

California Rail News

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Santa Cruz Co. Measure D on June 7 Ballot Would Eliminate Rail Forever “Greenway” Hucksters Promise a Trail That is Already Underway

By Michael D. Setty
Editor, California Rail News

Given how bad highway congestion is in Santa Cruz County--and the immense cost of adding capacity--it seems obvious that Santa Cruz needs passenger rail. Underlying the “Greenway” initiative, however, is a radical rejection of a public transit future. The Greenway is premised on replacing public transit with private autonomous vehicles.

Yes on Greenway’s spokesperson is a lead developer at Waymo (not speaking for Waymo), a leader in the development of self-driving cars and trucks. Waymo is a subsidiary of Alphabet, parent company of Google. According to Wikipedia, Waymo has also obtained more than \$3 billion in venture capital funding from outside sources, including a Who’s Who of the worldwide automobile industry such as Daimler AG, Nissan-Renault, Stellantis, Jaguar-Land Rover and Volvo. The Koch Brothers, a major player in the fossil fuel industry, have also invested in Waymo.

TRAC suspects that success of the “Clean Light Rail Demonstration,” sponsored by Coast Futura, Roaring Camp Railroads, Tig/M and others, probably triggered many Greenway supporters. More than 2,000 people rode the train in October 2021 over 3.5 miles of track owned by the Santa Cruz County Regional Transportation Commission (RTC)



Tig/M trolley at the Capitola Wharf in October 2021. Operating in Watsonville and Santa Cruz-Capitola was a “case study” in how communities can create cost-effective rail.

between the Santa Cruz Beach Boardwalk and downtown Capitola and over two miles in Watsonville. The demonstration’s success (see page 8 for details) made palpable just how feasible the existing rail-with-trail project actually was.

To any reasonable person, the demonstration accomplished its goal. It demonstrated that a low-cost rail project was technically feasible. By using existing tracks and relatively inexpensive innovative rolling stock, the demonstration suggested that rail service may also be financially feasible as well. The approach taken by Coast Futura et al. should be a viable alternative to the standard “gold-plated” unaffordable approach routinely taken by U.S. public transportation bureaucracies and their consultants. For example, an RTC study estimated that the

traditional approach to transit development would cost nearly \$500 million in capital costs and at least

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Santa Cruz Measure D Would Outlaw Rail

\$25 million per year to operate.

Santa Cruz Greenway – made up of successful Silicon Valley technologists, such as Mr. Brown, and major local property owners – successfully circulated and qualified Santa Cruz County Ballot Measure D for the June 7, 2022 election. Measure D declares that an “interim” trail shall be built on the alignment of the Santa Cruz Rail Branch Line, where the tracks currently are (see “Santa Cruz County Measure D is Deceptive” on page 7). The tracks would obviously have to be removed. On the one hand, the measure gives lip service to maintaining the freight and recreational rail service operated by the Santa Cruz, Big Trees and Pacific Railway on their existing tracks, as well as the planned regional rail station located in Pajaro that would also serve Watsonville.

On the other hand, Measure D

would specifically delete all references in the Santa Cruz County General Plan to the future development of passenger rail on the Branch line. Barring another public vote, the County of Santa Cruz would be prohibited from undertaking any activity relating to future freight and passenger rail within Santa Cruz County. While the RTC could technically deal with rail issues regardless of Measure D’s outcome, it would be politically hamstrung if Santa Cruz County voters approve Measure D. Greenway’s main goal seems to be shutting down all future consideration of rail.

The ability of “non-expert” members of Coast Futura and the community in general to conceive, plan and implement such a complex project probably came as a surprise to many of the high-tech experts in the Greenway ranks. Amateurs managed to put the Clean Light Rail Demonstration together, defying the expectation that only high-level experts could pull something like that off. The amateurs were able to secure the technical support they needed from insurance, legal and railroad operations specialists. The availability of the battery electric 28-passenger trolley from Tig/M of Los Angeles also dovetailed with the Santa Cruz community’s efforts.

It seems improbable that a highly successful rail demonstration, put together by unpaid community volunteers, would attract such vociferous opposition. The political and public relations success may have upset the dreams of self-driving cars of some “tech bros.” Having a successful rail demonstration “right under their noses” may well have instigated Measure D as a way to preclude Santa Cruz County rail options.

Santa Cruz County is a relatively small market (with less than 300,000 residents) for rail service, though that’s not unusual in Europe or

Japan. A cost-effective, well-used rail passenger service would be a potent alternative to the typical approach of established government transit bureaucracies everywhere-- and their ecosystem of consultants and large engineering firms.

Such service may be financially feasible, contrary to the advice of some experts. Existing tracks and bridges can be repaired and upgraded to meet federal track standards for 60 mph service for less than \$5 million per mile. Several years ago, Nashville instituted new commuter rail for about \$2 million per mile. New Mexico Railrunner implemented regional rail service in 2006 on existing tracks for about \$4 million per mile, and built new track in the I-25 median between Albuquerque and Santa Fe for about \$10 million per mile (i.e., about \$15 million/mile in 2022 dollars). (While both Nashville and New Mexico provide sub-optimum service, that is a topic for another day.)

The “Santa Cruz Model” could become the new way to build inexpensive rail systems. That is, the combination of cost-effectively upgrading existing rail to only the needed standards; using innovative electric-powered rolling stock; and operating as a private-public partnership. At least part of the service might turn an operating profit, due to tourists willingly paying relatively high fares for beach access and scenic rides. In turn, this could support incremental development of local service for Santa Cruz County residents at an affordable cost.

A successful Santa Cruz system would also show beyond a shadow of a doubt that that rail can work in smaller communities, provided such projects are not hijacked by bureaucracies and special interests more interested in profit than providing the public with tangible transportation benefits.

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TRAC's Vision for Improving, Extending SMART



**By David Schonbrunn
TRAC President**

Photo Source: SMART

The Global Financial Crisis wiped out SMART's financial ability to fulfill its original promise to voters: service between Larkspur Landing and Cloverdale. Rightly or not, that setback has harmed SMART's reputation. To continue operating, SMART will need to pass a sales tax extension before 2029. Not having plans in motion to extend to Cloverdale will endanger that effort.

Previous staff projections have estimated the cost of a Windsor-Cloverdale extension at \$338 million. Realistically, a grant of that size is unobtainable, due to the relatively small population in the North of Sonoma. (Projects are evaluated for funding on the basis of their cost per new rider. This extension would move too few passengers for its large cost.) TRAC believes SMART's only solution to this seemingly insoluble problem is to think outside the box it is in.

An extension to the North needs to be accomplished for far less than the roughly \$15 million per mile than it cost to build SMART thus far. The obvious way to keep costs down is to proceed like a private-sector railroad: use the existing tracks and roadbed, and replace only as many crossties as are needed to pass inspection to operate at 60 mph. Separating the time of passenger operation from the time for freight would avoid the significant expense of Positive Train Control. This approach would cost dramatically less than SMART's standard design, which calls for rebuilding the trackbed and installing new continuously welded rails, concrete crossties and Positive Train Control. (It is always possible to go back later and upgrade the rails, once a thriving ridership has developed.)

The clickety-clack experience of travelling over jointed rails had been an iconic feature of rail travel for over a hundred years. It is true that using the existing jointed rail will offer a somewhat less luxurious ride than SMART currently offers. However, the trade-off is that it could help ensure the agency's future by neutralizing the naysayers' "What about Cloverdale?" Moving forward with this extension would give the agency a dynamic story to tell.

TRAC calls upon SMART manage-

ment to do a back-of-the-envelope cost estimate for restoring the tracks to Cloverdale to service using the approach outlined above. TRAC's rough estimate for that work is \$40 million, excluding rolling stock and grade crossing protection.

Besides grants from the State of California under the Infrastructure Investment and Jobs Act, funds are available from the Federal Railroad Administration in the form of grants and loans. While the application deadline just passed for the RAISE grant program, the application deadline for the Multimodal Project Discretionary Grant is May 23, 2022. The Railroad Rehabilitation and Improvement Financing Program is a low-cost loan program, with funds set-aside for smaller freight railroads.

Extending the tracks to Cloverdale has the synergistic benefit of expanding the geographic scope of freight service, a new part of SMART's operations. There are forest products freight shippers in the Cloverdale area which could significantly add to the bottom line of SMART's freight division.

TRAC has a friendly relationship with a California firm that has developed innovative battery-electric locomotives. SMART could apply for air district funds for a pilot project to lease one or two of these locomotives for freight and passenger use, to achieve zero-emissions transport, with its accompanying air quality benefits.

As an alternative to grant funding, TRAC urges SMART to consider entering into a public-private partnership with a private-sector freight railroad. SMART already has a list of freight operators that are willing to provide service on its existing line. By offering an attractive contract, it may be possible to attract a railroad willing to invest its own capital in upgrading the tracks to Cloverdale--and perhaps beyond to Willits, where there are many more freight shippers.

The operator could be contracted to provide passenger service as well, connecting to SMART at Healdsburg. A public subsidy could be negotiated to make such service worthwhile for the operator, achieving passenger service on the newly restored track at a cost that is likely to be lower than SMART's cost of operations.

Coast Observations

IT SEEMS THAT A STRONG GREENWAY SUPPORTER ALSO OWNS THE FORMER WATSONVILLE RAIL DEPOT. They probably thought they were being clever by placing anti-rail, pro-Measure D signs on the building, to annoy rail supporters?... COASTAL RAIL SANTA CRUZ will hold an online RAIL SPEAKER SERIES in early May. This includes Rod Diridon on "The Importance of Public Transit to an Equitable and Sustainable Tomorrow," Michael Seth-Wexlter on "How Bikes and Rail Transit Integrate to Create a Point to Point Mobility Network," Ian Griffiths on "Seamless Santa Cruz: How Blending Metro and Rail can Create a More Connected and Accessible Transit Network." Details at <https://www.coastalrail.org/transit-speaker-series>...POST-COVID RAIL RIDERSHIP CONTINUES TO SLOWLY RECOVER IN THE BAY AREA. SMART, BART and Caltrain are now running about 40%-50% of 2019 ridership levels...Some urbanism skeptics claim that MAJOR CITY DOWNTOWNS WILL NEVER RETURN TO THEIR PRE-COVID ECONOMIC IMPORTANCE. Evidence cited includes the current 25% office vacancy rates in downtown San Francisco (nearly 20 million square feet), compared to 5.7% in 2019. As a result, rail ridership to downtowns may never recover to pre-pandemic conditions. It is also claimed that MOST RECENT OFFICE BUILDINGS CANNOT BE READILY ADOPTED TO RESIDENTIAL, due to "floor plate" and utility requirements that are much different. However, this ignores the potential creativity of some architects, as well as the reduced load of residents vs. office workers. A 2,000 sq. ft. "loft-style" apartment might have two residents, vs. 10+ employees. Fewer elevators would be needed, and redundant shafts could house new utilities as needed, among other things...THE POST-COVID ERA BRINGS A LOT OF QUESTIONS ABOUT RAIL MEGA-PROJECTS. For example, cost estimates for the proposed Berryessa-Downtown San Jose BART extension have ballooned to more than \$9 billion. Santa Clara County's VTA now admits the project faces a \$1.6 billion deficit, despite years of denial and a bad report from FTA...As a New York Times article points out, INCREASED CRIME ON TRANSIT IN THE WAKE OF COVID IMPEDES FULL RIDERSHIP RECOVERY. In California, the failure of major cities to effectively deal with the homeless problem is also problematic, particularly around transit stations...Marin/Sonoma's SMART AIMS TO INCREASE RIDERSHIP TO CLOSE TO PRE-COVID PEAK. While unlike BART or S.F. Muni, SMART is not impeded by crime and homelessness, building ridership is limited by low capacity and service levels...DESPITE LAGGING RIDERSHIP, ALAMEDA COUNTY TO BEGIN CONSTRUCTION ON \$34 MILLION PARKING GARAGE AT DUBLIN BART STATION...one study claims LINK EXISTS BETWEEN TRANSIT USE AND COVID CASE RATES; never mind that many groups who used transit were also more susceptible than average...

Timeline: Santa Cruz Co. Community

Editor's Note: This timeline was created by Friends of the Rail Trail (FORT). Used with permission (minor edits for clarity).

PROGRESS

1987 - METRO initiates fixed-guideway studies including Santa Cruz Branch Rail Line (SCBRL), as well as a "Corridor Refinement Study" of the SCBRL.

1990 - California Proposition 116 - Rail Bonds. Passes statewide with **60% approval in Santa Cruz County** allocating \$11 million for Santa Cruz passenger rail.

1995-99 - Major Transportation Investment Study (MTIS) - the second major study of passenger rail transit on the SCBRL

1996 - Three Passenger Rail Demonstration Events

Return of the SunTan Special, the Coast Cruiser, and the First Night Trolley.

1998 - People Power starts advocating for the Rail Trail.

2001 - \$21 million of State Funding appropriated for purchase of the Santa Cruz Branch Rail Line:

- \$11 million from Proposition 116 Rail Bonds (1990).
- \$10 million from the 2000 State Transportation Improvement Program (state and federal gas taxes.)

2002 - Friends of the Rail & Trail (FORT) established as part of People Power

FORT advocates to the RTC to apply for Proposition 116 funds to purchase the rail line, with the goal of improving mobility options in Santa Cruz County by providing a public trail for active transportation alongside future passenger rail service,

2002 - RTC changes its enabling legislation to accommodate SCBRL ownership and passenger rail development.

2006 - Rail+Trail Symposium

Friends of the Rail & Trail and People Power host over 200 participants at a symposium on Rail and Trail with experts from around the US in Dec. 2006 at Jade St. Park.

2008 - FORT letter writing campaign advocating that RTC commissioners vote in favor of acquiring the rail line.

2009 - RTC decides to move forward with the effort to acquire the rail corridor. FORT leads the campaign to get the California Transportation Commission (CTC) to approve a Prop. 116 grant to help purchase the line.

June 2010 - California Transportation Commission approves Proposition 116 grant application for RTC's acquisition of the Santa Cruz Branch Rail Line at the June 2010



Much of Santa Cruz's trail along the rail is already completed or near construction. Map by FORT.

session in Sacramento, facilitated by Assembly member Mark Stone and attended by **30-40 people from FORT** and other proponents.

2012 - Santa Cruz County RTC acquires the SCBRL from Union Pacific for \$14.2 million

- Escrow closes on Oct. 12 placing title of the 32-mile SCBRL into public ownership.
- Purchase came with the public commitment to facilitate passenger and freight service, as well as creating a multi-use bicycle and pedestrian trail.

2014 - Rail Trail Plan and Environmental Impact Report finished

- Formally known as the Monterey Bay Sanctuary Scenic Trail Network Master Plan (MBSST)
- The MBSST explains and illustrates the key details needed to construct the Rail Trail adjacent to the existing 32-mile rail line from Davenport to Watsonville
- **MBSST approved by every government entity with jurisdiction** including the Transportation Commission, the County, the Coastal Commission, and the cities of Watsonville, Capitola and Santa Cruz

- A key objective included in the MBSST is Policy 1.2.4 :

"Develop trails in such a way so that future rail transit services along the corridor are not precluded."

OPPOSITION

2014 - 'Aptos Rail-Trail Investor Group' formed

Requests the RTC allow them to purchase the rail corridor to demolish the rail infrastructure in favor of a trail-only plan

<https://www.sccrtc.org/wp-content/uploads/2010/09/2014-09-04-rtc-handouts.pdf>.

PROGRESS

2014 - Watsonville City Council

Unanimously adopts a resolution of

support for the MBSST Rail Trail Master Plan and preservation of the rail for sustainable long-range transportation.

2015 - City of Santa Cruz City Council

Unanimously adopts a resolution of support for the Rail Trail Master Plan and preservation of the rail option for sustainable long-range transportation.

2015 - RTC completes Rail Transit Feasibility Study

Study provides a high-level conceptual analysis of several future passenger rail transit scenarios and road map laying out next steps needed for implementation of rail service.

2016 - Measure D Passes

- A super majority (67%+) of Santa Cruz County voters pass a 30 year, half cent sales tax measure to fund transportation improvements.
- The measure allocated 25% of all funds raised to be used on Rail & Trail projects (8% Rail and 17% Trail)
- 2016's Measure D is expected to generate approximately \$700M total over the 30 years with \$56M for rail and \$119M for trail.

OPPOSITION

2016 - the 'Great Santa Cruz Trail Study Group' formed

- The GSCTSG is funded by wealthy anti-transit activists in Santa Cruz.
- Their goal is to promote the idea of removing the tracks in favor of a super wide three-lane trail with a separate lane for powered vehicles.

The GSCTSG publishes "Great Santa Cruz Trail 2016"

Marketing piece promoting the advantages of "trail-only" use of the rail corridor. Fails to include any information on funding or environmental impacts.

PROGRESS

2016 - RTC Staff Report on Options for Use of the Rail Corridor

Key Efforts for Rail+Trail, 1987-Present

Analyzes step-by-step process, approximate costs and general timeline for three possible uses of the rail corridor:

- Rail with Trail
- Trail-Only
- Bus Rapid Transit

Finds that the trail-only concept would incur large unknown costs and long delays to redo the EIR and Master Plan for the trail.

OPPOSITION

2017 - 'Great Santa Cruz Trail' renames itself and incorporates as 'Greenway'

Small but influential group of wealthy interests continues to promote a concept for demolishing the tracks and removing public transit from the rail corridor.

PROGRESS

2019 - Unified Corridor Investment Study (UCIS)

The RTC completes a multi-year study to select transportation investments that will make the best use of Highway 1, Soquel Avenue/Soquel Drive/ Freedom Boulevard, and the Santa Cruz Branch Rail Line between Watsonville and Santa Cruz.

The study's goals focus on developing a sustainable and well-integrated transportation system while maximizing benefits in terms of **efficient mobility, health and equity, the natural environment, and economic vitality.**

2019 - UCIS Evaluates 4 Scenarios for rail corridor:

- Trail Only
- Passenger Rail with Trail
- Bus Rapid Transit on Corridor with Trail & Freight Rail limited to Watsonville
- Passenger & Freight Rail with Trail

2019 - UCIS Results

The UCIS recommended the preferred scenario for the rail corridor include the **bike and pedestrian trail, high-capacity public transit service, and maintaining freight rail service. The Trail-Only scenario scored poorly on most measures and was rejected.**

December 2020 - Westside Rail Trail Opens!

<https://coastconnect.org/celebrate-the-westside-rail-trail/>

July 2021 - Watsonville Rail Trail Opens!

<https://pajaronian.com/watsonville-celebrates-completion-of-rail-trail-segment/>

2021 - Transit Corridor Alternative Analysis (TCAA)

Following the UCIS recommendation for some kind of high-capacity public transit on the rail corridor, this study was designed to assess all transit options for the rail right-of-way using the metrics of Equity, Environment, and Economy.

The study used a performance measure analysis as well as the gathering of public input from RTC advisory committees, partner agencies, community organizations, stakeholders, and members of the public.

18 different transit technology platforms were compared in the first round. After the initial review of 18, in Milestone 2 the study focused on the **four best-performing alternatives:**

- Electric Light Rail Transit
- Electric Commuter Rail Transit
- Bus Rapid Transit on Corridor
- Autonomous Road Train

2021 - TCAA Outcome is Rail Transit

The **TCC final recommendation** chose Electric Passenger Rail as the Locally Preferred Alternative. Because rail technology is changing rapidly with more vehicle types coming on the market yearly, the TCAA recommended choosing a specific vehicle in the next planning stage.

April 2021 - Draft Business Plan Finished

After acceptance of the TCAA, the next step was the development of a 25-year strategic business plan to serve as a guiding document for funding and implementation of the Locally Preferred Alternative.

At the April RTC meeting the RTC staff presented the draft Business Plan for electric passenger rail on the Santa Cruz Branch Rail Line (SCBRL) and received public input.

OPPOSITION

November 2020 General Election

At the November 2020 election, anti-rail Manu Koenig was elected 1st District Supervisor for Santa Cruz County, replacing John Leopold, who was pro-rail. Koenig was previously Director of Outreach and Executive Director of Greenway.

Mr. Koenig is now on the RTC Board of Directors.

April 2021 - RTC Deadlocked Vote on the Draft Business Plan

The RTC motion to accept the rail business plan and seek funding for an environmental document failed on a 6-6 vote, freezing progress on rail planning.



The Tig/M vehicle running in South Watsonville, demonstrating "rail with trail." FORT photo.

PROGRESS

2021 - Coast Futura Demonstration

▪ In October, a clean clean, quiet, zero-emission streetcar manufactured in California by Tig-M provided hourly service on the Santa Cruz Branch Rail Line in Watsonville and in Santa Cruz. See page 8 for details.

▪ The demonstration included 2,100 riders, 433 miles traveled, and over 120 volunteers.

OPPOSITION

2022 - RTC Proposed Abandonment of the Felton Branch Rail Line (FBRL) and the Santa Cruz Branch Rail Line (SCBRL)

In order to make their grant application for the Highway 1 widening project more competitive, the RTC staff expressed interest in demolishing the rail bridges crossing Highway 1 without replacing them (egged on by Greenway proponents). Staff recognized that this would require the abandonment of the SCCBRL, which would be opposed by the Roaring Camp Railroad because that action would disconnect the railroad from the national network.

RTC held a hearing on a proposal to institute a hostile third party Adverse Abandonment of the freight rights of the FBRL, which would strip Roaring Camp of the right to object to abandonment and destruction of the SCBRL.

Over 100 pages of letters and emails were sent to the RTC, almost all opposing the proposed abandonment. 40 speakers commented at the hearing, most vehemently opposed to abandonment.

After hearing from the public, the RTC Commissioners pulled back from moving towards abandonment and urged staff to continue discussions with Roaring Camp Railroad.

2022 - Greenway Ballot Initiative (present)

Greenway funded a highly deceptive local Ballot Measure to override the public process and create a trail-only plan See "Fallacies of Railbanking" article on page 7 for details.

TRAC's Thoughts on S.F. Bay Area - Monterey Bay Rail Plans

By Michael D. Setty
Editor, California Rail News

To complement the intensive focus on the Santa Cruz rail situation in this issue, TRAC offers its low-cost proposal for intercounty “Around the Bay” rail service between downtown Santa Cruz and downtown Monterey, via Pajaro and Castroville, and with services to the San Francisco Bay Area.

As we noted in the mid-2021 issue of *California Rail News*, two major studies on rail passenger service in the Monterey Bay-Santa Cruz Area were released in the first half of 2021. These were: *Transit Corridor Alternatives Analysis & Rail Network Integration Study: Business Plan for Electric Passenger Rail Line on the Santa Cruz Branch Rail Line*, and the *Monterey Bay Area Network Integration Study*. We recap the highlights of that previous article, focusing on how project and service recommendations of the *Network Integration Study* can be improved, at potentially much lower capital and operating costs

Rationalizing Capital Costs

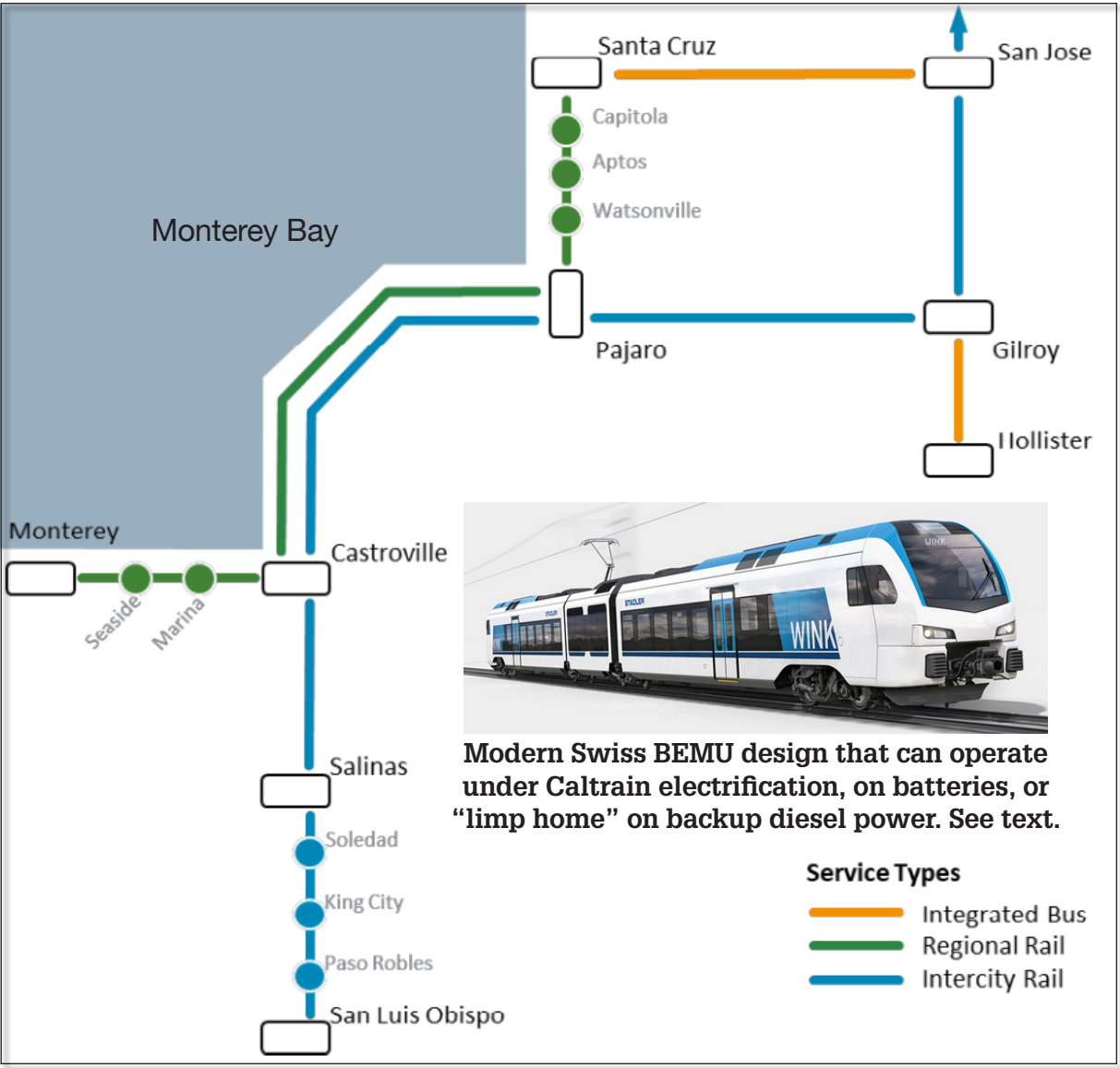
The combined capital cost of the various projects in these two studies is nearly \$1.3 billion, not including the cost of a Caltrain or Capitol Corridor extension between San Jose and Salinas. This included nearly \$500 million for upgrading the Santa Cruz Branch Line (SCBRL) to typical light rail standards, as well as reopening the Monterey to Castroville Branch Line.

Both these studies were developed using the standard “gold-plated” approach by government transportation bureaucrats and their consultants. TRAC takes the opposite approach: upgrade rail infrastructure to what is absolutely needed to operate service, and nothing more at the beginning of service.

The *Transit Corridor Alternatives Analysis* completed for the Santa Cruz County Regional Transportation Commission (RTC) in 2019 estimated a cost of about \$20 million per mile for the 22 miles of light rail service proposed on the SCBRL between Pajaro Junction and Santa Cruz. The study also estimated about \$15 million per mile for the 15 miles between Castroville and downtown Monterey.

TRAC estimates that the SCBRL can be upgraded to 60 mph standards for about \$100 million between Pajaro and Santa Cruz. \$100 million is also a good “ballpark” estimate for restoring the Monterey-Castroville line albeit at a somewhat higher cost per mile, allowing for restoration of the Salinas River rail bridge and relocating two miles of trail entering Monterey. As pointed out in the 2021 article:

“Upgrading existing tracks is much less expensive, typically costing less than



Schematic diagram of a consultant-suggested S.F. Bay Area to Monterey Bay Area, and “Around the Bay” rail. Financial feasibility requires major changes to the plan.

\$5 million per track-mile, including upgrading existing tracks, new road crossings, and modern communications incorporating Positive Train Control (PTC). The primary expenses for track upgrading are tie replacements, plus replacing worn rail with “re-lay” rail, and minor repairs to existing fixed structures. Modern wireless PTC costs are much cheaper than legacy signaling that require much wayside equipment.

The cost of new sidings can range up to about \$5 million per mile in hilly terrain that requires utility relocation, and major grading and drainage treatments.

Modern communications-based, wireless PTC is an order of magnitude less costly than wayside signaling, eliminating expensive cabling that must be buried alongside the tracks. Such communications have worked quite well on U.S. freight railroads over long distances, with communications based on dedicated radio networks rather than “in the ground” cabling.

In Europe or Japan, projects of a similar scope, with only a handful of major structures, could be implemented for only 25% to 33% of these two plans’ projected cost. U.S. politicians have not been willing to rein in the self-interest of mainstream consultants.”

Realistic Operating Cost Estimates

As noted in last year’s article:

“According to the *Monterey Bay Area Network Integration Study*, the projected cost of operating Diesel Multiple Units (DMUs) and/or Battery Electric Multiple Units (BEMUs) between Monterey and Santa Cruz is \$23.00 per train-mile. This is consistent with operating costs for the 100-seat New Jersey “River Line” DMU services between Trenton and Camden, and

costs for eBART DMU service between Antioch and Baypoint/West Pittsburg.”

Estimated operating costs in the 2019 analysis for the SCBRL were about \$70-\$75 per train-mile, for one- or two-unit light rail trains. This was considerably higher than the \$55-\$60 per train-mile estimated for extensions of Caltrain commuter rail service from San Jose to Salinas using large locomotive-hauled 6-8 car, 700-800 seat passenger trains.

To cover higher costs of operating between San Jose and Monterey/Santa Cruz on the Coast Mainline, this article assumes \$35.00 per train mile.

In order to provide the most-cost effective services between the S.F. Bay Area and Monterey/Santa Cruz, major changes in proposed services are required. As noted in the 2021 article:

“The valuable part of the Monterey Bay Area Network Integration Study is its proposal for an integrated service vision for regional rail service between Santa Cruz and Monterey, similar to Swiss and other European operations. The vision includes hourly timed connections in both directions at the Pajaro/Watsonville station, between Monterey Bay Area regional service and extended Caltrain or Capitol Corridor services. Cross-platform connections would be provided. Rail infrastructure improvements would be planned around the service concept, which is how rail network planning is done in Switzerland and Germany.”

TRAC’s alternative plan is as follows:

- Upgrade existing trackage on the Monterey and Santa Cruz branch lines

Continued on Page 7

Santa Cruz County Measure D is Deceptive

By David Schonrunn
& Michael D. Setty
Special to California Rail News

Greenway’s Initiative is fundamentally deceptive when it declares: “The Initiative supports a plan for interim use of most of the Corridor as a high-quality, multi-use trail (“Greenway”). The Greenway would allow for commuting, active transportation, and recreation while preserving the option for future rail use through railbanking, a federal program that allows an existing rail corridor to be used as a trail and leaves certain infrastructure, including bridges and trestles, for potential future rail use.”

There is nothing “interim” about the Initiative’s call for a multi-use trail. The Initiative asks voters to eliminate the language in the County General Plan that calls for the development of passenger rail. Passage of Measure D would end current plans to build a commuter rail system with a multi-use trail alongside the tracks (“rail with trail”). It would require the tracks to be torn out, and a new much wider trail be built in their place.

The Regional Transportation Commission (RTC) currently estimates that removing the tracks, building an interim trail on the railroad embankments, and then building the rail with trail at some unknown future time would cost an additional \$100 million (in 2022 dollars). If Measure D was successful, its political weight and the very high costs to restore the rails and build the trail for the **second time** would make it extremely unlikely that Santa Cruz ever has “rail with trail.” That is why the term “interim trail” is so fundamentally deceptive.

The additional cost of building the trail a second time is roughly what it would cost to upgrade existing tracks **now** to a 60 mph standard—if done without the unnecessary “gold plating” that is typical for government bureaucrats and their consultants. This clarifies that any claim that deferring the rail project to “save money” is a false economy. Rather than defer the rail project to some indefinite future date, it is clear the real purpose of Measure D is to kill the possibility of rail forever.

Rail Trail: MBSST Plan of Record versus Phased Approach				
Description of Work	Trail Segments & Cost (2022\$ in Millions)			Total Cost
	8 & 9	10 & 11	12	
1: “Ultimate Trail”, MBSST Coastal Rail Trail	\$33.1	\$70.2	\$47.9	\$151.2
--OR--				
2: Coastal Rail Trail with “Interim Trail” Phase	\$57.4	\$114.6	\$78.8	\$250.8
A: Design and build temporary interim trail with railbanking	\$18.1	\$33.4	\$24.6	\$76.1
B: Demolish Interim Trail, Rebuild Rail	\$9.7	\$16.2	\$54.2	\$147.70
C: Design and Build Ultimate Trail	\$29.6	\$65		

Source: Barry Scott, from RTC estimates.

Legal obstacles to the Greenway proposal abound: Tearing out the tracks is not legally possible unless the rail line is railbanked. “Railbanking” is a process under federal law that allows a railroad to place a rail line out of service and allow “interim” uses of the railroad right-of-way, such as pedestrian and bicycle trails. This process allows removal of trackage during the “interim” period, with the theoretical ability to reactivate a line when needed at some future date. Railbanking requires federal regulatory approval to remove existing rail infrastructure.

It is highly unlikely that rail infrastructure could be reinstalled once alternative uses such as a trail becomes firmly established, building political constituencies like the one that sponsored Measure D. Trail users and adjacent property owners are likely to strongly oppose rail line reactivation.

Large segments of US. rail lines particularly in the West, are not owned outright by the railroads, but instead have easements for rail use established in the 19th Century with adjacent property owners. Since the 1980’s, the federal courts have ruled that adjacent property owners are entitled to compensation if non-railroad uses such as trails are established.

In one Seattle-area case, local governments went ahead and built a trail on an abandoned line purchased from a major railroad, only to see a federal court awards more than \$100 million in compensation to adjacent property owners with railroad-only easements across their properties. In the Santa

Cruz case, building a trail after removal of the railroad could trigger many lawsuits by adjacent property owners for compensation, perhaps tens of millions of dollars or more.

To make matters worse, if the rail corridor were to be railbanked, the tracks removed, and a “Greenway” trail built on top of the rail embankments, taxpayers would be on the hook to reimburse the State for the \$14.2 million in Proposition 116 rail bond and other funds granted to purchase the corridor in 2012.

Railbanking may prove impossible – a very real possibility, considering the fact that there is currently a federally protected, active freight easement on the Santa Cruz line. The federal Surface Transportation Board almost always sides with railroads who desire to maintain freight service. Under such circumstances, tearing out the tracks and building a “Greenway” trail would be dead in the water--infeasible. Measure D’s “fine print” specifies that restoring a rail future to the County General Plan would require another election.

A robust public input process over many years (see pages 4-5) has led to the adoption of a plan for passenger rail service in Santa Cruz County. After the successful rail demonstration last year (see page 8), a small group of malcontents has put forward the deceptive Measure D in a last-ditch attempt to shut down that plan. The Train Riders Association of California urges voters to inform themselves about Measure D and **Vote No.**

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- to FRA Class III (up to 59 mph) for a fraction of the cost of complete track replacement. This is achievable at about \$5 million per mile, including Positive Train Control (PTC) that does not require wayside signals.
- The Coast Route between San Jose and Los Angeles should be purchased by the State, primarily to reduce costs and to enable implementation of through-service between San Francisco, San Jose and Los Angeles, and regional services between the S.F. Bay Area and Monterey Bay Area,

and out of L.A.

- Instead of locomotive-hauled trains, operation south of San Jose with BEMUs such as those available from Switzerland. BEMUs could operate under Caltrain electrification, and on batteries elsewhere. BEMU trainsets south of San Jose could operate in pairs, with one trainset operating through to Santa Cruz, splitting at Pajaro from the Monterey-bound sections. This would minimize main-line “slots” needed, and would provide no-transfer service to Santa Cruz and downtown Monterey.

- For through service to San Francisco, the BEMUs could also be attached to Caltrain expresses between San Jose and San Francisco, if designed to be compatible with Caltrain's future electric fleet.
- Maximize double track at both ends of Elkhorn Slough to improve schedule reliability. In the longer run, consider a bypass or rail via-ducts to improve Slough water circulation and raise the track bed to mitigate projected sea level rise.

Coast Futura: How a Modern Streetcar Found Its Way to Santa Cruz

By Barry Scott

Special to California Rail News

In October 2021, a hydrogen fuel cell/battery hybrid electric streetcar provided seven days of service to three cities in Santa Cruz County on the publicly-owned Santa Cruz Branch Rail Line. This demonstration, called [Coast Futura](#) was and remains a remarkable story of teamwork between transit activists and the local railroad.

The 32-mile-long branch line was purchased from Union Pacific in 2012 after their primary customer, Cemex, closed its cement production operations in Davenport. [The Santa Cruz County Regional Transportation Commission](#), or SCCRTC or just RTC, used Proposition 116 passenger rail funding to close the deal and has been studying a rail transit plan ever since.

The community's interest in this rail line for transit dates back much earlier (see timeline on pages 4 and 5). Twenty-five years ago, the RTC arranged for three separate one-day passenger rail demonstrations, proof of the commitment to use this railroad one day to provide an alternative to chronic congestion on overcrowded State Route One. Last October we saw seven full days of service in Watsonville and between Capitola and Santa Cruz.

The RTC “Innovators in Transportation Speaker” Series of 2018

Coast Futura began at one of several presentations scheduled by the RTC the year that Supervisor John Leopold served as Chair. During Jarrett Walker’s presentation in Santa Cruz, Mark Johannessen approached me to ask if Coastal Rail Santa Cruz might be interested in collaborating in an effort to introduce a battery-electric streetcar to our community. During his tenure on the West Sacramento City Council, Mark had learned about the streetcar manufacturer [TIG/m](#), as the council worked on a project to connect West Sac to downtown Sacramento with their [Riverfront Streetcar](#) initiative.

I explained to Mark that this might not be the right time to approach the RTC as our Executive Director, George Dondero, was about to retire and we were in the middle of a “Unified Corridors Investment Study.” It would be wise to wait until that study concluded and our new Executive Director was on board. Then, I asked Mark how the streetcar would get from the factory in Chatsworth, Los Angeles County, to Santa Cruz, knowing that bringing it in by rail would be a monumental task. “It’s trailer-able, they can bring it up by tractor-trailer.” replied Mark. In April 2019, my wife and I drove to meet Brad Read, president of TIG/m, for what turned out to be a [four-hour visit](#) with



The Tig/M hydrogen fuel cell/battery streetcar “Tiggy” crossing the Santa Cruz Harbor.

lunch and a thorough tour of the plant, learning how practically every part of their modern and historic reproduction trams is sourced and assembled locally—including the brass castings and milled lumber adornments used on their historic trolleys and the battery banks used in all of their vehicles.

Following the meeting in Chatsworth, we had the opportunity to tell the new RTC Director about it. On September 5, 2019, [TIG/m presented to the Commission](#). Their proposal was well-received and a license to provide a demonstration on the rail line was approved by the Commissioners with a 12-0 vote at a later date.

Everything was looking good for the May 2020 launch of the demonstration. We coordinated with Roaring Camp RR to be sure not to interfere with their schedule and the RTC committed funds to improve the section of the line that we intended to use, about 3.5 miles between the Santa Cruz Beach Boardwalk and the Capitola Wharf. The funds spent were part of the RTC's obligation to restore the entire rail line to Class I condition for freight services before handing over responsibility to the railroad, Progressive Rail. What the Coast Futura team didn't expect was a global pandemic named Covid-19.

Naturally, we put off the demonstration and laid low as we watched the months go by. During the course of this delay, something quite fortuitous happened. Progressive Rail formed a partnership with local family-owned Roaring Camp and this has made all the difference. Roaring Camp had recently taken over the freight service in Watsonville so was perfectly positioned to make this dream a reality. They took on the work of bringing sections of the line up to Class I condition using their own funds and sent their crew to the TIG/m headquarters to train to be operators of the streetcar. They obtained all the required permissions and approvals of their staff and the operational plan from multiple public agencies including the California Public Utilities Commission and the Federal Railroad Administration.

Finally, the SCCRTC authorized

the demonstration as an opportunity for the public to see an example of a modern electric rail vehicle on two sections of the Santa Cruz Branch Rail Line track. The Watsonville route ran from the site of the still-standing historic Watsonville Depot, intersection of West Beach and Walker Streets, to Harkins Slough and back, about 5.2 miles. The Watsonville terminal could one day serve as the main station and is just one block away from the Watsonville Metro Bus Terminal. The Santa Cruz route ran from the Santa Cruz Beach Boardwalk to the Capitola Wharf and back, covering over 7 miles.

The Coast Futura demonstration resulted from collaboration between local volunteers, RTC, Roaring Camp Railroads and TIG/m. Significant support was provided by the Seaside Company, operators of the Santa Cruz Beach Boardwalk, FORT (Friends of the Rail & Trail), which rallied over 100 volunteers to assist with operations, Coastal Rail Santa Cruz for logistics and operations, and sponsors including Central Coast Community Energy, Graniterock, the City of Santa Cruz, and Lookout Santa Cruz.

If implemented, the TIG/m system would cost about one-quarter of the cost estimated by the SCCRTC's 2019 Unified Corridor Investment Study and the Transit Corridor Alternatives Analysis. The system has the potential to be self-sustaining without increased taxes. The system would be fully compatible with the multiple uses envisioned for the Santa Cruz Branch Line, including the bicycle and pedestrian trail already under construction. Fares would be comparable to current METRO fares.

Coast Futura by the Numbers

- Runs: 68
- Miles traveled: 433
- Passengers: approximately 2,100
- Volunteers: 120

TIG/m was awarded Manufacturer of the Year, Environmental and Sustainable Initiative, and Highly Commended in the category of Customer Initiative at the 2020 Global Light Rail Awards.