DRAFT INITIAL STUDY/NEGATIVE DECLARATION

REIMAGINE SAMTRANS

San Mateo County Transit District

January 2022

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Part I Environmental Checklist Form

1. Project Title:	Reimagine SamTrans
2. Lead Agency Name and Address:	San Mateo County Transit District
3. Contact Person and Phone Number:	Hilda Lafebre, Manager, Capital Projects & Environmental Planning (650) 622-7842
4. Project Location	San Mateo County (with limited service to San Francisco and Palo Alto in Santa Clara County)
5. Project Sponsor's Name and Address:	San Mateo County Transit District, 1250 San Carlos Ave., P.O. Box 3006, San Carlos, CA 94070-1306
6. General Plan Land Use Designations:	Various
7. Zoning:	Various

8. Description of Project:

The San Mateo County Transit District (District) is the administrative body for the principal public transit and transportation programs in San Mateo County, comprising SamTrans bus service, including Redi-Wheels and RediCoast paratransit service; Caltrain commuter rail; and the San Mateo County Transportation Authority. SamTrans bus service serves San Mateo County and portions of San Francisco and Palo Alto in neighboring San Francisco and Santa Clara Counties, respectively.

In summer 2019, the District launched Reimagine SamTrans, a comprehensive operational analysis to redesign the entire SamTrans bus system. Reimagine SamTrans began its work to develop three new bus network options. Phase 1 of the process was designed to better understand the current SamTrans system and initiate the service design process. SamTrans analyzed the current state of the SamTrans bus system and conducted widespread outreach and market research to gather information on what riders and potential riders want from public transportation.

During Phase 2 of the process, SamTrans developed three new bus network alternatives with potential changes to each route in the system. These design proposals ranged from minor to major changes. Public outreach was conducted in April and May 2021 to gather input on the alternatives for each route and how those routes fit together into one bus system. Based on SamTrans' research and this outreach, riders are interested in frequency and reliability. Three-quarters of San Mateo County residents have access to transit, and many would like to drive less than they do currently. However, some of the primary barriers to increased transit ridership are perceptions of the amount of time bus transit can take, the lack of schedule flexibility, and the reliability and predictability of service. Riders and non-riders requested better connections to other transit systems and more express service options.

In Phase 3, SamTrans consolidated the feedback received during the Phase 2 public outreach and used best practices in bus system design to develop a single preferred bus system (the proposed plan), ensuring that all routes complement each other and produce a cohesive system. This proposed plan will be implemented beginning in summer 2022.

Proposed Plan

The proposed plan will change existing bus service by implementing the following:

- Improving frequency
- Offering services later and on weekends
- Modifying routes by providing more direct routes and reducing duplication of service
- Improving access with new routes and connections
- Providing a new on-demand service
- Discontinuing service on select routes

The goals of the proposed plan are to improve travel experience for existing SamTrans customers, grow frequent and new ridership on SamTrans, and build SamTrans' efficiency and effectiveness as a mobility provider. The following sections summarize the recommendations made in the proposed plan. Maps detailing the proposed changes by bus route are provided on the Reimagine SamTrans website: https://www.reimaginesamtrans.com/.

Improved Frequency

The proposed plan will increase transit frequency on weekdays, Saturday, and/or Sunday for SamTrans routes. Increasing frequency will bring approximately 185,000 more residents and 125,000 more jobs within a 5-minute walk of frequent bus service. **Table 1** describes the proposed frequency modifications for the affected routes.

New or Extended Hours of Operation

The proposed plan will extend hours of operation for existing bus services. **Table 2** describes the proposed changes to hours of operation.

More Direct Routes and Reduced Duplication of Service

The proposed plan will reduce deviations or turn offs from main roads to reduce overall travel time. Deviations that are not heavily used or are within a reasonable walking distance of a route's main street will be eliminated. In addition, the proposed plan will reduce duplication of service routes; currently, multiple SamTrans routes serve the same roads. By reducing duplicative services, the system will be easier to understand, and resources can be reinvested in improving service. **Table 3** describes the proposed modifications to routes.

Table 1. Proposed Frequency Modifications

Route	Current Route Description	Frequency Change
17	Route 17 runs every 60 minutes on weekdays and every 120 minutes on weekends.	Route 17 will operate every 60 minutes, 7 days a week.
110	Route 110 runs every 30 minutes during peak hours and every 60 minutes during midday and evening hours on weekdays. It runs every 60 minutes on Saturday and Sunday.	Route 110 will run every 30 minutes during peak and midday hours, 7 days a week. During midday hours on weekdays, frequency can increase to every 20 minutes. Service will be unchanged at other times.
118	Route 118 has weekday-only trips, with buses arriving every 45 minutes during AM peak hours and every 60 minutes during PM peak hours.	Route 118 will have additional weekday-only trips, with service every 30 minutes during the AM and PM peak hours.
120	Route 120 operates every 15 minutes during peak and midday hours, 7 days a week. During peak periods, frequency can increase to every 10 minutes. It operates every 30 minutes during evening hours on weekdays and every 45 minutes during evening hours on weekends.	Route 120 will increase frequency during weekend evening hours to every 15 to 30 minutes. Service will be unchanged at other times.
121	Route 121 runs every 30 minutes during peak and midday hours and every 60 minutes during evening hours on weekdays. Route 121 runs every 60 minutes on weekends.	Route 121 will operate every 30 minutes during weekend peak and midday hours. Service will be unchanged at other times.
130	Route 130 runs every 15 minutes during peak and midday hours and every 30 minutes during evening hours on weekdays. On weekends, Route 130 runs every 30 minutes all day.	Route 130 will be split into Route 130A and Route 130B. On weekends, Route 130A and 130B will run every 15 minutes during peak and midday hours and every 30 minutes during evening hours.
141	Route 141 runs every 30 minutes, 7 days a week.	Route 141 will operate every 30 minutes during peak and midday hours and every 60 minutes during evening hours, 7 days a week.
250	Route 250 runs every 30 minutes on weekdays, every 60 minutes on Saturday, and every 60 minutes during Sunday peak and midday hours.	Route 250 will run every 15 minutes on weekdays during peak hours. It will run every 30 minutes on Saturday, and every 30 minutes during Sunday peak and midday hours. Service will be unchanged at other times.

Route	Current Route Description	Frequency Change
251/256	Route 251 runs every 60 minutes during weekday evening hours, every 120 minutes during midday weekday hours, and every 120 minutes on Saturday. Route 256 runs every 60 minutes during weekday peak hours, and every 120 minutes during weekday and Saturday midday hours	New Route 251 (consolidated Routes 251 and 256) will operate every 60 minutes, 7 days a week.
260	Route 260 runs every 30 minutes during peak hours and every 60 minutes during midday and evening hours on weekdays. The route runs every 60 minutes on Saturday.	Route 260 will add service on Sunday every 60 minutes. Service will be unchanged at other times.
274, 275, 278	Routes 274 and 275 operate every 30 minutes on weekdays only. Additionally, Route 274 operates every 60 minutes during weekday evening hours. Route 278 runs every 60 minutes on Saturday only.	New Route 275 (consolidated Routes 274/275/278) will have more frequent service on weekdays; it will run every 20 minutes during AM peak hours, every 30 minutes during midday hours, and every 60 minutes during evening hours. Weekend service will run every 60 minutes on Saturday and Sunday.
276	Route 276 operates every hour during weekday peak and midday hours.	Route 276 will operate more often, running every 30 minutes during peak and midday hours, 7 days a week. On weekday evenings, the bus will run every 60 minutes.
281	Route 281 operates every 30 minutes on weekdays and Saturday, and every 40 minutes on Sunday.	Route 281 will run more often. It will operate every 20 minutes on weekdays during peak and midday hours. On Sunday, the route will operate every 30 minutes. Service will be unchanged at other times.
286	Route 286 operates on weekdays every 40 minutes during AM peak hours and every 60 minutes during PM peak hours. The route has no midday, evening, or weekend hours.	Route 286 will have only one peak AM trip and one peak PM trip and will be renamed Route 86.
294	Route 294 runs every 60 minutes during peak hours and every 120 minutes during midday and evening hours on weekdays. It runs every 60 minutes on weekends.	Route 294 will run more often on weekdays during midday and evening hours. The route will operate every 60 minutes, 7 days a week.

Route	Current Route Description	Frequency Change
295	Route 295 runs every 20 minutes during peak hours and every 60 minutes during midday and evening hours on weekdays. The route has no weekend service.	Route 295 will operate every 60 minutes all day, 7 days a week.
296	Route 296 runs every 20 minutes on weekdays and every 30 minutes on weekends during peak and midday hours. During weekday and weekend evenings, the route runs every 60 minutes.	Route 296 will operate more often, with buses arriving every 15 minutes, 7 days a week during peak and midday hours. Service will be unchanged at other times.
ECR	During peak and midday hours, Route ECR runs every 15 minutes on weekdays and every 20 minutes on weekends. The route runs every 30 minutes during evening hours, 7 days a week. Night owl service, every 60 minutes, is also provided.	Route ECR will run more often on weekends, with service every 15 minutes during peak and midday hours, 7 days a week. Service will be unchanged at other times.

Notes: AM Peak Hours = 6:00 AM–9:00 PM; Midday Hours = 9:00 AM–3:00 PM; PM Peak Hours = 3:00 PM–6:00 PM; Evening Hours = 6:00 PM–9:00 PM

Table 2. Hours of Operation Modifications

Route	Current Route Description	Hours of Operation Change
121	Route 121 operates between 5:30 AM and 11:00 PM on weekdays and between 7:30 AM and 9:00 PM on weekends.	Route 121 will run almost 2 hours later on weekends, ending service at 10:45 PM instead of 9:00 PM. Hours of operation will be unchanged at other times.
130	Route 130 operates from 4:30 AM to 12:00 AM on weekdays. On weekends, the route runs from 7:00 AM to 8:00 PM.	Route 130 will split into two routes: 130A and 130B. Routes 130A/B will operate an hour earlier and extend 2 hours later on weekends, with service from 6:00 AM to 10:00 PM. Hours of operation will be unchanged at other times.
251/256	Route 251 operates from 11:30 AM to 8:30 PM on weekdays and 8:30 AM to 7:15 PM on Saturday. Route 256 operates from 6:50 AM to 3:30 PM on weekdays and 7:30 AM to 8:15 PM on Saturday.	New Route 251 (consolidated Routes 251/256) will operate 6:30 AM to 8:30 PM on weekdays and 7:30 AM to 7:00 PM on weekends.
260	Route 260 operates on weekdays 6:00 AM to 8:00 PM and Saturday 8:00 AM to 8:30 PM. It does not have hours of operation on Sunday.	Route 260 will provide new Sunday service, operating from 8:00 AM to 8:30 PM. Weekday and Saturday hours of operation will remain unchanged.
274, 275, 278	Route 274 operates between 6:00 AM and 10:30 PM on weekdays only. Route 275 operates between 6:00 AM and 7:30 PM during weekdays only. Route 278 runs from 7:30 AM to 7:30 PM on Saturday only.	New Route 275 (consolidated Routes 274/275/278) will operate on weekdays from 6:45 AM until 11:00 PM. Weekend service will be provided on this route from 7:45 AM to 8:30 PM.
276	Route 276 runs from 6:30 AM until 6:30 PM on weekdays only.	Route 276 will operate later on weekdays, until 9:00 PM, and it will operate on weekends from 7:30 AM to 7:00 PM.
280	Route 280 operates from 5:30 AM to 10:30 PM on weekdays and from 7:45 AM to 8:15 PM on weekends.	Route 280 will operate from 6:00 AM to 8:45 PM on weekdays. Weekend hours will remain unchanged.
281	Route 281 operates from 6:00 AM to 10:30 PM on weekdays, from 8:00 AM to 8:15 PM on Saturday, and 8:00 AM to 7:15 PM on Sunday.	Route 281 will provide extended service on weekends; the route will run from 7:45 AM to 10:00 PM on Saturday and from 7:45 AM to 8:00 PM on Sunday. Weekday hours will remain unchanged.
286	Route 286 operates from 7:00 AM to 9:15 AM and 3:30 PM to 6:00 PM on weekdays. The route does not operate on weekends.	Route 286 will operate from 8:30 AM to 9:15 AM and 4:15 PM to 5:00 PM for one trip in the morning and evening, and it will be renamed Route 86.

Route	Current Route Description	Hours of Operation Change
295	Route 295 operates from 6:15 AM to 7:45 PM on weekdays and does not offer weekend service.	Route 295 will provide new service on weekends, 7:00 AM to 7:00 PM. Hours of operation on weekdays will not change.
ECR	Route ECR operates from 4:30 AM to 1:30 AM on weekdays and from 4:30 AM to 2:30 AM on weekends. Night owl service is between San Francisco and Daily City at other times.	The ECR service from 1:30 AM to 4:30 AM will be split into its own route named ECR OWL.
FCX	Route FCX operates during peak weekday hours, every 30 minutes in both directions.	Route FCX will continue to run the same routing as it currently does. However, due to low ridership, Route FCX will only operate into San Francisco in the morning and out of San Francisco in the afternoon.

Notes: AM Peak Hours = 6:00 AM–9:00 PM; Midday Hours = 9:00 AM–3:00 PM; PM Peak Hours = 3:00 PM–6:00 PM; Evening Hours = 6:00 PM–9:00 PM

Table 3. Proposed Route Modifications

Route	Current Route Description	Route Modification
17	Route 17 runs between Pacifica and Half Moon Bay, traveling through Montara, Moss Beach, and El Granada. The route serves the Linda Mar Park and Ride, where riders can transfer to additional SamTrans routes.	Route 17 will be simplified with fewer deviations off US Highway 1. Route deviations with lower ridership to Sunshine Valley Road, 6th Street, Canada Cove, and Pescadero will be removed.
37/39	Routes 37 and 39 both serve Alta Loma Middle School. Route 37 serves neighborhoods east of El Camino Real, and Route 39 serves neighborhoods west of El Camino Real. Neither route carries a full load of passengers.	Routes 37 and 39 will be consolidated in Route 37, which will preserve the direct connection between South San Francisco neighborhoods and Alta Loma Middle school. The proposed consolidated route will serve Route 39 stops west of El Camino Real before serving Route 37 stops east of El Camino Real.
16/49	Routes 16 and 49 both serve Terra Nova High School in Pacifica.	Routes 16 and 49 were consolidated into Route 49 in August 2021 to improve efficiency and maintain service for nearly all areas and riders. The revised alignment serves Sharp Park, Skyline Drive, Gateway Drive, Hickey Boulevard, Inverness Drive, Skyline Boulevard, continuing to Brisbane via San Bruno Avenue and US-101.
53/55	Routes 53 and 55 both serve Borel Middle School.	Routes 53 and 55 will be consolidated into Route 53, which will preserve the direct connection between San Mateo neighborhoods and Borel Middle School. One Route 55 trip in each direction will serve West Poplar Avenue and Clark Drive before serving stops on Delaware Street.
61/95	Routes 61 and 95 both serve Carlmont High School. Route 95 only operates one trip, while Route 61 has several more.	Routes 61 and 95 will be consolidated into Route 61, which will preserve service to the stops in San Carlos that are being used. The consolidated route will follow Route 61's alignment through the Brittan Avenue/Melendy Drive loop and end at the San Carlos Caltrain station via Brittan Avenue, Cedar Street, and San Carlos Avenue.
83/84	Hillview Middle School is served by Routes 83 and 84 that overlap much of their service areas.	Route 84 will be consolidated with Route 83 and follow the Route 83 alignment.

Route	Current Route Description	Route Modification
110	Route 110 connects Daly City BART with Linda Mar Park and Ride in Pacifica. Major destinations along the route include Westlake Shopping Center, Pacific Manor Shopping Center, Oceana High School, Eureka Square Shopping Center, and Linda Mar Shopping Center.	Route 110 will no longer serve the deviation from Skyline Drive onto Longview Drive. Riders could access the route with a 5-minute walk to a stop on Skyline Drive. In Pacifica, instead of ending at the Linda Mar Park and Ride, the route will continue into the Linda Mar neighborhood, looping around De Solo Drive, Crespi Drive, Terra Nova Boulevard, Oddstad Boulevard, and Linda Mar Boulevard. This extension will provide a direct ride to Daly City and BART for Linda Mar residents. Trips on Route 110 that operate only on school days serving Oceana and Terra Nova High School will continue and be renamed Route 10
112	Route 112 connects the Colma BART station to Linda Mar Park and Ride in Pacifica.	Route 112 will be shortened at Clarendon Road and Francisco Boulevard in the West Sharp Park area. The route will not change between Colma BART and Sharp Park, still providing a connection to Serramonte Center. To reduce route duplication, only routes 110 and 118 will continue to Linda Mar. Trips on Route 112 that operate only on school days serving Ingrid B. Lacy Middle School will continue and be renamed Route 12.
118	Route 118 runs from the Daly City BART station to Linda Mar Park and Ride in Pacifica via the Colma BART station.	Route 118 will travel directly to/from Daly City BART station and skip the Colma BART station. It will continue to be a limited stop service along Highway 1. Efforts will be made to prioritize schedule alignment and transfers between Route 118 and Route 17 at Linda Mar.
121	Route 121 operates between Skyline College Transit Center in San Bruno to Daly City. The route connects to both the Daly City and Colma BART stations.	Route 121 will have the same start and end points as the current route; however, changes within the route will occur. To provide a more direct connection between Daly City, Serramonte, and Skyline College, Route 121 will no longer serve the Colma BART deviation.

Route	Current Route Description	Route Modification
130	Route 130 operates between Daly City and South San Francisco. The route features multiple connections to BART in Daly City, Colma, and South San Francisco, as well as connections to Muni in San Francisco.	Route 130 will split into two routes: 130A and 130B. Both routes will follow the same path until Grand and Linden, then split to their respective destinations. Route 130A will continue to serve Airport Boulevard and Linden Avenue. Route 130B will extend to Oyster Point. In Daly City, the routes will serve Daly City BART more directly from the south, by cutting out the loop on San Jose Avenue, Flournoy Street/Sickles Avenue, and Mission Street. Existing customers at these stops will need to walk farther for a connection to SF Muni Route 14 or transfer to the SF Muni 14 Rapid at Daly City BART. Trips on Route 130 that operate only on school days serving John F. Kennedy Elementary School and Thomas Pollicita Middle School will continue and be renamed Route 30.
140	Route 140 runs between Pacific Manor and SFO Rental Car AirTrain station via the San Bruno BART station.	Trips on Route 140 that operate only on school days serving Ingrid B. Lacy Middle School and Oceana High School will continue and be renamed as Route 40. Otherwise, Route 140 will be consolidated into Route 121.
141	Route 141 runs between South San Francisco to San Bruno with service to the San Bruno BART station.	The northeastern terminus of Route 141 will continue to be Airport Boulevard and Linden Avenue. From the San Bruno BART station, Route 141 will turn west along Sneath Lane. It will traverse Moreland, Longview, and Allen Drives to Skyline College.
250	Route 250 connects the College of San Mateo with San Mateo and Hillsdale. Key destinations include the Hillsdale Caltrain station, San Mateo Caltrain station, Shoreview Shopping Center, Parkside Shopping Center, Marina Plaza Shopping Center, and Hillsdale Shopping Center.	Route 250 will end slightly east of El Camino Real in downtown San Mateo due to low ridership beyond that point. To better serve the new Hillsdale Caltrain station, Route 250 will travel on Saratoga Drive, then onto Franklin Parkway and 31st Avenue. The stops on Hillsdale Boulevard between Saratoga Drive and El Camino Real will no longer be served by Route 250. Between Hillsdale Shopping Center and the College of San Mateo, Route 250 will use West Hillsdale Boulevard, instead of CA-92. This change will provide a faster trip for riders to the College of San Mateo. Route 294 will continue to cover the segments of Alameda de las Pulgas currently served by Route 250. Trips on Route 250 that operate only on school days serving Bayside Middle School will continue to operate and be renamed Route 50.

Route	Current Route Description	Route Modification
251/256	Routes 251 and 256 are two loop routes connecting San Mateo and Foster City. The routes serve Hillsdale Caltrain station with other key destinations including Hillsdale Shopping Center, Bridgepointe Shopping Center, Foster City Elementary School, Beach Parking Plaza Shopping Center, Bowditch Middle School, Civic Center, and Marlin Cove Shopping Center.	Routes 251 and 256 will be consolidated into one route that will serve the highest ridership stops and densest areas in Foster City (Route 251). Route 251 will continue to provide service from Foster City to the Hillsdale Caltrain station and shopping center. The route will be modified. Service will run in a loop along Edgewater Boulevard, Beach Park Boulevard, and Foster City Boulevard, and connect to Hillsdale via Fashion Boulevard, 19th Avenue, and El Camino Real. Trips on Route 251 and 256 that operate only on school days serving Hillsdale High School will continue and be renamed Route 51.
260	Route 260 connects the College of San Mateo, San Mateo, Redwood Shores, and San Carlos. It serves both the San Carlos and Belmont Caltrain stations.	Route 260 will be shortened to run between Ralston Avenue at Cipriani Boulevard and San Carlos Caltrain via Bridge Parkway in Redwood Shores.
274, 275, 278	Routes 274, 275, and 278 travel between Redwood City and Cañada College. Route 274 runs between Canada College in Woodside to the Redwood City Transit Center with connections to Redwood City Caltrain. Route 275 connects the Redwood City Transit Center and Woodside High School via El Camino Real and Woodside Road. Route 278 combined the functions for Routes 274 and 275 for Saturday service.	Routes 274, 275, and 278 will be consolidated into one route. The new Route 275 will provide service similar to the existing Route 278 in both directions. It will use Alameda de las Pulgas and Farm Hill Boulevard to connect Woodside Road and Cañada College. Jefferson Avenue, previously served by Route 274, will be served between Alameda de las Pulgas and Redwood City Caltrain station by Route 295. Buses will use the freeway for trips to and from Cañada College in the peak direction of travel.
276	Route 276 served Redwood City from Marsh Street to the Caltrain station.	Route 276 will serve Redwood City Caltrain station from Winslow Road on the northeast side of the tracks, and then run along Broadway Street, Chestnut Street, and Bay Road, with a loop at Marsh Road, to Scott Drive and Bohannon Drive.

Route	Current Route Description	Route Modification
280/281	Route 280 serves Palo Alto and East Palo Alto. Route 281 serves Palo Alto, East Palo Alto, and Menlo Park (Belle Haven). Routes 280 and 281 overlap in Palo Alto between the Stanford Shopping Center and Donohoe Street along University Avenue. Both Routes 280 and 281 connect to Route 296 offering transfers to Redwood City and Menlo Park.	Route 280 will be retained, with a simplified alignment. From the Caltrain station, buses will travel down Everett Avenue, Middlefield Road, University Avenue, Bay Road, and Fordham Street to East Palo Alto. Existing service along Woodland Avenue and Donohoe Street will be eliminated. Route 281 will continue to serve the Onetta Harris Community Center, Bay Road, University Avenue, and the Palo Alto Transit Center. Route 281 will be extended to the Stanford University campus to connect riders with jobs and services near Stanford.
286	Route 286 connects several schools and residential areas to Menlo Park Caltrain station. Several trips continue to Corte Madera School in Portola Valley. The route serves Melo Park Caltrain station and travels down Santa Cruz Avenue in Menlo Park, where riders can transfer to multiple SamTrans routes, including ECR.	Route 286 will be renamed Route 86 and will operate one trip in the morning to Menlo-Atherton High School and one trip in the afternoon to Sharon Park Drive in Menlo Park from Menlo-Atherton High School corresponding to the school bell times.
292	Route 292 provides local service between Hillsdale, San Mateo, Burlingame, SFO Airport, South San Francisco, Brisbane, and downtown San Francisco.	In San Francisco, Route 292 will operate as a limited-stop service with stops approximately every half mile. A new connection on Route 292 to Millbrae Transit Center will improve access to San Francisco Airport, BART, Caltrain, and ECR bus service.
294	Route 294 is a coverage route that connects Half Moon Bay and Hillsdale. Other key destinations include the College of San Mateo, Strawflower Shopping Center, and Hillsdale Shopping Center.	Route 294 will continue to serve all stops in Half Moon Bay and in the Hillsdale area of San Mateo, including better connections to the new Hillsdale Caltrain station. Deviations to the College of San Mateo and San Mateo Medical Center will be discontinued.
295	Route 295 connects the low-density residential areas west of El Camino Real with Redwood City Caltrain, San Carlos Caltrain, Hillsdale Caltrain, and San Mateo Caltrain stations.	Route 295 will run between Redwood City, San Carlos Caltrain, and Hillsdale Shopping Center. Service north of Hillsdale Shopping Center will be discontinued and partially replaced with the new Route 249. Limited trips will occur to/from Cordilleras Center. The portion of the current route between Redwood City and San Carlos will operate on Jefferson Avenue instead of Whipple Avenue. In San Carlos, the route will use El Camino Real instead of Cedar Street, between San Carlos Avenue and Brittan Avenue.

Route	Current Route Description	Route Modification
296	Route 296 connects the Redwood City Transit Center and East Palo Alto. The route serves Redwood City and Menlo Park Caltrain stations throughout the day. Other key destinations include Palo Alto.	To reduce travel time and improve reliability, Route 296 will only enter the VA Hospital on trips heading toward Redwood City. On trips heading towards East Palo Alto, the nearest stop to the VA Hospital will be on Willow Road.
ECR	The ECR connects the Daly City BART station with Palo Alto Transit Center via El Camino Real. It travels through multiple jurisdictions, including Daly City, Colma, South San Francisco, San Bruno, Burlingame, San Mateo, San Carlos, Redwood City, and Palo Alto. The route parallels BART service between Daly City and Millbrae and serves every station in between. The ECR also parallels the Caltrain corridor between Millbrae and Palo Alto and has stops within a short distance of every station in between.	Route ECR will continue to operate as one route between Daly City BART and Palo Alto Transit Center. The route will no longer deviate to Flournoy Street and Sickles Avenue in San Francisco. During times that the Muni 14 Rapid is not running, Route ECR trips will continue to travel to Flournoy Street, east of Daly City BART.

Notes: AM Peak Hours = 6:00 AM–9:00 PM; Midday Hours = 9:00 AM–3:00 PM; PM Peak Hours = 3:00 PM–6:00 PM; Evening Hours = 6:00 PM–9:00 PM

New Routes and Connections

The proposed plan will include new services into Oyster Point (Route 130) and between East Palo Alto and San Bruno BART (Route EPX). Route EPX will have two route patterns: EPXa and EPXb. The headways for both routes will be approximately every 60 minutes during weekday peak hours. EPXa will be a new limited-stop route connecting East Palo Alto and Redwood City to the San Bruno BART station on weekdays, with a stop at San Francisco International Airport (SFO). EPXb will run from East Palo Alto to San Francisco.

The recommended network will also improve service to the college campuses in San Mateo County. New Routes 124 and 249 will feature limited stop connections from rail stations to college campuses. Route 124 will connect Daly City BART, Serramonte, and Skyline College. It will have limited stops between Daly City and Serramonte and provide faster connections between these two major destinations and Skyline College. In addition, Route 124 will provide express service from Callan Boulevard to Daly City BART, providing commuters with a faster service to BART. Route 124 will operate between 6:30 AM and 10:00 PM on weekdays only and run every 30 minutes during peak and midday periods and every 60 minutes later in the evening. Route 249 will connect the College of San Mateo and the downtown San Mateo area via West 3rd Avenue, Parrott Drive, Alameda de las Pulgas, and CA-92. This route will provide a faster, more direct route between downtown San Mateo, Caltrain, and the College of San Mateo and better serve existing student residential patterns. Route 249 will operate from 6:00 AM to 7:00 PM on weekdays every 30 minutes, and from 8:00 AM to 7:00 PM on weekends every 60 minutes.

Route 142 will operate between the SFO Rental Car AirTrain station and Shelter Creek Lane. Midday trips will also serve the San Bruno Senior Center. The route will operate from 6:00 AM to 7:00 PM every 60 minutes on the weekdays and from 7:00 AM to 7:00 PM every 60 minutes on Saturday and Sunday.

New On-Demand Service

The proposed plan will add a new on-demand service in two parts of the county (Half Moon Bay and East Palo Alto) to supplement changes to bus service and provide additional transportation options. On-demand service will increase access for people in areas where regular bus service is not provided. On-demand will use a smaller bus or vehicle that can travel on smaller neighborhood streets. With on-demand service, riders will call or use a mobile app to request a ride, and a shared vehicle will pick them up and drop them off anywhere within the designated zone. A local bus fare will be charged, similar to riding a regular SamTrans bus.

The East Palo Alto on-demand service will allow people to travel to and from places within a zone that is mostly east of US-101 but will also include the Menlo Park VA Medical Center and neighborhoods directly west of the freeway like the Woodland and O'Keefe apartments. This zone will connect people to SamTrans bus Routes 281 and 296. Route 281 connects riders to the Palo Alto Caltrain station, the Stanford Shopping Center, and Stanford University. Route 296 connects to points outside East Palo Alto such as the Menlo Park Caltrain station, Redwood City Hall, the Redwood City library, the Sequoia Station Shopping Center, grocery shopping on El Camino Real, and the Redwood City Transit Center. The East Palo Alto on-demand service will run from 6:00 AM to 10:00 PM, 7 days a week.

Half Moon Bay is a rural area with limited road access that has historically been hard to serve with regularly scheduled bus service. An on-demand zone serving El Granada and Half Moon Bay will connect people to grocery stores, community services, and Route 294 with service to other parts of San Mateo County. The on-demand zone will be bordered by Miramontes Point Road to the south, Capistrano Road to the north, and the Pacific Ocean to the west. The zone will extend inland to cover development on the east side of Highway 1. The Half Moon Bay on-demand transit service will operate from 8:00 AM to 5:00 PM, 7 days a week.

Discontinued Service

The proposed plan recommends eliminating select routes due to low ridership, high subsidy costs, or duplication of service between routes. **Table 4** identifies the routes proposed for elimination, the reason for elimination, and changes associated with the discontinuation.

Table 4. Discontinued/Consolidated Routes

Route	Discontinuation/Consolidation Reason and Changes
16	Consolidated into Route 49.
39	Consolidated into Route 37.
55	Consolidated into Route 53.
80	Route 80 service to Hillview School and Oak Knoll Elementary School will be removed from the system due to low ridership.
84	Consolidated into Route 83.
85	Morning service will be discontinued due to low ridership. Afternoon service will continue.
87	Morning service will be discontinued due to low ridership. Afternoon service to Woodside High School will continue.
95	Consolidated into Route 61.
140	Consolidated into Route 121.
256	Consolidated into Route 251.
274	Consolidated into Route 275.
278	Consolidated into Route 275.
286	Route renamed Route 86.
398	Route 398 will be eliminated. The resources used to operate Route 398 will be used to improve weekend service on Route ECR and Route 130 and extend SamTrans service into Oyster Point.
SFO	Route SFO will be eliminated due to low ridership. Route SFO riders will have the option of using the new Route 292, which will deviate to serve the Millbrae Transit Center or BART station.
FLX	Route FLX will be eliminated. Route 110 will be extended to cover the service area.

Surrounding Land Uses and Setting

The proposed plan will affect bus service provided by SamTrans, which serves large portions of San Mateo County and connects with other transit service providers in Palo Alto in Santa Clara County and San Francisco. Land use in the SamTrans service area varies and includes a variety of commercial, industrial, residential, agricultural, and open space uses.

Other Required Public Agency Approvals

None required.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project (i.e., the project would result in at least one potentially significant impact to the resource). Please see the checklist on the following pages for additional information.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☐ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation/Traffic	☐ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

DETERMINATION:

On the basis of this initial evaluation:

☒ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

12/30/2021

Signature

Date

Hilda Lafebre, Manager, Capital Projects & Environmental Planning

HILDA LAFEBRE

12/30/2021

Printed Name

Date

Part II Evaluation of Environmental Impacts

This Draft Initial Study (IS) uses the environmental checklist form presented in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The following terminology is used to evaluate the level of significance of impacts that would result from the proposed plan:

- A finding of *no impact* is made when the analysis concludes that the proposed plan would not affect the particular environmental issue.

- An impact is considered *less than significant* if the analysis concludes that there would be no substantial adverse change in the environment and that no mitigation is needed.

- An impact is considered *less than significant with mitigation incorporated* if the analysis concludes that there would be no substantial adverse change in the environment with the inclusion of the mitigation measure(s) described.

- An impact is considered *significant* or *potentially significant* if the analysis concludes that there could be a substantial adverse effect on the environment.

- *Mitigation* refers to specific measures or activities adopted to avoid an impact, reduce its severity, or compensate for it.

Note, although some routes were suspended due to the impacts of the COVID-19 pandemic, this environmental impact analysis analyzes the impacts of the Reimagine SamTrans plan compared to the SamTrans bus network that was in place before those route suspensions.

I. AESTHETICS: Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

a. Have a substantial adverse effect on a scenic vista?

A scenic vista is typically considered an aesthetically pleasing view as seen from a particular vantage point. Scenic vistas in San Mateo County are generally characterized by the County's coastlines as well as the ridgelines and skylines of the County's mountainous terrain. However, the proposed plan does not include or recommend the development or construction of buildings or other large physical features that will obstruct views. Therefore, there will be **no impact**.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The California Department of Transportation has designated three roads in San Mateo County as state scenic highways:

- I-280 from the San Bruno city limits to the Santa Clara County line;
- State Route 35 (Skyline Boulevard) from State Route 92 near Half Moon Bay to the Santa Cruz County line; and
- State Route 1 (Cabrillo Highway) from Half Moon Bay to the Santa Cruz County line.[1]

Currently, only one SamTrans route operates on these roads. Route 17 provides service along Highway 1 between Half Moon Bay and Pescadero. The proposed changes in routes will not damage trees, rock outcroppings, or historic buildings within a state scenic highway. Therefore, there will be **no impact.**

[1] Caltrans. Scenic Highways. Available at https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways, accessed October 26, 2021.

c. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Visual character is generally defined as the artistic attributes of any given viewpoint in relationship to one another and the surrounding environment. The visual character of San Mateo County varies by location, with urban development predominant on the eastern side of the County towards the San Francisco Bay and a more rural character predominant in the western and southern portions of the County. SamTrans service is primarily provided in the urban areas of the County, with some service provided in more rural areas, including Route 17, which runs along Highway 1, and portions of Route 85, which serve rural Portola Valley. Excluding existing minor bus infrastructure such as bus stops and shelters, SamTrans service will not constitute a permanent part of the visual character of any given area. The proposed plan does not include physical changes to the surrounding environment that will result in substantial degradation of existing visual character or quality of surrounding areas. Public views will remain similar to existing conditions. New bus service introduced to areas where none currently operates will be itinerant and will not affect visual character. Therefore, there will be **no impact**.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The proposed plan does not include the development or construction of any additional physical features or structures that will generate a new source of substantial light or glare that will adversely affect day or nighttime views. Therefore, there will be **no impact**.

II. AGRICULTURE AND FOREST RESOURCES:

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

According to 2016 data provided by the California Department of Conservation's Farmland Mapping & Monitoring Program, San Mateo County has 1,946 acres of prime farmland, 141 acres of farmland of statewide importance, 2,149 acres of unique farmland, and 716 acres of farmland of local importance.[2] Most of this farmland is located in rural areas along the coast or in the southern half of the County.[3] Excluding Routes 17, 18, 294, and the new on-demand

[2] California Department of Conservation. Farmland Mapping & Monitoring Program: 2014–2016 Farmland Conversion Report. Available at https://www.conservation.ca.gov/dlrp/fmmp/Pages/2014-2016_Farmland_Conversion_Report.aspx, accessed October 26, 2021.

[3] California Department of Conservation. San Mateo County Important Farmland 2018. Available at https://www.conservation.ca.gov/dlrp/fmmp/Pages/SanMateo.aspx, accessed October 26, 2021.

service in Half Moon Bay, no other SamTrans bus route runs adjacent to or in the vicinity of these farmlands.

The proposed plan does not include development in farmland, nor does it propose any type of physical development or construction that will result in conversion of these resources to non-agricultural resources. Therefore, there will be **no impact**.

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The County of San Mateo[4] and the Cities of Half Moon Bay[5] and Pacifica[6] have established agricultural zoning districts. Currently, only Routes 17, 18, 294, and the new on-demand service pass through areas zoned for agricultural use in the City of Half Moon Bay and in surrounding areas of unincorporated San Mateo County. According to the California Department of Conservation, as of 2017, many of these agricultural areas were subject to Williamson Act contracts.[7]

The proposed plan does not include any type of physical development or construction in areas zoned for agriculture or subject to a Williamson Act contract. Therefore, there will be **no impact**.

c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

The San Mateo County General Plan identifies 60,000 acres of commercially productive forestland in the County.[8] The County zoning regulations indicate that timber harvesting is a permitted use in zoned Resource Management Districts.[9] The proposed plan will not conflict with existing zoning for, or cause rezoning of, any forest land or timberland. Therefore, there will be **no impact**.

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[4] County of San Mateo. Zoning Regulations. October 2020. Available at https://planning.smcgov.org/sites/planning.smcgov.org/files/SMC_Zoning_Regulations.pdf, accessed October 26, 2021.

[5] City of Half Moon Bay. Zoning Map. June 2015. Available at https://www.half-moon-bay.ca.us/DocumentCenter/View/129/Zoning-Map-PDF, accessed October 26, 2021.

[6] City of Pacifica. Zoning Maps. December 2017. Available at https://www.cityofpacifica.org/civicax/filebank/blobdload.aspx?BlobID=13644, accessed October 26, 2021.

[7] California Department of Conservation. State of California Williamson Act Contract Land. 2017. Available at https://planning.lacity.org/eir/HollywoodCenter/Deir/ELDP/(E)%20Initial%20Study/Initial%20Study/Attachment%20B%20References/California%20Department%20of%20Conservation%20Williamson%20Map%202016.pdf, accessed October 26, 2021.

[8] San Mateo County General Plan. November 1986. Available at https://planning.smcgov.org/sites/planning.smcgov.org/files/SMC-GP%201986.pdf, accessed October 26, 2021.

[9] County of San Mateo. Zoning Regulations. October 2020. Available at https://planning.smcgov.org/sites/planning.smcgov.org/files/SMC_Zoning_Regulations.pdf, accessed October 26, 2021.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

The Project will not remove or convert any forest land. Therefore, there will be **no impact**.

e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The proposed plan does not involve changes that will result in converting farmland to non-agricultural uses. Therefore, there will be **no impact**.

III. AIR QUALITY:

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	☒
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

This section summarizes the detailed air quality analysis included in in Appendix A.

a. Conflict with or obstruct implementation of the applicable air quality plan?

Ambient air quality standards are set to protect public health. San Mateo County is designated by the U.S. Environmental Protection Agency (EPA) as a non-attainment area for the National Ambient Air Quality Standards for two criteria pollutants: ozone and fine particulates ($PM_{2.5}$).[10] San Mateo County is also designated as a non-attainment area by the California Air Resources Board (ARB) for state air quality standards for ozone, $PM_{2.5}$, and coarse particulates (PM_{10}).[11] Plans to improve air quality and attain ambient air quality standards in the Bay Area are developed by the Bay Area Air Quality Management District (BAAQMD), in cooperation with the Metropolitan Transportation Commission and the Association of Bay Area Governments.

Changes in bus service could affect ambient air quality regionally by changing direct emissions from the bus fleet, and indirectly by affecting ridership/mode choice (e.g., the decision of riders to use transit or drive an automobile).

As determined in Section XVII, Transportation/Traffic, the proposed plan will increase SamTrans annual bus vehicle miles traveled (VMT) by 168,912. ARB's Emission Factor (EMFAC) model was used to estimate the bus exhaust emissions attributable to this increase.[12] The derived

[10] EPA. Green Book: California Non-attainment/Maintenance Status for Each County by Year for All Criteria Pollutants. September 30, 2021. Available at https://www3.epa.gov/airquality/greenbook/anayo_ca.html, accessed October 28, 2021.

[11] ARB. Maps of State and Federal Area Designations. Available at https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations, accessed October 28, 2021.

[12] ARB. EMFAC (Online Tool). Available at https://arb.ca.gov/emfac/emissions-inventory/366a8790dd9dfc512b1775c562736f14164401ff, accessed October 28, 2021.

emission factors for each pollutant were multiplied by the increase in VMT to estimate the increase in pollutant emissions.

The resulting annual bus emissions are shown in Table III.1. These values are compared to significance thresholds published in the May 2017 BAAQMD CEQA Guidelines.[13] The emissions from the proposed plan will not exceed the applicable thresholds included in the Guidelines, and the proposed plan will not conflict with or obstruct implementation of the applicable air quality plan.

In addition, the passenger vehicle reductions will likely offset the small increase in emissions from the buses. The proposed plan will not obstruct implementation of the applicable air quality plans, and there will be **no impact**.

Table III.1. Operational Emissions

Year	Emissions (ton/year)			
	Reactive Organic Gases	NO_X	PM_{10} (exhaust)	$PM_{2.5}$ (exhaust)
Annual Emissions	<0.01	0.70	<0.01	<0.01
BAAQMD Thresholds	10	10	15	10
Threshold Exceeded?	No	No	No	No

Notes: NO_X = oxides of nitrogen; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM_{10} = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less.

Source: Table 2-1, BAAQMD CEQA Air Quality Guidelines.

b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

As indicated under (a), above, the proposed plan will not result in a significant contribution of any criteria pollutant for which the project region is in non-attainment.

In addition, the changes to bus service associated with the proposed plan are expected to increase transit ridership and decrease annual passenger VMT. As a result, criteria pollutant emissions, such as ozone precursors and particulate matter from passenger vehicles in the region, will similarly be reduced compared to existing conditions. The passenger vehicle reductions will likely offset the small increase in emissions from the buses. Therefore, there will be **no impact**.

The potential for regional air quality impacts will be further reduced through implementation of the SamTrans Innovative Clean Transit (ICT) Rollout Plan, approved by the SamTrans Board of Directors in December 2020. The ICT Rollout Plan outlines steps to guide the SamTrans transition from diesel- and gasoline-powered vehicles to zero emission vehicles by 2038. As

[13] BAAQMD. CEQA Guidelines Update. Available at https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines, accessed October 28, 2021.

determined in Section XVII, Transportation/Traffic, the proposed plan will increase SamTrans' annual bus VMT by 168,912. ARB's EMFAC model was used to estimate the bus exhaust emissions attributable to this increase.[14] However, reductions in passenger VMT will likely offset the small increase in emissions from the buses. The derived emission factors for each pollutant were multiplied by the increase in VMT to estimate the increase in pollutant emissions.

c. Expose sensitive receptors to substantial pollutant concentrations?

Bus routes without changes, or with decreased service frequency or route miles, will not cause local air quality impacts. As discussed in Section XVII, Transportation/Traffic, the proposed routes with increased service will not substantially affect congestion. Existing ambient air quality will continue to be dominated by general automobile and truck traffic volumes, not the SamTrans bus service. Therefore, a detailed hot spot analysis is not warranted. The proposed plan will not expose sensitive receptors to substantial pollutant concentrations, and there will be **no impact**.

As noted above, air quality impacts will be further reduced through implementation of the SamTrans ICT Rollout Plan, which will transition the fleet from diesel- and gasoline-powered vehicles to zero emission vehicles by 2038.

d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Diesel buses will not operate at frequencies that will create objectionable odors that affect a substantial number of people. There will be **no impact.**

[14] ARB. EMFAC (Online Tool). Available at https://arb.ca.gov/emfac/emissions-inventory/366a8790dd9dfc512b1775c562736f14164401ff, accessed October 28, 2021.

IV. BIOLOGICAL RESOURCES: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

San Mateo County is home to numerous special status species identified under the Endangered Species Act of 1973 (7 United States Code [USC] §136, 16 USC §1531 et seq.) by the U.S. Fish and Wildlife Service and under the California Endangered Species Act (California Fish and Game Code §§2050–2115.5) by the California Department of Fish and Game. However, the proposed plan does not include or propose the development or construction of any additional physical features or structures, nor does it propose any kind of permanent physical change to the surrounding environment. Areas where new bus service may be introduced are already fully developed and highly disturbed, and it is unlikely that changes in bus service will result in a substantial adverse effect on special status species or sensitive natural communities. Therefore, any potential impacts arising from the implementation of the proposed plan will be **less than significant.**

The overall effects of the proposed plan on species of concern will be **less than significant**.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The County features numerous streams, lakes, and reservoirs that may support riparian habitats and other sensitive natural communities. Given that SamTrans buses operate on developed roadways and the proposed plan will not involve construction of new roadways or other features in riparian areas, the proposed plan will not affect these habitats. There will be **no impact**.

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The County features numerous federally protected wetlands. However, SamTrans buses operate on developed roadways and will continue do so under the proposed plan. There will be **no impact**.

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Wildlife corridors are generally defined as narrow strips of land that connect larger habitat areas that would otherwise be separated by terrain, changes in vegetation, or human development. SamTrans primarily operates in highly disturbed, urbanized areas where wildlife corridors or native wildlife nursery sites are unlikely to occur.

The proposed plan does not include the development or construction of buildings or other structures that will impede wildlife movement. Areas where new bus service may be introduced under the proposed plan are already developed, and it is unlikely that this will result in a substantial adverse effect on migratory wildlife corridors or native wildlife nurseries. Therefore, any potential impacts arising from the implementation of the proposed plan will be **less than significant**.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The proposed plan does not include the development or construction of physical features or structures that will conflict with any local policies or ordinances protecting biological resources. There will be **no impact**.

f. Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan?

The U.S. Fish and Wildlife Service has authorized habitat conservation plans (HCPs) in areas served by SamTrans, including the San Bruno Mountain HCP,[15] the adjacent Parkside Homes

[15] County of San Mateo Parks Department. San Bruno Mountain Habitat Conservation Plan. Available at https://parks.smcgov.org/san-bruno-mountain-habitat-conservation-plan, accessed October 27, 2021.

HCP,[16] and the Pacific Gas & Electric (PG&E) Bay Area Habitat Conservation Plan.[17] Reimagine SamTrans will continue to operate buses along existing roadways, which will not conflict with adopted HCPs. There will be **no impact**.

[16] United States Fish & Wildlife Service. Environmental Conservation Online System (ECOS). Parkside Homes Habitat Conservation Plan. Available at https://ecos.fws.gov/ecp/report/conservation-plan?plan_id=89, accessed October 27, 2021.

[17] ICF. Bay Area Habitat Conservation Plan: Operations & Maintenance. Prepared for PG&E. September 2017. Available at https://ecos.fws.gov/docs/plan_documents/thcp/thcp_2897.pdf, accessed October 27, 2021.

V. CULTURAL RESOURCES: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☒

a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

According to the San Mateo County General Plan, the County encompasses 54 resources that are listed on the National Register of Historic Places or the California Register of Historic Resources.[18] According to the California Office of Historic Preservation, 34 California State Historic Landmarks are in San Mateo County.[19] Many of these resources are located within the SamTrans service area, and several are directly served by SamTrans bus routes. Under Section 15064.5 of the CEQA Guidelines, a substantial adverse change in the significance of a historic resource means physical demolition, destruction, relocation, or alteration of a resource or its immediate surroundings such that the historical resource would be materially impaired. The proposed plan does not include or propose the demolition, destruction, relocation, or alteration of any physical features or structures, nor does it propose any kind of permanent addition to or physical change to the surrounding environment. Areas where new bus service may be introduced under the proposed plan will not affect historic resources. Therefore, there will be **no impact** to historic resources.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

The proposed plan does not include or propose the development or construction of any physical features or structures that will cause ground disturbance that will result in substantial adverse changes in the significance of an archaeological resource Therefore, there will be **no impact.**

c. Disturb any human remains, including those interred outside of dedicated cemeteries?

The proposed plan does not include or propose the development or construction of any physical features or structures that will cause ground disturbance that will disturb human remains. Therefore, there will be **no impact**.

[18] San Mateo County General Plan. November 1986. Available at https://planning.smcgov.org/sites/planning.smcgov.org/files/SMC-GP%201986.pdf, accessed October 26, 2021.

[19] California Office of Historic Preservation. California Historical Landmarks by County: San Mateo. Available at https://ohp.parks.ca.gov/?page_id=21520, accessed October 27, 2021.

VI. ENERGY: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☒
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The proposed plan does not include or propose the development or construction of any additional physical features or structures that will generate a new source or need for energy that will result in wasteful, inefficient, or unnecessary consumption of energy. As indicated in Section XVII, Transportation/Traffic, the proposed plan will result in a net decrease in total VMT (a minor increase in bus VMT, but a much larger decrease in passenger automobile VMT), which will result in a proportional reduction in energy use for transportation. Therefore, there will be **no impact**.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The SamTrans ICT Rollout Plan, approved by the SamTrans Board of Directors in December 2020, outlines a plan to guide the SamTrans transition from diesel- and gasoline-powered vehicles to zero emission by 2038, without early retirement of diesel vehicles. It articulates phased infrastructure upgrades to incrementally expand associated infrastructure as new zero-emissions vehicles are inserted in the fleet. Planned improvements include repaving and restriping of bus parking areas, installing managed bus charging infrastructure, and upgrading the electrical service for each base. The ICT Rollout Plan considers photovoltaic canopies to offset operational expenses while taking advantage of renewable solar energy. All bus purchases starting in 2021, for both fleet expansion and fleet replacement, are planned as battery-electric buses.

The proposed plan will not conflict with the ICT Rollout Plan or any other state or local plan for renewable energy or energy efficiency. Therefore, there will be **no impact**.

VII. GEOLOGY/SOILS: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☒
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

According to the United States Geologic Service (USGS), the principal earthquake fault in the SamTrans service area is the San Andreas fault, which runs from a northwest to southeast direction through the length of San Mateo County.[20] Currently Routes 16, 49, 85, 110, 112, 118, 121, 140, and 294 cross the San Andreas Fault at various locations throughout the County.

[20] USGS. The San Andreas Fault and Other Bay Area Faults. Available at https://earthquake.usgs.gov/earthquakes/events/1906calif/virtualtour/bayarea.php, accessed October 27, 2021.

Under the proposed plan, minor route changes will not result in riders being newly exposed to new substantial adverse effects associated with earthquake fault rupture. Furthermore, the proposed plan does not include or propose the development or construction of any additional physical features or structures that will expose people or structures to substantial adverse effects associated with earthquake fault rupture. Therefore, there will be **no impact.**

ii. Strong seismic ground shaking?

Under the proposed plan, minor route changes will not result in riders being newly exposed to new substantial adverse effects associated with strong seismic ground shaking. Furthermore, the proposed plan does not include or propose the development or construction of any additional physical features or structures that will expose people or structures to substantial adverse effects associated with earthquake fault rupture or strong seismic ground shaking. Therefore, there will be **no impact**.

iii. Seismic-related ground failure, including liquefaction?

According to the San Mateo County Planning and Building Department, areas in San Mateo County most susceptible to earthquake-induced liquefaction are generally found along the San Francisco Bay and, to a lesser degree, along the coast south of Half Moon Bay.[21] While SamTrans currently serves areas susceptible to liquefaction and will continue to do so under the proposed plan, because of the itinerant nature of bus service, riders will not be newly exposed to substantial adverse effects. Furthermore, the proposed plan does not include or propose the development or construction of any additional physical features or structures that will expose people or structures to substantial adverse effects associated with liquefaction. Therefore, there will be **no impact**.

iv. Landslides?

Areas most susceptible to landslide are generally located in the mountainous, rural portions of the County.[22] While SamTrans currently serves areas susceptible to landslide and will continue to do so under the proposed plan, because of the itinerant nature of bus service, riders will not be newly exposed to substantial adverse effects. Furthermore, the proposed plan does not include or propose the development or construction of any additional physical features or structures that will expose people or structures to substantial adverse effects associated with landslide. Therefore, there will be **no impact**.

b. Result in substantial soil erosion or the loss of topsoil?

The proposed plan does not include or propose the development or construction of any additional physical features or structures that will cause ground disturbance that will result in substantial soil erosion or the loss of topsoil. There will be **no impact**.

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[21] San Mateo County Planning and Building. Earthquake Liquefaction (Map). Available at https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Earthquake_Liq_Shak.pdf, accessed October 27, 2021.

[22] San Mateo County Planning and Building. Existing Landslides (Map). Available at https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Existing_Landslides.pdf, accessed October 27, 2021.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

The proposed plan does not include or propose the development or construction of any additional physical features or structures that will be located on any unstable soil or geologic units subject to landslide, lateral spreading, subsidence, or collapse. Buses will travel on existing roads. Therefore, there will be **no impact**.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

The proposed plan does not include or propose the development or construction of any additional physical features or structures on expansive soils. Buses will travel on existing roads. Therefore, there will be **no impact**.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No septic tanks or wastewater disposal systems are associated with the proposed plan. Therefore, there will be **no impact**.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The proposed plan does not include or propose the development or construction of any additional physical features or structures, and as such it will not disturb paleontological resources. Therefore, there will be **no impact**.

VIII. GREENHOUSE GAS EMISSIONS: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☒
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

This section summarizes the detailed greenhouse gas analysis included in Appendix A.

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

To date, no national standards or thresholds for greenhouse gas emissions applicable to transit service plans have been established. EPA regulations regarding greenhouse gas emissions have been primarily focused on vehicle emissions standards. At the state level, California has enacted numerous laws related to climate change and reducing greenhouse gas emissions, including Assembly Bill 32—the California Global Warming Solutions Act of 2006 and Senate Bill 375—California's Sustainable Communities Strategy and Climate Protection Act. California's greenhouse gas emission reduction targets have also been guided by executive orders and through implementation policy and procedures developed by ARB. California's policies do not prescribe greenhouse gas emissions standards applicable to transit service plans, but they do encourage reduced emissions from automobiles and trucks that can be achieved in part by increasing transit ridership and encouraging land development patterns supportive of transit service. Therefore, to provide a proxy to assess potential impacts from Reimagine SamTrans, BAAQMD's thresholds for individual land use projects is used in this analysis.

The bus VMT analysis and ridership information discussed in Section III, Air Quality, shows that the proposed plan will increase annual bus VMT and decrease automobile VMT. Using the same emissions estimation methodology, the potential increase in carbon dioxide (CO_2) emissions was calculated for the additional bus VMT using the EMFAC model. The resulting increase of 331 tons of CO_2 per year is below the BAAQMD significance threshold of 1,100 metric tons per year of CO_2 equivalent (CO_2e) for individual land use projects. In addition, the passenger vehicle reductions will likely offset the small increase in emissions from the buses.

Therefore, there will be **no impact**.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As indicated in Section XVII, Transportation/Traffic, the proposed plan will result in a substantial reduction in automobile VMT and a small increase in bus VMT. Therefore, the proposed plan will result in overall reduction in greenhouse gas emissions, which is supportive of regional and statewide plans and policies. The proposed plan will result in a net increase in bus ridership (by increasing service on the routes with the greatest ridership potential), which is consistent with regional and statewide goals for increasing transit use and reducing automobile travel. Therefore, there will be **no impact**.

IX. HAZARDS AND HAZARDOUS MATERIALS: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The proposed plan does not involve the routine transport, use, or disposal of hazardous materials. Therefore, there will be **no impact**.

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

The proposed plan will not involve use of hazardous materials. As such, there will be no potential for a release of hazardous materials into the environment. Therefore, there will be **no impact**.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The proposed plan will not involve the use of hazardous materials. As such, there will be no potential for a release of hazardous materials within one-quarter mile of existing or proposed schools. Therefore, there will be **no impact**.

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The proposed plan will not be located on a specific site. Buses will travel on existing roadways and will not require substantial new ground disturbance of hazardous materials sites. There will be **no impact**.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

SamTrans bus service is provided in areas that fall within both Area A and Area B of the Airport Influence Area of SFO. Area B covers portions of the Cities of Daly City, Colma, San Bruno, South San Francisco, Millbrae, Burlingame, and Hillsborough and represents areas subject to the safety and noise compatibility policies of the San Francisco International Airport Comprehensive Land Use Plan. Area A covers the remainder of the County, which is subject to requirements governing real estate disclosure of aviation activity.[23] SamTrans also provides service to areas covered by the Airport Influence Areas of San Carlos Airport and Half Moon Bay Airport, both of which cover much smaller geographic areas.[24] [25] However, the proposed plan does not include construction, land use development, or any other activity that will potentially result in a safety hazard for people residing or working in these areas. Therefore, there will be **no impact**.

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The proposed plan will not result in any activity or include or propose the development or construction of any additional physical features or structures that will impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Buses will operate on existing roadways. Therefore, there will be **no impact**.

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

According to data provided on the Fire Hazard Severity Zones Maps developed by the California Department of Forestry, the majority of areas classified as high or very high risk zones for wildfire are generally located west of I-280, with smaller areas located in rural parts of the communities of South San Francisco, Hillsborough, San Mateo, Belmont, San Carlos, Half

[23] Ricondo & Associates. Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport. Prepared for City/County Association of Governments of San Mateo County. November 2012.

[24] Environmental Science Associates. Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport. Prepared for City/County Association of Governments of San Mateo County. October 2015.

[25] Coffman Associates. Final Airport Land Use Compatibility Plan for the Environs of Half Moon Bay Airport. Prepared for City/County Association of Governments of San Mateo County. September 2014.

Moon Bay, Redwood City, and Woodside.[26] [27] The proposed plan will not result in the development or construction of any habitable structures in wildfire hazard areas. Therefore, the proposed plan will not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. There will be **no impact**.

[26] California Department of Forestry & Fire Protection. Fire Hazard Severity Zones in SRA. November 7, 2007. Available at https://osfm.fire.ca.gov/media/6802/fhszs_map41.pdf, accessed October 27, 2021.

[27] California Department of Forestry & Fire Protection. Very High Fire Hazard Severity Zones in LRA. November 24, 2008. Available at https://osfm.fire.ca.gov/media/6800/fhszl_map41.pdf, accessed October 27, 2021.

X. HYDROLOGY AND WATER QUALITY: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☒
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would in a manner which would:				
i) result in a substantial erosion or siltation on- or off-site;	☐	☐	☐	☒
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☐	☒
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒
iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Implementation of the proposed plan will not involve any activity or include or propose the development or construction of any physical features or structures that will result in a degradation of water quality or violate any water quality standards or waste discharge requirements. Therefore, the proposed plan will have **no impact**.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The proposed plan will not affect groundwater supplies or groundwater recharge. Buses will operate on existing roadways. Therefore, there will be **no impact**.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would in a manner which will:

i) result in a substantial erosion or siltation on- or off-site;

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv) impede or redirect flood flows?

The proposed plan does not include substantial new ground disturbance or paving that will result in erosion, increased surface runoff, or otherwise affect drainage patterns. Buses will operate on existing roadways. Therefore, there will be **no impact**.

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Implementation of the proposed plan will not result in placement of habitable structures in flood hazard areas or expose people or structures to risks resulting from flooding due to dam failure or inundation by seiche, tsunami, or mudflow. There will be **no impact**.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The proposed plan will not conflict with, nor will it hinder implementation of, a sustainable groundwater management plan or water quality control plan. Therefore, there will be **no impact**.

XI. LAND USE/PLANNING: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

a. Physically divide an established community?

Implementation of the proposed plan will not result in any activity or the development or construction of any additional physical features or structures that will physically divide an established community. Therefore, there will be **no impact.**

b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

By increasing net ridership in the SamTrans system, the proposed service changes will be consistent with local and regional plans that encourage transit ridership and decrease automobile use to improve air quality. As discussed under Section IV, Biological Resources, the proposed plan will not conflict with any existing HCP. Therefore, there will be **no impact**.

XII. MINERAL RESOURCES: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

and

b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The San Mateo County General Plan identifies areas of significant mineral resources in the County.[28] While SamTrans provides service to areas located near some of these resources, bus service has no effect on the resources or access to the resources. The proposed plan will solely affect bus service and will not involve construction or development activities that will result in the loss of availability of known mineral resources or locally important mineral resource recovery sites. Therefore, there will be **no impact.**

[28] San Mateo County General Plan. November 1986. Available at https://planning.smcgov.org/sites/planning.smcgov.org/files/SMC-GP%201986.pdf, accessed October 26, 2021.

XIII. NOISE: Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Altering route alignments under the proposed plan will introduce regular service to thoroughfares that are not currently served. Because of the itinerant nature of bus frequency under the proposed plan, noise from bus service will not newly expose people to noise levels in excess of established standards. No substantial temporary or permanent increase in ambient noise levels resulting from implementation of the proposed plan will occur. Therefore, the impact will be **less than significant**.

b. Generation of excessive groundborne vibration or groundborne noise levels?

Because of the itinerant nature of bus frequency under the proposed plan, vibration from passing buses will not generate excessive groundborne vibration or groundborne noise. The impact will be **less than significant**.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

As discussed in Section IX, Hazards and Hazardous Materials, SamTrans bus service is provided in areas that fall within both Area A and Area B of the Airport Influence Area of San Francisco International Airport. SamTrans also provides service to areas covered by the Airport Influence Area of San Carlos Airport and Half Moon Bay Airport. However, the proposed plan does not include construction, land use development, or any other activity that will result in exposure of people to excessive noise levels. Additionally, no private airstrips are near existing or proposed SamTrans bus routes as identified in the proposed plan. Therefore, there will be **no impact**.

XIV. POPULATION AND HOUSING: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Implementation of the proposed plan will improve bus service in San Mateo County and will provide transportation services to existing resident and workers. These actions will not result in development of any new housing or jobs, nor necessitate displacement of any housing or people. These actions will not result in the extension of new physical infrastructure (roads, sewers, electric lines) that will induce development. Therefore, there will be **no impact**.

b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The proposed plan will not displace any existing people or housing. Therefore, there will be **no impact**.

XV. PUBLIC SERVICES: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protection, police protection, schools, parks, other public facilities?

Because the proposed plan will not induce population growth in the area or displace any housing or people, it will not increase demand for fire protection, police protection, schools, parks, or other public facilities or affect levels of those public services. **No impacts** on public services will result.

XVI. RECREATION:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The proposed plan will not include any residential or commercial development that will increase use of an existing park or recreational facility. Therefore, there will be **no impact**.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The proposed plan will not construct any new recreational facilities or expand any existing recreational facilities. Therefore, there will be **no impact**.

XVII. TRANSPORTATION/TRAFFIC: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☐	☒
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

This section summarizes the detailed traffic and CEQA transportation analysis prepared for the proposed plan, which is included in Appendix A.

a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

The proposed plan will generate an increase of 168,912 annual transit revenue miles and bus VMT. These calculations account for changes in service span, service frequency, and inclusion/removal of routes, as well as the number of days in a typical year with weekday, Saturday, and Sunday schedules. However, considering the “ridership effect,” which accounts for people changing their travel mode from personal autos to transit, the proposed plan will result in a general reduction of 17,606,136 annual VMT in the region served by SamTrans.

Therefore, on a regional basis, the proposed route modifications will increase overall SamTrans weekday daily ridership and have a net effect of reducing automobile use, consistent with local and regional plans that support increasing the use of transit.

On a localized basis, for areas where discontinued service could increase automobile use, proposed service discontinuation is estimated to add fewer than 1,600 daily vehicle trips in the SamTrans service area. The projected increase in auto trips for discontinued routes will be distributed throughout the local street networks and throughout the day. As a result, the projected increase in traffic on each of the affected roadways will be negligible in relation to existing traffic volumes during both peak and off-peak periods.

Changes in SamTrans service could slightly increase demand for other transit options. However, passengers will be distributed throughout the day among multiple other transit providers (Caltrain, BART, and Muni). These additional passengers will have negligible impacts on transit service from other providers.

The proposed plan does not involve physical infrastructure that will affect roadway, bicycle, or pedestrian facilities.

Therefore, there will be **no impact.**

b. Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

The proposed plan will result in a net decrease in total VMT (a minor increase in bus VMT, but a much larger decrease in passenger automobile VMT) in the region and, therefore, will cause a less than significant transportation impact according to CEQA Guidelines section 15064.3, subdivision (b). New routes and routes with expanded service will experience increased bus traffic, and discontinued routes will result in an increase in private vehicle trips from the change in travel mode from transit to auto. However, the net effect on roadways in these areas will be negligible because of the relatively few SamTrans buses in relation to existing traffic volumes, the location of bus routes on major roadways with appropriate infrastructure such as signalized intersections and turning lanes, and the availability of alternative transit services on most of the routes that will be discontinued. The service improvements in the proposed plan, such as higher frequency and new/longer routes, will make SamTrans a more viable option for traveling in the region, attracting new riders from personal autos to transit, and fostering communities where trip distances are shorter and walking and cycling are more attractive options. The impact will be **less than significant**.

c. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed new routes or route modifications under the proposed plan will be located on roadways with appropriate design features to accommodate bus service, and most of the affected roadways already carry existing bus services. The proposed project will not increase hazards due to design features. Therefore, there will be **no impact**.

d. Result in inadequate emergency access?

The proposed plan will have no effect on emergency access. The proposed plan does not include new physical infrastructure that will impede emergency response. New routes or route modifications under the proposed plan will be located on roadways with appropriate design features to accommodate bus service. On roadways where the plan will result in increased service, the net effect will be negligible because of the relatively few SamTrans buses in relation to existing traffic volumes, as well as the location of bus routes on major roadways with appropriate infrastructure such as signalized intersections and turning lanes. Therefore, there will be **no impact**.

XVIII. TRIBAL CULTURAL RESOURCES: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☐	☐	☒

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

The proposed plan will not involve excavation for new buildings or structures. Buses will operate on existing roadways. Therefore, the proposed plan will not cause an adverse change in the significance of a tribal cultural resource listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources. Therefore, **no impact** on resources with cultural value to a California Native American tribe will occur.

b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

The proposed plan will not involve excavation for new buildings or structures. Buses will operate on existing roadways. Therefore, there will be **no impact**.

XIX. UTILITIES/SERVICE SYSTEMS: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The proposed plan will not result in wastewater production. Therefore, there will be **no impact**.

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The proposed plan will not produce any wastewater or increase water demand. Therefore, there will be **no impact**.

c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The proposed plan will not result in the construction of new drainage facilities or the expansion of existing facilities. Therefore, there will be **no impact**.

d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The proposed plan will not generate new water demand. Therefore, there will be **no impact**.

e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The proposed plan will not result in wastewater generation. Therefore, there will be **no impact**.

f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

The proposed plan will not involve construction. Operation of the proposed plan will not result in additional solid waste disposal needs. Therefore, there will be **no impact** to landfills.

g. Comply with federal, state, and local statutes and regulations related to solid waste?

Implementation of the proposed plan will comply with federal, state, and local statutes governing solid waste Therefore, there will be **no impact**.

XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

As indicated in Section IX, Hazards and Hazardous Materials, some existing and proposed routes are located in very high fire hazard areas. However, the proposed plan will not result in any activity or include or propose the development or construction of any additional physical features or structures that will impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, there will be **no impact**.

b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The proposed plan will not result in the development or construction of any habitable structures in wildfire hazard areas. Although the proposed plan will modify some routes in areas zoned for very high fire risk, buses will not operate through areas of ongoing wildland fires. There will be **no impact**.

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The proposed plan does not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. There will be **no impact**.

d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The proposed plan will not result in the development or construction of any habitable structures in wildfire hazard areas. Buses will not operate through areas of known substantial landslide or flooding risk. There will be **no impact**.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

The proposed plan does not include or propose the development or construction of occupiable buildings. Areas where new bus service may be introduced under the proposed plan are already developed and highly disturbed, and the plan will not result in an adverse effect on special status species or sensitive natural communities. The plan will have a net beneficial effect on regional air quality. No construction will occur that will disturb cultural resources. Therefore, any potential impacts arising from the implementation of the proposed plan will be **less than significant.**

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

The impacts of the proposed plan will not be cumulatively considerable. The proposed plan will not result in substantial physical changes in the environment. In combination with past, present, and reasonably foreseeable future actions—such as the ICT Rollout—the proposed plan will reduce air pollutant emissions and overall VMT. There will be **no impact**.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The proposed plan does not involve features that could cause substantial adverse environmental effects on human beings. Impacts related to air quality, noise, traffic, hazardous

materials, and other impact categories affecting human beings will not be significant. There will be **no impact**.

APPENDIX A

REIMAGINE SAMTRANS
TRANSPORTATION, AIR QUALITY, AND GREENHOUSE GAS TECHNICAL ANALYSIS

REIMAGINE SAMTRANS

TRANSPORTATION, AIR QUALITY AND GREENHOUSE GAS TECHNICAL ANALYSIS

WSP USA SOLUTIONS, INC.

DECEMBER 2021

Contents

1.0 INTRODUCTION AND PURPOSE

"Reimagine SamTrans" is the name of the San Mateo County Transit District's (SamTrans') comprehensive operational analysis. Through this comprehensive operational analysis (COA), SamTrans developed a Preferred Alternative of bus routes and frequencies (proposed plan). This document presents the transportation, air quality, and technical impact analyses, pursuant to the California Environmental Quality Act (CEQA), of the proposed changes to bus routes and frequencies.

2.0 TRANSPORTATION IMPACTS

The WSP team analyzed the impact of the proposed plan on the region's transportation network. The analysis was performed at a regional and local scale.

METHODOLOGY

The following data were collected from SamTrans and used in the traffic and transportation impact assessment:

- Maps of the existing and proposed service changes for all bus routes
- Existing and proposed service frequency by route
- Description of route changes and available alternatives for affected riders
- System mileage for the existing and proposed network
- Existing average weekday daily ridership by route
- Existing passenger boarding and alighting data by route and bus stop

The **regional transportation impact** was evaluated by calculating the change in transit directional route miles and annual transit revenue miles in the proposed plan. These results were used as inputs for a tool developed by the Transportation Research Board (TRB) Transit Cooperative Research Program (TCRP) that examines interrelationships between new transit service and land use patterns to understand their contribution to potential vehicle miles traveled (VMT) and greenhouse gas (GHG) reduction benefits.

The **local transportation impact** was estimated by analyzing three factors:

- Increases in bus traffic volume for routes with improved or new service, taking into account areas where these increases overlap and/or are on already congested roads.
- Increases in auto traffic linked to riders changing their travel mode to automobile as an effect of discontinued routes, shortened routes, or decreased frequency.
- Increases in demand for different transit providers linked to riders shifting modes as an effect of discontinued routes, shortened routes, or decreased frequency.

The evaluation of the increase in bus and auto road traffic considered the existing conditions of the SamTrans area road network. The City/County Association of Governments of San Mateo County (C/CAG), as the Congestion Management Agency of San Mateo County, has developed

Level of Service (LOS) standards for 53 roadway segments (along State Routes [SR] 1, 35, 82, 84, and 92; US Highway 101; SR 109 and 114; Interstate [I]-280 and 380; and along major roadways on Geneva Avenue, Mission Street, and Bayshore Boulevard) and 16 intersections (mostly along SR 82/El Camino Real and SR 84) throughout the County. These facilities are included in the San Mateo County Congestion Management Plan. Potential effects at the roadway segments and intersections included in Congestion Management Plan were also evaluated based on the projected increase in bus volumes due to the proposed plan.

REGIONAL IMPACT

Generally, VMT is the most appropriate measure of transportation impacts. Most projects are aimed at reducing VMT in a region by improving transportation options to better and more efficiently serve travel needs. According to CEQA criteria, transportation projects that reduce or have no impact on VMT should be presumed to cause a less than significant transportation impact.

The TRB TCRP collected multiple datasets from more than 200 U.S. urbanized areas to analyze and cross-validate the impact of transit projects on land use in a region, VMT, fuel use, and transportation GHG. Using statistical models allowed the TCRP research team to isolate transit variables that determine the magnitude of a project's impact on a region (such as transit supply and frequency), while controlling for other factors that are correlated with urban land use patterns (such as urban area population size and road supply). This research allowed TCRP to develop a tool that estimates the environmental benefits of new transit projects based on specific inputs such as planned transit directional route miles and planned annual transit revenue miles. Among other outputs, this tool can estimate the annual reduction in VMT as a result of the "ridership effect" caused by a project, which accounts for people changing their travel mode from personal autos to transit.

Based on data received by SamTrans, the team calculated that the proposed plan will generate an increase of 168,912 annual transit revenue miles, as shown in Table 1. These calculations accounted for changes in service span, service frequency, and inclusion/removal of routes, as well as the number of days in a typical year with weekday, Saturday, and Sunday schedules. Based on these inputs, the TCRP tool estimates a general reduction of 17,606,136 annual VMT in the region served by SamTrans as the "ridership effect" associated with the increase in transit ridership that results from transit improvements generated by the proposed plan.

Table 1: VMT Effects of the Proposed Plan

Annual SamTrans Bus VMT	**+168,912**
Total Annual VMT in the Region	**-17,606,136**

Even when accounting for the relatively small increase in bus VMT generated under the proposed plan, the general impact on the region is still greatly beneficial, with a significant reduction of total VMT.

LOCAL IMPACT

Additional bus service from new or expanded routes could increase traffic congestion, while additional automobile trips and/or additional ridership on other transit services could result from discontinued or reduced service on existing bus routes. Therefore, a local assessment was conducted to analyze the effects of the proposed plan on roadway traffic and transit in the SamTrans service area.

Bus Trips

The team identified road segments that could see an increase in bus traffic as a result of new routing and increased infrequency of SamTrans service. Table 2 identifies roadways that would experience the greatest congestion according to the San Mateo County Transportation Authority's Short-Range Highway Plan: 2021–2030.

Table 2: Description of Morning and Evening Congestion

Morning Congestion	Evening Congestion
• I-280 southbound from Daly City to San Bruno • US Highway 101 between Burlingame and Belmont • Westbound Highway 92 (San Mateo Bridge) • Eastbound Highway 92 between El Camino Real and US Highway 101 • Westbound Highway 84 (Dumbarton Bridge and Bayfront Expressway) • Westbound Highway 14 (Willow Road) • Westbound Highway 109 (University Avenue)	• I-280 northbound from Millbrae to Daly City and a segment between the Santa Clara County Line and Highway 84 • Northbound US Highway 101 between Redwood City and South San Francisco and a segment between the Santa Clara County Line and Highway 109 (University Avenue) • Southbound US Highway 101 between San Francisco International Airport and San Mateo • Eastbound Highway 92 between El Camino Real and the Alameda County Line • Eastbound Highway 114 (Willow Road) • Eastbound Highway 109 (University Avenue) • Short segment of Highway 82 (El Camino Real) in Menlo Park

As Table 3 shows, several of the modified SamTrans routes travel on these already congested roadways and will add additional bus traffic from new routing or increased frequency.

Table 3: Road Segments that could Experience Additional Bus Traffic from Route and Service Modifications

Route	Service Changes	Frequency Increase (Daily Trips)	Impact on Road Segment (Additional Bus Traffic)
17	Remove deviations to Canada Cove and Sunshine Valley Road	• Weekday: No change (15 trips) • Saturday: 7.5 trips to 15 trips • Sunday: 7.5 trips to 15 trips	The improved weekend frequency will cause additional bus traffic on the weekends.
110	Remove Longview deviation; extend route into the Linda Mar neighborhood to cover the FLX Pacifica alignment; increase midday weekday frequency to every 20 to 30 minutes; increase weekend peak and midday frequencies to every 30 minutes.	• Weekday: 21 trips to 29.4 trips • Saturday: 15 trips to 27 trips • Sunday: 15 trips to 27 trips	New routing will increase bus traffic on De Solo Drive, Crespi Drive, Terra Nova Boulevard, Oddstad Boulevard, and Linda Mar Boulevard. Increased weekday and weekend frequency will also result in additional bus traffic.
118	Increase weekday frequency to every 30 minutes.	• Weekday: 14 trips to 24 trips • Saturday: None • Sunday: None	The improved weekday frequency will cause additional weekday bus traffic.

Route	Service Changes	Frequency Increase (Daily Trips)	Impact on Road Segment (Additional Bus Traffic)
120	Increase weekend evening frequency to every 15 to 30 minutes; extend route to Mission Hills Park.	• Weekday: No change (59 trips) • Saturday: 52 trips to 56 trips • Sunday: 52 trips to 56 trips	Route 118 will extend to Mission Hills Park, increasing bus traffic on Templeton Avenue and Bellevue Avenue. Weekday frequency will not change; however, improvements in weekend service frequency will cause additional weekend bus traffic on the modified route.
121	Remove deviation to Colma BART; increase frequency and extend span of service on weekends.	• Weekend: 27 trips to 27 trips • Saturday: 15 trips to 27 trips • Sunday: 15 trips to 27 trips	New routing will increase bus traffic along Edgeworth Avenue, Sullivan Avenue, Saint Francis Boulevard, Callan Boulevard, Allen Drive, Longview Drive, Moreland Drive, Sneath Lane, Rollingwood Drive, Huntington Avenue, and S Spruce Avenue. The additional frequency on weekends will result in added weekend bus traffic.
124	Introduce new route to operate between Daly City BART and Skyline College every 30 minutes on weekdays.	• Weekday: 27 trips • Saturday: None • Sunday: None	Route 124 is a proposed new route that will increase weekday bus traffic along SR 1, Cabrillo Highway, Callan Boulevard, Westborough Boulevard, Fleetwood Drive, and College Drive.
130	Remove loops to Flournoy Street/Sickles Avenue; extend route to Oyster Point/SSF Ferry Terminal; remove service on Linden; increase weekend peak and midday frequencies to 15 minutes.	• Weekday: 54 to 54 trips • Saturday: 30 to 54 trips • Sunday 30 to 54 trips	New routing (with split routes) will increase bus traffic on Gateway Boulevard and Oyster Point Boulevard. In addition, Route 130 will operate more frequently on the weekends, causing an increase in weekend bus traffic.
142	Introduce new route to operate between Shelter Creek and SFO Air Train and added span and frequency.	• Weekday: 15 trips • Saturday: 15 trips • Sunday: 15 trips	The introduction of Route 142 would increase weekday and weekend bus traffic along Cunningham Way, Jenevein Avenue, Cherry Avenue, Shelter Creek Lane, San Bruno Avenue West, SR 82, Sneath Lane, Huntington Avenue, San Bruno Avenue East, and North McDonnell Road.
249	Introduce new route to operate between downtown San Mateo and College of San Mateo every 30 minutes on weekdays and 60 minutes on weekends.	• Weekday: 30 trips • Saturday: 15 trips • Sunday: 15 trips	The introduction of Route 249 will increase bus traffic on West 3rd Avenue, Parrott Drive, Alameda de las Pulgas, and SR 92 on weekdays and weekends.
250	Deviate route onto Franklin Parkway, 31st Avenue, and use W Hillsdale Boulevard between El Camino Real and CA-92; increase frequency to every 15 minutes during peak times on weekdays; increase frequency to every 30 minutes all day on weekends.	• Weekday: 30 trips to 40 trips • Saturday: 15 trips to 30 trips • Sunday: 12 trips to 24 trips	New routing will increase bus trips on Franklin Parkway, 31st Avenue, and W Hillsdale Boulevard between El Camino Real and SR 92.

Route	Service Changes	Frequency Increase (Daily Trips)	Impact on Road Segment (Additional Bus Traffic)
251	Consolidate with Route 256; serve Foster City Boulevard, Beach Park Boulevard, and Edgewater Boulevard via one counterclockwise loop; no longer serve Beach Park Boulevard northeast of Foster City Boulevard; new entry/exit alignment in Foster City via Fashion Island Boulevard; new service provided on Sundays every 60 minutes.	• Weekday: 6 trips to 15 trips • Saturday: 7.5 trips to 15 trips	The new consolidated Route 251 will add additional bus trips to Fashion Island Boulevard on weekdays and Saturdays.
260	Shorten Route 260 to operate between Ralston Avenue at Cipriani Boulevard and San Carlos Caltrain via Bridge Parkway in Redwood Shores. Add Sunday span of service.	• Weekday: 21 trips • Saturday: 15 trips to 15 trips • Sunday: 0 trips to 15 trips	The new routing of Route 260 will increase Sunday bus traffic between Ralston Avenue at Cipriani Boulevard and San Carlos Caltrain via Bridge Parkway.
275	Consolidate with Routes 278 and 274; use Alameda de las Pulgas and Farm Hill Boulevard to connect Woodside Road to Cañada College; increase weekday morning peak frequency to every 20 minutes; new hourly service provided on Sundays.	• Weekday: 24 trips to 29 trips • Saturday: 0 trips to 15 trips • Sunday: 0 trips to 15 trips	The new consolidated Route 275 will add additional trips to El Camino Real, Woodside Road, and Farm Hill Boulevard. The increased weekday and weekend trips will also increase bus traffic.
276	Remove service on James Street and terminate route on east side of the Redwood City Caltrain Station; increase weekday frequency to every 10 to 15 minutes during peak times; extend span of service on weekdays.	• Weekday: 12 trips to 51 trips	The added weekday and weekend frequency will increase the number of bus trips along Winslow Road, Broadway Street, Chestnut Street, and Bay Road, with a loop at Marsh Road, to Scott Drive and Bohannon Drive.
281	Extend route to Stanford University Oval; operate route every 20 minutes on weekdays during the peak and midday time periods and every 30 minutes on weekends; extend span of service on weekends.	• Weekday: 30 trips to 42 trips • Saturday: 30 trips to 30 trips • Sunday: 23 trips to 30 trips	The new routing will increase bus traffic on Fordham Street, Notre Dame Avenue, Kavanaugh Drive, Obrien Drive, Willow Road, Hamilton Avenue, Terminal Avenue, Newbridge Street, Middlefield Road, Gilbert Avenue, Menalto Avenue, E Okeefe Street, Woodland Avenue, Pulgas Avenue, Bay Road, and University Avenue.
294	Remove the deviation into College of San Mateo; improve weekday midday and evening frequency to every 60 minutes.	• Weekday: 11 trips to 15 trips • Saturday: 15 trips to 15 trips • Sunday: 15 trips to 15 trips	The improvement in weekday and evening frequency could result in additional bus traffic.
295	Travel between Redwood City, San Carlos Caltrain, and Hillsdale Shopping Center; remove service north of Hillsdale Shopping Center; use Jefferson Avenue instead of Whipple Avenue between Redwood City and San Carlos; use El Camino Real instead of Cedar Street in San Carlos; provide limited trips to Cordilleras Center; operate route hourly on Saturdays and Sundays.	• Weekday: 27 trips to 15 trips • Saturday: 0 trips to 15 trips • Sunday: 0 trips to 15 trips	New routing will increase bus traffic on El Camino Real and Jefferson Avenue.

Route	Service Changes	Frequency Increase (Daily Trips)	Impact on Road Segment (Additional Bus Traffic)
296	Increase peak and midday frequencies to every 15 minutes, 7 days a week.	• Weekday: 39 trips to 51 trips • Saturday: 27 trips to 51 trips • Sunday: 27 trips to 51 trips	The routing will not increase bus trips; however, the frequency will increase bus trips on the existing route.
ECR	Increase weekend peak and midday frequencies to every 15 minutes; remove Flournoy Street and Sickles Avenue deviations on all trips outside late night/overnight hours.	• Weekday: No change (54 trips) • Saturday: 42 trips to 54 trips • Sunday: 42 trips to 54 trips	The improved weekend peak and midday frequency will cause additional bus traffic along the modified route.
EPX	New weekday route to operate every 60-minutes during peak times. EPXa between East Palo Alto and San Bruno BART via Redwood City and SFO. EPXb between East Palo Alto and San Francisco.	• Weekday: 12 trips • Saturday: None • Sunday: None	Route EPX could increase bus traffic during the peak morning and afternoon on US Route 101.
FCX	Fully reinstate commute-direction trips (i.e., trips into San Francisco in the morning, out of San Francisco in the evening); eliminate reverse-commute trips.	• Weekday: 12 trips to 18 trips • Saturday: None • Sunday: None	Route FCX will increase weekday bus traffic during peak morning and afternoon on US Route 101.

Increase in Traffic Volumes due to Change in Travel Mode

The net effect of the bus route modifications in the proposed plan will be a reduction in automobile trips as a result of increased system-wide ridership. However, additional automobile trips could be generated in certain areas where routes will be discontinued or modified under the proposed plan. These discontinued or modified routes are the focus of the impact assessment below.

For each route modification, the team reviewed whether affected riders could make the same trip as frequently as before by reaching a different stop on the same route within walking distance. If that was not the case, then the team evaluated whether the new service plan would provide an alternative SamTrans route for affected riders (servicing the same travel market with similar frequency, and within walking distance). If these conditions were not fully or partially satisfied, then the team estimated the number of riders who will change their travel mode based on average daily ridership data provided by SamTrans for each stop. Depending on the options available, a percentage of these affected riders will shift to other transit options if these options are within walking distance and serve the same travel market with similar or better frequency. The remaining portion of affected riders was assumed to change their travel mode from transit to automobiles and other modes (e.g., bicycle/pedestrian or decide not to make a trip). The impact on new car trips was calculated as a percentage of the affected riders who will not take any other form of transit.

Table 4 lists the SamTrans routes with a proposed service change that might generate a significant increase in auto trips (greater than 50 trips), along with an estimate of affected riders for each of these routes, and the number of estimated riders who will shift from SamTrans service to other transit service and automobiles. Most of the riders on discontinued bus routes

or segments could be accommodated by other existing SamTrans routes or other proposed routes under the proposed plan.

It is estimated that fewer than 6,000 existing riders (average weekday) will be affected by the service discontinuation under the proposed plan. Of these 6,000 riders, about 3,200 riders will use other SamTrans routes, about 700 will shift to other transit providers in the region, and the remaining 2,000 riders will have no other transit options and will most likely change their travel mode from transit to automobiles and other modes (e.g., bicycle/pedestrian or decide not to make a trip). Since some of these 2,000 riders will carpool or use other modes, it is estimated that approximately 80 percent of these 2,000 riders will drive. Therefore, the proposed service discontinuations on specific routes are expected to add fewer than 1,600 daily vehicle trips in the SamTrans service area.

The route that will generate the most automobile traffic from service discontinuation is Route 140 with 186 trips, followed by Route ECR with 149 trips, and Route 121 with 120 trips. Other routes that will also add traffic to local networks are: Route 398, Route 260, and Route 112. The projected increase in auto trips for discontinued routes will be distributed throughout the day on the local street network. As a result, the projected increase in traffic on each of the affected roadways will be negligible in relation to existing traffic volumes during both peak and off-peak periods.

Table 4: Projected Increase in Daily Automobile Trips From Service Discontinuation or Route Modifications.

Route	Relevant service changes potentially increasing auto trips	Impacted riders (avg weekday)	Impacted riders who will shift to other SamTrans routes	Impacted riders who will shift to other transit providers	Impacted riders who will shift to auto or other modes	Net increase in auto trips (avg weekday)
112	Shorten route to end in Sharp Park in Pacifica.	120	24	0	96	77
121	Remove deviation to Colma BART.	500	250	100	150	120
140	Eliminate route except for school-timed trips; consolidate with route 121.	466	140	93	233	186
260	Remove service east of Bridge Parkway on Marine Parkway, Shearwater Parkway, and Redwood Shores Parkway; remove service west of Cipriani Boulevard.	260	130	0	130	104
398	Eliminate route.	725	363	218	145	116
ECR	Remove Flournoy Street and Sickles Ave deviations.	620	248	186	186	149

Note: Only route modifications that will generate an increase of more than 50 auto trips (average weekday) are shown.

Transit Impact

Changes in SamTrans service could increase demand for other transit options such as Caltrain, BART, and Muni. To determine the percentage of riders who will change their travel mode

because of route modifications, the team estimated the percentage of affected riders that will shift to other transit options. As Table 5 shows, Route 398 will have the highest number of passengers that will switch to other transit providers as a result of route elimination.

Table 5: Projected Distribution of Impacted Riders who will Shift to other Transit Providers (Caltrain, BART, and/or Muni) due to Service Discontinuation or Route Modifications.

Route	Relevant service changes potentially increasing auto trips	Impacted riders (average weekday)	Impacted riders who will shift to other transit providers	Passengers who will shift to Caltrain/BART/ Muni
121	Remove deviation to Colma BART.	748	20%	150
130	Remove loops to Flournoy Street/Sickles Avenue; remove service on Linden.	220	30%	66
398	Eliminate route.	725	30%	218
ECR	Remove Flournoy Street and Sickles Avenue deviations.	620	30%	186

Note: Only route modifications that will generate a shift to other transit providers (average weekday) are shown.

CEQA THRESHOLDS

Table 6 summarizes the impacts of the proposed plan in relation to the CEQA thresholds for significant adverse transportation impacts. The proposed plan will not result in significant adverse transportation impacts based on the CEQA thresholds. Therefore, no mitigation is warranted.

Table 6: Transportation CEQA Thresholds

CEQA Guidelines Transportation Thresholds	Proposed Plan's Impact/Conclusion
Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	**No Impact**. The proposed plan will have no conflicts with adopted policies, plans, or programs addressing transit, roadway, or alternative transportation facilities. The proposed route modifications will increase overall SamTrans weekday daily ridership and have a net effect of reducing automobile use, consistent with local and regional plans that support increasing the use of transit. The proposed plan does not involve physical infrastructure that will impact roadway, bicycle, or pedestrian facilities.
Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	**Less than Significant Impact**. The proposed plan will lead to a general reduction in VMT in the region and, therefore, will cause a less than significant transportation impact according to CEQA Guidelines section 15064.3, subdivision (b). New routes and routes with expanded service will experience increased bus traffic, and discontinued routes will result in an increase in vehicle trips from the change in travel mode from transit to auto. However, the net effect on roadways in these areas will be negligible because of the relatively few SamTrans buses in relation to existing traffic volumes, the location of bus routes on major roadways with appropriate infrastructure such as signalized intersections and turning lanes; and the availability of alternative transit services on most of the routes that will be discontinued. The service improvements that are part of the proposed plan, such as higher frequency and new/longer routes, will make SamTrans a more viable option for traveling in the region, attracting new riders from personal autos to transit.

CEQA Guidelines Transportation Thresholds	Proposed Plan's Impact/Conclusion
Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	**No Impact**. The new routes or route modifications under the proposed plan will be located on roadways with appropriate design features to accommodate bus service, and most of the affected roadways already carry existing bus services. The proposed plan will not increase hazards due to design features.
Result in inadequate emergency access?	**No Impact**. The proposed plan will have no effect on emergency access.

3.0 AIR QUALITY IMPACTS

Ambient air quality standards are set to protect public health. San Mateo County is designated by the U.S. Environmental Protection Agency (EPA) as a nonattainment area for the National Ambient Air Quality Standards (NAAQS) for two criteria pollutants: ozone and fine particulates ($PM_{2.5}$).[29] San Mateo County is also designated as a nonattainment area by the California Air Resources Board (ARB) for state air quality standards for ozone, $PM_{2.5,}$ and coarse particulates (PM_{10}).[30] Plans to improve air quality and attain ambient air quality standards in the Bay Area are developed by the Bay Area Air Quality Management District (BAAQMD), in cooperation with the Metropolitan Transportation Commission and the Association of Bay Area Governments.

Changes in bus service could affect ambient air quality regionally by changing direct emissions from the bus fleet, as well as indirectly by affecting ridership/mode choice (e.g., the decision of riders to use transit or drive an automobile). In addition to region-wide effects on emissions, localized changes in bus service could affect the exposure of populations to air pollutants in the vicinity of certain routes or congested intersection "hot spots."

METHODOLOGY

Potential regional emission impacts of the proposed plan were assessed based on the change in bus VMT and the change in passenger vehicle VMT relative to existing conditions. As detailed in the Transportation Impact Analysis, annual bus VMT for the SamTrans network was estimated for existing and proposed service based on length of each route and the number of bus trips, and the change in passenger vehicle VMT was estimated using methodology provided by ARB.

Holding other factors (such as fleet fuel economy and traffic congestion) constant, an increase or decrease in VMT would indicate a roughly proportional change in exhaust emissions of criteria pollutants. The potential increase in emissions from proposed plan operations was compared to significant thresholds published in the May 2017 BAAQMD CEQA Guidelines.[31] These thresholds represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the air basin's existing air quality conditions. For this analysis, the proposed plan will result in a significant impact if operational emissions exceed any of the thresholds shown in Table 7.

[29] Available at https://www3.epa.gov/airquality/greenbook/anayo_ca.html

[30] Available https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations

[31] Available at https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines

Localized air quality impacts were assessed by qualitatively reviewing the proposed service frequency on new routes and existing routes with the largest increase in bus trips in conjunction with data on existing traffic volumes along the routes and land use data.

Table 7: BAAQMD Air Quality Thresholds of Significance

Pollutant/Precursor	Operation-Related Thresholds	
	Average Daily Emissions (pounds per day)	**Maximum Annual Emissions (tons per year)**
ROG	54	10
NO_X	54	10
PM_{10}	82	15
$PM_{2.5}$	54	10
CO_2e	None	1,100

Source: Table 2-1, BAAQMD CEQA Air Quality Guidelines.

Notes: ROG = reactive organic gases; NO_X = oxides of nitrogen; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM_{10} = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less, CO_2e = carbon dioxide equivalent.

REGIONAL IMPACT ANALYSIS

As determined in the Transportation Impact Analysis, the proposed plan is expected to increase SamTrans annual bus VMT by 168,912. ARB's Emission Factor (EMFAC) model was used to estimate the bus exhaust emissions attributable to this increase. The online tool[32] was used with EMFAC2017 options to determine the emission factor for an average urban transit bus in San Mateo County. The derived emission factors for each pollutant were multiplied by the increase in VMT to estimate the increase in pollutant emissions. The results shown in Table 8 demonstrate that the increase in emissions due to increased bus VMT will not exceed BAAQMD's significance thresholds.

The changes to bus service as a result of the proposed plan are expected to increase transit ridership, decreasing annual passenger vehicle VMT by 17,606,136. As a result, criteria pollutant emissions such as ozone precursors and particulate matter from passenger vehicles in the region will similarly be reduced compared to existing conditions.

The passenger vehicle reductions will likely offset the small increase in emissions from the buses shown in Table 8. The overall effect of the proposed plan on regional emissions will be beneficial and complement other ongoing SamTrans environmental initiatives, such as reducing bus fleet emissions by replacing older buses with newer, high-efficiency models.

[32] Available at https://arb.ca.gov/emfac/emissions-inventory/366a8790dd9dfc512b1775c562736f14164401ff

Table 8: Operational Emissions

Year	Emissions (ton/year)			
	ROG	NO_X	PM_{10} (exhaust)	$PM_{2.5}$ (exhaust)
Annual Emissions	<0.01	0.70	<0.01	<0.01
BAAQMD Thresholds	10	10	15	10
Threshold Exceeded?	No	No	No	No

Source: Table 2-1, BAAQMD CEQA Air Quality Guidelines.

Notes: ROG = reactive organic gases; NO_X = oxides of nitrogen; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM_{10} = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less.

LOCALIZED/HOT SPOT IMPACT ANALYSIS

Most of the SamTrans bus routes will experience no change or decreased service frequency as a result of the proposed plan and, thus, will not cause local air quality impacts. The new routes and existing routes with substantially increased service were reviewed for potential localized air quality impacts. As discussed in Section 2.0, Transportation Impacts, the proposed routes with increased service are located on major roadways with high traffic volumes, and the small amount of additional bus traffic (e.g., 15-minute headways or less) will not substantially affect congestion. Existing ambient air quality will continue to be dominated by general automobile and truck traffic volumes; not the SamTrans bus service. Therefore, a detailed hot spot analysis is not warranted. The potential for air quality impacts will be reduced even further over time as the SamTrans bus fleet becomes more efficient with replacement of older buses and the use of diesel hybrid-electric buses.

CEQA THRESHOLDS

Table 9 summarizes the impacts of the proposed plan in relation to the CEQA thresholds for significant adverse air quality impacts. The proposed plan will not result in significant adverse air quality impacts based on the CEQA thresholds. Therefore, no mitigation is warranted.

Table 9: Air Quality Impact Summary

CEQA Guidelines Appendix G Air Quality Thresholds	Project Impact/Conclusion
Conflict with or obstruct implementation of the applicable air quality plan?	**No Impact**. The proposed plan is consistent with regional plans for reducing emissions of ozone precursors, particulate matter, and other pollutants because it will result in a net decrease in regional automobile emissions and an insignificant increase in regional bus emissions.
Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	**No Impact**. Because the proposed plan will reduce regional automobile emissions and increase emissions from buses by an insignificant amount, it will not contribute to existing air quality standard violations or create new violations.
Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	**No Impact.** The proposed plan will reduce automobile emissions of criteria pollutants relative to existing conditions as result of a net increase in SamTrans bus ridership. The increase in bus emissions of criteria pollutants due to increased service will be below significance thresholds.

CEQA Guidelines Appendix G Air Quality Thresholds	Project Impact/Conclusion
Expose sensitive receptors to substantial pollutant concentrations?	**Less than Significant Impact.** Receptors along new routes and routes with expanded service will experience increased bus traffic, but the net effect on localized ambient air quality in these areas will be negligible because of the relatively few SamTrans buses (e.g., 15-minute headways or less) compared to the existing automobile and truck traffic volumes that are the dominant source of local air pollution.
Create objectionable odors affecting a substantial number of people?	**No Impact.** The proposed plan will not create a new source of odors.

4.0 GREENHOUSE GAS IMPACTS

GHGs are trace gases that trap heat in the earth's atmosphere. Some GHGs occur naturally and are emitted into the atmosphere through natural processes and human activities. The principal GHGs that enter the atmosphere because of human activities are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2019, accounting for almost 40 percent of total GHG emissions in the state.[33] Increased concentrations of GHGs in the atmosphere because of human activities are causing global climate change, including increases in temperatures, increased frequency and intensity of severe weather events, sea level rise, and changes in growing seasons, among other impacts.

To date, no national standards or thresholds for GHG emissions applicable to transit service plans have been established. EPA regulations regarding GHG emissions have been primarily focused on vehicle emissions standards. At the state level, California has enacted numerous laws related to climate change and reducing GHG emissions, including Assembly Bill 32–the California Global Warming Solutions Act of 2006 and Senate Bill 375–California's Sustainable Communities Strategy and Climate Protection Act. California's GHG emission reduction targets have also been guided by executive orders and through implementation policy and procedures developed by ARB. California's policies do not prescribe GHG emissions standards applicable to transit service plans but do encourage reduced emissions from automobiles and trucks that can be achieved in part by increasing transit ridership and encouraging land development patterns supportive of transit service.

IMPACT ANALYSIS

The bus VMT analysis and ridership information discussed in Section 3.0, Air Quality Impacts, shows that the proposed plan will increase annual bus VMT and decrease automobile VMT. Using the same emissions estimation methodology, the potential increase in CO_2 emissions was calculated for the additional bus VMT using the EMFAC model. The resulting increase of 331 tons of CO_2 per year is below the BAAQMD significance threshold of 1,100 metric tons per year of CO_2 equivalent (CO_2e).

CEQA THRESHOLDS

Table 10 summarizes the impacts of the proposed plan in relation to the CEQA thresholds for significant adverse GHG emission impacts. The proposed plan will not result in significant

[33] Available at https://ww2.arb.ca.gov/ghg-inventory-data

adverse GHG emission impacts based on the CEQA thresholds. Therefore, no mitigation is warranted.

Table 10: Greenhouse Gas Emissions Impact Summary

CEQA Guidelines Appendix G Greenhouse Gas Emissions Thresholds	Project Impact/Conclusion
Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?	**No Impact.** The proposed plan will reduce GHG emissions from automobiles relative to existing conditions. The increase in GHG emissions from buses is not considered significant; therefore, no significant impacts will occur due to GHG emissions under the proposed plan.
Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?	**No Impact.** The proposed plan will result in a reduction of GHG emissions from automobiles and an insignificant increase in GHG emissions from buses relative to existing conditions, which is supportive of regional and statewide plans and policies. The net effect of the proposed plan will be an increase in ridership (by increasing service on the routes with the greatest ridership potential), which is consistent with regional and statewide goals for increasing transit use and reducing automobile travel.