

Appendix E Infrastructure Plans and Projects

This section provides additional information about the infrastructure plans and capital improvement programs and the local agencies that developed them. It was created to provide context for the RCIS assessment of Infrastructure Plan (Section 2.2.4).

E.1 Transportation Plans and Programs

Transportation projects account for a significant number of the anticipated infrastructure projects in Santa Cruz County. Transportation projects are sponsored by local jurisdictions (City of Capitola, City of Santa Cruz, City of Scotts Valley, City of Watsonville, and County of Santa Cruz), California Department of Transportation (Caltrans), Santa Cruz Metropolitan Transit District, and the Santa Cruz County Regional Transportation Commission.

E.1.1 Regional Transportation Plan and Metropolitan Transportation Plan

The RCIS considers foreseeable transportation projects through 2040 based on the 2040 Santa Cruz County Regional Transportation Plan (RTC 2018) and Capital Improvement Programs. The 2040 Santa Cruz County Regional Transportation Plan (2040 RTP) is a state-mandated plan that identifies transportation needs and a financially constrained priority list of projects in Santa Cruz County over the next twenty-plus years. Projects identified in the 2040 RTP include maintenance of and improvements to local roadways, highways, bicycle and pedestrian facilities, transit service, rail, specialized transportation for seniors and people with disabilities, and transportation demand management programs (RTC 2018). Individual projects listed in the RTP must still undergo separate design and environmental processes, and can only be implemented as local, state, and federal funds become available.

While the 2040 RTP and 2040 MTP/SCS provide a roadmap for accommodating projected household and employment growth in Santa Cruz County, as well as a transportation investment strategy, the MTP/SCS 2040 provides no regional authority over cities and counties to decide how and where land is developed or preserved; instead, local governments are encouraged to utilize MTP/SCS as a tool to inform land use and development decisions in the Monterey Bay Area, including Santa Cruz County.

E.1.2 Measure D

In 2016, Santa Cruz voters approved Measure D, a sales tax increase to fund transportation projects. Measure D is a comprehensive and inclusive package of transportation improvements. This ½-cent sales tax guarantees every city and the county within Santa Cruz County a steady, direct source of local funding for local streets and road maintenance, bicycle and pedestrian projects (especially near schools), safety projects, transit and paratransit service, and numerous essential transportation projects and programs throughout the county as outlined in the Expenditure Plan and Strategic Implementation Plan for Measure D. The Strategic Implementation Plan serves as the guiding policy and programming document for the

implementation of regional Measure D projects. A list of major infrastructure projects funded by Measure D are listed below.

- **Monterey Bay Sanctuary Scenic Trail Network (Coastal Rail Trail):** The Monterey Bay Sanctuary Scenic Trail Network (MBSST) is an RTC-proposed, 50-mile bicycle and pedestrian trail project. The spine of the trail network will be the 32-mile Coastal Rail Trail from Davenport to Watsonville, to be built within or adjacent to the RTC-owned Santa Cruz Branch Rail Line right-of-way.
- **Highway 1 41st Avenue to Soquel Drive/Avenue Auxiliary Lane, Bus-on-Shoulder, and Chanticleer Bike/Ped Overcrossing Project:** This project extends approximately 1.4 miles along Highway 1 between 41st Avenue in Capitola and Soquel Drive in Live Oak, proposes to add northbound and southbound auxiliary lanes and bus-on-shoulder improvements between the two interchanges and to construct a new bicycle and pedestrian overcrossing at Chanticleer Avenue.
- **Highway 1 Bay Avenue/Porter Street to State Park Drive Auxiliary Lane, Bus-on-Shoulder, and Mar Vista Bike/Ped Overcrossing Project:** This project will construct northbound and southbound auxiliary lanes and bus-on-shoulder improvements between the Bay Avenue/Porter Street and State Park Drive interchanges and replace the existing Capitola Avenue local roadway overcrossing. This project also includes a new bicycle and pedestrian overcrossing at Mar Vista Drive.
- **Highway 1 State Park Drive to Freedom Boulevard Auxiliary Lane, Bus-on-Shoulder, and Coastal Rail Trail Segment 12 Project:** This project will construct northbound and southbound auxiliary lanes and bus-on-shoulder improvements between State Park Drive—and Freedom Boulevard interchanges, replace two existing railroad bridges between the State Park Drive and Rio del Mar interchanges, and widen the Highway 1 bridge over Aptos Creek and Spreckels Drive.
- **Santa Cruz Branch Rail Line Maintenance and Repairs:** The RTC acquired the Santa Cruz Branch Line (SCBRL) in 2012 to expand transportation options and alternatives to driving, and plan for the future mobility needs of Santa Cruz County residents and visitors. The 135-year-old rail corridor spans 32-miles from Davenport to Watsonville and connects to regional and state rail lines. Inspections and repairs to the 30 railroad bridges, as well as repairs and upgrades to railroad signals, grade crossings, and the railbed are planned to meet the Federal Railroad Administration (FRA) Requirements for a short-line railroad.

Santa Cruz Metropolitan Transit District (METRO)

The METRO operates in Santa Cruz County with connections to transit in neighboring counties, providing both fixed route local and express bus service, and paratransit as mandated by the Americans with Disabilities Act. In FY19/20, fixed-route public transit operations required a

maximum fleet of 76 buses serving 26 routes throughout Santa Cruz County, including the Highway 17 Express AMTRAK feeder service between Santa Cruz and San Jose (Diridon Station). ParaCruz, METRO's complementary paratransit service, operates 32 accessible vans in demand-response service for persons who, due to disability, cannot access the fixed-route system. METRO has the following major infrastructure improvements planned.

- Bus and Paratransit Vehicle Replacements;
- Pacific Station Redesign; and,
- Paratransit Operations Center.

California Department of Transportation (Caltrans)

Santa Cruz County is in Caltrans District 5, which is headquartered in San Luis Obispo and covers five counties. Caltrans is the state agency responsible for highway, bridge, and rail transportation planning, construction, and maintenance including Highway 17, Highway 9, Highway 236, Highway 1, Highway 152, and Highway 129 in Santa Cruz County. Together, these highways makeup 123 centerline miles. Caltrans receives funding through the State Highway Operating Program (SHOPP) for maintenance and operations and the State Transportation Improvement Program (STIP) for operational and capacity improvements. As the owner and operator of the state highway system in Santa Cruz County, Caltrans is working closely with RTC to construct Measure D-funded improvements to Highway 1 and Highway 9.

Table E-1: Local and regional transportation projects with anticipated off-pavement disturbances in the RCIS Area¹

Project Name	Project ID ²	Project Description
RTC		
MBSST Construction	RTC 27a	Design, environmental clearance, and construction of the 32-mile rail component of the 50+ mile network of bicycle and pedestrian facilities on or near the coast, with the rail trail as the spine and additional spur trails to connect to key destinations. (Funded segments listed individually.)
Rail Maintenance	RTC P03	Operating expenses for rail line oversight.
Highway 1 Improvements	RTC 24e	Hwy 1 Auxiliary Lanes: State Park Dr- Park Ave and Park Ave-Bay/Porter
Highway 1 Improvements	RTC 24o	Hwy 1: Reconstruction of 2 Railroad Crossings in Aptos
Highway 1 Improvements	RTC 24p	Hwy 1: Auxiliary Lanes from Rio Del Mar Blvd to State Park Dr Including Bridge over Aptos Creek
Highway 1 Improvements	RTC 24q	Hwy 1: Auxiliary Lanes from Freedom Blvd to Rio Del Mar Blvd
Highway 1 Improvements	RTC 24r	Hwy 1: Northbound Auxiliary Lane from San Andreas Rd/Larkin Valley Rd to Freedom Blvd
City of Capitola		
Stockton Ave bridge rehabilitation	CAP-P07p	Replace bridge with wider facility that includes standard bike lanes and sidewalks
Capitola Village Multimodal enhancements	CAP-P04b	Multimodal enhancement in Capitola Village.

Project Name	Project ID ²	Project Description
Bay Ave Traffic Calming and bike/ped enhancements	CAP-P29	Traffic calming features along Bay Avenue from Highway 1 to Monterey Avenue, including left turn pocket, buffered pedestrian facilities and bicycle treatments.
Upper Pacific Cove parking lot pedestrian trail depot park metro development	CAP 17	Construct 4-foot-wide pedestrian pathway along City owned upper Cover Parking lot adjacent to the rail line. Includes new signal for ped crossing over Monterey Avenue and new Metro shelter.
Cliff Drive Improvements	CAP-P05	Installation of sidewalks, pedestrian crossing and slope stabilization of embankment including seawall.
Porter St and Highway 1 I/S Improvements	CAP-P55	Additional dedicated right turn lane on Porter Street to northbound on ramp.
City of Santa Cruz		
Hwy1/San Lorenzo River Bridge Replacement	SC 38	Replace the Highway 1 bridge over San Lorenzo River.
Murray Street Bridge Retrofit	SC 37	Seismic retrofit of existing bridge over Woods Lagoon at harbor and associated approach roadway improvements and placement of barrier rail. Includes wider bike lanes and sidewalk on ocean side and access path to harbor if feasible.
Shaffer Road Widening and Railroad Crossing	SC-P91	Construction of new crossing of the Railroad line at Shaffer Rd, and widening of the southern leg of Shaffer in conjunction with development.
Segments 8 & 9	TRL 8-9a	Rail Trail Design, Environmental and Construction along the rail corridor between Pacific Avenue and 17th Avenue.
City of Watsonville		
Pajaro Valley Connector Trail	WAT-P42	Install bicycle/pedestrian trail (this trail connects Pajaro Valley Highway School to Airport Boulevard.

Project Name	Project ID ²	Project Description
Upper Watsonville Slough Trail	WAT-P43	Install bicycle/pedestrian trail.
Lee Road Trail		Install bicycle/pedestrian trail.
County of Santa Cruz		
Empire Grade: City of SC to end (17.07 mi)	CO-P10	Road rehab and maintenance, left turn pocket at Felton Empire Road, add bike lanes, transit facilities, some sidewalks, landscaping. Drainage improvements, merge lanes, and intersection improvements may also be needed.
Freedom Blvd, from Bonita Dr to city limits (8.52 miles)	CO-P11	Add bike lanes, sidewalks on some segments, transit turnouts, signalization. Left turn pockets at Bowker, Day Valley, White Rd, and Corralitos Rd. Also includes merge lanes, intersection improvements, landscaping, major rehabilitation and maintenance, drainage improvements.
Graham Hill Rd, from City of SC to State Hwy 9 (5.73 miles).	CO-P12	Bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes, traffic signals. Major rehabilitation and maintenance. Drainage improvements. Signal upgrade at SR9.
La Madrona Dr, from El Rancho Dr to City of Scotts Valley (2.1mi).	CO-P14	Bike lanes, sidewalks, transit turnouts, left turn pockets at Sims Road, Highway 17, and El Rancho Road), merge lanes, and intersection improvements. Also includes major rehabilitation, drainage, and maintenance.
Sims Road from Graham Hill Rd to La Madrona Dr (.59mi)	CO-P17	Road rehab and maintenance, drainage, intersection improvements, landscaping, add bike, ped, and transit facilities.
Airport Blvd, from City of Watsonville to Green Valley Rd. (.57 mi)	CO-P02	Major rehab, addition of bike lanes, transit facilities, merge lanes, intersection improvements, sidewalks, drainage, and landscaping.
Lockwood Lane Improvements (Graham Hill Rd to SV limits)	CO-P24	Major road rehab, add bicycle lanes, sidewalks, some transit facilities, landscaping, and intersection improvements.

Project Name	Project ID ²	Project Description
Mt Hermon Rd. (Lockwood Ln to Felton Empire Grade)	CO-P26q	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.
Mt View Rd (Branciforte Dr to Rodeo Gulch Rd)	CO-P27g	Roadway and roadside improvements including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.
Paulsen Rd (Green Valley Rd to Casserly Rd)	CO-P27h	Roadway and roadside improvements including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.
Glen Arbor Rd.(State Hwy 9 to State Hwy 9)	CO-P30f	Improvements of roadways and roadsides including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road and roadsides.
Granite Creek Rd.(Branciforte Dr to City of Scotts Valley)	CO-P30h	Improvements of roadways and roadsides including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road and roadsides.
Lompico Rd Improvements (E Zayante Rd. to end)	CO-P30k	Improvements of roadways and roadsides including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road and roadsides.
Lockhart Gulch Improvements (Scotts Valley City limits to end)	CO-P31e	Roadway and roadside improvements including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements.
South & North Rodeo Gulch Rd. (Hwy 1 to Mt. View/Laurel Glen Rd)	CO-P31i	Roadway and roadside improvements including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements.

Project Name	Project ID ²	Project Description
Harkins Slough Rd. (entire length-Buena Vista Dr to State Hwy 1)	CO-P32c	Road rehabilitation and maintenance. Roadside improvements: left lane pockets, sidewalks, bike lanes and transit turnouts.
Quail Hollow Rd. (entire length- East Zayante to Glen Arbor Rd)	CO-P32f	Road rehabilitation and maintenance. Roadside improvements: left lane pockets, sidewalks, bike lanes and transit turnouts.
Murphy Crossing, from Highway 129 to Monterey County line.	CO-P39	Bikeway on Murphy Crossing (Hwy 129 to Monterey Co line), major rehabilitation and maintenance of road, drainage improvements may also be needed.
San Lorenzo River Valley Trail	CO-P46	15 mile, paved multi-use path for bicyclists and pedestrians from Boulder Creek to Santa Cruz.
Quail Hollow Rd Bridge Replacement Project	CO-P82	The project will consist of completely replacing the existing two-lane structure and roadway approaches with a two-lane clear span concrete bridge and standard bridge approaches.
San Lorenzo Way Bridge Replacement Project	CO-P83	The project will consist of completely replacing the existing one lane structure and roadway approaches with a two-lane clear span bridge and standard bridge approaches.
Green Valley Rd Bridge Replacement Project	CO-P85	The project will consist of completely replacing the existing two-lane structure and roadway approaches with a two-lane clear span concrete slab bridge and standard bridge approaches.
Forest Hill Dr @ Bear Creek Bridge Replacement Project	CO-P86	The Project will consist of completely replacing existing steel girder bridge crossing Bear Creek with a new precast concrete voided slab bridge.
Rancho Rio Ave @ Newell Creek Bridge Replacement Project	CO-P87	The project will consist of completely replacing the existing one lane structure and roadway approaches with a two-lane clear span concrete slab bridge and standard bridge approaches.

Project Name	Project ID ²	Project Description
Either Way Ln Bridge Replacement Project	CO-P88	The project will consist of completely replacing the existing narrow one lane structure and roadway approaches with a two-lane clear span precast voided concrete slab bridge and standard bridge approaches.
Fern Dr @ San Lorenzo River Bridge Replacement Project	CO-P90	The project will consist of completely replacing the existing three span single lane structure and roadway approaches with a new two-lane clear span reinforced concrete box girder bridge and standard bridge approaches.
Larkspur Bridge @San Lorenzo River	CO-P91	The project will consist of completely replacing the existing narrow one lane structure and roadway approaches with a two-lane bridge and standard bridge approaches.
Swanton Rd Bridge Replacement	CO-P94	The project will consist of replacing existing 3 span steel girder bridge with a single span concrete box girder bridge
Lompico Rd Bridge Replacement	CO-P95	The project will consist of replacing existing steel stringer bridge with a reinforced concrete slab bridge

¹ Does not include Caltrans projects included in the State Highway Operation Protection Program. The State Advanced Mitigation Needs Assessment (SAMNA; Caltrans 2021a) and the District 5 Regional Advanced Mitigation Needs Assessment (RAMNA; Caltrans 2021b) identify State Highway Operation and Protection Program (SHOPP) transportation projects potentially affecting special-status species and aquatic resources and that may require mitigation.

² Project ID: the Project identifier in the 2040 Santa Cruz County Regional Transportation Plan (RTC 2018).

E.2 Water Infrastructure

Four primary water districts serve Santa Cruz County: San Lorenzo Valley Water District, the Scotts Valley Water District, the Soquel Creek Water District, and the Central Water District. Along with the water departments within the four cities, these districts manage and operate a complex and integrated water supply and flood management infrastructure network. With a significant portion of the water infrastructure approaching 40 to 50 years of age, water districts and water departments are carrying out major capital improvement projects to ensure each facility functions as intended. Some of the major capital improvement projects include the following pipeline installation and replacement, diversion rehabilitation and retrofit, pump station rehabilitation.

The County also helps manage streams to provide flood protection, including the Pajaro River to protect the Watsonville area of Santa Cruz County.

City of Santa Cruz Water Department

- Laguna Creek Diversion Retrofit Project
- North Coast System Majors Diversion Rehab
- Tait Diversion Rehab/Replacement
- Coast Pump Station Rehab/Replacement
- Felton Diversion and Pump Station Assessment
- North Coast System Repair and Replacement Project - Laguna/Liddell to Scaroni
- North Coast System Repair and Replacement Project – Majors
- North Coast System Repair and Replacement Project - Detail D Dimeo lane to town
- Newell Creek Pipeline Rehab/Replacement
- Coast Pump Station 20-inch Pipeline Replacement
- Water Supply Augmentation
- Recycled Water Feasibility Study
- Aquifer Store and Recovery in Purisima
- Aquifer Store and Recovery in Santa Margarita GW Basin (SMGB)
- Pipe Loop Study
- In-Lieu Water Transfers and/or Exchanges
- Graham Hill WTP Tube Settlers Replacement
- Graham Hill WTP Flocculator Rehab/Replacement

- Graham Hill WTP Concrete Tanks Project
- Graham Hill WTP Upgrades
- River Bank Filtration Study
- Source Water Data Collection and Management
- Main Replacement Model Development
- University Tank No. 4 Rehab/Replacement

Pajaro Valley Water Management Agency

The following are anticipated as well as prospective but not planned projects (listed in italics) of the Pajaro Valley Water Management Agency, which manages water supplies in the Pajaro Valley.

- College Lake Integrated Resources Management Project
- Recycled Water Facility Improvements Phase III (additional disinfection and 0.5-million-gallon storage tank)
- Expanded College Lake, Pinto Lake, Corralitos Creek, Watsonville Slough, and Aquifer Storage and Recovery
- Murphy Crossing with Recharge Basins
- Coastal Distribution System Expansion
- Winter Recycled Water Deep Aquifer Storage
- River Conveyance of Water for Recharge at Murphy Crossing
- San Benito County Groundwater Demineralization at Watsonville WWTP
- Seawater Desalination
- Bolsa de San Cayetano with Pajaro River Diversion

San Lorenzo Valley Water District

- 2020 Pipeline Project: Boulder Creek at Big Basin Highway (236), Sequoia Avenue, and Hillside Drive.
- Ben Lomond at California Drive and Quail Hollow Road Lyon Slide Repair Project
- Lompico Tanks Replacement Project
- Felton Heights Tank Replacement Project
- Redwood Park Tank Replacement Project
- Glen Arbor Bridge Pipeline Replacement Project

- Quail Hollow Well
- Quail Hollow Pipeline Replacement
- Olympia Well
- Fall Creek Fish Ladder Improvement Project
- 5-Mile Pipeline Replacement Project

E.3 Energy

Energy infrastructure in the RCIS Area is currently primarily limited to gas and electricity transmission and distribution facilities, and small-scale power plants and substations operated by Pacific Gas and Electric (PG&E). Central Coast Community Energy, a community choice energy agency that procures energy for Santa Cruz as well as Monterey and San Benito counties, distributes electricity generated outside of the RCIS Area to the region. There are no known new large-scale energy development projects planned for the RCIS Area.

As part of its *Multiple Region Operation and Maintenance Habitat Conservation Plan* (PG&E 2020), PG&E will maintain facilities within its parcels and right of way (ROW) including transmission and distribution infrastructure and maintain access routes to its infrastructure. The HCP also covers some new gas pipeline or electric line extensions, management of PG&E's fee-owned lands or lands subject to PG&E easements for the new infrastructure, and activities in offsite areas where mitigation parcels would be acquired to offset permanent and temporary impacts to species and habitat.

E.4 Development

The following lists the planned new development and redevelopment residential, commercial, and mixed-used development in unincorporated Santa Cruz County as well as the three cities based on information gathered during development of the RCIS.

New Development

- Atkinson Lane Residential Development (County of Santa Cruz)
- Aptos Village (County of Santa Cruz)
- Delaware Addition (City of Santa Cruz)
- Harbor Landing Visitor Accommodations (County of Santa Cruz)
- Fairfield Inn- West Beach Street (City of Watsonville)
- Sunshine Gardens Residential Development- Ohlone Parkway (City of Watsonville)