



Regional Transportation Planning Agency - Local Transportation Commission
Monterey County Service Authority for Freeways & Expressways
Monterey County Regional Development Impact Fee Joint Powers Agency
Email: info@tamcmonterey.org

RAIL POLICY COMMITTEE

Monday, May 3, 2021

****2:00 PM****

REMOTE CONFERENCING ONLY

There will be NO physical location of the meeting.

Please see all the special meeting instructions at the end of this agenda

Join meeting online at:

<https://us02web.zoom.us/j/654778900?pwd=L2daellZTW5NSDZMQ2RSY1hJVlpGZz09>

OR

By teleconference at: +1 669 900 6833

Meeting ID: 654 778 900

Password: 506977

Any person who has a question concerning an item on this agenda may call the Agency Secretary to make inquiry concerning the nature of the item described on the agenda.

1. Quorum Check, Call to Order and Introductions

If you are unable to attend, please make sure that one of your alternates attends the meeting. Your courtesy to the other members to assure a quorum is appreciated.

2. PUBLIC COMMENT ON TRANSPORTATION MATTERS NOT ON TODAY'S AGENDA.

Any member of the public may address the Committee on any item not on the agenda but within the jurisdiction of the Committee. Under this item, each member of the public is allowed three minutes to address concerns. Comments in items on this agenda may be given when that agenda item is discussed. Persons who wish to address the Committee for public comment or on an item on the agenda are

encouraged to submit comments in writing to Maria at maria@tamcmonterey.org by 5:00 pm the Thursday before the meeting, and such comments will be distributed to the Committee before the meeting.

3. BEGINNING OF CONSENT AGENDA

Approve the staff recommendations for items listed below by majority vote with one motion. Any member may pull an item off the Consent Agenda to be moved to the end of the CONSENT AGENDA for discussion and action.

3.1. APPROVE minutes of the Rail Policy Committee meeting of April 5, 2021.

- Montiel

The draft minutes of the April 5, 2021 Rail Policy Committee meeting are attached for review.

3.2. RECEIVE update on the planned increase in passenger rail service along the coast corridor between San Francisco and Los Angeles.

- Watson

Progress since the last update to this Committee in April includes a working group meeting on April 16.

END OF CONSENT AGENDA

4. RECEIVE update from Santa Cruz County Regional Transportation Commission on their rail corridor studies.

- Watson/ Dykaar

Ginger Dykaar, Senior Transportation Planner with the Santa Cruz County Regional Transportation Commission, will present an update on the planning efforts related to the Santa Cruz Branch Line rail corridor.

5. RECEIVE update, **PROVIDE** input on the Monterey Bay Area Rail Network Integration Study, and **RECOMMEND** the Board of Directors approve making the draft Study available for public review.

- Watson

The study will lay the groundwork for implementing the State Rail Plan in the Monterey Bay Area. Progress on the study since the last report to this Committee in April includes the preparation of the draft Study. The draft study is a compilation of

all the memos presented and discussed at previous Committee meetings.

6. **RECEIVE** update on the Salinas Rail Kick Start project and **PROVIDE** direction to staff regarding the transfer of the land for Package 1 to the City of Salinas.

- Watson/ Williamson/ Zeller

Activities on the Salinas Rail Kick Start project since the last update in April include work related to closing out permits for the construction of Package 1 (Salinas Station access and circulation improvements) and coordination efforts with Union Pacific, Caltrans, Caltrain, Santa Clara Valley Transportation Authority (VTA), and the City of Gilroy on Packages 2 (Salinas layover facility) and 3 (Gilroy track connections).

7. **ANNOUNCEMENTS** and/or **COMMENTS** from Rail Policy Committee members on matters that they wish to put on future Committee agendas.
8. **ADJOURN**

ANNOUNCEMENTS

Next Rail Policy Committee meeting:
Monday, June 7, 2021 at 2:00 p.m.

If you have any items for the next agenda, please submit them to:

Christina Watson, Rail Program Coordinator

Christina@tamcmonterey.org

[Important Meeting Information](#)

Remote Meetings: On March 12, 2020, Governor Newsom issued Executive Order N-25-20, which enhances State and Local Governments ability to respond to COVID-19 Pandemic based on Guidance for Gatherings issued by the California Department of Public Health. The Executive Order specifically allows local legislative bodies to hold meetings via teleconference and to make meetings accessible electronically, in order to protect public health. The public is strongly encouraged to use the Zoom app for best reception. Prior to the meeting, participants should download the Zoom app at: <https://zoom.us/download>. A link to simplified instruction for the use of the Zoom app is: <https://blog.zoom.us/wordpress/2018/07/03/video-communications-best-practice-guide/>.

Remote Meeting Public Comment: Due to current circumstances, there may be limited opportunity to provide verbal comments during the meeting. Persons who wish to address the Committee for public comment or on an item on the agenda are encouraged to submit comments in writing to maria@tamcmonterey.org by 5:00pm the Thursday before the meeting. Such comments will be distributed to the Committee before the meeting.

Members of the public participating by Zoom are instructed to be on mute during the proceedings and to speak only when public comment is allowed, after requesting and receiving recognition from the Chair.

Agenda Packet and Documents: Any person who has a question concerning an item on this agenda may call or email the Agency office to make inquiry concerning the nature of the item described on the agenda. Complete agenda packets are on display online at the Transportation Agency for Monterey County website. Documents relating to an item on the open session that are distributed to the Committee less than 72 hours prior to the meeting shall be available for public review at the Agency website. Agency contact information is as follows:

Transportation Agency for Monterey County
www.tamcmonterey.org
Office is closed an all employees are working remotely until further notice
TEL: 831-775-0903
EMAIL: info@tamcmonterey.org

Agenda Items: The agenda will be prepared by Agency staff and will close at noon nine (9) working days before the regular meeting. Any member of the Committee may request in writing an item to appear on the agenda. The request shall be made by the agenda deadline and any supporting papers must be furnished by that time or be readily available.

Alternative Agenda Format and Auxiliary Aids: If requested, the agenda shall be made available in appropriate alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 USC Sec. 12132), and the federal rules and regulations adopted in implementation thereof. Individuals requesting a disability-related modification or accommodation, including auxiliary aids or services, may contact Transportation Agency staff at 831-775-0903. Auxiliary aids or services include wheelchair accessible facilities, sign language interpreters, Spanish language interpreters, and printed materials in large print, Braille or on disk. These requests may be made by a person with a disability who requires a modification or accommodation in order to participate in the public meeting and should be made at least 72 hours before the meeting. All reasonable efforts will be made to accommodate the request.

CORRESPONDENCE, REPORTS, MEDIA CLIPPINGS

- C 1.** No correspondence this agenda.
- C 2.** **RECEIVE** reports attached online.
- C 3.** **RECEIVE** media clippings attached online.



Memorandum

To: Rail Policy Committee
From: Maria Montiel, Administrative Assistant
Meeting Date: May 3, 2021
Subject: **Draft April RPC Minutes**

RECOMMENDED ACTION:

APPROVE minutes of the Rail Policy Committee meeting of April 5, 2021.

SUMMARY:

The draft minutes of the April 5, 2021 Rail Policy Committee meeting are attached for review.

ATTACHMENTS:

- ▣ Draft April 2021 RPC Minutes

TRANSPORTATION AGENCY FOR MONTEREY COUNTY (TAMC)

RAIL POLICY COMMITTEE MEETING

DRAFT Minutes of April 5, 2021

Transportation Agency for Monterey County

ZOOM REMOTE VIDEO/PHONE CONFERENCE ONLY

	APR 20	MAY 20	JUN 20	JUL 20	AUG 20	SEP 20	OCT 20	NOV 20	JAN 21	FEB 21	APR 21	MAY 21
L. Alejo, Dist. 1 (L. Gonzalez, J. Gomez)	C	-	-	N	P(A)	C	P(A)	P(A)	P(A)	P(A)	C	P(A)
J. Phillips, Dist. 2 (J. Stratton, C. Link)	A	P(A)	P(A)	O	P(A)	A	P(A)	P(A)	P(A)	P(A)	A	P(A)
W. Askew, Dist. 4 (Y. Anderson)	N	P(A)	P(A)		P(A)	N	P(A)	-	P(A)	E	N	P(A)
M. Adams, Dist. 5, (S. Hardgrave, C. Courtney)	C	P(A)	P(A)	M	P(A)	C	P(A)	E	E	P(A)	C	P(A)
M. LeBarre, King City, Chair (C. DeLeon)	E	P	P	E	P	E	P	P	P	P	E	P
C. Medina Dirksen, Marina (B. Delgado)	L	P	P	E	-	L	-	-	-	P	L	-
E. Smith, Monterey (D. Albert, A. Renny)	L	P	P	T	E	L	P	P	P	P	L	P
K. Craig, Salinas, (C. Cromeenes)	E	P	P	I	P	E	P	P	P	E	E	P
G. Hawthorne, Sand City (J. Blackwelder , K. Cruz)	D	P(A)	P(A)	N	P(A)	D	-	P(A)	P(A)	P(A)	D	P(A)
I. Oglesby, Seaside (D. Pacheco)		P	P	G	P		-	-	P	P		P
A. Chavez, Soledad (F. Ledesma)		P	P		P		-	P	-	P		-
D. Potter, At Large Member, Vice Chair		P	P		P		P	P	-	E		P
M. Twomey, AMBAG (H. Adamson, P. Hierling)		P(A)	P(A)		P(A)		P(A)	P(A)	-	P(A)		P(A)
O. Monroy-Ochoa, Caltrans District 5		P	-		-		-	-		P		-
C. Sedoryk, MST (L. Rheinheimer)		-	P(A)		P(A)		P(A)	P(A)	P(A)	P(A)		P(A)
STAFF												
D. Hale, Exec. Director		P	P		P		P	P	P	P		P
T. Muck, Deputy Exec. Director		P	P		P		P	P	P	P		P
C. Watson, Principal Transp. Planner		P	P		P		P	P	P	P		P
M. Zeller, Principal Transp. Planner		P	P		P		P	P	P	P		P
T. Wright, Outreach Coordinator		P	P		P		-	P	P	P		P
M. Montiel Admin Assistant		P	P		P		P	P	P	P		P
L. Williamson, Senior Engineer		E	P		P		P	-	P	P		P
M. Jacobsen, Transportation Planner		P	P		P		P	P	P	P		P
D. Bilse, Principal Engineer												P

1. QUORUM CHECK AND CALL TO ORDER

Chair LeBarre called the meeting to order at 2:01 p.m. A quorum was established.

OTHERS PRESENT

Barry Scott	Friends of the Rail-Trail	Andy Myrick	City of Salinas
Tarah Brady	Caltrans HQ	Ryan Park	AECOM
Anna Devers	SLOCOG	Viktor Zhong	AECOM
JD Douglas	HDR	Steven Keeton	Kimley-Horn
Peter Meyerhofer	Kimley-Horn	Marlana Brown	

2. PUBLIC COMMENTS

Barry Scott announced that the Santa Cruz County Regional Transportation Commission (SCCRTC) Board considered the branch line electric rail business plan and directed staff to make certain changes to the plan and bring it back to the May meeting.

3. CONSENT AGENDA

M/S/C Potter/Smith /unanimous

3.1 Approved minutes of the February 1, 2021 Rail Policy Committee meeting.

END OF CONSENT AGENDA

4. COAST CORRIDOR RAIL PROJECT UPDATE

The Committee received an update and provided input on the planned increase in passenger rail service along the coast corridor between San Francisco and Los Angeles.

Anna Devers, San Luis Obispo Council of Governments (SLOCOG), reported that the Coast Rail Service Implementation Plan lays out three scenarios for delivering a through train on the coastline between San Luis Obispo and Salinas, one round trip in a mid-term scenario, and four round trips in a long-term scenario. The study evaluates the relative capital and operating costs and other pros and cons of the three options. In conclusion Ms. Devers noted that Transportation Agency staff provided feedback to SLOCOG that the Pacific Surfliner extension should have San Jose as an endpoint instead of Salinas. The study will go to the SLOCOG Board of Directors in June for adoption.

The Committee provided the following input on the Coast Corridor Rail Project:

- Coordinate with Amtrak and State to accelerate project
- President Biden infrastructure plan a positive indication of his support of rail
- Examine the cost scenario on new equipment compared to existing equipment
- Preference for using existing Joint Powers Authorities or agreements in the near term
- Option A (extending Capitol Corridor from San Jose to San Luis Obispo) appears to have easiest path to implementation
- Support connection to Santa Cruz at Pajaro/Watsonville

Christina Watson noted that the Transportation Agency Network Integration Study has a more ambitious plan for the Coast Rail service and noted that staff has been coordinating with SLOCOG throughout development of each study.

5. RAIL NETWORK INTEGRATION STUDY UPDATE

The Committee received an update and provided input on the Monterey Bay Area Rail Network Integration Study.

Ryan Park, AECOM presented Monterey Bay Area Rail Network Integration Study ridership estimates and funding, financing and grant information.

The Committee provided the following input on the Network Integration Study:

- Reference the plans for Fort Hunter Liggett to transfer troops by rail at the King City station
- Explain relatively high ridership estimates at stations in smaller population areas such as the Pajaro station, which is anticipated to be a hub station for connections to Santa Cruz County
- Note uncertainty in funding later phases reflecting changing administrations with differing political priorities

6. SALINAS RAIL KICK START PROJECT UPDATE

The Committee received an update on the Salinas Rail Kick Start project.

Christina Watson, Principal Transportation Planner, reported that Monterey County Rail Extension project funding will be going to the California Transportation Commission's May meeting for extensions.

Laurie Williamson, Senior Engineer, reported that the construction team is wrapping up construction on Package 1. She noted that the construction team is working on closing out permits and wrapping up the contract, and that staff plans to bring the contract for acceptance to the May TAMC Board meeting. Staff continues to coordinate with the City of Salinas and the State on the transfer of the completed project to the City.

Mike Zeller, Principal Transportation Planner, reported that that staff and consultants continue to further negotiations on properties. He noted that a closed session is scheduled for the April TAMC Board meeting.

Committee Member Craig requested that staff provide a written update to members of the Salinas City Council on the rules pertaining to active real estate negotiations for public projects.

Ms. Watson reported that design meetings are going well. She noted that several issues brought to light via design meetings and document review necessitate contract amendment #1 that will be going to the April TAMC board meeting. She said an agreement with Union Pacific Railroad to conduct a rail line capacity analysis will also be on the April TAMC agenda.

7. SURF! BUSWAY UPDATE

The Committee received an update on the SURF! Busway and Bus Rapid Transit project along the Monterey Branch Line from Marina to Sand City.

Madilyn Jacobsen, Transportation Planner, reported that Monterey-Salinas Transit initiated the environmental analysis and preliminary engineering for the SURF! Busway and Bus Rapid Transit project in November 2019. She noted that the busway enters the Monterey Branch Line right-of-way at Del Monte Boulevard and Palm Avenue in Marina and exits the rail right-of-way at California Avenue and Fremont Street in Sand City. The busway parallels Highway 1 for approximately six miles on TAMC right-of-way.

Peter Meyerhofer, Kimley-Horn, stated that the preliminary engineering design is now 35% complete and the team is continuing to work on refining the geometric layouts. He noted that identifying location for drainage facilities, traffic signal improvements and detailed signage plans are underway.

Lisa Rheinheimer, Monterey-Salinas Transit, reported that MST is the Lead Agency for the project under the California Environmental Quality Act (CEQA). She noted that Monterey Salinas Transit released a 30-day environmental public review period that is open from March 13, 2021 through April 12, 2021. Ms. Rheinheimer noted that MST is actively coordinating with the Federal Transit Administration (FTA) to apply for a Capital Investment Grant. MST and TAMC staff have been meeting quarterly with FTA to discuss project development.

Chair LeBarre noted that it is important to consider lighting, seating and water refill stations at major stops.

8. ANNOUNCEMENTS AND/OR COMMENTS FROM COMMITTEE MEMBERS

None

9. ADJOURN

Chair LeBarre adjourned the meeting at 3:43 p.m.



Memorandum

To: Rail Policy Committee
From: Christina Watson, Principal Transportation Planner
Meeting Date: May 3, 2021
Subject: **Coast Corridor Rail Project Update**

RECOMMENDED ACTION:

RECEIVE update on the planned increase in passenger rail service along the coast corridor between San Francisco and Los Angeles.

SUMMARY:

Progress since the last update to this Committee in April includes a working group meeting on April 16.

FINANCIAL IMPACT:

The Coast Rail project capital and operation costs are under evaluation.

DISCUSSION:

The Coast Rail Coordinating Council (CRCC) is a multi-agency advisory and planning organization focused on improving the rail corridor between Los Angeles and the San Francisco bay area along the California Central Coast. Members of Council include all regional transportation planning agencies along the Central Coast – all of which have a strong interest in improving rail service and the rail infrastructure along the Central Coast’s portion of the California Coast Passenger Rail Corridor.

The working group met on April 16 and received updates from Caltrans and partner agencies.

The next policy meeting is scheduled for May 21 at 8:30 am via videoconference.



Memorandum

To: Rail Policy Committee
From: Christina Watson, Principal Transportation Planner
Meeting Date: May 3, 2021
Subject: Santa Cruz County Rail Line Update

RECOMMENDED ACTION:

RECEIVE update from Santa Cruz County Regional Transportation Commission on their rail corridor studies.

SUMMARY:

Ginger Dykaar, Senior Transportation Planner with the Santa Cruz County Regional Transportation Commission, will present an update on the planning efforts related to the Santa Cruz Branch Line rail corridor.

FINANCIAL IMPACT:

TAMC has no financial obligations related to the Santa Cruz County rail studies, aside from staff time to participate in coordination meetings. TAMC and the Santa Cruz County Regional Transportation Commission have a joint interest in a rail station at Pajaro/Watsonville to provide alternative transportation to residents of southern Santa Cruz County and northern Monterey County.

DISCUSSION:

The 32-mile Santa Cruz Branch Rail Line is a continuous transportation corridor offering tremendous potential for new mobility options for residents and visitors alike. The rail line is designated as active and spans the county from Davenport to Watsonville, running parallel to the Highway 1 corridor and the coast, and connecting into state and other regional rail lines in Pajaro. This important transportation corridor is within one mile of more than 90 parks, 40 schools and over half of the county's population (per census blocks). Construction of the rail line from Santa Cruz to Watsonville was completed in 1876. In October 2012, the Santa Cruz County Regional Transportation Commission (RTC) took ownership of the line using voter-approved rail system expansion funding (California Proposition 116), bringing this transportation resource into public ownership to increase transportation options. More information on this rail corridor is available on the RTC website (**web attachment 1**).

In late 2019, the RTC, in partnership with Santa Cruz Metropolitan Transit District (METRO), initiated the Transit Corridor Alternatives Analysis and Rail Network Integration Study (**web attachment 2**). One of the outcomes of the Unified Corridor Investment Study, completed in January 2019, was to reserve the Santa Cruz Branch Rail Line (SCBRL) for high-capacity public transit adjacent to a bicycle and pedestrian trail. The Transit Corridor Alternatives Analysis (TCAA) evaluated public transit investment options that provide an integrated transit network for Santa Cruz County utilizing all or part of the length of the rail right-of-way as a dedicated transit facility. A performance-based planning approach based on a triple bottom line sustainability framework was utilized to assess various public transit options for the rail right-of-way. Transit alternatives were compared to define a locally-preferred alternative that offers the greatest benefit to Santa Cruz County in terms of equity, environment, and economy. Proposed future

intercounty and interregional connections to Monterey, Gilroy, the San Francisco Bay Area and beyond were considered.

At its February 4, 2021 meeting, the RTC accepted the Transit Corridor Alternatives Analysis and Rail Network Integration Study (TCAA/RNIS) that selected Electric Passenger Rail as the locally preferred alternative. The final component of the TCAA/RNIS was a 25-year strategic Business Plan for Electric Passenger Rail on the Santa Cruz Branch Rail Line (**web attachment 3**), which is meant to serve as a guiding document for funding and implementation of electric passenger rail on the Santa Cruz Branch Rail Line. **Attachments 1 and 2** are maps showing the alignment and stations for the electric passenger rail alternatives, commuter rail and light rail. A cash flow analysis provides a detailed picture of the anticipated revenues and expenditures and can be used as a guide for determining the level of funding per year that is required to implement the project. The cash-flow analysis incorporates federal, state, and local funding of environmental review and clearance, system design and permitting, and construction, as well as operations and maintenance once service begins.

RTC staff will present an update on the project at this meeting.

ATTACHMENTS:

- ▢ Figure 2.1: Commuter Rail Alignment and Stations
- ▢ Figure 2.2: Light Rail Alignment and Stations

WEB ATTACHMENTS:

1. [Santa Cruz County Regional Transportation Commission rail website with links to studies](#)
2. [Transit Corridor Alternatives Analysis and Rail Network Integration Study](#)
3. [Business Plan for Electric Passenger Rail on the Santa Cruz Branch Rail Line](#)

Figure 2.1: CRT Proposed Alignment and Stations



Station #	Name	Station #	Name
1	Natural Bridges Station	9	Aptos Village Station
2	Bay Street Station	10	Downtown Watsonville Station
3	Downtown Santa Cruz/Boardwalk Station	11	Pajaro Station
4	Seabright Station		
5	17th Avenue Station		
6	41st Avenue Station		
7	Capitola Village Station		
8	Cabrillo College Station		

Figure 2.2: LRT Proposed Alignment and Stations



Station #	Name	Station #	Name
1	Natural Bridges Station	9	Capitola Village Station
2	Fair /Almar Avenue Station	10	Park Avenue/Cabrillo Station
3	Bay Street Station	11	Aptos Village Station
4	Downtown Santa Cruz Depot Park Station	12	La Selva Beach Station (seasonal)
5	Boardwalk Station (seasonal)	13	Ohlone Parkway Station
6	Seabright Station	14	Downtown Watsonville Station
7	17th Avenue Station	15	Pajaro Station
8	41st Avenue Station		



Memorandum

To: Rail Policy Committee
From: Christina Watson, Principal Transportation Planner
Meeting Date: May 3, 2021
Subject: **Rail Network Integration Study**

RECOMMENDED ACTION:

RECEIVE update, **PROVIDE** input on the Monterey Bay Area Rail Network Integration Study, and **RECOMMEND** the Board of Directors approve making the draft Study available for public review.

SUMMARY:

The study will lay the groundwork for implementing the State Rail Plan in the Monterey Bay Area. Progress on the study since the last report to this Committee in April includes the preparation of the draft Study. The draft study is a compilation of all the memos presented and discussed at previous Committee meetings.

FINANCIAL IMPACT:

The study has a budget of \$500,000, funded out of the state Transit and Intercity Rail Capital Program: \$350,000 for consultant costs and \$150,000 for staff and in-house costs. The study will be the foundation for future applications for rail capital and operations grant funding.

DISCUSSION:

The Monterey Bay Area Rail Network Integration Study focuses on determining the optimal options for: rail connectivity and operations, equipment needs, governance, and community benefits for service between Monterey County and Santa Clara County, Monterey and Santa Cruz, and the Coast Rail Corridor. This study will also assist TAMC by providing the data needed to prepare grant applications for funding new stations at Pajaro/Watsonville, Castroville, Soledad and King City.

The study is intended to provide information for the TAMC Rail Policy Committee to consider in recommendations to the TAMC Board of Directors as to next steps on implementing rail projects in Monterey County connecting to the Central Coast and the Northern California megaregion. The draft study is a compilation of the information discussed in prior Committee meetings:

- Existing and Future Conditions
- Future Network Service Vision
- Public Sentiment Survey
- Fleet Strategy Governance and Operations Models
- Cost Estimates
- Caltrans Ridership Estimates
- Funding, Financing, and Grants Strategies

Staff and consultants will present and seek feedback on the draft Network integration Study and seek the Committee's recommendation to the Board to make the Study available for public review. The draft Executive Summary is **attached**. The full draft study and relevant documents are posted to the project website (**web attachment**).

The final draft Network Integration Study will be on the June 7, 2021 agenda for Committee recommendation to the Board to adopt.

ATTACHMENTS:

- ▣ Draft Executive Summary

WEB ATTACHMENTS:

- [Monterey Bay Area Rail Network Integration Study website](#)



EXECUTIVE SUMMARY

Monterey Bay Area Network Integration Study

April 27, 2021

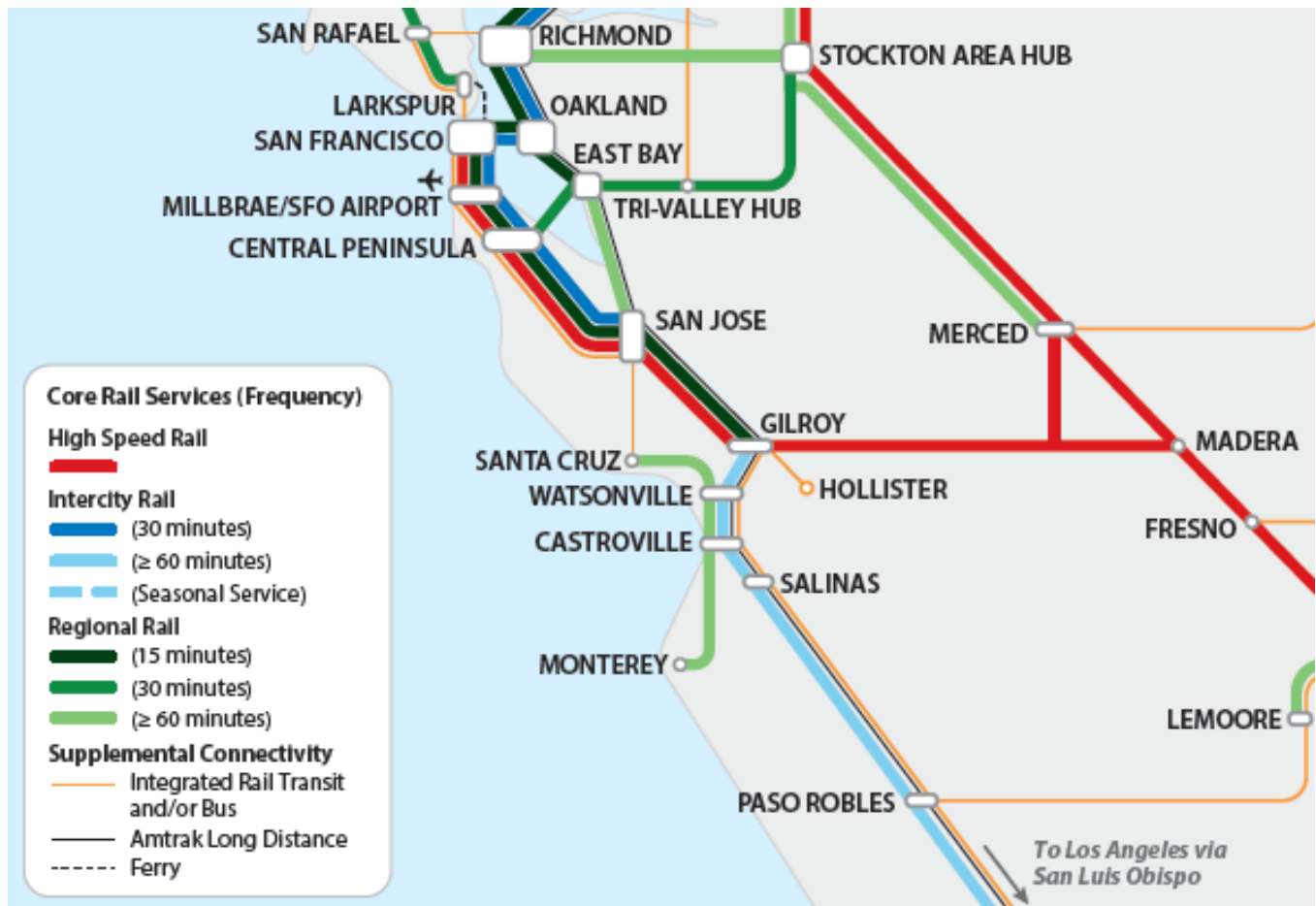


EXECUTIVE SUMMARY

This Network Integration Study for the Monterey Bay Area represents the next step in project development work aimed toward robust passenger rail service connecting San Jose to the Central Coast and Monterey Bay communities. The Study presents a vision for a future integrated network that will support regional growth and protect the region’s natural beauty while serving the transportation and economic needs of residents and local businesses. The Study connects the regional vision and infrastructure assets to the statewide strategy articulated in the 2018 California State Rail Plan (CSRP) and embodies the technical work necessary to move forward to implementation and project delivery.

This Study covers the service goals outlined in the 2018 CSRP which envisions a network of high-speed, intercity corridor and commuter trains integrated with local transit at hubs across the state. For the Monterey Bay Area and Central Coast regions, this Study meets and exceeds the goals outlined in the CSRP, shown in **Figure 1**, as determined through the network modeling and stakeholder engagement conducted as part of the Study.

Figure 1: California State Rail Plan Vision Service Goals



Source: 2018 California State Rail Plan

A Stakeholder Engagement Plan was developed for the Study, describing stakeholder and public involvement strategies used to obtain input throughout its development. These include a Network Advisory Committee consisting of representatives from agency peers and major rail stakeholders that have met quarterly during the Study to cross-pollinate regional activities, findings, and recommendations. Public involvement focused on a bilingual survey conducted in summer 2020, to which 800 community members responded. Sentiment was overwhelmingly positive, with 87 percent of respondents indicating that access to passenger rail service would have a positive effect on their lives.

This Study builds off an inventory of existing rail lines and transit services and future conditions as set forth in a review of recent studies and plans. Opportunities to address underserved communities and threats to existing and planned service by climate change impacts are considered in the Study. Contemporaneous efforts, notably the Santa Cruz County Regional Transportation Commission's (SCCRTC) Transit Corridor Alternatives Analysis & Rail Network Integration Study and the San Luis Obispo Council of Government's Service Implementation Plan, have informed the Study.

The service vision developed in the Study has been designed through strategic analysis and operations modelling using guidelines and goals set by TAMC and regional stakeholders. The service vision seeks to maximize rider benefit, minimize capital and operations costs, shorten implementation timelines, and create a scalable service network. Implementation of the service vision is organized in three time horizons: Initial Service (short-term), Phased Service (mid-term), and Vision Service (long-term).

For each time horizon, the Study outlines service characteristics; defines infrastructure and train equipment requirements; provides cost and ridership estimates; assesses potential benefits; and provides recommendations regarding governance and funding and financing strategies.

Initial Service

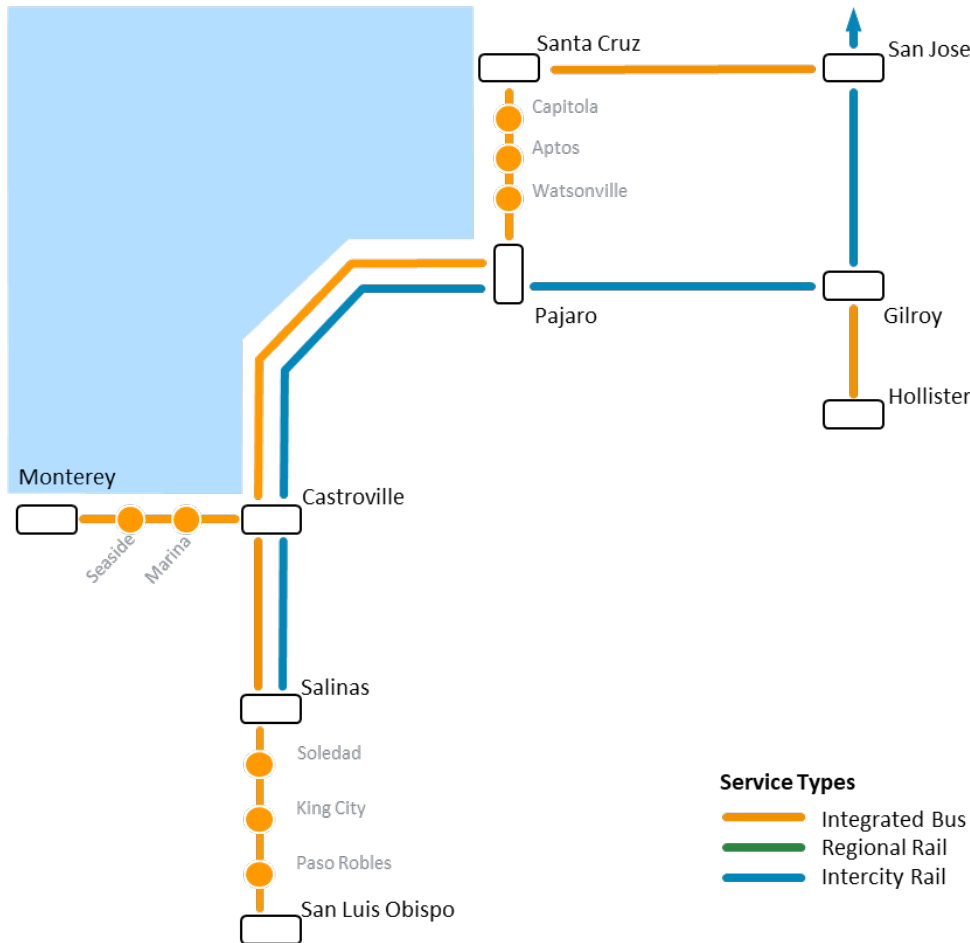
The goal of the Initial Service concept, shown in **Figure 2**, is to create a regular passenger rail connection between the Monterey Bay Area and San Francisco Bay Area and lay the foundation for future expansion, as described in the 2018 CSRP.

In the near-term, the Initial Service involves extending rail service on the Union Pacific Railroad (UPRR) Coast Subdivision to Salinas to connect Monterey County with San Jose. Prior to the COVID-19 pandemic, Caltrain operated three commute-oriented round trips to and from Gilroy each weekday. The Initial Service concept is achieved by extending these round trips to Salinas.

In the Initial Service, connecting bus service would be coordinated between Hollister and Gilroy to meet each train. Additionally, a bus service would be implemented between Salinas and San Luis Obispo to connect with the last northbound train in the morning and the first southbound train in the evening. Monterey-Salinas Transit's SURF! Busway and Bus Rapid Transit (BRT) line from Marina to Sand City and Seaside will provide transit connectivity and build ridership to justify further investment in the corridor. Similarly, the SCCRTC's Highway 1 Bus-on-Shoulder Project represents an interim congestion mitigation

improvement in the Initial Service that paves the way for Phased Concept Santa Cruz-Monterey bus service.

Figure 2: Initial Service Concept



Infrastructure

To implement Initial Service, the following infrastructure improvements will be needed:

- Construction of Pajaro Station with grade-separated access structure, island platform, and large parking area (400 spaces); and
- Construction of Castroville Station with grade-separated access structure, island platform, and small parking area (200 spaces).

Additionally, overnight storage tracks would be required to facilitate the extension of rail service to Salinas. The storage tracks would need to accommodate three trainsets akin to the storage tracks currently at Gilroy. The six-train storage facility included in the TAMC Monterey County Rail Extension Phase 1: Kick Start Project would be more than adequate for the Initial Service Concept and thus is not included in the costs or infrastructure needs in this Study's analysis.

Fleet Strategies

Initial Service rail would be operated with conventional diesel-hauled trains. It is recommended that TAMC pursue an agreement with Caltrain for contracted operations, allowing service to be implemented relatively quickly and with minimal infrastructure investment. General maintenance would be performed by Caltrain at its existing facilities, such as the Centralized Equipment, Maintenance and Operations Facility immediately north of San Jose Diridon Station. Operations would need to comply with FRA requirements.

Benefits Assessment

The Initial Service would have numerous transportation benefits. The extension of rail to Salinas would serve a population of over 300,000, about 60 percent of which would be residents of low-income communities. With Initial Service, San Jose and Gilroy would be accessible from Pajaro, Castroville and Salinas within a two-hour rail trip. Extending rail to Salinas would reduce travel times by 15 minutes to nearly an hour by replacing trips that currently require a transfer with one-seat rides. By attracting trips away from driving, the expanded rail service would avoid two traffic injuries annually.

The Initial Service would attract 190,000 annual rail trips and 5,000 annual bus trips in the corridor between San Francisco and San Luis Obispo. With growth in ridership, VMT would be reduced by 9.5 million miles and GHG emissions would be reduced by up to 1,700 metric tons of carbon dioxide equivalent.

Employment access would increase with Initial Service; jobs in Gilroy, Salinas and communities in between would be accessible within a 90-minute commute from any of the extension stations. Implementing the Initial Service is estimated to result in over 1,000 person years of employment and generate an economic output of \$195 million and tax revenues of \$18 million.

Governance and Operations Recommendations

For the Initial Service concept, no new governance structure is recommended. TAMC would continue to serve as the project lead and would pursue contracted operations with Caltrain, negotiate a track access agreement with UPRR, and coordinate with local bus agencies to provide connections at rail stations. TAMC's Rail Policy Committee may need to provide additional support for TAMC Board decisions regarding financing, contracting, and other responsibilities involved with implementation.

Funding, Financing and Grants Strategy Recommendations

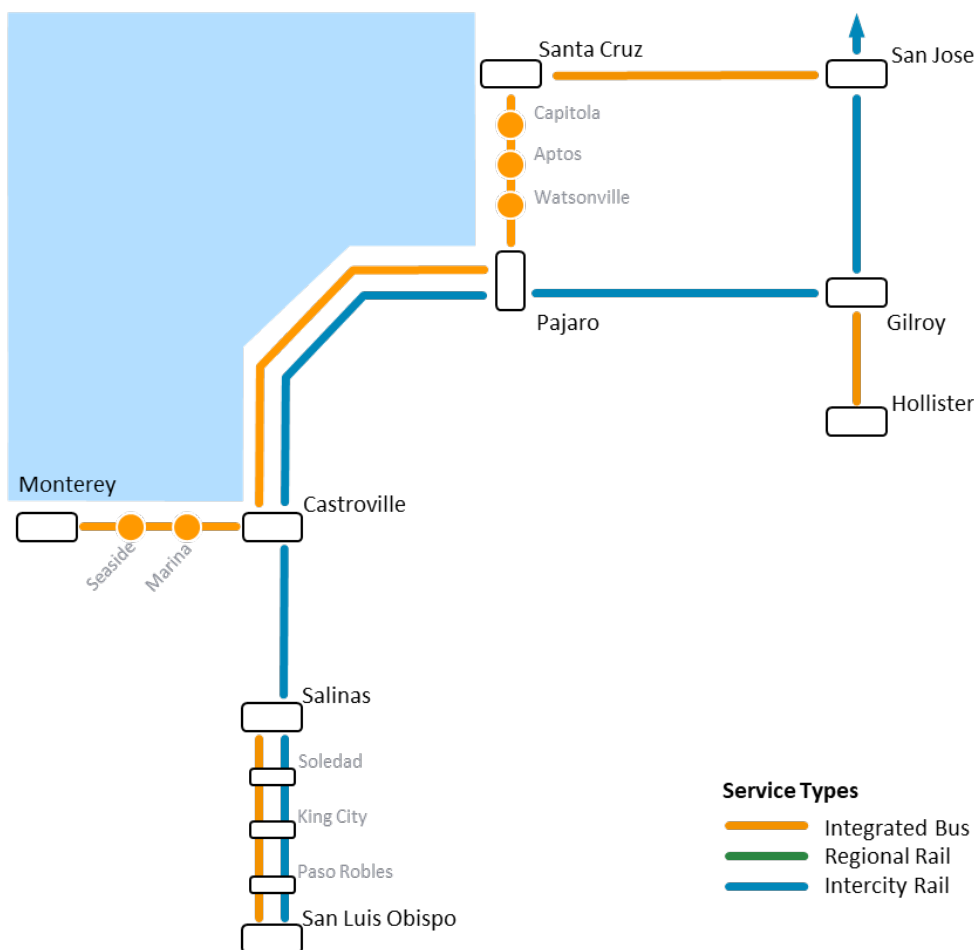
The Initial Service concept capital costs are estimated at \$102 million. Annual rail operations and maintenance costs are estimated at \$4.7 million and annual rail ticket revenues are estimated at \$2.7 million – a farebox recovery rate of 58 percent. Annual bus operations and maintenance costs are estimated at \$529,000 and annual bus ticket revenues are estimated at \$186,000 – a farebox recovery rate of 35 percent.

Potential capital revenue sources for the Initial Service are estimated to provide a total ranging between \$62 and \$235 million for one-time awards and \$3 to \$7 million in annual awards through state formula programs. Major sources of this potential funding are California’s Solutions for Congested Corridors Program and Transit and Intercity Rail Capital Program, and the Federal Transit Administration’s (FTA) Capital Investment 5309 Small Starts Grants program. These are all highly competitive grant programs, and will require thoughtful preparation of grant submission requirements, as well as a well-coordinated advocacy campaign that demonstrates the unique value added by this service.

Phased Service

In the mid-term time horizon, the Phased Service concept shown in **Figure 3** builds off the service levels established by Initial Service and lays the groundwork for the Vision Service concept. Phased Service increases rail service from peak period oriented only to regular all-day bi-directional service between Gilroy and Salinas, with four daily round trips extending from Salinas to San Luis Obispo.

Figure 3: Phased Service Concept



Bus service would be expanded in the Phased Service Concept to operate between Santa Cruz and Monterey connecting with hourly train services at Pajaro and Castroville. Bus service to and from Hollister would be coordinated to connect with hourly train service at Gilroy as well. The bus connection between Salinas and San Luis Obispo would be expanded to operate every four hours, such that combined rail and bus schedules would provide service every other hour.

Infrastructure

To implement Phased Service, the following infrastructure improvements will be needed:

- Construction of a passing siding on the UPRR Coast Subdivision south of King City;
- Construction of stations in Soledad and King City; and
- Procurement of eight bi-modal hybrid trainsets.

Fleet Strategies

The Phased Service concept would require the procurement of new or leased equipment, from an operator or from the State, which would require a new or expanded maintenance facility. To achieve policy goals while not forcing transfers at Gilroy, it is recommended that Phased Service be operated with bi-modal, hybrid train equipment. This would allow through operations on the planned high-speed infrastructure between Gilroy and San Jose as well as on the unelectrified UPRR Coast Subdivision south of Gilroy. Six trainsets and an additional two trainsets as spares would be required, as well as overnight storage capacity for one train in San Luis Obispo.

Benefits Assessment

The Phased Service concept would expand the transportation benefits of the Initial Service concept. The extension of rail to San Luis Obispo would serve a population of over 460,000, about 60 percent of which would be residents of low-income communities. Regional mobility would increase, with many more destinations accessible within a two-hour rail trip. Paso Robles and San Luis Obispo would become accessible to each other within 120 minutes. The Phased Service would take advantage of high-speed rail infrastructure north of Gilroy, making travel times considerably faster for trips to and from Santa Clara County. Phased Concept bus service would speed many trips in the corridor between Santa Cruz and Monterey. By attracting trips away from driving, the expanded Phased rail service would avoid eight traffic injuries annually.

Phased Service would attract 500,000 annual rail trips and 13,000 annual bus trips in the corridor between San Francisco and San Luis Obispo, with bus service between Monterey and Santa Cruz attracting an additional 500,000 riders. With growth in rail ridership, VMT would be reduced by 31.2 million miles and bus service between Monterey and Santa Cruz would reduce VMT by an additional 9.4 million miles. Phased Service concept rail would reduce GHG emissions by up to 1,700 metric tons of carbon dioxide equivalent and bus service between Monterey and Santa Cruz would reduce GHG emissions by up to 3,100 metric tons of carbon dioxide equivalent.

Employment access would increase with Phased Service; jobs in Paso Robles and San Luis Obispo would become accessible to each other within a 90-minute commute. Implementing Phased Service is estimated to result in 4,500 person years of employment and generate an economic output of \$765 million and tax revenues of \$72 million.

Governance and Operations Recommendations

Compared to the Initial Service concept, Phased Service includes substantially expanded service south of Gilroy. Each of the three Phased concept services – rail service to/from Salinas, rail service to/from San Luis Obispo, and BRT service between Monterey and Santa Cruz – may require a different governance approach.

To support these service expansions, the governing body will need to procure train equipment and fund several major capital projects, including two new stations; signal and track improvements and potentially a new siding south of Salinas; and infrastructure, fleet, and facility requirements for the regional BRT service. The governing body would need to negotiate and pay access fees for use of the new high-speed rail infrastructure between Gilroy and San Jose at such time that it becomes available for service to/from the Central Coast.

Several potential options for operating these extended services are identified: Caltrain, as in the Initial Service; Capitol Corridor, as an extension of their existing service; another existing public or private operator; or a new operating entity formed expressly to operate one or more of the rail services. In the case of contract operations, the governing body could issue separate contracts for Gilroy-Salinas service and for Gilroy-San Luis Obispo service, or could bundle both services under a single contract. Implementing the new BRT service between Monterey and Santa Cruz spanning two counties would likely require an evolution in governance capability.

The larger scope of duties and responsibilities for the governing body under the Phased Service concept would likely require more robust oversight to protect the public interest and ensure fiscal responsibility and ethical integrity. TAMC may be able to evolve to address these additional governance needs through interagency agreements, but a Joint Powers Authority (JPA) or other new entity may eventually be necessary, particularly to facilitate cost sharing between the multiple counties involved.

Funding, Financing and Grants Strategy Recommendations

The Phased Service concept capital costs are estimated at \$403 million. Annual rail operations and maintenance costs are estimated at \$35.4 million and annual rail ticket revenues are estimated at \$11.4 million – a farebox recovery rate of 32 percent. Annual bus operations and maintenance costs are estimated at \$5,771,000 and annual bus ticket revenues are estimated at \$1,588,000 – a farebox recovery rate of 28 percent.

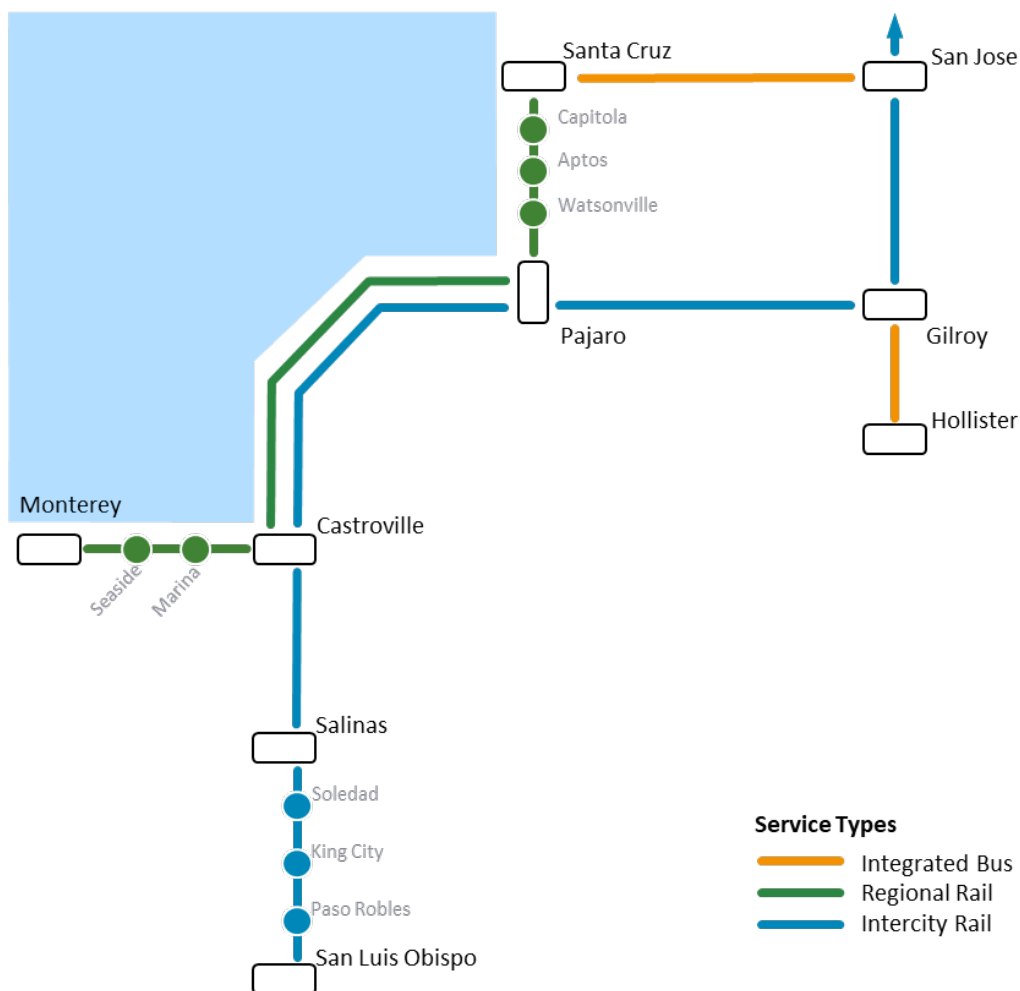
Available funding sources for the Phased Service concept, which would be implemented about 10 years in the future, are not known at this time. The Federal and State funding and financing landscape could

look very different then. Nonetheless, TAMC and its project partners would benefit from laying the groundwork now for future revenue generation.

Vision Service

The Vision Service concept shown in **Figure 4** represents a long-term vision for rail service in the Monterey Bay Area and Central Coast. Trains would continue to operate hourly service between Salinas and San Jose, but through service to/from San Luis Obispo would be increased to bi-hourly service, replacing the bus connections. Bus service between Monterey and Santa Cruz would be replaced by the implementation of hourly, bi-directional regional rail service operated with multiple unit trains, providing timed, cross-platform connections to/from mainline service at Castroville and Pajaro.

Figure 4: Vision Service Concept



Infrastructure

To implement Vision Service, the following infrastructure improvements will be needed:

- Construction of two additional mainline passing sidings on the UPRR Coast Subdivision;
- Track improvements and renovations from Pajaro to Santa Cruz and Castroville to Monterey;
- Construction of regional rail stations at Santa Cruz, Capitola, Aptos, Marina, Seaside, and Monterey, and expansion of Pajaro Station;
- Procurement of an additional trainset for intercity service and five trainsets for regional service; and
- A regional rail service maintenance facility, and a storage track at Monterey for three trainsets.

Fleet Strategies

For mainline intercity service, the Vision Service concept requires an additional trainset (for a total of seven) for day-to-day operations, plus an additional two trainsets to provide spares. For the regional service between Santa Cruz and Monterey, four trainsets are required for day-to-day operations, plus one spare. Single-level, multiple-unit trainsets—whether diesel multiple unit (DMU), hydrogen fuel cell, battery-powered multiple units, or some other variant—would be best suited for the “around the bay” service on the Monterey and Santa Cruz Branch Lines. Their smaller size and flexibility would allow them to operate on both the UPRR Coast Subdivision mainline between Pajaro and Castroville, as well as through existing communities along the branch lines, without the need for overhead catenary systems.

Benefits Assessment

The Vision Service concept would achieve the transportation benefits of a mature multimodal network, which would serve a population of 750,000 with the implementation of regional rail service between Monterey and Santa Cruz. Rail would connect these communities with destinations as far north as San Jose and as far south as King City within two hours. With Vision Service rail replacing bus between Monterey and Santa Cruz, additional travel time would be saved, benefiting trips throughout the network. By attracting trips away from driving, the expanded Vision rail service would avoid two fatalities and 29 traffic injuries annually.

With all-rail Vision Service, annual ridership between San Francisco and San Luis Obispo would increase to 617,000 and between Monterey and Santa Cruz to 925,000; VMT would be reduced by 42.7 million miles in the corridor between Gilroy and San Luis Obispo and by 83.4 million miles between Monterey and Santa Cruz. Vision Service between Gilroy and Salinas would reduce GHG emissions by up to 3,200 metric tons of carbon dioxide equivalent, and between Monterey and Santa Cruz by 17,400 metric tons of carbon dioxide equivalent.

Employment access would increase with Vision Service; rail would connect Monterey, Santa Cruz, and communities in between as far north as Gilroy and as far south as Soledad within a 90-minute commute. Implementing Vision Service is estimated to result in 10,000 person years of employment and generate an economic output of \$1.6 billion and tax revenues of \$152 million.

Governance and Operations Recommendations

Under the Vision Service concept, administrative responsibilities would have additional complexity, with more service and two types of service to coordinate and administer. Train operations could be provided through a combination of contract operations and/or a new self-operating entity. In the case of contract operations, the governing body could issue separate contracts for the mainline service and for the regional service, or could bundle the two services under a single contract.

Governance needs for implementing and operating the Vision Service concept include acquiring new multiple unit trains, executing an agreement with an operator or obtaining operating capability for the new regional rail service, and negotiating agreements with UPRR for track access between Castroville and Pajaro for the regional trains. A JPA established to deliver the Phased Service concept could be expanded to include operation of the regional service.

Funding, Financing and Grants Strategy Recommendations

The Vision Service concept capital costs are estimated at \$79 million for intercity rail and \$767 million for regional rail between Monterey and Santa Cruz. Annual rail operations and maintenance costs are estimated at \$56.9 million and annual rail ticket revenues are estimated at \$20.8 million – a farebox recovery rate of 37 percent. Annual bus operations and maintenance costs are estimated at \$995,000 and annual bus ticket revenues are estimated at \$227,000 – a farebox recovery rate of 23 percent.

Available funding sources for the Vision Service concept, which would be implemented about 25 years in the future, are not known at this time. That said, TAMC and its project partners can start considering future revenue generating sources early on, such as tax increment financing districts, assessment districts, and local taxes. These local and regional revenue sources can be in place for several decades, providing capital for the projects and making them more competitive for grants.

Next Steps

To extend rail service from Gilroy to Salinas, the immediate next step to achieve the Study's service vision, TAMC would pursue an agreement with Caltrain for contracted operations, allowing relatively quick implementation and with minimal investment in infrastructure. Modeling efforts and track access agreements will have to be coordinated with UPRR. Major next steps for securing funding for the extension include initiating conversations with priority granting agencies, initiating environmental review, and progressing transportation and economic impact analyses.

As a key stakeholder, Caltrans has provided valuable guidance and coordination for this Study. In turn, the Study's findings and recommendations have informed and are being incorporated into the next iteration of statewide rail network integration, the 2022 CSRP. Ongoing engagement with other stakeholders and the public will be needed to maintain and build support for the service vision as it advances into the three stages of implementation.



Memorandum

To: Rail Policy Committee
From: Christina Watson, Principal Transportation Planner
Meeting Date: May 3, 2021
Subject: Salinas Rail Kick Start Project Update

RECOMMENDED ACTION:

RECEIVE update on the Salinas Rail Kick Start project and **PROVIDE** direction to staff regarding the transfer of the land for Package 1 to the City of Salinas.

SUMMARY:

Activities on the Salinas Rail Kick Start project since the last update in April include work related to closing out permits for the construction of Package 1 (Salinas Station access and circulation improvements) and coordination efforts with Union Pacific, Caltrans, Caltrain, Santa Clara Valley Transportation Authority (VTA), and the City of Gilroy on Packages 2 (Salinas layover facility) and 3 (Gilroy track connections).

FINANCIAL IMPACT:

The capital cost of the Monterey County Rail Extension project, Phase 1, Salinas Kick Start project (the Salinas station and improvements in Santa Clara County), is estimated at \$81 million. The Kick Start project is proceeding with secured state funding under the adopted state environmental clearance.

TAMC is bringing time extension requests to the California Transportation Commission in May for the following fund sources:

- Traffic Congestion Relief Program (TCRP) #14 for right-of-way acquisition in Salinas: current expiration date June 30, 2021 - requesting one year extension to June 30, 2022.
- TCRP #7.3 for construction of improvements at Gilroy: current expiration date May 31, 2021 - requesting an extension to August 31, 2024.
- State Transportation Improvement Program (STIP) for construction in Salinas: programming change to move funds to fiscal year 2022/23.

Package 1 is under construction by MPE Engineering for an original contract amount of \$7,487,989 with a contingency fund of \$1,123,200. Approved change orders to date total \$772,875.74, or 68.8% of the contingency fund approved by the Board.

DISCUSSION:

The Monterey County Rail Extension Project will extend passenger rail service from Santa Clara County south to Salinas. TAMC is pursuing a phased implementation of the Project. Phase 1, known as the Kick Start Project, includes Salinas train station circulation improvements, a train layover facility in Salinas, and track improvements at the Gilroy station and between Salinas and Gilroy. The Kick Start Project is proceeding with wrapping up construction of

Package 1, improvements at the Salinas train station. The layover facility (Package 2) and track improvements (Package 3) are now in final design.

Construction of Package 1: Salinas Station Improvements

TAMC hired Monterey Peninsula Engineering (MPE) for construction of Package 1, MNS Engineers as Construction Managers on the project, and HDR Engineering to provide design support during construction. In April 2021, the construction team worked to close out the Caltrans, stormwater, and Salinas permits. Once the permits have been closed, remaining work is landscaping maintenance through December 2021.

TAMC staff is coordinating with Caltrans and the City of Salinas on the logistics to transfer ownership of the completed project to the City, pursuant to the adopted Memorandum of Understanding. The land transfer must be approved by the California Transportation Commission (CTC) prior to the City and TAMC approving transfer agreements. The CTC is requiring the City to commit to replacing any parking spaces used for future development in a location walking distance from the station. Staff will provide a verbal update and request Committee direction on this issue at the meeting.

Property Acquisition for Package 2: Salinas Layover Facility

On December 4, 2019, the Transportation Agency Board approved Resolutions of Necessity on portions of four parcels and one full parcel needed for the Salinas layover facility. TAMC staff has finalized the settlement for one parcel and continues to oversee the right-of-way consulting team of AR/WS and Meyers Nave to further negotiations and finalize the remaining acquisitions.

Final Design for Package 2 and Package 3: Gilroy Station & Track Improvements; Operations Scenarios

The final design team held the following meetings to further the project's design:

- Caltrans and Caltrain - April 21
- City of Salinas - April 28
- City of Gilroy - April 12, site visit April 29
- Santa Clara Valley Transportation Agency (VTA) - April 20

Staff will provide a verbal update on all activities at the meeting.



Memorandum

To: Rail Policy Committee
From: Christina Watson, Principal Transportation Planner
Meeting Date: May 3, 2021
Subject: Reports

RECOMMENDED ACTION:

RECEIVE reports attached online.

WEB ATTACHMENTS:

- [Amtrak Connects US: A Vision to Grow Rail Service Across America](#)



Memorandum

To: Rail Policy Committee
From: Christina Watson, Principal Transportation Planner
Meeting Date: May 3, 2021
Subject: **Media Clippings**

RECOMMENDED ACTION:

RECEIVE media clippings attached online.

ATTACHMENTS:

- Caltrans News Release Elkhorn Slough

WEB ATTACHMENTS:

- [April 5, 2021 article in the Monterey Herald, "Handcar Tours bringing new activity to the Monterey Peninsula: Monterey Branch Line rails through Fort Ord Dunes State Park being cleared for summer venture"](#)
- [April 15, 2021 article in the Scotts Valley Patch, "Santa Cruz County Chamber of Commerce: Where do we go from here? The great train debate continues"](#)



NEWS RELEASE

Today's Date: Wednesday, April 7, 2021
District: 05 – Santa Barbara, San Luis Obispo, Monterey, San Benito and Santa Cruz Counties
Caltrans: **Colin Jones** **Phone:** (805) 549-3189
The Nature Conservancy: **Juvenio L. Guerra** **Phone:** (310) 755-0590
AMBAG: **Heather Adamson** **Phone:** (831) 264-5086

FOR IMMEDIATE RELEASE

CALTRANS, THE NATURE CONSERVANCY AND AMBAG LAUNCH VIRTUAL REALITY APP FOR USE IN FIGHT AGAINST SEA LEVEL RISE ON THE CENTRAL COAST

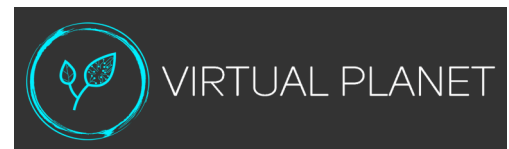
MONTEREY COUNTY – The California Department of Transportation (Caltrans), The Nature Conservancy, the Association of Monterey Bay Area of Governments (AMBAG) and Virtual Planet Technologies today announced the release of an innovative virtual reality app, [Sea Level Rise Explorer](#), that is playing a key role in addressing sea level rise on Highway 1 along Elkhorn Slough.

The app marks the first time Caltrans is using an immersive visualization tool to address sea level rise and evaluate mitigation options for a major highway in the state. The project builds on Caltrans' effort to enhance the resilience of both transportation infrastructure and coastal habitats to the threats of climate change. The department relocated Highway 1 inland near Hearst Castle in 2017 after coastal erosion threatened its viability.

"Not taking action is not an option," said Caltrans Director Toks Omishakin. "Due to sea level rise, we know this section of Highway 1 near Moss Landing and other coastal routes are vulnerable, so Caltrans has made climate action a primary goal. We are making our state transportation system more resilient and sustainable."

As early as 2030, an eight-mile section of Highway 1 and five miles of railway in Elkhorn Slough, home to extraordinary biological diversity, could experience regular storm and tidal flooding. The railway east of Highway 1 already experiences flooding at extreme high tides. The marsh area, the third largest in the state, is especially vulnerable, with about 85% projected to be inundated with 5 feet of sea level rise.

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NEWS RELEASE

“The impacts of sea level rise are truly hard to visualize,” said Alyssa Mann, coastal project director at The Nature Conservancy. “Even though we know what is likely to happen, numbers on a spreadsheet and 2D maps are no match for the visceral experience of watching the water level rise, as well as seeing the measures we can take now to make the transportation corridor more resilient and a benefit to nature in the Monterey Bay.”

With only 10% of coastal wetlands remaining and half of that remaining area vulnerable to loss from sea level rise, [creative approaches like the virtual reality tool](#) could prove essential to maintaining coastal habitats and reaching California’s goals of protecting 30% of its land and water ecosystem targets by 2030. An in-depth analysis published last year by AMBAG, the [Central Coast Highway 1 Climate Resiliency Study](#), demonstrated a new approach to rebuild the highway to benefit commuters and nature. The study highlighted the need to act quickly to implement solutions by 2050 to minimize losses to transportation and critical habitats. The effort to integrate transportation and natural resource planning not only tackles risks posed to both due to climate change but also explores rebuilding the highway and railway to benefit commuters and nature.

“Not only do we believe this process will lead to better outcomes for the Monterey Bay, we think this unique approach to planning, leveraging available tools and working in partnership with the state and environmental groups will serve as a model for planning throughout the state,” said Heather Adamson, director of planning at AMBAG.

Caltrans recently completed [climate change vulnerability assessments](#) for all 12 districts, including the Central Coast.

The Sea Level Rise Explorer: Elkhorn Slough experience was developed by Virtual Planet Technologies, a startup in Santa Cruz. The experience features a customized 3D virtual space inspired by the visitor center at Elkhorn Slough National Estuarine Research Reserve and includes a step-by-step guided experience available in English and Spanish.

“As coastal communities worldwide contend with sea level rise and coastal erosion, Virtual Planet is leveraging the latest technology and pairing it with creative storytelling to help these communities better understand the imminent impacts of climate change and visualize practical solutions,” said Juliano Calil, co-founder and chief scientist at Virtual Planet Technologies. “We’re inspired by the potential of this powerful immersive digital experience to educate and drive action and envision a better future for our planet.”

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NEWS RELEASE

The virtual reality experience can be viewed using [Oculus GO](#) VR goggles, smart phones ([iOS](#) and [Android](#)), and on the [web](#) and begins half way through the video. A [360-degree film](#) about it is also available. (Links will be provided).

The \$422,000 Elkhorn Slough project was primarily funded by Senate Bill 1, the Road Repair and Accountability Act of 2017. For more information on the Central Coast Highway 1 Climate Resiliency project, click [here](#).

The Nature Conservancy in California is continuing to partner with Virtual Planet Technologies to test the use of virtual reality in helping communities prepare for climate change impacts, including a sea level rise tool for Long Beach and a Wildfire Explorer focused on the devastating Camp Fire that impacted Paradise in fall 2018 which explores nature-based strategies for resilience as the community recovers. To learn more, visit nature.org/cacities.

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