Setophaga petechia	yellow warbler	–/–	SSC
Sterna antillarum browni	California least tern	FE/–	FP
Synthliboramphus scrippsi	Scripps's murrelet	FC/ST	–
Vireo bellii pusillus	least Bell's vireo	FE/SE	–
Mammals			
Ammospermophilus nelsoni	Nelson's antelope squirrel	–/ST	–
Antrozous pallidus	pallid bat	–/–	SSC
Arctocephalus townsendi	Guadalupe fur-seal	FT/ST	FP
Corynorhinus townsendii	Townsend's big-eared bat	–/–	SSC
Dipodomys ingens	giant kangaroo rat	FE/SE	–
Eumetopias jubatus	Steller sea-lion	DL/–	–
Eumops perotis californicus	western mastiff bat	–/–	SSC
Lasiurus blossevillii	western red bat	–/–	SSC
Neotoma lepida intermedia	San Diego desert woodrat	–/–	SSC
Nyctinomops macrotis	big free-tailed bat	–/–	SSC
Spilogale gracilis amphiala	Channel Islands spotted skunk	–/–	SSC
Taxidea taxus	American badger	–/–	SSC
Urocyon littoralis littoralis	San Miguel Island fox	DL/ST	–
Urocyon littoralis santacruzae	Santa Cruz Island fox	DL/ST	–
Urocyon littoralis santarosae	Santa Rosa Island fox	DL/ST	–

Scientific Name	Common Name	FESA/CESA Status	Other CDFW & Local Status
Vulpes macrotis mutica	San Joaquin kit fox	FE/ST	–

FT: Federally threatened	FE: Federally endangered	SE: State endangered
ST: State threatened	SR: State rare	SCE: State candidate endangered
FP: Fully Protected	SSC: Species of Special Concern	
DL: Delisted	WL: Watch List	

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Appendix D

Energy Use Calculations

SBCAG Connected 2050 - Year 2020

Input	
VMT	1,438,446

Output	
Electricity (kWh/day)	2,013
Gasoline (gallons/day)	60,136
Diesel gallons/day)	11,654
Natural Gas (scf/day)	44,514

Source for Conversion from DEG to SCF - https://afdc.energy.gov/fuels/equivalency_methodology.html

Daily VMT by Fuel Type	
Electricity	21,068
Gasoline	1,312,634
Diesel	103,141
Natural Gas	1,603

Source: EMFAC2021 (v1.0.0) Emissions Inventory
Region Type: MPO
Region: SBCAG
Calendar Year: 2020
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	Fleet Mix	EVMT	Fleet Mix	Energy Consumption	Electricity Consumption Factor (kWh/VMT)	Connected 2050 Electricy Consumption	Fuel Consumption	Fuel Consumption Factor (1,000 gallons/day/VMT)	Connected 2050 Fuel Consumption
SBCAG	2020	HHDT	Aggregate	Aggregate	Gasoline	11.95024831	280.7217136	280.7217136	0.0%	0	0.0%	0	#DIV/0!	0	0.085511987	0.000304615	0.013281142
SBCAG	2020	HHDT	Aggregate	Aggregate	Diesel	1781.396251	193587.939	193587.939	2.1%	0	0.0%	0	#DIV/0!	0	35.00428003	0.000180818	5.436627494
SBCAG	2020	HHDT	Aggregate	Aggregate	Natural Gas	73.97921073	4768.36292	4768.36292	0.1%	0	0.0%	0	#DIV/0!	0	1.081982768	0.000226909	0.168046229
SBCAG	2020	LDA	Aggregate	Aggregate	Gasoline	135526.5443	4055943.141	4055943.141	43.8%	0	0.0%	0	#DIV/0!	0	142.8159757	3.52115E-05	22.18120925
SBCAG	2020	LDA	Aggregate	Aggregate	Diesel	942.9724408	25622.12329	25622.12329	0.3%	0	0.0%	0	#DIV/0!	0	0.580048345	2.26386E-05	0.090089177
SBCAG	2020	LDA	Aggregate	Aggregate	Electricity	2850.481938	98967.31183	0	0.0%	98967.31183	71.9%	38209.55058	0.386082534	0	0	#DIV/0!	0
SBCAG	2020	LDA	Aggregate	Aggregate	Plug-in Hybrid	1861.436441	70129.73355	37670.36561	0.4%	32459.36794	23.6%	9803.696561	0.302029805	1767.087541	1.246731863	3.30958E-05	0.193633942
SBCAG	2020	LDT1	Aggregate	Aggregate	Gasoline	19584.61865	497097.4097	497097.4097	5.4%	0	0.0%	0	#DIV/0!	0	21.04198994	4.23297E-05	3.268099242
SBCAG	2020	LDT1	Aggregate	Aggregate	Diesel	22.4595943	273.4076385	273.4076385	0.0%	0	0.0%	0	#DIV/0!	0	0.010656166	3.89754E-05	0.001655043
SBCAG	2020	LDT1	Aggregate	Aggregate	Electricity	22.67417466	480.6996761	0	0.0%	480.6996761	0.3%	185.5897493	0.386082534	0	0	#DIV/0!	0
SBCAG	2020	LDT1	Aggregate	Aggregate	Plug-in Hybrid	0.598877407	24.73024326	12.90563778	0.0%	11.82460548	0.0%	3.571383285	0.302029805	0.605393427	0.000428023		3.31656E-05	6.64776E-05
SBCAG	2020	LDT2	Aggregate	Aggregate	Gasoline	67209.63537	2042815.732	2042815.732	22.1%	0	0.0%	0	#DIV/0!	0	91.07087352		4.45811E-05	14.14451074
SBCAG	2020	LDT2	Aggregate	Aggregate	Diesel	318.8954884	11038.60881	11038.60881	0.1%	0	0.0%	0	#DIV/0!	0	0.340795939		3.08731E-05	0.052930115
SBCAG	2020	LDT2	Aggregate	Aggregate	Electricity	8.453699528	230.3128253	0	0.0%	230.3128253	0.2%	88.91975932	0.386082534	0	0	#DIV/0!		0
SBCAG	2020	LDT2	Aggregate	Aggregate	Plug-in Hybrid	106.542361	4310.641499	2272.33666	0.0%	2038.304839	1.5%	615.6288126	0.302029805	106.5935447	0.075779165		3.33486E-05	0.011769506
SBCAG	2020	LHDT1	Aggregate	Aggregate	Gasoline	7777.362849	219925.8101	219925.8101	2.4%	0	0.0%	0	#DIV/0!	0	25.31363333		0.000115101	3.931541939
SBCAG	2020	LHDT1	Aggregate	Aggregate	Diesel	5200.270867	162204.7457	162204.7457	1.8%	0	0.0%	0	#DIV/0!	0	10.37318595		6.39512E-05	1.611092926
SBCAG	2020	LHDT2	Aggregate	Aggregate	Gasoline	1166.653482	34080.55614	34080.55614	0.4%	0	0.0%	0	#DIV/0!	0	4.354186704		0.000127762	0.676262764
SBCAG	2020	LHDT2	Aggregate	Aggregate	Diesel	1843.108403	60400.20943	60400.20943	0.7%	0	0.0%	0	#DIV/0!	0	4.731395584		7.83341E-05	0.73484829
SBCAG	2020	MCY	Aggregate	Aggregate	Gasoline	9501.316541	44295.36876	44295.36876	0.5%	0	0.0%	0	#DIV/0!	0	1.122959182		2.53516E-05	0.174410408
SBCAG	2020	MDV	Aggregate	Aggregate	Gasoline	53291.59977	1558017.045	1558017.045	16.8%	0	0.0%	0	#DIV/0!	0	84.51491697		5.42452E-05	13.12628401
SBCAG	2020	MDV	Aggregate	Aggregate	Diesel	987.0039424	33853.66847	33853.66847	0.4%	0	0.0%	0	#DIV/0!	0	1.369393357		4.04504E-05	0.212684894
SBCAG	2020	MDV	Aggregate	Aggregate	Electricity	19.34955157	533.6805695	0	0.0%	533.6805695	0.4%	206.0447469	0.386082534	0	0	#DIV/0!		0
SBCAG	2020	MDV	Aggregate	Aggregate	Plug-in Hybrid	139.4790858	5496.920763	2957.40693	0.0%	2539.513834	1.8%	767.0088674	0.302029805	138.729658	0.100271417		3.39052E-05	0.015573477
SBCAG	2020	MH	Aggregate	Aggregate	Gasoline	1453.989874	10486.80931	10486.80931	0.1%	0	0.0%	0	#DIV/0!	0	2.299393186		0.000219265	0.357126163
SBCAG	2020	MH	Aggregate	Aggregate	Diesel	426.9678475	3711.721056	3711.721056	0.0%	0	0.0%	0	#DIV/0!	0	0.395461048		0.000106544	0.061420329
SBCAG	2020	MHDT	Aggregate	Aggregate	Gasoline	828.1296843	38295.84127	38295.84127	0.4%	0	0.0%	0	#DIV/0!	0	8.331514445		0.000217557	1.293994348
SBCAG	2020	MHDT	Aggregate	Aggregate	Diesel	3423.274365	144653.0468	144653.0468	1.6%	0	0.0%	0	#DIV/0!	0	17.21147844		0.000118985	2.673170163
SBCAG	2020	MHDT	Aggregate	Aggregate	Natural Gas	11.69664357	603.9570529	603.9570529	0.0%	0	0.0%	0	#DIV/0!	0	0.083503312		0.00013826	0.012969168
SBCAG	2020	OBUS	Aggregate	Aggregate	Gasoline	225.5418779	11598.84674	11598.84674	0.1%	0	0.0%	0	#DIV/0!	0	2.504049972		0.000215888	0.388912068
SBCAG	2020	OBUS	Aggregate	Aggregate	Diesel	119.2754612	8901.535446	8901.535446	0.1%	0	0.0%	0	#DIV/0!	0	1.266252641		0.000142251	0.196665777
SBCAG	2020	SBUS	Aggregate	Aggregate	Gasoline	359.4578859	19403.83945	19403.83945	0.2%	0	0.0%	0	#DIV/0!	0	1.983794417		0.000102237	0.308109502
SBCAG	2020	SBUS	Aggregate	Aggregate	Diesel	721.7719618	17719.1699	17719.1699	0.2%	0	0.0%	0	#DIV/0!	0	2.186492744		0.000123397	0.339591232
SBCAG	2020	SBUS	Aggregate	Aggregate	Natural Gas	127.9019772	3359.23381	3359.23381	0.0%	0	0.0%	0	#DIV/0!	0	0.614419854		0.000182905	0.095427527
SBCAG	2020	UBUS	Aggregate	Aggregate	Gasoline	30.98561002	1997.941386	1997.941386	0.0%	0	0.0%	0	#DIV/0!	0	0.32823154		0.000164285	0.050978698
SBCAG	2020	UBUS	Aggregate	Aggregate	Diesel	135.2185316	11991.60855	11991.60855	0.1%	0	0.0%	0	#DIV/0!	0	1.567462572		0.000130713	0.24344766
SBCAG	2020	UBUS	Aggregate	Aggregate	Electricity	14.18106942	400.5708674	0	0.0%	400.5708674	0.3%	698.7140879	1.744295815	0	0	#DIV/0!		0
SBCAG	2020	UBUS	Aggregate	Aggregate	Natural Gas	23.81653205	1739.709361	1739.709361	0.0%	0	0.0%	0	#DIV/0!	0	0.277567477		0.000159548	0.043109899

SBCAG Connected 2050 - Year 2050

Input	
VMT	1,662,483

Energy Consumption	
Electricity (kWh/day)	7,157
Gasoline (gallons/day)	51,878
Diesel (gallons/day)	7,875
Natural Gas (scf)	27,058

Source for Conversion from DEG to SCF - https://afdc.energy.gov/fuels/equivalency_methodology.html

Daily VMT by Fuel Type	
Electricity	203,733
Gasoline	1,398,866
Diesel	59,061
Natural Gas	822

Source: EMFAC2021 (v1.0.0) Emissions Inventory
Region Type: MPO
Region: SBCAG
Calendar Year: 2050
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	CVMT	Fleet Mix	EVMT	Fleet Mix	Energy Consumption	Electricity Consumption Factor (kWh/VMT)	Connected 2050 Electricy Consumption	Fuel Consumption	Fuel Consumption Factor (1,000 gallons/day/VMT)	Connected 2050 Fuel Consumption
SBCAG	2050	HHDT	Aggregate	Aggregate	Gasoline	0.221339763	34.37030634	34.37030634	0.0%	0	0.0%	0	#DIV/0!	0	0.007496135	0.000218099	0.0010789
SBCAG	2050	HHDT	Aggregate	Aggregate	Diesel	1979.55623	214143.4932	214143.4932	1.9%	0	0.0%	0	#DIV/0!	0	32.58513958	0.000152165	4.689896112
SBCAG	2050	HHDT	Aggregate	Aggregate	Electricity	966.109094	67573.95753	0	0.0%	67573.95753	4.3%	125753.9336	1.860982222	0	0	#DIV/0!	0
SBCAG	2050	HHDT	Aggregate	Aggregate	Natural Gas	63.6732864	3775.636397	3775.636397	0.0%	0	0.0%	0	#DIV/0!	0	0.860046647	0.000227789	0.123784322
SBCAG	2050	LDA	Aggregate	Aggregate	Gasoline	137560.4102	5114346.981	5114346.981	44.3%	0	0.0%	0	#DIV/0!	0	137.6995856	2.69242E-05	19.81875049
SBCAG	2050	LDA	Aggregate	Aggregate	Diesel	96.64702362	3054.564979	3054.564979	0.0%	0	0.0%	0	#DIV/0!	0	0.053787291	1.76088E-05	0.007741468
SBCAG	2050	LDA	Aggregate	Aggregate	Electricity	19113.69674	755768.3717	0	0.0%	755768.3717	47.7%	291788.9684	0.386082534	0	0	#DIV/0!	0
SBCAG	2050	LDA	Aggregate	Aggregate	Plug-in Hybrid	6488.280479	244658.6706	99664.65678	0.9%	144994.0138	9.2%	43792.5137	0.302029805	4332.460524	3.266440577	3.27743E-05	0.470130469
SBCAG	2050	LDT1	Aggregate	Aggregate	Gasoline	10817.45133	363376.0642	363376.0642	3.1%	0	0.0%	0	#DIV/0!	0	11.36948477	3.12885E-05	1.636380973
SBCAG	2050	LDT1	Aggregate	Aggregate	Diesel	0.120154249	4.265739404	4.265739404	0.0%	0	0.0%	0	#DIV/0!	0	0.000139635	3.27341E-05	2.00973E-05
SBCAG	2050	LDT1	Aggregate	Aggregate	Electricity	319.9526663	12287.50227	0	0.0%	12287.50227	0.8%	4743.990018	0.386082534	0	0	#DIV/0!	0
SBCAG	2050	LDT1	Aggregate	Aggregate	Plug-in Hybrid	243.8986543	8886.869506	3616.290686	0.0%	5270.57882	0.3%	1591.871892	0.302029805	157.2015311	0.120035743	3.31931E-05	0.017276439
SBCAG	2050	LDT2	Aggregate	Aggregate	Gasoline	95265.04994	3364687.89	3364687.89	29.1%	0	0.0%	0	#DIV/0!	0	112.0425456	3.32995E-05	16.1259981
SBCAG	2050	LDT2	Aggregate	Aggregate	Diesel	376.0834703	13087.20626	13087.20626	0.1%	0	0.0%	0	#DIV/0!	0	0.326525719	2.495E-05	0.046996015
SBCAG	2050	LDT2	Aggregate	Aggregate	Electricity	3789.683981	101338.119	0	0.0%	101338.119	6.4%	39124.87783	0.386082534	0	0	#DIV/0!	0
SBCAG	2050	LDT2	Aggregate	Aggregate	Plug-in Hybrid	2592.127448	93119.17022	37954.75475	0.3%	55164.41548	3.5%	16661.29764	0.302029805	1649.90762	1.268692823	3.34265E-05	0.182599725
SBCAG	2050	LHDT1	Aggregate	Aggregate	Gasoline	3273.324777	114197.8789	114197.8789	1.0%	0	0.0%	0	#DIV/0!	0	11.76115514	0.000102989	1.692753091
SBCAG	2050	LHDT1	Aggregate	Aggregate	Diesel	1859.585757	64587.88713	64587.88713	0.6%	0	0.0%	0	#DIV/0!	0	4.69774341	7.27341E-05	0.676134239
SBCAG	2050	LHDT1	Aggregate	Aggregate	Electricity	3959.723388	166895.3047	0	0.0%	166895.3047	10.5%	109481.4123	0.65598857	0	0	#DIV/0!	0
SBCAG	2050	LHDT2	Aggregate	Aggregate	Gasoline	325.4350411	11373.16329	11373.16329	0.1%	0	0.0%	0	#DIV/0!	0	1.31582432	0.000115696	0.189383242
SBCAG	2050	LHDT2	Aggregate	Aggregate	Diesel	962.3637098	31229.846	31229.846	0.3%	0	0.0%	0	#DIV/0!	0	2.639124034	8.45065E-05	0.379842398
SBCAG	2050	LHDT2	Aggregate	Aggregate	Electricity	907.6730988	37616.4162	0	0.0%	37616.4162	2.4%	24251.03415	0.644692839	0	0	#DIV/0!	0
SBCAG	2050	MCY	Aggregate	Aggregate	Gasoline	8111.54655	40855.82517	40855.82517	0.4%	0	0.0%	0	#DIV/0!	0	0.950981822	2.32765E-05	0.13687239
SBCAG	2050	MDV	Aggregate	Aggregate	Gasoline	53265.93675	1886443.507	1886443.507	16.3%	0	0.0%	0	#DIV/0!	0	76.23133211	4.04101E-05	10.97178139
SBCAG	2050	MDV	Aggregate	Aggregate	Diesel	621.1235503	20940.45783	20940.45783	0.2%	0	0.0%	0	#DIV/0!	0	0.681982207	3.25677E-05	0.098155961
SBCAG	2050	MDV	Aggregate	Aggregate	Electricity	3353.168754	89639.74568	0	0.0%	89639.74568	5.7%	34608.3402	0.386082534	0	0	#DIV/0!	0
SBCAG	2050	MDV	Aggregate	Aggregate	Plug-in Hybrid	1583.849058	57411.6345	23396.02812	0.2%	34015.60638	2.1%	10273.72696	0.302029805	1017.034238	0.795338033	3.39946E-05	0.114470977
SBCAG	2050	MH	Aggregate	Aggregate	Gasoline	380.0048404	4168.519338	4168.519338	0.0%	0	0.0%	0	#DIV/0!	0	0.910110127	0.000218329	0.130989832
SBCAG	2050	MH	Aggregate	Aggregate	Diesel	266.5408616	2473.429722	2473.429722	0.0%	0	0.0%	0	#DIV/0!	0	0.265782126	0.000107455	0.038253344
SBCAG	2050	MHDT	Aggregate	Aggregate	Gasoline	166.1052661	9972.605026	9972.605026	0.1%	0	0.0%	0	#DIV/0!	0	1.928880191	0.000193418	0.277618811
SBCAG	2050	MHDT	Aggregate	Aggregate	Diesel	2437.293783	100922.1903	100922.1903	0.9%	0	0.0%	0	#DIV/0!	0	11.35021384	0.000112465	1.633607357
SBCAG	2050	MHDT	Aggregate	Aggregate	Electricity	2463.367288	110964.3901	0	0.0%	110964.3901	7.0%	140234.9198	1.263783089	0	0	#DIV/0!	0
SBCAG	2050	MHDT	Aggregate	Aggregate	Natural Gas	10.81137031	451.1074329	451.1074329	0.0%	0	0.0%	0	#DIV/0!	0	0.070598736	0.000156501	0.010161096
SBCAG	2050	OBUS	Aggregate	Aggregate	Gasoline	49.14612088	1896.338747	1896.338747	0.0%	0	0.0%	0	#DIV/0!	0	0.376425096	0.000198501	0.054177905
SBCAG	2050	OBUS	Aggregate	Aggregate	Diesel	154.8063165	10426.22958	10426.22958	0.1%	0	0.0%	0	#DIV/0!	0	1.275645708	0.00012235	0.183600436
SBCAG	2050	OBUS	Aggregate	Aggregate	Electricity	29.71469229	2381.288413	0	0.0%	2381.288413	0.2%	3080.12908	1.293471662	0	0	#DIV/0!	0
SBCAG	2050	SBUS	Aggregate	Aggregate	Gasoline	44.72731002	2917.335371	2917.335371	0.0%	0	0.0%	0	#DIV/0!	0	0.277781111	9.52174E-05	0.039980327
SBCAG	2050	SBUS	Aggregate	Aggregate	Diesel	315.7098393	6841.690382	6841.690382	0.1%	0	0.0%	0	#DIV/0!	0	0.83178113	0.000121575	0.119716139
SBCAG	2050	SBUS	Aggregate	Aggregate	Electricity	511.6139656	13337.60176	0	0.0%	13337.60176	0.8%	16541.16633	1.240190451	0	0	#DIV/0!	0
SBCAG	2050	SBUS	Aggregate	Aggregate	Natural Gas	104.0301248	2234.101246	2234.101246	0.0%	0	0.0%	0	#DIV/0!	0	0.41205479	0.000184439	0.059305996
SBCAG	2050	UBUS	Aggregate	Aggregate	Gasoline	15.75080258	1035.630752	1035.630752	0.0%	0	0.0%	0	#DIV/0!	0	0.122932352	0.000118703	0.01769334
SBCAG	2050	UBUS	Aggregate	Aggregate	Diesel	2.109482488	88.34667485	88.34667485	0.0%	0	0.0%	0	#DIV/0!	0	0.007371599	8.34395E-05	0.001060975
SBCAG	2050	UBUS	Aggregate	Aggregate	Electricity	204.0908689	16454.84141	0	0.0%	16454.84141	1.0%	28702.11102	1.744295815	0	0	#DIV/0!	0
SBCAG	2050	UBUS	Aggregate	Aggregate	Natural Gas	1.265689493	53.00800491	53.00800491	0.0%	0	0.0%	0	#DIV/0!	0	0.006908241	0.000130324	0.000994286

Indirect Energy Consumption Calculations

VMT	
2020	1438446
2050	1662483
Net Change	224037

Manufacturing			
	Factors (Btu/VMT)	Net Change in VMT * Factors (Btu)	Total Indirect Energy Consumption (million of Btu)
Passenger	1410	315,892,170	316
Transit	3470	777,408,390	777
Roadway	27300	6,116,210,100	6,116
Maintenance			
Passenger	1400	313,651,800	314
Transit	13142	2,944,294,254	2,944
Rail	7060	1,581,701,220	1,582

Appendix E

Greenhouse Gas Emission Calculations

Emissions Estimates				
Annual Emissions (metric tons per year)				
	SBCAG			
Year	CO_2	CH_4	N_2O	CO_2e
Existing (2020)	1,581,960	88	99	1,613,545
Future - No Connected 2050	1,234,107	54	69	1,256,147
Connected 2050	1,044,595	47	60	1,063,739
Net Change (2020 to 2050)	(537,366)	(41)	(38)	(549,806)
Net Change (No Connected 2050 to Connected 2050)	(189,512)	(7)	(9)	(192,408)

Emissions Estimates - Adjusted for SAFE Rule				
Annual Emissions (metric tons per year)				
	SBCAG			
Year	CO_2	CH_4	N_2O	CO_2e
Existing (2020)	1,581,960	88	99	1,613,545
Future - No Connected 2050	1,346,937	54	69	1,368,977
Connected 2050	1,140,209	47	60	1,159,354
Net Change (2020 to 2050)	(441,751)	(41)	(38)	(454,191)
Net Change (2020 to 2050)	(206,727)	(7)	(9)	(209,623)

**GWPs of 25 for CH_4 and 298 for N_2O were utilized to calculate CO_2e (consistent with CARB's 2017 Scoping Plan, which relied on IPCC AR4 estimates).*

	SBCAG		
	Existing (2020)	Future - No Connected 2050	Connected 2050
Daily VMT	10,958,006	13,676,560	11,539,646
Daily Trips	1,438,447	1,671,923	1,662,483
Daily Vehicles	313,436	435,173	364,143

- Daily VMT and Trips provided by SBCAG. Daily Vehicles based on EMFAC Planning Inventory outputs provided by SBCAG for the respective year.

Days per Year	365

SCENARIO	SBCAG 2020 - RUNEX

Source	EMFAC2017 (v1.0.3) Emission Rates
Region Type	MPO
Region	SBCAG
Calendar Year	2020
Season	Annual
Vehicle Classification	EMFAC2011 Categories
Emissions Rate and Vehicle Activity Units	Units: miles/day for VMT, g/mile for RUNEX

SAFE Rule Adjustment Factors	
CO_2	1

Source: https://ww3.arb.ca.gov/msei/emfac_off_model_co2_adjustment_factors_06262020-final.pdf

Daily VMT	10,958,006

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO_2 RUNEX	CH_4 RUNEX	N_2O RUNEX	Fleet Mix (by VMT)	VMT per Day	CO_2 RUNEX Emissions (tons/day)	CO_2 RUNEX Emissions Adjusted for SAFE Rule (tons/day)	CH_4 RUNEX Emissions (tons/day)	N_2O RUNEX Emissions (tons/day)
SBCAG	2020	All Other Buses	Aggregate	Aggregate	Diesel	1151.6156	0.0166	0.1810	0.07%	7,286.07	8.39E+00	8.39E+00	1.21E-04	1.32E-03
SBCAG	2020	LDA	Aggregate	Aggregate	Gasoline	269.5905	0.0037	0.0062	48.43%	5,307,415.23	1.43E+03	1.43E+03	1.94E-02	3.32E-02
SBCAG	2020	LDA	Aggregate	Aggregate	Diesel	209.1601	0.0008	0.0329	0.68%	74,527.08	1.56E+01	1.56E+01	6.19E-05	2.45E-03
SBCAG	2020	LDA	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.67%	73,583.09	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	LDT1	Aggregate	Aggregate	Gasoline	311.2145	0.0050	0.0082	5.03%	551,538.90	1.72E+02	1.72E+02	2.76E-03	4.55E-03
SBCAG	2020	LDT1	Aggregate	Aggregate	Diesel	416.1555	0.0104	0.0654	0.00%	385.24	1.60E-01	1.60E-01	4.01E-06	2.52E-05
SBCAG	2020	LDT1	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.02%	1,853.40	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	LDT2	Aggregate	Aggregate	Gasoline	354.2909	0.0072	0.0123	20.14%	2,207,163.38	7.82E+02	7.82E+02	1.58E-02	2.72E-02
SBCAG	2020	LDT2	Aggregate	Aggregate	Diesel	284.2149	0.0007	0.0447	0.14%	15,693.00	4.46E+00	4.46E+00	1.08E-05	7.01E-04
SBCAG	2020	LDT2	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.08%	8,500.97	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	LHD1	Aggregate	Aggregate	Gasoline	1040.3506	0.0211	0.0244	1.70%	186,491.30	1.94E+02	1.94E+02	3.94E-03	4.55E-03
SBCAG	2020	LHD1	Aggregate	Aggregate	Diesel	579.0940	0.0090	0.0910	1.50%	164,074.72	9.50E+01	9.50E+01	1.47E-03	1.49E-02
SBCAG	2020	LHD2	Aggregate	Aggregate	Gasoline	1191.6587	0.0134	0.0221	0.27%	29,674.16	3.54E+01	3.54E+01	3.99E-04	6.56E-04
SBCAG	2020	LHD2	Aggregate	Aggregate	Diesel	646.9273	0.0082	0.1017	0.50%	55,311.04	3.58E+01	3.58E+01	4.54E-04	5.62E-03
SBCAG	2020	MCY	Aggregate	Aggregate	Gasoline	206.9542	0.3229	0.0686	0.80%	87,918.05	1.82E+01	1.82E+01	2.84E-02	6.03E-03
SBCAG	2020	MDV	Aggregate	Aggregate	Gasoline	426.0121	0.0070	0.0119	15.20%	1,665,211.12	7.09E+02	7.09E+02	1.16E-02	1.98E-02
SBCAG	2020	MDV	Aggregate	Aggregate	Diesel	375.1942	0.0006	0.0590	0.37%	40,693.52	1.53E+01	1.53E+01	2.30E-05	2.40E-03
SBCAG	2020	MDV	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.02%	2,592.58	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	MH	Aggregate	Aggregate	Gasoline	1839.8596	0.0290	0.0387	0.09%	9,973.39	1.83E+01	1.83E+01	2.89E-04	3.86E-04
SBCAG	2020	MH	Aggregate	Aggregate	Diesel	1053.2788	0.0057	0.1656	0.03%	3,421.25	3.60E+00	3.60E+00	1.95E-05	5.66E-04
SBCAG	2020	Motor Coach	Aggregate	Aggregate	Diesel	1567.3298	0.0112	0.2464	0.03%	3,662.21	5.74E+00	5.74E+00	4.12E-05	9.02E-04
SBCAG	2020	OBUS	Aggregate	Aggregate	Gasoline	1837.3725	0.0268	0.0405	0.09%	10,016.80	1.84E+01	1.84E+01	2.69E-04	4.06E-04
SBCAG	2020	PTO	Aggregate	Aggregate	Diesel	2162.4546	0.0167	0.3399	0.05%	5,877.30	1.27E+01	1.27E+01	9.80E-05	2.00E-03
SBCAG	2020	SBUS	Aggregate	Aggregate	Gasoline	913.7485	0.0098	0.0244	0.16%	17,369.02	1.59E+01	1.59E+01	1.71E-04	4.24E-04
SBCAG	2020	SBUS	Aggregate	Aggregate	Diesel	1173.0419	0.0043	0.1844	0.25%	26,926.00	3.16E+01	3.16E+01	1.16E-04	4.96E-03
SBCAG	2020	T6 Ag	Aggregate	Aggregate	Diesel	1078.8687	0.0282	0.1696	0.00%	281.35	3.04E-01	3.04E-01	7.94E-06	4.77E-05
SBCAG	2020	T6 CAIRP heavy	Aggregate	Aggregate	Diesel	935.0714	0.0017	0.1470	0.02%	2,390.67	2.24E+00	2.24E+00	4.18E-06	3.51E-04
SBCAG	2020	T6 CAIRP small	Aggregate	Aggregate	Diesel	994.5182	0.0037	0.1563	0.00%	268.34	2.67E-01	2.67E-01	9.92E-07	4.19E-05
SBCAG	2020	T6 instate construction heavy	Aggregate	Aggregate	Diesel	1274.9918	0.0226	0.2004	0.04%	4,384.37	5.59E+00	5.59E+00	9.92E-05	8.79E-04
SBCAG	2020	T6 instate construction small	Aggregate	Aggregate	Diesel	1264.8339	0.0218	0.1988	0.16%	17,265.04	2.18E+01	2.18E+01	3.76E-04	3.43E-03
SBCAG	2020	T6 instate heavy	Aggregate	Aggregate	Diesel	1092.6431	0.0101	0.1717	0.73%	80,111.55	8.75E+01	8.75E+01	8.08E-04	1.38E-02
SBCAG	2020	T6 instate small	Aggregate	Aggregate	Diesel	1105.6345	0.0129	0.1738	0.73%	80,268.92	8.87E+01	8.87E+01	1.03E-03	1.39E-02
SBCAG	2020	T6 OOS heavy	Aggregate	Aggregate	Diesel	936.9640	0.0017	0.1473	0.01%	1,315.30	1.23E+00	1.23E+00	2.26E-06	1.94E-04
SBCAG	2020	T6 OOS small	Aggregate	Aggregate	Diesel	992.2942	0.0037	0.1560	0.00%	163.69	1.62E-01	1.62E-01	6.03E-07	2.55E-05
SBCAG	2020	T6 Public	Aggregate	Aggregate	Diesel	1236.4227	0.0049	0.1943	0.03%	3,781.01	4.67E+00	4.67E+00	1.86E-05	7.35E-04
SBCAG	2020	T6 utility	Aggregate	Aggregate	Diesel	1070.7742	0.0012	0.1683	0.01%	894.32	9.58E-01	9.58E-01	1.08E-06	1.51E-04
SBCAG	2020	T6TS	Aggregate	Aggregate	Gasoline	1831.4771	0.0350	0.0479	0.31%	34,200.55	6.26E+01	6.26E+01	1.20E-03	1.64E-03
SBCAG	2020	T7 Ag	Aggregate	Aggregate	Diesel	1644.9583	0.0281	0.2586	0.00%	98.15	1.61E-01	1.61E-01	2.76E-06	2.54E-05
SBCAG	2020	T7 CAIRP	Aggregate	Aggregate	Diesel	1404.5740	0.0033	0.2208	0.26%	28,672.36	4.03E+01	4.03E+01	9.58E-05	6.33E-03
SBCAG	2020	T7 CAIRP construction	Aggregate	Aggregate	Diesel	1778.1557	0.0076	0.2795	0.03%	3,149.33	5.60E+00	5.60E+00	2.39E-05	8.80E-04
SBCAG	2020	T7 NNOOS	Aggregate	Aggregate	Diesel	1353.8084	0.0035	0.2128	0.32%	34,967.61	4.73E+01	4.73E+01	1.21E-04	7.44E-03
SBCAG	2020	T7 NOOS	Aggregate	Aggregate	Diesel	1404.8043	0.0032	0.2208	0.10%	11,262.19	1.58E+01	1.58E+01	3.55E-05	2.49E-03
SBCAG	2020	T7 other port	Aggregate	Aggregate	Diesel	1862.9253	0.0116	0.2928	0.06%	7,120.00	1.33E+01	1.33E+01	8.28E-05	2.08E-03
SBCAG	2020	T7 Public	Aggregate	Aggregate	Diesel	1846.3274	0.0066	0.2902	0.05%	5,452.30	1.01E+01	1.01E+01	3.61E-05	1.58E-03
SBCAG	2020	T7 Single	Aggregate	Aggregate	Diesel	1668.0067	0.0111	0.2622	0.27%	29,599.26	4.94E+01	4.94E+01	3.28E-04	7.76E-03
SBCAG	2020	T7 single construction	Aggregate	Aggregate	Diesel	1892.0458	0.0245	0.2974	0.07%	7,812.91	1.48E+01	1.48E+01	1.91E-04	2.32E-03
SBCAG	2020	T7 SWCV	Aggregate	Aggregate	Diesel	4480.0909	0.0007	0.7042	0.02%	2,174.59	9.74E+00	9.74E+00	1.58E-06	1.53E-03
SBCAG	2020	T7 SWCV	Aggregate	Aggregate	Natural Gas	3192.6986	3.1268	0.6509	0.05%	5,180.56	1.65E+01	1.65E+01	1.62E-02	3.37E-03
SBCAG	2020	T7 tractor	Aggregate	Aggregate	Diesel	1422.8487	0.0073	0.2237	0.37%	40,032.89	5.70E+01	5.70E+01	2.92E-04	8.95E-03
SBCAG	2020	T7 tractor construction	Aggregate	Aggregate	Diesel	1897.6393	0.0255	0.2983	0.06%	6,444.96	1.22E+01	1.22E+01	1.65E-04	1.92E-03
SBCAG	2020	T7 utility	Aggregate	Aggregate	Diesel	1726.2152	0.0036	0.2713	0.00%	285.33	4.93E-01	4.93E-01	1.04E-06	7.74E-05
SBCAG	2020	T7IS	Aggregate	Aggregate	Gasoline	2278.8862	0.4062	0.2983	0.00%	197.32	4.50E-01	4.50E-01	8.01E-05	5.89E-05
SBCAG	2020	UBUS	Aggregate	Aggregate	Gasoline	1689.8557	0.0053	0.0166	0.03%	2,945.61	4.98E+00	4.98E+00	1.56E-05	4.89E-05
SBCAG	2020	UBUS	Aggregate	Aggregate	Diesel	1595.9517	0.1247	0.2509	0.10%	11,415.73	1.82E+01	1.82E+01	1.42E-03	2.86E-03
SBCAG	2020	UBUS	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.00%	1.42	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	UBUS	Aggregate	Aggregate	Natural Gas	1775.8261	5.2744	0.3620	0.03%	2,929.60	5.20E+00	5.20E+00	1.55E-02	1.06E-03

SCENARIO	SBCAG 2020 - STREX and IDLEX

Source	EMFAC2017 (v1.0.3) Emission Rates
Region Type	MPO
Region	SBCAG
Calendar Year	2020
Season	Annual
Vehicle Classification	EMFAC2011 Categories
Emissions Rate and Vehicle Activity Units	Units: trips/day for Trips, g/trip for STREX, g/vehicle/day for IDLEX

Daily Trips	1,438,447
Daily Vehicles	313,436

SAFE Rule Adjustment Factors	
CO_2	1

Source: https://ww3.arb.ca.gov/msei/emfac_off_model_co2_adjustment_factors_06262020-final.pdf

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO_2 IDLEX	CO_2 STREX	CH_4 IDLEX	CH_4 STREX	N_2O IDLEX	N_2O STREX	Fleet Mix (by Vehicle Trips)	Vehicle Trips per Day	Fleet Mix (by Vehicle Population)	Vehicles per Day	CO_2 STREX Emissions (tons/day)	CO_2 STREX Emissions Adjusted for SAFE Rule (tons/day)	CO_2 IDLEX Emissions (tons/day)	CO_2 IDLEX Emissions Adjusted for SAFE Rule (tons/day)	CH_4 STREX Emissions (tons/day)	CH_4 IDLEX Emissions (tons/day)	N_2O STREX Emissions (tons/day)	N_2O IDLEX Emissions (tons/day)
SBCAG	2020	All Other Buses	Aggregate	Aggregate	Diesel	663.6781	0.0000	0.0057	0.0000	0.1043	0.0000	0.07%	994.93	0.04%	129.22	0.00E+00	0.00E+00	8.58E-02	8.58E-02	0.00E+00	7.34E-07	0.00E+00	1.35E-05
SBCAG	2020	LDA	Aggregate	Aggregate	Gasoline	0.0000	59.8153	0.0000	0.0742	0.0000	0.0307	43.32%	623,123.83	46.74%	146,500.48	3.73E+01	3.73E+01	0.00E+00	0.00E+00	4.62E-02	0.00E+00	1.91E-02	0.00E+00
SBCAG	2020	LDA	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.60%	8,591.57	0.64%	2,012.68	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	LDA	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.60%	8,571.95	0.60%	1,870.46	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	LDT1	Aggregate	Aggregate	Gasoline	0.0000	69.0118	0.0000	0.0819	0.0000	0.0323	4.56%	65,574.19	4.96%	15,544.69	4.53E+00	4.53E+00	0.00E+00	0.00E+00	5.37E-03	0.00E+00	2.12E-03	0.00E+00
SBCAG	2020	LDT1	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00%	70.07	0.01%	23.43	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	LDT1	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.02%	239.67	0.02%	55.64	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	LDT2	Aggregate	Aggregate	Gasoline	0.0000	80.2724	0.0000	0.1124	0.0000	0.0438	18.81%	270,546.82	20.78%	65,134.08	2.17E+01	2.17E+01	0.00E+00	0.00E+00	3.04E-02	0.00E+00	1.19E-02	0.00E+00
SBCAG	2020	LDT2	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.12%	1,700.59	0.12%	379.67	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	LDT2	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.08%	1,158.58	0.08%	249.52	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	LHD1	Aggregate	Aggregate	Gasoline	123.8380	19.6286	0.1225	0.0335	0.0030	0.0424	5.49%	78,942.89	1.84%	5,780.83	1.55E+00	1.55E+00	7.16E-01	7.16E-01	2.65E-03	7.08E-04	3.34E-03	1.72E-05
SBCAG	2020	LHD1	Aggregate	Aggregate	Diesel	139.7383	0.0000	0.0051	0.0000	0.0220	0.0000	3.66%	52,691.41	1.46%	4,570.07	0.00E+00	0.00E+00	6.39E-01	6.39E-01	0.00E+00	2.33E-05	0.00E+00	1.00E-04
SBCAG	2020	LHD2	Aggregate	Aggregate	Gasoline	142.8529	22.1154	0.1263	0.0315	0.0030	0.0436	0.86%	12,299.94	0.29%	900.70	2.72E-01	2.72E-01	1.29E-01	1.29E-01	3.87E-04	1.14E-04	5.36E-04	2.74E-06
SBCAG	2020	LHD2	Aggregate	Aggregate	Diesel	223.0299	0.0000	0.0051	0.0000	0.0351	0.0000	1.20%	17,296.52	0.48%	1,500.17	0.00E+00	0.00E+00	3.35E-01	3.35E-01	0.00E+00	7.65E-06	0.00E+00	5.26E-05
SBCAG	2020	MCY	Aggregate	Aggregate	Gasoline	0.0000	63.7897	0.0000	0.2725	0.0000	0.0154	1.28%	18,401.29	3.20%	10,037.79	1.17E+00	1.17E+00	0.00E+00	0.00E+00	5.02E-03	0.00E+00	2.84E-04	0.00E+00
SBCAG	2020	MDV	Aggregate	Aggregate	Gasoline	0.0000	96.5919	0.0000	0.1212	0.0000	0.0455	14.19%	204,149.64	15.71%	49,228.27	1.97E+01	1.97E+01	0.00E+00	0.00E+00	2.47E-02	0.00E+00	9.29E-03	0.00E+00
SBCAG	2020	MDV	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.31%	4,419.29	0.32%	994.64	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	MDV	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.02%	352.60	0.02%	76.28	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	MH	Aggregate	Aggregate	Gasoline	0.0000	27.5511	0.0000	0.0351	0.0000	0.0311	0.01%	111.92	0.39%	1,220.56	3.08E-03	3.08E-03	0.00E+00	0.00E+00	3.91E-06	0.00E+00	3.48E-06	0.00E+00
SBCAG	2020	MH	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00%	33.27	0.12%	363.03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	Motor Coach	Aggregate	Aggregate	Diesel	11180.0891	0.0000	0.2860	0.0000	1.7574	0.0000	0.03%	385.03	0.01%	28.77	0.00E+00	0.00E+00	3.22E-01	3.22E-01	0.00E+00	8.23E-06	0.00E+00	5.06E-05
SBCAG	2020	OBUS	Aggregate	Aggregate	Gasoline	387.4763	28.4515	0.1944	0.0351	0.0052	0.0253	0.21%	3,057.47	0.05%	166.72	8.70E-02	8.70E-02	6.46E-02	6.46E-02	1.07E-04	3.24E-05	7.73E-05	8.68E-07
SBCAG	2020	PTO	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00%	-	0.00%	-	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	SBUS	Aggregate	Aggregate	Gasoline	2718.1059	49.8747	2.5446	0.0616	0.0870	0.0574	0.07%	1,013.34	0.09%	276.38	5.05E-02	5.05E-02	7.51E-01	7.51E-01	6.24E-05	7.03E-04	5.81E-05	2.41E-05
SBCAG	2020	SBUS	Aggregate	Aggregate	Diesel	3874.0362	0.0000	0.0113	0.0000	0.6089	0.0000	0.63%	9,051.29	0.27%	855.72	0.00E+00	0.00E+00	3.32E+00	3.32E+00	0.00E+00	9.66E-06	0.00E+00	5.21E-04
SBCAG	2020	T6 Ag	Aggregate	Aggregate	Diesel	664.5406	0.0000	0.0199	0.0000	0.1045	0.0000	0.01%	94.93	0.01%	23.54	0.00E+00	0.00E+00	1.56E-02	1.56E-02	0.00E+00	4.68E-07	0.00E+00	2.46E-06
SBCAG	2020	T6 CAIRP heavy	Aggregate	Aggregate	Diesel	634.3448	0.0000	0.0031	0.0000	0.0997	0.0000	0.01%	158.66	0.00%	11.86	0.00E+00	0.00E+00	7.52E-03	7.52E-03	0.00E+00	3.64E-08	0.00E+00	1.18E-06
SBCAG	2020	T6 CAIRP small	Aggregate	Aggregate	Diesel	646.7943	0.0000	0.0038	0.0000	0.1017	0.0000	0.00%	69.38	0.00%	5.18	0.00E+00	0.00E+00	3.35E-03	3.35E-03	0.00E+00	1.95E-08	0.00E+00	5.27E-07
SBCAG	2020	T6 instate construction heavy	Aggregate	Aggregate	Diesel	667.7913	0.0000	0.0037	0.0000	0.1050	0.0000	0.02%	268.15	0.02%	64.71	0.00E+00	0.00E+00	4.32E-02	4.32E-02	0.00E+00	2.39E-07	0.00E+00	6.79E-06
SBCAG	2020	T6 instate construction small	Aggregate	Aggregate	Diesel	672.6338	0.0000	0.0054	0.0000	0.1057	0.0000	0.10%	1,406.29	0.11%	339.36	0.00E+00	0.00E+00	2.28E-01	2.28E-01	0.00E+00	1.85E-06	0.00E+00	3.59E-05
SBCAG	2020	T6 instate heavy	Aggregate	Aggregate	Diesel	675.9649	0.0000	0.0046	0.0000	0.1063	0.0000	0.53%	7,598.73	0.23%	718.39	0.00E+00	0.00E+00	4.86E-01	4.86E-01	0.00E+00	3.28E-06	0.00E+00	7.63E-05
SBCAG	2020	T6 instate small	Aggregate	Aggregate	Diesel	674.7642	0.0000	0.0056	0.0000	0.1061	0.0000	1.24%	17,844.50	0.54%	1,687.03	0.00E+00	0.00E+00	1.14E+00	1.14E+00	0.00E+00	9.40E-06	0.00E+00	1.79E-04
SBCAG	2020	T6 OOS heavy	Aggregate	Aggregate	Diesel	635.1209	0.0000	0.0031	0.0000	0.0998	0.0000	0.01%	87.74	0.00%	6.56	0.00E+00	0.00E+00	4.16E-03	4.16E-03	0.00E+00	2.01E-08	0.00E+00	6.55E-07
SBCAG	2020	T6 OOS small	Aggregate	Aggregate	Diesel	645.1815	0.0000	0.0038	0.0000	0.1014	0.0000	0.00%	42.36	0.00%	3.17	0.00E+00	0.00E+00	2.04E-03	2.04E-03	0.00E+00	1.19E-08	0.00E+00	3.21E-07
SBCAG	2020	T6 Public	Aggregate	Aggregate	Diesel	3505.8479	0.0000	0.0189	0.0000	0.5511	0.0000	0.05%	698.83	0.08%	251.34	0.00E+00	0.00E+00	8.81E-01	8.81E-01	0.00E+00	4.76E-06	0.00E+00	1.39E-04
SBCAG	2020	T6 utility	Aggregate	Aggregate	Diesel	1783.0182	0.0000	0.0065	0.0000	0.2803	0.0000	0.04%	566.79	0.02%	53.77	0.00E+00	0.00E+00	9.59E-02	9.59E-02	0.00E+00	3.52E-07	0.00E+00	1.51E-05
SBCAG	2020	T6TS	Aggregate	Aggregate	Gasoline	551.4305	42.8159	0.2508	0.0486	0.0064	0.0281	0.77%	11,124.41	0.19%	606.59	4.76E-01	4.76E-01	3.34E-01	3.34E-01	5.41E-04	1.52E-04	3.12E-04	3.86E-06
SBCAG	2020	T7 Ag	Aggregate	Aggregate	Diesel	1834.4294	0.0000	0.0922	0.0000	0.2883	0.0000	0.00%	20.18	0.00%	5.00	0.00E+00	0.00E+00	9.18E-03	9.18E-03	0.00E+00	4.61E-07	0.00E+00	1.44E-06
SBCAG	2020	T7 CAIRP	Aggregate	Aggregate	Diesel	26028.2542	0.0000	0.4968	0.0000	4.0913	0.0000	0.15%	2,126.63	0.05%	158.91	0.00E+00	0.00E+00	4.14E+00	4.14E+00	0.00E+00	7.89E-05	0.00E+00	6.50E-04
SBCAG	2020	T7 CAIRP construction	Aggregate	Aggregate	Diesel	4011.5833	0.0000	0.0738	0.0000	0.6306	0.0000	0.00%	71.20	0.01%	17.18	0.00E+00	0.00E+00	6.89E-02	6.89E-02	0.00E+00	1.27E-06	0.00E+00	1.08E-05
SBCAG	2020	T7 NNOOS	Aggregate	Aggregate	Diesel	30324.0091	0.0000	0.6320	0.0000	4.7665	0.0000	0.16%	2,326.35	0.06%	173.84	0.00E+00	0.00E+00	5.27E+00	5.27E+00	0.00E+00	1.10E-04	0.00E+00	8.29E-04
SBCAG	2020	T7 NOOS	Aggregate	Aggregate	Diesel	32471.9707	0.0000	0.6157	0.0000	5.1041	0.0000	0.06%	835.70	0.02%	62.45	0.00E+00	0.00E+00	2.03E+00	2.03E+00	0.00E+00	3.84E-05	0.00E+00	3.19E-04
SBCAG	2020	T7 other port	Aggregate	Aggregate	Diesel	4730.3439	0.0000	0.0763	0.0000	0.7435	0.0000	0.02%	309.49	0.01%	44.43	0.00E+00	0.00E+00	2.10E-01	2.10E-01	0.00E+00	3.39E-06	0.00E+00	3.30E-05
SBCAG	2020	T7 Public	Aggregate	Aggregate	Diesel	3352.1703	0.0000	0.0520	0.0000	0.5269	0.0000	0.05%	750.40	0.09%	269.89	0.00E+00	0.00E+00	9.05E-01	9.05E-01	0.00E+00	1.40E-05	0.00E+00	1.42E-04
SBCAG	2020	T7 Single	Aggregate	Aggregate	Diesel	4881.3062	0.0000	0.0876	0.0000	0.7673	0.0000	0.32%	4,593.70	0.14%	434.29	0.00E+00	0.00E+00	2.12E+00	2.12E+00	0.00E+00	3.80E-05	0.00E+00	3.33E-04
SBCAG	2020	T7 single construction	Aggregate	Aggregate	Diesel	3866.1012	0.0000	0.0730	0.0000	0.6077	0.0000	0.03%	460.63	0.04%	111.16	0.00E+00	0.00E+00	4.30E-01	4.30E-01	0.00E+00	8.11E-06	0.00E+00	6.76E-05
SBCAG	2020	T7 SWCV	Aggregate	Aggregate	Diesel	4513.2326	0.0000	0.0503	0.0000	0.7094	0.0000	0.01%	190.91	0.02%	53.41	0.00E+00	0.00E+00	2.41E-01	2.41E-01	0.00E+00	2.68E-06	0.00E+00	3.79E-05
SBCAG	2020	T7 SWCV	Aggregate	Aggregate	Natural Gas	4070.1873	0.0000	1.1543	0.0000	8.2297	0.0000	0.03%	456.88	0.04%	127.81	0.00E+00	0.00E+00	5.20E-01	5.20E-01	0.00E+00	1.48E-04	0.00E+00	1.06E-04
SBCAG	2020	T7 tractor	Aggregate	Aggregate	Diesel	4295.1586	0.0000	0.0796	0.0000	0.6751	0.0000	0.25%	3,565.85	0.10%	306.32	0.00E+00	0.00E+00	1.32E+00	1.32E+00	0.00E+00	2.44E-05	0.00E+00	2.07E-04
SBCAG	2020	T7 tractor construction	Aggregate	Aggregate	Diesel	4078.0943	0.0000	0.0736	0.0000	0.6410	0.0000	0.03%	381.35	0.03%	92.03	0.00E+00	0.00E+00	3.75E-01	3.75E-01	0.00E+00	6.77E-06	0.00E+00	5.90E-05
SBCAG	2020	T7 utility	Aggregate	Aggregate	Diesel	1790.3860	0.0000	0.0274	0.0000	0.2814	0.0000	0.01%	148.71	0.00%	14.11	0.00E+00	0.00E+00	2.53E-02	2.53E-02	0.00E+00	3.87E-07	0.00E+00	3.97E-06
SBCAG	2020	T7IS	Aggregate	Aggregate	Gasoline	0.0000	67.7792	0.0000	0.0001	0.0000	0.0384	0.00%	68.49	0.00%	3.73	4.64E-03	4.64E-03	0.00E+00	0.00E+00	7.05E-09	0.00E+00	2.63E-06	0.00E+00
SBCAG	2020	UBUS	Aggregate	Aggregate	Gasoline	0.0000	66.0867	0.0000	0.0703	0.0000	0.0608	0.01%	122.75	0.01%	33.48	8.11E-03	8.11E-03	0.00E+00	0.00E+00	8.63E-06	0.00E+00	7.47E-06	0.00E+00
SBCAG	2020	UBUS	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.03%	446.59	0.04%	121.81	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	UBUS	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00%	0.21	0.00%	0.06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2020	UBUS	Aggregate	Aggregate	Natural Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.01%	150.02	0.01%	40.92	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: MPO
Region: SBCAG
Calendar Year: 2020
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Fleet Mix (Population)	VMT	Fleet Mix (VMT)	Trips	Fleet Mix (Trips)
SBCAG	2020	All Other Buses	Aggregate	Aggregate	Diesel	132.03	0.04%	7,470.19	0.07%	1,109.07	0.07%
SBCAG	2020	LDA	Aggregate	Aggregate	Gasoline	149,687.77	46.74%	5,441,541.31	48.43%	694,610.60	43.32%
SBCAG	2020	LDA	Aggregate	Aggregate	Diesel	2,056.47	0.64%	76,410.49	0.68%	9,577.22	0.60%
SBCAG	2020	LDA	Aggregate	Aggregate	Electricity	1,911.15	0.60%	75,442.64	0.67%	9,555.36	0.60%
SBCAG	2020	LDT1	Aggregate	Aggregate	Gasoline	15,882.88	4.96%	565,477.09	5.03%	73,097.08	4.56%
SBCAG	2020	LDT1	Aggregate	Aggregate	Diesel	23.94	0.01%	394.97	0.00%	78.10	0.00%
SBCAG	2020	LDT1	Aggregate	Aggregate	Electricity	56.85	0.02%	1,900.23	0.02%	267.17	0.02%
SBCAG	2020	LDT2	Aggregate	Aggregate	Gasoline	66,551.15	20.78%	2,262,941.60	20.14%	301,584.83	18.81%
SBCAG	2020	LDT2	Aggregate	Aggregate	Diesel	387.93	0.12%	16,089.58	0.14%	1,895.69	0.12%
SBCAG	2020	LDT2	Aggregate	Aggregate	Electricity	254.95	0.08%	8,715.81	0.08%	1,291.49	0.08%
SBCAG	2020	LHD1	Aggregate	Aggregate	Gasoline	5,906.60	1.84%	191,204.20	1.70%	87,999.47	5.49%
SBCAG	2020	LHD1	Aggregate	Aggregate	Diesel	4,669.49	1.46%	168,221.12	1.50%	58,736.34	3.66%
SBCAG	2020	LHD2	Aggregate	Aggregate	Gasoline	920.30	0.29%	30,424.07	0.27%	13,711.03	0.86%
SBCAG	2020	LHD2	Aggregate	Aggregate	Diesel	1,532.81	0.48%	56,708.83	0.50%	19,280.83	1.20%
SBCAG	2020	MCY	Aggregate	Aggregate	Gasoline	10,256.17	3.20%	90,139.87	0.80%	20,512.34	1.28%
SBCAG	2020	MDV	Aggregate	Aggregate	Gasoline	50,299.29	15.71%	1,707,293.42	15.20%	227,570.34	14.19%
SBCAG	2020	MDV	Aggregate	Aggregate	Diesel	1,016.28	0.32%	41,721.90	0.37%	4,926.28	0.31%
SBCAG	2020	MDV	Aggregate	Aggregate	Electricity	77.94	0.02%	2,658.10	0.02%	393.05	0.02%
SBCAG	2020	MH	Aggregate	Aggregate	Gasoline	1,247.12	0.39%	10,225.43	0.09%	124.76	0.01%
SBCAG	2020	MH	Aggregate	Aggregate	Diesel	370.92	0.12%	3,507.71	0.03%	37.09	0.00%
SBCAG	2020	Motor Coach	Aggregate	Aggregate	Diesel	29.40	0.01%	3,754.76	0.03%	429.20	0.03%
SBCAG	2020	OBUS	Aggregate	Aggregate	Gasoline	170.34	0.05%	10,269.94	0.09%	3,408.23	0.21%
SBCAG	2020	PTO	Aggregate	Aggregate	Diesel	-	0.00%	6,025.83	0.05%	-	0.00%
SBCAG	2020	SBUS	Aggregate	Aggregate	Gasoline	282.40	0.09%	17,807.96	0.16%	1,129.59	0.07%
SBCAG	2020	SBUS	Aggregate	Aggregate	Diesel	874.33	0.27%	27,606.46	0.25%	10,089.68	0.63%
SBCAG	2020	T6 Ag	Aggregate	Aggregate	Diesel	24.05	0.01%	288.46	0.00%	105.82	0.01%
SBCAG	2020	T6 CAIRP heavy	Aggregate	Aggregate	Diesel	12.11	0.00%	2,451.09	0.02%	176.86	0.01%
SBCAG	2020	T6 CAIRP small	Aggregate	Aggregate	Diesel	5.30	0.00%	275.12	0.00%	77.34	0.00%
SBCAG	2020	T6 instate construction heavy	Aggregate	Aggregate	Diesel	66.12	0.02%	4,495.17	0.04%	298.91	0.02%
SBCAG	2020	T6 instate construction small	Aggregate	Aggregate	Diesel	346.75	0.11%	17,701.35	0.16%	1,567.63	0.10%
SBCAG	2020	T6 instate heavy	Aggregate	Aggregate	Diesel	734.02	0.23%	82,136.09	0.73%	8,470.48	0.53%
SBCAG	2020	T6 instate small	Aggregate	Aggregate	Diesel	1,723.74	0.54%	82,297.43	0.73%	19,891.68	1.24%
SBCAG	2020	T6 OOS heavy	Aggregate	Aggregate	Diesel	6.70	0.00%	1,348.54	0.01%	97.80	0.01%
SBCAG	2020	T6 OOS small	Aggregate	Aggregate	Diesel	3.23	0.00%	167.83	0.00%	47.22	0.00%
SBCAG	2020	T6 Public	Aggregate	Aggregate	Diesel	256.81	0.08%	3,876.56	0.03%	779.00	0.05%
SBCAG	2020	T6 utility	Aggregate	Aggregate	Diesel	54.94	0.02%	916.92	0.01%	631.81	0.04%
SBCAG	2020	T6TS	Aggregate	Aggregate	Gasoline	619.78	0.19%	35,064.85	0.31%	12,400.63	0.77%
SBCAG	2020	T7 Ag	Aggregate	Aggregate	Diesel	5.11	0.00%	100.63	0.00%	22.50	0.00%
SBCAG	2020	T7 CAIRP	Aggregate	Aggregate	Diesel	162.37	0.05%	29,396.96	0.26%	2,370.60	0.15%
SBCAG	2020	T7 CAIRP construction	Aggregate	Aggregate	Diesel	17.56	0.01%	3,228.92	0.03%	79.37	0.00%
SBCAG	2020	T7 NNOOS	Aggregate	Aggregate	Diesel	177.62	0.06%	35,851.29	0.32%	2,593.24	0.16%
SBCAG	2020	T7 NOOS	Aggregate	Aggregate	Diesel	63.81	0.02%	11,546.80	0.10%	931.57	0.06%
SBCAG	2020	T7 other port	Aggregate	Aggregate	Diesel	45.39	0.01%	7,299.93	0.06%	345.00	0.02%
SBCAG	2020	T7 Public	Aggregate	Aggregate	Diesel	275.77	0.09%	5,590.08	0.05%	836.49	0.05%
SBCAG	2020	T7 Single	Aggregate	Aggregate	Diesel	443.74	0.14%	30,347.28	0.27%	5,120.71	0.32%
SBCAG	2020	T7 single construction	Aggregate	Aggregate	Diesel	113.58	0.04%	8,010.35	0.07%	513.47	0.03%
SBCAG	2020	T7 SWCV	Aggregate	Aggregate	Diesel	54.57	0.02%	2,229.55	0.02%	212.81	0.01%
SBCAG	2020	T7 SWCV	Aggregate	Aggregate	Natural Gas	130.59	0.04%	5,311.48	0.05%	509.29	0.03%
SBCAG	2020	T7 tractor	Aggregate	Aggregate	Diesel	312.99	0.10%	41,044.58	0.37%	3,974.94	0.25%
SBCAG	2020	T7 tractor construction	Aggregate	Aggregate	Diesel	94.03	0.03%	6,607.84	0.06%	425.10	0.03%
SBCAG	2020	T7 utility	Aggregate	Aggregate	Diesel	14.41	0.00%	292.54	0.00%	165.77	0.01%
SBCAG	2020	T7IS	Aggregate	Aggregate	Gasoline	3.82	0.00%	202.30	0.00%	76.35	0.00%
SBCAG	2020	UBUS	Aggregate	Aggregate	Gasoline	34.21	0.01%	3,020.05	0.03%	136.83	0.01%
SBCAG	2020	UBUS	Aggregate	Aggregate	Diesel	124.46	0.04%	11,704.22	0.10%	497.83	0.03%
SBCAG	2020	UBUS	Aggregate	Aggregate	Electricity	0.06	0.00%	1.46	0.00%	0.24	0.00%
SBCAG	2020	UBUS	Aggregate	Aggregate	Natural Gas	41.81	0.01%	3,003.64	0.03%	167.23	0.01%

SCENARIO	SBCAG Future No Connected 2050 - RUNEX

Source	EMFAC2017 (v1.0.3) Emission Rates
Region Type	MPO
Region	SBCAG
Calendar Year	2050
Season	Annual
Vehicle Classification	EMFAC2011 Categories
Emissions Rate and Vehicle Activity Units	Units: miles/day for VMT, g/mile for RUNEX

Daily VMT	13,676,560

SAFE Rule Adjustment Factors	
CO_2	1.1272

Source: https://ww3.arb.ca.gov/msei/emfac_off_model_co2_adjustment_factors_06262020-final.pdf

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO_2 RUNEX	CH_4 RUNEX	N_2O RUNEX	Fleet Mix	VMT per Day	CO_2 RUNEX Emissions (tons/day)	CO_2 RUNEX Emissions Adjusted for SAFE Rule (tons/day)	CH_4 RUNEX Emissions (tons/day)	N_2O RUNEX Emissions (tons/day)
SBCAG	2050	All Other Buses	Aggregate	Aggregate	Diesel	863.5214	0.0005	0.1357	0.10%	13,387.55	1.16E+01	1.16E+01	6.49E-06	1.82E-03
SBCAG	2050	LDA	Aggregate	Aggregate	Gasoline	182.3886	0.0005	0.0029	50.44%	6,898,757.34	1.26E+03	1.42E+03	3.50E-03	2.01E-02
SBCAG	2050	LDA	Aggregate	Aggregate	Diesel	144.0786	0.0001	0.0226	0.63%	86,210.06	1.24E+01	1.24E+01	1.27E-05	1.95E-03
SBCAG	2050	LDA	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	3.54%	483,676.29	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LDT1	Aggregate	Aggregate	Gasoline	211.2139	0.0005	0.0031	5.73%	783,430.21	1.65E+02	1.87E+02	4.22E-04	2.40E-03
SBCAG	2050	LDT1	Aggregate	Aggregate	Diesel	272.6062	0.0005	0.0428	0.00%	109.15	2.98E-02	2.98E-02	5.43E-08	4.68E-06
SBCAG	2050	LDT1	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.24%	33,239.78	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LDT2	Aggregate	Aggregate	Gasoline	209.4473	0.0007	0.0029	18.89%	2,582,894.01	5.41E+02	6.10E+02	1.78E-03	7.46E-03
SBCAG	2050	LDT2	Aggregate	Aggregate	Diesel	191.1683	0.0005	0.0300	0.20%	26,908.82	5.14E+00	5.14E+00	1.29E-05	8.09E-04
SBCAG	2050	LDT2	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.65%	88,439.22	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LHD1	Aggregate	Aggregate	Gasoline	808.0617	0.0019	0.0098	1.06%	144,772.49	1.17E+02	1.17E+02	2.68E-04	1.41E-03
SBCAG	2050	LHD1	Aggregate	Aggregate	Diesel	433.6702	0.0058	0.0682	0.94%	128,456.60	5.57E+01	5.57E+01	7.49E-04	8.76E-03
SBCAG	2050	LHD2	Aggregate	Aggregate	Gasoline	924.4646	0.0019	0.0107	0.14%	19,297.49	1.78E+01	1.78E+01	3.59E-05	2.07E-04
SBCAG	2050	LHD2	Aggregate	Aggregate	Diesel	490.7850	0.0059	0.0771	0.37%	51,191.06	2.51E+01	2.51E+01	3.02E-04	3.95E-03
SBCAG	2050	MCY	Aggregate	Aggregate	Gasoline	204.6439	0.2899	0.0661	0.57%	77,361.75	1.58E+01	1.58E+01	2.24E-02	5.11E-03
SBCAG	2050	MDV	Aggregate	Aggregate	Gasoline	254.3012	0.0007	0.0030	11.68%	1,597,430.78	4.06E+02	4.58E+02	1.12E-03	4.73E-03
SBCAG	2050	MDV	Aggregate	Aggregate	Diesel	248.3318	0.0002	0.0390	0.43%	58,359.98	1.45E+01	1.45E+01	9.70E-06	2.28E-03
SBCAG	2050	MDV	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.46%	63,185.27	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	MH	Aggregate	Aggregate	Gasoline	1388.6407	0.0026	0.0181	0.04%	6,002.71	8.34E+00	8.34E+00	1.56E-05	1.09E-04
SBCAG	2050	MH	Aggregate	Aggregate	Diesel	824.0268	0.0035	0.1295	0.02%	2,724.83	2.25E+00	2.25E+00	9.42E-06	3.53E-04
SBCAG	2050	Motor Coach	Aggregate	Aggregate	Diesel	1167.3385	0.0008	0.1835	0.04%	5,683.30	6.63E+00	6.63E+00	4.79E-06	1.04E-03
SBCAG	2050	OBUS	Aggregate	Aggregate	Gasoline	1392.9677	0.0021	0.0244	0.04%	6,131.89	8.54E+00	8.54E+00	1.30E-05	1.50E-04
SBCAG	2050	PTO	Aggregate	Aggregate	Diesel	1476.0691	0.0012	0.2320	0.08%	10,690.64	1.58E+01	1.58E+01	1.29E-05	2.48E-03
SBCAG	2050	SBUS	Aggregate	Aggregate	Gasoline	687.5625	0.0024	0.0145	0.04%	4,936.63	3.39E+00	3.39E+00	1.16E-05	7.16E-05
SBCAG	2050	SBUS	Aggregate	Aggregate	Diesel	799.3204	0.0004	0.1256	0.14%	19,705.41	1.58E+01	1.58E+01	8.21E-06	2.48E-03
SBCAG	2050	T6 Ag	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.00%	-	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	T6 CAIRP heavy	Aggregate	Aggregate	Diesel	681.4560	0.0004	0.1071	0.03%	4,104.89	2.80E+00	2.80E+00	1.49E-06	4.40E-04
SBCAG	2050	T6 CAIRP small	Aggregate	Aggregate	Diesel	755.2077	0.0004	0.1187	0.00%	359.52	2.72E-01	2.72E-01	1.33E-07	4.27E-05
SBCAG	2050	T6 instate construction heavy	Aggregate	Aggregate	Diesel	967.6336	0.0008	0.1521	0.05%	7,048.24	6.82E+00	6.82E+00	5.40E-06	1.07E-03
SBCAG	2050	T6 instate construction small	Aggregate	Aggregate	Diesel	932.1510	0.0007	0.1465	0.20%	27,755.00	2.59E+01	2.59E+01	1.90E-05	4.07E-03
SBCAG	2050	T6 instate heavy	Aggregate	Aggregate	Diesel	749.7208	0.0005	0.1178	0.64%	87,569.96	6.57E+01	6.57E+01	3.96E-05	1.03E-02
SBCAG	2050	T6 instate small	Aggregate	Aggregate	Diesel	796.1744	0.0004	0.1251	0.83%	113,701.66	9.05E+01	9.05E+01	4.77E-05	1.42E-02
SBCAG	2050	T6 OOS heavy	Aggregate	Aggregate	Diesel	681.4262	0.0004	0.1071	0.02%	2,163.41	1.47E+00	1.47E+00	7.83E-07	2.32E-04
SBCAG	2050	T6 OOS small	Aggregate	Aggregate	Diesel	756.2100	0.0004	0.1189	0.00%	236.70	1.79E-01	1.79E-01	8.78E-08	2.81E-05
SBCAG	2050	T6 Public	Aggregate	Aggregate	Diesel	855.1372	0.0005	0.1344	0.02%	2,739.16	2.34E+00	2.34E+00	1.36E-06	3.68E-04
SBCAG	2050	T6 utility	Aggregate	Aggregate	Diesel	786.5156	0.0003	0.1236	0.01%	1,182.04	9.30E-01	9.30E-01	3.99E-07	1.46E-04
SBCAG	2050	T6TS	Aggregate	Aggregate	Gasoline	1381.3933	0.0021	0.0087	0.22%	29,551.49	4.08E+01	4.08E+01	6.25E-05	2.58E-04
SBCAG	2050	T7 Ag	Aggregate	Aggregate	Diesel	1627.4223	0.0012	0.2558	0.00%	1.38	2.24E-03	2.24E-03	1.61E-09	3.52E-07
SBCAG	2050	T7 CAIRP	Aggregate	Aggregate	Diesel	941.6999	0.0009	0.1480	0.33%	44,596.01	4.20E+01	4.20E+01	4.14E-05	6.60E-03
SBCAG	2050	T7 CAIRP construction	Aggregate	Aggregate	Diesel	1278.1972	0.0016	0.2009	0.04%	5,062.81	6.47E+00	6.47E+00	8.34E-06	1.02E-03
SBCAG	2050	T7 NNOOS	Aggregate	Aggregate	Diesel	948.9012	0.0009	0.1492	0.40%	54,393.44	5.16E+01	5.16E+01	4.75E-05	8.11E-03
SBCAG	2050	T7 NOOS	Aggregate	Aggregate	Diesel	941.9918	0.0009	0.1481	0.13%	17,500.21	1.65E+01	1.65E+01	1.63E-05	2.59E-03
SBCAG	2050	T7 other port	Aggregate	Aggregate	Diesel	1151.0405	0.0013	0.1809	0.10%	13,394.03	1.54E+01	1.54E+01	1.79E-05	2.42E-03
SBCAG	2050	T7 Public	Aggregate	Aggregate	Diesel	1201.7926	0.0011	0.1889	0.04%	5,762.91	6.93E+00	6.93E+00	6.38E-06	1.09E-03
SBCAG	2050	T7 Single	Aggregate	Aggregate	Diesel	1095.0491	0.0008	0.1721	0.39%	53,840.21	5.90E+01	5.90E+01	4.58E-05	9.27E-03
SBCAG	2050	T7 single construction	Aggregate	Aggregate	Diesel	1305.6690	0.0014	0.2052	0.09%	12,559.91	1.64E+01	1.64E+01	1.80E-05	2.58E-03
SBCAG	2050	T7 SWCV	Aggregate	Aggregate	Diesel	4277.1495	0.0025	0.6723	0.00%	54.06	2.31E-01	2.31E-01	1.33E-07	3.63E-05
SBCAG	2050	T7 SWCV	Aggregate	Aggregate	Natural Gas	2383.3339	3.0425	0.4859	0.11%	15,182.92	3.62E+01	3.62E+01	4.62E-02	7.38E-03
SBCAG	2050	T7 tractor	Aggregate	Aggregate	Diesel	900.5766	0.0008	0.1416	0.45%	61,257.99	5.52E+01	5.52E+01	5.16E-05	8.67E-03
SBCAG	2050	T7 tractor construction	Aggregate	Aggregate	Diesel	1289.7771	0.0017	0.2027	0.08%	10,360.82	1.34E+01	1.34E+01	1.76E-05	2.10E-03
SBCAG	2050	T7 utility	Aggregate	Aggregate	Diesel	1141.8556	0.0007	0.1795	0.00%	372.95	4.26E-01	4.26E-01	2.73E-07	6.69E-05
SBCAG	2050	T7IS	Aggregate	Aggregate	Gasoline	1513.0358	0.0683	0.1259	0.00%	274.42	4.15E-01	4.15E-01	1.87E-05	3.46E-05
SBCAG	2050	UBUS	Aggregate	Aggregate	Gasoline	1309.5071	0.0043	0.0319	0.02%	3,183.62	4.17E+00	4.17E+00	1.38E-05	1.02E-04
SBCAG	2050	UBUS	Aggregate	Aggregate	Diesel	1440.6282	0.0717	0.2264	0.07%	9,691.26	1.40E+01	1.40E+01	6.95E-04	2.19E-03
SBCAG	2050	UBUS	Aggregate	Aggregate	Natural Gas	1898.6587	5.8867	0.3871	0.04%	5,814.75	1.10E+01	1.10E+01	3.42E-02	2.25E-03

SCENARIO	SBCAG Future No Connected 2050 - STREX and IDLEX

Source	EMFAC2017 (v1.0.3) Emission Rates
Region Type	MPO
Region	SBCAG
Calendar Year	2050
Season	Annual
Vehicle Classification	EMFAC2011 Categories
Emissions Rate and Vehicle Activity Units	Units: trips/day for Trips, g/trip for STREX, g/vehicle/day for IDLEX

SAFE Rule Adjustment Factors	
CO_2	1.1272

Source: https://ww3.arb.ca.gov/msei/emfac_off_model_co2_adjustment_factors_0626 2020-final.pdf

Daily Trips	1,671,923
Daily Vehicles	435,173

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO_2 IDLEX	CO_2 STREX	CH_4 IDLEX	CH_4 STREX	N_2O IDLEX	N_2O STREX	Fleet Mix (by Vehicle Trips)	Vehicle Trips per Day	Fleet Mix (by Vehicle Population)	Vehicles per Day	CO_2 STREX Emissions (tons/day)	CO_2 STREX Emissions Adjusted for SAFE Rule (tons/day)	CO_2 IDLEX Emissions (tons/day)	CO_2 IDLEX Emissions Adjusted for SAFE Rule (tons/day)	CH_4 STREX Emissions (tons/day)	CH_4 IDLEX Emissions (tons/day)	N_2O STREX Emissions (tons/day)	N_2O IDLEX Emissions (tons/day)
SBCAG	2050	All Other Buses	Aggregate	Aggregate	Diesel	513.8752	0.0000	0.0023	0.0000	0.0808	0.0000	0.09%	1,570.56	0.05%	235.36	0.00E+00	0.00E+00	1.21E-01	1.21E-01	0.00E+00	5.39E-07	0.00E+00	1.90E-05
SBCAG	2050	LDA	Aggregate	Aggregate	Gasoline	0.0000	38.7918	0.0000	0.0187	0.0000	0.0201	47.20%	789,203.92	49.34%	214,711.51	3.06E+01	3.45E+01	0.00E+00	0.00E+00	1.48E-02	0.00E+00	1.59E-02	0.00E+00
SBCAG	2050	LDA	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.59%	9,878.22	0.62%	2,690.43	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LDA	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.14%	52,504.78	3.26%	14,207.12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LDT1	Aggregate	Aggregate	Gasoline	0.0000	45.0847	0.0000	0.0197	0.0000	0.0218	5.62%	93,939.75	6.06%	26,374.74	4.24E+00	4.77E+00	0.00E+00	0.00E+00	1.85E-03	0.00E+00	2.05E-03	0.00E+00
SBCAG	2050	LDT1	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00%	13.04	0.00%	3.65	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LDT1	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.22%	3,747.85	0.24%	1,035.13	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LDT2	Aggregate	Aggregate	Gasoline	0.0000	45.7445	0.0000	0.0250	0.0000	0.0209	18.29%	305,812.11	19.52%	84,947.79	1.40E+01	1.58E+01	0.00E+00	0.00E+00	7.65E-03	0.00E+00	6.40E-03	0.00E+00
SBCAG	2050	LDT2	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.19%	3,182.80	0.20%	882.54	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LDT2	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.85%	14,241.88	0.90%	3,907.91	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LHD1	Aggregate	Aggregate	Gasoline	97.6163	15.4235	0.0829	0.0089	0.0023	0.0287	3.13%	52,259.53	1.01%	4,415.54	8.06E-01	8.06E-01	4.31E-01	4.31E-01	4.67E-04	3.66E-04	1.50E-03	1.02E-05
SBCAG	2050	LHD1	Aggregate	Aggregate	Diesel	104.4480	0.0000	0.0051	0.0000	0.0164	0.0000	2.31%	38,567.59	0.89%	3,859.64	0.00E+00	0.00E+00	4.03E-01	4.03E-01	0.00E+00	1.97E-05	0.00E+00	6.34E-05
SBCAG	2050	LHD2	Aggregate	Aggregate	Gasoline	112.0023	17.5230	0.0825	0.0087	0.0023	0.0280	0.41%	6,900.78	0.13%	583.06	1.21E-01	1.21E-01	6.53E-02	6.53E-02	6.01E-05	4.81E-05	1.93E-04	1.33E-06
SBCAG	2050	LHD2	Aggregate	Aggregate	Diesel	171.5431	0.0000	0.0051	0.0000	0.0270	0.0000	0.97%	16,226.70	0.37%	1,623.88	0.00E+00	0.00E+00	2.79E-01	2.79E-01	0.00E+00	8.28E-06	0.00E+00	4.38E-05
SBCAG	2050	MCY	Aggregate	Aggregate	Gasoline	0.0000	57.9882	0.0000	0.2468	0.0000	0.0154	1.02%	17,118.80	2.48%	10,774.68	9.93E-01	9.93E-01	0.00E+00	0.00E+00	4.23E-03	0.00E+00	2.64E-04	0.00E+00
SBCAG	2050	MDV	Aggregate	Aggregate	Gasoline	0.0000	55.5943	0.0000	0.0254	0.0000	0.0218	11.22%	187,654.24	12.02%	52,287.86	1.04E+01	1.18E+01	0.00E+00	0.00E+00	4.76E-03	0.00E+00	4.08E-03	0.00E+00
SBCAG	2050	MDV	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.41%	6,837.88	0.44%	1,898.70	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	MDV	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.61%	10,125.50	0.64%	2,770.89	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	MH	Aggregate	Aggregate	Gasoline	0.0000	19.1585	0.0000	0.0275	0.0000	0.0313	0.00%	49.07	0.14%	617.51	9.40E-04	9.40E-04	0.00E+00	0.00E+00	1.35E-06	0.00E+00	1.53E-06	0.00E+00
SBCAG	2050	MH	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00%	25.54	0.07%	321.48	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	Motor Coach	Aggregate	Aggregate	Diesel	8323.0706	0.0000	0.1856	0.0000	1.3083	0.0000	0.03%	481.09	0.01%	41.48	0.00E+00	0.00E+00	3.45E-01	3.45E-01	0.00E+00	7.70E-06	0.00E+00	5.43E-05
SBCAG	2050	OBUS	Aggregate	Aggregate	Gasoline	307.1428	19.8618	0.2114	0.0234	0.0071	0.0297	0.11%	1,766.81	0.03%	111.16	3.51E-02	3.51E-02	3.41E-02	3.41E-02	4.13E-05	2.35E-05	5.24E-05	7.88E-07
SBCAG	2050	PTO	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00%	-	0.00%	-	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	SBUS	Aggregate	Aggregate	Gasoline	2092.0442	37.6502	2.5094	0.0543	0.1035	0.0464	0.02%	280.39	0.02%	88.24	1.06E-02	1.06E-02	1.85E-01	1.85E-01	1.52E-05	2.21E-04	1.30E-05	9.13E-06
SBCAG	2050	SBUS	Aggregate	Aggregate	Diesel	2667.1915	0.0000	0.0124	0.0000	0.4192	0.0000	0.31%	5,172.15	0.13%	564.20	0.00E+00	0.00E+00	1.50E+00	1.50E+00	0.00E+00	7.02E-06	0.00E+00	2.37E-04
SBCAG	2050	T6 Ag	Aggregate	Aggregate	Diesel	653.7965	0.0000	0.0023	0.0000	0.1028	0.0000	0.00%	10.43	0.00%	2.98	0.00E+00	0.00E+00	1.95E-03	1.95E-03	0.00E+00	6.83E-09	0.00E+00	3.07E-07
SBCAG	2050	T6 CAIRP heavy	Aggregate	Aggregate	Diesel	484.2048	0.0000	0.0023	0.0000	0.0761	0.0000	0.02%	266.69	0.01%	22.99	0.00E+00	0.00E+00	1.11E-02	1.11E-02	0.00E+00	5.27E-08	0.00E+00	1.75E-06
SBCAG	2050	T6 CAIRP small	Aggregate	Aggregate	Diesel	483.5426	0.0000	0.0023	0.0000	0.0760	0.0000	0.01%	90.68	0.00%	7.82	0.00E+00	0.00E+00	3.78E-03	3.78E-03	0.00E+00	1.79E-08	0.00E+00	5.94E-07
SBCAG	2050	T6 instate construction heavy	Aggregate	Aggregate	Diesel	502.1578	0.0000	0.0023	0.0000	0.0789	0.0000	0.02%	338.01	0.02%	94.11	0.00E+00	0.00E+00	4.73E-02	4.73E-02	0.00E+00	2.16E-07	0.00E+00	7.43E-06
SBCAG	2050	T6 instate construction small	Aggregate	Aggregate	Diesel	484.5031	0.0000	0.0023	0.0000	0.0762	0.0000	0.11%	1,841.13	0.12%	512.64	0.00E+00	0.00E+00	2.48E-01	2.48E-01	0.00E+00	1.17E-06	0.00E+00	3.90E-05
SBCAG	2050	T6 instate heavy	Aggregate	Aggregate	Diesel	504.5651	0.0000	0.0023	0.0000	0.0793	0.0000	0.46%	7,626.51	0.19%	831.93	0.00E+00	0.00E+00	4.20E-01	4.20E-01	0.00E+00	1.91E-06	0.00E+00	6.60E-05
SBCAG	2050	T6 instate small	Aggregate	Aggregate	Diesel	484.1866	0.0000	0.0023	0.0000	0.0761	0.0000	1.28%	21,345.52	0.54%	2,328.45	0.00E+00	0.00E+00	1.13E+00	1.13E+00	0.00E+00	5.34E-06	0.00E+00	1.77E-04
SBCAG	2050	T6 OOS heavy	Aggregate	Aggregate	Diesel	484.1884	0.0000	0.0023	0.0000	0.0761	0.0000	0.01%	139.55	0.00%	12.03	0.00E+00	0.00E+00	5.83E-03	5.83E-03	0.00E+00	2.76E-08	0.00E+00	9.16E-07
SBCAG	2050	T6 OOS small	Aggregate	Aggregate	Diesel	484.6461	0.0000	0.0023	0.0000	0.0762	0.0000	0.00%	60.75	0.00%	5.24	0.00E+00	0.00E+00	2.54E-03	2.54E-03	0.00E+00	1.20E-08	0.00E+00	3.99E-07
SBCAG	2050	T6 Public	Aggregate	Aggregate	Diesel	2575.3388	0.0000	0.0120	0.0000	0.4048	0.0000	0.02%	385.65	0.04%	160.04	0.00E+00	0.00E+00	4.12E-01	4.12E-01	0.00E+00	1.92E-06	0.00E+00	6.48E-05
SBCAG	2050	T6 utility	Aggregate	Aggregate	Diesel	1322.8115	0.0000	0.0063	0.0000	0.2079	0.0000	0.04%	586.50	0.01%	64.20	0.00E+00	0.00E+00	8.49E-02	8.49E-02	0.00E+00	4.04E-07	0.00E+00	1.33E-05
SBCAG	2050	T6TS	Aggregate	Aggregate	Gasoline	424.2313	28.3561	0.2896	0.0305	0.0084	0.0456	0.46%	7,733.31	0.11%	486.54	2.19E-01	2.19E-01	2.06E-01	2.06E-01	2.36E-04	1.41E-04	3.53E-04	4.07E-06
SBCAG	2050	T7 Ag	Aggregate	Aggregate	Diesel	2059.7720	0.0000	0.0339	0.0000	0.3238	0.0000	0.00%	6.50	0.00%	1.86	0.00E+00	0.00E+00	3.83E-03	3.83E-03	0.00E+00	6.31E-08	0.00E+00	6.02E-07
SBCAG	2050	T7 CAIRP	Aggregate	Aggregate	Diesel	19489.1787	0.0000	0.4846	0.0000	3.0634	0.0000	0.14%	2,270.76	0.04%	195.78	0.00E+00	0.00E+00	3.82E+00	3.82E+00	0.00E+00	9.49E-05	0.00E+00	6.00E-04
SBCAG	2050	T7 CAIRP construction	Aggregate	Aggregate	Diesel	2975.8799	0.0000	0.0741	0.0000	0.4678	0.0000	0.01%	95.22	0.01%	26.51	0.00E+00	0.00E+00	7.89E-02	7.89E-02	0.00E+00	1.96E-06	0.00E+00	1.24E-05
SBCAG	2050	T7 NNOOS	Aggregate	Aggregate	Diesel	24516.2504	0.0000	0.6015	0.0000	3.8536	0.0000	0.21%	3,548.79	0.07%	305.98	0.00E+00	0.00E+00	7.50E+00	7.50E+00	0.00E+00	1.84E-04	0.00E+00	1.18E-03
SBCAG	2050	T7 NOOS	Aggregate	Aggregate	Diesel	24198.8249	0.0000	0.6015	0.0000	3.8037	0.0000	0.05%	901.62	0.02%	77.74	0.00E+00	0.00E+00	1.88E+00	1.88E+00	0.00E+00	4.68E-05	0.00E+00	2.96E-04
SBCAG	2050	T7 other port	Aggregate	Aggregate	Diesel	3034.6324	0.0000	0.0763	0.0000	0.4770	0.0000	0.03%	431.84	0.02%	71.53	0.00E+00	0.00E+00	2.17E-01	2.17E-01	0.00E+00	5.46E-06	0.00E+00	3.41E-05
SBCAG	2050	T7 Public	Aggregate	Aggregate	Diesel	2353.5646	0.0000	0.0558	0.0000	0.3699	0.0000	0.04%	620.10	0.06%	257.34	0.00E+00	0.00E+00	6.06E-01	6.06E-01	0.00E+00	1.44E-05	0.00E+00	9.52E-05
SBCAG	2050	T7 Single	Aggregate	Aggregate	Diesel	4139.8853	0.0000	0.1015	0.0000	0.6507	0.0000	0.33%	5,523.48	0.14%	602.52	0.00E+00	0.00E+00	2.49E+00	2.49E+00	0.00E+00	6.12E-05	0.00E+00	3.92E-04
SBCAG	2050	T7 single construction	Aggregate	Aggregate	Diesel	3025.2089	0.0000	0.0741	0.0000	0.4755	0.0000	0.03%	535.33	0.03%	149.06	0.00E+00	0.00E+00	4.51E-01	4.51E-01	0.00E+00	1.10E-05	0.00E+00	7.09E-05
SBCAG	2050	T7 SWCV	Aggregate	Aggregate	Diesel	4648.2177	0.0000	0.0560	0.0000	0.7306	0.0000	0.00%	3.71	0.00%	1.20	0.00E+00	0.00E+00	5.56E-03	5.56E-03	0.00E+00	6.71E-08	0.00E+00	8.75E-07
SBCAG	2050	T7 SWCV	Aggregate	Aggregate	Natural Gas	2994.6383	0.0000	1.1580	0.0000	0.6105	0.0000	0.06%	1,043.79	0.08%	336.91	0.00E+00	0.00E+00	1.01E+00	1.01E+00	0.00E+00	3.90E-04	0.00E+00	2.06E-04
SBCAG	2050	T7 tractor	Aggregate	Aggregate	Diesel	3527.0505	0.0000	0.0873	0.0000	0.5544	0.0000	0.27%	4,515.76	0.10%	447.60	0.00E+00	0.00E+00	1.58E+00	1.58E+00	0.00E+00	3.91E-05	0.00E+00	2.48E-04
SBCAG	2050	T7 tractor construction	Aggregate	Aggregate	Diesel	2990.0827	0.0000	0.0741	0.0000	0.4700	0.0000	0.03%	457.09	0.03%	127.27	0.00E+00	0.00E+00	3.81E-01	3.81E-01	0.00E+00	9.43E-06	0.00E+00	5.98E-05
SBCAG	2050	T7 utility	Aggregate	Aggregate	Diesel	1234.1707	0.0000	0.0295	0.0000	0.1940	0.0000	0.01%	152.09	0.00%	16.65	0.00E+00	0.00E+00	2.05E-02	2.05E-02	0.00E+00	4.91E-07	0.00E+00	3.23E-06
SBCAG	2050	T7IS	Aggregate	Aggregate	Gasoline	0.0000	33.5843	0.0000	0.0000	0.0000	0.1009	0.00%	29.91	0.00%	1.88	1.00E-03	1.00E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.02E-06	0.00E+00
SBCAG	2050	UBUS	Aggregate	Aggregate	Gasoline	0.0000	53.5419	0.0000	0.0749	0.0000	0.0543	0.01%	103.67	0.01%	32.63	5.55E-03	5.55E-03	0.00E+00	0.00E+00	7.76E-06	0.00E+00	5.63E-06	0.00E+00
SBCAG	2050	UBUS	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.02%	315.04	0.02%	99.14	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	UBUS	Aggregate	Aggregate	Natural Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.01%	189.03	0.01%	59.49	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

SCENARIO	SBCAG Connected 2050 - RUNEX

Source	EMFAC2017 (v1.0.3) Emission Rates
Region Type	MPO
Region	SBCAG
Calendar Year	2050
Season	Annual
Vehicle Classification	EMFAC2011 Categories
Emissions Rate and Vehicle Activity Units	Units: miles/day for VMT, g/mile for RUNEX

Daily VMT	11,539,646

SAFE Rule Adjustment Factors	
CO_2	1.1272

Source: https://ww3.arb.ca.gov/msei/emfac_off_model_co2_adjustment_factors_06262020-final.pdf

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO_2 RUNEX	CH_4 RUNEX	N_2O RUNEX	Fleet Mix	VMT per Day	CO_2 RUNEX Emissions (tons/day)	CO_2 RUNEX Emissions Adjusted for SAFE Rule (tons/day)	CH_4 RUNEX Emissions (tons/day)	N_2O RUNEX Emissions (tons/day)
SBCAG	2050	All Other Buses	Aggregate	Aggregate	Diesel	863.5214	0.0005	0.1357	0.10%	11,295.80	9.75E+00	9.75E+00	5.48E-06	1.53E-03
SBCAG	2050	LDA	Aggregate	Aggregate	Gasoline	182.3886	0.0005	0.0029	50.44%	5,820,851.02	1.06E+03	1.20E+03	2.95E-03	1.70E-02
SBCAG	2050	LDA	Aggregate	Aggregate	Diesel	144.0786	0.0001	0.0226	0.63%	72,740.04	1.05E+01	1.05E+01	1.07E-05	1.65E-03
SBCAG	2050	LDA	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	3.54%	408,103.59	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LDT1	Aggregate	Aggregate	Gasoline	211.2139	0.0005	0.0031	5.73%	661,022.02	1.40E+02	1.57E+02	3.56E-04	2.03E-03
SBCAG	2050	LDT1	Aggregate	Aggregate	Diesel	272.6062	0.0005	0.0428	0.00%	92.10	2.51E-02	2.51E-02	4.59E-08	3.95E-06
SBCAG	2050	LDT1	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.24%	28,046.18	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LDT2	Aggregate	Aggregate	Gasoline	209.4473	0.0007	0.0029	18.89%	2,179,325.99	4.56E+02	5.15E+02	1.51E-03	6.29E-03
SBCAG	2050	LDT2	Aggregate	Aggregate	Diesel	191.1683	0.0005	0.0300	0.20%	22,704.42	4.34E+00	4.34E+00	1.09E-05	6.82E-04
SBCAG	2050	LDT2	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.65%	74,620.90	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LHD1	Aggregate	Aggregate	Gasoline	808.0617	0.0019	0.0098	1.06%	122,152.31	9.87E+01	9.87E+01	2.26E-04	1.19E-03
SBCAG	2050	LHD1	Aggregate	Aggregate	Diesel	433.6702	0.0058	0.0682	0.94%	108,385.72	4.70E+01	4.70E+01	6.32E-04	7.39E-03
SBCAG	2050	LHD2	Aggregate	Aggregate	Gasoline	924.4646	0.0019	0.0107	0.14%	16,282.33	1.51E+01	1.51E+01	3.03E-05	1.74E-04
SBCAG	2050	LHD2	Aggregate	Aggregate	Diesel	490.7850	0.0059	0.0771	0.37%	43,192.64	2.12E+01	2.12E+01	2.55E-04	3.33E-03
SBCAG	2050	MCY	Aggregate	Aggregate	Gasoline	204.6439	0.2899	0.0661	0.57%	65,274.25	1.34E+01	1.34E+01	1.89E-02	4.32E-03
SBCAG	2050	MDV	Aggregate	Aggregate	Gasoline	254.3012	0.0007	0.0030	11.68%	1,347,837.89	3.43E+02	3.86E+02	9.42E-04	3.99E-03
SBCAG	2050	MDV	Aggregate	Aggregate	Diesel	248.3318	0.0002	0.0390	0.43%	49,241.44	1.22E+01	1.22E+01	8.18E-06	1.92E-03
SBCAG	2050	MDV	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.46%	53,312.79	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	MH	Aggregate	Aggregate	Gasoline	1388.6407	0.0026	0.0181	0.04%	5,064.81	7.03E+00	7.03E+00	1.32E-05	9.16E-05
SBCAG	2050	MH	Aggregate	Aggregate	Diesel	824.0268	0.0035	0.1295	0.02%	2,299.09	1.89E+00	1.89E+00	7.95E-06	2.98E-04
SBCAG	2050	Motor Coach	Aggregate	Aggregate	Diesel	1167.3385	0.0008	0.1835	0.04%	4,795.30	5.60E+00	5.60E+00	4.04E-06	8.80E-04
SBCAG	2050	OBUS	Aggregate	Aggregate	Gasoline	1392.9677	0.0021	0.0244	0.04%	5,173.81	7.21E+00	7.21E+00	1.09E-05	1.26E-04
SBCAG	2050	PTO	Aggregate	Aggregate	Diesel	1476.0691	0.0012	0.2320	0.08%	9,020.27	1.33E+01	1.33E+01	1.09E-05	2.09E-03
SBCAG	2050	SBUS	Aggregate	Aggregate	Gasoline	687.5625	0.0024	0.0145	0.04%	4,165.30	2.86E+00	2.86E+00	9.83E-06	6.04E-05
SBCAG	2050	SBUS	Aggregate	Aggregate	Diesel	799.3204	0.0004	0.1256	0.14%	16,626.51	1.33E+01	1.33E+01	6.92E-06	2.09E-03
SBCAG	2050	T6 Ag	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.00%	-	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	T6 CAIRP heavy	Aggregate	Aggregate	Diesel	681.4560	0.0004	0.1071	0.03%	3,463.52	2.36E+00	2.36E+00	1.26E-06	3.71E-04
SBCAG	2050	T6 CAIRP small	Aggregate	Aggregate	Diesel	755.2077	0.0004	0.1187	0.00%	303.34	2.29E-01	2.29E-01	1.12E-07	3.60E-05
SBCAG	2050	T6 instate construction heavy	Aggregate	Aggregate	Diesel	967.6336	0.0008	0.1521	0.05%	5,946.98	5.75E+00	5.75E+00	4.55E-06	9.05E-04
SBCAG	2050	T6 instate construction small	Aggregate	Aggregate	Diesel	932.1510	0.0007	0.1465	0.20%	23,418.38	2.18E+01	2.18E+01	1.60E-05	3.43E-03
SBCAG	2050	T6 instate heavy	Aggregate	Aggregate	Diesel	749.7208	0.0005	0.1178	0.64%	73,887.46	5.54E+01	5.54E+01	3.34E-05	8.71E-03
SBCAG	2050	T6 instate small	Aggregate	Aggregate	Diesel	796.1744	0.0004	0.1251	0.83%	95,936.18	7.64E+01	7.64E+01	4.02E-05	1.20E-02
SBCAG	2050	T6 OOS heavy	Aggregate	Aggregate	Diesel	681.4262	0.0004	0.1071	0.02%	1,825.39	1.24E+00	1.24E+00	6.61E-07	1.96E-04
SBCAG	2050	T6 OOS small	Aggregate	Aggregate	Diesel	756.2100	0.0004	0.1189	0.00%	199.72	1.51E-01	1.51E-01	7.41E-08	2.37E-05
SBCAG	2050	T6 Public	Aggregate	Aggregate	Diesel	855.1372	0.0005	0.1344	0.02%	2,311.18	1.98E+00	1.98E+00	1.15E-06	3.11E-04
SBCAG	2050	T6 utility	Aggregate	Aggregate	Diesel	786.5156	0.0003	0.1236	0.01%	997.35	7.84E-01	7.84E-01	3.37E-07	1.23E-04
SBCAG	2050	T6TS	Aggregate	Aggregate	Gasoline	1381.3933	0.0021	0.0087	0.22%	24,934.18	3.44E+01	3.44E+01	5.27E-05	2.18E-04
SBCAG	2050	T7 Ag	Aggregate	Aggregate	Diesel	1627.4223	0.0012	0.2558	0.00%	1.16	1.89E-03	1.89E-03	1.36E-09	2.97E-07
SBCAG	2050	T7 CAIRP	Aggregate	Aggregate	Diesel	941.6999	0.0009	0.1480	0.33%	37,628.04	3.54E+01	3.54E+01	3.49E-05	5.57E-03
SBCAG	2050	T7 CAIRP construction	Aggregate	Aggregate	Diesel	1278.1972	0.0016	0.2009	0.04%	4,271.77	5.46E+00	5.46E+00	7.03E-06	8.58E-04
SBCAG	2050	T7 NNOOS	Aggregate	Aggregate	Diesel	948.9012	0.0009	0.1492	0.40%	45,894.66	4.35E+01	4.35E+01	4.00E-05	6.85E-03
SBCAG	2050	T7 NOOS	Aggregate	Aggregate	Diesel	941.9918	0.0009	0.1481	0.13%	14,765.87	1.39E+01	1.39E+01	1.37E-05	2.19E-03
SBCAG	2050	T7 other port	Aggregate	Aggregate	Diesel	1151.0405	0.0013	0.1809	0.10%	11,301.26	1.30E+01	1.30E+01	1.51E-05	2.04E-03
SBCAG	2050	T7 Public	Aggregate	Aggregate	Diesel	1201.7926	0.0011	0.1889	0.04%	4,862.47	5.84E+00	5.84E+00	5.39E-06	9.19E-04
SBCAG	2050	T7 Single	Aggregate	Aggregate	Diesel	1095.0491	0.0008	0.1721	0.39%	45,427.87	4.97E+01	4.97E+01	3.86E-05	7.82E-03
SBCAG	2050	T7 single construction	Aggregate	Aggregate	Diesel	1305.6690	0.0014	0.2052	0.09%	10,597.47	1.38E+01	1.38E+01	1.52E-05	2.17E-03
SBCAG	2050	T7 SWCV	Aggregate	Aggregate	Diesel	4277.1495	0.0025	0.6723	0.00%	45.61	1.95E-01	1.95E-01	1.13E-07	3.07E-05
SBCAG	2050	T7 SWCV	Aggregate	Aggregate	Natural Gas	2383.3339	3.0425	0.4859	0.11%	12,810.65	3.05E+01	3.05E+01	3.90E-02	6.22E-03
SBCAG	2050	T7 tractor	Aggregate	Aggregate	Diesel	900.5766	0.0008	0.1416	0.45%	51,686.65	4.65E+01	4.65E+01	4.36E-05	7.32E-03
SBCAG	2050	T7 tractor construction	Aggregate	Aggregate	Diesel	1289.7771	0.0017	0.2027	0.08%	8,741.98	1.13E+01	1.13E+01	1.48E-05	1.77E-03
SBCAG	2050	T7 utility	Aggregate	Aggregate	Diesel	1141.8556	0.0007	0.1795	0.00%	314.67	3.59E-01	3.59E-01	2.30E-07	5.65E-05
SBCAG	2050	T7IS	Aggregate	Aggregate	Gasoline	1513.0358	0.0683	0.1259	0.00%	231.55	3.50E-01	3.50E-01	1.58E-05	2.92E-05
SBCAG	2050	UBUS	Aggregate	Aggregate	Gasoline	1309.5071	0.0043	0.0319	0.02%	2,686.19	3.52E+00	3.52E+00	1.17E-05	8.57E-05
SBCAG	2050	UBUS	Aggregate	Aggregate	Diesel	1440.6282	0.0717	0.2264	0.07%	8,177.03	1.18E+01	1.18E+01	5.87E-04	1.85E-03
SBCAG	2050	UBUS	Aggregate	Aggregate	Natural Gas	1898.6587	5.8867	0.3871	0.04%	4,906.22	9.32E+00	9.32E+00	2.89E-02	1.90E-03

SCENARIO	SBCAG Connected 2050 - STREX and IDLEX

Source	EMFAC2017 (v1.0.3) Emission Rates
Region Type	MPO
Region	SBCAG
Calendar Year	2050
Season	Annual
Vehicle Classification	EMFAC2011 Categories
Emissions Rate and Vehicle Activity Units	Units: trips/day for Trips, g/trip for STREX, g/vehicle/day for IDLEX

SAFE Rule Adjustment Factors	
CO_2	1.1272

Source: https://ww3.arb.ca.gov/msei/emfac_off_model_co2_adjustment_factors_0626 2020-final.pdf

Daily Trips	1,662,483
Daily Vehicles	364,143

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	CO_2 IDLEX	CO_2 STREX	CH_4 IDLEX	CH_4 STREX	N_2O IDLEX	N_2O STREX	Fleet Mix (by Vehicle Trips)	Vehicle Trips per Day	Fleet Mix (by Vehicle Population)	Vehicles per Day	CO_2 STREX Emissions (tons/day)	CO_2 STREX Emissions Adjusted for SAFE Rule (tons/day)	CO_2 IDLEX Emissions (tons/day)	CO_2 IDLEX Emissions Adjusted for SAFE Rule (tons/day)	CH_4 STREX Emissions (tons/day)	CH_4 IDLEX Emissions (tons/day)	N_2O STREX Emissions (tons/day)	N_2O IDLEX Emissions (tons/day)
SBCAG	2050	All Other Buses	Aggregate	Aggregate	Diesel	513.8752	0.0000	0.0023	0.0000	0.0808	0.0000	0.09%	1,561.69	0.05%	196.95	0.00E+00	0.00E+00	1.01E-01	1.01E-01	0.00E+00	4.51E-07	0.00E+00	1.59E-05
SBCAG	2050	LDA	Aggregate	Aggregate	Gasoline	0.0000	38.7918	0.0000	0.0187	0.0000	0.0201	47.20%	784,747.90	49.34%	179,665.63	3.04E+01	3.43E+01	0.00E+00	0.00E+00	1.47E-02	0.00E+00	1.58E-02	0.00E+00
SBCAG	2050	LDA	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.59%	9,822.45	0.62%	2,251.29	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LDA	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.14%	52,208.33	3.26%	11,888.19	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LDT1	Aggregate	Aggregate	Gasoline	0.0000	45.0847	0.0000	0.0197	0.0000	0.0218	5.62%	93,409.34	6.06%	22,069.77	4.21E+00	4.75E+00	0.00E+00	0.00E+00	1.84E-03	0.00E+00	2.04E-03	0.00E+00
SBCAG	2050	LDT1	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00%	12.96	0.00%	3.05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LDT1	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.22%	3,726.69	0.24%	866.18	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LDT2	Aggregate	Aggregate	Gasoline	0.0000	45.7445	0.0000	0.0250	0.0000	0.0209	18.29%	304,085.42	19.52%	71,082.35	1.39E+01	1.57E+01	0.00E+00	0.00E+00	7.61E-03	0.00E+00	6.37E-03	0.00E+00
SBCAG	2050	LDT2	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.19%	3,164.83	0.20%	738.49	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LDT2	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.85%	14,161.46	0.90%	3,270.05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	LHD1	Aggregate	Aggregate	Gasoline	97.6163	15.4235	0.0829	0.0089	0.0023	0.0287	3.13%	51,964.46	1.01%	3,694.82	8.01E-01	8.01E-01	3.61E-01	3.61E-01	4.65E-04	3.06E-04	1.49E-03	8.52E-06
SBCAG	2050	LHD1	Aggregate	Aggregate	Diesel	104.4480	0.0000	0.0051	0.0000	0.0164	0.0000	2.31%	38,349.83	0.89%	3,229.65	0.00E+00	0.00E+00	3.37E-01	3.37E-01	0.00E+00	1.65E-05	0.00E+00	5.30E-05
SBCAG	2050	LHD2	Aggregate	Aggregate	Gasoline	112.0023	17.5230	0.0825	0.0087	0.0023	0.0280	0.41%	6,861.82	0.13%	487.89	1.20E-01	1.20E-01	5.46E-02	5.46E-02	5.98E-05	4.02E-05	1.92E-04	1.12E-06
SBCAG	2050	LHD2	Aggregate	Aggregate	Diesel	171.5431	0.0000	0.0051	0.0000	0.0270	0.0000	0.97%	16,135.08	0.37%	1,358.83	0.00E+00	0.00E+00	2.33E-01	2.33E-01	0.00E+00	6.93E-06	0.00E+00	3.66E-05
SBCAG	2050	MCY	Aggregate	Aggregate	Gasoline	0.0000	57.9882	0.0000	0.2468	0.0000	0.0154	1.02%	17,022.14	2.48%	9,016.00	9.87E-01	9.87E-01	0.00E+00	0.00E+00	4.20E-03	0.00E+00	2.63E-04	0.00E+00
SBCAG	2050	MDV	Aggregate	Aggregate	Gasoline	0.0000	55.5943	0.0000	0.0254	0.0000	0.0218	11.22%	186,594.70	12.02%	43,753.27	1.04E+01	1.17E+01	0.00E+00	0.00E+00	4.73E-03	0.00E+00	4.06E-03	0.00E+00
SBCAG	2050	MDV	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.41%	6,799.28	0.44%	1,588.79	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	MDV	Aggregate	Aggregate	Electricity	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.61%	10,068.33	0.64%	2,318.61	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	MH	Aggregate	Aggregate	Gasoline	0.0000	19.1585	0.0000	0.0275	0.0000	0.0313	0.00%	48.80	0.14%	516.72	9.35E-04	9.35E-04	0.00E+00	0.00E+00	1.34E-06	0.00E+00	1.53E-06	0.00E+00
SBCAG	2050	MH	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00%	25.39	0.07%	269.00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	Motor Coach	Aggregate	Aggregate	Diesel	8323.0706	0.0000	0.1856	0.0000	1.3083	0.0000	0.03%	478.38	0.01%	34.71	0.00E+00	0.00E+00	2.89E-01	2.89E-01	0.00E+00	6.44E-06	0.00E+00	4.54E-05
SBCAG	2050	OBUS	Aggregate	Aggregate	Gasoline	307.1428	19.8618	0.2114	0.0234	0.0071	0.0297	0.11%	1,756.84	0.03%	93.02	3.49E-02	3.49E-02	2.86E-02	2.86E-02	4.11E-05	1.97E-05	5.21E-05	6.59E-07
SBCAG	2050	PTO	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00%	-	0.00%	-	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	SBUS	Aggregate	Aggregate	Gasoline	2092.0442	37.6502	2.5094	0.0543	0.1035	0.0464	0.02%	278.81	0.02%	73.84	1.05E-02	1.05E-02	1.54E-01	1.54E-01	1.51E-05	1.85E-04	1.29E-05	7.64E-06
SBCAG	2050	SBUS	Aggregate	Aggregate	Diesel	2667.1915	0.0000	0.0124	0.0000	0.4192	0.0000	0.31%	5,142.95	0.13%	472.11	0.00E+00	0.00E+00	1.26E+00	1.26E+00	0.00E+00	5.87E-06	0.00E+00	1.98E-04
SBCAG	2050	T6 Ag	Aggregate	Aggregate	Diesel	653.7965	0.0000	0.0023	0.0000	0.1028	0.0000	0.00%	10.37	0.00%	2.50	0.00E+00	0.00E+00	1.63E-03	1.63E-03	0.00E+00	5.72E-09	0.00E+00	2.56E-07
SBCAG	2050	T6 CAIRP heavy	Aggregate	Aggregate	Diesel	484.2048	0.0000	0.0023	0.0000	0.0761	0.0000	0.02%	265.18	0.01%	19.24	0.00E+00	0.00E+00	9.32E-03	9.32E-03	0.00E+00	4.41E-08	0.00E+00	1.46E-06
SBCAG	2050	T6 CAIRP small	Aggregate	Aggregate	Diesel	483.5426	0.0000	0.0023	0.0000	0.0760	0.0000	0.01%	90.17	0.00%	6.54	0.00E+00	0.00E+00	3.16E-03	3.16E-03	0.00E+00	1.50E-08	0.00E+00	4.97E-07
SBCAG	2050	T6 instate construction heavy	Aggregate	Aggregate	Diesel	502.1578	0.0000	0.0023	0.0000	0.0789	0.0000	0.02%	336.10	0.02%	78.75	0.00E+00	0.00E+00	3.95E-02	3.95E-02	0.00E+00	1.80E-07	0.00E+00	6.22E-06
SBCAG	2050	T6 instate construction small	Aggregate	Aggregate	Diesel	484.5031	0.0000	0.0023	0.0000	0.0762	0.0000	0.11%	1,830.74	0.12%	428.97	0.00E+00	0.00E+00	2.08E-01	2.08E-01	0.00E+00	9.83E-07	0.00E+00	3.27E-05
SBCAG	2050	T6 instate heavy	Aggregate	Aggregate	Diesel	504.5651	0.0000	0.0023	0.0000	0.0793	0.0000	0.46%	7,583.45	0.19%	696.14	0.00E+00	0.00E+00	3.51E-01	3.51E-01	0.00E+00	1.59E-06	0.00E+00	5.52E-05
SBCAG	2050	T6 instate small	Aggregate	Aggregate	Diesel	484.1866	0.0000	0.0023	0.0000	0.0761	0.0000	1.28%	21,225.00	0.54%	1,948.39	0.00E+00	0.00E+00	9.43E-01	9.43E-01	0.00E+00	4.46E-06	0.00E+00	1.48E-04
SBCAG	2050	T6 OOS heavy	Aggregate	Aggregate	Diesel	484.1884	0.0000	0.0023	0.0000	0.0761	0.0000	0.01%	138.77	0.00%	10.07	0.00E+00	0.00E+00	4.87E-03	4.87E-03	0.00E+00	2.31E-08	0.00E+00	7.66E-07
SBCAG	2050	T6 OOS small	Aggregate	Aggregate	Diesel	484.6461	0.0000	0.0023	0.0000	0.0762	0.0000	0.00%	60.41	0.00%	4.38	0.00E+00	0.00E+00	2.12E-03	2.12E-03	0.00E+00	1.00E-08	0.00E+00	3.34E-07
SBCAG	2050	T6 Public	Aggregate	Aggregate	Diesel	2575.3388	0.0000	0.0120	0.0000	0.4048	0.0000	0.02%	383.47	0.04%	133.92	0.00E+00	0.00E+00	3.45E-01	3.45E-01	0.00E+00	1.61E-06	0.00E+00	5.42E-05
SBCAG	2050	T6 utility	Aggregate	Aggregate	Diesel	1322.8115	0.0000	0.0063	0.0000	0.2079	0.0000	0.04%	583.19	0.01%	53.72	0.00E+00	0.00E+00	7.11E-02	7.11E-02	0.00E+00	3.38E-07	0.00E+00	1.12E-05
SBCAG	2050	T6TS	Aggregate	Aggregate	Gasoline	424.2313	28.3561	0.2896	0.0305	0.0084	0.0456	0.46%	7,689.64	0.11%	407.13	2.18E-01	2.18E-01	1.73E-01	1.73E-01	2.34E-04	1.18E-04	3.51E-04	3.41E-06
SBCAG	2050	T7 Ag	Aggregate	Aggregate	Diesel	2059.7720	0.0000	0.0339	0.0000	0.3238	0.0000	0.00%	6.47	0.00%	1.56	0.00E+00	0.00E+00	3.21E-03	3.21E-03	0.00E+00	5.28E-08	0.00E+00	5.04E-07
SBCAG	2050	T7 CAIRP	Aggregate	Aggregate	Diesel	19489.1787	0.0000	0.4846	0.0000	3.0634	0.0000	0.14%	2,257.94	0.04%	163.83	0.00E+00	0.00E+00	3.19E+00	3.19E+00	0.00E+00	7.94E-05	0.00E+00	5.02E-04
SBCAG	2050	T7 CAIRP construction	Aggregate	Aggregate	Diesel	2975.8799	0.0000	0.0741	0.0000	0.4678	0.0000	0.01%	94.68	0.01%	22.19	0.00E+00	0.00E+00	6.60E-02	6.60E-02	0.00E+00	1.64E-06	0.00E+00	1.04E-05
SBCAG	2050	T7 NNOOS	Aggregate	Aggregate	Diesel	24516.2504	0.0000	0.6015	0.0000	3.8536	0.0000	0.21%	3,528.75	0.07%	256.03	0.00E+00	0.00E+00	6.28E+00	6.28E+00	0.00E+00	1.54E-04	0.00E+00	9.87E-04
SBCAG	2050	T7 NOOS	Aggregate	Aggregate	Diesel	24198.8249	0.0000	0.6015	0.0000	3.8037	0.0000	0.05%	896.53	0.02%	65.05	0.00E+00	0.00E+00	1.57E+00	1.57E+00	0.00E+00	3.91E-05	0.00E+00	2.47E-04
SBCAG	2050	T7 other port	Aggregate	Aggregate	Diesel	3034.6324	0.0000	0.0763	0.0000	0.4770	0.0000	0.03%	429.40	0.02%	59.85	0.00E+00	0.00E+00	1.82E-01	1.82E-01	0.00E+00	4.56E-06	0.00E+00	2.85E-05
SBCAG	2050	T7 Public	Aggregate	Aggregate	Diesel	2353.5646	0.0000	0.0558	0.0000	0.3699	0.0000	0.04%	616.60	0.06%	215.33	0.00E+00	0.00E+00	5.07E-01	5.07E-01	0.00E+00	1.20E-05	0.00E+00	7.97E-05
SBCAG	2050	T7 Single	Aggregate	Aggregate	Diesel	4139.8853	0.0000	0.1015	0.0000	0.6507	0.0000	0.33%	5,492.29	0.14%	504.18	0.00E+00	0.00E+00	2.09E+00	2.09E+00	0.00E+00	5.12E-05	0.00E+00	3.28E-04
SBCAG	2050	T7 single construction	Aggregate	Aggregate	Diesel	3025.2089	0.0000	0.0741	0.0000	0.4755	0.0000	0.03%	532.31	0.03%	124.73	0.00E+00	0.00E+00	3.77E-01	3.77E-01	0.00E+00	9.24E-06	0.00E+00	5.93E-05
SBCAG	2050	T7 SWCV	Aggregate	Aggregate	Diesel	4648.2177	0.0000	0.0560	0.0000	0.7306	0.0000	0.00%	3.69	0.00%	1.00	0.00E+00	0.00E+00	4.66E-03	4.66E-03	0.00E+00	5.61E-08	0.00E+00	7.32E-07
SBCAG	2050	T7 SWCV	Aggregate	Aggregate	Natural Gas	2994.6383	0.0000	1.1580	0.0000	0.6105	0.0000	0.06%	1,037.90	0.08%	281.92	0.00E+00	0.00E+00	8.44E-01	8.44E-01	0.00E+00	3.26E-04	0.00E+00	1.72E-04
SBCAG	2050	T7 tractor	Aggregate	Aggregate	Diesel	3527.0505	0.0000	0.0873	0.0000	0.5544	0.0000	0.27%	4,490.26	0.10%	374.54	0.00E+00	0.00E+00	1.32E+00	1.32E+00	0.00E+00	3.27E-05	0.00E+00	2.08E-04
SBCAG	2050	T7 tractor construction	Aggregate	Aggregate	Diesel	2990.0827	0.0000	0.0741	0.0000	0.4700	0.0000	0.03%	454.51	0.03%	106.50	0.00E+00	0.00E+00	3.18E-01	3.18E-01	0.00E+00	7.89E-06	0.00E+00	5.01E-05
SBCAG	2050	T7 utility	Aggregate	Aggregate	Diesel	1234.1707	0.0000	0.0295	0.0000	0.1940	0.0000	0.01%	151.23	0.00%	13.93	0.00E+00	0.00E+00	1.72E-02	1.72E-02	0.00E+00	4.11E-07	0.00E+00	2.70E-06
SBCAG	2050	T7IS	Aggregate	Aggregate	Gasoline	0.0000	33.5843	0.0000	0.0000	0.0000	0.1009	0.00%	29.74	0.00%	1.57	9.99E-04	9.99E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E-06	0.00E+00
SBCAG	2050	UBUS	Aggregate	Aggregate	Gasoline	0.0000	53.5419	0.0000	0.0749	0.0000	0.0543	0.01%	103.09	0.01%	27.30	5.52E-03	5.52E-03	0.00E+00	0.00E+00	7.72E-06	0.00E+00	5.60E-06	0.00E+00
SBCAG	2050	UBUS	Aggregate	Aggregate	Diesel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.02%	313.26	0.02%	82.96	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SBCAG	2050	UBUS	Aggregate	Aggregate	Natural Gas	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.01%	187.96	0.01%	49.78	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Source: EMFAC2017 (v1.0.3) Emissions Inventory
Region Type: MPO
Region: SBCAG
Calendar Year: 2050
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Fleet Mix (Population)	VMT	Fleet Mix (VMT)	Trips	Fleet Mix (Trips)
SBCAG	2050	All Other Buses	Aggregate	Aggregate	Diesel	246.77	0.05%	12,699.71	0.10%	2,072.90	0.09%
SBCAG	2050	LDA	Aggregate	Aggregate	Gasoline	225,121.49	49.34%	6,544,302.19	50.44%	1,041,626.17	47.20%
SBCAG	2050	LDA	Aggregate	Aggregate	Diesel	2,820.88	0.62%	81,780.62	0.63%	13,037.72	0.59%
SBCAG	2050	LDA	Aggregate	Aggregate	Electricity	14,895.94	3.26%	458,825.21	3.54%	69,298.13	3.14%
SBCAG	2050	LDT1	Aggregate	Aggregate	Gasoline	27,653.48	6.06%	743,177.90	5.73%	123,985.83	5.62%
SBCAG	2050	LDT1	Aggregate	Aggregate	Diesel	3.82	0.00%	103.54	0.00%	17.21	0.00%
SBCAG	2050	LDT1	Aggregate	Aggregate	Electricity	1,085.32	0.24%	31,531.93	0.24%	4,946.57	0.22%
SBCAG	2050	LDT2	Aggregate	Aggregate	Gasoline	89,066.36	19.52%	2,450,186.04	18.89%	403,624.32	18.29%
SBCAG	2050	LDT2	Aggregate	Aggregate	Diesel	925.33	0.20%	25,526.26	0.20%	4,200.79	0.19%
SBCAG	2050	LDT2	Aggregate	Aggregate	Electricity	4,097.38	0.90%	83,895.25	0.65%	18,797.06	0.85%
SBCAG	2050	LHD1	Aggregate	Aggregate	Gasoline	4,629.62	1.01%	137,334.15	1.06%	68,974.43	3.13%
SBCAG	2050	LHD1	Aggregate	Aggregate	Diesel	4,046.77	0.89%	121,856.56	0.94%	50,903.21	2.31%
SBCAG	2050	LHD2	Aggregate	Aggregate	Gasoline	611.33	0.13%	18,305.99	0.14%	9,107.96	0.41%
SBCAG	2050	LHD2	Aggregate	Aggregate	Diesel	1,702.61	0.37%	48,560.89	0.37%	21,416.71	0.97%
SBCAG	2050	MCY	Aggregate	Aggregate	Gasoline	11,297.07	2.48%	73,386.94	0.57%	22,594.15	1.02%
SBCAG	2050	MDV	Aggregate	Aggregate	Gasoline	54,822.96	12.02%	1,515,355.48	11.68%	247,674.34	11.22%
SBCAG	2050	MDV	Aggregate	Aggregate	Diesel	1,990.75	0.44%	55,361.47	0.43%	9,024.94	0.41%
SBCAG	2050	MDV	Aggregate	Aggregate	Electricity	2,905.23	0.64%	59,938.83	0.46%	13,364.08	0.61%
SBCAG	2050	MH	Aggregate	Aggregate	Gasoline	647.45	0.14%	5,694.29	0.04%	64.77	0.00%
SBCAG	2050	MH	Aggregate	Aggregate	Diesel	337.06	0.07%	2,584.83	0.02%	33.71	0.00%
SBCAG	2050	Motor Coach	Aggregate	Aggregate	Diesel	43.49	0.01%	5,391.29	0.04%	634.97	0.03%
SBCAG	2050	OBUS	Aggregate	Aggregate	Gasoline	116.55	0.03%	5,816.84	0.04%	2,331.92	0.11%
SBCAG	2050	PTO	Aggregate	Aggregate	Diesel	-	0.00%	10,141.36	0.08%	-	0.00%
SBCAG	2050	SBUS	Aggregate	Aggregate	Gasoline	92.52	0.02%	4,682.99	0.04%	370.07	0.02%
SBCAG	2050	SBUS	Aggregate	Aggregate	Diesel	591.55	0.13%	18,692.95	0.14%	6,826.44	0.31%
SBCAG	2050	T6 Ag	Aggregate	Aggregate	Diesel	3.13	0.00%	-	0.00%	13.76	0.00%
SBCAG	2050	T6 CAIRP heavy	Aggregate	Aggregate	Diesel	24.11	0.01%	3,893.99	0.03%	351.99	0.02%
SBCAG	2050	T6 CAIRP small	Aggregate	Aggregate	Diesel	8.20	0.00%	341.04	0.00%	119.68	0.01%
SBCAG	2050	T6 instate construction heavy	Aggregate	Aggregate	Diesel	98.68	0.02%	6,686.11	0.05%	446.11	0.02%
SBCAG	2050	T6 instate construction small	Aggregate	Aggregate	Diesel	537.50	0.12%	26,328.96	0.20%	2,430.01	0.11%
SBCAG	2050	T6 instate heavy	Aggregate	Aggregate	Diesel	872.26	0.19%	83,070.65	0.64%	10,065.81	0.46%
SBCAG	2050	T6 instate small	Aggregate	Aggregate	Diesel	2,441.34	0.54%	107,859.72	0.83%	28,172.77	1.28%
SBCAG	2050	T6 OOS heavy	Aggregate	Aggregate	Diesel	12.62	0.00%	2,052.26	0.02%	184.19	0.01%
SBCAG	2050	T6 OOS small	Aggregate	Aggregate	Diesel	5.49	0.00%	224.54	0.00%	80.19	0.00%
SBCAG	2050	T6 Public	Aggregate	Aggregate	Diesel	167.80	0.04%	2,598.43	0.02%	509.00	0.02%
SBCAG	2050	T6 utility	Aggregate	Aggregate	Diesel	67.31	0.01%	1,121.31	0.01%	774.09	0.04%
SBCAG	2050	T6TS	Aggregate	Aggregate	Gasoline	510.13	0.11%	28,033.15	0.22%	10,206.76	0.46%
SBCAG	2050	T7 Ag	Aggregate	Aggregate	Diesel	1.95	0.00%	1.31	0.00%	8.58	0.00%
SBCAG	2050	T7 CAIRP	Aggregate	Aggregate	Diesel	205.28	0.04%	42,304.69	0.33%	2,997.05	0.14%
SBCAG	2050	T7 CAIRP construction	Aggregate	Aggregate	Diesel	27.80	0.01%	4,802.69	0.04%	125.68	0.01%
SBCAG	2050	T7 NNOOS	Aggregate	Aggregate	Diesel	320.81	0.07%	51,598.73	0.40%	4,683.85	0.21%
SBCAG	2050	T7 NOOS	Aggregate	Aggregate	Diesel	81.51	0.02%	16,601.06	0.13%	1,190.00	0.05%
SBCAG	2050	T7 other port	Aggregate	Aggregate	Diesel	75.00	0.02%	12,705.85	0.10%	569.96	0.03%
SBCAG	2050	T7 Public	Aggregate	Aggregate	Diesel	269.81	0.06%	5,466.81	0.04%	818.43	0.04%
SBCAG	2050	T7 Single	Aggregate	Aggregate	Diesel	631.74	0.14%	51,073.92	0.39%	7,290.13	0.33%
SBCAG	2050	T7 single construction	Aggregate	Aggregate	Diesel	156.28	0.03%	11,914.59	0.09%	706.56	0.03%
SBCAG	2050	T7 SWCV	Aggregate	Aggregate	Diesel	1.26	0.00%	51.28	0.00%	4.89	0.00%
SBCAG	2050	T7 SWCV	Aggregate	Aggregate	Natural Gas	353.24	0.08%	14,402.83	0.11%	1,377.65	0.06%
SBCAG	2050	T7 tractor	Aggregate	Aggregate	Diesel	469.30	0.10%	58,110.58	0.45%	5,960.10	0.27%
SBCAG	2050	T7 tractor construction	Aggregate	Aggregate	Diesel	133.44	0.03%	9,828.49	0.08%	603.29	0.03%
SBCAG	2050	T7 utility	Aggregate	Aggregate	Diesel	17.46	0.00%	353.78	0.00%	200.74	0.01%
SBCAG	2050	T7IS	Aggregate	Aggregate	Gasoline	1.97	0.00%	260.32	0.00%	39.47	0.00%
SBCAG	2050	UBUS	Aggregate	Aggregate	Gasoline	34.21	0.01%	3,020.05	0.02%	136.83	0.01%
SBCAG	2050	UBUS	Aggregate	Aggregate	Diesel	103.95	0.02%	9,193.32	0.07%	415.81	0.02%
SBCAG	2050	UBUS	Aggregate	Aggregate	Natural Gas	62.37	0.01%	5,515.99	0.04%	249.48	0.01%