

# Appendix A

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Notice of Preparation and NOP Response Letters



**Notice of Preparation for an Environmental Impact Report**

**2045 Metropolitan Transportation Plan/Sustainable Communities Strategy  
2045 Regional Transportation Plans for San Benito, Santa Cruz, and Monterey Counties**

Notice is hereby given that the Association of Monterey Bay Area Governments (AMBAG) will be the lead agency in partnership with the Council of San Benito County Governments (SBtCOG), the Santa Cruz County Regional Transportation Commission (SCCRTC), and the Transportation Agency for Monterey County (TAMC), who are responsible agencies, for the preparation of an Environmental Impact Report (EIR) for the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). SBtCOG, SCCRTC, and TAMC are the state-designated Regional Transportation Planning Agencies (RTPAs) for San Benito, Santa Cruz, and Monterey counties, respectively. Each RTPA prepares a county-level long-range Regional Transportation Plan (RTP) that is consistent with the AMBAG 2045 MTP/SCS.

Pursuant to section 15082 of the California Environmental Quality Act (CEQA), AMBAG is soliciting your views on the scope and contents of the 2045 MTP/SCS EIR. The Draft EIR will be a Program EIR. A Program EIR is an EIR that may be prepared on a series of actions that can be characterized as one large project and acts as the first tier of environmental review. The EIR will serve as the Program EIR for the AMBAG 2045 MTP/SCS and as the Program EIR for the RTPs prepared by the RTPAs for San Benito, Santa Cruz, and Monterey counties.

The project description, location, environmental review requirements, and probable environmental effects to be addressed in the EIR are discussed below. An Initial Study is not attached and is not required, in accordance with State CEQA Guidelines Section 15060(d).

The 2045 MTP/SCS will guide the development of the Regional and Federal Transportation Improvement Programs (RTIP and FTIP) as well as other transportation programming documents and plans throughout San Benito, Santa Cruz and Monterey counties. The 2045 MTP/SCS outlines the region's goals and policies for meeting current and future mobility needs and identifies programs, actions, and a plan of projects intended to address these needs consistent with adopted goals and policies. The Regional Transportation Plans for the counties of San Benito, Santa Cruz, and Monterey are developed for each of the counties to provide a sound basis for the allocation of state and federal transportation funds to transportation projects within each county for a long-range timeframe. The Regional Transportation Plans address major forms of transportation, and include the priorities and actions embodied in the plans prepared by each of the county's cities and unincorporated areas.

The SCS component of the MTP/SCS is required by California Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008 (SB 375). SB 375 mandates regional greenhouse gas reduction targets for passenger vehicles and, pursuant to that law, the California Air Resources Board has established 2020 and 2035 greenhouse gas reduction targets for each region covered by one of the state's metropolitan planning

organizations (MPOs). AMBAG is required to prepare an SCS that demonstrates how its greenhouse gas reduction targets could feasibly be met through integrated land use, housing, and transportation planning.

Mail comments on the EIR scope and contents to Heather Adamson at AMBAG, **24580 Silver Cloud Court, Monterey, California 93940** or e-mail comments to [hadamson@ambag.org](mailto:hadamson@ambag.org) no later than **February 14, 2020**.

For more information, visit [www.ambag.org](http://www.ambag.org) or call (831) 883-3750.

**AMBAG will host a series of EIR Scoping Meetings/Public Workshops.** The purpose of the meetings is to solicit input on the scope and content of the environmental analysis that will be included in the Draft EIR, to inform the public of the 2045 MTP/SCS, as well as solicit public input on the 2045 MTP/SCS. The date, time and location of the meetings are as follows:

- **In Santa Cruz on January 22, 2020** from 6:00 PM to 7:30 PM at the Live Oak Community Room - Simpkins Center - 979 17th Ave, Santa Cruz, CA
- **In Hollister on January 23, 2020** from 6:00 PM to 7:30 PM at the San Benito County Board of Supervisors Chambers - 481 4th Street, Hollister, CA
- **In Monterey on January 29, 2020** from 6:00 PM to 7:30 PM at the Marina Library Community Room - 190 Seaside Circle, Marina, CA

## **PROJECT DESCRIPTION AND SCOPE OF ENVIRONMENTAL ANALYSIS**

### **Project Title**

AMBAG 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy, SBtCOG 2045 Regional Transportation Plan, SCCRTC 2045 Regional Transportation Plan and TAMC 2045 Regional Transportation Plan

### **Project Location**

The geographical extent of the proposed 2045 MTP/SCS includes San Benito, Santa Cruz and Monterey counties, and all incorporated cities and unincorporated areas contained therein. The geographical extent for each RTPA's Regional Transportation Plan is the boundary for each respective county, including its incorporated and unincorporated areas. See location map at the end of this NOP.

### **Project Description**

As the MPO for the tri-county region of Monterey, San Benito, and Santa Cruz counties, AMBAG is charged with developing a 2045 MTP/SCS. The 2045 MTP/SCS is the metropolitan long-range transportation plan for Monterey, San Benito, and Santa Cruz counties. SBtCOG, SCCRTC, and TAMC are the state-designated RTPAs for San Benito, Santa Cruz and Monterey counties, respectively. Each RTPA prepares a county-level long-range RTP, which will be evaluated in this EIR. The 2045 MTP/SCS is used to guide the development of the Regional and Federal Transportation Improvement Programs, as

well as other transportation programming documents and plans. The MTP outlines the region's goals and policies for meeting current and future mobility needs, providing a foundation for transportation decisions by local, regional, and State officials that are ultimately aimed at achieving a coordinated and balanced transportation system. The 2045 MTP/SCS sets forth actions, programs, and projects to address these needs consistent with adopted policies and goals. The 2045 MTP/SCS also documents the financial resources needed to implement the plan.

The EIR will serve as the Program EIR for the AMBAG 2045 MTP/SCS as well as the Program EIR for the RTPs prepared by the RTPAs for San Benito, Santa Cruz, and Monterey counties.

The Sustainable Communities and Climate Protection Act of 2008 (SB 375, Steinberg) enhances California's ability to reach its greenhouse gas emissions reduction goals by promoting coordinated planning with the goal of creating more sustainable communities. SB 375 mandates regional greenhouse gas emission reduction targets for passenger vehicles. Pursuant to SB 375, the California Air Resources Board established targets for 2020 and 2035 for each region covered by one of the State's 18 MPOs. AMBAG, as the regional MPO, must prepare a SCS that demonstrates how the region will meet its greenhouse gas reduction target through integrated land use, housing, and transportation planning.

AMBAG is currently preparing the 2045 MTP/SCS for the region. The 2045 MTP/SCS EIR will analyze the plan's impacts on the physical environment and identify measures to avoid or mitigate significant environmental effects. It also will be an informational document intended to inform public decisionmakers, responsible or interested agencies, and the general public of the potential environmental effects of a project.

If the targets established by the California Air Resources Board cannot be feasibly met, an Alternative Planning Strategy (APS) would be prepared by AMBAG to show how the targets would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

The transportation component of the MTP/SCS will include road and transit networks, non-motorized transportation, and transportation strategies and policies. Furthermore, SB 375 requires that the SCS identify general land uses, residential densities, and building intensities as well as areas to house future residents, including housing to accommodate the eight-year Regional Housing Needs Assessment (RHNA) (see California Government Code Section 65080(b)(2)(B) for the full list of SB 375 requirements for the MTP/SCS). The RHNA must be consistent with the SCS.

The RTPs for the counties of San Benito, Santa Cruz, and Monterey are developed for each of the counties to provide a sound basis for the allocation of state and federal transportation funds to transportation projects within each county over a long-range timeframe through 2045. The RTPs address all forms of transportation, and include the priorities and actions embodied in the plans prepared by each of the county's cities and unincorporated areas. The RTPs follow guidelines established by the State of California's Transportation Commission (CTC) to describe the transportation issues and needs facing

each county; identify goals and policies for how each county will meet its needs; identify the amount of money that will be available for needed projects; and include a list of prioritized transportation projects to serve each county's long-term needs within the projected "budget" of transportation revenues with consideration towards environmental impacts, land use, and special transportation needs.

#### **Impacts to Be Addressed in the EIR**

AMBAG, with input from the RTPAs for San Benito, Santa Cruz, and Monterey counties, is currently reviewing SCS scenarios to assess how future land use and transportation changes could achieve a coordinated and balanced regional transportation system while reducing greenhouse gas emissions from passenger vehicles and light trucks to meet the regional greenhouse gas reduction targets set by CARB. Following public review and input, the AMBAG Board of Directors will select a preferred SCS scenario. The EIR will evaluate the environmental effects of the preferred SCS scenario in detail.

The 2045 MTP/SCS EIR will analyze the potential for significant environmental effects for the following resource topics:

- Aesthetics/Visual Resources
- Agriculture and Forestry Resources
- Air Quality and Health Impacts/Risks
- Biological Resources
- Climate Change/Greenhouse Gases
- Cultural and Historic Resources
- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Transportation
- Tribal Cultural Resources
- Wildfire

The EIR also will also address cumulative impacts and growth inducing impacts.

#### **Preliminary MTP/SCS Project Alternatives Scenarios**

The EIR also will evaluate the environmental impacts of alternative scenarios. The analysis of alternatives will focus on various land use and transportation scenarios that make different assumptions regarding the combinations of future land uses and transportation system improvements. The following preliminary MTP/SCS project alternatives may be addressed in the EIR:

- **No Project Alternative** – The No Project Alternative is required by CEQA. For this EIR, the No Project Alternative is defined as a land use base comprised of existing land use

plans and a transportation network comprised of committed transportation projects.

- **Active Transportation Mode and Transit Prioritized Alternative** – The Active Transportation Mode and Transit Prioritized Alternative would prioritize active transportation projects (e.g., bike lanes, pedestrian improvements) and public transit projects (e.g., bus stops, bus lanes) over projects that would improve or add to the road system that primarily serves personal motor vehicles. Thus, this alternative would encourage more active transportation and transit use in the region at an earlier date.
- **Intensified Land Use Alternative** – The Intensified Land Use Distribution Alternative will analyze a more compact land use pattern that further concentrates the forecasted population and employment growth in areas identified for more intensified use.

# 2045 MTP/SCS Location Map



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 Project Location  
(County Boundaries) 



Fig. 6 Project Location



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Central Region  
1234 East Shaw Avenue  
Fresno, California 93710  
(559) 243-4005  
[www.wildlife.ca.gov](http://www.wildlife.ca.gov)

**GAVIN NEWSOM, Governor**  
**CHARLTON H. BONHAM, Director**



February 10, 2020

Heather Adamson  
Association of Bay Area Governments  
24580 Silver Cloud Court  
Monterey, California 93940  
[hadamson@ambag.org](mailto:hadamson@ambag.org)

**Subject: AMBAG 2045 Metropolitan Transportation Plan/Sustainable  
Communities Strategy and Regional Transportation Plans (Project)  
Notice of Preparation (NOP)  
SCH#: 2020010204**

Dear Ms. Adamson:

The California Department of Fish and Wildlife (CDFW) received the NOP from the Association of Bay Area Governments for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.<sup>1</sup>

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

#### **CDFW ROLE**

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA,

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<sup>1</sup> CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required.

**Water Pollution:** Pursuant to Fish and Game Code section 5650, it is unlawful to deposit in, permit to pass into, or place where it can pass into "Waters of the State" any substance or material deleterious to fish, plant life, or bird life, including non-native species. It is possible that without appropriate mitigation measures, implementation of the Project could result in pollution of Waters of the State from storm water runoff or construction-related erosion. Potential impacts to the wildlife resources that utilize these watercourses include the following: increased sediment input from road or structure runoff; toxic runoff associated with development activities and implementation; and/or impairment of wildlife movement along riparian corridors. The Regional Water Quality Control Board and United States Army Corps of Engineers also have jurisdiction regarding discharge and pollution to Waters of the State.

**Nesting Birds:** CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

In this role, CDFW is responsible for providing, as available, biological expertise during public agency environmental review efforts (e.g., CEQA), focusing specifically on Project activities that have the potential to adversely affect fish and wildlife resources. CDFW provides recommendations to identify potential impacts and possible measures to avoid or reduce those impacts.

## PROJECT DESCRIPTION SUMMARY

**Proponent:** Association of Bay Area Governments

**Objective:** The proposed Project will guide the development of the Regional and Federal Transportation Improvement Programs as well as other transportation programming documents and plans throughout Monterey, Santa Cruz and San Benito Counties. Specifically, the Project is intended to implement Regional Transportation Planning Agency goals regarding future mobility needs and identify programs, actions, and a plan of projects intended to address these needs consistent with adopted goals and policies. The Project includes the Sustainable Communities Strategy pursuant to the requirements of Senate Bill 375. Accordingly, the Project identifies transportation improvement projects and a land use scenario that would meet Senate Bill 375 greenhouse gas emission requirements.

**Location:** The Project is located throughout Monterey, San Benito, and Santa Cruz Counties.

## COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the Association of Bay Area Governments in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

There are many special-status resources present within the Project location and these resources may need to be evaluated and addressed prior to any approvals that would allow vegetation- or ground-disturbing activities. CDFW is concerned regarding potential impacts to special-status species including, but not limited to, the State and federally endangered as well as State fully protected Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*), the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*), the State and federally threatened California tiger salamander (*Ambystoma californiense*), the State threatened Swainson's hawk (*Buteo swainsoni*), the State and federally endangered as well as State fully protected blunt-nosed leopard lizard (*Gambelia sila*), the State threatened bank swallow (*Riparia riparia*), the State and federally endangered as well as State fully protected California least tern (*Sternula antillarum browni*), the State endangered and federally threatened western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), the State threatened tricolor blackbird (*Agelaius tricolor*), the State and federally endangered least Bell's vireo (*Vireo bellii pusillus*), the State endangered and fully protected bald eagle (*Haliaeetus leucocephalus*), the State and federally endangered as well as State fully protected California condor (*Gymnopyps californianus*), the State fully

protected white-tailed kite (*Elanus leucurus*), the State threatened Nelson's antelope squirrel (*Ammospermophilus nelsoni*), the State and federally endangered giant kangaroo rat (*Dipodomys ingens*), the State and federally endangered Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*), the State candidate for listing as threatened foothill yellow-legged frog (*Rana boylei*), the State and federally endangered California Ridgway's rail (*Rallus obsoletus obsoletus*), the State candidate for listing as endangered western bumble bee (*Bombus occidentalis*), the State candidate for listing as endangered crotch bumble bee (*Bombus crotchii*), the State endangered San Francisco popcornflower (*Plagiobothrys diffusus*), the State threatened surf thistle (*Cirsium rhotophilum*), the State and federally endangered marsh sandwort (*Arenaria paludicola*), the State and federally endangered Menzies' wallflower (*Erysimum menziesii*), the State threatened beach spectaclepod (*Dithyrea maritima*), the State endangered and federally threatened Santa Cruz tarplant (*Holocarpha macradenia*), the State threatened and federally endangered Gambel's water cress (*Nasturtium gambelii*), the State and federally endangered Nipomo Mesa lupine (*Lupinus nipomensis*), the State threatened and federally endangered La Graciosa thistle (*Cirsium scariosum* var. *loncholepis*), the State and federally endangered Indian Knob mountainbalm (*Eriodictyon altissimum*), the State rare and federally endangered Pismo clarkia (*Clarkia speciosa* ssp. *immaculata*), the State rare and federally threatened Camatta Canyon amole (*Chlorogalum purpureum* var. *reductum*), the State rare Cuesta Pass checkerbloom (*Sidalcea hickmanii* ssp. *anomala*), the State endangered Hearsts' manzanita (*Artostaphylos hookeri* ssp. *hearstiorum*), the State rare Dudley's lousewort (*Pedicularis dudleyi*), the State rare Hearsts' ceanothus (*Ceanothus hearstiorum*), the State rare adobe sanicle (*Sanicula maritima*), the State and federally endangered Chorro Creek bog thistle (*Cirsium fontinale* var. *obispoense*), the State threatened and federally endangered Monterey gilia (*Gilia tenuiflora* ssp. *arenaria*), the State endangered seaside bird's-beak (*Cordylanthus rigidus* ssp. *littoralis*), the State and federally listed Santa Cruz wallflower (*Erysimum teretifolium*), the State endangered and federally threatened marbled murrelet (*Brachyramphus marmoratus*), the State endangered and federally threatened Santa Cruz cypress (*Hesperocyparis abramsiana* var. *abramsiana*), the State threatened and State fully protected California black rail (*Laterallus jamaicensis coturniculus*), the State and federally endangered coho salmon - central California coast ESU (*Oncorhynchus kisutch*), the State and federally endangered white-rayed pentachaeta (*Pentachaeta bellidiflora*), the State and federally endangered Scotts Valley polygonum (*Polygonum hickmanii*), and the following State species of special concern: burrowing owl (*Athene cunicularia*), western pond turtle (*Actinemys marmorata*), California red-legged frog (*Rana draytonii*), western spadefoot toad (*Spea hammondi*), tidewater goby (*Eucyclogobius newberryi*), California giant salamander (*Dicamptodon ensatus*), black swift (*Cypseloides niger*), Townsend's big-eared bat (*Corynorhinus townsendii*), northern California legless lizard (*Anniella pulchra*), Santa Cruz black salamander (*Aneides niger*), western snowy plover (*Charadrius alexandrinus nivosus*), San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), and American badger (*Taxidea taxus*).

Due to the very limited information provided in the Project description, CDFW is only able to provide general comments regarding potential impacts to State-listed species. CDFW will provide more substantive comments when specific Project description details are provided, such as specific routes and/or specific Project construction locations, when the Environmental Impact Report (EIR) prepared for this Project is circulated for public review. Please note that the large-scale tri-county Project involves multiple CDFW Regions: Region 3 (Bay Delta Region), Region 4 (Central Region), and potentially Region 7 (Marine Region). The general comments below pertain to the coastal area of California in Santa Cruz and Monterey Counties in CDFW Region 7, inland Santa Cruz County in CDFW Region 3, and inland Monterey and San Benito Counties in CDFW Region 4.

## **I. Environmental Setting and Related Impact**

**Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or the United States Fish and Wildlife Service (USFWS)?**

### **COMMENT 1: State Fully Protected Species in Monterey, San Benito, and Santa Cruz Counties**

**Issue:** State fully protected species are known to occur within the Project area (CDFW 2020). CDFW has jurisdiction over fully protected species of birds, mammals, amphibians, reptiles, and fish pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515. Take, as defined by Fish and Game Code section 86 is to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”, of any fully protected species is prohibited and CDFW cannot authorize their incidental take. Without appropriate mitigation measures, Project activities conducted within occupied territories have the potential to significantly impact these species.

**Specific Impacts:** Without appropriate avoidance and minimization measures for fully protected species, potentially significant impacts associated with Project activities may include, but are not limited to, burrow collapse, inadvertent entrapment, reduced reproductive success, reduced health and vigor, nest abandonment, loss of nest trees, and/or loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young), and direct mortality.

**Evidence impact would be significant:** The Project will involve noise, groundwork, use of heavy machinery, and movement of workers that may occur in or

directly adjacent to habitat and thus have the potential to significantly impact fully protected species populations.

**Recommended Potentially Feasible Mitigation Measure(s)**

To evaluate potential impacts to fully protected species, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation measures into the EIR prepared for this Project, and that these measures be made conditions of approval for the Project.

**Recommended Mitigation Measure 1: Fully Protected Habitat Assessment**

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation, to determine if the Project site or its vicinity contains suitable habitat for fully protected raptors.

**Recommended Mitigation Measure 2: Fully Protected Species Surveys**

CDFW recommends that focused surveys following a species-specific protocol or methodology, if applicable, be conducted by experienced biologists at the Project site prior to Project implementation to avoid impacts to these species. If Project activities are to take place when fully protected species are active, CDFW recommends that additional pre-activity surveys for active nests or above-ground individuals be conducted by a qualified biologist no more than ten days prior to the start of Project activities.

**Recommended Mitigation Measure 3: Fully Protected Species Avoidance**

In the event a fully protected species is found within or adjacent to the Project site, implementation of avoidance measures is warranted. Detection during surveys or construction activities warrants consultation with CDFW to discuss how to implement the Project and avoid take. CDFW recommends that a qualified wildlife biologist be on-site during all Project-related activities and that an appropriate no-disturbance buffer be implemented. Contacting CDFW for assistance with species-specific avoidance measures is recommended. Fully addressing potential impacts to fully protected species and requiring measurable and enforceable mitigation in the EIR is recommended.

**Recommended Mitigation Measure 4: Santa Cruz Long-Toed Salamander Full Avoidance.**

CDFW recommends that the Project completely avoid impacts to Santa Cruz long-toed salamander. Santa Cruz long-toed salamander is a State fully protected species located only within Santa Cruz and Monterey counties. CDFW is unable to issue permits for take of Santa Cruz long-toed salamander, which includes take

during species-specific surveys, unless they are conducted for scientific purposes pursuant to Fish and Game Code section 2081(a) or a project has an approved Natural Communities Conservation Plan pursuant to Fish and Game Code section 2800. Therefore, CDFW recommends impacts to Santa Cruz long-toed salamander be completely avoided. Contacting CDFW for assistance with avoidance measures is recommended.

**COMMENT 2: State Threatened or Endangered Wildlife Species in Monterey, San Benito, and Santa Cruz Counties**

**Issue:** State threatened or endangered wildlife species are known to occur within the Project area (CDFW 2020). Without appropriate mitigation measures, Project activities conducted within occupied territories or habitats have the potential to significantly impact these species.

**Specific impact:** Impacts to State-listed wildlife species include, but are not limited to, inability to reproduce, capture, burrow/den collapse, crushing as a result of burrow collapse, entombment, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of young, nest abandonment, loss of nest trees/breeding habitat, or loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young), and direct mortality. Unauthorized take of species listed as threatened or endangered pursuant to CESA is a violation of Fish and Game Code.

**Evidence impact would be significant:** Approval of the Project may lead to subsequent ground-disturbing activities that involve noise, groundwork, use of heavy machinery, and movement of workers that could affect these State-listed wildlife species throughout the Project location.

**Recommended Potentially Feasible Mitigation Measure(s)**

To evaluate potential impacts to State-listed wildlife species, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation measures into the EIR prepared for this Project, and that these measures be made conditions of approval for the Project.

**Recommended Mitigation Measure 5: State-listed Wildlife Species Focused Surveys**

CDFW recommends that the Project area be surveyed for State-listed wildlife species by a qualified biologist following species-specific protocol-level surveys, if applicable. Protocol-level surveys contain methods that, when adhered to, are intended to maximize detectability. In the absence of protocol-level surveys being

performed or when performed outside of the parameters of the methodology, additional surveys may be necessary.

**Recommended Mitigation Measure 6: State-listed Wildlife Species Avoidance**

In the event a State-listed wildlife species is found within or adjacent to the Project site, implementation of avoidance measures is warranted. CDFW recommends that a qualified wildlife biologist be on-site during all Project-related activities and that a no-disturbance buffer be implemented. Contacting CDFW for assistance with species-specific avoidance measures is recommended. Fully addressing potential impacts to State-listed wildlife species and requiring measurable and enforceable mitigation in the EIR is recommended.

**Recommended Mitigation Measure 7: State-listed Species Take Authorization**

If a State-listed wildlife species is identified and detected during surveys or during project implementation, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization through acquisition of an Incidental Take Permit (ITP) issued by CDFW pursuant to Fish and Game Code section 2081(b) is necessary to comply with CESA.

**COMMENT 3: State Threatened, Endangered, or Rare Plant Species in Monterey, San Benito, Santa Cruz Counties**

**Issue:** Special-status plants have been documented to occur in the vicinity of the Project area (CDFW 2020). The Project area contains habitat that may support special-status plants meeting the definition of rare or endangered under Fish and Game Code sections 1901 and 1907 and CEQA Guidelines section 15380.

**Specific impact:** Without appropriate avoidance and minimization measures potential impacts to special-status plants include inability to reproduce and direct mortality. Unauthorized take of plant species listed as threatened, endangered, or rare pursuant to CESA or the Native Plant Protection Act is a violation of Fish and Game Code.

**Evidence impact would be significant:** Many special-status plants are narrowly distributed endemic species. These species are threatened with habitat loss and habitat fragmentation resulting from development, vehicle and foot traffic, road maintenance, and introduction of non-native plant species (CNPS 2020). Therefore, impacts of the Project have the potential to significantly impact populations of the species mentioned above.

### **Recommended Potentially Feasible Mitigation Measure(s)**

To evaluate potential impacts to special-status plants, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation measures into the EIR prepared for this Project, and that these measures be made conditions of approval for the Project.

#### **Recommended Mitigation Measure 8: Special-Status Plant Focused Surveys**

CDFW recommends that the Project area be surveyed for special-status plants by a qualified botanist following the “Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities” (CDFW 2018b). This protocol, which is intended to maximize detectability, includes identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period. In the absence of protocol-level surveys being performed, additional surveys may be necessary.

#### **Recommended Mitigation Measure 9: Special-Status Plant Avoidance**

CDFW recommends special-status plant species be avoided whenever possible by delineation and observing a no-disturbance buffer of at least 50 feet from the outer edge of the plant population(s) or specific habitat type(s) required by special-status plant species. If buffers cannot be maintained, then consultation with CDFW is warranted to determine appropriate minimization and mitigation measures for impacts to special-status plant species.

#### **Recommended Mitigation Measure 10: Special-Status Plant Take Authorization**

If a State-listed or State rare plant is identified during botanical surveys, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, acquisition of an Incidental Take Permit (ITP) or a Native Plant Protection Act Incidental Take Permit issued by CDFW Pursuant to Fish and Game Code section 2081(b) and/or section 1900 et seq is necessary to comply with CESA and the Native Plant Protection Act.

### **COMMENT 4: State Species of Special Concern in Monterey, San Benito, Santa Cruz Counties**

**Issue:** State species of special concern are known to occur within the Project area (CDFW 2020). Without appropriate mitigation measures, Project activities conducted within occupied territories have the potential to significantly impact these species.

**Specific impact:** Without appropriate avoidance and minimization measures, potential impacts to species of special concern include nest reduction, inadvertent entrapment, reduced reproductive success, reduction in health or vigor of eggs and/or young, and direct mortality.

**Evidence impact would be significant:** The Project involves ground-disturbing activities in species of special concern habitat. Noise, vegetation removal, use of heavy machinery, movement of workers, and ground-disturbance as a result of Project activities have the potential to significantly impact species of special concern populations.

#### **Recommended Potentially Feasible Mitigation Measure(s)**

To evaluate potential impacts to State species of special concern, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation measures into the EIR prepared for this Project, and that these measures be made conditions of approval for the Project.

#### **Recommended Mitigation Measure 11: State Species of Special Concern Focused Surveys**

CDFW recommends that a qualified biologist conduct focused surveys for species of special concern no more than ten days prior to Project implementation. In addition, CDFW recommends that focused surveys for eggs/nests occur during the egg-laying season and that any eggs/nests discovered remain undisturbed until the eggs have hatched and the young are no longer dependent on the nest or parental care.

#### **Recommended Mitigation Measure 12: State Species of Special Concern Avoidance**

CDFW recommends species of special concern be avoided whenever possible by delineation and observing a no-disturbance buffer. If buffers cannot be maintained, then consultation with CDFW is warranted to determine appropriate minimization and mitigation measures for impacts to species of special concern.

#### **COMMENT 5: Lake and Streambed Alteration in Monterey, San Benito, and Santa Cruz Counties**

**Issue:** The Project area has the potential to contain features subject to CDFW's lake and streambed alteration authority, pursuant to Fish and Game Code section 1600 *et seq.* Ground- and vegetation-disturbing activities associated with the Project have the potential to involve temporary and permanent impacts to these features. CDFW recommends that aquatic features be evaluated to determine whether or not they are subject to CDFW's lake and streambed alteration regulatory

authority and that Notification to CDFW for impacts to features that fall under this regulatory authority be required as conditions of approval in the Project's EIR.

**Specific impact:** Work within freshwater marsh, wetland, and riparian features has the potential to result in substantial diversion or obstruction of natural flows; substantial change or use of material from the bed, bank, or channel (including removal of riparian vegetation); deposition of debris, waste, sediment, toxic runoff or other materials into water causing water pollution and degradation of water quality.

**Evidence impact is potentially significant:** The Project area has the potential to include features subject to CDFW's lake and streambed alteration regulatory authority. Construction activities within these features has the potential to impact downstream waters and to significantly impact the remaining acreage of freshwater marsh, wetland, and riparian communities.

#### **Recommended Potentially Feasible Mitigation Measure(s)**

To evaluate potential impacts of the Project to features subject to CDFW's lake and streambed alteration authority, CDFW recommends conducting the following evaluation of the Project area and including the following measures as conditions of approval in the Project's EIR.

#### **Recommended Mitigation Measure 13: Habitat Assessment**

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of project implementation, to determine if the Project area or its immediate vicinity supports freshwater marsh, wetland, and/or riparian communities.

#### **Recommended Mitigation Measure 14: Wetland Delineation and Lake and Stream Notification**

Where applicable, CDFW recommends a formal wetland delineation be conducted by a qualified biologist to determine the location and extent of wetlands and waterways on or within the vicinity of the Project area. Please note that, while there is overlap, State and Federal definitions of wetlands, as well as which activities require Notification pursuant to Fish and Game Code section 1602, differ. Therefore, CDFW further recommends that the delineation identify both State and Federal wetlands as well as which activities may require Notification to comply with Fish and Game Code. Fish and Game Code section 2785 (g) defines wetlands; further section 1600 *et seq.* applies to any area within the bed, channel, or bank of any river, stream, or lake (including riparian vegetation). It is important to note that while accurate delineations by qualified individuals have resulted in more rapid review and response from the U.S. Army Corps of Engineers and CDFW, substandard or inaccurate delineations have resulted in unnecessary time delays for

applicants due to insufficient, incomplete, or conflicting data. CDFW advises that site map(s) designating wetlands as well as the location of any activities that may affect a lake or stream be included with any site evaluations.

### **Recommended Mitigation Measure 15: Notification of Lake or Streambed Alteration**

Project-related activities that have the potential to change the bed, bank, and channel of streams and other waterways, may be subject to CDFW's regulatory authority pursuant to Fish and Game Code section 1600 *et seq.*, therefore in these instances Notification is recommended. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake (including the removal of riparian vegetation); (c) deposit debris, waste or other materials that could pass into any river, stream, or lake. "Any river, stream, or lake" includes those that are ephemeral or intermittent as well as those that are perennial. CDFW is required to comply with CEQA in the issuance of a Lake and Streambed Alteration Agreement. For additional information on notification requirements, please contact our staff in the Lake and Streambed Alteration Program at (559) 243-4593 for Monterey and San Benito Counties or (707) 428-2002 for Santa Cruz County.

## **II. Impact Analysis**

The CEQA Guidelines (§15126.2) necessitate that the draft EIR discuss all direct and indirect impacts (temporary and permanent) that may occur with implementation of the Project. This includes evaluating and describing impacts such as:

- Potential for take of special-status species;
- Loss or modification of breeding, nesting, dispersal and foraging habitat, including vegetation removal, alternation of soils and hydrology, and removal of habitat structural features (e.g. snags, roosts, overhanging banks, etc.);
- Direct and cumulative impacts to species and biological resources;
- The cumulative impact of the installation of infrastructures within the watershed;
- Permanent and temporary habitat disturbances associated with ground-disturbance, noise, lighting, reflection, air pollution, traffic, or human presence; and
- Obstruction of movement corridors, fish passage, or access to water sources and other core habitat features.

The CEQA document also should identify reasonably foreseeable future projects in the Project vicinity, disclose any cumulative impacts associated with these projects, determine the significance of each cumulative impact, and assess the significance of the Project's contribution to the impact (CEQA Guidelines, §15355). Although a project's impacts may be insignificant individually, its contributions to a cumulative impact may be considerable; a contribution to a significant cumulative impact – e.g., reduction of available habitat for a listed species – should be considered cumulatively considerable without mitigation to minimize or avoid the impact.

### **III. Editorial Comments and/or Suggestions**

**Nesting birds:** CDFW encourages that Project implementation occur during the bird non-nesting season; however, if ground-disturbing or vegetation-disturbing activities must occur during the breeding season (February through mid-September), the Project applicant is responsible for ensuring that implementation of the Project does not result in violation of the Migratory Bird Treaty Act or relevant Fish and Game Codes as referenced above.

To evaluate Project-related impacts on nesting birds, CDFW recommends that a qualified wildlife biologist conduct pre-activity surveys for active nests no more than ten days prior to the start of ground or vegetation-disturbance to maximize the probability that nests that could potentially be impacted are detected. CDFW also recommends that surveys cover a sufficient area around the Project site to identify nests and determine their status. A sufficient area means any area potentially affected by the Project. In addition to direct impacts (i.e. nest destruction), noise, vibration, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, CDFW recommends that a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, CDFW recommends having a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, CDFW recommends halting the work causing that change and consulting with CDFW for additional avoidance and minimization measures.

If continuous monitoring of identified nests by a qualified wildlife biologist is not feasible, CDFW recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species, a 500-foot no-disturbance buffer around active nests of non-listed raptors, and a ½-mile buffer for listed bird/raptor species. These buffers are advised to remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or on-site parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction area would be concealed from a nest site by topography. CDFW

recommends that a qualified wildlife biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

**Federally Listed Species:** CDFW recommends consulting with the USFWS and National Marine Fisheries Service (NMFS) on potential impacts to federally listed species. Take under the Federal Endangered Species Act (FESA) is more broadly defined than CESA; take under FESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nesting. Consultation with the USFWS and NMFS in order to comply with FESA is advised well in advance of any ground-disturbing activities.

## **ENVIRONMENTAL DATA**

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address: [CNDDDB@wildlife.ca.gov](mailto:CNDDDB@wildlife.ca.gov). The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

## **FILING FEES**

If it is determined that the Project has the potential to impact biological resources, an assessment of filing fees will be necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

CDFW appreciates the opportunity to comment on the Project to assist the Association of Bay Area Governments in identifying and mitigating the Project's impacts on biological resources. Due to the large extent of the Project and the limited information provided in the NOP, CDFW recommends a consultation meeting with CDFW to discuss methods to fully address potential impacts to State-listed species and to provide additional species-specific avoidance, minimization, and mitigation measures prior to circulating the EIR. Survey and monitoring protocols for sensitive species can be found at CDFW's website (<https://www.wildlife.ca.gov/Conservation/Survey-Protocols>).

Heather Adamson  
Association of Bay Area Governments  
February 10, 2020  
Page 15

If you have any questions for Project activities in Santa Cruz County, please contact Monica Oey, Environmental Scientist, by telephone at (707) 428-2088, or by electronic mail at [Monica.Oey@wildlife.ca.gov](mailto:Monica.Oey@wildlife.ca.gov). For any questions regarding Project activities in Monterey and San Benito Counties, please contact Jim Vang, Environmental Scientist, at the address provided on this letterhead, by telephone at (559) 243-4014 extension 254, or by electronic mail at [Jim.Vang@wildlife.ca.gov](mailto:Jim.Vang@wildlife.ca.gov).

Sincerely,



Julie A. Vance  
Regional Manager (Central Region, Region 4)

cc: United States Fish and Wildlife Service  
2800 Cottage Way, Suite W-2605  
Sacramento, California 95825

United States Army Corps of Engineers  
San Joaquin Valley Office  
1325 "J" Street, Suite #1350  
Sacramento, California 95814-2928

Regional Water Quality Control Board  
Central Coast Region  
895 Aerovista Place, Suite 101  
San Luis Obispo, California 93401

NOAA Fisheries West Coast Region  
777 Sonoma Avenue, Room 325  
Santa Rosa, CA. 95404

ec: Monica Oey  
Jeff Cann  
Ken Spencer  
Linda Connolly  
California Department of Fish and Wildlife

### Literature Cited

California Department of Fish and Wildlife (CDFW). 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. California Department of Fish and Wildlife, March 2018.

CDFW. 2020. Biogeographic Information and Observation System (BIOS). <https://www.wildlife.ca.gov/Data/BIOS>. Accessed 4 February 2020.

California Native Plant Society, Rare Plant Program (CNPS). 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org>. Accessed 4 February 2020.

**Attachment 1**

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE  
RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM  
(MMRP)**

**PROJECT: AMBAG 2045 Metropolitan Transportation  
Plan/Sustainable Communities Strategy and Regional  
Transportation Plans**

**SCH No.: 2020010204**

<b>RECOMMENDED MITIGATION MEASURE</b>	<b>STATUS/DATE/INITIALS</b>
<i>Before Disturbing Soil or Vegetation</i>	
Mitigation Measure 1: Fully Protected Habitat Assessment	
Mitigation Measure 2: Fully Protected Species Surveys	
Mitigation Measure 3: Fully Protected Species Avoidance	
Mitigation Measure 4: Santa Cruz Long-Toed Salamander Full Avoidance	
Mitigation Measure 5: State-listed Wildlife Species Focused Surveys	
Mitigation Measure 6: State-listed Wildlife Species Avoidance	
Mitigation Measure 7: State-listed Species Take Authorization	
Mitigation Measure 8: Special-Status Plant Focused Surveys	
Mitigation Measure 9: Special-Status Plant Avoidance	
Mitigation Measure 10: Special-Status Plant Take Authorization	
Mitigation Measure 11: State Species of Special Concern Focused Surveys	
Mitigation Measure 12: State Species of Special Concern Avoidance	
Mitigation Measure 13: Habitat Assessment	
Mitigation Measure 14: Wetland Delineation and Lake and Stream Notification	
Mitigation Measure 15: Notification of Lake or Streambed Alteration	
<i>During Construction</i>	
Mitigation Measure 3: Fully Protected Species Avoidance	
Recommended Mitigation Measure 4: Santa Cruz Long-Toed Salamander Full Avoidance	

Recommended Mitigation Measure 6: State-listed Wildlife Species Avoidance	
Recommended Mitigation Measure 9: Special-Status Plant Avoidance	
Recommended Mitigation Measure 12: State Species of Special Concern Avoidance	

JAN 21 2020

STATE OF CALIFORNIA

Gavin Newsom, Governor



## NATIVE AMERICAN HERITAGE COMMISSION

January 15, 2020

Heather Adamson  
Association of Bay Area Governments  
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Monterey, CA 93940

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**Re: 2020010204, 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy and Regional Transportation Plans Project, Monterey, Santa Cruz, and San Benito Counties**

Dear Ms. Adamson:

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

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

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

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

## AB 52

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

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

  - a.** A brief description of the project.
  - b.** The lead agency contact information.
  - c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
  - d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).
- 2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report:** A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

  - a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).
- 3. Mandatory Topics of Consultation If Requested by a Tribe:** The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

  - a.** Alternatives to the project.
  - b.** Recommended mitigation measures.
  - c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).
- 4. Discretionary Topics of Consultation:** The following topics are discretionary topics of consultation:

  - a.** Type of environmental review necessary.
  - b.** Significance of the tribal cultural resources.
  - c.** Significance of the project's impacts on tribal cultural resources.
  - d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).
- 5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process:** With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).
- 6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document:** If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

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

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
  - b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- a.** Avoidance and preservation of the resources in place, including, but not limited to:
    - i.** Planning and construction to avoid the resources and protect the cultural and natural context.
    - ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
  - b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
    - i.** Protecting the cultural character and integrity of the resource.
    - ii.** Protecting the traditional use of the resource.
    - iii.** Protecting the confidentiality of the resource.
  - c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
  - d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).
  - e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
  - f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
- 11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource:** An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
- a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
  - b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
  - c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: [http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation\\_CalEPAPDF.pdf](http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf)

## SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: [https://www.opr.ca.gov/docs/09\\_14\\_05\\_Updated\\_Guidelines\\_922.pdf](https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf).

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
  - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
  - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

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

## NAHC Recommendations for Cultural Resources Assessments

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

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center ([http://ohp.parks.ca.gov/?page\\_id=1068](http://ohp.parks.ca.gov/?page_id=1068)) for an archaeological records search. The records search will determine:
  - a. If part or all of the APE has been previously surveyed for cultural resources.
  - b. If any known cultural resources have already been recorded on or adjacent to the APE.
  - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
  - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.

- b.** The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.
- 3.** Contact the NAHC for:
- a.** A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
  - b.** A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
- 4.** Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
- a.** Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, § 15064.5(f) (CEQA Guidelines § 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
  - b.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
  - c.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code § 7050.5, Public Resources Code § 5097.98, and Cal. Code Regs., tit. 14, § 15064.5, subdivisions (d) and (e) (CEQA Guidelines § 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

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

Sincerely,



Nancy Gonzalez-Lopez  
Staff Services Analyst

cc: State Clearinghouse

Barry Scott, Director  
Coastal Rail Santa Cruz  
www.coastalrail.org

February 11, 2020

Heather Adamson, Director of Planning  
AMBAG  
24580 Silver Cloud Court  
Monterey, CA 93940

RE: Coastal Rail Santa Cruz Comments on EIR Scope for 2045 Metropolitan  
Transportation Plan/Sustainability Communities Strategy and Regional  
Transportation Plans

Dear Ms. Adamson:

I appreciate the opportunity to comment on the scope of the Environmental  
Impact Report for the 2045 Metropolitan Transportation Plan/Sustainability  
Communities Strategy and Regional Transportation Plans.

The 2045 MTP/SCS includes assessment of performance measures for both current  
and projected metrics. To ensure timely progress on these measures, AMBAG should  
consider supporting state efforts to require local jurisdictions to better manage land  
use and transportation decisions in tandem.

Coastal Rail Santa Cruz supports efforts to expedite rail transit projects integrated with  
existing bus services connect to regional and statewide infrastructure. TAMC seems to  
be moving ahead more rapidly than Santa Cruz County in rail projects and we have an  
opportunity and a responsibility to commit to investments sooner rather than later.

By utilizing and improving our existing regional rail infrastructure for transit, we will  
provide travel options that reduce GHG emissions, as required by the SCS, rather than  
increasing them to our collective detriment.

Please include our organization on AMBAG's contact list for all communications  
about MTP/SCS activities. Our contact information is below.  
Thank you very much for your consideration.

Warmest regards,



**Coastal Rail Santa Cruz**  
260 Rio Del Mar Blvd. #23  
Aptos CA 95003  
(831) 612-6574  
EIN# 81-1153832





**January 21, 2020**

**Association of Monterey Bay Area Governments**

**Attn: Heather Adamson**

**24580 Silver Cloud Court**

**Monterey, CA 93940**

Dear Ms. Adamson,

I am sending this letter in response to the Notice of Preparation for an Environmental Impact Report for the 2045 Regional Transportation Plan for San Benito, Santa Cruz, and Monterey Counties. The Monterey Bay Salmon & Trout Project (MBSTP) is a nonprofit organization which has worked toward the mission of conserving and recovering the native salmon and steelhead of the Monterey Bay region for over 40 years. Our work has included operation of a conservation hatchery facility for coho salmon and steelhead in the Scott Creek watershed, enhancement of Monterey Bay's chinook salmon fisheries, support and technical participation in habitat restoration planning, and extensive outreach/education efforts focused on local K-8 students and the general public.

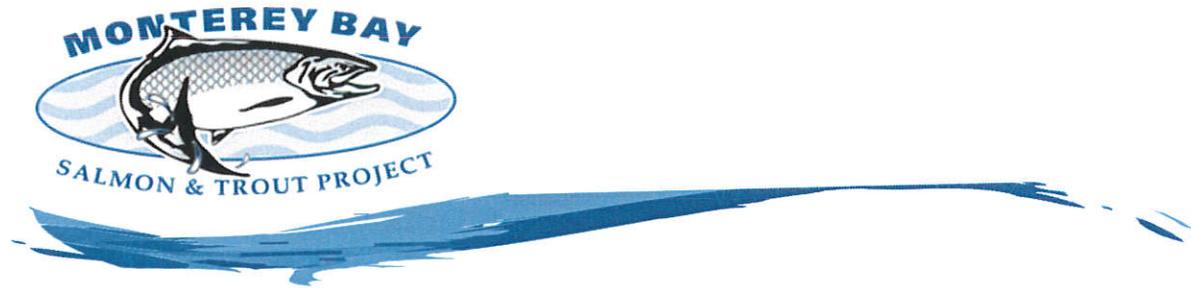
Transportation improvement & development (like the 2045 Metropolitan Transportation Plan) have the potential to directly impact the coastal, estuarine and riparian habitats which are critical to the success and viability of salmon and steelhead populations in our region. The environmental effects of local transportation development on hydrology and water quality may have additional collateral impacts- not only for salmon and steelhead, but virtually all aquatic species living in our local watersheds.

Salmon and steelhead have existed in coastal and riverine habitats of the Monterey Bay region for tens of thousands of years- and they have been culturally & aesthetically important species for indigenous peoples since long before European settlement. They are considered a "keystone species" and are critically important to healthy ecologic function in a wide variety of aquatic and marine systems. Over the past one hundred years, salmon and steelhead in California have undergone a pronounced and continued decline- largely due to the loss of spawning, rearing, and migratory habitats throughout their range. Particularly, human development for transportation projects in estuary habitats has had a particularly large impact

101 Cooper Street, Suite 246

Santa Cruz, CA 95060

<https://mbstp.org>



on the viability of salmonid populations in our region. Salmonids rely heavily upon healthy estuarine habitats to feed and migrate at both their juvenile and adult life stages.

Intact estuary and river habitats are therefore crucial to maintaining the health of this important biological and cultural resource. The MTP Strategy has the commendable stated goal of 'creating more sustainable communities' in our region. On behalf of MBSTP and the species we strive to conserve, I urge you to consider the vitally important resource of salmonids and their habitats within that framework of sustainability. These fish have served an important biological, cultural and aesthetic role in our region for millennia. Our organization is hopeful that the MTP recognizes the importance of these iconic fish throughout the planning and review stages of local transportation development.

I look forward to learning more about the MTP and the associated environmental review / impact report at your upcoming meeting in Santa Cruz on Wednesday, January 22<sup>nd</sup>. Please feel free to contact me at any time if you wish to discuss the relationship of transportation development with our local salmon & steelhead populations. This planning process represents an opportunity to increase the sustainability of our coastal communities, while conserving the valuable natural resources of the Monterey Bay region.

Respectfully,

A handwritten signature in blue ink that reads "Benjamin Harris".

**Ben J. Harris**  
**Executive Director**  
**Monterey Bay Salmon & Trout Project**  
**(831) 531-2051**



January 17, 2020

AMBAG  
24580 Silver Cloud Court  
Monterey, CA 93940

VIA: E-mail to [hadamson@ambag.org](mailto:hadamson@ambag.org)

**RE: Preparation for an Environmental Impact Report  
2045 Metropolitan Transportation Plan / Sustainable Communities Strategy**

To Whom It May Concern:

Monterey County Farm Bureau represents family farmers and ranchers in the interest of protecting and promoting agriculture throughout our County. Since 1917, Farm Bureau strives to improve the ability of those engaged in production agriculture to provide a reliable supply of food and fiber through responsible stewardship of our local resources.

As Agriculture is critical to the success of our local economy in Monterey County (and indeed, the tri-county area), we offer the following comments for the preparation and scope of the Environmental Impact Report related to transportation infrastructure.

First, transportation of fresh food products, such as the leafy greens, berries, vegetables, and grapes of our region, is essential to reaching the marketplace in a timely manner. Currently, the majority of that transportation is accomplished through the use of trucks, with some shipments by rail. The unique characteristics of these fresh food products (i.e. the taste and freshness of the product) requires fast turn-around of processing and shipping to maintain product quality.

Next, Monterey County farms and ranches depend on fieldworkers to accomplish the majority of the cultural and harvesting activities throughout the growing season (usually 10-11 months per year). Currently, we require 45,000 farmworkers for these types of jobs in Monterey County as there is no mechanical harvesting available for crops such as lettuce, broccoli, cauliflower, and strawberries (to name just a few). While there is on-going research into mechanical means for harvesting many of these crops, it will truly be many years, maybe even decades, before these new technologies are viable and affordable for most farming operations. Until that happens, we will see high utilization of local highways and rural roads to transport fieldworkers from residences to fields for each work day.

Finally, there is a growing issue of capacity with existing transportation infrastructure in Monterey County. The pace of building new arteries, by-pass roadways, and expanding capacity of current highways has not



kept up with increased traffic flows. Traffic conditions continue to worsen in specific areas of Monterey County during commute hours; additional routes are needed between the Monterey Peninsula and Salinas Valley to manage the current flow of traffic, as well as into the future.

The scope of the Environmental Impact Report needs to include potential solutions that increase capacity and consider all transportation needs of the Agriculture, commerce and hospitality sectors.

Access to critical transportation routes for commerce will ensure future success of the agricultural sector of Monterey County. The foreseeable future will remain dependent on trucking as the primary means for transportation of fresh food products from the Salinas Valley. Even with the development of electric trucks that are suitable for long-distance travel, improving the energy efficiency of this transportation method, the primary mode will still be trucking as rail has proven to be expensive and less reliable for the types of products that are produced here. In addition, there will need to be direct, efficient routes that allow for easy access to shipping points from the major Bay Area ports and hubs.

While there will be consideration of a number of other solutions, including mass transportation development for the tri-county region and encouragement of bicycling as a means of individuals transporting themselves, the long-term outlook for Agriculture doesn't find these options viable. Field operations are remote, change daily, cannot be served readily by mass transportation systems, so bicycling to these fields is probably not an option.

Our request of this EIR development process is to include realistic approaches to the transportation needs of all tri-county residents and businesses:

- Roadways that are well maintained and sized to proper capacity
- Converting Hwy. 101 south of Salinas into a full freeway with proper ramps (not intersections)
- Improving access to Bay Area transportation ports and hubs through multiple routes
- Ensuring that all access routes for tourism traffic are free-flowing and non-tollways
- Adding additional routes between the Monterey Peninsula and the Salinas Valley

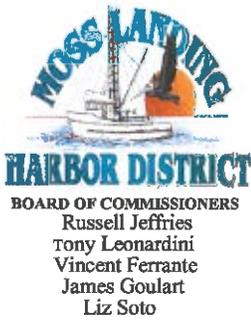
Thank you for the opportunity to provide comment on this important transportation planning process.

Sincerely,



Norman C. Groot  
Executive Director

Cc: Theresa Wright, Community Outreach Coordinator, Transportation Agency for Monterey County



7881 SANDHOLDT ROAD  
MOSS LANDING, CA 95039  
TELEPHONE – 831.633.5417  
FACSIMILE – 831.633.4537



GENERAL MANAGER  
HARBOR MASTER  
Tommy Razzeca

02/07/2020

Heather Adamson at AMBAG,  
24580 Silver Cloud Court  
Monterey, CA 93940

RE: Moss Landing Harbor District Comments regarding EIR preparation for the proposed Central Coast Highway 1 Climate Resiliency Study.

Please accept the below comments and recommendations from the Moss Landing Harbor District (MLHD) regarding issues that our District believes must be fully evaluated, addressed, and, if necessary, mitigated in the proposed EIR so as to guarantee that the complete evaluations of all viable alternatives (as mandated by the California Environmental Quality Act (CEQA)) are completed for the consideration of future decision makers.

1. MLHD hereby submits (for the record) our authorizing legislation, maps of our legislatively created public trust lands grant, and our existing ordinances which govern our existing lands, including wetlands, slough lands and submerged lands, for inclusion as both addenda and references in the EIR. It is necessary and required for these official state documents, maps, adopted and enforceable ordinances to be considered and understood before the preparation of the draft EIR so that the EIR does not waste time or money considering projects or alternatives that are illegal or beyond the legal authority of regulatory agencies and non-profit organizations to pursue.
2. MLHD recommends that one alternative for the relocation of CA. State Highway 1 that must be fully evaluated pursuant to CEQA is the consideration of the re-location of the highway to a more easterly alignment following the former adopted and abandoned Caltrans Highway 1 Plan Lines which crossed the existing Packard (Rubis) Ranch, crossed the Elkhorn Slough, and was to be constructed to the east of the existing power plant, eventually re-connecting to the existing Highway 1 north of Castroville. MLHD believes that this alternative must be fully evaluated because the anticipated consequences of sea level rise, and the potential breaching of the barrier dunes in Moss Landing threaten both the loss of the certain current harbor facilities as well as the current Highway 1 road bed.
3. MLHD hereby submits our adopted, state mandated study regarding the potential impacts of sea level rise on our public trust lands, facilities and resources. We ask that this adopted report, which was mandated by state legislation and which has been submitted to the California State Lands Commission, be fully reviewed and referenced in the draft EIR so that the EIR does not consider "alternatives" that would or could conflict with this report and our adopted findings. This

*SERVING COMMERCIAL FISHING AND RECREATIONAL BOATING SINCE 1947*

report has concluded that future expansion of our coastal priority commercial harbor land uses, services, and facilities may need to be located in the Elkhorn or Moro Coho Slough areas of our granted, public trust submerged lands and wetlands.

4. CA. State Highway 1 currently carries over 65,000 traffic trips per day through Moss Landing. A huge portion of that traffic is commercial traffic coming and going to the various commercial, industrial, public and educational facilities in the harbor. Additionally, a very large percentage of that traffic is truck traffic supporting protected coastal agricultural enterprises that generate thousands of farm worker jobs. These daily traffic trips must be specifically identified in the EIR. The suggested wholesale relocation of Highway 1 to an area many miles away from the existing alignment will cause massive economic dislocation as well as terrible adverse impacts on legally protected economically disadvantaged communities. These potential impacts must be fully evaluated, and real mitigation measures with identifiable financing sources, must included in the EIR.

MLHD hereby respectfully submits the above comments for consideration. MLHD anticipates that the EIR will fully and completely identify and mitigate the adverse impacts of sea level rise without causing greater adverse environmental impacts (without readily available mitigations as mandate by CEQA) by ignoring viable alternatives from being analyzed or demonstrating an impermissible bias in favor of one coastal priority use over another equally protected and legislatively recognized coastal priority land use.

Respectfully,



Tommy Razzeca  
General Manager/Harbor Master  
Moss Landing Harbor District

CHAPTER 1190

*An act conveying certain tidelands, lands lying under inland navigable waters, swamp and overflow lands, situate in the Old Salinas River Channel, to the Moss Landing Harbor District, in furtherance of navigation and commerce and the fisheries, and providing for the government, management and control thereof, reserving rights to the State.*

[Approved by Governor July 8, 1947. Filed with Secretary of State July 8, 1947.]

*The people of the State of California do enact as follows:*

SECTION 1. There is hereby granted to the Moss Landing Harbor District, hereinafter called "district," a political subdivision of the State of California, and to its successors, all the right, title, and interest now held by the State of California by virtue of its sovereignty, in and to all lands, salt marsh, tidelands, submerged lands, and swamps and overflowed lands described as follows:

The Old Salinas River Channel from the northerly extremity to its mouth southerly to the existing county road across said channel south of the existing bridge at Moss Landing; the Pacific Ocean opposite said portion of the Old Salinas River with its northerly and southerly boundaries drawn due west; Bennett Slough, Blkhorn Slough and Moro Cojo Slough between the Old Salinas River and the easterly extremities of tidal action therein.

To be forever held by said district, and its successors, in trust for the uses and purposes and upon the express conditions following, to wit:

(a) That said lands shall be used by said district, and its successors, only for the establishment, improvement, and conduct of a harbor, and for the construction, maintenance, and operation thereon of wharves, docks, piers, slips, quays, and other utilities, structures, facilities, and appliances necessary or convenient for the promotion and accommodation of commerce and navigation; and said district, or its successors, shall not, at any time, grant, convey, give or alien said lands, or any part thereof, to any individual, firm or corporation for any purposes whatever; provided, that said district, or its successors, may grant franchises thereon for limited periods (but in no event exceeding 50 years), for wharves and other public uses and purposes and may lease said lands, or any part thereof, for limited periods (but in no event exceeding 50 years), for purposes consistent with the trust upon which said lands are held by the State of California, and with the requirements of commerce and navigation at said harbor.

COPY

(b) That said lands shall be improved by said district without expense to the State, and shall always remain available for public use for all purposes of commerce and navigation, and the State of California shall have at all times, the right to use, without charge, all wharves, docks, piers, slips, quays, and other improvements and facilities constructed on said lands, or any part thereof, for any vessel or railroad, owned or operated by the State of California.

(c) That in the management, conduct or operation of said harbor, or of any of the utilities, structures, appliances or facilities mentioned in paragraph (a), no discrimination in rates, tolls, or charges or in facilities for any use or service in connection therewith shall ever be made, authorized or permitted by said district or its successors.

(d) There is hereby reserved, however, in the people of the State of California the absolute right to fish in the waters of said harbor with the right of convenient access to said waters over said lands for said purposes together with the right of navigation.

(e) There is hereby excepted and reserved to the State of California all deposits of minerals, including oil and gas, in said land, and to the State of California, or persons authorized by the State of California, the right to prospect for, mine, and remove such deposits from said land; provided, that said excepted and reserved power shall be exercised in a manner not inconsistent or incompatible with the use of said lands by grantee for purposes of commerce and navigation.

(f) The lands herein described are granted subject to the express reservation and condition that the State may at any time in the future use said lands or any portion thereof for highway purposes without compensation to the district, its successors or assigns, or any person, firm or public or private corporation claiming under it, except that in the event improvements have been placed upon the property taken by the State for said purposes, compensation shall be made to the person entitled thereto for the value of his interest in the improvements taken or the damages to such interest.

(g) That within 10 years from the effective date of this act said lands shall be substantially improved by said district without expense to the State, and if the State Lands Commission determines that the district has failed to improve said lands as herein required, all right, title, and interest of said district in and to all lands granted by this act shall cease and said lands shall revert and vest in the State.

Sec. 2. If any provision of this act or the application thereof to any person or circumstance is held invalid, the remainder of this act, or the application of such provision to other persons or circumstances, shall not be affected thereby.

## CHAPTER 131

*An act to amend Section 1 of, and to add Section 3 to, Chapter 1190 of the Statutes of 1947, relating to the Moss Landing Harbor District.*

[Approved by Governor May 12, 1967. Filed with Secretary of State May 12, 1967.]

*The people of the State of California do enact as follows:*

SECTION 1. It is hereby found and determined:

(a) That by Chapter 1190, Statutes of 1947, the Legislature did grant to the Moss Landing Harbor District in trust for the uses and purposes and upon the express conditions therein set forth, certain tide and submerged land, lands beneath navigable waters, and swamp and overflow lands described in said grant;

(b) That said grant was therein described in part as "the Pacific Ocean opposite said portion of the Old Salinas River with its northerly and southerly boundaries drawn due west;"

(c) That the precise meaning of said part of the description of said grant has proven ambiguous and has given rise to controversy;

(d) That the Legislature intended to and did upon enacting said statute grant to the Moss Landing Harbor District, upon the terms, conditions and trusts set forth in said statute, an area of tide and submerged lands located in Monterey Bay seaward of the ordinary high-water mark for the use of said district in conjunction with the area landward of said ordinary high-water mark on Monterey Bay so granted to the said district;

(e) That the said district, prior to said grant and pursuant to a lease from the State Lands Commission, did use and has used subsequent to said grant and pursuant to said grant, such an area of tide and submerged lands for the uses and purposes authorized by said statute and in conjunction with the said district's public activities;

(f) That it was the intention of the Legislature to include within said grant all those portions of the Pacific Ocean in Monterey Bay in the area described which had actually been used by the said harbor district for any or all of the purposes specified in said grant plus those portions which were reasonably necessary for such purposes in the future;

(g) That said area of tide and submerged lands in Monterey Bay so intended to be granted and so granted consisted of all tide and submerged lands lying between the northerly and southerly boundaries of that portion of the Old Salinas River Channel granted to the said district by Section 1 of Chapter 1190 of the Statutes of 1947, drawn due west, and between the ordinary high-water mark on Monterey Bay and a line 2,000 feet seaward of said ordinary high-water mark;

(h) That paragraph (g) of Section 1 of said statute required substantial improvement of the granted lands by the said district within 10 years of said grant and that if the State Lands Commission determined that the said district had failed to so improve said lands, all lands so granted should revert to the state; that on February 11, 1958, the State Lands Commission by resolution duly adopted found that the conditions of said Section 1(g) had been complied with.

SEC. 2. Section 1 of Chapter 1190 of the Statutes of 1947 is amended to read:

Section 1. There is hereby granted to the Moss Landing Harbor District, hereinafter called "district," a political subdivision of the State of California, and to its successors, all the right, title, and interest now held by the State of California by virtue of its sovereignty, in and to all lands, salt marsh, tidelands, submerged lands, and swamps and overflowed lands described as follows:

The Old Salinas River Channel from the northerly extremity to its mouth southerly to the existing county road across said channel south of the existing bridge at Moss Landing; the Pacific Ocean or Monterey Bay between the ordinary high-water mark and a line 2,000 feet seaward and due west thereof opposite said portion of the Old Salinas River with its northerly and southerly boundaries drawn due west; Bennett Slough, Elkhorn Slough and Moro Cojo Slough between the Old Salinas River and the easterly extremities of tidal action therein.

To be forever held by said district, and its successors, in trust for the uses and purposes and upon the express conditions following, to wit:

(a) That said lands shall be used by said district, and its successors, only for the establishment, improvement, and conduct of a harbor, and for the construction, maintenance, and operation thereon of wharves, docks, piers, slips, quays, and other utilities, structures, facilities, and appliances necessary or convenient for the promotion and accommodation of commerce and navigation; and said district, or its successors, shall not, at any time, grant, convey, give or alien said lands, or any part thereof, to any individual, firm or corporation for any purposes whatever; provided, that said district, or its successors, may grant franchises thereon for limited periods (but in no event exceeding 50 years), for wharves and other public uses and purposes and may lease said lands, or any part thereof, for limited periods (but in no event exceeding 50 years), for purposes consistent with the trust upon which said lands are held by the State of California, and with the requirements of commerce and navigation at said harbor.

(b) That said lands shall be improved by said district without expense to the state, and shall always remain available for public use for all purposes of commerce and navigation, and the State of California shall have at all times, the right to use, without charge, all wharves, docks, piers, slips, quays, and other improvements and facilities constructed on said lands, or any part thereof, for any vessel or railroad, owned or operated by the State of California.

(c) That in the management, conduct or operation of said harbor, or of any of the utilities, structures, appliances or facilities mentioned in paragraph (a), no discrimination in rates, tolls, or charges or in facilities for any use or service in connection therewith shall ever be made, authorized or permitted by said district or its successors.

(d) There is hereby reserved, however, in the people of the State of California the absolute right to fish in the waters of said harbor with the right of convenient access to said waters over said lands for said purposes together with the right of navigation.

(e) There is hereby excepted and reserved to the State of California all deposits of minerals, including oil and gas, in said land, and to the State of California, or persons authorized by the State of California, the right to prospect for, mine, and remove such deposits from said land; provided, that said excepted and reserved power shall be exercised in a manner not inconsistent or incompatible with the use of said lands by grantee for purposes of commerce and navigation.

(f) The lands herein described are granted subject to the express reservation and condition that the state may at any time in the future use said lands or any portion thereof for highway purposes without compensation to the district, its successors or assigns, or any person, firm or public or private corporation claiming under it, except that in the event improvements have been placed upon the property taken by the state for said purposes, compensation shall be made to the person entitled thereto for the value of his interest in the improvements taken or the damages to such interest.

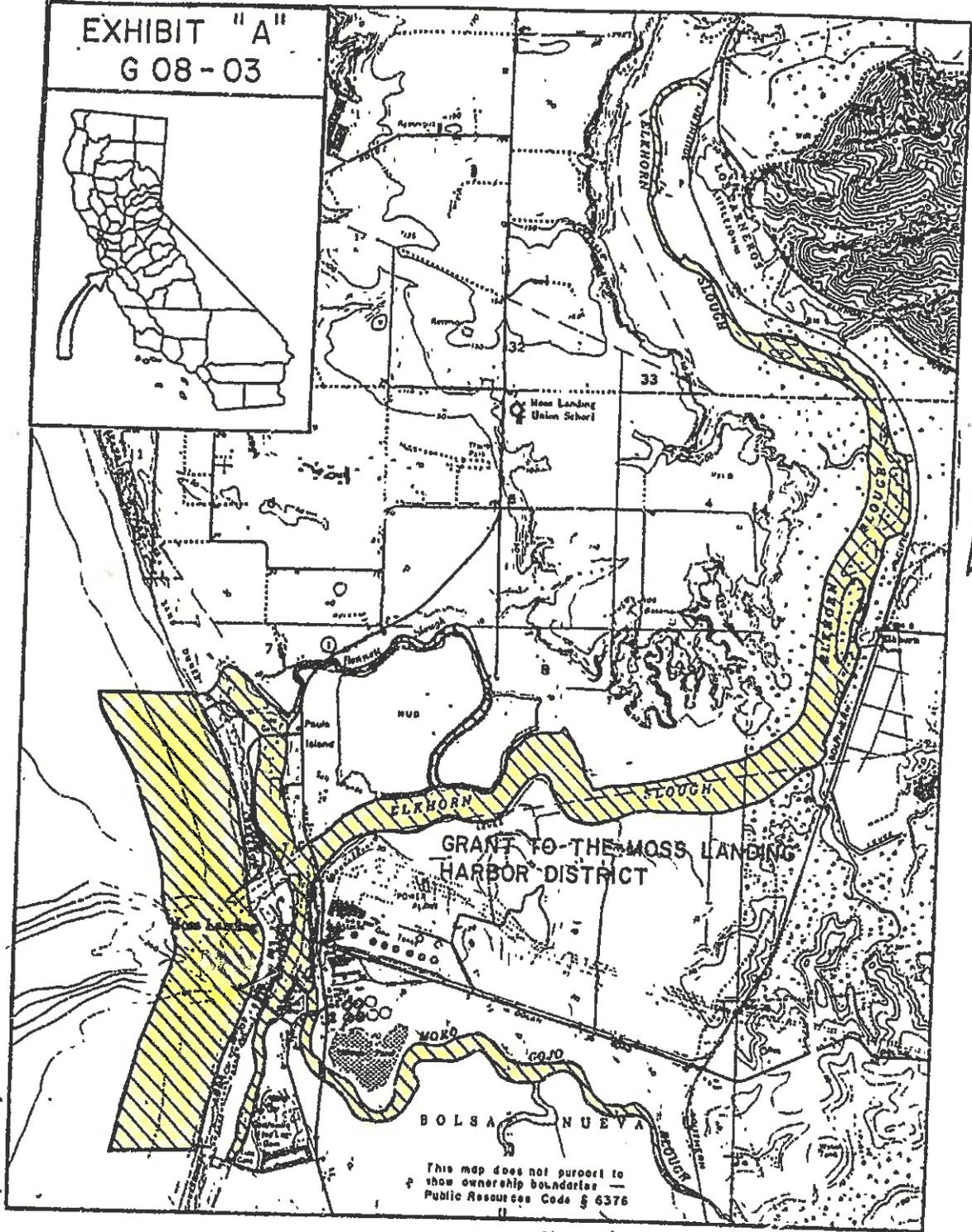
SEC. 3. Section 3 is added to Chapter 1190 of the Statutes of 1947, to read:

Sec. 3. That said amended description set forth in Section 1 of this act shall be deemed declaratory of the original meaning of said grant and all acts and agreements within, upon, or in relation to the area herein described done or executed by said district are hereby ratified and approved to the same extent as if said description had originally been set forth as herein amended.

SEC. 4. The State Lands Commission, at the cost of the Moss Landing Harbor District, shall survey and monument the granted lands referred to in this act and record a description and plat thereof in the office of the County Recorder of Monterey County. The survey required by this section shall be completed within two years after the effective date of this act.

SEC. 5. The district shall cause to be made and filed with the Department of Finance, annually, a detailed statement of receipts and expenditures by it of all rents, revenues, issues, and profits in any manner hereafter arising from the granted lands or any improvements, betterments, or structures thereon.

EXHIBIT "A"  
G 08-03

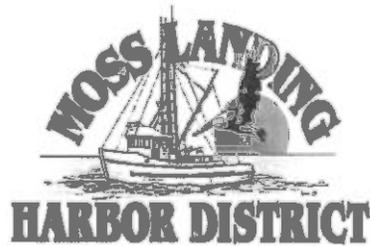


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# MOSS LANDING HARBOR DISTRICT ORDINANCE CODE

Amended and Adopted by Ordinance No. 149, July 23, 1998  
(Superseding Ordinance No. 143)  
Amended by Ordinance No. 150, July 22, 1999  
Amended by Ordinance No. 151, August 24, 2000  
Amended by Ordinance Nos. 152, 153, November 30, 2000  
Amended by Ordinance No. 154, December 28, 2000  
Amended by Ordinance No. 155, February 22, 2001  
Amended by Ordinance Nos. 156, 157, April 26, 2001  
Amended by Ordinance No. 158, May 24, 2001  
Amended by Ordinance No. 159, June 28, 2001  
Amended by Ordinance No. 160, July 25, 2002  
Amended by Ordinance No. 161, October 24, 2002  
(Amended by Ordinance No. 161, May 22, 2003, which  
was superseded by Ordinance 162, on October 23, 2003)  
Amended by Ordinance No. 162, October 23, 2003  
Amended by Ordinance No. 163, May 27, 2004  
Amended by Ordinance No. 164, June 24, 2004  
Amended by Ordinance No. 165, December 16, 2004  
Amended by Ordinance No. 166, January 27, 2005  
Amended by Ordinance Nos. 167, 168, February 24, 2005  
Amended by Ordinance No. 169, April 28, 2005  
Amended by Ordinance No. 170, June 30, 2005 (Adopted Out of Sequence)  
Amended by Ordinance No. 171, May 26, 2005  
Amended by Ordinance Nos. 172, 173, May 4, 2006  
Amended by Ordinance Nos. 174, 175, June 22, 2006  
Amended by Ordinance No. 176, January 25, 2007  
Amended by Ordinance No. 177, June 28, 2007  
Amended by Ordinance No. 178, September 27, 2007  
Amended by Ordinance No. 179, October 25, 2007 (adopted out of sequence)  
Amended by Ordinance No. 180, September 27, 2007  
Amended by Ordinance No. 181, March 26, 2008  
Amended by Ordinance No. 182, April 30, 2008  
Amended by Ordinance Nos. 183, 184, 185, 186, July 23, 2008  
Amended by Ordinance No. 187, December 11, 2008  
Amended by Ordinance No. 188, January 28, 2009  
Amended by Ordinance No. 189, May 27, 2009  
Amended by Ordinance No. 190, February 24, 2010  
Amended by Ordinance No. 191, June 3, 2010  
Amended by Ordinance No. 192, June 8, 2011  
Amended by Ordinance No. 193, May 30, 2012  
Amended by Ordinance No. 194, November 29, 2012  
Amended by Ordinance No. 195, January 16, 2013  
Amended by Ordinance No. 196, May 29, 2013  
Amended by Ordinance No. 197, May 28, 2014  
Amended by Ordinance No. 198, March 25, 2015  
Amended by Ordinance No. 199, May 27, 2015  
Amended by Ordinance No. 200, May 31, 2016  
Amended by Ordinance No. 201, June 28, 2017  
Amended by Ordinance No. 202, May 03, 2018  
Amended by Ordinance No. 203, September 26, 2018  
Amended by Ordinance No. 204, October 24, 2018  
Amended by Ordinance No. 205, April 24, 2019  
Amended by Ordinance No. 206, October 23, 2019  
Amended by Ordinance No. 207, January 22, 2020

**MOSS LANDING HARBOR DISTRICT  
ORDINANCE CODE**



**AMENDED BY THE MOSS LANDING HARBOR DISTRICT  
BOARD OF HARBOR COMMISSIONERS  
January 22, 2020**

**BOARD OF HARBOR COMMISSIONERS**

**Russ Jeffries  
Tony Leonardini  
Vincent Ferrante  
James R. Goulart  
Liz Soto**

**GENERAL MANAGER/HARBOR MASTER**

**Tommy Razzeca**

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**ARTICLE I**  
**GENERAL PROVISIONS**

**CHAPTER 1 - ENACTMENT, APPLICABILITY, AMENDMENT**

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**1.010 - Enactment**

The rules and regulations contained in this Code shall constitute and be identified as "The Moss Landing Harbor District Ordinance Code," hereafter cited as "this Code."

**1.020 - Authority for Code**

The provisions of this Code are adopted pursuant to the authority vested in the Moss Landing Harbor District (hereafter referred to as the "District") by the State of California, including but not limited to the California State Constitution, the Harbors and Navigation Code, the Government Code, the Public Resources Code, and the California Code of Regulations, and all other applicable state and federal laws.

**1.030 - Applicability of Code**

- A) **Affected area.** The provisions of this Code apply to all areas of water, land and facilities under the ownership and/or jurisdiction of the Moss Landing Harbor District, as such jurisdiction is defined by California state law.
- B) **General rules for use of District property.** All persons using District property, waters, lands, or facilities shall observe and comply with the provisions this Code and all applicable provisions of California State Law.

**1.040 - Responsibility for Administration**

This Code shall be administered by the Board of Harbor Commissioners of the District (hereafter referred to as the "Board"), the General Manager, and all designees of the General Manager.

**1.050 - Interference Prohibited**

It shall be unlawful and a violation of this Code for any person to willfully resist, delay, or obstruct any District employee in the process of lawfully enforcing the provisions of this Code.

**1.100 - Exceptions to Code Provisions**

Exceptions to any regulation, rate, or charge provided by this Code may be granted according to the following procedures:

- A) **Application for exception.** Exceptions to this Code shall be requested in writing and shall be accompanied by the fee established by Chapter 20 of this Code (Fees and Charges), including explanation of why the applicant believes that the exception should be granted.
- B) **Procedure for granting an exception.** All exception requests shall be first considered by the General Manager, who may approve, disapprove, or refer the request to the Board for action. Approval of any exception request shall be in writing, and shall be granted only where the granting authority first determines that the applicable regulation is unnecessary or ineffective in the particular case, and/or that the collection of all or part of a rate or charge is inappropriate or inapplicable, because of specific circumstances described in the exception request. Any approval by the General Manager shall be reported to the Board in writing at their next regular meeting.

- C) **Time limits, extensions.** Any approved exception shall be effective for a maximum of one calendar year from the date of issuance. An exception may be considered for renewal only upon written application to the Board.

### **1.200 - Amendments to Ordinance Code**

- A) **Procedure for amendments.** This Code may be amended whenever the Board determines that public necessity, convenience, or welfare requires. Amendments may be initiated by the Board or on the basis of a request by the public; or may be requested by the General Manager. Amendments to this Code shall be initiated and processed in compliance with the Harbors and Navigation Code, with a public hearing conducted as set forth in Chapter 24 of this Code (Hearings and Appeals). Amendments may also require review in compliance with the requirements of the California Environmental Quality Act (CEQA), and Chapter 22 of this Code (Environmental Review Procedures).
- B) **Distribution of completed amendments.** The General Manager shall provide a true copy of any amendments to this Code to the following persons and agencies within 40 days of the enactment of such amendments:
- 1) Each Commissioner of the District;
  - 2) The Attorney General of the State of California;
  - 3) The Monterey County Counsel;
  - 4) The Monterey County District Attorney;
  - 5) The Monterey County Law Library;
  - 6) The Monterey County Sheriff;
  - 7) Each Monterey County Municipal Court Judge;
  - 8) Each Harbor District employee; and
  - 9) All persons who have requested receipt of Code amendments, and have paid the fee for this service established by the Board.

### **1.300 - District Not Liable for Loss and Damage**

The Harbor District, employees, and Board shall not be liable for loss or damage to any vessel or other property resulting from any cause.

### **1.400 - Severability of Provisions**

If any chapter, section, subsection, paragraph, subparagraph, sentence, clause, phrase or portion of this Code is for any reason held to be invalid, unconstitutional or unenforceable, such decisions shall not affect the validity of the remaining portions of this Code. It is hereby declared that this Code and each chapter, section, subsection, paragraph, subparagraph, sentence, clause, phrase and portion thereof would have been adopted irrespective of the fact that one or more of such portions of this Code be declared invalid, unconstitutional or unenforceable.

**CHAPTER 2 - DEFINITIONS, INTERPRETATION**

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**2.010 - Purpose**

This chapter determines how the provisions of this Code will be interpreted by those responsible for its administration, and defines the terms and phrases used in this Code that are technical or specialized, or that may not reflect common usage.

**2.100 - Rules of Interpretation**

The General Manager shall have the responsibility and authority to interpret the provisions of this Code and advise the public about its requirements. The terms and phrases used in this Code shall be construed and interpreted as follows:

- A) **Construction of language.** When used in this Code, the words "shall" and "will" are always mandatory and "may" is discretionary. The present tense includes the past and future tenses; and the future tense includes the present. The singular number includes the plural number, and the plural the singular, unless the natural construction of the word indicates otherwise. The titles of every chapter and section of this Code are a part of each chapter and section and shall be construed as such when questions of meaning or construction arise.
- B) **Number of days.** Whenever a number of days is specified in this Code, or in any permit, condition of approval or notice issued or given as provided in this Code, such number of days shall be construed as calendar days except where this Code otherwise uses the terms "business days" or "working days."
- C) **Minimum requirements.** When interpreting and applying the regulations of this Code, all provisions shall be considered to be the minimum requirements, unless stated otherwise.
- D) **Conflicting provisions.** In any case where two or more provisions of this Code may appear to conflict in terms of their specific requirements or applicability, the most restrictive shall prevail.
- E) **Waiver of fees.** The General Manager may waive fees as follows:
  - 1) When a public purpose would be served by waiving fees otherwise required by this code, up to \$500, provided that there is a legally binding duty on the recipient of the waiver to further the public purpose.
  - 2) After paying the first two nights of transient fees in accordance with the rate and fee schedule, first-time transient vessels visiting Moss Landing Harbor will receive a waiver of one night's transient fee not to exceed \$100.00.
  - 3) If an existing berthholder refers a new berthholder to Moss Landing Harbor and the new berthholder pays fees in full in accordance with the rate and fee schedule and remains for a period of 6 (six) months, at the end of the 6 month period, the referring berthholder will receive a waiver of one month's berthing fee (excluding any amenity or any other fees) for the referring berthholder's vessel, not to exceed \$500.00, provided both the new berthholder and the referring berthholder's accounts are current.
  - 4) A new berthholder entering into a contract and remaining for a full year with fees fully paid for eleven months, and whose account is current will receive a waiver of the twelfth month's slip fee, (excluding any amenity or other fees) not to exceed \$500.00. For

purposes of this Paragraph 4, "new berthholder" includes the transfer of a berth in connection with a bona fide sale of a vessel currently occupying a berth in the Harbor. Sales made for the sole purpose of receiving benefits under this Section are not bona fide sales as determined by the General Manager. Examples include, but are not limited to transfers from one family member to another, from an individual to a corporation in which the individual has an interest directly or indirectly, from a corporation to an individual who has an interest directly or indirectly in the corporation.

5) New Berthholder. For purposes of paragraphs 3 & 4 a new berthholder is defined as a vessel, excluding a transient vessel, which has not occupied a slip in Moss Landing Harbor at any time during the past 12 months.

6) It is the intent of this Section to increase vessel occupancy in the Harbor and to retain existing berthholders.

## 2.200 - Definitions

For the purpose of applying the provisions of this ordinance, the terms shall be construed and interpreted as they are defined here unless otherwise apparent from the context.

The following definitions are organized in alphabetical order:

**Berth.** The term "berth" includes docks, slips, wharves, piers and mooring facilities. Berths assigned on a day-to-day basis are "transient" berths. Berths assigned on a month-to-month basis are "temporary" berths. Berths assigned in the expectation that the assignee will remain for an extended period are "assigned" berths. An assigned berth is an assignment to a berth granted by the District and giving the assignee the right to the preferential use of the berth described in the permit.

**Board.** The Board of Harbor Commissioners of the Moss Landing Harbor District.

**Boat length.** For the purposes of applying the fees or charges established by this Code, the length of a vessel shall be measured from the farthest point aft to the farthest point forward, including all permanent structures.

**Commercial fishing vessel.** A commercial fishing vessel engaged in fishing as its primary commercial activity. A commercial fishing vessel must be licensed to participate in a US Fisheries or Department of Fish and Game regulated saltwater fishery, and must demonstrate revenues of at least \$5,000 for each of three consecutive years and then, each year thereafter at the discretion of the General Manager. Proof of revenues shall be in the form of Fish and Game landing records or IRS Schedule C. Proof must be supplied under penalty of perjury. (This definition will apply only to Sections 6.022 and 6.110.)

**Commercial vessel.** A commercial vessel is any vessel, other than a commercial fishing vessel, which is used primarily as a commercial enterprise, and must demonstrate revenues of at least \$5,000 for each of three consecutive years and thence, each year thereafter at the discretion of the General Manager. Proof of revenues shall be in the form of IRS Schedule C or audited set of business financials. Proof must be supplied under penalty of perjury. Vessels used primarily as offices or residences do not qualify as a commercial vessel. Vessels classed or documented as research vessels qualify as a commercial vessel providing such vessel can demonstrate revenues pursuant to this section.

**District.** The Moss Landing Harbor District, in Monterey County, California.

**District permit.** The written authorization required by this Code prior to a person conducting specified activities on water, land, or facilities under the District's jurisdiction. Except as expressly exempted by this Code, activities requiring a district permit include all activities described in Section 26.010.

**Employee.** An employee of the Moss Landing Harbor District.

**Environmental Coordinator.** The General Manager, or the environmental consultant designated by the General Manager to perform the duties specified in Chapter 22 of this Code (Environmental Review Procedures).

**Harbor or harbor area.** All waters, submerged lands and tidelands; and upland areas adjacent thereto, under the possession, operation, or control of the Board. (See Chapter 1190, Statutes of 1947, as amended by Chapter 131, Statutes of 1967.)

**Live-aboard vessel.** Any recreational vessel having an assigned berth and used or intended for use as a residence or overnight accommodation in the Harbor between the hours of 10:00 PM and 5:00 AM for more than two days out of seven without prior written authorization from the Harbor Master. A vessel holding a "temporary" berthing permit cannot be a live-aboard vessel. A vessel holding a "transient" berthing permit is not considered to be a live-aboard vessel. A Commercial and/or Commercial Fishing Vessel providing accommodation space for master and crew is not considered to be a live-aboard vessel. No individual will be allowed to stay more than 2 cumulative days out of 7 consecutive days on any vessel or vessels in the Harbor without a Live-aboard Permit or prior written authorization from the Harbor Master.

**Manager.** The General Manager of the Moss Landing Harbor District as provided for and defined in Chapter 3 of this Code, including any employees of the District designated by the General Manager to perform duties authorized or directed by this Code.

**Moss Landing Harbor.** See "Harbor or harbor area."

**Operable.** A vessel meeting one of the following criteria: 1) a vessel making an excursion under its own power, either motor or sail, from its berth to the one-mile buoy, and back, or other excursion as specified by the Harbormaster, or; 2) a vessel having undergone an inspection by the Harbormaster to confirm ahead and astern propulsion, full and proper rudder operation, an approved marine sanitation device, if fitted; plus a valid U.S. Coast Guard Auxiliary safety inspection decal, or; 3) certification of operability and seaworthiness by a marine surveyor permitted to do business in the Moss Landing Harbor District, said certification to be obtained at the sole expense of the vessel owner, except as provided in Section 6.120(B)(2).

**Peddler.** Any seller of services or supplies doing business on District's lands, waters, docks, piers, wharves or other properties, that does not maintain a place of business on said lands, waters, docks, piers, wharves or other properties with the following exceptions: A licensed wholesale dealer who sells and, at the time of such sale, delivers merchandise to retail merchants, or; a commercial fisherman who catches seafood and sells only the seafood caught by him.

**Person.** Any individual, firm, co-partnership, corporation, company, association; city, county, state, or district, or agency thereof; and includes any trustee, receiver, assignee, or other similar representative thereof.

**Pleasure craft or sport vessel.** Any vessel, regardless of size, not engaged in marine commerce and not possessing a commercial fishing, charter, or passenger transportation license. Any vessel not a “commercial vessel” or “commercial fishing vessel”.

**Sightseeing boat.** A charter boat that transports passengers on regularly scheduled sightseeing or pleasure trips.

**Stray current corrosion.** The corrosion that results when a current from a battery or other external electrical source (AC or DC) causes a metal, in contact with an electrolyte (e.g., seawater), to become anodic with respect to another metal in contact with the same electrolyte.

**Vessel.** All types of watercraft used, or capable of being used as a means of transportation on water.

**CHAPTER 3 - ADMINISTRATION AND PERSONNEL**

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**3.010 – General Manager**

The General Manager is the Chief Executive Officer of the District and for the Board of Harbor Commissioners. It shall be the duty of the General Manager to:

- A) Carry out the orders of the Board and to enforce all regulations and ordinances of the District and state or federal laws affecting the navigable waters of the Harbor. The General Manager is the Harbormaster for Moss Landing Harbor.
- B) Report promptly to the proper authorities any violation of the laws of the United States for the protection of navigation and the preservation of navigable waters, or any violation of state or local laws or ordinances.
- C) Employ such employees as the General Manager deems necessary for the proper administration and operation of the District, in accordance with the District's personnel policies. The General Manager is the Personnel Officer of the District.
- D) Administer and supervise the public works projects of the District, and to plan the short, medium and long-term work program for the District. The General Manager is the Contracting Officer of the District.
- E) Administer and supervise the purchasing system of the District in accordance with approved budgets and policies. The General Manager is the Purchasing Agent of the District.
- F) Prepare and manage the District budget.

**3.020 - Additional Enforcement Authority**

The Monterey County Sheriff, or any duly appointed and acting peace officer shall have full authority in the enforcement of all laws, ordinances, and regulations affecting the use of District facilities, including the power of arrest for the violation of the provisions of such laws, ordinances, and regulations. All orders and instructions given by peace officers in the performance of their duties in compliance with this section shall have the same force as if issued by the General Manager.

**3.100 - Harbor Commissioners****3.110 – Compensation**

Each commissioner shall, in accordance with §6060 of the Harbors and Navigation Code, receive a salary of \$100.00 for each meeting attended of the Board of Harbor Commissioners or meeting attended of a committee of such board, or any other such meeting attended that has been previously authorized by a majority of the board acting at a meeting of said board noticed in accordance with the Ralph M. Brown Act; to a maximum of \$600.00 per month authorized by §6060 of the Harbors and Navigation Code. In addition, each commissioner shall be entitled to actual and necessary expenses incurred in the performance of their duties.

**3.120 – Meetings**

The Board of Harbor Commissioners shall meet at 7:00 p.m. on the fourth Wednesday of each month at the District's offices. Additional meetings may be scheduled at the discretion of the Board.

**3.200 – Conflict of Interest**

**3.210 – Conflict of Interest Code – Deleted by Adoption of Ordinance No. 203 on September 26, 2018 and Adopted Resolution No. 18-04 - Conflict of Interest Code as a stand-alone document.**

**3.220 – Acquisition or Use of District Property**

Officers or employees of the District shall not use District property for their own personal benefit or for any purpose but a public one or for District business. In addition to other sanctions that may be imposed, whether civil or criminal in nature, the District may demand for, and such officer or employee shall make, full restitution of the fair rental value of District property so used in any manner other than as provided for herein, together with any and all damages that may have arisen from any misuse.

Additionally, District employees may not:

- A) purchase any surplus property from the District except by public auction, duly authorized by the Board of Harbor Commissioners and publicly noticed at least two weeks prior to its occurrence, or
- B) accept gifts from the users of District facilities, or
- C) present gifts from the District unless the Board of Harbor Commissioners first determines that such gift serves a public purpose.

**ARTICLE II**  
**HARBOR OPERATIONS, USE OF DISTRICT PROPERTY**

**CHAPTER 4 - GENERAL REGULATIONS FOR ACTIVITIES WITHIN THE DISTRICT**

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**4.010 - Damage to District Property**

- A) **Willful and malicious damage prohibited.** It shall be unlawful for any person to willfully and maliciously destroy, damage, deface or interfere with any property under the jurisdiction of the District.
- B) **Liability for damage.** Every person and every vessel responsible for damage to any District property shall be held liable for and charged with the cost of replacing or repairing the property.
- C) **Report of damage required.** In the event any damage is done to any District property, the General Manager shall be provided a full report on the matter, including but not limited to the date and hour the damage occurred, the names and addresses or descriptions of witnesses and other persons and/or vessels involved in the damage, as well as all pertinent facts and other information that may be available. The required report shall be provided the General Manager by:
  - 1) Any person responsible for or connected with the damage;
  - 2) Any person to whom the damaged District property is assigned or leased, or by whom it is being used; and
  - 3) The Master, owner, operator or agent of any vessel, vehicle or other instrumentality involved in the damage.

**4.020 - Peddling Prohibited Without Permit**

It shall be unlawful for any person to peddle or sell any goods, wares, merchandise or services upon any berthed vessel, or any dock, roadway, or other lands under District jurisdiction, without first obtaining an Itinerant Vendor's License from the County of Monterey, a Monterey County Health Department Permit to sell food if applicable, and a peddler's permit from the District. The fee for a peddler's permit shall be in the amount established under Section 20.100. This section does not apply to the sale of fish by a commercial fisherman to a buyer licensed as such by the California Department of Fish and Game.

**4.030 - Dock Regulations**

- A) **Attachments to docks.** No person shall attach any object or apply any substance to any District property without the prior written approval of the District.
- B) **Weight limits.** The weight limit for cargo placed on any dock or pier shall be 300 pounds per square foot unless otherwise stipulated in a berthing permit (see Section 6.022).

**4.040 - Rental Businesses, Permit Required**

No vessels shall be rented within the Harbor without a permit from the District. Permit fees shall be in the amount established under Section 20.100.

**4.060 - Use of Launch Ramps, Permit Required**

Permit required. Persons using the District's launch ramps shall have a Launch Ramp Permit. The permit fee shall be in the amount established under Section 20.100. (See Section 10.100.A (motor vehicles on launch ramps) for regulations governing the use of the launch ramp.)

**4.070 - Parking, Permit Required**

- A) **Parking permit.** Persons parking a vehicle within the posted areas in the Harbor District shall have a parking permit. Permit fees shall be in the amount established under Section 20.100.
- B) **Civil penalty for improperly parked vehicle.** The District, or other authorized agency, may impose a civil penalty on the owner of a vehicle within the Harbor District for the violation of any regulation governing the standing or parking of a vehicle under Federal, State or District law in accordance with the procedures in Section 40200 et seq. of the California Vehicle Code. (See Section 10.110 for District parking regulations.)

**CHAPTER 6 -BERTHING REGULATIONS AND PERMIT REQUIREMENTS**

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**6.010 - District Approval Required for Use of Berths**

- A) **Locations designated by District.** All vessels in the Harbor shall berth or moor in the location designated by the Harbormaster. The anchoring of vessels in the Harbor is prohibited except in an emergency.
- B) **Method of docking.** All vessels shall be tied up in such a manner to safeguard port facilities and other vessels from collision or other damage, and to not obstruct navigation by other vessels, and as further provided by Section 6.100 (Berthing Regulations).

**6.020 - Berthing Permit Requirements**

No vessel shall occupy a District berth or tie up at a District dock for any length of time unless the owner first obtains a berthing permit from the Harbormaster. Exceptions of up to four hours may be granted by the Harbormaster.

**6.022 - Berthing Permit Applications and Approval**

Berthing permits shall be applied for, issued, and maintained as provided by this section.

- A) **Application filing.** Application for a berthing permit shall be made on the forms provided by the District and shall be accompanied by the fees required by Chapter 20.
- 1) **Status of Applicant.** Every non-natural person applicant shall be required to provide an acceptable personal guarantee of performance of the terms of any permit that may be issued by the District.
  - 2) **Applicant Name.** The berthing applicant and the registered owner of the vessel must be the same person or entity.
- B) **Permit issuance.** Berthing permits shall be issued as follows:
- 1) **Assigned berth permits.** The District may issue a permit for an assigned berth after the applicant has been placed on a waiting list in accordance with Section 6.050, provided that a vacant, unassigned berth is available. If a berth is not immediately available, the applicant may be placed on the assigned berth waiting list (Section 6.050), and may be directed to a temporary berth as provided by subsection (B)2, following.

Assigned berth permits shall be granted in the order of priority determined by whether the vessel is commercial or recreational and the position of the vessel owner on the applicable waiting list, as provided by Section 6.050. When an owner is eligible for an assigned berth permit, the owner shall obtain and exercise the permit as follows:

- a) **Time for obtaining permit.** When the Harbormaster notifies an applicant that an assigned berth is available, the applicant shall complete the application for an assigned berth. The completed application shall be returned to the Harbormaster for approval and must be accompanied by either the annual rental fee or the deposit set forth in Chapter 20, Section 20.100 C. A commercial vessel owner shall also submit documentation of commercial operations as defined by Section 2.200 (Definitions - "Commercial Vessel").

- b) **Time for occupying berth.** An applicant shall place a properly sized vessel in their assigned berth within 180 days from acceptance of the berth, or the berth will be forfeited and the District shall be free to reassign the berth.
  - c) **Refusal of assigned berth.** An applicant may refuse a berth when offered; however, the owner will be rotated to the bottom of the list if the owner does not accept the assigned berth within the time set forth in the offer.
- 2) **Temporary berth assignment.** If an applicant has requested a temporary berth, or has requested an assigned berth and none are available, the Harbormaster may assign a temporary berth as provided by Section 6.060 (District Rental of Vacant Berths).
  - 3) **Permit time limit.** Assigned berth permits shall be issued for the period stated in the permit; provided that all assigned berth permits shall expire and become void upon the sale of the vessel for which the owner obtained the permit, except where the permittee replaces the vessel with another that they own or the assigned berth is transferred to the new buyer pursuant to Section 6.024.
- C) **Requirements for issued permits:**
- 1) **Changes of name or address.** The owner of each registered vessel shall promptly notify the District in writing of any change of the name, address and telephone number of the vessel moored under an approved permit, and of any change in ownership or the owner's address.
  - 2) **Rental fees.** Berth rental fees shall be paid as required by Chapter 20 of this Code.
  - 3) **Substitution of vessel.** An owner may sell a vessel and substitute another while retaining the same berthing permit only when the new vessel is of a size appropriate to the slip and has the same registered owner, and the Harbormaster is notified, and approves of the substitution.
  - 4) **Commercial vessels - Annual verification.** Every owner who was granted an assigned berth on the basis of having a commercial vessel may be required to provide documentation to the satisfaction of the Harbormaster that the vessel remains commercial and operable (see Section 2.200 - Definitions).
  - 5) **Permit revocation.** Berthing permits may be revoked by the District as provided by Section 6.028.

#### 6.024 - Transfer of Berthing Permits

Berthing permits shall be transferred only as provided by this section.

- A) **Filing of request.** Any permittee wishing to transfer a permit must first file a written request and obtain District approval for the transfer.
- 1) **Time of request.** A request for transfer of an assigned berth permit shall not be considered by the District unless one year has elapsed since the issuance of the permit, except in the case of a transfer to heirs (see subsection (B)1 below).
  - 2) **Method of filing.** The request shall be filed with the Harbormaster, and shall include the name of the transferee, circumstances requiring the transfer, and any other information required by the Harbormaster.

- B) **Types of transfers allowed.** Assigned berth permits may be transferred only as follows:
- 1) **Transfer to heirs.** A permit may be transferred to the estate of a permittee upon the death of the permittee.
  - 2) **Transfer upon sale of vessel.** The transfer of an assigned berth permit to a vessel purchaser when a vessel is sold is allowed, however all conditions otherwise required for an assigned berth must be met by the vessel purchaser.
  - 3) **Transfers to/from non-Natural Persons.** Transfers to or from a non-natural person by an existing permittee is allowed, provided that any non-natural person transferee is required to provide an acceptable personal guarantee of performance of the terms of the applicable permit(s) by a natural person, and provided all conditions otherwise required for an assigned berth must be met by the vessel transferee.
- C) **Fees due before completion of transfer.** No transfer of an assigned berth permit shall occur until all past due and current charges due to the District, including but not limited to past due and current berth rental fees are paid in full.
- D) **Cancellation of transfer by District.** The giving of false information in an application for berthing or an application to transfer a berth permit shall be a misdemeanor. If at any time the District discovers that any misstatement or misrepresentation was made by any party requesting a permit transfer pursuant to this section, the District may, upon notification and hearing, revoke the assigned berth permit in addition to any other penalties provided at law.
- E) **Leases without transfer.** A permittee may lease their boat provided, however, that the permittee remains liable for all fees and rates charged for the berth. The permittee must, upon request, make all documentation of lease arrangements available to the District.

#### 6.026 - Exchange of Berths

Two assigned berth permittees may exchange their assigned berths with the approval of the Harbormaster upon payment of the administrative fee established by the Board. When an exchange is approved, the Harbormaster shall issue modified permits to each owner documenting their new berth assignments. Approval shall not be granted by the Harbormaster unless and until all fees currently owed to the District are paid in full.

#### 6.028 - Termination or Revocation of Berthing Permit and Removal of Vessel

Berthing permits may be terminated by the owner or revoked by the District as provided by this section.

- A) **Termination by owner.** Berthing permits may be terminated by an owner by giving notice to the District on a Notice of Termination form provided by the District. Fees for berths will accumulate through and including the effective date of the Notice or the day that the Notice is received, whichever is later.
- B) **Revocation by District.** Berthing permits may be revoked by the District as provided below:
- 1) **Causes for revocation.** A berthing permit may be revoked under any of the following circumstances:

- a) **Vessel Condition.** The vessel using the permit is determined by the District to be unsafe, dilapidated, stolen or abandoned as provided in Harbors and Navigation Code Sections 522, 523, 525.
  - b) **Failure to pay berthing permit fees.** The owner fails to pay the monthly berthing permit fees required by Chapter 20 of this Code for more than 60 days.
  - c) **Failure to comply with Code requirements.** The vessel or its operation fails to comply with any applicable provision of this Code.
- 2) **Procedure for removal:**
- a) **Notice.** The District shall provide written Notice of Termination to the owner in person or by Certified or Registered Mail, and by posting on the vessel if the vessel is in the Harbor.
  - b) **Revocation of permit.** The Harbormaster may revoke a berthing permit within 30 days after notice is given as provided in subsection (B.2.a.) above.
  - c) **Failure to remove.** If the owner fails to remove the vessel, the District may move the vessel to another location with all expense and risk of loss or damage being the responsibility of the owner. In the event of such removal the owner shall be liable to District for the prevailing berth rental and other fees customarily charged at the facility where the vessel is moved.

#### 6.050 - Assigned Berth Waiting Lists

Assigned berth waiting lists shall be established as provided in this section for persons wishing to obtain an assigned berth in the Harbor.

- A) **Establishment of waiting lists and issuance of permits.** The Harbormaster shall establish and maintain separate waiting lists for each size of berth maintained by the District. Each list shall have three priority groups of owners waiting for assigned berths:
- 1) Owners of commercial fishing vessels;
  - 2) Owners of other commercial vessels;
  - 3) Owners of pleasure craft.

When assigned berths become available, the Harbormaster shall first issue permits to owners of commercial fishing vessels; then to owners of other commercial vessels when there are no commercial fishing vessels on the list; and finally to the owners of pleasure craft when there are no more owners of commercial vessels on the list.

All permits shall be issued to vessel owners in the same order as their names appear on the waiting lists.

The waiting list applicant and the registered owner of the vessel must be the same person or entity.

- B) **Placement on waiting list.** All assigned berths are issued from waiting lists. An applicant for an assigned berth permit shall be placed on the waiting list for the requested berth size, in the applicable priority group established by subsection (A) above, and in the same order as their assigned berth permit application was received by the District, and pay the applicable waiting list fee (see Section 20.100(c)).

- C) **Rules for remaining on waiting list.** Applicants on waiting lists shall comply with the following requirements:
- 1) **Annual fee required.** Applicants on the waiting list shall pay the District the waiting list fee established by Chapter 20 of this Code (Fees and Charges). The fee shall be due on January 1st of each year and shall be paid no later than January 10<sup>th</sup>. Failure to pay the annual fee when due will result in the applicant's name being removed from the waiting list.
  - 2) The aforementioned \$75 assigned slip wait list application fee shall be waived in the event slips in the size category being applied for are available immediately. Notwithstanding the foregoing fee waiver, the applicant will be required to complete the wait list application for administrative and documentary tracking purposes.
  - 3) **Commercial vessels and commercial fishing vessels.** Applicants with commercial vessels or commercial fishing vessels on the waiting list shall be subject to the following additional requirements:
    - a) Prior to the assignment of a berth to a commercial vessel or a commercial fishing vessel, the applicant shall present to the District documentation showing that a vessel meets the definition in Section 2.200 for a vessel of its classification.
    - b) If the applicant does not possess the required receipts and other documentation because the commercial vessel is a newly created business or the commercial fishing vessel is newly licensed, he/she will receive an assigned berth on a temporary basis and will be given 12 months to provide the receipts.
    - c) While on a temporary basis the applicant will pay all temporary fees; provided that if the applicant furnishes the required receipts at any time during the 12 months, he/she will then be given a credit for temporary fees so paid, will cease paying the temporary charges and will begin paying the appropriate assigned berth rental fee established by Chapter 20 of this Code (Fees and Charges).
    - d) If after 12 months the applicant cannot produce the required receipts, he/she will lose the assigned berth, be removed from the waiting list, must reapply for placement on that list, and shall be assigned a sign-up date based on the date the re-application is received by the District.
  - 4) **District notification of changes required.** While on a waiting list, all applicants shall promptly notify the District of any change in their mailing address or telephone number.
- D) **Updating of waiting lists.** The District will update and purge the waiting lists annually in the first week in December by mailing to each person on the waiting lists a request to verify their continued interest in obtaining a permit along with a statement of fees owing for the next year. Any person who fails to return the requested verification on or before the 10<sup>th</sup> of January shall be removed from the list, and the District shall mail a notice that their name has been removed from the list. Removal from a waiting list may be appealed as provided in Chapter 24 (Hearings and Appeals) within 30 days after such notice.
- E) The District will maintain a list of individuals wishing to obtain a liveaboard permit; however, such permits will only be issued to individuals who have been issued an assigned

slip and who are otherwise in compliance with liveaboard conditions set forth in this Code and in the application for liveaboard permit. Liveaboard permits will be offered to those on the liveaboard wait list in the order their wait-list application was received.

#### **6.060 - District Rental of Vacant Berths**

When an assigned berth is vacant because the permittee's vessel is absent from the Harbor, the District may re-rent the berth on a temporary basis, provided that any vessel temporarily occupying an assigned berth will be moved by the District when the assigned vessel returns. A vessel temporarily assigned to a re-rented berth will be moved by the District before the assigned vessel returns, weather permitting, if the returning vessel gives the Harbormaster sufficient notice to permit the temporary vessel to be reasonably moved during normal working hours.

#### **6.100 - Berthing Regulations**

No person shall make any vessel fast to any dock, or moor immediately in front of a dock, or to another vessel, or to any vessel in a group of vessels one of which is made fast, without the approval of the Harbormaster, and in compliance with the following requirements. Violation of any of the provisions of this section shall be cause for the District to revoke a berthing permit and/or issue a citation.

- A) **Attachment of lines to District property.** No person shall make fast any rope or cable to any dock or other District property, except to the piles, bitts, rings or cleats provided for that purpose.
- B) **Posting of Signs.** No person shall affix a sign to any District dock, float, wharf or other structure without the written authorization of the Harbormaster.
- C) **Display of name or registration number.** A name or registration number shall be displayed on every vessel and/or its covering using a berth or mooring. The name or number must be clear, legible and unobstructed at all times. The state registration validation decal shall not be expired.
- D) **District replacement of lines.** All vessel owners shall keep their vessels safely berthed or moored with adequate and sufficient mooring lines as determined by the Harbormaster. The District reserves the right to renew or replace any mooring lines found deficient or inadequate and to charge the owner of the vessel the costs of such renewal or replacement.
- E) **Floatable fenders required.** All vessels moored in the Harbor shall have attached floatable fenders appropriate, in the judgment of the Harbormaster, to the size and displacement of the vessel in order to prevent damage to vessel, other vessels, harbor facilities, persons or property of any kind. Non-floatable fenders are prohibited. Tires shall not be used as fenders. The use of properly rigged fender boards is encouraged.
- F) **Houseboats, time limit.** Houseboats are permitted in the harbor on a transient basis only and in no case shall remain longer than 30 days.
- G) **Length of vessel.** A berthed or moored vessel shall be no more than 10 percent shorter or longer than the slip unless authorized by the Harbormaster.
- H) **Making fast to dock.** No person shall make any vessel fast to any dock, slip, wharf, pier or mooring except with such lines and in such manner as approved by the Harbormaster.

- I) **Mooring to opposite dock.** No person shall lead any mooring line from any vessel lying at a dock across the slip to the opposite dock, without first obtaining permission from the Harbormaster.
- J) **Pedestrian hazards.** No unattended lines, hoses, electrical cords, or other materials shall be laid across any walkway so as to create an obvious pedestrian tripping hazard.
- K) **Required movement of vessels.** The District may require that any vessel be moved to a mooring or berth to which it has been assigned or reassigned at any time, as provided by Section 8.110 (Movement of Vessels in the Harbor).
- L) **Rafting.** Vessels shall not raft against another vessel unless authorized by the Harbormaster and the Master, Owner or Operator of the other vessel. In cases where the Harbormaster has authorized a vessel to raft the Master, Owner or Operator of the rafting vessel shall assure that the safety and integrity of the mooring does not rely solely on the mooring lines of the other vessel and that adequate and proper fendering is used to prevent damage to either vessel, harbor facilities, persons or property of any kind. The owners of every vessel rafting across the end of any pier or dock, or whose stern or bow extends beyond the edge or end of any berth, and every vessel lying alongside another berthed vessel shall, while occupying such a position, be responsible for any and all damage to itself or to any other vessel, any harbor facilities or to any persons or property of any kind resulting from occupying such position.
- M) **Stray current corrosion and connecting cords:**
- 1) **Stray current prohibited.** No vessel shall be operated or maintained so as to transmit stray current. Stray currents may be tested by measuring the resistance between the dock end of the shore power cord and the water adjacent to the vessel, as follows: The shore power cord shall be connected in the normal manner to the vessel, but shall be disconnected from the power pedestal. The shore power switch aboard the vessel shall be in the ON position and at least one device aboard the vessel shall be connected and its operating switch shall be in the ON position. (1) – An ohmmeter shall be used at the dock end of the shore power cord to measure the resistance between the BLACK (HOT) lead and the water adjacent to the vessel. The resistance must be AT LEAST 100,000 OHMS. (2) – The resistance at the WHITE (NEUTRAL) lead shall then be tested in a similar manner. The resistance must be AT LEAST 100,000 OHMS. (3) – The resistance at the GREEN (GROUND) lead shall then be tested in a similar manner. The resistance MUST NOT EXCEED 10 OHMS. All three conditions must be met for the vessel to safely utilize shore power. Vessels not meeting all three conditions should be disconnected from the shore power and correct the vessel's electrical problem.
  - 2) **Correction of stray current problems.** If a vessel is found to be producing stray current, the Manager shall give notice to the owner and a reasonable amount of time provided to correct the problem, not to exceed 10 days. The Harbormaster shall have the authority to disconnect the vessel from shore power immediately if the level of stray current being produced poses an immediate threat to personal safety or will cause the rapid corrosion of the vessel and/or its neighboring vessels or structures. If the vessel is unplugged upon discovery of the stray current, every effort will be made to notify the vessel owner as to the action taken. The District shall, however, assume no liability for any losses or damage suffered from the denial of shore power to a vessel.

- 3) **Revocation of permit.** If the vessel is reconnected by the owner without being fixed, for any other purpose than stray current testing, the District may revoke the assigned berth permit.
  - 4) **Connecting cord requirements.** Shore power cords shall be of the three-wire type including a functioning ground wire with insulation types SO, ST, or STO and with a wire thickness in accordance with the National Electric Cord Standards. Minimum wire size shall not be under 10 gauge. Cords that are found to be a significant hazard to safety will be unplugged immediately. Shore power cords shall be in accordance with the National Electrical Code, 1996 edition, incorporated herein by reference, and applicable standards of the California Department of Boating and Waterways.
- N) **Electrical Service to Vessels.** The District reserves the right to disconnect the electrical service to any vessel at any time, however, will endeavor to notify the owner when this occurs. The reasons that the District may disconnect electrical service may be, but are not limited to, non-payment of berthing fees, stray currents, excessive power load and other reasons necessary for safe and efficient harbor operations.
- O) **Prohibited Discharges – Penalty.** No person shall discharge, or allow to be discharged any oil, sewage, grey water, or other materials into the waters or upon the lands of the District that are otherwise prohibited by laws, regulations or ordinances of the United States, the State of California, or the County of Monterey.

#### 6.110 – Live Aboard Vessels and Persons Living Aboard

As provided by this section, the District may allow a limited number of recreational vessels to be used for temporary residential purposes incidental to their primary recreational use, to provide for improved security within the Harbor. No person shall live aboard any vessel in the Harbor without a permit to live aboard and payment of all applicable fees. No person shall live aboard any vessel in the Moro Cojo Slough or Elkhorn Slough for any period of time. Anyone in violation of this section shall, in addition to any other penalties provided by this Code, be subject to forfeiture of their berthing permit and other privileges at the District.

- A) **Applicability.** The requirements of this section apply to recreational vessels being used or intended for use as a place of temporary residence and meeting the definition of live-aboard vessel contained in Section 2.200, and to any other person who lives aboard a commercial vessel or commercial fishing vessel while in the harbor more than 2 days out of 7 consecutive days. No individual will be allowed to stay more than 2 cumulative days out of 7 consecutive days on any vessel or vessels in the Harbor without a Live-aboard Permit or prior written authorization from the Harbormaster.
- B) **Application requirements.** All persons desiring to live aboard a vessel in the Harbor shall file with the District an application on the form required by the Harbormaster, which shall be accompanied by the fee required by Chapter 20 for the period for which live-aboard authorization is requested.
- C) **Limitation on number of live-aboard vessels.** The District will allow a maximum of 60 vessels meeting the live-aboard vessel definition contained in Section 2.200. The District shall not restrict the number of persons living aboard commercial vessels or commercial fishing vessels in the harbor provided such persons comply with the ordinances of the District and any other rules and regulations that may be established from time to time by

other regulatory agencies which apply to persons living aboard vessels in the harbors of Monterey County or the State of California.

D) **Time limits.** Live-aboard vessels and persons living aboard vessels shall be subject to the following time limits:

- 1) **Term of permit.** No application will be accepted and no permit will be issued by the District to live aboard a vessel in the Harbor for more than 30 days. All permits will expire on the last day of each month, and will renew automatically unless revoked or suspended by action of the Harbormaster. The Harbormaster will submit a report to the Board containing the names of all live-aboard vessels, all persons living aboard, their assigned berth numbers, and any pending revocation or suspension action at each regular Board meeting. Nothing contained in this paragraph shall prevent the District from utilizing the Unlawful Detainer procedure as provided by State law.
- 2) **Time out of Harbor.** Live-aboard vessels and persons living aboard can leave the Harbor for any length of time and retain their status as long as required fees are paid.

All vessels used for living aboard must meet the requirements of Section 6.120, prohibiting the berthing of inoperable vessels.

E) **General conditions.** All live-aboard vessels and vessels with persons living aboard shall:

- 1) Be in compliance with the rules, regulations and requirements of the Monterey County Health Department, the United States Coast Guard, and the District. The District shall have the right of inspection before a permit is issued;
- 2) Be maintained in a clean and orderly manner;
- 3) Have a working telephone or VHF marine radio monitored aboard the vessel for security. Installation of the device shall be at the owner's sole expense;
- 4) Have telephone service, either by local telephone service provider, cellular service, or personal communication service (PCS), and
- 5) Insofar as occupancy is concerned, be considered single family dwellings and shall at no time house a number of persons so as to create a public nuisance or to be detrimental to the health, safety, and welfare of other users of the Harbor.
- 6) No vessel may be leased or rented for the purpose of accommodation or residence not consistent with the primary operation of the vessel, being commercial or recreational.
- 7) All persons living aboard vessels in the harbor must be registered with the District on the forms, and in the manner provided by the Harbormaster.

F) **Validity of Permit.** The Harbormaster shall not grant or renew a permit to live aboard, or otherwise authorize a persons to live aboard a vessel in Moss Landing Harbor who owes money to the District except in accordance with Section 20.010(C)(4)(b). Continuing permission to live aboard any vessel is contingent upon time and full payment of all fees.

#### **§6.115 - Guests; Contractors**

- 1) Without the Harbor Master's prior written authorization, no guests are allowed on any vessel at any time without the slipholder/ registered owner of the vessel present

throughout the guests' stay. The owner of a vessel wishing to authorize a guest to stay with them on their vessel must complete and submit a Guest Authorization form in advance of their guest's visit and the guest must check in at the Harbor Master's office prior to their visit.

- 2) Persons for hire to perform maintenance or repairs on a vessel are not considered "guests" for purposes of this Section. Such persons for hire are considered "contractors" and the owner of a vessel wishing to authorize a contractor to have access to their vessel must complete and submit a Contractor Authorization form in advance of allowing a contractor on District property, and the contractor must check in at the Harbor Master's office prior to accessing the slipholder's vessel.
- 3) Such forms can be submitted via facsimile or electronically so long as the contents can be verified with the slipholder. No contractor will be allowed on the vessel between the hours of 10 pm and 5 a.m. Nothing in this Section shall be construed to allow a guest or a contractor to violate Section 6.110 which prohibits individuals from staying more than 2 cumulative days out of 7 consecutive days without a Liveaboard Permit.

#### **6.120 - Inoperable and Unseaworthy Vessels Prohibited**

- A) **Operable and seaworthy condition required.** Boats berthed in the Harbor must be operable and maintained in a seaworthy condition, except when under active repair for no more than 30 days, and be of a design suitable for operation on the waters of Monterey Bay.
- B) **Questions of operability or seaworthiness.** In cases where the Harbormaster is concerned that a vessel may be inoperable or unseaworthy, the Harbormaster may act as follows:
  - 1) **Operability.** The Harbormaster may request a demonstration of a vessel's operability by giving at least 30 days advance written notice to the vessel owner. Notice shall be given to the owner in person or by Certified or Registered Mail, and by posting on the vessel if the vessel is in the Harbor. The Owner may demonstrate the vessel's operability by any one of the methods defined in Section 2.200
  - 2) **Seaworthiness.** Seaworthiness shall be determined by a qualified independent marine surveyor selected through mutual agreement between the Harbormaster and the owner. When a determination of seaworthiness is required by the Harbormaster, the expense of the surveyor shall be paid by the District in cases where the surveyor determines that the vessel is seaworthy, and the expense of the surveyor shall be paid by the vessel owner where the surveyor determines that the vessel is unseaworthy.
  - 3) **Repair required.** Where a vessel is found to be inoperable or determined to be unseaworthy in accordance with this section, the owner shall have 30 days to affect repairs and bring the vessel into compliance. If after 30 days the vessel is still inoperable and/or unseaworthy, the berthing permit shall be revoked. This section is not intended to apply to brief periods of repair common to most vessels. See Section 6.120(A)
- C) **Berthing permit surcharge.** If any vessel is found to be inoperable or unseaworthy, the District may, in addition to any other available remedy, impose a surcharge on the berthing permit fee for the vessel in the amount provided by Chapter 20; the surcharge shall

continue until the vessel is made operable or seaworthy, or is removed from the Harbor by owner. The surcharge imposed for any period of time less than one calendar month shall be prorated. The surcharge shall begin at the expiration of the 30-day periods specified in subsection (B)1 above.

#### **6.130 Mooring In Designated Areas**

- A) **Mooring in designated areas.** The Harbormaster may designate locations within the Harbor in which mooring shall be allowed only with a special Berthing Permit for Mooring. The vessel must be moored in such a manner to safeguard harbor operations and other vessels from collision or other damage, and to not obstruct navigation by other vessels. Failure to moor the vessel in such manner shall result in cancellation of the permit, subject to the provisions of Chapter 24 of this Code, and shall be a misdemeanor.
- B) **Fee.** The fee for a Berthing Permit for mooring shall be in the amount established under Section 20.100.
- C) **Duration.** Berthing permits for mooring shall be issued for a period of up to one month, subject to renewal by the District.
- D) **Overnight passengers.** Persons shall not stay aboard vessels moored in the designated locations between the hours of 2:00 A.M. and 6:00 A.M., except as expressly authorized by the Harbormaster.

#### **6.200 - Inspection of Vessels**

The Harbormaster is authorized to go aboard any vessel in the Harbor for inspection, and the owner or operator, when present, shall allow such inspection, in any case where the Harbormaster determines that:

- A) Conditions or activities on the vessel may cause immediate danger to life, property or the environment; or
- B) There is reasonable cause to believe that the owner, operator, or other person aboard the vessel may be incapacitated, or otherwise in need of emergency assistance.

#### **6.300 - Removal of Derelict Vessels by District**

If any vessel is found to be derelict, or subject to the provisions of Harbors and Navigation Code Section 522, in addition to the sanctions, remedies and other provisions provided in Section 522, the owner of the vessel may be subject to forfeiture of all berthing privileges in the District and may be ordered to remove the vessel from District waters. Notice of forfeiture shall be included in the notices provided for under Section 522. No berthing privileges shall pass to any person as a result of any sale or transfer under Section 522.

#### **6.310 - Removal of Vessel With Charges Due Prohibited**

- A) **Pay before removal.** No person shall remove or cause to be removed from the Harbor any vessel upon which charges for berth rental or any other service are delinquent, without paying all the delinquent charges to the District, and any penalty fee established by the District fee schedule unless such person is ordered to remove the vessel by the Harbormaster.

- B) **Falsification.** It shall be unlawful for any person to violate any written promise given pursuant to this section or willfully to give false information to the District in order to secure the removal of a vessel.
- C) **Urgency Power.** The District and its employees are hereby authorized to take any lawful action necessary to prevent the removal of a vessel in violation of this section, including locking, or otherwise fastening a vessel at its berth.

**CHAPTER 8 - VESSEL OPERATIONS**

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**8.110 - Movement of Vessels in the Harbor**

- A) A vessel must shift or go into the channel at its own expense whenever it is ordered to do so by the Harbormaster, who shall have the power to enforce the removal of the vessel at its own expense at any time.
- B) Every master, agent, or owner of any vessel who does not obey the lawful orders or directions of the Harbormaster in any manner pertaining to the regulations of the Harbor or the movement, removal or stationing of any vessel is guilty of a misdemeanor.
- C) Vessels may be moved by the Harbormaster with or without the consent of the owner or other person in charge, for the protection of life or property or for proper utilization of harbor facilities. (See Section 20.100(C), Special Service and Equipment Fees.)

**8.120 - Obstructions to Navigation Prohibited**

Every person who unlawfully obstructs or causes obstruction to navigation in the Harbor is guilty of a misdemeanor, as provided in Harbor and Navigation Code Section 131.

**8.140 - Public Peace, Vessel Owner Responsibility**

- A) The owner of a vessel will be responsible for the conduct of those using it or visiting or occupying it, and of the master or other person in charge of it, and they are jointly and severally liable for any penalty established by law.
- B) The owner of a vessel is required to notify District staff in writing when the owner hires or otherwise invites an individual to perform work on or otherwise access the owner's vessel. Such notification shall include the anticipated duration of the access, the hours and days the access will occur, the name of the individual, and the vessel owner will direct the individual to register at the District's office and provide identification to District staff prior to commencement of any work or otherwise accessing the owner's vessel. The vessel owner acknowledges that such owner is responsible for the actions of his/her invitee while the invitee is on District premises
- C) Disturbance of the peace by those aboard any vessel in the Harbor is prohibited, and may be the basis for revocation of the vessel's berthing permit, in addition to any applicable criminal penalties.

**8.150 - Sails on Vessels**

No vessel shall remain tied-up to any dock or slip with any sail hoisted on its mast. All sails shall be dropped as soon as a vessel is tied-up, and shall remain down until the vessel is being made ready for imminent departure. Sails may remain up temporarily while drying or being checked if the following conditions are met:

- A) The vessel is attended while sails are up;
- B) All sheets are left loose so sails are free in the wind;
- C) No extra strain on the slip results from the sails being up; and
- D) Such activity is deemed prudent, under the circumstances, by the Harbormaster.

**8.160 - Salvage**

Any vessel that is determined by the Harbormaster to be in danger of sinking or is a hazard to other vessels or the premises may be removed forthwith with all expense and risk of loss or damage being the responsibility of the vessel owner. If the District is required to render salvage services to any vessel, all such costs shall be paid by the owner. The District shall be entitled to recover costs and expenses including reasonable attorney's fees and court costs incurred in removal or salvage.

**8.170 - Speed Limit**

Vessels, boats and dinghies within all portions of the Harbor except the Harbor mouth area between the jetties shall not operate at a speed greater than four knots, or at a speed that creates any wake sufficient to damage vessels or other property, whether or not damage is caused. Any person operating a vessel contrary to this section shall be responsible for any damage caused by their wake, and may be cited and fined as provided by Section 20.100.

**CHAPTER 10 - MOTOR VEHICLE REGULATIONS**

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**10.100 - Motor Vehicles**

It shall be unlawful for anyone to:

- A) Drive or operate any motor vehicle onto or upon any dock or launch ramp except for the purpose of loading or discharging freight or while performing necessary duties that require the vehicle on a dock or launch ramp. Any vehicle shall be subject to the provisions of this section and shall be under the constant attendance of the operator while on a dock or launch ramp. The operator shall immediately remove the vehicle from the dock or launch ramp upon completing the necessary activities on the dock or launch ramp. The General Manager shall take charge of any vehicle left upon any dock or launch ramp in violation of this rule, and shall store the vehicle at the expense of the owner. Any person violating this rule shall, in addition to the monetary penalties provided by this Code, be refused any further access to any dock without first obtaining special permission from the General Manager;
- B) Drive or operate any motor vehicle, trailer or semi-trailer from which any gasoline, oil or other liquid other than clean water is dripping;
- C) Fill the fuel tank of any motor vehicle with gasoline, or other petroleum product, or to extract such products from a vehicle while on any dock or launch ramp; or
- D) Store a motor vehicle on any District property, except in storage or parking areas designated and/or posted by the District.

**10.110 - Parking Requirements**

- A) **Designated parking areas.** Parking within District parking lots is by permit only. The District may identify certain spaces as “handicapped”, “loading/unloading”, “reserved” and “visitor” for which a District permit is not required. The District may limit the duration of parking allowed in certain lots or certain areas of lots.
- B) **Parking permits.** Parking is allowed in District lots only after first obtaining a parking permit, except in parking spaces designated as “Visitor” and marked with green paint. The issuance and use of parking permits is subject to the following requirements:
  - 1) **Eligibility for permits.** Parking permits shall be issued by the District as follows:
    - a) Vessels with assigned berths shall be issued one complimentary parking permit for each person or entity who assumes responsibility for payment of berthing fees according to information provided for the District’s records. A maximum of two (2) such permits shall be issued. The berth holder shall be responsible for the permits. One such permit may be replaced once without charge. The standard parking permit fees shall be charged for any subsequently replaced permits. Only two complimentary permits, including any replacements thereof, per assigned berth will be valid at any one time.

Such permits shall be valid only for vehicles capable of parking wholly within the confines of one parking stall as defined in C) 3) below. If the vehicle is not capable of parking wholly within the confines of one parking stall then, if the General Manager issues a permit in accordance with B) 1) c) below, the assigned berth

holder will pay the difference between the cost of a monthly parking permit and the cost of an oversized vehicle in accordance with the rate and fee schedule.

- b) All other vessels, crewmembers and those otherwise having business at the Harbor may purchase parking permits in accordance with the District Fee Schedule set forth in Section 20.100 as the same may be changed from time to time.
  - c) Permits may be issued for motor homes and oversized vehicles, only at the discretion of the General Manager.
  - d) Permits shall be issued to Harbor Commissioners and District employees.
  - e) Parking permits may be transferred between vehicles belonging to the same person.
  - f) Parking permits shall not be required in the parking lots adjacent to the District's offices from one-half hour before to one-half hour after the periods of scheduled meetings of the Board of Harbor Commissioners.
- 2) **Required display of stickers and permits.** Required parking authorizations must be visible at all times, with the expiration date, if any, clearly visible from the exterior of the vehicle, in compliance with the California Vehicle Code, and positioned so that the Vehicle Identification Number is not obstructed. Hanging permits shall be displayed on the driver's side dash or from the rear view mirror. Adhesive permits shall be displayed on the lower left driver's side of the windshield. All other permits shall be displayed on the driver's side dash.
- 3) **Revocation.** The District may, at its discretion, revoke any privileges authorized under this section.
- 4) **Violation.** Violation of this Section is an infraction
- C) **Use of District parking lots.**
- 1) **Overnight parking.** No person shall leave a motor vehicle or trailer on any District parking lot between the hours of 12:00 P.M. midnight and 3:00 A.M. without first securing permission from the District. Any person whose berthing fees are paid may have permission for overnight parking on a District lot with a valid permit, however, occupied vehicles shall be subject to additional fees.
  - 2) **No parking areas.** No person shall, at any time, park a motor vehicle or trailer on any District parking lot in an area designated "No Parking" except for emergency purposes.
  - 3) **Parking in stall required.** Unless authorized by the District, no person shall park a motor vehicle, trailer or oversized vehicle on any District parking lot or roadway except within a stall marked for parking. All motor vehicles, trailers or oversized vehicles must be parked wholly within the confines of one parking stall, allowing for the appropriate entry and exit of the subject vehicle as well as adjacent vehicles. Any oversized motor vehicles or trailers that cannot be parked entirely within one stall shall park, after first obtaining a permit in accordance with B) 1) c) above from the District and payment of appropriate fees, in the area, if any, designated by the District for parking oversized vehicles.

- D) **Operable, registered vehicles required.** All private vehicles parked in a parking lot owned, maintained, or leased by the District shall be operable and shall be currently registered with the Department of Motor Vehicles. Failure to maintain an operable, registered vehicle in a District parking lot shall cause the District to revoke the vehicle owner's Permit and the vehicle shall be removed at owner's expense.
- E) **Citation and/or removal for unauthorized parking.** Unauthorized parking in the Permit area, or extended parking in a limited duration parking area, can result in a citation or the removal of the vehicle at owner's expense. Vehicles parking with expired or revoked permits shall be considered unauthorized-parked vehicles.
- F) **Speed limit.** The speed limit for motor vehicles in District parking lots is 15 miles per hour.
- G) **Trailer parking.** No boat trailer or other trailer parking shall be allowed without a permit issued by the District.
- H) **Vehicle Code requirements.** All applicable provisions of the California Vehicle Code shall apply to vehicles operated on District property.

#### **10.200 - Vehicle Repairs**

No person other than a District employee working on a District-owned vehicle shall repair a vehicle in the Harbor area without the General Manager's express authorization.

**CHAPTER 12 - DISTRICT PROPERTY REGULATIONS**

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**12.010 - Purpose and Applicability**

The purpose of this chapter is to provide regulations for the use of District-owned properties by the public, vendors, concessionaires, renters or lessees. These regulations apply to the specific properties covered by this chapter in addition to all other applicable provisions of this Code.

**12.100 –District Property Generally**

- A) **Aircraft.** It shall be unlawful for any aircraft to land, taxi, park or take off on any District property, including beaches, roads, parking lots and other open areas, except for county, state or federal aircraft in the performance of official duty or in an emergency.
- B) **Public Intoxication .** It is unlawful for any person in an intoxicated condition to remain or be on any District property, regardless of whether such person is in or upon any vehicle or conveyance.
- C) **Fires and firearms:**
- 1) No person shall light, use or maintain a fire on any District property except in a fireplace or containment vessel. No person shall abandon any fire without first having completely extinguished it with water; no fire, coals or ashes shall be covered with sand. Open fires are not permitted on any vessel in Moss Landing Harbor.
  - 2) No person shall fire or discharge any rifle, pistol or other firearm on District property without first having obtained permission in writing from the General Manager or the sheriff.
- D) **Public peace.** Disturbance of the peace by any person on any District property shall be prohibited.
- E) **Play, games and sports.** No person shall engage in any activity on District property that is likely to cause injury. The only games permitted are those which are organized so as to not cause disruption of or infringement upon other District activities or District employees.
- F) **Wheeled conveyances on docks.** It is unlawful to use rollerskates, skateboards, bicycles, scooters or other similar conveyances on District docks, floats, ramps and gangways.
- G) **Personal Floatation Devices (PFD).** All persons should, and all children under 12 years of age shall wear a PFD when on District docks, floats, ramps and gangways.
- H) **Animals.** See Section 14.100, Animal Control.
- I) **Littering.** No person shall leave, deposit, drop or scatter broken glass, ashes, waste paper, cans, animal carcasses or any other rubbish, refuse or other discarded material in any location other than an approved District trash receptacle, and no person shall discard on District property or in District trash receptacles such materials that originate from places other than District property.
- J) **Launching.** Launching from Harbor District property is authorized at launch ramps and areas designated accordingly by posted signage. A launch permit is required to launch in any authorized location on District property.

- K) **Permit Required.** Using, accessing, trespassing and encroaching on the banks owned or controlled by the Harbor is strictly prohibited without a facilities use permit (see Chapter 26).

#### 12.200 - District Beaches

The requirements of this section apply to all public use of beaches owned or controlled by the District.

- A) **Alcoholic beverages.** The possession or consumption of any alcoholic beverage is prohibited on any District beach. It is unlawful for any person in an intoxicated condition to remain or be on any District beach, regardless of whether such person is in or upon any vehicle or conveyance.
- B) **Camping.** Beach camping or overnight sleeping is prohibited.
- C) **Closed areas.** No person shall enter any portion of beach posted by the District as being closed to public access.
- D) **Glass containers.** Glass containers are prohibited on all District beaches.
- E) **Restoration areas.** Interference with or damage to areas being revegetated or otherwise restored is prohibited.
- F) **Swimming areas.** Surfing, windsurfing, and the use of other watercraft is prohibited in waters adjacent to beaches designated and posted by the District for swimming only.

#### 12.300 - Dry Storage Area

- A) **Authorization for use required.** Use of the District dry storage area is allowed only with the permission of the General Manager, and only for the purpose of storing vessels and related personal property after assignment of an individual storage space and paying the fee required by Section 20.100. Applications for storage space shall be on the form provided by the District. Assigned berth permittees with vessels on extended trips may store their motor vehicles in the dry storage area for a period approved by the General Manager without a fee. No major repairs or work are allowed in the District dry storage area without permission of the General Manager.
- B) **Identification required.** All vehicles, vessels and equipment in the dry storage area shall have current registration. License numbers and Permits or other suitable identification shall be affixed and visible.
- C) **Movement of stored materials.** All vehicles, vessels and equipment placed in the dry storage area shall be moved by their owner as required by the General Manager.

#### 12.400 - Kirby Park

- A) General rules and regulations for park use. Within Kirby Park, no person shall:
- 1) Operate a vehicle of any type outside the designated driveway and parking area;
  - 2) Light, use, or maintain a fire, except in a fireplace or containment vessel;
  - 3) Camp or sleep overnight;
  - 4) Discharge a firearm;

- 5) Litter; or
  - 6) Violate any other law, ordinance, rule, or regulation of the District, County, or State.
- B) **Use of boat launch ramp.** All persons using the boat launch ramp shall obey all District, County, and State laws and regulations regarding boat safety and courtesy.

#### **12.500 – Elkhorn Slough**

All commercial vessels using Elkhorn Slough shall be clearly marked with letters and numbers at least four (4) inches high on each side of the vessel which identify the commercial entity owning or operating the vessel and the individual vessel within the fleet. The District shall be provided with a list of all such commercial vessels operating on Elkhorn Slough.

All persons operating commercial vessels on Elkhorn Slough shall have a permit issued by the District for such operation.

#### **12.600 – Recreational Vehicle Park**

- A) **Check Out Time.** The check out time shall be 12:00 noon. Any vehicle parked after that time shall be billed for an additional day.
- A) **Speed Limit.** The speed limit shall be 5 miles per hour at all times.
- B) **Quiet Hours.** Quiet must be maintained between the hours of 10:00 p.m. and 6:00 a.m. During these hours the playing of music, loud conversation, and other such noises are prohibited. Vehicles may not run generators during these hours.
- C) **Tent Campers.** Tent campers are welcome on a space-available basis.
- D) **Children.** Children must be supervised by parents at all times. Small children must be accompanied by an adult at all times in restrooms, laundry, tot-park, parking lots, docks, floats and wharves.
- E) **Clotheslines.** Clotheslines are prohibited.
- F) **Drain Hoses.** Drain hoses to the ground are prohibited. All sewage, grey water, and any other discharge from the recreational vehicle must be to the designated dump station.
- G) **Sites.** All sites must be kept clean and free of debris. No repairs, oil changes, or washing of vehicles is allowed in the Recreational Vehicle Lot.
- H) **Parking.** One vehicle is allowed at each site. All extra vehicles must be parked in the District's parking lot.
- I) **Pets.** Pets are welcome, however they must be on a leash not to exceed 6 feet at all times when outside the recreational vehicle. Please exercise all pets in the area provided. Clean up after your pet.
- J) **Trash.** All trash must be deposited in appropriate receptacles. Do not leave trash in the site areas.
- K) **Operating Hours.** The recreational vehicle park is operated 24 hours per day. It is the responsibility of the recreational vehicle owner to assure that all rules and regulations are complied with.

- L) Fees.** Fees are payable in advance. Failure to pay fees will result in penalties described elsewhere in this Ordinance Code.
- M) Length of Stay.** No recreational vehicle may occupy a site for more than 30 consecutive days. At the end of 30 days any person desiring to stay longer must remove the recreational vehicle, and all appurtenances and accessories thereto, from the recreational vehicle park for a period of at least 6 hours, after which such recreational vehicle may occupy another site, if available.
- N) Reservations.** Reservations may be accepted in conjunction with berthing inquiries. All reservations require prepayment for the length of stay desired.

#### **12.700 – Fisherman’s Memorial Park**

This section is reserved for future use.

**CHAPTER 14 - GENERAL HEALTH AND SAFETY REGULATIONS**

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**14.100 - Animal Control**

- A) **Leashes.** It shall be unlawful for pet owners to allow their pets to roam freely anywhere on District property. When not confined to a vessel, vehicle or building, the animal must be on a leash no more than six feet long.
- B) **Strays.** Any animal found running loose may be taken up by authorized District personnel and delivered to the Monterey County Department of Animal Regulation, provided that District personnel will attempt to locate the owners of licensed animals before impounding.
- C) **Cleanup.** No person shall allow their animal to defecate on any District property without the person properly depositing the waste in a receptacle designated for trash disposal.
- D) **Noise.** It shall be unlawful for pets to cause excessive noise or disturb the peace. Pets are not to be allowed or placed on private property within the Harbor without the express permission of the property owner.
- E) **Licensing.** All persons owning, caring for, or controlling any pet shall comply with all applicable rules, regulations, laws or statutes requiring licensing, tagging, and vaccinating of pets.

**14.110 - Explosives, Acids, Flammable Liquids**

- A) **General requirement.** Except as expressly authorized by the General Manager, explosives, acids, and containers that have been used for the storage or transportation of diesel, oil, gasoline, distillate, kerosene, or other flammable products or toxic chemicals, shall not be permitted to remain overnight in the Harbor.
- B) **Explosives.** It shall be unlawful for any person to store, place, or handle within the Harbor Class "A", "B" and certain Class "C" explosives as defined in Title 49, U.S. Code of Federal Regulations. Small arms ammunition is permitted, provided it does not violate any Federal, State or local laws or ordinances that may apply, and provided it is not loaded in a weapon. State-approved seal bombs, or equal, may be stored and handled but not detonated in the Harbor. Coast Guard approved flares may be stored and handled but not fired (except in emergencies) in the Harbor.
- C) **Flammable liquids.** No person shall handle or store more than one gallon of any Class I flammable liquid, (excluding Coast Guard-approved liquids in Coast Guard approved fuel tanks, and No. 2 diesel oil in approved type drums or tanks) on the docks or waters of the Harbor, or on vessels docked or berthed at the Harbor.

**14.120 - Fire-Fighting Apparatus**

It shall be unlawful for any person to obstruct or interfere with the free and easy use of fire lanes or access thereto, or to use, remove or in any manner disturb, any fire extinguisher, fire hose, fire hydrant, or any part of any fire sprinkler system or any other fire fighting appliances or apparatus installed in or upon any dock, warehouse or other building, structure or premises under the jurisdiction of the District except for the prevention of or suppression of fire; provided, however, that nothing herein contained shall prevent the making of necessary repairs or tests by any person duly authorized to do so.

**14.130 - Fishing from Docks and Bridges**

Fishing from docks, bridges, wharves, piers and promenades of the Harbor is prohibited, except in specific areas posted by the District to permit fishing.

**14.140 - Flames, Fire, and Welding**

- A) Fire shall not be used on board any vessel to heat pitch, tar or other flammable substances, while such vessel is in any slip, basin, channel, or canal, or moored to any dock or other vessel; however, fire may be used for such purposes on boats or floating stages provided that sufficient emergency fire fighting equipment and fire watchmen, to the satisfaction of the General Manager, are present at all times.
- B) No bonfire or open fire for the burning of rubbish or refuse materials, or for any other purpose, shall be allowed on any of the property under the jurisdiction of the District, except as otherwise provided by this section.
- C) No welding or open fire shall be allowed on any dock, or upon any vessel in any slip, channel, basin, or canal, until and unless the General Manager determines that sufficient emergency fire fighting equipment, properly manned, is present and ready for immediate use.
- D) When a vessel is taking on or discharging fuel, petroleum products through a pipeline, or otherwise transferring fuel or petroleum products, all fires including fires in boilers, shall be extinguished, and no gas or electric welding shall be performed on or within 20 feet of the vessel. At least one Coast Guard approved fire extinguisher shall be present and ready for use at all times when fueling or transferring fuel or petroleum products.

**14.150 - Refuse Disposal**

The following provisions address refuse disposal within the Harbor.

- A) It shall be unlawful to discharge or deposit or cause the discharge or deposit, either from any vessel, or from the shore, dock, or other facility, any meat, fruit, vegetable, dead animal or putrefying matter, garbage, tires, paper, litter, waste, or any rubbish or refuse of any kind, in or upon the waters of the District, or on the land adjacent to any navigable water, either by ordinary or high tides, or by storms or floods or otherwise.
- B) All refuse shall be disposed of only in approved refuse containers that are regularly serviced and removed from the Harbor and dumped in approved disposal areas. The General Manager is authorized to order any person violating this section to immediately clean up and remove such refuse.
- C) In the event of failure by any such person to immediately remove refuse, the General Manager shall remove the refuse at the expense of such person. Failure to remove and properly dispose of refuse and/or failure to pay for the expense of removal and disposal shall be grounds for revocation of permits. All such charges for removal and disposal shall remain due until paid, notwithstanding revocation of permits.
- D) It shall be unlawful for any person to enter into any trash or rubbish receptacle, or recycling container for purpose of scavenging, collecting, reclaiming or recovering materials deposited in such receptacle or container by others. The practice of "dumpster diving" is not allowed on District property.

**14.160 - Refueling Limited**

No vessel shall be refueled at any Harbor berthing dock, and no fuel pipeline or hoseline shall be maintained or used on the property of the District. This section shall not prohibit the use of Coast Guard-approved closed systems and automatic coupler devices for portable fuel tanks, and shall not prohibit shifting fuel between tanks on the same vessel by a closed system. Fueling of vessels at any location other than the fueling dock shall require a permit issued by the District.

**14.170 - Smoking**

It shall be unlawful for any person to smoke, or to light, use, or carry any match, open flame or lighted lantern, upon any dock in the District where a "No Smoking" notice is displayed.

**14.180 - Transfer of Hazardous Substances**

No person without a permit shall cause the open transfer of any gasoline, fuel, or other toxic substance from one container or vessel to another, including but not limited to fuel tank of a vessel, within the Harbor other than at an authorized dock for the transfer of such substance. See also Harbors and Navigation Code Sections 135 and 293.

**14.190 – Safety Equipment**

It shall be unlawful for any person to tamper with, alter, modify or otherwise disturb any piece of safety equipment or safety system installed by the District or upon District property. This section does not apply to authorized persons engaged in repairs or installation of said equipment. Violation of this section is a misdemeanor.

**14.200 – Backflow Devices**

It shall be unlawful to connect to any hose connection on any dock unless such connection is fitted with a back flow device.

**18.010 - Purpose**

This chapter provides regulations to implement the policies of the Moss Landing Harbor District Master Plan addressing the protection of the natural resources under the stewardship of the District. Specific regulations will be incorporated into this chapter through amendment of this Code as applicable provisions of the District Master Plan are completed and adopted.

**18.100 - Motorized Vessels in Elkhorn Slough**

Motorized vessels operating within Elkhorn Slough shall be limited to a speed of four knots, or otherwise produces no wake. Vessels in Elkhorn Slough shall not approach seal haulout areas or otters and shall avoid harassment of birds in wetland areas. Damage to vegetation or soil while accessing and departing the waterway is prohibited.

**18.200 - Surface Runoff Regulations**

- A) **Purpose.** The purpose of this section is to provide regulations to protect the water quality of the Harbor and waterways under the jurisdiction of the District by implementing the provisions of the *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters* and other applicable regulations published by the U.S. Environmental Protection Agency, to the extent that such implementation is within the authority and responsibility of the District rather than the State of California.
- B) **Boat cleaning and maintenance.** In order to minimize the introduction of pollutants into the Harbor from boat cleaning and maintenance activities, the following cleaning and maintenance practices are required for all boats moored in the Harbor, to ensure the proper disposal of solid and liquid wastes.
  - 1) **Hull cleaning and maintenance.** Hull cleaning and maintenance shall be performed to avoid the release to surface waters of harmful cleaners and solvents, and paint from in-water hull cleaning. Detergents and cleaning compounds used for washing boats should be phosphate-free and biodegradable, and amounts used should be minimized. The use of detergents containing ammonia, sodium hypochlorite, chlorinated solvents, petroleum distillates or lye should be avoided.
  - 2) **Hull painting.** The application of any paint containing any form of tributyl tin (TBT) to any vessel in the Harbor is prohibited.

**CHAPTER 20 - FEES AND CHARGES**

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**20.010 - General Rules for Fees and Charges**

- A) **Fees and charges, when due.** All fees and charges established by Section 20.100 or other District ordinance are payable in advance of the service rendered, and shall be paid whether or not a statement is provided by the District. Berthing permit fees are due on the first day of the first month of any renewal period when paid annually. Utility Surcharge fees contained in Table 20.100(A)(5) shall be billed and payable with the berth rental fees for the month following the month in which the Utility Surcharge was incurred, with the exception of the Utility Surcharge fee for vessels that have persons living aboard, in which case the Utility Surcharge fee shall be billed and payable in advance with the berthing rental fees.
- B) **Personal checks.** The District may accept personal checks drawn in its favor for any license, permit, fee, charge or fine, or in payment of any obligation owing to it, or any trust deposit, if the person issuing the check furnishes to the authorized representative of the District satisfactory proof of identification by drivers license, or if the person issuing the check has his/her driver's license number on file with the District.
- 1) If any personal check is returned to the District without payment, for any reason, the District may impose a return check charge and may thereafter prescribe a different method of payment for that payment and future payments made by such person.
  - 2) The acceptance of a personal check constitutes payment of the obligation owed to the District to the extent of the amount of the check as of the date of acceptance when, but not before, the check is duly paid.
  - 3) The dishonor of any check received shall be grounds for the District to terminate the provisions of any service or facility to the person whose check is returned.
- C) **Late payment:**
- 1) **Interest.** Any amount remaining due and unpaid to the District 30 days after the payment was due shall accrue interest from the due date to the date of payment at the rate of 1 percent per month.
  - 2) **Late fee.** In addition to the interest accrued on late payment, any person who fails to pay an amount due to the District within 10 days of its due date will be subject to a late fee handling charge to cover the costs incurred for additional staff time, accounting work, and other expenses reasonably incurred in collection of overdue accounts, as provided by Section 20.100.
  - 3) **Collections.** The District may refer any overdue account to a collection agency, at the discretion of the General Manager, or may pursue collection by civil suit, which shall include the amount due, together with a penalty of 10 percent and an amount equal to court costs, and reasonable attorney's fees incurred in the suit.

- 4) **Guarantees from persons owning past due charges.**
- a) Prior to granting a permit or performing a service for a person owning past due charges to the District, the General Manager or Board may require from such person deposits or prepayment of charges in amounts greater than those set by Section 20.100, up to and including the amount reasonably necessary to protect the District against future financial loss occasioned by the applicant. In processing permit applications by persons owning past due charges to the District, the District shall be guided by the confidentiality provisions of applicable law.
  - b) Persons owing money to the District shall not be entitled to continuing use of the facilities or services of the District except on a “cash” basis, payment of which shall include an amount agreed to by the General Manager that shall be applied to satisfaction of the prior debt. Persons having a judgment against them in favor of the Moss Landing Harbor District issued by a court of competent authority shall not be entitled to use of the facilities or services of the District until such time as said judgment is satisfied. This section shall not apply to the use of facilities or services of the District that are available to members of the general public such as meeting attendance, public parking, shoreline access, etc., but does include each and every use of the facilities or services that requires a permit from the District.
- 5) **Installment Payments.** The District may, at the discretion of the General Manager, enter into an installment agreement for overdue charges due the District. Such agreement shall be negotiated between the General Manager and the responsible party for the overdue charges, and shall contain at a minimum, the following provisions:
- a) The annual rate of interest shall be at the prime lending rate, plus 2 percent.
  - b) The amount owing under the installment agreement shall be secured by a maritime lien on the vessel.
  - c) The responsible party shall agree to be personally responsible for the amount owed or accruing under the installment agreement.
  - d) The responsible party shall agree to pay all attorneys fees which may be incurred should responsible party fail to comply with the terms and conditions of the installment agreement.
  - e) The responsible party shall agree to maintain the underlying account current. The installment agreement shall become due and payable on demand immediately if the underlying account goes into arrears.
- D) **Sale for charges due the District.** See Harbors and Navigation Code Sections 500 through 505 and 522.
- E) **Penalty for Failure to Pay Dockage.** Any vessel which leaves any wharf, thoroughfare, slip, dock, or basin, unless forced to do so by stress of weather or by order of the Harbormaster, without first paying the dockage due is liable to pay double the regular rates plus the sum of Twenty Five Dollars.

**20.100 - District Fee Schedule**

**Fee Schedule.** The Board of Commissioners of the Moss Landing Harbor District hereby establishes the fees and charges for services provided by the District as set forth in Table 20.100 attached to this Chapter.

**20.210 - Service Fee to Retrieve or Copy Public Records**

A request to the District for copies of public records must be accompanied by payment of the fee established under Section 20.100.

**20.240 - Service fee for CEQA Compliance**

A) **CEQA compliance costs.** A permit application subject to review under the California Environmental Quality Act (CEQA) shall be accompanied by the CEQA review deposit established under Section 20.100, or such greater amount of deposit which the Environmental Coordinator estimates as the cost of environmental review. Should the deposit be expended conducting environmental review, the applicant shall be liable to the District for additional fees and costs in the amount actually incurred by the District for the consultant and studies, and for the costs to publish and distribute public notices related to the application. Failure to pay environmental review costs within 30 days after receiving the bill shall constitute an unreasonable delay by the applicant in the environmental review process and shall result in cessation by the District of the environmental review process until billing is made current.

B) **Exceptions.** Applications for District permits to carry out activities listed in Section 22.040.A.2 are not subject to this Section.

**Table 20.100 - District Fee Schedule  
Revised July 1, 2019**

The fees and charges for services established by the Board under Section 20.100 of the Moss Landing Harbor District Ordinance Code for (A) berth rental fees, (B) District permits, and (C) services and equipment, are set forth below:

**A) Berth rental fees.** Berth rental fees for assigned, temporary, and transient berths, and for mooring in designated locations, are in the amounts set forth. Exceptions to assigned berth fees may be granted by the Board when the Board determines that conditions may warrant the suspension of the assigned berth charge or assessing a different charge against the government of the United States, or of any other nation, or otherwise is in the interest of public welfare.

1) **Assigned Berth Permit Fees** - Calculated on a monthly basis of \$ 8.15/foot. All vessels holding an assigned berth permit will be billed on the basis of vessel length over-all, or berth length, whichever is the greater for the berth to which the vessel is assigned. This is irrespective of the actual berth held by the vessel. Persons having an Assigned Berth shall be entitled to the following discounts:

a) **Annual Payment Discount** - A discount of 3% off the regular fee for payment of one year in advance. All such annual fees are due on October 1<sup>st</sup> of each year.

Should an assigned berth permit be issued subsequent to October 1<sup>st</sup> of any year, and the permittee wishes to pay the slip fee annually, a discount of 3% off the regular fee will be applied for the remaining months thru the following September 30<sup>th</sup>.

Existing annual assigned berth permittees will be entitled to a 3% discount until all annual accounts expire on September 30<sup>th</sup>, 2008.

In the event the berthing permit is terminated prematurely the berthing fee shall be recalculated without the advance payment discount prior to issuing of any refund. This discount may not be taken in addition to the Quarterly Payment Discount.

b) **Quarterly Payment Discount** - A discount of 3% off the regular fee for payment of 3 months in advance. In the event the berthing permit is terminated prematurely the berthing fee shall be recalculated without advance payment discount prior to issuing of any refund. This discount may not be taken in addition to the Annual Payment Discount.

c) **Commercial Vessel Discount** - A discount of \$.50/foot for commercial vessels defined as follows provided the owner's account is paid current:

(i) **Commercial Fishing Vessel** - A vessel currently licensed by the California Department of Fish and Game for commercial fishing, and currently documented by the United States Coast Guard as a fishing vessel or licensed by a state, and having landing receipts dated not more than one year prior to the date of application for commercial discount. Application for commercial discount shall be made under penalty of perjury on forms provided by the District.

- (ii) The \$5,000 landing receipt requirement is suspended during any closure of any given fishery for which the assigned slipholder has a valid permit and on which the slipholder has relied in the past to meet the provisions of this section. The suspension is valid until the fishery reopens, the slipholder allows the fishing permit to lapse, or for a period of two years, whichever first occurs. Nothing contained herein shall prohibit the District from discontinuing or reducing the discount at any time.
  - (iii) Notwithstanding the foregoing, unless the vessel provides \$5,000 worth of landing receipts, no persons will be allowed to stay on board the vessel without a liveaboard permit applied for and issued in accordance with §6.110.
  - (iv) Commercial Passenger Vessel - A vessel currently documented by the United States Coast Guard for the carriage of passengers or licensed by a state, and having proof of commercial service in the form of receipts or IRS Form 1040, Schedule C or other such proof acceptable to the Harbormaster, and whose owner holds a current Facilities Use Permit issued by the Moss Landing Harbor District permitting the commercial use of the vessel in or from Moss Landing Harbor. Application for commercial discount shall be made under penalty of perjury on forms provided by the District.
  - (v) Other Commercial Vessel - A vessel currently documented by the United States Coast Guard or licensed by a state, and having proof of commercial status acceptable to the Harbormaster, and whose owner holds a current Facilities Use Permit issued by the Moss Landing Harbor District permitting the commercial use of the vessel in or from Moss Landing Harbor. Application for commercial discount shall be made under penalty of perjury on forms provided by the District.
- d) Offloading Commercial Vessel Discount – a discounted berth fee of 50¢/foot per day will be charged to commercial vessels that are not subject to an existing berthing agreement with Moss Landing Harbor that offload fish in an established commercial fish offloading facility in the Harbor, subject to providing a landing receipt for such service to the Harbor upon check-in. Such discounted fee shall be in effect for a maximum of 48 hours. Thereafter, the vessel shall be subject to standard berthing fees established by the District's fee schedule.
  - e) Traveling Vessel Discount - A discount of \$1.00/foot for each full calendar month that the vessel is away from Moss Landing Harbor. This discount may only be taken if the owner or operator of the vessel notifies the harbor office on or before the 1<sup>st</sup> day of the month that the vessel will be absent for the month following. Except as otherwise provided for in this section the definition of "Commercial Vessel" contained in Section 2.200 remains in effect.
- 2) Temporary Berth Permit Fees - Calculated on a monthly basis of \$ 12.15/foot. All vessels holding a temporary berth permit will be billed on the basis of the berth size appropriate to the length of their vessel over-all. Fees apply whether vessel is side-tied, end-tied, in a berth or rafted. Fees apply whether or not vessel has access to utilities. Persons having a temporary berth shall be entitled to the following discount:

- a) **Quarterly Payment Discount** - A discount of 3% off the regular fee for payment of 3 months in advance. In the event the berthing permit is terminated prematurely the berthing fee shall be recalculated without advance payment discount prior to issuing of any refund.
  - 3) **Transient Berth Permit Fees** - Calculated on a daily basis of \$1.25/foot. All vessels holding a transient berth permit will be billed on the basis of boat length over-all. Fees apply whether vessel is side-tied, end-tied, in a berth or rafted. Fees apply whether or not vessel has access to utilities. The minimum daily fee shall be \$10.00. No discounts.
  - 4) **Multi-Hull Permit Fees** – Unless occupying only a single berth, catamaran type vessels shall pay 150% of the applicable berthing fees for a vessel of its length, or length of its berth, as applicable and trimaran type vessels shall pay 200% of the applicable berthing fee for a vessel of its length, or length of its berth, as applicable.
  - 5) In addition to berth rental fees specified above all Assigned Berth Permittees vessels utilizing District owned or operated facilities shall be charged an AMENITY FEE in the amount of \$53.00 per month. The AMENITY FEE shall be billed on a monthly basis only without adjustment. Failure to pay in accordance with your berthing agreement will result in disconnection of power to your vessel.
  - 6) **Liveaboard Fee:** Liveaboards, as defined by §6.110 shall pay a fee of \$155.00 per person per month.
  - 7) **Pet Fee:** Any berther or regular visitor of the Harbor District or regular visitor of a berther who brings a pet onto District property shall pay a monthly fee of \$5.00 per pet.
- B) **District permits.** Permit application fees and permit fees are in the amounts set forth below. Applications for construction permits, rental business permits, short-term facilities use permit, and special activities use permits shall be accompanied by the CEQA review deposit described in paragraph C of this Table 20.100.

Permit	Application Fee	Permit Fee
Construction Permit	Actual cost to District. Payable per application form. CEQA review fee is also required.	None. Lease or License may be required as condition of permit.
Access/Use Permit Trailered Vessels, Includes 12 hours Parking		Daily Permit - \$18.00 per In and Out. Annual Permit - \$170.00 per calendar year. Vessels – Launch Only; \$12.00
Access/Use Permit PWC and Kayaks only; Includes 12 hours Parking		\$12.00 per day (Vehicle + a PWC/Kayak) \$150.00 per calendar year. Additional PWC/ Kayak –Launch Access Only; \$7.00 Annual Launch Access Only - \$72.00

Parking Permit Assigned vessel receives one "free" Assigned Parking Permit unless owner has Handicap Placard or sticker which is automatically free.	None	Temporary and Transient Vessels and other persons having business in the Harbor or parking for any additional liveaboard - \$100.00 per month. Daily Parking \$8.00; \$15.00/24 hrs. Boat Trailer Parking overnight in certain areas as designated by General Manager - \$10.00
Living Aboard Permit Required By All Assigned Vessels With One or More Persons Living Aboard Except Commercial Fishing Vessels, Transient Vessels	\$250.00 – One time application processing fee	\$155.00 per person per month.
Recreational Vehicle Park (Only available through District if commercial RV Park is full)	None.	Self-contained vehicles only on unimproved site. \$50.00 per night. Failure to pay will result in removal of vehicle at owner's expense.
Amenity Fee		\$53.00 per month
Facilities Use Permit, including Peddlers with Principal Place of Business offsite	\$250.00 application fee \$50 annual application renewal Fee if no changes plus appropriate CEQA review fee if use is not exempt from CEQA.	\$250.00 per year issuance fee. Lease or license may be required as a condition of permit.
Special Activities Use Permit	\$250.00 application fee plus appropriate CEQA review fee if use is not exempt from CEQA.	\$250.00 issuance fee
Passenger Vessel Fee See Vessel Definition in Chapter 2 of Ordinance Code	Applies to Permittees operating Passenger Vessels.	\$100.00 annually per passenger capacity. Applicable for duration of Permit. Can be paid monthly.
Pet Permit		\$5.00 per month per pet.

- C) **District services and equipment.** Persons utilizing the below-described District services and equipment shall pay the fee shown below. Persons utilizing other District services required by this Code shall pay the amount of expenses actually incurred by the District to provide the service. Examples include but are not limited to the expense under Section 6.120.B.2 of a surveyor to determine a vessel unseaworthy, the District's costs and expenses under Section 14.150.C for refuse removal. Use of District equipment shall be in the discretion of the General Manager and persons utilizing such equipment will be required to execute a written waiver of liability in advance of such use.

Service/Equipment	Fee
Pass-through credit card transaction fee	\$7.00 per transaction added to all payments made to District using Master Charge or Visa.
Appeal to the Board (Sec. 24.100)	\$25.00 filing fee
Berth Exchange Between Two Assigned Berth Holders (Sections 6.024 and 6.026)	\$25.00 processing fee for berth exchange between two assigned berth holders to be split between applicants.
Berth Rental Security Deposit (assigned berth) (Section 6.022.B.1.a.)	\$500.00
<p>Assigned Slip and Liveboard Waiting List per §6.050.C.1 and (E)</p> <p>The \$75 assigned slip wait list application fee shall be waived in the event slips in the size category required are available immediately. Notwithstanding the foregoing fee waiver, the applicant will be required to complete the wait list application for administrative and documentary tracking purposes.</p>	<p>\$75.00 waiting list fee payable annually in January. An assigned vessel that intends to be away for one year or greater may give up its berth and be assigned to the highest position on the waiting list by payment of an annual fee equal to one month's berthing fee in advance and without discount. In the case of multiple vessels utilizing this provision Section 6.050(B) shall apply.</p>
CEQA Review - Sections 20.240 and 22.220	<p>\$75.00 deposit for project application subject to review by General Manager. \$500 deposit for project application subject to review by Board. Additional fees in amount actually incurred by the District for consultant, studies, public notices, etc. (See Section 20.240.)</p>
Copies of Code Amendments – §1.200(B)(9) & and Copies of Public Records – §20.210	\$1.00 for first page, \$0.15 for each additional page. Fees waived for official distribution copies per Ordinance Code.
Dry Storage Space Rental – Section 12.300	<p>Palletized or Unitized storage of materials or gear. Loose gear or materials must be secured on pallets and stacked not more than 8 feet high. Vehicles including boats on trailers; current registration required. Inoperable vehicle registration or immobile vehicles not allowed.</p> <p>10' X 20' = \$90.00  10' X 30' = \$100.00  10' X 40' = \$110.00</p>
Dry Storage Space – North Harbor	<p>Boats on trailers only; current registration required</p> <p>10' X 20' = \$140.00  10' X 30' = \$160.00  10' X 40' = \$180.00</p>
Small Barge	\$115.00 per hour or fraction thereof for equipment and 1 employee, 1 hour minimum.
Skiff	\$150.00 per hour or fraction thereof for equipment and 1 employee, 1 hour minimum.

Service/Equipment	Fee
Forklift	\$75.00 per hour or fraction thereof including 1 employee, 1 hour minimum.
Truck	\$200.00 per hour or fraction thereof for equipment and 2 employees, 1 hour minimum.
Floating Barge/Crane (Requires skiff at separate skiff fee)	\$200.00 per hour or fraction thereof for equipment and 2 employees (skiff separate), 1 hour minimum.
Miscellaneous Equipment	As determined by the General Manager.
Pumpout	\$200.00 per hour or fraction thereof for 1 pump and 1 employee; \$100.00 per hour or fraction thereof for each additional pump with employee, 1 hour minimum.
Refloating of Sunken Vessel	The greater of \$800 or actual costs.
Towing Outside the Harbor (for non-emergency in Elkhorn Slough)	\$250.00 per hour or fraction thereof for one boat and two employees. Time begins when boat leaves berth. Time ends when boat returns to berth. 2 hour minimum.
Towing Within the Harbor	\$150.00 one way - includes 1 boat and two employees. \$100.00 per hour for each additional boat with employee, 1 hour minimum.
District Vehicle	\$75.00 per hour or fraction thereof for vehicle and 1 employee, 1 hour minimum.
District Personnel	\$70.00 per hour or fraction thereof per employee during normal business hours; \$100.00 per overtime hour or fraction thereof per employee, 1 hour minimum.
Phone Installation	\$90.00 flat fee (installation only, any repairs refer to above to District personnel for hourly rate)
Inoperable Vessel Mooring Surcharge - Sec. 6.120.C	\$175.00 per month until the vessel is made operable, or is removed from the Harbor, pro-rated for periods less than 1 month. Surcharge begins at the expiration of the 30-day period.
Key Issuance	Metal keys - \$25.00 per key deposit. Deposit will be forfeited if key not returned within 60 days of departure. Magnetic keys - \$10 per key purchase price. District may repurchase in its discretion in an amount based on condition. Magnetic key fobs - \$12 per fob purchase price. District may repurchase in its discretion in an amount based on condition.
Returned Check, Non-Sufficient Funds	\$25.00 per check.

Service/Equipment	Fee
Late Payment Handling Charge - Section 20.010(C)(2)	\$30.00 per occurrence on balances of \$90.00 or more.
Mailed Notices - Chapter 24.200 A) 2) a) (ii)	\$5.00 per individual notice; Fees waived for official distribution required by Brown Act, or to other agencies, or committee members.

**CHAPTER 22 - ENVIRONMENTAL REVIEW PROCEDURES**

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**22.010 - Purpose and Applicability**

This chapter identifies the roles and responsibilities of the District in implementing the California Environmental Quality Act (CEQA), California Public Resources Code Sections 21000 et seq., and the State CEQA Guidelines. The District is responsible under CEQA for acting as lead agency with respect to: all District projects within Monterey County jurisdiction; and all private and District projects within its granted State-owned tidelands. The District is also responsible under CEQA for acting as a responsible agency for projects undertaken by another agency but requiring District action. The intent of these regulations and procedures is to establish a systematic review process, equitable fees, and suitable definitions and criteria for District use. In the event that the provisions of this chapter are inconsistent with those of CEQA, the provisions of CEQA shall control.

**22.020 - CEQA Guidelines Incorporated by Reference**

The CEQA Guidelines (California Code of Regulations, Title 14, Sections 15000 et. seq.), including definitions and appendices, as adopted and amended, are hereby incorporated by reference as though fully set forth here. The criteria, purpose, and objectives of the CEQA Guidelines shall apply to activities undertaken by the District that are subject to CEQA, with respect to the review of projects and preparation of environmental documents (exemptions, initial studies, negative declarations, and draft and final environmental impact reports (EIR's)).

**22.030 - Determination of CEQA Applicability**

Whenever the District proposes to carry out or approve an activity that may constitute a project as defined by the CEQA or the Guidelines, the Environmental Coordinator shall review the activity to determine whether:

- A) It is not a project as defined by Section 21056 of the Act or Section 15378 of the Guidelines; or
- B) It is a project, but is exempt from CEQA because it is either:
  - 1) Statutorily exempt pursuant to CEQA Section 21080(b) and Article 18 of the Guidelines; or
  - 2) Categorically exempt pursuant to Section 21084 of CEQA and Article 19 of the Guidelines; or
- C) It is a project that is not exempt, but the environmental coordinator can determine with certainty that there is no possibility that the activity in question may have a significant effect on the environment; or
- D) It is a project that requires an Initial Study and/or an EIR in compliance with this chapter. When it can be seen clearly that an EIR will be required for the project, the Environmental Coordinator may proceed according to Section 22.200 without further review.

**22.040 - Exemptions from CEQA**

This section identifies the types of projects undertaken by the District that normally are exempt from CEQA, and the nature of their exemptions. Activities of the District not listed in this section shall be subject to an environmental determination, unless the Environmental

Coordinator determines that an activity not listed here is substantially similar to an activity that is categorically exempt under the CEQA Guidelines.

A) **Statutory exemptions.** The following activities of the District are deemed to be statutorily exempt from the provisions of CEQA, pursuant to CEQA Section 21080(b) and Article 18 of the Guidelines:

- 1) **Emergency projects:** Emergency projects as defined by Guidelines Section 15269:
  - a) Projects to maintain, repair, restore, demolish, or replace property or facilities damaged or destroyed as a result of a disaster, where the Governor has proclaimed a state of emergency; or
  - b) Emergency repairs to public service facilities necessary to maintain service; or
  - c) Specific actions determined by the General Manager to be necessary to prevent or mitigate an emergency.
- 2) **Ministerial acts.** The following approvals and entitlements granted by the District are considered ministerial actions pursuant to CEQA Section 21080(b)(1) and Guidelines Section 15268:
  - a) Berthing Permits.
  - b) Dry Storage Permits for boats, gear, and construction equipment.
  - c) General work orders.
  - d) Launch Ramp Permits.
  - e) Recreational Vehicle Permits.
  - f) Parking Permits.
  - g) Live-Aboard and Living Aboard Permits.
- 3) **Projects that are disapproved.** Projects that are denied, disapproved, or otherwise rejected by the Harbor District.
- 4) **Setting of fees.** District ordinances or resolutions setting fees for District services are statutorily exempt if the fees and the action adopting them satisfy the provisions of CEQA Section 21080(b)(8) (Rates, Tolls, Fares).
- 5) **Feasibility and planning studies.** A project involving feasibility or planning studies for possible future actions which the District has not approved, adopted, or funded as defined by Guidelines Section 15262. Consideration shall be given to environmental factors, but the preparation of an EIR or Negative Declaration is not required. This exemption is inapplicable to the adoption of a plan that will have a legally binding effect on later activities.

B) **Categorical exemptions.** The following activities of the District (including the approval of permits allowing such activities by private parties) are deemed to be categorically exempt from the provisions of CEQA, pursuant to CEQA Section 21080(b)(10) and Article 19 of the Guidelines:

- 1) **Existing facilities.** As provided by Guidelines Section 15301 for Class 1 exemptions, the operation, repair, maintenance, or minor alteration of or additions to existing

structures, facilities, mechanical equipment, topographical features, or landscaping, involving negligible or no expansion of use beyond that previously existing.

- 2) **Replacement or reconstruction.** As provided by Guidelines Section 15302 for Class 2 exemptions, the replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced.
  - 3) **New construction.** As provided by Guidelines Section 15303 for Class 3 exemptions, construction or location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure; the limited extension of utility services to serve such construction; and related accessory structures. For the purposes of this exemption, small structures mean those designed for an occupant load of 10 persons or less.
  - 4) **Minor alterations to land and temporary uses.** As provided by Guidelines Section 15304 for Class 4 exemptions, minor alterations in the condition of land, water, and/or vegetation that do not involve the removal of mature, scenic trees. Examples include but are not limited to new landscaping, minor temporary uses of land having negligible or no permanent effects on the environment, minor trenching and backfilling where the surface is restored, and maintenance dredging where the spoil is deposited in a spoil area authorized by all applicable state and federal regulatory agencies.
  - 5) **Land use limitations, protective actions.** As provided by Guidelines Sections 15305, 15307 and 15308 for Class 5, 7 and 8 exemptions, minor alterations in land use limitations in areas with average slopes less than 20 percent which do not result in any changes in land use or density, and other actions taken by the District to assure the maintenance, restoration, or enhancement of a natural resource or the environment where the regulatory process involves procedures for protection of the environment.
  - 6) **Minor accessory structures.** As provided by Guidelines Section 15311 for Class 11 exemptions, construction or placement of minor structures accessory to existing facilities, including but not limited to on-premise signs, small parking lots, and the placement of seasonal or temporary use items such as lifeguard towers, mobile food units, portable restrooms or similar items in generally the same locations from time to time.
  - 7) **Normal operations of facilities for public gatherings.** As provided by Guidelines Section 15323 for Class 23 exemptions, projects involving the normal operations of existing facilities for public gatherings for which the facilities were designed where there is a history of the same or similar kind of activity occurring for at least three years without the activities causing a foreseeable change in the operation of the facility. Examples are fishing derbies, organized boating races, and mass parking for short-term facilities use activities described in Section 26.200.A.
  - 8) **Other exempt activities.** Categorically exempt activities of the District also include any other activities listed as exempt by Article 19 of the Guidelines.
- C) **Exceptions.** Notwithstanding a designation of exempt, activities where there is a reasonable possibility of significant effect on the environment due to unusual

circumstances, or where the activity presents a potential interference with the promotion and accommodation of commerce and navigation within the Harbor, shall not be exempt.

- D) **Notice of Exemption.** When the Environmental Coordinator determines that an activity is exempt from CEQA, and after the project is approved or the District determines to carry it out, the Environmental Coordinator may file a Notice of Exemption with the County Clerk and may post the Notice of Exemption at the District offices for public review. The posting of the Notice of Exemption commences a 35-day statute of limitations period on legal challenges to the District's decision that the project is exempt from CEQA.

#### **22.100 - Initial Studies and Negative Declarations**

- A) **Purpose.** This section provides procedures for Initial Studies, and issuing negative declarations. An initial study is intended to determine whether a project that is not exempt from CEQA as set forth in Section 22.040 may have a significant effect on the environment and, thus, whether an EIR or a negative declaration must be prepared.
- B) **District projects.** When a non-exempt project is to be carried out by the District, the General Manager shall designate a staff member other than the Environmental Coordinator to complete the Environmental Information Form for the project. The Environmental Coordinator shall prepare such information as may be needed to constitute an initial study pursuant to State CEQA Guidelines Section 15063.
- C) **Private projects - Waiver of initial study.** An applicant may waive the initial study process where it is agreed that the project may have a potential significant effect on the environment. A written waiver shall be submitted using the form provided by the General Manager, which constitutes the applicant's agreement to proceed with preparation of an EIR without an initial study or environmental determination.
- D) **Conduct of initial study, time limits.** An initial study shall be conducted as set forth in Guidelines Section 15063, and as provided by this section. The District shall determine whether to prepare a negative declaration or an environmental impact report within 30 days of acceptance of an application as complete. A negative declaration must be approved within 105 days after acceptance of an application as complete, provided that such time limit may be extended an additional 90 days with the mutual consent of the General Manager and the applicant where compelling circumstances justify additional time.
- E) **Public review of proposed negative declaration.** When the Environmental Coordinator prepares a proposed negative declaration pursuant to Guidelines Sections 15070 and 15071 after conducting an initial study, the Environmental Coordinator shall provide public notice of the intention of the District to adopt a negative declaration as follows:
- 1) A copy of the proposed negative declaration shall be sent to the applicant, to every responsible agency and trustee agency concerned with the project, and every other public agency with jurisdiction by law over resources affected by the project; and
  - 2) Notice shall be given to all persons who have previously requested such notice; and
  - 3) Notice shall be either published at least one time by the District in a newspaper of general circulation in the area affected by the proposed project (such notice may be combined with any other public notice required by law), posted by the District on and off site in the area where the project is to be located, or mailed directly to owners of

property continuous to the project area as such owners are shown on the latest equalized assessment roll; and

- 4) The agenda in which the Board or the General Manager considers the project shall contain a notice of the proposed negative declaration.

The notice required by this section shall be provided at least 21 days before adoption of the negative declaration by the District or approval of the discretionary permit or other action that is the subject of the negative declaration. Where notice is provided to a state agency pursuant to paragraph (E)1 above, the notice shall be provided at least 30 days before the item is scheduled for consideration by the Board unless a 21-day period is approved by the State Clearinghouse.

- F) **Determining significant effect.** A determination of whether a project may have a significant effect on the environment shall be made by the Board where a discretionary action or permit is to be approved by the Board, and by the General Manager, where a discretionary action or permit is to be approved by the General Manager. The Board may adopt in whole or in part, modify, or reject the recommendation of the Environmental Coordinator and any Committee.

- 1) When the Board or General Manager determines that a project will not have a significant effect pursuant to CEQA and the Guidelines, a proposed negative declaration shall be adopted pursuant to subsection (G), below.
- 2) When the Board or General Manager finds that a project may have a significant effect, an EIR shall be prepared pursuant to Section 22.200, provided that where the General Manager finds that a project may have a significant effect, he or she shall refer a recommendation to the Board that preparation of an EIR be required, and the decision whether to require an EIR shall be by the Board.

- G) **Issuance of negative declaration.** The Board or General Manager shall adopt the negative declaration if it finds that there is no substantial evidence that the project may have a significant effect on the environment. The negative declaration shall be prepared for filing, and a copy of the negative declaration, including the initial study, shall be posted for at least 10 days in a public place in the District's offices at Moss Landing. If the Board modifies any part of the Environmental Coordinator's recommendations, the modified negative declaration shall be sent to all persons previously receiving the recommendation pursuant to subsection (E) of this section.

- H) **Notice of Determination, statute of limitations.** Within five days after the approval or determination to carry out a project for which a negative declaration has been adopted, the Environmental Coordinator shall file a Notice of Determination with the County Clerk. Such Notice shall also be filed with the California Governor's Office of Planning and Research (OPR) if the project requires discretionary approval from any State agencies. Filing the notice with the County Clerk (and with OPR where a State agency has discretionary approval power over the project) begins a 30-day statute of limitations pursuant to Section 15075 of the Guidelines and Section 21152 of CEQA.

#### **22.200 - Environmental Impact Report Process**

- A) **EIR Process initiation.** Where it is determined that an EIR shall be prepared in compliance with subsection 22.200, the Environmental Coordinator shall prepare a

recommended scope of work for the EIR. Where requested by any Commissioner or at the discretion of the Environmental Coordinator, the scope of work may be reviewed and approved by the Board prior to completion. For any private project, the applicant shall be consulted in preparing the scope of work. An applicant may, or if required by the Environmental Coordinator shall, submit additional information to aid in the preparation of the EIR. The Environmental Coordinator shall determine how and to what extent the applicant's information will be used.

- B) **Notice of Preparation.** When the scope of work is completed, the Environmental Coordinator shall complete a Notice of Preparation and attach the scope of work, and distribute the Notice of Preparation to all responsible agencies, trustee agencies, and federal agencies involved in funding or approving the project, the applicant, and any person who has requested such notice. The contents of the notice shall be as provided in Section 15082 of the Guidelines. When one or more state agencies are identified as responsible or trustee agencies, the Environmental Coordinator shall send the Notice of Preparation to the State Clearinghouse. The scope of work may be revised based upon comments from such agencies, or from the public.
- C) **EIR scoping process.** The EIR shall be prepared either by District staff or by a consultant under contract with the District. After receiving comments from the responsible or trustee agencies or any Federal agency, or not later than 30 days after issuing the Notice of Preparation, the Environmental Coordinator shall either initiate preparation of the EIR or engage a consultant to perform the work.
- D) **Consultant selection.** The General Manger shall maintain a list of qualified consultants for preparation of environmental documents. Where a consultant is to be selected, the General Manager may issue requests for proposals to qualified consultants and obtain estimates of fees and time for completion of the EIR, as well as technical approach to the work required. For any private project requiring an environmental impact report, the applicant shall be consulted as to any preference among the qualified consultants submitting estimates, and the General Manager shall give substantial weight to such preferences. The General Manager shall recommend to the Board the consultant who represents the best combination of reasonable fees and qualified performance. Consultant contracts shall require that the consultant and the consultant's subcontractors not have any conflict of interest. The General Manager or his designee shall exercise independent judgment on the draft environmental documents before they are circulated for review.
- E) **EIR contents.** The content of an EIR shall be as required by CEQA and the Guidelines.
- F) **Notice of Completion, public review.** A Notice of Completion of a Draft EIR shall be provided pursuant to Section 15085 of the Guidelines. The District shall provide public notice and a public review period pursuant to Section 15087 of the Guidelines.
- G) **Public Hearing, Draft EIR.** The District may hold a public hearing on any project for which a Draft EIR has been prepared in order to obtain public comment of the adequacy of the Draft EIR. The Environmental Coordinator shall respond to comments in the manner required by CEQA, and shall prepare a Final EIR pursuant to Section 15088 and 15089 of the Guidelines.

- H) **Certification of Final EIR.** The final EIR shall be considered by the Board and any Committee reviewing the project, and shall be certified by the Board prior to approval of the project pursuant to Sections 15090-15093 of the Guidelines.
- I) **Notice of Determination.** Within five business days after the District approves or determines to carry out a project for which a Final EIR is certified, the Environmental Coordinator shall file a Notice of Determination with the County Clerk and, where the project required review by a state agency, with the Office of Planning and Research, pursuant to Section 15094 of the Guidelines.

#### **22.210 - Combined Hearings**

The public hearings required by this article for adoption of a negative declaration or for consideration of a Draft EIR and certification of a Final EIR may be combined with any other public hearing conducted by the Board to consider the approval of the subject project.

#### **22.220 - Fees for CEQA Review**

Fees for CEQA review shall be paid by project applicants as required by Sections 20.100 and 20.240.

**CHAPTER 24 - HEARINGS AND APPEALS**

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**24.050 - Public Hearings; Procedures and Exceptions**

The provisions of this Section shall apply to public hearings by the Board and meetings of standing committees, except as provided in Sections 24.055, 24.100, and 24.200 of this Code, or otherwise required by State Law.

- A) **Notice.** The District shall give notice of the time, place, and subject matter of public hearings and meetings of standing committees by posting the agenda for the meeting at which the hearing will be held in the office of the General Manager at least 72 hours in advance, and mailing notices to persons who have paid the fees required by Section 20.100.
- B) **Conduct of hearing.** At the time and place set for the hearing or meeting, the Board shall hear all persons wishing to be heard in accordance with the Ralph M. Brown Act (Government Code § 54950 et seq.), as amended from time to time.
- C) **Hearings on Board-reviewed permit applications.** At hearings on permit applications required by this Code to be reviewed by the Board, the Board shall receive all pertinent evidence in connection with the application. At the conclusion of the hearing, the Board shall make such findings of fact as appear from the evidence, and shall grant, conditionally grant, or deny the application. Examples of permit applications required to be heard by the Board are applications for construction permits for structures affixed to the land (Section 26.300) and special activities use permits (Section 26.200).
- D) **Appeals of Manager-reviewed permit applications.** Appeals of the General Manager's decisions on permit applications shall be heard in accordance with Sections 24.100 and 24.200. Examples of permit applications required by this Code to be heard by the General Manager include applications for: live-aboard permits (Section 6.110), construction permits for structures not affixed to the land (Section 26.300), short-term activities using District facilities (Section 26.100), rental business permits (Section 4.040), commercial vessel facilities use permits (Section 26.100), and peddling permits (Section 4.020).

**24.055 - Public Hearings on Proposed Ordinances**

Prior to adopting ordinances, the District shall give notice concerning the proposed ordinances in accordance with Harbors and Navigation Code Section 6070.2. At the time and place set for the hearing, the Board shall hear all persons wishing to be heard, in accordance with the Ralph M. Brown Act (Government Code, § 54950 et seq.), as amended from time to time.

**24.100 - Public Hearings on Appeals of the Manager's Decisions**

Decisions or interpretations of the General Manager pursuant to this Code may be appealed to the Board by an applicant or any aggrieved person as provided by this section.

- A) **Timing and form of appeal.** An appeal shall be filed within 10 business days of the decision that is the subject of the appeal, using the form provided by the General Manager in addition to any other supporting materials the appellant may wish to furnish. An appeal shall be filed with the General Manager, who shall process the appeal pursuant to this section.

- B) **Report and hearing.** When an appeal has been filed, the General Manager will prepare a report on the matter, and cause the appeal to be scheduled for consideration by the Board at its next available meeting.
- C) **Action and findings.** After holding a public hearing in compliance with Section 24.200, the Board may affirm, affirm in part, or reverse the action, decision or determination that is the subject of the appeal. The Board shall make findings stating the reasons for the action on the appeal, and verify the compliance or noncompliance of the subject of the appeal with the provisions of this Code.
- D) **Filing fee.** At the time of the filing of the appeal the appellant shall pay the required filing fee as established under Section 20.100 and the cost of publishing the public notice required under Section 24.200(A)(2)(c).
- E) **Appeals of the General Manger's decision on permit applications.** The General Manager's decisions on permit applications required by this Code to be reviewed by the General Manager shall be heard in accordance with this Section and Section 24.200.

**24.200 - Public Hearings on Appeals and Matters under Harbors and Navigation Code  
Section 72.2**

Public hearings on appeals under Section 24.100 shall be conducted as provided by this section. Where applicable, the public hearing required by this section shall also serve as the public hearing required by Harbors and Navigation Code Section 72.2.

- A) **Notice of hearing.** Notice of a public hearing under Section 24.100 or Harbors and Navigation Code Section 72.2 shall be given as follows:
- 1) **Content of notice.** The hearing notice shall include the date, time and place of the public hearing, describe the matter to be considered, and explain how interested persons may obtain additional information.
  - 2) **Method of notice distribution.** Notice of public hearings under Section 24.200 or Harbors and Navigation Code Section 72.2 shall be given not less than 10 days before the hearing, as follows:
    - a) **Mailed notice.** Notice shall be mailed to:
      - (i) The appellant when Section 24.100 applied, or the prospective lessee when Harbors and Navigation Code Section 72.2 applies;
      - (ii) Each person who has requested notice and has paid the fee for mailing notices established under Section 20.100;
      - (iii) **Posted notice.** Notice shall be posted at the site of a proposed permit if a permit application is involved in the appeal or at the site of the proposed leasing if Harbors and Navigation Code Section 72.2 applies, or at the office of the General Manager if posting the site is impractical.
    - b) **Published notice.** Notice shall be published in a newspaper of general circulation published within the County of Monterey.
    - c) **Additional notice.** Any notice in addition to that required above may be provided at the discretion of the General Manager.

- 3) **Scheduling of hearing.** Appeals shall be scheduled for public hearing on the next available Board meeting scheduled for at least 72 hours after the appeal is filed. Leases under Harbors and Navigation Code Section 72.2 shall be scheduled for hearing in accordance with the requirements of that Section. At the discretion of the Board, a public hearing may be continued from time to time.
- B) **Notice of action when hearing continued.** If a decision is continued by the Board to a time that is neither previously stated in the notice provided pursuant to subsection (A) above, nor announced at the hearing as being continued to a time certain, the General Manager shall provide notice of the further hearings or action in the same manner and within the same time limits as provided by subsection (A).
- C) **Conduct of hearing.** At the public hearing, interested persons may present information and testimony relevant to a decision on the matter being discussed.

**CHAPTER 26 - PERMIT REQUIREMENTS AND PROCEDURES**

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**26.000 - Purposes, Conditions, and Limitations of District Permits**

District permits are required for the activities described in Section 26.010 insofar as the activities are not otherwise regulated by federal, State, or County agencies, and insofar as the conditions of the permits are required for the safety and protection of persons or the property of persons using District facilities or the waters subject to the jurisdiction of the District.

**26.010 - Permits Required**

- A) **Permit requirement.** No person shall conduct any of the following activities within the harbor area or from the properties of the Moss Landing Harbor District without first obtaining the permit required by the District.
- 1) Berthing or mooring at any District berth or designated mooring area described in Chapter 6 of this Code.
  - 2) Construction or repairs of structures in, on, or over lands or waters under District jurisdiction described in Section 26.300, including pipelines.
  - 3) Living aboard a vessel berthed within the Harbor described in Section 6.110.
  - 4) All special activities described in Section 26.200.
  - 5) All short-term activities using District facilities described in Section 26.100.
  - 6) Use of the District's dry storage area described in Section 12.300.
  - 7) Use of the District facilities by for-hire vessels described in Section 26.100.
  - 8) Peddling within the District described in Section 4.020.
  - 9) Parking a vehicle within the District described in Section 4.070(A).
  - 10) Recreational Vehicle use as provided in Section 12.600.
  - 11) Launching of vessels from District owned or operated launch ramps and other areas designated accordingly by posted signage.
  - 12) The retail sale of fish to the public from or on District property.
- B) **Accident Waiver and Release of Liability.** Permittees assume liability to the maximum extent permissible under applicable law for activities carried out pursuant to District permits. The conditions of waiver and release are set forth in the District application form entitled "Agreement for Accident Waiver and Release of Liability".
- C) **Activities allowed without District permit.** Activities allowed without District permits include activities not described in paragraph A, or have no potential to interfere with the safety and protection of persons or the property of persons using District facilities or the waters subject to the jurisdiction of the District, or have no potential to interfere with public use of the Harbor area for all purposes of commerce and navigation, or with the right of the public to fish or navigate in Harbor waters.

**26.020 - Application Requirements**

All applications for permits required by this Code shall be filed using the forms provided by the District, including any additional materials required by the General Manager, and accompanied by the fees required by Chapter 20 of this Code (Fees and Charges).

**26.030 - Modifications to Permit Language or Conditions.** Should a permit applicant or permittee request modification of, or amendment to any of the District's standard Permit language or conditions, such applicant or permittee shall be required to pay the District the actual cost of any expenses incurred for reviewing that request (i.e., attorney fees, consultant fees, Committee fees, etc.), regardless of whether or not the request is granted after such review. An advance deposit against such expenses, in a reasonable amount to be determined by the General Manager, will be required before any action is taken on applicant's or permittee's request.

**26.100 - Facilities Use Permit**

- A) **Permit.** Owners of vessels operated for hire in District waters and using District facilities and persons who desire to use District waters or facilities for any of the following purposes shall first obtain a Facilities Use Permit. The General Manager may grant the Permit for a maximum of one year, or for the duration of the event, and may renew the permit.
- 1) Organized fishing derbies involving 10 or more persons or vessels, except for derbies requiring a Special Activities Use Permit under Section 26.200;
  - 2) Organized boating races, competitions, or regattas involving 10 or more persons or vessel, except for those requiring a Special Activities Use Permit under Section 26.200;
  - 3) Other organized activities deemed by the General Manager to have little or no potential for restricting harbor operations. Examples might include mass parking for vehicles in connection with events in Moss Landing lasting less than 12 hours, events with less than 100 participants lasting less than 12 hours, or non-intrusive scientific experiments in District waters having a duration of less than 3 months.
  - 4) Peddler's as described in Section 2.200 and 4.020.
- B) **Permit application.** Applications for a Short-term Facilities use Permit shall include the same information required for a Special Activities Use Permit under Section 26.200(B).
- C) **Time of filing application.** Applications for a Short-term Facilities Use Permit shall be filed within the same timelines as a Special Activities Use Permit under Section 26.200(C).
- D) **Application review and approval.** Applications for a Short-term Facilities Use Permit shall be reviewed by the General Manager, who may then approve the Facilities Use Permit if such permit is categorically exempt from CEQA. The General Manager shall then report out the issuance of the permit at the next regular meeting of the Board, who may then ratify or modify the permit. If, in the opinion of the General Manager the Facilities Use Permit is not exempt from CEQA, the application shall be referred to the Board at the next regularly scheduled meeting for further review and determination under the CEQA process. The General Manager's decision is appealable in accordance with Sections 24.100 and 24.200. The General Manager may issue the Short-term Facilities Use Permit upon the same findings specified for a Special Activities Use Permit (Section 26.200(D))

- E) **Notification.** The General Manager shall act upon the application within 14 days after the application is deemed complete, or 14 days after completion of CEQA review. The General Manager shall, if disapproving the application, mail the applicant a notice of the decision, stating the reasons for denial, within five days after the application was denied.
- F) **Duration of permit.** Facilities Use Permits will be issued for a maximum of one year, or for the duration of the event or activity, whichever is longer. Extensions of permit shall be reported to the Board at its next regular meeting in the same manner as original permits.
- G) **Conditions of permit.** A Facilities Use Permit issued as provided by this section shall include conditions of approval covering the same requirements specified for a Special Activities Use Permit in Section 26.200(G).
- H) **Conduct of permittee.** A person who is granted a Facilities Use Permit shall ensure that persons using District facilities under the permit comply with all terms, conditions and provisions of the Permit, with all applicable laws of the state of California, and with this Code. Data accumulated through scientific experiments or tests conducted in District waters shall be released to the District for its review.
- I) **Revocation of permit.** The General Manager shall have the authority to revoke a Short-term Facilities Use Permit if the General Manager finds that any term, condition, restriction or limitation of the Permit has been violated or is being violated.
- J) **Fee.** The permit fee shall be in the amount established under Section 20.100.

#### **26.200 - Special Activities Use Permits**

- A) **Special Activities Use Permit required.** No person shall use District waters for any of the following purposes without a Special Activities Use Permit:
  - 1) Organized fishing derbies lasting over 12 hours and/or having over 100 participants;
  - 2) Organized boating races, competitions, or regattas lasting over 12 hours and/or having over 100 vessels;
  - 3) Mariculture operations;
  - 4) Any other organized activity (including scientific experiments) with the potential for restricting Harbor operations, public fishing, commercial or recreational navigation, public access and recreation on District land or waters.
- B) **Permit application.** Applications for a Special Activities Use Permit shall be filed as provided by Section 26.020, and shall also include the following information:
  - 1) The name, address and telephone number of the person seeking the Special Activities Use Permit and identifying the specific proposed use.
  - 2) If the Special Activities Use Permit is to be held by an organization, the name, address and telephone number of the organization, and of its officers.
  - 3) The date when the activity will be held.
  - 4) A description of the specific area(s) to be used (i.e., location within the Harbor, route to be used including starting and termination points, etc.).

- 5) The approximate number of people and vessels or vehicles, and the kinds and types of vessels/vehicles that will participate in the activity.
  - 6) The approximate times of day when the activity will start and end.
  - 7) The location of any assembly areas for people participating in the activity.
  - 8) A copy of the insurance policy to be used by the applicant for coverage of the activity.
  - 9) Any additional information deemed necessary in determining whether the Permit shall be issued.
- C) **Time of filing application.** An application for a Special Activities Use Permit shall be filed with the District at least 90 days before the event. An application requiring a negative declaration or EIR shall be filed within the timelines for CEQA review described in Chapter 22 of this Code. An application shall not be deemed complete until the Harbor District has received all required information.
- D) **Application review and approval.** All Special Activities Use Permit applications shall be reviewed by the Board at a public hearing. Notice of the Board's review shall be posted outside the District office at least 72 hours before such review. The Board's decision is final and there shall be no right of appeal. The Board may issue the Special Activities Use Permit upon finding that:
- 1) The conduct of the activity will not interrupt the safe and orderly movement of vessels in Harbor waters.
  - 2) The conduct of the activity is not reasonably likely to cause injury to persons or property, provoke disorderly conduct, or create a disturbance.
  - 3) The conduct of the activity will not prevent the normal activities of District employees.
  - 4) If the activity is one which shall move from place to place within the Harbor, it will do so expeditiously and without unreasonable delays en route.
  - 5) The activity is not to be held for the principal purpose of advertising any product, goods, or event, and is not designed to be held principally for private profit.
- E) **Notification.** The Board shall act upon the application for a Special Activities Use Permit within 45 days after completion of environmental review. If the Board disapproves the application, it shall mail the applicant a notice of its action, stating the reasons for denial of the Permit, within five days after the denial is final.
- F) **Duration of permit.** Special Activities Use Permits will be issued for a fixed time period, up to a maximum of one year. Continuation of approved activities for more than one year may be approved by the Board as an extension of the permit.
- G) **Conditions of permit.** A Special Activities Use Permit issued as provided by this section shall include conditions of approval covering the following, where applicable:
- 1) The starting time of the activity.
  - 2) The minimum and maximum speeds to be maintained by vessels, if any.
  - 3) The maximum length of components of the activity in miles or fractions of miles.

- 4) The safe and appropriate separation distance to be maintained between people or vessels participating in the activity.
  - 5) The specific areas of the Harbor that may be utilized or occupied by the activity.
  - 6) Mitigation measures recommended by the negative declaration or final EIR for the activity shall be a condition of the Permit, unless otherwise specified.
  - 7) Any other restrictions, conditions or limitations that the General Manager may find necessary.
- H) **Conduct of permittee.** A person who is granted a Permit by the Board shall comply with all terms, conditions and provisions of the Permit, with all applicable laws of the State of California, and with this Code. Data accumulated through scientific experiments or tests conducted in District waters shall be released to the District for its review.
- I) **Revocation of permit.** The Board shall have the authority to revoke a Special Activities Use Permit if it determines that any term, condition, restriction or limitation of the Permit has been violated or is being violated.

### 26.300 - Construction Permit

A Construction Permit shall be obtained prior to commencing construction in, upon or under any of the lands, marshes, tidelands, and submerged lands, including but not limited to the "Old Salinas River Channel," from the northerly extremity to its mouth southernly to the county road across said channel south of the existing bridge of Moss Landing, and lands within the Bennett Slough, Elkhorn Slough and Moro Cojo Slough, held in trust by the District. The permit shall be obtained by filing an application as provided by Section 26.020. For purposes of this section, "construction" shall include, but not be limited to, work to construct or repair structures affixed to real property and submerged lands, repair work conducted in waters under District jurisdiction, and infill and restoration projects conducted on, in or staged from lands and waters under District jurisdiction.

- A) **Review of application.** Applications to construct or repair structures affixed to real property, including submerged lands, and infill and restoration projects, shall be reviewed by the Board at a public meeting. Examples include, but are not limited to, the installation or repair of pipelines, pilings and seawalls, and wetlands infill and restoration projects. Applications to construct or repair hulls and other structures not affixed to real property shall be reviewed by the General Manager. The General Manager's decision is appealable to the Board in accordance with Sections 24.100 and 24.200.
- B) **Permit Conditions.** Construction permits shall be conditioned in a manner to enforce the Resources Protection standards established in Chapter 18, to ensure that the use of public trust lands and waters is not significantly impeded either on a temporary basis during construction activities or on a permanent basis after construction has been completed, to ensure that the use of public trust lands and waters are not conveyed without appropriate compensation to the public, and to protect the ongoing right of fishing and navigation held by the people of the State of California:
- 1) **Construction affixed to public trust lands in District waters.** Permits to construct structures on public trust lands shall be conditioned on a lease or agreement between the applicant, the State Lands Commission, and/or the Harbor District for the

affected area. The permit shall be conditioned on the permittee posting a bond to ensure removal of the construction. The bond shall be of a type and in an amount approved by the General Manager.

- 2) **Pipeline discharge.** To the extent pipelines are likely to contaminate the Harbor in a manner not otherwise regulated by State or federal agencies, the permit shall be conditioned on the permittee paying the reasonable cost to clean-up the contamination, as determined by the Board.
  - 3) **Chapter 18.** Compliance with the Resources Protection Standards of Chapter 18 is a condition of a Construction Permit.
  - 4) **Mitigation measures.** Mitigation measures recommended by the negative declaration or final EIR (if any) for the Construction Permit shall be a condition of the permit, unless otherwise specified.
  - 5) **Expiration date.** Construction permits may be conditioned to expire on a specific date, determined by the Board or General Manager as applicable.
  - 6) **Other.** Any other restrictions, conditions or limitations that the Board or General Manager may find necessary.
- C) **Pipelines.** A Construction Permit for a pipeline gives the permittee the privilege of running a pipeline in, under, or over District waters and gives the permittee the use of the pipeline(s) for the period stated in the permit subject to the limitations of paragraph A, payment of the fees required by this Code, and compliance with the requirements of this Code and other applicable law.
- 1) **Board approval.** Installation of the pipeline(s) will be at the expense of the permittee and the location and manner of installation shall be approved by the Board.
  - 2) **Maintenance.** The permittee shall at all times maintain the pipeline(s) in good condition and in a manner satisfactory to the Board.
  - 3) **Fish receiving hoppers exempt.** The construction and operation of fish receiving hoppers does not require a permit.
  - 4) **Termination of permit.** In the event of cancellation or termination of the permit, the pipeline(s) shall become the property of the District, or the permittee shall be required to remove the pipeline(s) at their own expense, at the option of the Board.
- D) **Permit and application fees.** The permit fee shall be in the amount established under Section 20.100. It shall be in addition to the application fee and other rates, tolls and charges required by this Code.
- E) **Permit renewals.** Renewal of a Construction Permit shall be consistent with requirements of this Code applicable at the time of the renewal.

F) **Exceptions.** At the General Manager's discretion, applications to construct, repair, or establish structures may be exempted from the requirement for a construction permit provided the construction is (1) exempt from CEQA, (2) located on lands for which no lease or franchise is required from the State Lands Commission, (3) has no potential whatsoever to interfere with commerce, navigation or fishing, either during the construction period or as a result of the proposed construction activity, (4) is not affixed to structures affixed to land, located in, under, or above District waters, and (5) has no potential whatsoever to adversely affect the physical environment. Examples include the minor alteration of existing structures or replacement of existing structures on lands owned or leased by the applicant, minor trenching and backfilling on lands owned or leased by the applicant where the surface will be restored and where it is determined that such work will have no negative impact on adjacent lands or waterways, and the placement on dry land of temporary use items such as tents or mobile food units in connection with activities at Kirby Park. The General Manager's decision to exempt the construction from the requirement for a construction permit shall not be final until reported to the Board at the next available meeting. The decision may be appealed by any aggrieved person in accordance with Section 24.100 and 24.200, or appealed by a majority vote of the Board at the meeting of where it is reported, in which case it shall be set for hearing at a special meeting of the Board, or at the next regularly-scheduled meeting.

**CHAPTER 28 - VIOLATIONS AND ENFORCEMENT**

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**28.100 - Violation of Ordinance Code - Policies and Procedures**

It is unlawful for any person to violate or otherwise fail to comply with all applicable provisions of this Code. The General Manager or his/her duly authorized representative shall have the power to issue citations for violations in the manner provided by Chapter 5c, commencing with Section 853.6 of Title 3, Part 2, of the Penal Code.

- A) **Misdemeanor violations.** As provided by Section 6070.4 of the Harbors and Navigation Code, anyone who violates any provision of this Code is guilty of a misdemeanor, subject to fine of up to \$1,000 and/or imprisonment for six months. (Penal Code 19).
  - B) **Revocation of Berthing Permits.** Section 6.028 of this Code (Revocation of Berthing Permit and Removal of Vessel) establishes requirements and procedures for the revocation of berthing permits.
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# AB 691 Sea-Level Rise Assessment

## Moss Landing Harbor Sea Level Rise Vulnerability and Adaptation Strategy Report



June 2019

Prepared for the Moss Landing Harbor District

Prepared by the Central Coast Wetlands Group



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# 1. Introduction

## Report Goals

This project will achieve four objectives (as defined by the State Lands Commission) intended to further regional planning for the inevitable impacts associated with predicted Sea Level Rise (SLR) on the Moss Landing Harbor, Elkhorn Slough and adjacent beach areas within the properties in and adjacent to the state lands granted to the Moss Landing Harbor District. Goals include:

- Identify what critical coastal infrastructure would be compromised due to predicted SLR for time horizons 2030, 2060<sup>1</sup>, and 2100 and for extreme SLR scenarios (H++).
- Identify what critical coastal subtidal habitats would be compromised due to predicted SLR for time horizons 2030, 2060, and 2100 and for extreme SLR scenarios (H++).
- Identify appropriate response strategies for these risks and discuss the programmatic and policy options that can be adopted to address these risks.
- Quantify the potential financial losses of infrastructure within the predicted hazard zones and the costs of adaptation alternatives.

Products of this report include:

1. An assessment of the impact of SLR on granted public trust lands, as described in the Resolution of the California Ocean Protection Council on Sea-level Rise and the latest version of the State of California Sea-Level Rise Guidance Document.
2. Maps showing the areas that may be affected by SLR in the years 2030, 2060, and 2100. These maps shall include the potential impacts of 100-year storm events. A local trustee may rely on appropriate maps generated by other entities.
3. An estimate of the financial cost of the impact of SLR on granted public trust lands. The estimate considers, but is not limited to, the potential cost of repair of damage to, and the value of, lost use of improvements and land, and the anticipated cost to prevent or mitigate potential damage.
4. A description of how the local trustee proposes to protect and preserve natural and manmade resources and facilities located, or proposed to be located, on trust lands and operated in connection with the use of the trust lands. The description shall include, but is not limited to, how wetlands restoration and habitat preservation might mitigate impacts of SLR.

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<sup>1</sup> In 2014 local SLR models were developed for the Monterey Bay and 2060 hazard predictions were selected instead of 2050 values. This decision has been determined by the State to meet state planning guidelines.

## Background Vulnerability Assessments

In 2013 the State of California adopted policy requiring all entities with granted public trust lands to draft sea level rise vulnerability plans for resources within the jurisdictional boundaries of their State lands.

In 2017, the Central Coast Wetlands Group at Moss Landing Marine Labs (CCWG) completed a community-wide sea level rise vulnerability analysis for the Moss Landing Community.<sup>2</sup> The resulting report was funded by The Ocean Protection Council through the Local Coastal Program Sea Level Rise Adaptation Grant Program. This grant program is focused on providing resources to local governments to support the update to Local Coastal Programs (LCPs), and other plans authorized under the Coastal Act<sup>3</sup> such as Port Master Plans, Long Range Development Plans and Public Works Plans (other Coastal Act authorized plans) to address sea-level rise and climate change impacts, recognizing them as fundamental planning documents for the California coast.

The County of Monterey developed and adopted a Local Hazard Mitigation Plan in 2014. This plan works to “identify and profile natural hazards [storm surge, coastal erosion, earthquake, expansive soils, flood, and tsunami] and to lesser extent manmade hazards; assess vulnerability; set local hazard mitigation goals and strategies; and plan for future maintenance of the Local Hazard Mitigation Plan.”<sup>4</sup> Sea level rise is not explicitly addressed by the plan, though increased intensity of coastal erosion and storm flooding due to sea level rise are discussed. The plan explores integrated mitigation strategies, which include actions to reduce vulnerability from erosion, flooding, and other natural and human hazards.

The Moss Landing Community Plan<sup>5</sup> discusses sea level rise and the importance of armoring the coastline in order to protect the harbor and its related coastal uses. This vulnerability report is intended to aid future planning to increase resiliency and provide greater detail on the risks to the Moss Landing area from coastal climate change during three future time horizons (2030, 2060 and 2100). Risks to properties were identified using the ESA PWA Monterey Bay Sea Level Rise Vulnerability Study<sup>6</sup> layers developed in 2014 using funding from the California Coastal Conservancy.

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<sup>2</sup> Moss Landing Coastal Climate Change Vulnerability Report (2016)

<sup>3</sup> State of California. *California Coastal Act of 1976*. <http://www.coastal.ca.gov/coastact.pdf>

<sup>4</sup> Monterey Multi-Jurisdictional Hazard Mitigation Plan, 2014, ch 2, pg 3

<sup>5</sup> Moss Landing Community Plan, Revised Draft 2014

<sup>6</sup> ESA PWA. 2014. *Monterey Bay Sea Level Rise Vulnerability Study: Technical Methods Report Monterey Bay Sea Level Rise Vulnerability Study*. Prepared for The Monterey Bay Sanctuary Foundation, ESA PWA project number D211906.00, June 16, 2014

## 2. Sea-level Rise Vulnerability Assessment

### Inventory of Vulnerable Natural and Built Resources and Facilities

#### State Grant Tide and Submerged Lands Description

In 1947 the State of California granted the Moss Landing Harbor District the Submerged and Tide lands of the Old Salinas River channel below the Potrero and Moss Landing tide gates and includes the main channel of Elkhorn and Bennet sloughs and the coastal tide lands to the north and south of the Moss Landing Harbor entrance (Figure 1). Within this area are significant natural habitat features, historical infrastructure (in various stages of disrepair) and currently operating infrastructure managed by the Harbor District, the Moss Landing power plant, the County, and by adjacent private land owners. Portions of the submerged lands of Elkhorn Slough are designated as Marine Protected Areas and managed by the Department of Fish and Wildlife and the Elkhorn Slough National Estuary Research Reserve.

The Moss Landing Harbor is the number one commercial fishing harbor in the Monterey Bay with 600+ slips for recreational boaters and commercial vessels. Partnering with marine research and education institutions, the Moss Landing Harbor District (MLHD) provides full public access to the marine environment. Designated as a year-round port of safe refuge, Moss Landing Harbor provides safe, reliable marine refuge and services to members of the boating public. Moss Landing Harbor supports the research and educational endeavors of the Monterey Bay Aquarium Research Institute and Moss Landing Marine Laboratories.

More than 100 active fishing vessels can be berthed in Moss Landing at any time along with 7 research and government vessels. Two eco-tour pontoon boats are docked here as well as charter fishing boats, whale watching vessels, and numerous kayak rentals and ecotourism businesses. The harbor supports commercial fishing and recreational boating as well as restaurants. The Jetty Road sand spit is located along the northeast side of the harbor. The Moss Landing Harbor provides parking and other harbor and beach access facilities which are located within both the north and south harbor areas (north and south of the main harbor entrance).

Moss Landing Harbor properties are surrounded by water—the ocean, Elkhorn Slough, Moro Cojo Slough, and the nearby Salinas River. The proximity to the Monterey Bay National Marine Sanctuary and the open ocean makes Moss Landing Harbor a valuable maritime resource that is also vulnerable to periodic impacts from ocean storms that will be exacerbated by sea level rise. Storm events have impacted the community in the past; including the 1995 flood and the 1982 and 1998 El Nino events. Each of these climatic events has damaged infrastructure and properties.



## Harbor Shoreline Structures

Much of the Moss Landing Harbor is developed for commercial and recreational boating with shoreline edges comprised of a mix of rip-rap and concrete sea walls. A large amount of harbor related infrastructure was built within the footprint of the historical Old Salinas River. The Harbor entrance is maintained by two large rock jetties that reach more than 1,500 feet out from the main harbor channel into the open Monterey Bay (Figure 2). The harbor mouth and main harbor channel are dredged periodically to maintain operational depth. While the jetties remain in good condition, the sand behind the inland end of structures has eroded by tidal eddies that scour sand and deposit those sediments elsewhere (in the north harbor area). Most of the 2.5 km of the south harbor waterfront is man-made and or hardened with rip-rap or concrete. Only one quarter (0.5km) of the north harbor waterfront is protected or hardened.



*Figure 2. Moss Landing Harbor levees*

(Image: Copyright 2002-2017 Kenneth & Gabrielle Adelman, California Coastal Records Project, [www.Californiacoastline.org](http://www.Californiacoastline.org))

## Tidal Management Structures

A number of tide gates, culverts and other water control structures have been installed, replaced, and upgraded since the late 1800s. Many of the structures were installed when the harbor was created to reduce erosion, lessen inland saltwater migration, and control tidal action. Many of these structures are in disrepair and maintenance responsibilities are not well defined and distributed among a number of state and county agencies. The Harbor District staff notes that the loss of wetlands in portions of Elkhorn Slough and the Bennett Slough have been intensified by the breaching (in the 1980s) of the original protective levees (which were installed when the harbor mouth was opened) in the eastern areas of the Elkhorn Slough, and the opening of the Bennett Slough to tidal scour when Jetty Road was rebuilt after the 1989 earthquake.

## Moss Landing Village

The community of Moss Landing is a small fishing village with restaurants, antique stores, and galleries, best known for its working harbor and proximity to Elkhorn Slough and the productive fisheries of the Monterey Bay.

## Elkhorn Yacht Club

Elkhorn Yacht Club was founded in 1946. The Elkhorn Yacht Club Mission Statement is: "A safe, family friendly, thriving entity providing our members with a social environment focused on ocean sports, environmental footprints and lifelong friendships." The club supports expansive facilities overlooking the

channel leading to the Elkhorn Slough. It hosts a bar, waterfront patio with fire rings, a garden courtyard, hearth room, dining hall, and kitchen.

## Recreation and Public Access

**Beaches, Parks, and Reserves:** Moss Landing State Beach, Salinas River State Beach (part of which is designated as the Salinas River Dunes Natural Preserve), and Zmudowski State Beach Park, located to the north and south of the harbor entrance, offer great places for surfing, horseback riding, surf fishing, windsurfing, hiking, and wildlife-watching.

The Elkhorn Slough National Estuarine Research Reserve, the Elkhorn Slough State Marine Reserve, and the Moss Landing State Wildlife Area (limited recreation access), encapsulate Elkhorn Slough and its many surrounding wetlands, while also providing more than five miles of hiking and boardwalk trails, and a visitor center with restrooms and a paved overlook road. The slough is also accessible by kayak or small boat from the harbor, allowing up-close viewing of the incredible biodiversity.

The Monterey Bay Marine Sanctuary Scenic Trail runs through Moss Landing, helping link the Santa Cruz and Monterey County coastal access infrastructure.

**Coastal Access and Public Parking:** Boats within the harbor offer tours of Elkhorn Slough and the Monterey Bay National Marine Sanctuary to observe local wildlife. There are public parking lots and street parking on Jetty Road, just off of Highway 1, to provide easy access to the beach. There is a parking lot at Elkhorn Yacht Club, and there are parking lots around the harbor providing access to the Slough and the ocean. Access and parking to Salinas River State Beach is provided at the ends of Sandholdt, Potrero and Molera roads.

## Transportation

**Highway 1:** Highway 1 runs through Moss Landing with a bridge crossing Elkhorn Slough. There are three locations along the highway where motorists can exit the highway and access the Harbor.

**Rail:** The rail line transects the Moss Landing area passing through Elkhorn and Moro Cojo sloughs. The rail line is operated by Southern Pacific for both commercial and passenger service.

**Bridges:** There are a number of bridges and roads that overpass the complex network of creek and wetland features within Moss Landing.

**Moss Landing and Sandholdt Roads:** Moss Landing and Sandholdt roads provide access to much of the Harbor Districts infrastructure and maritime access.

## Natural Resources

**Wetlands:** Elkhorn Slough's tidal salt marsh provides critical habitats for many species, including more than 135 species of aquatic birds, 550 species of marine invertebrates, and 102 fish species, as well as sea otters, sea lions, and harbor seals. Surrounding wetlands including the Moro Cojo Slough and Old Salinas River provide important habitats for threatened species and flood attenuation during winter storms.

**Dunes:** The beach dunes along Moss Landing State Beach and Salinas River State Beach provide important habitat for many native plants and animals, including the western snowy plover, the white-tailed kite, western fence lizard, beach wild rye, beach bur, yellow sand verbena, and many more species.

**Protected Habitats:** Monterey Bay National Marine Sanctuary, Elkhorn Slough State Marine Conservation Area, Elkhorn Slough State Marine Reserve, Elkhorn Slough National Estuarine Research Reserve, Moss Landing State Wildlife Area, Moro Cojo State Marine Reserve, Salinas River Dunes Natural Preserve, and California State Beaches support special status species and their habitats.

## Assets Used in Study

To meet AB 691 guidelines, this vulnerability assessment evaluates: 1) harbor infrastructure within the harbor public trust lands that are vulnerable to SLR and Climate Change impacts, 2) natural resources within areas vulnerable to SLR directly associated with harbor operations, 3) protective infrastructure (and associated development on those properties) that provide a buffer/boundary from ocean impacts, 4) Public access points and county roads needed to provide access to harbor infrastructure and properties, and 5) infrastructure and properties that are outside the public trust boundaries that are vulnerable to projected hazards and are vital to the continued operations of the harbor (Table 1).

*Table 1. List of Assets Used in Analysis*

ASSET CATEGORY	ASSET
Harbor Infrastructure	Harbor buildings
	Docks and entranceways to docks
	Electric meters
	Storm drains
	Trash enclosures
	Lift stations
	Parks
Access	Bathrooms
	Roads and parking
	Coastal access points
Natural Resources	Wetlands (NWI)
	Eelgrass beds
	Marine mammal haul-out areas
	Beaches and dunes
Protective Infrastructure	Coastal armoring
	Harbor jetties
	Culverts and tide gates
Infrastructure Outside of State Granted Lands	Buildings and parking lots

# Current State Sea Level Rise Policy Guidance

## Coastal Hazard Models

State guidance suggests that “a Bayesian probabilistic framework can support improved decision making and easily integrate new lines of scientific evidence but may under- or overestimate sea-level rise contributions beyond 2050 and could lead to confusion if decision makers are unclear about the difference between Bayesian and frequentist probabilities. Nonetheless, probabilistic projections represent consensus on the best available science for sea-level rise projections through 2150. With continued advances in sea-level rise science, it is expected that probabilistic projections will change in the future. However, the evolving nature of sea level rise projections does not merit taking a ‘wait and see’ approach. Acting now is critical to safeguard the people and resources of California.”

However, within the Monterey Bay, probabilistic models are not yet available. Therefore, this study uses scenario-based models developed in 2014 which follow previous State guidance and crosswalks them with the most recent guidance. Previous guidance from The California Coastal Commission guidance document<sup>7</sup> recommends communities evaluate the impacts from sea level rise on various land use categories using a method called “scenario-based analysis” (described in Chapter 3 of the Guidance). Since sea level rise projections are not exact, but rather presented in ranges, scenario-based planning includes examining the consequences of multiple rates of sea level rise, plus extreme water levels from storms and El Niño events. As recommended in the guidance, this report uses sea level rise projections outlined in the 2012 NRC Report, *Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future*<sup>8</sup> (Figure 3).

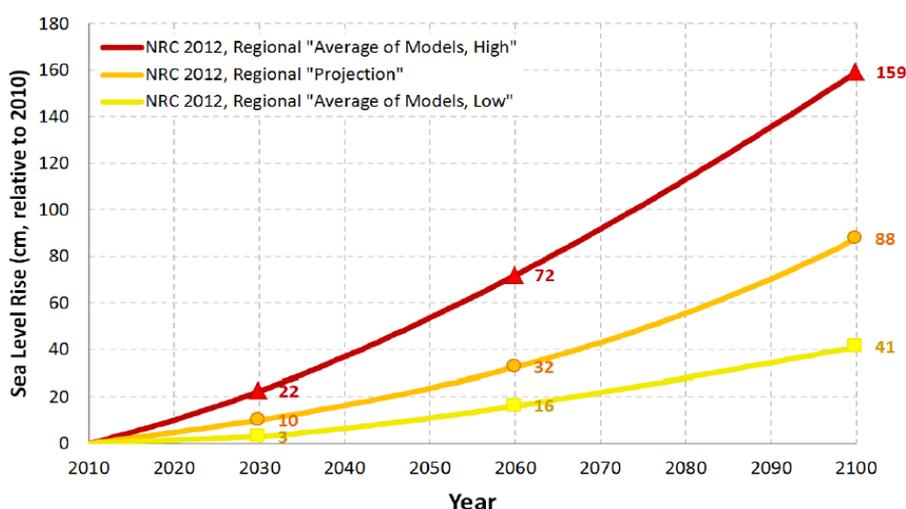


Figure 3. Sea level rise scenarios for each time horizon (Source: ESA 2014)

<sup>7</sup> California Coastal Commission. 2015. *California Coastal Commission Sea Level Rise Policy Guidance: Interpretative Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits*. Adopted August 12, 2015.

<sup>8</sup> National Research Council (NRC). 2012. *Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future*. Report by the Committee on Sea Level Rise in California, Oregon, and Washington. National Academies Press, Washington, DC. 250 pp.

The goal of scenario-based analysis for sea level rise is to understand where and at what point sea level rise and the combination of sea level rise and storms, pose risks to coastal resources or threaten the health and safety of developed and natural areas. This approach allows planners to understand the full range of possible impacts that can be reasonably expected based on the best available science, and build an understanding of the overall risk posed by potential future sea level rise.

The guidance recommended evaluating the impacts of the highest water level conditions that are projected to occur in the planning area. In addition to evaluating the worst-case scenario, planners need to understand the minimum amount of sea level rise that may cause impacts for their community, and how these impacts may change over time, with different amounts of sea level rise.

The climate vulnerability maps used for this study identify hazard zones for each climate scenario for each of the three planning horizons. For clarity, this report focuses the hazard analysis on a subset of those scenarios, that can be cross-walked with the probabilistic based-scenario (Table 2).

*Table 2. Comparison of OPC 2013 Guidance Document and 2018 Update’s Probabilistic SLR projections*

SCENARIO BASED PROJECTION: TIME HORIZON	SCENARIO BASED PROJECTION: EMISSIONS SCENARIO	SCENARIO BASED PROJECTION: SLR <sup>9</sup>	PROBABILISTIC PROJECTION: EMISSIONS SCENARIO	PROBABILISTIC PROJECTION: LIKELY RANGE*: 66% PROBABILITY SLR IS BETWEEN...	PROBABILISTIC PROJECTION: 1-IN-200 CHANCE**: 0.5% PROBABILITY SLR MEETS OR EXCEEDS...	H++ SCENARIO***
2030	Med	4 in	High	<b>3.6 – 6 in</b>	9.6 in	12 in
2060	High	28 in	Low	6 – 14.4 in	<b>27.6 in</b>	45.6
			High	8.4 – 16.8 in	31.2 in	
2100	High	63 in	Low	10.8 – 27.6 in	<b>66 in</b>	121.2
			High	18 – 39.6 in	82.8 in	

*Notes: \* low risk aversion projection, \*\*Medium-high risk aversion projection, \*\*\*Extreme risk aversion projection*

For management of ongoing harbor operations, considerations regarding predicted time horizons should be taken when decisions as to if and how to adapt are made. Specifically, new infrastructure built within hazard zones should be designed to withstand the predicted hazards while accommodating the appropriate level of uncertainty regarding the scale of the hazard (i.e. water elevation) and the predicted time horizon when these hazards will occur (i.e. 2030 through 2060). Red text highlights corresponding probabilistic sea level rise predictions with those used for modeling of Moss Landing Harbor hazards (scenario-based model). Because such probabilistic projections have not yet been integrated with predictions for storm intensity and wave height and for changes in rainfall, and future

<sup>9</sup> Erosion projections: 2030: Includes long-term erosion and the potential erosion of a large storm event (e.g. 100-year storm), 2060 and 2100: Includes long-term erosion and the potential erosion of a large storm event (e.g. 100-year storm). Future erosion scenario: Increased storminess (doubling of El Niño storm impacts in a decade).

emissions scenarios are extremely uncertain, it is likely inaccurate to assume the predicted impacts have less than a 1% chance of occurrence by 2060.

## Impacts of Storms and Extreme Events

This sea level rise vulnerability analysis uses hazard layers developed by ESA in 2014 and modified by CCWG in 2016 to account for currently existing coastal armoring and other protective structures. The ESA coastal hazard modeling and mapping effort<sup>10</sup> led to a set of maps that integrate the multiple coastal hazards projected for the assessment area (i.e. hazards of coastal climate change). There is however a benefit to evaluating each hazard (or coastal process) separately. The hazard layers are available for further investigation through the online mapping viewer at [www.coastalresilience.org](http://www.coastalresilience.org).

Two important limitations of the original hazard maps were addressed within this focus effort for Moss Landing. ESA was contracted for this project to model the impacts of flooding from the combined effects of rising seas and changes in rainfall leading to an increase in winter stream flows. CCWG staff post-processed the 2030 hazard layers to account for reductions in potential hazards provided by current coastal protection infrastructure (tide gates, etc.). This refinement of coastal hazard mapping helped to better understand the future risks Moss Landing may face for each coastal hazard process.

It is understood that each modeled coastal process will impact various coastal resources and structures differently. This report evaluates the risks to infrastructure from each coastal hazard for each time horizon. This analysis helps to link risks with appropriate adaptation alternatives. The following is a description of the hazard zones that were used for this analysis. For more information on the coastal processes and the methodology used to create the hazard zones please see the Monterey Bay SLR Vulnerability Assessment Technical Methods Report.<sup>10</sup>

### Combined Hazards

CCWG merged the coastal hazard layers (for the specific scenarios<sup>11</sup> as modified to account for structures) to create a new combined hazard layer for each planning horizon (2030, 2060 and 2100). These merged layers represent the combined vulnerability zone for “Coastal Climate Change” for each time horizon. Projections of the combined hazards of Coastal Climate Change are intended to help estimate the cumulative effects on the community and help identify areas where revised building guidelines or other adaptation strategies may be appropriate. Combined hazards however, do not provide municipal staff with the necessary information to select specific structural adaptation responses. Therefore, this study also evaluates the risks associated with each individual coastal hazard.

### Rising Tides

These hazard zones show the area and depth of inundation caused simply by rising tide and ground water levels (not considering storms, erosion, or river discharge). The water level mapped in these inundation areas is the Extreme Monthly High Water (EMHW) level, which is the high water level reached approximately once a month. There are two types of inundation areas: (1) areas that are clearly connected over the existing digital elevation through low topography, (2) and other low-lying areas that

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<sup>10</sup> ESA PWA. 2014. *Monterey Bay Sea Level Rise Vulnerability Assessment Technical Methods Report*

<sup>11</sup> See the 2017 Santa Cruz County Coastal Climate Change Vulnerability Report for the discussion on scenario selection

don't have an apparent connection, as indicated by the digital elevation model, but are low-lying and flood prone from groundwater levels and any connections (culverts, storm drains and underpasses) that are not captured by the digital elevation model. This difference is captured in the "Connection" attribute (either "connected to ocean over topography" or "connectivity uncertain") in each Rising Tides dataset. These zones do not, however, consider coastal erosion or wave overtopping, which may change the extent and depth of regular tidal flooding in the future. Projected risks from rising tides lead to reoccurring flooding hazards during monthly high tide events.

### Coastal Storm Flooding

These hazard zones depict the predicted flooding caused by future coastal storms. The processes that drive these hazards include (1) storm surge (a rise in the ocean water level caused by waves and atmospheric pressure changes during a storm), (2) wave overtopping (waves running up over the beach and flowing into low-lying areas, calculated using the maximum predicted wave conditions), and (3) additional flooding caused when rising sea levels exacerbate storm surge and wave overtopping. These hazard zones also take into account areas that are projected to erode, sometimes leading to additional flooding through new hydraulic connections between the ocean and low-lying areas. Storm flood risks represent periodic wave impact and flooding. These hazard zones DO NOT consider upland fluvial (river) flooding and local rain/run-off drainage, which likely play a large part in coastal flooding, especially around coastal confluences where creeks meet the ocean (analyzed separately for the Moss Landing area).

### Changing Shorelines: Beach and Dune Erosion

These layers represent future dune (sandy beach) erosion hazard zones, incorporating site-specific historic trends in erosion, additional erosion caused by accelerating sea level rise and (in the case of the storm erosion hazard zones) the potential erosion impact of a large storm wave event. The inland extent of the hazard zones represents projections of the future crest of the dunes for a given sea level rise scenario and planning horizon. Erosion can lead to a complete loss of habitat, infrastructure and/or use of properties.

### River Flooding

A river flooding vulnerability analysis was completed specifically for this study area to evaluate the cumulative impacts of rising seas and future changes in fluvial discharge within the Gabilan Watershed. The fluvial model estimates localized flooding along the Reclamation Ditch/Gabilan Creek when discharge is restricted behind the Potrero tide gates during high tides. The model results are presented here and the methodology is described within the separate Fluvial Report by ESA.<sup>12</sup>

The future hazards of river flooding due to the predicted increase in fluvial discharge, higher ocean elevations during storms and higher sea level elevations were evaluated for Moss Landing and the Lower Salinas Valley.<sup>13</sup> The predicted increase in fluvial discharge within the Gabilan/Rec Ditch due to more intense rainfall during storms used for this analysis is outlined in Table 3 .

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<sup>12</sup> ESA. 2016. *Climate Change Impacts to Combined Fluvial and Coastal Hazards*. May 13, 2016.

<sup>13</sup> ESA. 2016. *Climate Change Impacts to Combined Fluvial and Coastal Hazards*. May 13, 2016.

Table 3. Increases in 100-year Discharge for the Reclamation Ditch System Relative to Historic Period (1950-2000)

EMMISSIONS SCENARIO	2030	2060	2100
Medium (RCP 4.5 5 <sup>th</sup> percentile)	20% Increase	40% Increase	60% Increase
High (RCP 8.5 90 <sup>th</sup> percentile)	140% Increase	210% Increase	275% Increase

### CoSMoS and H++

The Coastal Storm Modeling System (CoSMoS) is a dynamic modeling approach that has been developed by the United States Geological Survey in order to allow more detailed predictions of coastal flooding due to both future sea level rise and storms integrated with long-term coastal evolution (i.e., beach changes and cliff/bluff retreat) over large geographic areas (100s of kilometers). CoSMoS models all the relevant physics of a coastal storm (e.g. tides, waves, and storm surge), which are then scaled down to local flood projections for use in community-level coastal planning and decision-making. Rather than relying on historic storm records, CoSMoS uses wind and pressure from global climate models to project coastal storms under changing climatic conditions during the 21st century.

Projections of multiple storm scenarios (daily conditions, annual storm, 20-year- and 100-year-return intervals) are provided under a suite of sea-level rise scenarios ranging from 0 to 2 meters (0 to 6.6 feet), along with an extreme 5-meter (16-foot) scenario. This allows users to manage and meet their own planning horizons and specify degrees of risk tolerance. Currently CoSMoS is not available for the study area.

To note, the ESA 2014 models used similar approaches and successfully integrated wave run up, local ocean level changes and sea level rise into their projections and further integrated fluvial discharge from the adjacent watershed. CoSMoS is not yet available for the study area but we assume that the CoSMoS hazard layers will suggest similar vulnerabilities to those documented here under the same climatic assumptions and time horizons.

An extreme scenario called the H++ has also been recommended for evaluation by the Ocean Protection Council. The probability of this scenario is currently unknown, but its consideration is important, particularly for high stakes, long-term decisions. Under the extreme H++ scenario, rapid ice sheet loss on Antarctica could drive rates of sea level rise in California above 50 mm/year (2 inches/year) by the end of the century, leading to potential sea level rise exceeding 10 feet. This rate of sea level rise would be about 30-40 times faster than the sea level rise experienced over the last century.

Since Moss Landing Harbor will likely no longer function under predicted 2100 sea levels of 6.9 feet (due to the loss of the barrier beach), estimating impacts from higher rates of sea level rise (10 feet - i.e. H++ SLR scenario) are not necessary or useful for planning purposes (Figure 4). Also, most adaptation measures identified within this document support the incremental resiliency of in-place harbor infrastructure rather than the development of new coastal amenities and therefore may not be classified as high stakes or long term.

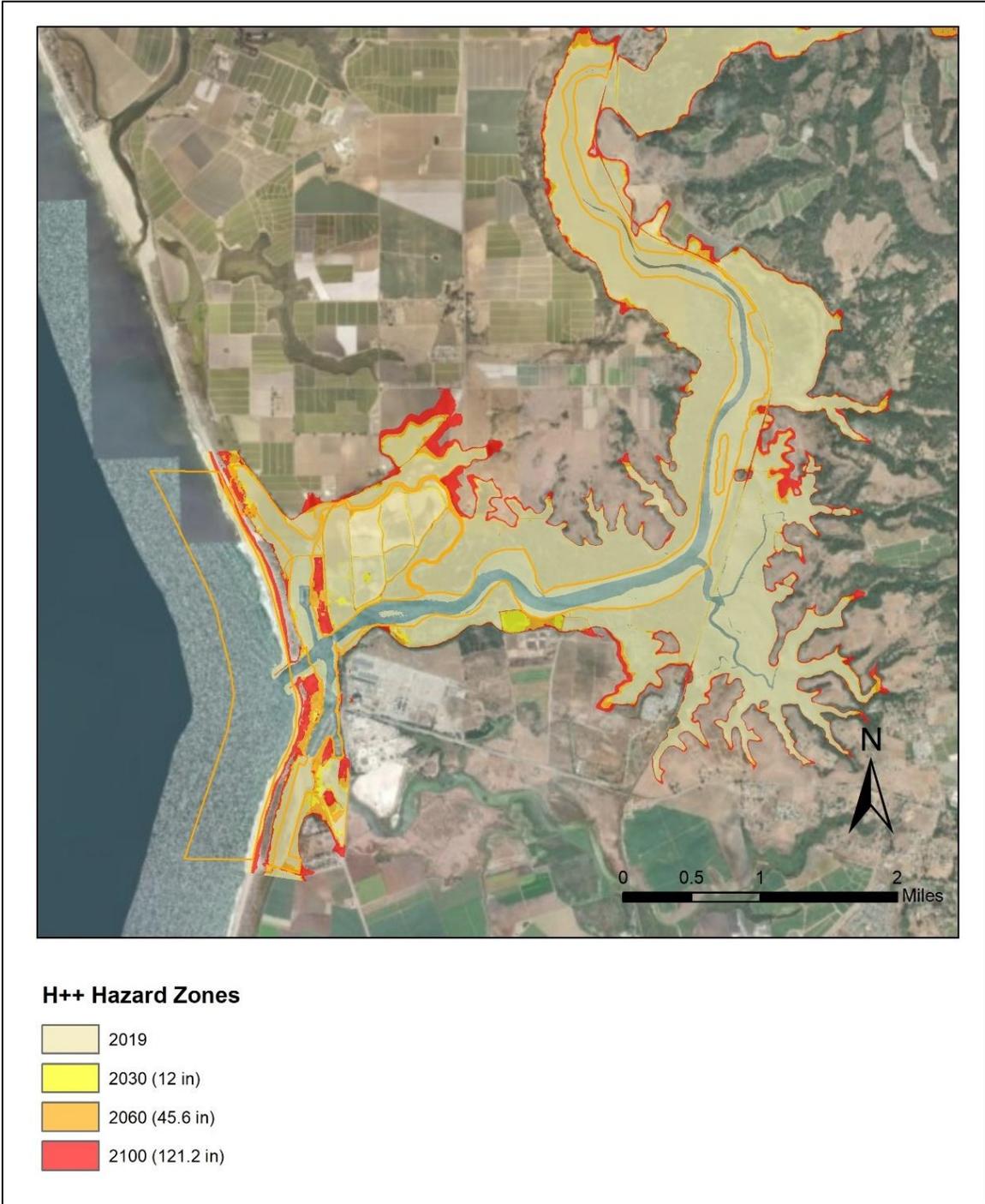


Figure 4. Flooding predicted using extreme rates of sea level rise (H++) for future time horizons.

# Moss Landing Harbor Predicted Hazards for 2030

## Tidal flooding

Flooding will occur in areas close to current high water (+4 inches) leading to a reduction in service and possible impacts from salt water flooding. Greatest tidal flooding impacts will occur during high tides (king tides) during storms that increase wave energy, local ocean levels, and increased river discharge (Figure 5).

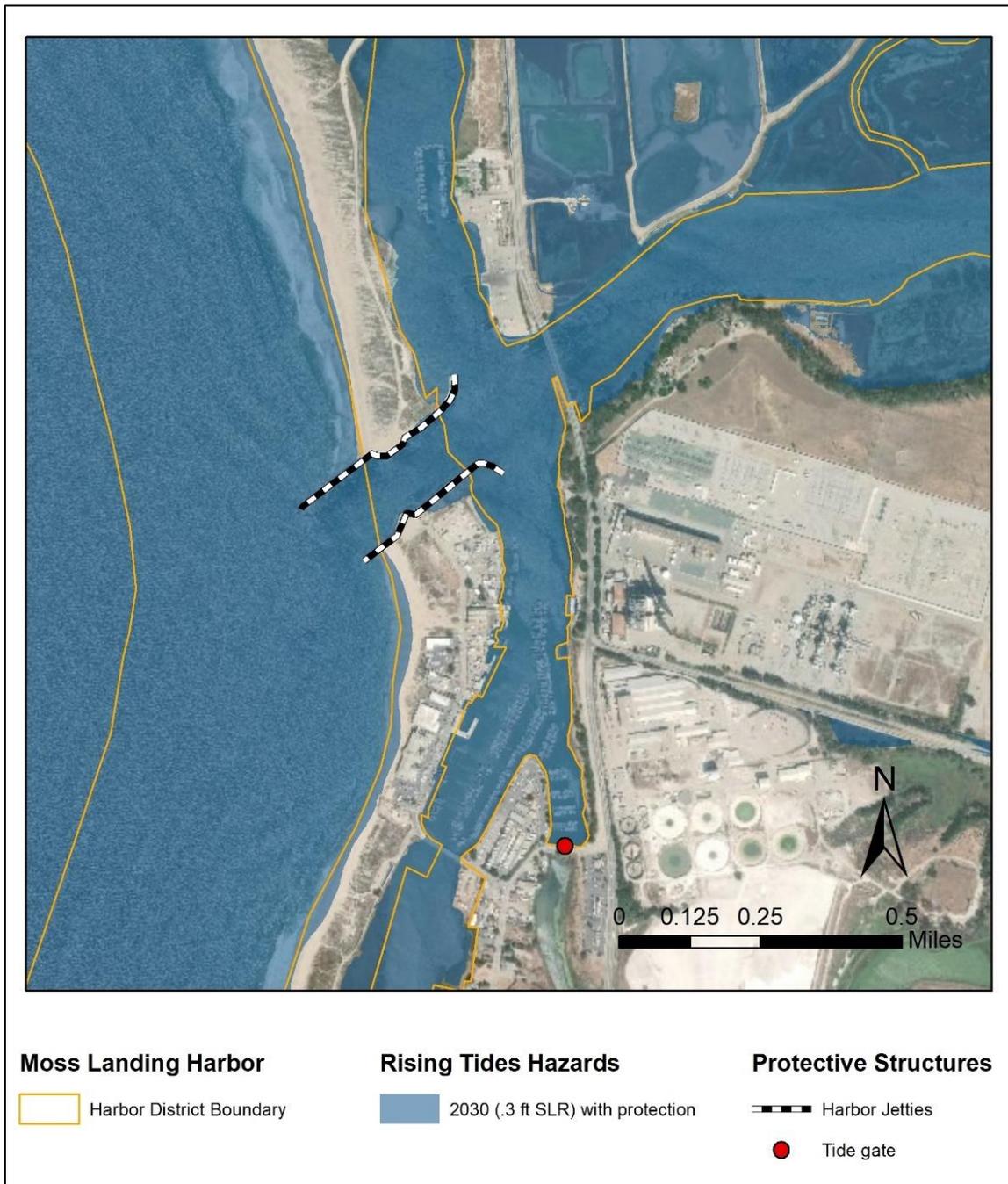


Figure 5. Flooding associated with 2030 increases in sea level (0.3ft)

## Storm Flooding

Flooding risks during winter storm events is predicted to increase significantly and lead to the greatest 2030 vulnerabilities. Flooding of the parking areas of South and North Harbor is predicted. Access to the island during storms will be reduced.

## Coastal Erosion

Coastal erosion of the sandspit that protects Moss Landing Harbor from ocean waves is predicted to be significant unless protective/adaptive actions are taken. Wave impacts along the beach are predicted to compromise dunes and coastal structures and reduce the long term protection to the harbor.

## River/Fluvial Flooding

River discharge during winter storms is predicted to increase. These increases in river flows are predicted to cause localized flooding as stormwater from the watershed meets higher winter ocean elevations in the harbor. Greater velocity discharge from the Old Salinas River into the harbor is likely and may impact infrastructure in its path. Greater sedimentation of the harbor due to greater erosion in the watershed is likely.

# Moss Landing Harbor Predicted Hazards for 2060

## 2060 Rising Tides

Flooding will occur monthly or daily in low-lying areas throughout the harbor leading to a reduction in service and possible impacts from salt water flooding (Figure 6). High tides are predicted to flood various harbor infrastructure and restrict access to docks if adaptive actions are not taken. Flooding of portions of Moss Landing and Sandholdt roads are predicted and will limit access to the harbor and harbor infrastructure on the “island” often. Tidal flooding across harbor granted lands is predicted to lead to inland flooding of the Moss Landing “downtown” area.

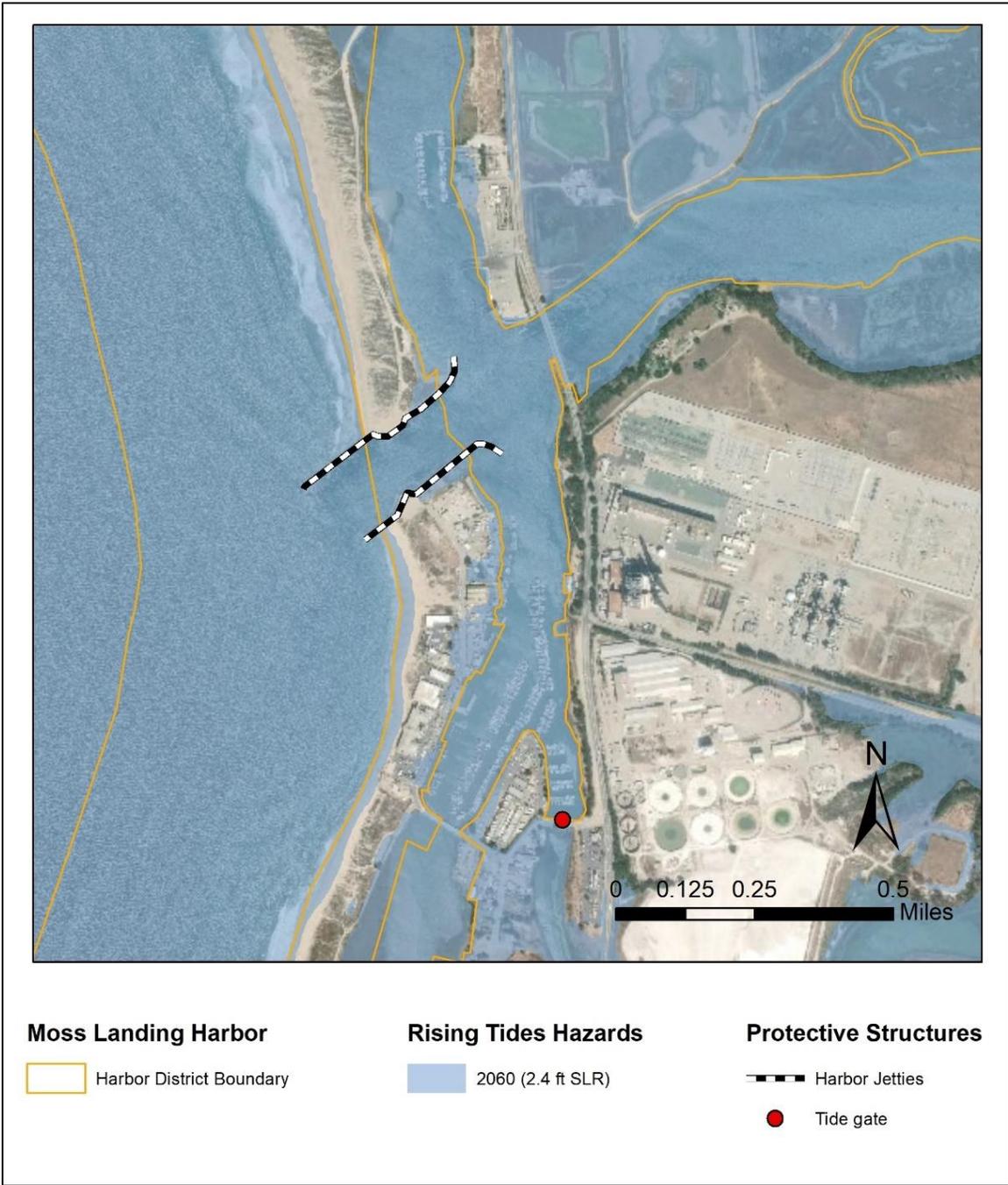


Figure 6. Flooding associated with 2060 increases in sea level (2.4 ft) including access roads to harbor infrastructure and Moss Landing community.

## 2060 Storm Flooding

Flooding risks during winter storm events is predicted to be significant (Figure 7). Flooding of more than half of the North Harbor land areas is predicted. Wave overtopping of the Island beach/dunes is predicted to be possible, leading to ocean waves (and sand) draining into Moss Landing Harbor. Access to the island during storms will be extremely limited and dangerous.

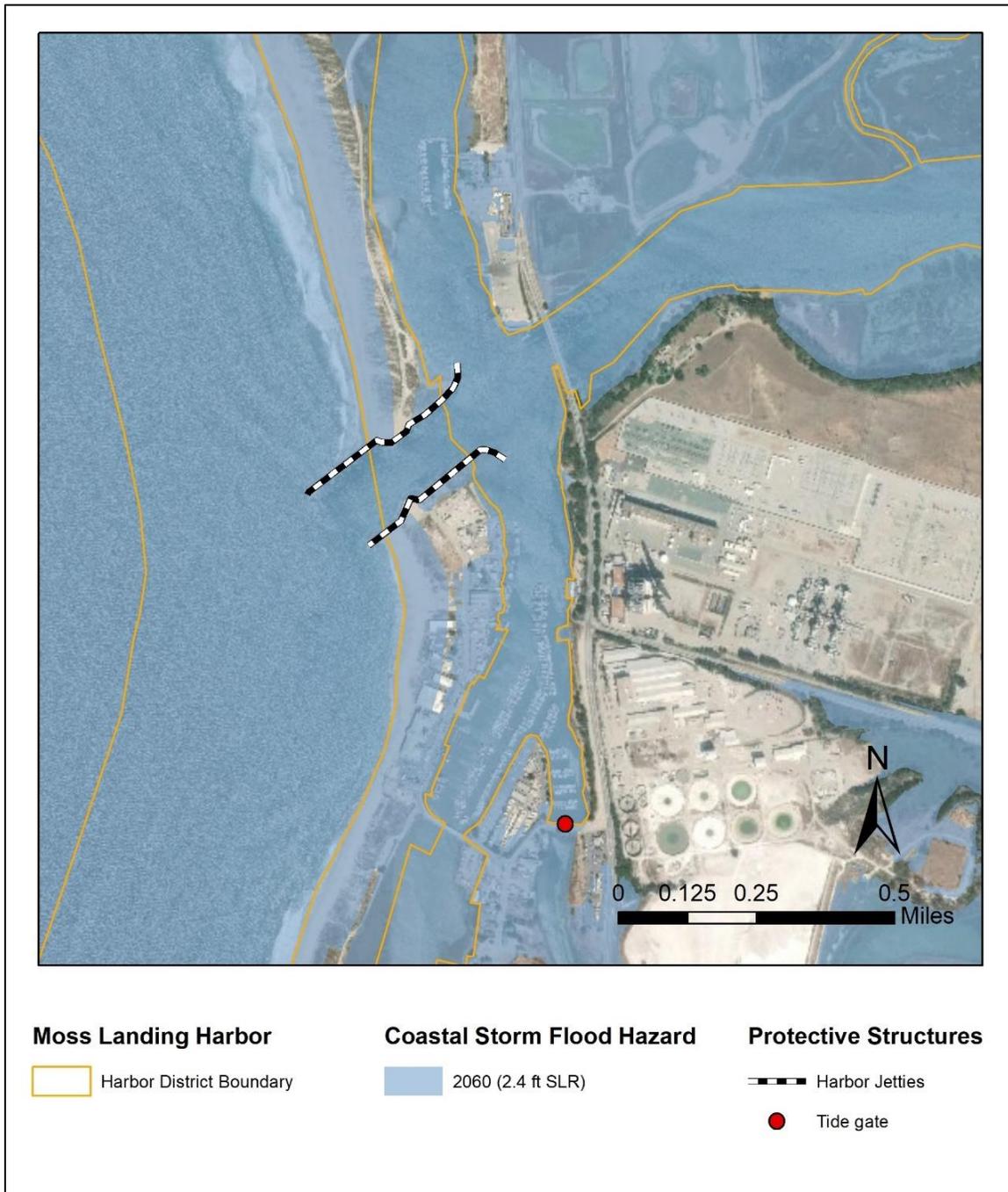


Figure 7. Flooding associated with 2060 storm surge.

## 2060 Coastal Erosion

By 2060, coastal erosion of the sandspit that protects Moss Landing Harbor from ocean waves is predicted to be significant and possibly jeopardize the harbor unless protective/adaptive actions are taken (Figure 8). Erosion of the dune barrier will likely lead to wave overtopping of the remaining dunes, allowing waves to enter the harbor, leading to vessel and dock damage and significant sedimentation. Failure of dunes are predicted along the entire stretch that parallels the harbor. Dunes adjacent to north harbor and dunes south of Sandholdt road have no structures or coastal armoring to reduce erosion, but also retain some natural dune building and migration capacity lost to development along Sandholdt Road. If dunes are allowed to migrate inland, these areas may retain their protective service.

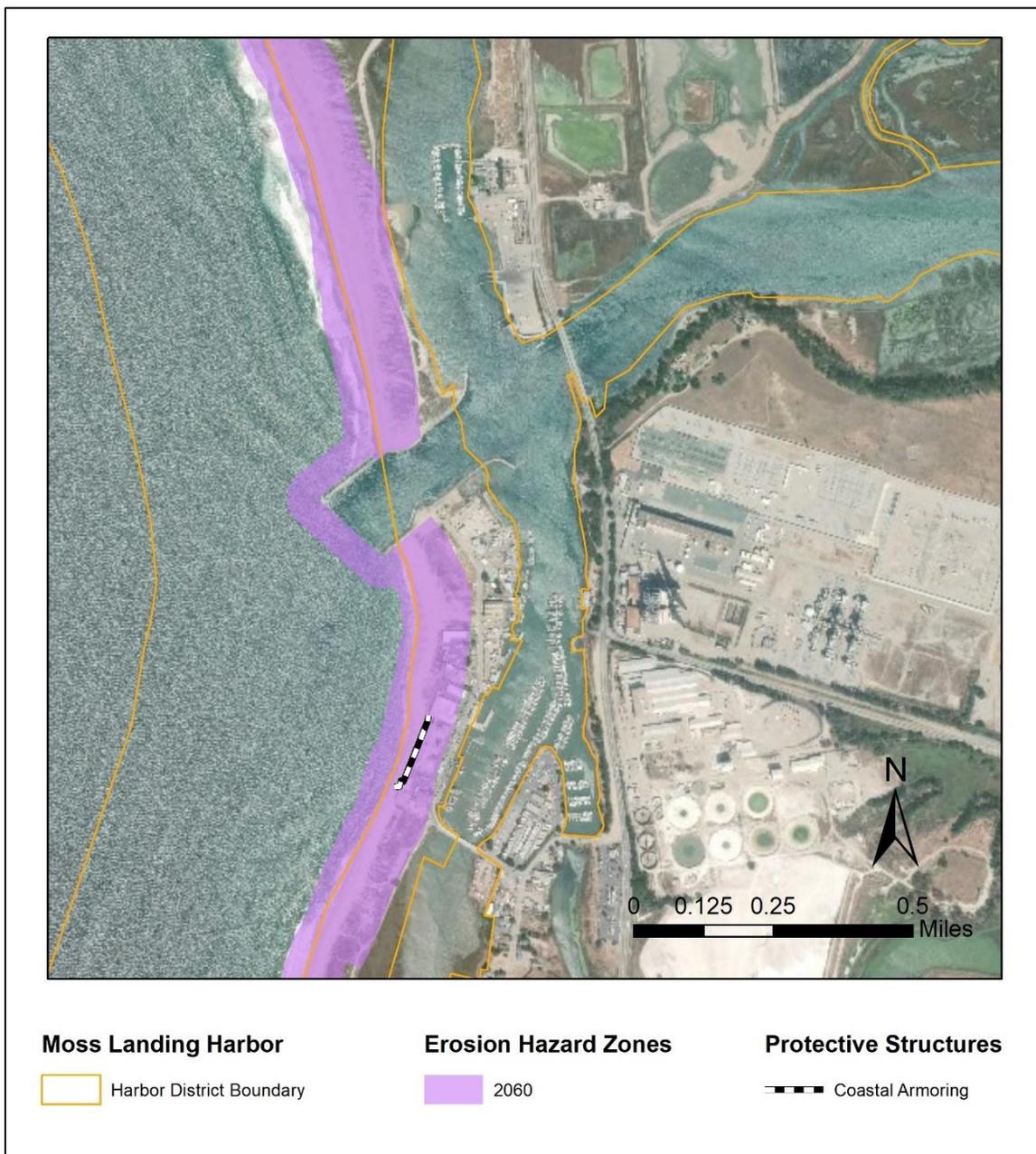


Figure 8. Inland erosion of coastline and loss of beach and dune habitat along the natural and developed sections of the sand spit, jeopardizing future harbor operations.

## 2060 River/Fluvial Flooding

River discharge during winter storms is predicted to increase. These increases in river flows are predicted to cause localized flooding as stormwater from the watershed meets higher winter ocean elevations in the harbor. Sedimentation of the harbor is also likely to increase due to increased erosion within the watershed during high flow events. Increased discharge velocity under Sandholdt Bridge may impact vessels and harbor infrastructure in south harbor.

## Assets at Risk by 2030 and 2060

### Public Access

**2030:** Moss Landing Harbor District provides the public with many unique opportunities to access and enjoy Elkhorn Slough and the Monterey Bay National Marine Sanctuary. Public trust lands granted to the Harbor District include much of Moss Landing tidal beach lands which provides lateral access along the coast between the harbor mouth and Salinas River State Beach. Visitors enjoy spectacular views, fishing opportunities, dog walking, surfing and small boat launching opportunities. The harbor district provides the public with access to 1) recreational fishing and whale watching boats from several public docks, 2) small boat launching for power boats and numerous self-propelled boats, 3) safe harbor berthing for traveling vessels, and 4) marine life viewing from restaurants and public viewing areas. The Harbor also provides private slips for resident vessels of all types.

Of the 11 designated public access areas within the Moss Landing Harbor and Elkhorn Slough, 2 of those access areas are located within the State granted lands. All 11 access areas however do provide public access to the granted lands.

The flooding extent from the combined effects of 2030 sea level rise and coastal storm flooding are predicted to restrict public access to numerous portions of the Moss Landing Harbor District Infrastructure (Figure 9). Specifically, portions of the main parking lot are predicted to be flooded during storms and restrict access to Docks A and B as well as adjacent parking. The small boat launch ramp and parking area of North Harbor are also predicted to be flooded. While access needs of the public will be limited during storm events, access to boat owners with slips in the harbor may be compromised.

Access to some of the harbor infrastructure via the low lying Moss Landing Road (figure 2) will be periodically restricted if the Moss Landing tide gates fail to mute tides to the Moro Cojo Slough. Launch Ramps and dock access areas in the North Harbor are estimated to be resilient to 2030 SLR (Figure 3).

**2060:** Monthly tidal flooding is predicted to be significant by 2060. Access to much of State granted lands managed by the Harbor District will be restricted during high tides (Figure 9). Flooding is predicted to be extensive within parking areas, dock access ways, launch ramps, and access roads, reducing the use of the harbor significantly and likely posing serious public safety challenges by restricting emergency service vehicles and staff.

Lands along the Moss Landing "island" will be lost as the ocean migrates inland (caused by sea level rise and associated storm waves and coastal erosion) and come into contact with current development,

limiting lateral access along the beach. This “coastal squeeze” will likely limit lateral access along the beach between the harbor mouth and Salinas River State Beach.

Access to State granted lands will be restricted during monthly or daily high tides along much of the Island and within the public areas of the South Harbor parking areas. Tidal flooding of the small boat launch ramp and areas around the Elkhorn Yacht club are predicted. Access to north harbor docks is predicted to be restricted.

Public access to the beach and waterways will be compromised due to direct impacts to access locations and from flooding of roads to those locations. Dunes and Moss Landing Beach are predicted to be reduced in width unless they are enabled to migrate inland.

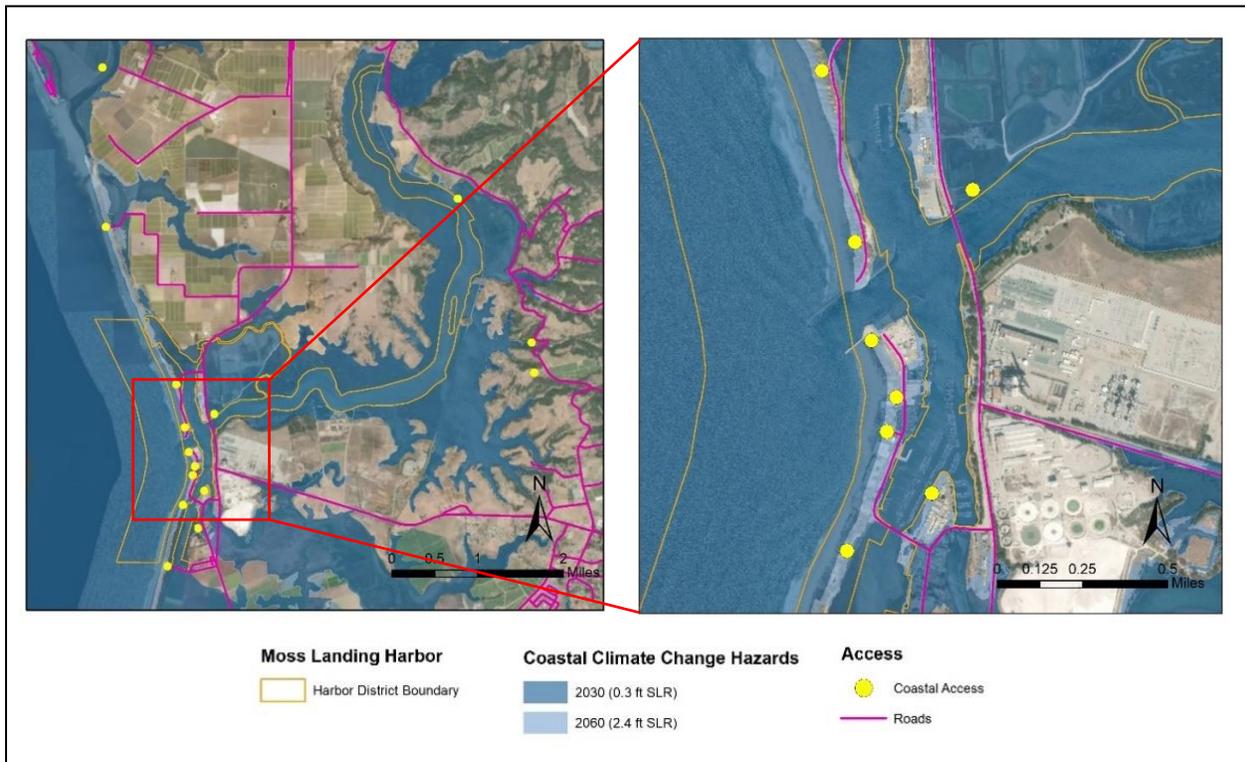


Figure 9. Coastal Access locations restricted by predicted future flooding.

## Infrastructure

**2030:** Three storm drains and two electric meter junction boxes are within the cumulative flood risk areas for 2030. Trash enclosure 32 is located within the flood areas (Table 4, Figure 10 & Figure 11).

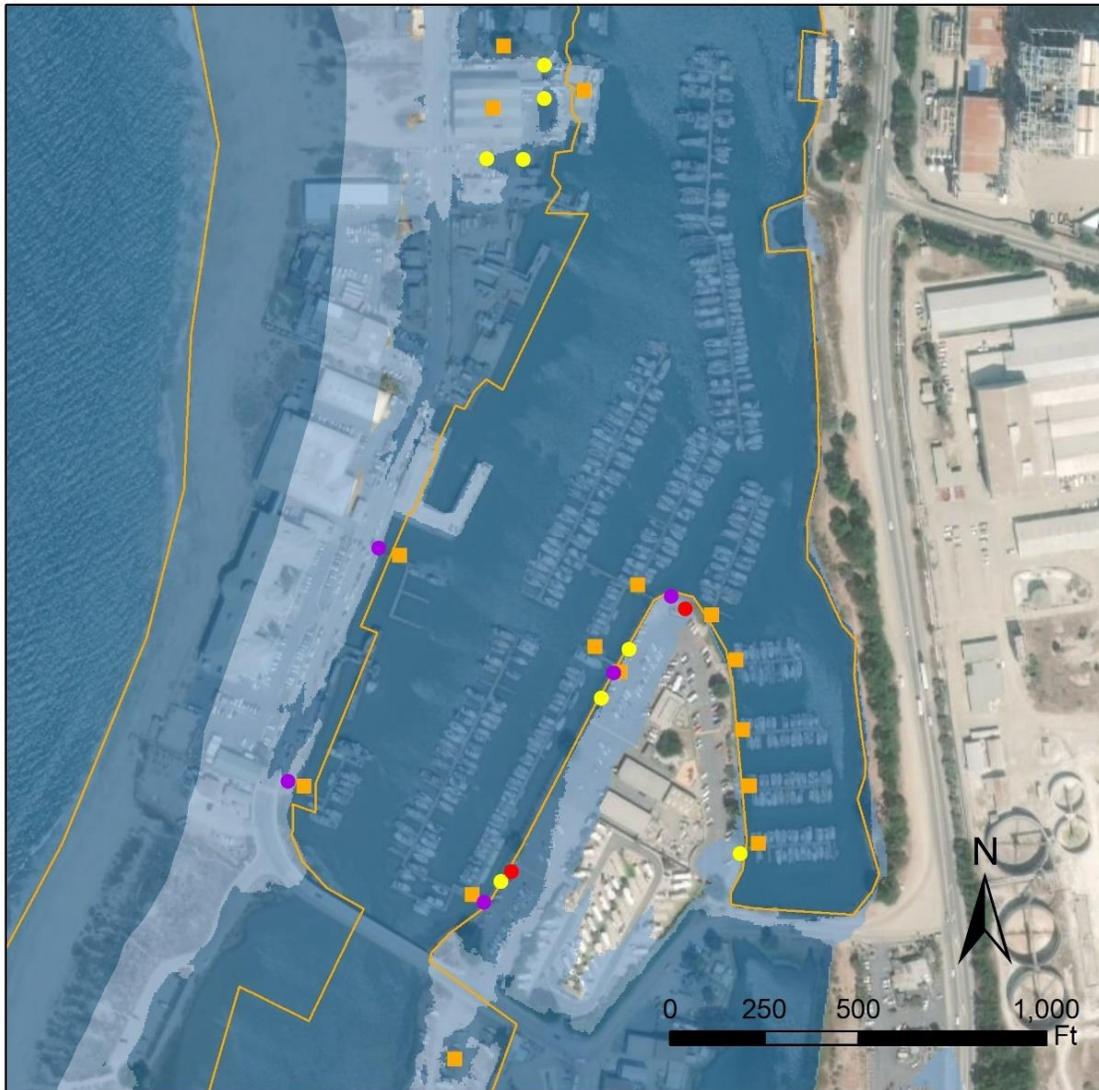
**2060:** 2060 storm and tidal flooding are predicted to compromise large portions of Moss Landing Harbor infrastructure including; two buildings (Cannery Building and Monterey Kayak), half of the storm drains, access to all docks and the used oil containment facility. The Moss Landing Road tide gates on the Moro Cojo Slough are predicted to be overtopped leading to inland flooding. Numerous dock pilings on Dock A are too short to retain floating docks during high tides and winter storms (Table 4, Figure 10 & Figure 11).

Table 4. Harbor infrastructure identified (noted with a number 1) as vulnerable to various SLR hazards during future time horizons

(ER= Erosion, CSF= Coastal Storm Flooding, RT= Rising Tides, TG=Tide Gate)

STRUCTURE	TYPE	ER 2030 (armor)	ER 2060	ER 2100	CSF 2030 (TG)	CSF 2060	CSF 2100	RT 2030 (TG)	RT 2060	RT 2100	FL 2030	FL 2060	FL 2100
Harbor Office	Building						1			1			1
Public Restrooms	Building						1			1			1
Boaters restrooms/laundry	Building						1			1			1
Maintenance Shop	Building						1			1			1
Cannery Building	Building					1	1			1		1	1
ML Storage	Building						1			1			1
ML Storage	Building						1			1			1
Sea Harvest	Building					1	1			1			
North Harbor Building site	Building						1			1			
Old Pot Stop Building	Building						1			1			
MB Kayak	Building					1	1			1			
Restroom Building	Building						1			1			
used oil containment facility	Building/Structure					1	1			1		1	1
Trash Enclosure	Structure					1	1			1			1
Trash Enclosure	Structure				1	1	1		1	1	1	1	1
Launch Ramps	Launch Ramp				1	1	1	1	1	1			
Old Launch Ramps	Launch Ramp				1	1	1	1	1	1			
Electric/ Sewer Lift Station	Lift Station						1						
Sewer Lift Station	Lift Station						1			1			1
Dry Storage	Lot					1	1		1	1		1	1
Maintenance Yard	Lot						1			1			1
Unimproved parking lot	Lot				1	1	1		1	1		1	1
Unimproved lot	Lot						1			1			
Moss Landing Community Park	Park						1			1			1
pier	Pier				1	1	1	1	1	1			
Storm Drain (total)	Storm Drain	0	0	0	7	12	16	2	7	15	2	8	8
Docks (total)	Dock	0	0	1	12	13	13	12	13	13	10	10	11
Electric Meter (total)	Electric Meter	0	0	2	3	6	7	1	5	7	2	5	6

## Moss Landing South Harbor Impacted Infrastructure



### Moss Landing Harbor

 Harbor District Boundary

### Impacted Infrastructure

-  Structure
-  Storm Drain
-  Trash Enclosure
-  Electric Meter

### Coastal Climate Change Hazards

 2030 (0.3 ft SLR)

 2060 (2.4 ft SLR)

Figure 10. South Harbor infrastructure vulnerable to 2030 and 2060 climate hazards.

# Moss Landing North Harbor Impacted Infrastructure



## Moss Landing Harbor

 Harbor District Boundary

### Impacted Infrastructure

-  Structure
-  Storm Drain
-  Trash Enclosure
-  Electric Meter

## Coastal Climate Change Hazards

-  2030 (0.3 ft SLR)
-  2060 (2.4 ft SLR)

Figure 11. North Harbor infrastructure vulnerable to 2030 and 2060 climate hazards.

## Commercial Area Adjacent to Harbor

**2030:** Commercial areas of North Harbor are outside of predicted 2030 hazard areas. Commercial areas of “downtown” Moss Landing and the Moss Landing “island” are predicted to be cut off from highway access during storm events coinciding with high or king tides.

**2060:** Commercial operations that serve visitors to the Harbor are predicted to be impacted by winter storm flooding. The Elkhorn Yacht Club is estimated to be within tidal and storm flooding elevations. Much of downtown Moss Landing will be flooded if the Moss Landing Tide gates are compromised and across the dry storage area next to the Old Salinas River during winter storms with high river discharge. Commercial, research and industrial infrastructure on Moss Landing Island are vulnerable to frequent flooding and coastal erosion.

## Natural Resources/Coastal Habitats

**2030:** Primary habitats within the State granted lands are subtidal mudflat, deep channel habitat, eel grass beds, tidal beaches and marine mammal haul out areas. These areas are likely resilient to 2030 predicted sea level rise. Adjacent tidal marsh habitat, however, will be submerged by 3-6 inches of additional tidal water, likely leading to the die off of lower portions of the estuarine marsh plain (Figure 12).

Coastal dunes and beaches within and adjacent to Moss Landing Harbor granted lands are predicted to be impacted by greater intensity winter storms that coincide with higher ocean levels. Portions of the beach in front of the Moss Landing sandspit are predicted to have limited lateral access except at low tides (Figure 8). Dune habitat south of Sandholdt Road are similarly likely to see erosion and a reduction in width if the dunes do not migrate inland.

**2060:** By 2060, lands that are currently intertidal marsh and beach habitat will be flooded and current environmental benefits will be lost as those habitats transition to subtidal landscapes. Much of Elkhorn Slough will become mudflats as marshlands die due to flooding. Sand dunes and beach areas will be lost to erosion and flooding.

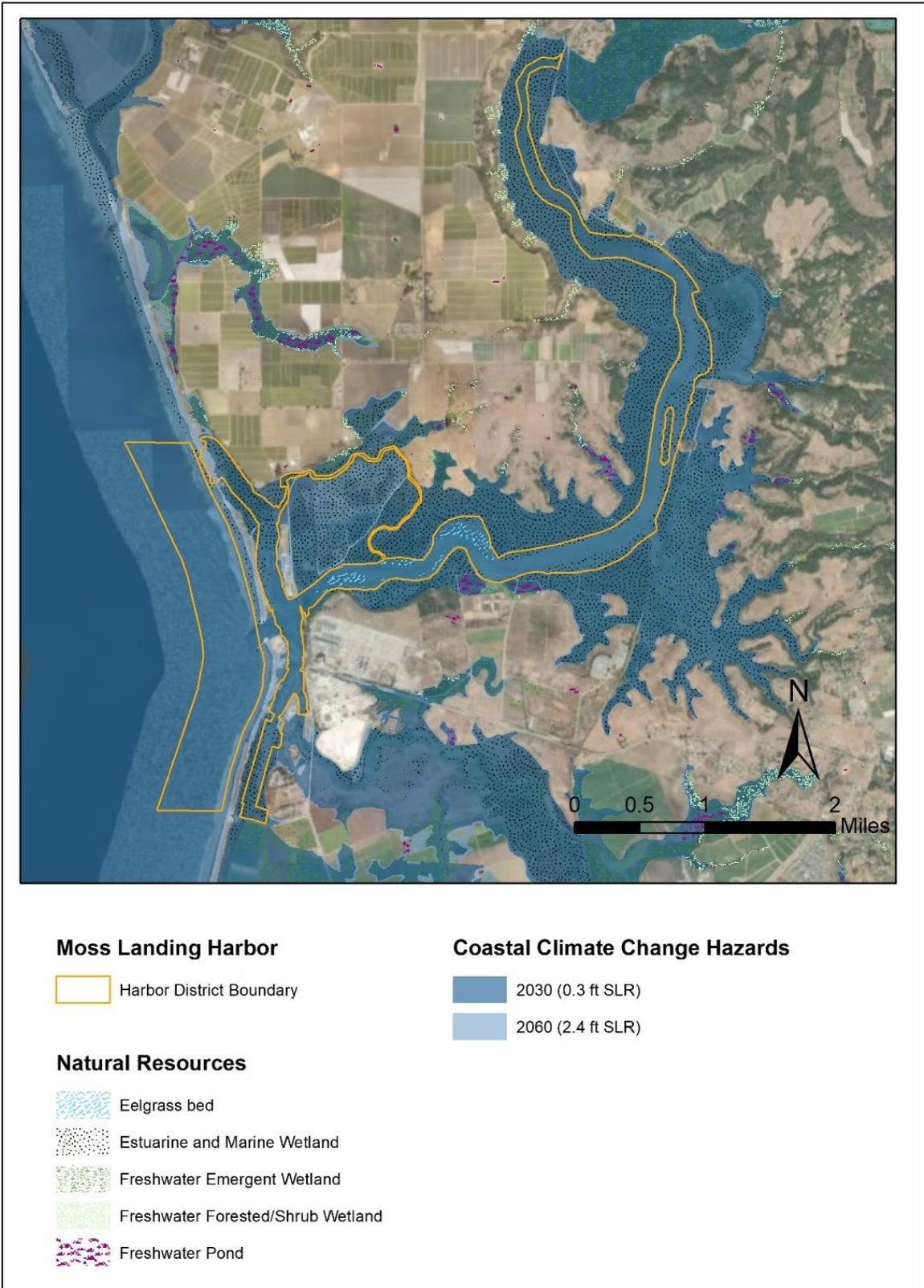


Figure 12. Natural habitats located within the granted lands that may be impacted by changes in water elevation and salinity.

## Navigability

**2030:** Impacts of predicted 2030 risks are anticipated to be associated with restrictions of vessels to land during flooding of harbor parking lots. Some potential limitations to small boat launching are likely during storms. Increased sedimentation of the main channel is likely as tidal marsh transitions to subtidal habitat.

**2060:** Navigability will be compromised due to loss of access between tidal lands and adjacent public access lands. The harbor mouth jetty is predicted to be overtopped by winter waves. Increased sedimentation from the loss of tidal marshes of Elkhorn Slough and increased flooding in the Salinas Valley will likely lead to increased rates of sedimentation within the harbor. Dock infrastructure will be compromised by higher tides (overtopping older pilings), greater river discharge, and possible dune migration within the north harbor.

## Critical Coastal Infrastructure at Risk by 2030, 2060, and 2100

### 2030 Risks of Coastal Climate Change

1. The flooding extent from the combined effects of 2030 SLR and coastal storm flooding are predicted to restrict access to portions of the main parking lot and restrict access to Docks A and B.
2. The small boat launch ramp and parking area of North Harbor are also predicted to be flooded.
3. Some periodic flooding is predicted for some low lying areas adjacent to the State tidal lands.
4. Access to some of the harbor infrastructure via the low lying Moss Landing Road will be compromised if the Moss Landing tide gates fail to restrict high tides to the Moro Cojo Slough.
5. Launch Ramps and dock access areas in the North Harbor are estimated to be resilient to SLR.
6. Impacts of SLR may lead to significant erosion to Kirby Park launch ramp and parking area.
7. Three storm drains and two electric meters are within the cumulative flood risk areas for 2030. Trash enclosure 32 is located within the flood areas.
8. Commercial areas of North Harbor are outside of predicted 2030 hazard areas. Commercial areas of “downtown” Moss Landing and the Moss Landing “island” are predicted to be cut off from highway access during storm events.
9. Primary habitats within the State granted lands are subtidal mudflat, deep channel habitat, eel grass beds and marine mammal haul out areas.
10. 2030 risks are anticipated to cause restrictions of vessels to land during flooding of harbor parking lots.
11. Limitations to small boat launching are likely during storms.

### 2060 Risks of Coastal Climate Change

1. Access to much of State granted lands managed by the Harbor District will be restricted during high tides.
2. Flooding is predicted to be extensive within parking areas, dock access ways, launch ramps, and access roads, reducing the use of the harbor significantly and likely posing serious public safety challenges by restricting emergency service vehicles and staff.

3. Lands along the Moss Landing “island” will be lost as the ocean migrates inland (caused by sea level rise and associated coastal erosion) and meet current development, limiting lateral access along the beach.
4. Access to granted lands will be restricted during monthly or daily high tides along much of the Island and within the public areas of the South Harbor parking areas.
5. Access to north harbor docks is predicted to be restricted.
6. Flooding risks during winter storm events is predicted to be significant.
7. Flooding of more than half of the North Harbor land areas is predicted.
8. Wave overtopping of the Island beach/dunes is predicted to be possible leading to ocean waves (and sand) draining into Moss Landing Harbor.
9. Access to the island during storms will be extremely limited.
10. 2060 storm and tidal flooding are predicted to compromise large portions of Moss Landing Harbor infrastructure including; two buildings, half of the storm drains, most electrical meters, access to all docks and the used oil containment facility.
11. The Moss Landing Road tide gates on the Moro Cojo Slough are predicted to be overtopped leading to inland flooding.
12. By 2060, lands that are currently intertidal marsh habitat will be flooded and current environmental benefits will be lost as those habitats transition to subtidal landscapes. Much of Elkhorn Slough will become mudflats as marshlands die due to flooding.
13. Navigability will be compromised due to loss of access between tidal lands and adjacent public lands.
14. The harbor mouth jetty is predicted to be overtopped by winter waves.
15. Increases of sedimentation from the loss of tidal marshes of Elkhorn Slough will likely lead to increased rates of sedimentation within the harbor.

### 2100 Risks of Coastal Climate Change

1. By 2100, access to all Harbor District infrastructure will be restricted/flooded during daily high tides.
2. Winter storm waves and coastal erosion will likely bisect the sand spit above and below the Sandholdt Bridge, leading to limited use of the granted lands as a safe harbor marina.
3. The community of Moss Landing and Highway 1 will most likely need to be moved out of harm’s way.

The cumulative impacts of sea level rise to harbor infrastructure are shown below in Table 5.

*Table 5. Quantification of assets and infrastructure at risk for three time horizons.*

STRUCTURE	2030 CUMULATIVE IMPACTS	2060 CUMULATIVE IMPACTS	2100 CUMULATIVE IMPACTS
Harbor Office	0	0	1
Maintenance Shop	0	1	1
Cannery Building	0	1	1
ML Storage	0	0	1
ML Storage	0	0	1
Sea Harvest	0	0	1
North Harbor Building site	0	0	1
Old Pot Stop Building	0	0	1
MB Kayak	0	0	1
Restroom Building	0	0	1
Electric Meters	2	6	7
Storm Drains	3	8	15
Dock Landings	11	12	12
Hazardous Waste	1	2	4
Public Services	0	0	1
Paved Areas	4	6	8

## Prioritizing Assets for Adaptation

Considerations for determining adaptive capacity include: 1) continued functionality of infrastructure when not flooded, 2) duration of projected impact (infrequent/short period, monthly, frequent/ongoing), 3) feasibility to increase resiliency of current infrastructure, and 4) functionality of infrastructure given potential loss of access. Adaptations were prioritized based on costs to implement action and continued level of service once adaptation is complete. Adaptive capacity was therefore defined as 1) high if adaptation was cost effective and retained needed level of service, 2) medium if costs were higher but resulting infrastructure was resilient to predicted hazards through 2060, and 3) low if costs were significant and resulting level of service was reduced or impacted by other external hazards (Table 6).

Table 6. Adaptive capacity of various climate risks for 2030, 2060, and 2100.

IMPACTS OF HAZARDS BY TIME HORIZON	FREQUENCY OF HAZARD	DURATION OF IMPACT	FEASIBILITY TO INCREASE RESILIENCY	ADAPTIVE CAPACITY
<b>2030 Risks of Coastal Climate Change</b>				
1. The flooding extent from the combined effects of 2030 SLR and coastal storm flooding are predicted to restrict access to portions of the main parking lot and restrict access to Docks A and B.	Infrequent	Temporary	High	High
2. The small boat launch ramp and parking area of North Harbor are also predicted to be flooded.	Infrequent	Temporary	NA	High
3. Some periodic flooding is predicted for some low lying areas (parking) adjacent to the State tidal lands.	Infrequent	Temporary	Moderate	Moderate
4. Access to some of the harbor infrastructure via the low lying Moss Landing Road (figure 2) will be compromised if the Moss Landing tide gates fail to restrict high tides to the Moro Cojo Slough.	Monthly	Perpetual	Moderate	Moderate
5. Launch Ramps and dock access areas in the North Harbor are estimated to be resilient to SLR (figure 3).	NA			
6. Impacts of SLR have already led to significant erosion to Kirby Park launch ramp and parking area.	Frequent	Perpetual	Moderate	Moderate
7. Three storm drains (7, 11,30) and two electric meters (36 & 37) are within the cumulative flood risk areas for 2030. Trash enclosures 32 is located within the flood areas.	Monthly	Temporary	Low	High
8. Commercial areas of North Harbor are outside of predicted 2030 hazard areas. Commercial areas of “downtown” Moss Landing and the Moss Landing “island” are predicted to be cut off from highway access during storm events.	Infrequent	Temporary	Moderate	Moderate or Low

IMPACTS OF HAZARDS BY TIME HORIZON	FREQUENCY OF HAZARD	DURATION OF IMPACT	FEASIBILITY TO INCREASE RESILIENCY	ADAPTIVE CAPACITY
9. Primary habitats within the State granted lands are subtidal mudflat, deep channel habitat, eel grass beds and marine mammal haul out areas.	NA			
10. 2030 risks are anticipated to cause restrictions of vessels to land during flooding of harbor parking lots.	Infrequent	Temporary	High	High
11. Limitations to small boat launching are likely during storms.	Infrequent	Temporary	High	High
<b>2060 Risks of Coastal Climate Change</b>				
1. Access to much of State granted lands managed by the Harbor District will be restricted during high tides.	Frequent	Temporary	Moderate	Moderate
2. Flooding is predicted to be extensive within parking areas, dock access ways, launch ramps, and access roads, reducing the use of the harbor significantly and likely posing serious public safety challenges by restricting emergency service vehicles and staff.	Frequent	Temporary	Moderate	Moderate
3. Lands along the Moss Landing "island" will be lost as the ocean migrates inland (caused by sea level rise and associated coastal erosion) and meet current development, limiting lateral access along the beach.	Frequent	Perpetual	Low	Low
4. Access to granted lands will be restricted during monthly or daily high tides along much of the Island and within the public areas of the South Harbor parking areas.	Frequent	Temporary	Moderate	Moderate
5. Access to north harbor docks is predicted to be restricted.	Frequent	Temporary	Moderate	Moderate
6. Flooding risks during winter storm events is predicted to be significant.	Frequent	Temporary	Moderate	Moderate
7. Flooding of more than half of the North Harbor land areas is predicted.	Frequent	Temporary	Moderate	Moderate

IMPACTS OF HAZARDS BY TIME HORIZON	FREQUENCY OF HAZARD	DURATION OF IMPACT	FEASIBILITY TO INCREASE RESILIENCY	ADAPTIVE CAPACITY
8. Wave overtopping of the Island beach/dunes is predicted to be possible leading to ocean waves (and sand) draining into Moss Landing Harbor.	Infrequent	Perpetual	Moderate	Low
9. Access to the island during storms will be extremely limited.	NA			
10. 2060 storm and tidal flooding are predicted to compromise large portions of Moss Landing Harbor infrastructure including; two buildings, half of the storm drains, most electrical meters, access to all docks and the used oil containment facility.	Frequent	Perpetual	Moderate	Moderate
11. The Moss Landing Road tide gates on the Moro Cojo Slough are predicted to be overtopped leading to inland flooding.	Frequent	Perpetual	Moderate	Low
12. By 2060, lands that are currently intertidal marsh habitat will be flooded and current environmental benefits will be lost as those habitats transition to subtidal landscapes. Much of Elkhorn Slough will become mudflats as marshlands die due to flooding.	Frequent	Perpetual	Low	Low
13. Navigability will be compromised due to loss of access between tidal lands and adjacent public lands.	Frequent	Temporary	High	Moderate
14. The harbor mouth jetty is predicted to be overtopped by winter waves.	Infrequent	Temporary	Moderate	Low
15. Increases of sedimentation from the loss of tidal marshes of Elkhorn Slough will likely lead to increased rates of sedimentation within the harbor.	Frequent	Perpetual	Moderate	Moderate
<b>2100 Risks of Coastal Climate Change</b>				
1. By 2100, access to all Harbor District infrastructure will be restricted/flooded during daily high tides.	Frequent	Perpetual	Low	Low

IMPACTS OF HAZARDS BY TIME HORIZON	FREQUENCY OF HAZARD	DURATION OF IMPACT	FEASIBILITY TO INCREASE RESILIENCY	ADAPTIVE CAPACITY
2. Winter storm waves and coastal erosion will likely bisect the sand spit above and below the Sandholdt Bridge, leading to limited use of the granted lands as a safe harbor marina.	Frequent	Perpetual	Low	Low
3. The community of Moss Landing and Highway 1 will most likely need to be moved out of harm's way.	Frequent	Perpetual	Low	Low

### 3. Financial Loss Associated with Sea-level Rise Impacts

#### Direct Loss of Economic Benefits with Loss of Harbor Services

Several economic studies of the Elkhorn Slough and Moss Landing Harbor have been done that help to characterize the economic benefits provided by the harbor infrastructure and the associated access to coastal and marine environments (Table 7). Pomeroy and Dalton estimated the direct economic value of commercial fishing in Moss Landing to be between \$18 million and \$25 million per year (based on data from 1999-2001).<sup>14</sup> Six vessels were noted as retaining home port in Moss Landing as commercial passenger fishing vessels in 2007, reported to service just over 100 vessel trips annually with approximately 1000 anglers (2007 data) with adjusted value of approximately \$100 per angler trip, or around \$1 million.<sup>15</sup>

Table 7. Annual market and non-market valuation of various visitor related access uses of Moss Landing Harbor

ECONOMIC ACTIVITY (2007 DATA)	ECONOMIC VALUE	NON-MARKET VALUE
Commercial Fishing (Landed Value)	\$ 24,000,000	N/A
Commercial Passenger Fishing Vessels (Charter Boats)	\$ 1,000,000	\$ 100,000
Nature-based Recreation (Kayaking & Whale Watching)	\$ 7,000,000	\$ 5,000,000
Beach going	\$ 7,000,000	N/A
Recreational Boating	\$ 7,000,000	\$ 4,000,000
Boating and vessel related fees	\$ 2,000,000	N/A
Research and Conservation (operating budgets)	\$ 70,000,000	\$ 10,000,000
<b>Total</b>	<b>\$ 118,000,000</b>	<b>\$ 19,100,000</b>

While commercial and charter boat fishing have been the long term centers of the local economy, recent studies suggest that research and conservation focused activities likely generate more to the economy currently in terms of gross revenues.<sup>16</sup> The harbor currently supports two highly respected research institutions: Moss Landing Marine Laboratories and the Monterey Bay Aquarium Research

<sup>14</sup> Pomeroy, C. and M. Dalton. 2003. Socio-Economic of the Moss Landing Commercial Fishing Industry. Report to the Monterey County Office of Economic Development.

<sup>15</sup> Miller, N. and J. Kildow. 2007. The Economic Contribution of Marine Science and Education Institutions in the Monterey Bay Crescent. National Ocean Economics Program.

<sup>16</sup> Kildow, J. and L. Pendleton, 2010, Elkhorn Slough Restoration: Policy & Economic Report. National Ocean Economics Program (NOEP). [www.oceaneconomics.org](http://www.oceaneconomics.org)

Institute, which combined support more than 420 jobs with annual budgets of more than \$67 million. In total, our summary of economic benefits associated with the services and public access provided by the Harbor District through State granted lands is over \$118 million annually (Table 7).

## Indirect Loss (Non-market Values) of Recreation and Ecosystem Services

In a 2007 study, researchers found that Moss Landing State Beach hosted 200,000 visits annually and attendance at the Salinas River State Beach was approximately 250,000 annually (in 2007).<sup>17</sup> The authors find that beach goers tend to enjoy an average non-market value of roughly \$15 per beach visit (year 2006 dollars) which would suggest that the non-market value of beach going at Moss Landing and Salinas River State Beaches could generate on the order of \$7 million annually in economic value to beach goers. In another study, estimates that whale watching alone in the state generates more than \$40 million in non-market value which can equate to more than \$4 million in personal experience value for whale watching from Moss Landing alone.<sup>18</sup>

Table 8. Visitation records for various locations within and around State Granted Lands. (Source: Kildow and Pendleton 2010)

SITE	TOTAL NUMBER OF VISITS	PERCENT VISITATION
Bennet Slough	7	2.3%
Moss Landing North	133	42.9%
Moss Landing South	142	45.8%
Moro Cojo Slough	5	1.6%
SDFP Wildlife Area	63	20.3%
Seal Bend/Rubis Creek	58	18.7%
Moon Glow Dairy	20	6.5%
ESNERR North	35	11.3%
South March	35	11.3%
Visitors Center	67	21.6%
ESNERR North	47	15.2%
North Marsh	5	1.6%
Kirby Park	65	21.0%
Hudson's Landing	5	1.6%

<sup>17</sup> Kildow, J. and L. Pendleton, 2010, Elkhorn Slough Restoration: Policy & Economic Report. National Ocean Economics Program (NOEP). [www.oceaneconomics.org](http://www.oceaneconomics.org)

<sup>18</sup> Pendleton, L. 2005. Understanding the Potential Economic Value of Marine Wildlife Viewing and Whale Watching in California. California Marine Life Protection Act Initiative.

## Impacts to Recreation

Impacts to coastal access and harbor related recreation were estimated for the two planning horizons of 2030 and 2060 (Table 9). Predicted flooding for the 2030 time horizon will lead to periodic and seasonal restrictions to public access to harbor infrastructure and estuarine and marine areas. Because most flooding impacts will occur during winter storm events and during some non-storm king tide events, restrictions to public access will be limited in numbers and duration (we estimate 15% maximum reduction in public use of beaches). We also anticipate a small reduction in demand for slips due to reductions in level of service during flood events (maximum of 10%). We do anticipate that the loss of estuarine habitat within Elkhorn Slough may lead to a reduction in ecotourism visitation (20%) to the kayak renters located in North Harbor area. Off shore kayak trips should not be impacted. Fishing within the harbor (no non-market valuation data available) was assumed to be unaffected.

By 2060, reduction in the level of service capacity of existing infrastructure is predicted to be significant and may lead to weekly or daily reductions in access to coastal and harbor resources. Unless upgrades are completed, we anticipate a 50% reduction in access and use of the harbor by commercial and privately owned vessels and a 40% reduction in ecotourism related use (because of the variability in access restricted by tidal flooding). Some of these reductions in access can be mitigated through upgrades to existing infrastructure (discussed below).

## Impacts to Ecosystem Services

The predicted loss of estuarine marsh habitat due to submergence is expected to have a significant impact on some threatened and endangered species and the loss of important ecological habitat types within Elkhorn Slough. Loss of dune habitat (and resulting adaptive capacity of harbor resources) is also predicted but may be mitigated if coastal dunes are allowed or encouraged to migrate inland. Previous studies suggest that recreation is concentrated in coastal areas near Highway 1 (Moss Landing Harbor and the beaches, Table 8) which are less vulnerable to 2030 hazards.

By 2060 much of Elkhorn Slough will likely transition to a subtidal embayment which may lead to a reduction in ecotourism visitation to the Slough. Similarly, daily flooding of beaches and other natural coastline amenities will reduce visitation to the harbor and adjacent coastline.

## Financial Loss of Recreation and Ecosystem Services

Based on our market and non-market resource valuations of the Moss Landing Harbor (\$137 million (2007 dollars)) we anticipate a small but real (\$3.6 million) impact to the recreation and ecotourism economy by 2030 due to predicted hazards if no adaptation measures are implemented. By 2060 approximately half of the estimated economic valuation will be lost due to the predicted impacts to ecosystem services and daily restrictions in access. Ecosystem and infrastructure vulnerabilities can be mitigated or made more resilient and regional and state partners should work with the Harbor District to prioritize long term management objectives for the harbor (See Table 11 in Section 4). Long term risks (2100) to infrastructure and coastal beaches and dunes will likely make protection of the harbor through the end of the century infeasible and adaptive strategies and retreat plans should be developed to relocate harbor infrastructure inland as needed to provide the necessary level of safe harbor infrastructure in Moss Landing for future boaters.

Table 9. Market and non-market cost implications of reduced level of service and access from predicted climate hazards.

VALUATION	ECONOMIC VALUATION (MARKET AND NON-MARKET)	2030 % SERVICE LOSS	2030 ECONOMIC LOSS	2060 % SERVICE LOSS	2060 ECONOMIC LOSS
Commercial Fishing (Landed Value)	\$ 24,000,000	0%	\$ -	50%	\$ 12,000,000
Commercial Passenger Fishing Vessels (Charter Boats)	\$ 1,100,000	0%	\$ -	50%	\$550,000
Nature-based Recreation (Kayaking & Whale Watching)	\$ 12,000,000	20%	\$ 2,400,000	40%	\$ 4,800,000
Beach going	\$ 7,000,000	15%	\$ 1,050,000	50%	\$ 3,500,000
Recreational Boating	\$ 11,000,000	0%	\$ -	50%	\$ 5,500,000
Boating and vessel related fees	\$ 2,000,000	10%	\$ 200,000	50%	\$ 1,000,000
Research and Conservation (operating budgets)	\$ 80,000,000	0%	\$ -	50%	\$ 40,000,000
<b>Total</b>	<b>\$ 137,100,000</b>		<b>\$ 3,650,000</b>		<b>\$67,350,000</b>

## 4. Adaptation Opportunities

### Proposed Moss Landing Harbor Adaptation Strategies

Below is a description of proposed mitigation/adaptation measures which are intended to address vulnerabilities to existing harbor infrastructure from specific climate risks described in Section 2.

1. Do not build new infrastructure within projected hazard zones that will not be resilient (for the expected life of the infrastructure) to the predicted impacts of that hazard.
2. Upgrade Harbor infrastructure within and adjacent to tidelands to be resilient to 2060 predicted tidal range (>2.6-3.8ft).
  - a. Harbor pilings in some areas that have not been upgraded will need to be replaced with taller posts to ensure that tides do not lead to docks overtopping pilings.
  - b. Raise or relocate pedestrian walkways, dock access ramps (areas 1, 2 &3) and adjacent infrastructure (oil collection system, garbage enclosure).
3. Raise public parking and access areas of Harbor District property to above the predicted 2060 tidal range.
  - a. Raise parking lot areas to above the predicted 2060 tidal range (>2.6-3.8ft). (See Figure 13)
  - b. Access/launch ramps and other infrastructure should be upgraded in coordination with adjacent efforts to raise parking and access areas above 2060 tides.
4. Design and build low relief berms (with drainage infrastructure) along harbor waterfront and restore coastal beach and dunes to help reduce winter storm flooding to Harbor district property and adjacent roads and infrastructure.
  - a. Design and construct (in partnership with the Monterey County, CalTrans and Moss Landing Community) low relief berms along waterfront areas where storm flooding is predicted to overtop and flood inland low-lying roads and properties. (See Figure 13)
  - b. Upgrade storm drains to enhance drainage during rainstorms with high tides (king tides).
  - c. Work with US Army Corps of Engineers and Monterey Bay National Marine Sanctuary (and other regulatory agencies) to investigate beach and dune nourishment opportunities for harbor dredge materials to increase SLR resiliency.
  - d. Continue to support dune restoration and resiliency efforts on Salinas River State Beach sand dunes (Figure 13).
  - e. Define inland zones to support dune migration (while maintaining harbor channel functions) needed to maintain a minimum dune barrier width (Figure 14a).

5. Work with Monterey County and Moss Landing Community to ensure road access to harbor infrastructure and docks.
  - a. Continue to participate in the Moss Landing Community Plan development process and ensure that County services including roads and bridges and utilities are maintained, upgraded or relocated in ways that ensure continued access to and use of harbor infrastructure through 2060.
  - b. Upgrade Moss Landing Road tide gates to enhance drainage during rainstorms with high tides (king tides).
  
6. Draft long range plan in partnership with Monterey County to relocate the harbor infrastructure (in tandem with the Moss Landing community, local roads and highway alignment) inland to serve 2100 community needs. Negotiate modified tidal lands lease agreement with State Lands Commission.
  - a. Establish a long range planning effort within the Moss Landing Community Plan process to identify needed coastal retreat strategies and rezone areas for future development inland of mapped hazard areas (Figure 14b). Investigate new opportunities to relocate Moss Landing Harbor inland along the Elkhorn or Moro Cojo sloughs as coastal dunes fail or migrate inland.
  - b. Ensure that County actions (road and bridge replacements) and state agency programs and policies support harbor district needs to re-locate new berthing inland within Elkhorn Slough (East of the current location of Highway 1), in order to continue safe harbor services to the citizens of California.

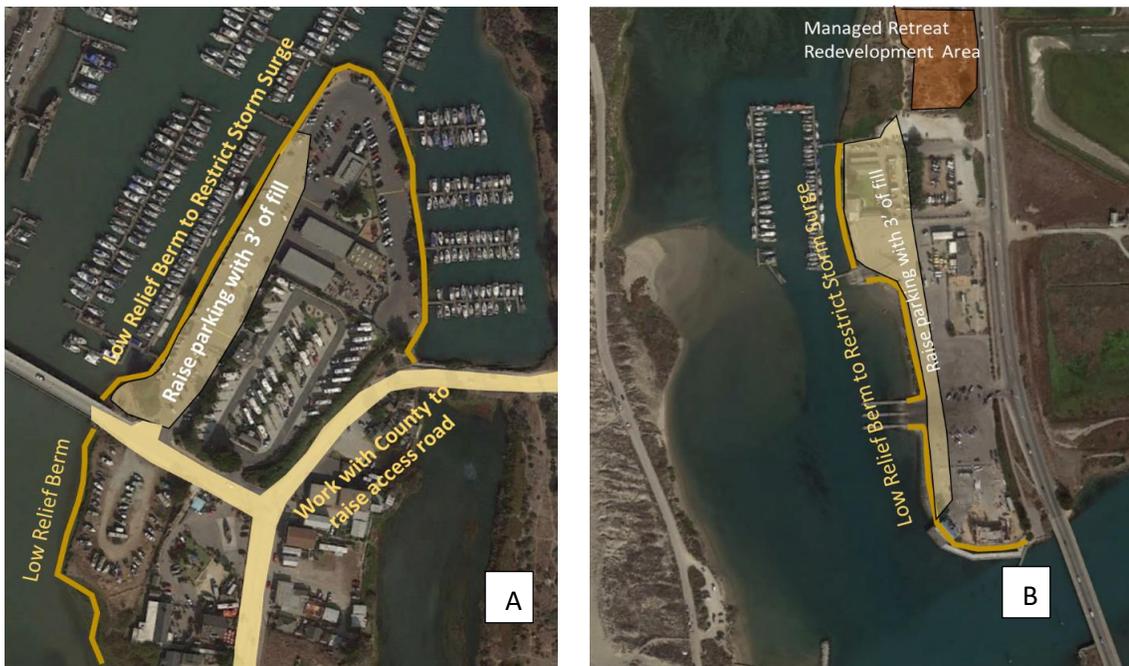


Figure 13. Maps of adaptation, resiliency and retreat planning areas including harbor berm to reduce storm related flooding and raising of parking/ public areas to reduce tidal flooding A) South Harbor, B) North Harbor.



Figure 14. Maps of (A) areas for recommended coastal dune and beach management zones to increase resiliency of natural dune barrier and work with ML island property owners to develop a storm surge barrier into new and existing development and (B) possible areas in harbor ownership where development opportunities could be retired and exchanged for development in areas resilient to 2060 hazards (Moss Landing community redevelopment opportunity zone also noted although outside of harbor district control).

## Timeframe of Implementation of Measures

Table 11 lists recommended timeframes for initiation and completion of various adaptation, protection and planning efforts needed to be completed by the Harbor District, Monterey County and private land owners to address predicted coastal climate hazards. Infrastructure upgrades identified within this hazard evaluation focus on increasing the elevation of parking and dock access ways (Figure 13) and the enhancement and management of coastal boundaries including dunes and beaches and harbor waterfront that provide resiliency to predicted flooding (Figure 14).

## Monitoring of Sea-level Rise Impacts and Adaptation Strategies

### Climate Impact Monitoring Strategy

It is recommended that the Harbor District adopt a simple tracking system to document impacts to infrastructure and reductions in levels of service associated with coastal flooding, erosion and other related coastal climate change hazards. Tracking should document 1) impacts that require replacement, repair or upgrades to harbor infrastructure and 2) flooding and other storm related events which restrict

access to harbor infrastructure and public access to the harbor, Elkhorn Slough, beaches and Monterey Bay National Marine Sanctuary.

## Regional Planning in Place to Address Sea-level Rise and Climate Change

### Moss Landing Community Plan

The Moss Landing Community Plan and Coastal Implementation Plan, both of which are a part of the Monterey County Local Coastal Program, are currently being updated to provide a comprehensive planning framework to improve and enhance the Moss Landing community. This plan is being prepared by the Monterey County Resource Management Agency – Planning with the input and assistance from the community, stakeholders, planning & environmental consultants and associated agencies.

### Integrated Regional Water Management Program

Integrated regional water management (IRWM) is an approach to water resource management in California that is being strongly promoted by the State as a way to increase regional self-sufficiency. IRWM offers an approach for managing the uncertainties that lie ahead, particularly in light of climate change. The IRWM planning process brings together water and natural resource managers, along with other community stakeholders, to collaboratively plan for and ensure the region's continued water supply reliability, improved water quality, flood management, and healthy functioning ecosystems—allowing for creative new solutions and greater efficiencies. The Greater Monterey IRWM Plan has been developed to fulfill the goals of IRWM planning in this region and to provide eligibility for State IRWM grant funds.

### Elkhorn Slough Tidal Wetland Recovery Plan

With fifty percent, or 1,000 acres, of Elkhorn Slough's salt marshes being lost over the past 150 years and the ongoing marsh loss and habitat erosion, the Elkhorn Slough Tidal Wetland Program was formed. This unique program is a collaborative effort to develop and implement strategies to conserve and restore estuarine habitats in the Elkhorn Slough watershed. For the past several years, stakeholders and scientists participating in the Elkhorn Slough Tidal Wetland Project (TWP) have evaluated the pros and cons of different restoration alternatives for the estuary. The main channel and tidal creeks in Elkhorn Slough have undergone extensive erosion due to tidal scour following the opening of an artificial mouth to the estuary in 1946 to accommodate Moss Landing Harbor. The larger estuarine mouth also has contributed to dieback of salt marsh habitat in the slough. Tidal Wetland Project investigations explored whether a single large fix at the mouth of the estuary, effectively shrinking the mouth size, would benefit overall ecosystem health. The decision was that no large scale action should currently be undertaken at the mouth of the estuary, because of potential risks to water quality, negative impacts to recreational boating, and uncertainty about benefits to salt marsh habitat. However, smaller scale actions have been taken including the Parson's Slough sill, and raising the elevation of the Minhoto Marsh elevation with sediment from the Pajaro River.

# Estimate of Financial Costs of Sea-level Rise Adaptation

## Storm Cleanup, Replacement or Repair Costs

Costs associated with future cleanup after storm events is difficult to anticipate and budget. Previous cleanup and repair efforts have been completed by the Harbor District and often include repairs to docks due to fluvial discharge and storm surge, dredging due to erosion from the watershed, and road and parking lot cleanup due to storm surge and flooding. Such costs are anticipated to increase as storm events increase in frequency and intensity.

## Anticipated Costs of Adaptation/Mitigation Measures, and Potential Benefits of Such Strategies and Structures

Costs to implement the 2030 and 2060 adaptation efforts was estimated with input from Harbor District Staff (Table 10 and Table 11). Costs include design, planning, permitting and construction activities. No adaptation strategies required the purchase of new properties but many adaptation actions needed to retain operations of the harbor are the responsibility of state and county agencies. Specifically, CalTrans is responsible for continued operations of Highway 1 (and currently studying long term management of the corridor in reference to predicted SLR hazards) and Monterey County which is responsible for local roads, bridges and tide gates.

Table 10. Adaptation Costs for 2030 and 2060 time horizons.

TIME HORIZON	ADAPTATION APPROACH	ADAPTATION COSTS
2019-2030	Adapt	\$2,100,000
	Plan	\$250,000
	Protect	\$1,700,000
<b>2030 Total</b>		<b>\$4,050,000</b>
2030-2060	Adapt	\$13,000,000
	<b>2060 Total</b>	<b>\$13,000,000</b>
<b>Total</b>		<b>\$17,050,000</b>

Anticipated costs to relocate infrastructure and work with county agencies to upgrade roads is anticipated to cost approximately \$4 million (Table 10). These activities are expected to reduce loss of service of Harbor infrastructure and help maintain access to boats during flooding, and estimated market and non-market cost of approximately \$3.6 million annually or approximately ten times return on the investment to the boating community. Costs to raise parking and access ways, and construct storm surge protection around the harbor is anticipated to cost \$17 million but will reduce market and non-market losses of approximately \$67 million annually by 2060 (Table 9).

Costs to construct extensive sea walls or rip-rap needed to protect the harbor from wave overtopping of the coastal beach strand were not estimated but were assumed to be only partially effective and would

likely be cost prohibitive when compared with relocating marina boat slips inland, away from wave hazards.

### Cost Savings

Much of the costs to implement the actions was attributed to permitting and planning as well as state requirements to pay prevailing wages. Significant reductions in described costs could be made if permitting costs were reduced significantly and prevailing wage requirements were suspended for SLR mitigation and adaptation activities. Integration of these identified adaptation actions could be integrated into the Moss Landing Community plan and thus integrated with the North Monterey County Local Coastal Plan. Integration into the LCP may help to reduce permitting costs if the State adopts policies that support streamline permitting of SLR adaptation strategies outlined in adopted LCPs.

Table 11. Adaptation Strategy Implementation Timeline and Cost

TIME HORIZON	ADAPTATION APPROACH	ACTION	RELATIVE COST	SIZE OF EFFORT	ESTIMATED COST
2019-2030	Adapt	Upgrade older dock pilings with taller pilings that can withstand predicted 2060 tidal range.	Mid	50 Pilings	\$700,000
		Move trash and oil recycling enclosures out of storm flood hazard area.	Low	2 enclosures	\$1,000,000
		Investigate alternative routes to north harbor docks that will provide better access during winter storm flooding.	Low	1 access location	\$400,000
	Plan	Work with Monterey County and Coastal Commission to transfer development rights to inland or more resilient areas.	Low	3 parcels	\$250,000
		Work with Monterey County and Moss Landing Marine Labs to ensure proper functionality of Moss Landing Road/Moro Cojo Slough Tide Gates to minimize flooding to "downtown".	Mid	Three culverts and tide gates with upgrades to road	County
		Work with Elkhorn Slough NERR to identify marsh plain resiliency options (possibly using appropriate dredge spoils) to retain marsh habitat areas and reduce slough erosion and harbor siltation.	Low	1,000 Acres	N/A
	Protect	Design and construct (in partnership with Monterey County, CalTrans and Moss Landing Community) low relief berms along waterfront areas where storm flooding is predicted to overtop and flood inland low-lying roads and properties. Upgrade storm drains to enhance drainage during rainstorms with high tides (king tides).	Mid	650 Linear Feet (North Harbor) 1600 Linear Feet (South Harbor) 500 Linear Feet (OSR Storage)	\$1,200,000
		Continue to support dune restoration and resiliency efforts on Salinas River State Beach sand dunes.	Low	25 acres	State Parks
		Work with Monterey County, State Lands Commission, US Army Corps of Engineers, and Monterey Bay National Marine Sanctuary to encourage beach nourishment on developed sections of the Moss Landing sandspit using appropriate harbor dredge spoils.	Low	6 acres of beach area	\$500,000

TIME HORIZON	ADAPTATION APPROACH	ACTION	RELATIVE COST	SIZE OF EFFORT	ESTIMATED COST
2030-2060	Adapt	Upgrade access ramps and other infrastructure in coordination with adjacent efforts to raise parking and access areas above the predicted 2060 tidal range (>2.6-3.8ft)	Low	12 access landings	\$1,000,000
		Raise parking lot areas, pedestrian walkways, dock access ramps (areas 1, 2 &3) and adjacent infrastructure (oil collection system, garbage enclosure) to above the predicted 2060 tidal range (>2.6-3.8ft). (See Figure 13)	High	1 Acre (North Harbor) 1.5 Acres (South Harbor) 1.25 Acres (Old Salinas Storage)	\$10,000,000
		Move vulnerable infrastructure (trash enclosures, restrooms) away from hazard areas.	Mid	10 pieces of infrastructure	\$2,000,000
		Work with Monterey County to raise Moss Landing and Sandholdt Roads to maintain access during high tides and winter storms.	High	2000 Linear Feet	County
	Plan	Ensure that County services, including roads and bridges, are maintained, upgraded or relocated in ways that ensure continued access to harbor infrastructure through 2060.	High	2000 Linear Feet	County
		Work with CalTrans to ensure highway service to Moss Landing either in current or new alignment. Investigate Dolan Road as community access road if Highway 1 is moved inland.	Very High	4 miles of highway	State
2060-2100	Adapt	Establish a long range planning effort within the Moss Landing Community Plan process to identify needed coastal retreat strategies and rezone areas for future development inland of mapped hazard areas. Investigate new opportunities to relocate Moss Landing Harbor inland along the Elkhorn or Moro Cojo Sloughs as coastal dunes fail or migrate inland.	Mid	Complete Redevelopment	N/A

## 5. Conclusion

To ensure continued harbor operations through 2060 CCWG, with input from the Harbor District, has identified a number of necessary adaptation actions (raising of parking and dock access) that will help increase the resiliency of infrastructure and continue to provide an expected level of service and access. The costs to build/construct these activities are expected to be spent as the reduction in service is documented (i.e. environmental triggers). By 2060 access to harbor infrastructure (and therefore State Granted Lands) will be greatly reduced due to monthly or daily tidal flooding. Adaptation and resiliency measures taken by the Harbor District will only be effective if Monterey County, CalTrans and regional utilities, California State Parks, and private land owners along the Island sandspit take concurrent actions to adapt current infrastructure and maintain resiliency. Road, bridge and tide gate infrastructure must be maintained and upgraded if the Harbor is to remain viable through 2060. Coastal resilience planning is needed to increase resilience to 2060 wave overtopping of the Island and will need to be coordinated and a plan agreed to by the County, State (specifically the Coastal Commission), and private land owners on the island.

The hazards predicted to occur sometime between 2060 and 2100 are significant and likely unsurmountable for the harbor to withstand and remain operational within its current layout. Retreat of harbor infrastructure inland within the Elkhorn and Moro Cojo sloughs is likely needed if the Moss Landing Harbor is to remain a viable California safe harbor.

State and County funding needed to retain access to Harbor infrastructure and utilities will need to be identified before the Harbor District can invest in necessary upgrades. Such retreat and relocation decisions will need to be made in consult with State Lands and California Boating and Waterways staff who will need to prioritize future expenditures needed to retain safe boating along the California Coast.



Heather Adamson, Director of Planning  
AMBAG  
24580 Silver Cloud Court  
Monterey, CA 93940

RE: Santa Cruz County Friends of the Rail & Trail Comments on EIR Scope for 2045  
Metropolitan Transportation Plan/Sustainability Communities Strategy and Regional  
Transportation Plans

Dear Ms. Adamson:

Thank you for the opportunity to comment on the scope of the Environmental Impact Report  
for the 2045 Metropolitan Transportation Plan/Sustainability Communities Strategy and Regional  
Transportation Plans.

Based on our understanding of the role of the 2045 MTP/SCS vis a vis the widely-understood,  
life-threatening consequences of global warming, and based on the requirements of California  
statutes and other state and federal planning, this plan is key to the Monterey Bay region making  
significant progress in reducing greenhouse gasses (GHG) from transportation sources over the  
next twenty five years.

Sadly, there has been little if any progress toward this goal during the past few years since the  
2040 Plan was adopted. An important part of the 2045 MTP/SCS will be an assessment of  
performance measures for both current and projected metrics. If we are not making progress  
on these measures, AMBAG should support state efforts to require local jurisdictions to better  
manage land use and transportation decisions in tandem. This is the fundamental way we can  
achieve a more balanced relationship between jobs and housing in our region, and thereby be  
able to provide travel options that reduce GHG emissions, as required by the SCS, rather than  
increasing them to our collective detriment.

Please include our organization on AMBAG's contact list for all communications about MTP/SCS  
activities. Our contact information is below.

Thank you very much for your consideration.

Sincerely,

*Sally Arnold*

Sally Arnold  
Board Chair  
Santa Cruz County Friends of the Rail & Trail

## George Dix

---

**From:** Heather Adamson <hadamson@ambag.org>  
**Sent:** Thursday, January 30, 2020 11:31 AM  
**To:** Megan Jones  
**Cc:** George Dix  
**Subject:** [EXT] FW: Regional Transportation Plans EIR scoping Comments

**CAUTION:** This email originated from outside of Rincon Consultants. Be cautious before clicking on any links, or opening any attachments, until you are confident that the content is safe .

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**From:** SAM TEEL [mailto:samteel@comcast.net]  
**Sent:** Thursday, January 30, 2020 11:29 AM  
**To:** Heather Adamson  
**Subject:** Regional Transportation Plans EIR scoping Comments

Impacts to be addressed/resources:  
*Add "Possible economic impacts and support"*

**\*\*Active Transportation Mode and Transit Prioritized Alternatives:**

*This is a big topic. The number of individuals who actually use their bikes to commute as versus occasional recreational use as versus the vast majority of individuals who drive their cars for both should determine the percentage of projects dedicated for those uses. It would make more sense to eliminate the fare box on public transportation. MST currently generates approximately \$4.5 million/year through their fare boxes. When they recently offered free rides to Hartnell students, they generated a 200% increase in ridership. When they offered a 50% (?) discount to MPC students, they generated only a 10% (?) increase. Increasing ridership on public transportation not only offers traffic congestion but reduces air pollution. A \$4.5 million subsidy could be justified simply through the congestion relief on overcrowded existing roads.*

*Sam Teel*

# Appendix B

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2045 MTP/SCS and RTPs Transportation Project List

# Monterey County

**Table 1 Active Transportation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-CAR002-CM	Carmel to Pebble Beach Bike/Ped Facility	Construct Class I or Class II bike facility.	\$86
MON-CAR021-CM	SR 1 Carmel Corridor between Carmel River Bridge and Carpenter Street	Provide accommodation for bicyclists along State Route 1 Bike Route.	\$500
MON-CAR024-CM	Rio Road Traffic Calming, Pedestrian Access and Bicycle Lanes	Install traffic calming devices, enhance visibility and safety at the crossing zone, and provide bicycle lanes	\$250
MON-CAR025-CM	Eighth and San Antonio Avenues Class II Bike Improvements	Install signs, pavement markings, intersection modifications, etc. along Eighth and San Antonio Avenues	\$80
MON-CAR027-CM	Pedestrian Pathway behind Larson Field and Rio Park	Construct pedestrian and possible bike route around Larson Field across Rio Park site	\$75
MON-CAR035-CM	Downtown ADA Ramps	Install new and reconstruct non-conforming ADA ramps in Downtown Area (Est. 125 total)	\$1,000
MON-CAR038-CM	Downtown Sidewalk Repairs and Pedestrian Enhancements	Repair damaged sidewalks, add pedestrian enhancements, benches, signs, trash receptacles, etc.	\$250
MON-DRO006-DR	Gen. Jim Moore Bicycle Improvement	Stripe Class II both sides w/in City limits.	\$10
MON-DRO007-DR	Canyon Del Rey Boulevard (Hwy 218) Bicycle Gap	Stripe Class II Bike lanes on East side of Canyon Del Rey Blvd and complete gaps on Westside; Stripe/Restripe bike lanes to the left of right turn lanes	\$500
MON-GRN001-GR	Apple Avenue Bridge over US 101	Construct new bike/pedestrian bridge parallel to existing overpass.	\$3,548
MON-GRN005-GR	Thorne Road Bridge over US 101	Construct new bike/pedestrian bridge parallel to existing overpass.	\$1,548
MON-GRN010-GR	12th Street Bike Lanes	Construct Class II bike lanes.	\$1
MON-GRN011-GR	13th Street Bike Lanes	Construct Class II bike lanes.	\$1
MON-GRN012-GR	2nd Avenue Bike Lanes	Construct Class II bike lanes.	\$1
MON-GRN013-GR	3rd Street Bike Lanes	Construct Class II bike lanes	\$1
MON-GRN014-GR	7th Street Bike Lanes	Construct Class III bike lanes.	\$1
MON-GRN015-GR	El Camino Real Exit Bike Lane	Construct Class II/III bike lane (Class II preferred).	\$1
MON-GRN016-GR	Elm Avenue Bike Lanes	Construct Class II bike lanes.	\$1

Association of Monterey Bay Area Governments

**2045 MTP/SCS and Regional Transportation Plans for Monterey, San Benito, and Santa Cruz Counties**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-GRN017-GR	Pine Avenue Bike Lanes	Construct Class II bike lanes	\$1
MON-GRN018-GR	Walnut Avenue Bike Lanes	Construct Class II bike lane.	\$1
MON-KCY008-CK	Airport Road Bike Lane	Sign Class III bike lane.	\$2
MON-KCY009-CK	Metz Road Bike Lane	Stripe Class II, restripe roadway	\$200
MON-KCY037-CK	Maintenance/Repairs	Repair/rebuild, streets sidewalks (financial info estimated)	\$120
MON-KCY038-CK	Vanderhurst Bike Lanes	Install Class II bike lanes.	\$20
MON-KCY039-CK	1st St Bike Lanes	Install Class II bike lanes	\$20
MON-KCY040-CK	Broadway Bike Lanes	Install Class II bike lanes	\$5
MON-KCY045-CK	Division St Bike Lanes	Install Class II bike lanes	\$50
MON-KCY046-CK	San Antonio Dr Bike Lanes	Install Class II bike lanes: Includes pedestrian improvements (road diet)	\$50
MON-KCY047-CK	N. Third St Bike Lanes	Install Class II bike lanes	\$50
MON-KCY048-CK	Fransiscan Way Bike Lanes	Install Class II bike lanes	\$50
MON-MAR026-MA	Citywide Sidewalk Improvement Program	Construct new sidewalk per ADA Transition Plan	\$6,000
MON-MAR039-MA	Downtown Pedestrian Improvements	Sidewalk and crosswalk improvements downtown; Project part of the Downtown Vitalization Plan	\$1,000
MON-MAR108-MA	Remove and Replace Signs, Class III Bikeway	Remove and replace signs at signalized trail intersections, replace with R9-5 signs	\$30
MON-MAR157-MA	Reservation Rd/Beach Rd Improvements	Widen roadway w/ sidewalk and bike lane improvements	\$6,800
MON-MAR160-MA	ADA Transition Program	City-wide sidewalk, ramp, intersection, and bus-stop improvements	\$1,621
MON-MRY001-MY	Aguajito Road	Construct new Class I Bikeway	\$800
MON-MRY002-MY	Del Monte - Washington Improvements	Traffic signal improvements that include bike/ped safety features	\$3,000
MON-MRY003-MY	Del Monte/Aguajito and Del Monte/El Estero Signal Improvements	Ped and bike improvements at Del Monte and Camino Aguajito and Camino El Estero to include signal work	\$3,400
MON-MRY012-MY	Pacific Street Bike/Ped Improvements	Bike/ped and traffic flow improvements	\$1,500
MON-MRY013-MY	Recreation Trail Improvements	Widening and rehabilitation of recreation trail to include access to Rec Trail and trail crossings	\$8,000
MON-MRY014-MY	Window on the Bay	New bikeway and pedestrian facilities	\$7,000
MON-MRY016-MY	Lower Presidio Pedestrian Connection	New pedestrian connector	\$2,500

Appendix B: Project List  
**Monterey County**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MRY020-MY	Monterey City Bikeways Program	Install Class I, Class II, Class III and Class IV bikeways throughout city	\$14,177
MON-MRY035-MY	Citywide intersection ADA upgrades	Install ADA curb ramps and ADA access improvements	\$3,500
MON-MRY037-MY	Citywide Wayfinding Sign Program	Provide a comprehensive vehicular, pedestrian and bicycle wayfinding sign program	\$100
MON-MRY038-MY	Traffic System, Pedestrian and Bike Upgrades Citywide	Traffic signal upgrades to include bike and pedestrian improvements, includes detection and APS, operations and safety improvements	\$431
MON-MRY040-MY	Del Monte and Casa Verde/Rec Trail Improvements	Add pedestrian and bike safety improvements and protected lefts at Del Monte/Casa Verde/Rec Trail	\$923
MON-MRY041-MY	N Fremont Class I/Class IV Gap Closure	Add Class 1 and/or Class IV connection to N Fremont project to FORTAG	\$300
MON-MRY048-MY	Citywide Sidewalk Repair	Sidewalk panel repair	\$2,000
MON-MYC003-UM	Blackie Road	Install Class II bikeway	\$5,400
MON-MYC026-UM	Elkhorn Road	Install Class II bikeway	\$10,900
MON-MYC040-MA	Inter-Garrison Road	Install Class II bikeway	\$10,800
MON-MYC046-UM	Laureles Grade Road	Install Class II bikeway	\$6,497
MON-MYC053-UM	Metz Road	Install Class III bikeway	\$24
MON-MYC062-UM	Old Stage Road Shoulder Widening	Shoulder widening and channelization at intersections	\$11,500
MON-MYC068-UM	Porter Drive	Install Class III bikeway	\$30
MON-MYC075-UM	River Road Operational Improvements	Widen shoulders and improve geometrics, and install class II bike lanes	\$29,300
MON-MYC085-UM	San Juan Grade Road	Install Class II bikeway	\$6,120
MON-MYC115-UM	Corral de Tierra	Install Class II bikeway	\$8,508
MON-MYC118-UM	Williams Rd.	Install Class III bikeway	\$2
MON-MYC124-UM	Harris Road Improvements	Lt Channelization, shoulder improvements	\$8,000
MON-MYC135-UM	Bluff Rd	Install Class III bikeway	\$5
MON-MYC138-UM	Camphora Gloria Road	Install Class II bikeway	\$5,850
MON-MYC145-UM	Castro St	Install Class III bikeway	\$1
MON-MYC146-UM	Castroville Boulevard	Install Class II bikeway.	\$3,602
MON-MYC149-UM	Central Ave	Install Class III bikeway	\$22

Association of Monterey Bay Area Governments

**2045 MTP/SCS and Regional Transportation Plans for Monterey, San Benito, and Santa Cruz Counties**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MYC150-UM	Chualar River Rd	Install Class III bikeway	\$8
MON-MYC151-UM	Cooper - Nashua Rd	Install Class III bikeway	\$15
MON-MYC152-UM	Cooper Road	Install Class III bikeway	\$9
MON-MYC168-UM	Davis Road	Install Class II bikeway.	\$3,193
MON-MYC172-UM	Elkhorn Rd	Install Class II bikeway	\$194
MON-MYC185-UM	Geil St	Install Class III bikeway	\$1
MON-MYC186-DR	Gen Jim Moore Path	Install Class I bikeway	\$1,206
MON-MYC193-UM	Harrison Rd	Install Class II bikeway	\$82
MON-MYC231-UM	Reservation Rd Pedestrian/Bicycle Access	Install Class I bikeway and improve visibility of pedestrian crossing at Blanco Road.	\$140
MON-MYC240-UM	San Benancio Road	Install Class II bikeway.	\$10,364
MON-MYC246-UM	San Juan Road to Pajaro Levee	Install Class II bikeway.	\$663
MON-MYC248-UM	Sanctuary Scenic Trail 15A	Install Class I bikeway	\$5,082
MON-MYC251-UM	Sanctuary Scenic Trail Segment 12	Install Class I bikeway	\$5,552
MON-MYC252-UM	Sanctuary Scenic Trail Segment 13	Install Class I bikeway	\$7,404
MON-MYC258-UM	Sanctuary Scenic Trail Segment 7	Install Class I bikeway	\$3,411
MON-MYC291-UM	Reservation Road Bicycle Lanes	Install Class II Bicycle Lanes	\$250
MON-MYC296-UM	Castroville Boulevard at Elkhorn Rd - Pedestrian Beacon Project (RMA-PW&F)	Install rectangular rapid-flashing beacons and streetlights; Rio Rd at Via Nona Marie-install rectangular rapid-flashing beacons. (RMA-PW&F)	\$210
MON-MYC317-UM	Laurel Drive Sidewalk Improvement (County element)	Related to Salinas Laurel Drive Improvement project; Small amount of County property fronting Laurel Drive. (RMA-PW&F)	\$204
MON-MYC327-UM	Castroville Sidewalks	Construction of sidewalks, markings and ADA ramps	\$4,000
MON-MYC328-UM	South County Communities Sidewalks	Construction of sidewalks, markings and ADA ramps	\$7,700
MON-PGV008-PG	Rec. Trail Improvements	Add landscaping, hardscape, stairs, benches, handrails, crosswalks, and signs	\$2,000
MON-PGV011-PG	Recreational Trail Repairs	Repair failing sections of recreational trail	\$3,000
MON-PGV026-PG	David Ave Bikeway	Install Class II/III bikeway and wayfinding signage along David Ave.	\$400
MON-SCY009-SA	Bike Path Lighting	Install Lighting on existing Class I path.	\$325

Appendix B: Project List  
Monterey County

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-SCY010-SA	Class I Bike Path	Complete connection of Monterey Bay Coastal Trail Class I bike path through Sand City	\$400
MON-SCY011-SA	Class I bike path along Railroad	Install Class I bike path along Railroad ROW	\$1,300
MON-SCY012-SA	Class III Bikeways	Install Class III bikeway signage	\$15
MON-SEA029-SE	Lightfighter Drive Pedestrian Improvements	Sidewalk improvements and landscaping upgrades	\$500
MON-SEA033-SE	Bike Upgrades - City-Wide	Install Class II bike lanes city wide. (See ATP)	\$2,000
MON-SEA036-SE	Fremont Bike Lanes	Install Class II Bike Lanes on Fremont	\$2,750
MON-SEA037-SE	ADA Transition Plan Upgrades	Roadway & Sidewalk improvements	\$32,000
MON-SNS003-SL	ADA Access Ramp Installations	Install ADA access ramp locations throughout city, annual project	\$16,000
MON-SNS005-SL	Alisal Rd. Bikeway	Install shared bike path East Alisal to City Limits	\$6
MON-SNS007-SL	Alvin Drive Bike Lanes	Install bike lanes along Alvin between McKinnon and Natividad	\$172
MON-SNS014-SL	Bridge Street Bike Lanes	Install bike lanes along entire length of Bridge Street	\$419
MON-SNS019-SL	Davis Road Bike Path	Install .57 mile bike path	\$350
MON-SNS046-SL	Reclamation Ditch Bike System	Construct Class 1 Bike Path along ditch # 1665	\$3,500
MON-SNS064-SL	Calle Del Adobe/West Laurel Dr Bike Lanes	Install Class II bike lanes	\$156
MON-SNS065-SL	Carr Lake Bikeways	Construct Class I and Class II Bikeways	\$5,000
MON-SNS066-SL	East Alisal St (Future St) and Freedom Parkway (Future St) Bike Lanes	Install Class II bike lanes	\$200
MON-SNS071-SL	John Street Class III Bikeway	Install Class III bikeway signage	\$5
MON-SNS072-SL	Los Palos Drive Class III Bike Lane	Install Class III bikeway signage	\$1
MON-SNS073-SL	Market Street Class II Bikeway	Install Class II bikeway signage	\$1
MON-SNS075-SL	N Maderia/King St Class III Bikeway	Install Class III bikeway signage	\$1
MON-SNS076-SL	N Maderia/Saint Edwards Ave Class III Bikeway	Install Class III bikeway signage	\$5
MON-SNS077-SL	N Main/Espinosa Rd Class II Bike Lane	Install Class II bike lane	\$5,000
MON-SNS078-SL	Natividad Creek Bike Path	Install new bike path	\$680
MON-SNS080-SL	Rossi St Extension Class II Bike Lanes	Install Class II bike lanes	\$175

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-SNS083-SL	Russell Rd Class II Bike Lanes	Install Class II bike lanes	\$155
MON-SNS084-SL	San Juan Grade Class II Bike Lanes	Install Class II bike lanes	\$230
MON-SNS086-SL	Station Place (ITC Bridge)	Install Bike and Ped Bridge over Railroad	\$1,500
MON-SNS087-SL	Trevin Ave Class II Bike Lanes	Install Class II bike lanes	\$25
MON-SNS089-SL	W Laurel/US 101 Overpass/Adams St Class III Bikeway	Install Class III bikeway signage	\$3
MON-SNS129-SL	Street Sidewalk Repair	Annual Sidewalk Repairs (project on-going)	\$1,050
MON-SNS131-SL	Downtown Vibrancy Plan	Circulation/Parking/Pedestrian Improvements in Downtown	\$375
MON-SNS137-SL	East Alisal Street Vibrancy Plan	Circulation/Parking/Pedestrian Improvements on East Alisal Street	\$2,500
MON-SNS138-SL	Bardin Road Safe Routes to School/ATP	Circulation, SR2S, two roundabouts, road reconstruction on Bardin Rd, Slurry seal on East Alisal Street and crosswalk and ADA enhancements	\$12,000
MON-SNS139-SL	Alvin Drive	Circulation, SR2S, Traffic Signals, Cycle Tracks	\$3,548
MON-SNS140-SL	Linwood Drive	SR2S, Bike Lanes	\$700
MON-SNS141-SL	East Laurel Drive Pedestrian Improvements	Sidewalk. Lighting, trail lighting and pedestrian push button upgrades on Const/Laurel traffic signal	\$5,800
MON-SNS145-SL	W Alisal Complete Streets	Circulation, Bike Lanes, Ped, Transit	\$8,552
MON-SNS146-SL	Lincoln Ave Complete Streets	Circulation, Bike Lanes, Bus Facilities	\$1,570
MON-SNS161-SL	Natividad/Gabilan Creek Trail	Bike/Ped Trail Repairs	\$1,100
MON-SNS164-SL	Rossi-Rico Bike Trail	Bike Trail repairs along Rossi Rico Park	\$400
MON-SOL006-SO	Bicycle Racks and Lockers	Install Bicycle Racks and Lockers	\$35
MON-SOL043-SO	Pedestrian Lighting	Construct pedestrian lighting along various City streets	\$900
MON-SOL044-SO	Pinnacles Bike Route	Construct a Class I bike path/Class II bike lanes along Metz Rd to encourage bicycle tourism.	\$500
MON-SOL075-SO	Citywide Bike Lanes	Bike Lanes (2007 TIF M2, 2013 TIF M2); construct bike lanes citywide	\$1,440
MON-TAMC006-TAMC	Monterey County Bicycle and Pedestrian Improvement Projects	Various bicycle and pedestrian improvement projects throughout Monterey County	\$12,741

Appendix B: Project List  
**Monterey County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-TAMC010-TAMC	Fort Ord Regional Trail and Greenway (FORTAG)	Approximately 28 mile bike and pedestrian access path through the former Fort Ord. Construction anticipated to take place in phases with Phase 1 as 218 Canyon Del Rey segment (TAMC projects 16, 17 and 18 are segments of this overall project)	\$80,000
MON-TAMC011-TAMC	Safe Routes to Schools	Countywide Safe Routes to Schools program	\$20,000
MON-TAMC016-TAMC	FORTAG Phase 1 - 218 Canyon Del Rey Segment	Construction of the 218 Canyon Del Rey segment of the FORTAG project	\$10,396
MON-TAMC017-TAMC	FORTAG Phase 1B - Del Monte to Fremont	Construction of Del Monte to Fremont Segment	\$8,197
MON-TAMC018-TAMC	FORTAG Phase 2 - CSUMB Segment	Construction of the CSUMB Segment	\$10,070

**Table 2 Highway Improvements**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-CT011-CT	Scenic Route 68 Corridor Improvements	Make intersection and other operational improvements to increase safety and improve traffic flow from Salinas to Monterey.	\$94,143
MON-CT022-CT	SR 156 - Expressway Conversion	Expressway to freeway conversion; Construct new 4 lane highway south of existing alignment, convert existing highway to frontage road (Related to CT023 and CT036)	\$106,225
MON-CT023-CT	State Route 156 and US 101 Interchange	Construct new interchange for SR156 and US101 (related to CT022 and CT036)	\$250,890
MON-CT030-SL	US 101 - Salinas Corridor	Widen US 101 to 6 lanes and/or auxiliary lanes within city limits of City of Salinas where feasible.	\$52,000
MON-CT031-CT	US 101 - South of Salinas Improvements	Purpose of this project is to improve safety and relieve future traffic congestion by eliminating multiple highway crossings, constructing a new interchange at Harris Road, and provide necessary frontage roads to allow farmers to access their lands. Frontage roads along US 101 south of Salinas (Abbott Street on/off ramp) and make related intersection improvements (EA 05-OH330). These improvements will enhance bicycle and pedestrian mobility and facilitate transit access.	\$112,000
MON-CT036-CT	SR 156 - Castroville Boulevard Interchange	Construction new interchange for SR 156 and Castroville Boulevard/Blackie Road. (related to CT022 and CT023)	\$55,200
MON-GON015-GO	US 101/Gloria Road Interchange	US 101/Gloria Road Interchange Improvements. (EA 05-OP930) PM 68.4/70.4	\$36,000
MON-GRN008-GR	US 101 - Walnut Avenue Interchange	Relocate and replace existing US 101/Walnut Avenue Interchange and widen to six lanes. (EA 05-OP160) PM 53.4/54.3	\$39,800
MON-KCY006-CK	US 101 - 1st Street Interchange (Lonoak Street I/C)	Extend San Antonio over railroad tracks from Lonoak to US 101/First Street Interchange. (PM R39.77).	\$32,580
MON-MAR136-MA	SR1 & Imjin Bridge	Widen NB off-ramp to two lanes	\$590
MON-MAR137-MA	SR1 & Imjin Bridge	Widen SB on-ramp to two lanes	\$500
MON-SOL002-SO	US 101 - North Interchange	Install new interchange north of US 101 and Front Street.	\$5,200
MON-SOL003-SO	US 101 - South Interchange	Install new interchange south of US 101 and Front Street.	\$21,760
MON-SOL014-SO	SR 146 Bypass (Pinnacles Parkway)	Construct to 4 lanes from SR 146 (Metz Road) to Nestles Road. Install Class II bike facility.	\$15,589

**Table 3 Highway Operational, Maintenance and Rehabilitation**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project description</b>	<b>Total Cost (\$ 000s)</b>
MON-CT039-CT	SR 218 - Operational Improvements	Add turn pockets, signal improvements, shoulder widening, etc	\$10,000
MON-CT040-CT	State Highway Operations and Protection Program (SHOPP)	Unspecified SHOPP projects/3 Categories	\$830,591
MON-MAR134-MA	SR1 & Imjin Bridge	Restripe bridge for two WB lanes and one EB lane	\$26
MON-MAR135-MA	SR1 & Imjin Bridge	Convert SB off-ramp to off-ramp loop	\$2,000
MON-MYC288-UM	SR 1 - Carmel River FREE	Replace a portion of the elevated SR 1 roadway embankment with a causeway. Realign and re-profile the existing Highway between the southern end of the existing Carmel River bridge to the south of the proposed overflow bridge. Construct new bicycle and pedestrian access. Construct new southbound turn lane to serve the Palo Corona Regional Park entrance.	\$14,900
MON-PGV010-PG	SR 68 - Bishop to Sunset	Mobility Improvements including sidewalks, lighting, landscaping, and roadways overlay	\$10,502
MON-SNS123-SL	US 101/Boronda Improvements	Auxiliary Lanes/Ramp Improvements	\$960
MON-SNS126-SL	US 101/Kern Street TS	Traffic Signal or Roundabout at US 101/Kern	\$500
MON-SOLO46-SO	Intersection Improvements at Metz Rd and East St	Construct intersection, install roundabout	\$900
MON-TAMC008-TAMC	Holman Highway 68 Safety & Traffic Flow	Make safety and operational improvements to Holman Highway in Pacific Grove and Monterey; includes bicycle, pedestrian and traffic safety and ADA improvements.	\$22,300

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**Table 4 Local Street and Road Improvements**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-KCY016-CK	Bypass (South San Antonio Extension)	Bridge, Road and Ped/Bike Construction.	\$10,000
MON-KCY017-CK	Bypass (Lonoak Connection)	Road and Ped/Bike Construction.	\$15,000
MON-MAR077-MA	Salinas Ave. Improvement Project	Construct new 2 lane arterial. Complete Streets design with the widening. Previous FORA project.	\$1,915
MON-MAR114-MA	Del Monte Boulevard Widening	Widen to 4 lanes and add Class II bike lanes. Triggered by Marina Station Subdivision	\$5,000
MON-MAR150-MA	Del Monte Blvd Extension	Construct new roadway	\$13,000
MON-MAR153-MA	Patton (Abrams) Pkwy Extension	Construct new roadway	\$1,150
MON-MAR154-MA	Imjin Pkwy Widening Project	Measure X and SB1 LPP project to widen Imjin Pkwy to 4 lanes from Reservation Rd to Imjin Rd.	\$41,750
MON-MAR165-MA	Imjin Road Widening Project	Widen from 2 lanes to 4 lanes	\$2,075
MON-MRY005-MY	Del Monte Corridor	Add eastbound lane from El Estero to Sloat Ave.	\$8,000
MON-MYC147-UM	SR 156 - Blackie Road Extension	Construct new road from Castroville Blvd to Blackie Rd.	\$18,000
MON-MYC192-UM	Harris Road Widening	Widen to four lanes on Harris Court to Salinas City Limit.	\$13,300
MON-MYC245-UM	San Juan Road Improvements	Widen to four travel lanes with Class II bike lanes from Pajaro to US 101. Construct traffic signals and intersection improvements at the Aromas Road, Carpinteria Road, Murphy Road and Tarpey Road intersections. Construct intersection improvements at San Miguel Canyon Road.	\$71,900
MON-MYC307-UM	Davis Road Bridge Replacement and Road Widening	Replace an existing two-lane, low-level bridge with a high-level four-lane bridge. Widen Davis Road to four lanes from Blanco and Reservation Roads. (RMA-PW&F)	\$71,742
MON-SCY015-SA	Tioga widening	Widen Tioga Ave. at Del Monte; Install Class II bike lanes and fill sidewalk gaps.	\$600
MON-SNS006-SL	US 101 - Alvin Drive Overpass/Underpass and Bypass	Construct overpass/underpass and 4 lane street structure.	\$12,325
MON-SNS008-SL	Bernal Drive East Improvements	Widen road, construct sidewalk and retaining wall on north side of road, between N. Main and Roasarita Dr.	\$1,647
MON-SNS012-SL	Boronda Road Traffic Congestion Relief	Widen to 4 lanes; install Class II bike lanes and fill sidewalk gaps. Roundabouts will be installed throughout the corridor	\$6,671
MON-SNS029-SL	John Street - US 101	Widen to 4 lanes between Work to Wood Streets with grade separated overpass	\$8,513
MON-SNS035-SL	Lincoln Avenue Widening	Widen Lincoln to 4 lanes between West Market and Gavilan	\$1,117

Appendix B: Project List  
**Monterey County**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-SNS037-SL	Main Street (North) Widening	Widen to 6 lanes from Market to Casentini including bicycle and pedestrian improvements.	\$5,060
MON-SNS044-SL	Natividad Road Widening	Widen from 2 to 4 lanes	\$4,296
MON-SNS048-SL	Romie Lane Widening	Widen from 2 lanes to 4 lanes between S. Main to East of California Street	\$1,218
MON-SNS050-SL	Russell Rd Widening	Widen Street from US 101 to San Juan Grade Rd.	\$3,078
MON-SNS052-SL	Sanborn Road Widening/Reconstruction	Widen to 6 lanes and reconstruct from John Street to Abbott Streets; accommodations for bikes and peds.	\$14,737
MON-SNS059-SL	Williams Road Widening	Widen from 2 to 4 lanes	\$5,500
MON-SNS090-SL	Russell Road Extension	Extend 4 lane arterial	\$17,557
MON-SNS092-SL	San Juan - Natividad Collector	Construct an east - west 2 lane collector roadway	\$3,635
MON-SNS093-SL	Independence Boulevard Extension	Extend as 2 lane collector	\$1,374
MON-SNS094-SL	Hemingway Drive Extension	Construct 4 lane road	\$2,871
MON-SNS095-SL	Constitution Boulevard Extension	Construct 4 lane street	\$9,556
MON-SNS096-SL	Sanborn Road Extension	Construct 4 lane arterial	\$6,895
MON-SNS097-SL	Williams Russell Collector	Construct new north - south connection	\$8,115
MON-SNS098-SL	Alisal Street Extension	Extend as 2 lane collector street with bike lanes	\$5,119
MON-SNS099-SL	Moffett Street Extension	Extend as 4 lane collector	\$3,336
MON-SNS100-SL	Rossi Street Widening	Widen to 4 Lanes, install median and bike lanes	\$300
MON-SNS101-SL	Bernal Drive Extension	Extend as 4 lane arterial	\$6,976
MON-SNS102-SL	Constitution Boulevard Extension	Construct new 2 lane street	\$3,403
MON-SNS103-SL	Williams Road Widening	Widen from 3 to 4 lanes	\$2,975
MON-SNS104-SL	Alisal Street Widening	Widen from two to four lane arterial between Williams Rd and Alisal Rd.	\$2,908
MON-SNS108-SL	Laurel Drive Widening	Widen to 6 lanes and add left turn channelization west of Constitution	\$2,161
MON-SNS121-SL	McKinnon Street Extension	Extend as a two-lane collector from Boronda Rd to Rogge Road	\$3,710
MON-SNS279-SL	Ross Rd Extensions	Extend Rossi St as 4-lane arterial btwn Western Bypass and Davis Rd with bike lanes.	\$2,488
MON-SNS280-SL	Eastern Bypass	Construct four-lane arterial from US 101 to Williams Rd	\$17,837
MON-SNS281-SL	El Dorado Drive Extension	Extend as two-lane collector from Boronda Rd to Roggee Rd	\$2,398

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-SNS282-SL	Abbott Street Widening	Widen to 4-lanes, add median and left turn channelization & eliminate parking on both sides of street	\$1,266
MON-SOL065-SO	Camphora-Gloria Road (2007 TIF R12)	Camphora-Gloria Road (2007 TIF R12); Construct to 4 lanes	\$18,617

**Table 5 Local Street and Road Operational, Maintenance and Rehabilitation**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-CAR005-CM	Rio Road Parking Facility	Construct Rio Road off site parking facility with jitney pick up station.	\$20
MON-CAR007-CM	San Carlos Streetscaping	Install streetscape in 2 or 3 small median islands	\$30
MON-CAR009-CM	San Carlos Rehabilitation	Remove concrete pavement, replace drainage facilities, repair or reconstruct concrete sidewalks, curbs, and gutters, and repave with asphalt along San Carlos Street between Ocean and Sixth Avenues	\$200
MON-CAR010-CM	Mission Street Rehabilitation	Rehabilitate Mission Street including repaving street and curb, gutter and sidewalk improvements.	\$400
MON-CAR012-CM	Road rehabilitation and maintenance	Routine maintenance under the Pavement Management Report	\$1,840
MON-CAR026-CM	Mountain View Avenue Intersection Safety Enhancements	Realign side streets and intersections with Mountain View to reduce potential conflicts at offset skew intersections	\$200
MON-CAR028-CM	Second Avenue Embankment Reconstruction	Reconstruct Second Ave Embankment to eliminate landslide potential and reopen road to traffic	\$750
MON-CAR029-CM	Mission Street Bypass Drainage Improvements	Install bypass pipe along Junipero Street to increase capacity due to bottleneck on Mission St	\$820
MON-CAR031-CM	Junipero Drainage Improvements	Increase drainage capacity to eliminate bottleneck	\$800
MON-CAR032-CM	Monte Verde Street and Second Ave Drainage Improvements	Install new underground drainage system to eliminate surface flow damage	\$830
MON-CAR036-CM	Junipero and Ocean Roundabout	Construct new roundabout at the 5-legged Junipero/Ocean Intersection	\$2,500
MON-DRO002-DR	Carlton Drive Resurfacing	Resurface Carlton Drive	\$99
MON-DRO003-DR	Work Avenue Resurfacing	Resurface street	\$55
MON-GON001-GO	5th Street - Fanoe Road	Install two-lane roundabout	\$2,500
MON-GON014-GO	US 101/5th Street Interchange	Install roundabouts at on and off ramps	\$6,000

Appendix B: Project List  
**Monterey County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-GRN002-GR	El Camino Real	Construct new roundabout to replace signals and increase capacity of the El Camino Real/Walnut Avenue Intersection (Intersection Improvements to Roundabout)	\$2,300
MON-GRN003B-GR	Oak Road Bridge over US 101	Remove and replace existing Oak Avenue bridge.	\$30,000
MON-GRN003-GR	Oak Road Bridge over US 101	Widen bridge for dual left turn lanes.	\$6,000
MON-GRN006-GR	Thorne Road Roadway Realignment at US 101	Realign Thorn Road and add traffic signal.	\$7,300
MON-GRN007B-GR	Traffic Signal Installations	Install traffic signals.	\$450
MON-GRN019-GR	Oak Avenue Pavement Overlay	Overlay street.	\$200
MON-GRN021-GR	Citywide Street Rehabilitation	Repair, overlay, seal coat all city streets.	\$3,000
MON-GRN022B-GR	Pine Avenue Overcrossing at US 101	Construct new bridge over US 101 to improve E/W traffic flow	\$4,000
MON-KCY043-CK	Roundabout @ US 101/Broadway St/San Antonio Dr	Install Roundabout @ US 101/Broadway St/San Antonio Dr	\$10,000
MON-KCY044-CK	Lonoak RR Crossing Improvements	Railroad crossing improvements	\$600
MON-KCY050-CK	7th Street/Monte Vista Area Repaving	7th Street/Monte Vista Repaving	\$500
MON-KCY051-CK	Broadway Circle Repaving	Broadway Circle Repaving	\$600
MON-KCY052-CK	Broadway Street Repaving	Broadway Street Repaving	\$800
MON-MAR002-MA	Imjin Parkway - 3rd Avenue Signal or Roundabout	Install new traffic signal or roundabout	\$1,200
MON-MAR005-MA	2nd Ave - 3rd St	Install new traffic signal or roundabout	\$250
MON-MAR006-MA	2nd Ave - 8th St	Install new traffic signal or roundabout	\$250
MON-MAR007-MA	2nd Ave - 10th St	Install new traffic signal or roundabout	\$550
MON-MAR009-MA	Abdy Way, Cardoza to Healy	Intersection redesign and construct new sidewalk and pavement	\$200
MON-MAR035-MA	Del Monte Blvd - Marina Green Dr	Install new traffic signal or roundabout (Project triggered by Marina Station Subdivision - Associated with MAR114)	\$2,000
MON-MAR058-MA	Palm Ave @ TAMC RR	Widen/construct new gates. Project likely included in scope of MST's SURF Busway project at Palm/Del Monte and TAMC ROW	\$688
MON-MAR116-MA	California Avenue	Reconstruct roadway (Triggered by Dunes Phase 2 Completion)	\$2,000
MON-MAR118-MA	Del Monte Boulevard	Roadway improvements, sidewalk, utilities (Triggered by Marina Station Subdivision EIR)	\$2,347
MON-MAR138-MA	Imjin Parkway & California Avenue	Lane configuration improvements or roundabout	\$2,500

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MAR139-MA	Imjin Pkwy & Marina Heights Dr	Signalize or roundabout (part of MAR154)	\$1,000
MON-MAR141-MA	Imjin Pkwy & Reservation Rd	Lane configuration improvements (Part of MAR154)	\$1,000
MON-MAR145-MA	California Ave & Marina Heights Dr	Signalize or roundabout	\$870
MON-MAR147-MA	Imjin Pkwy & Preston Dr	Signalize or roundabout (part of MAR154)	\$870
MON-MAR148-MA	Melanie Rd & Vista Del Camino Rd	Regrade intersection (part of citywide PMP)	\$200
MON-MAR151-MA	Del Monte Blvd, Sta 42+00 to 48+00	Pavement, sidewalk and drainage improvements (part of MAR114)	\$1,856
MON-MAR152-MA	8th Street Reconstruction	Reconstruct roadway (associated with MAR025 and MAR031)	\$8,068
MON-MAR158-MA	Sign Retroreflectivity Program	City-wide sign upgrade, required by FHWA	\$91
MON-MAR159-MA	Pavement Management Program	City-wide roadway maintenance	\$17,052
MON-MAR166-MA	2nd Ave Improvements	Restripe to remove Class II bike lanes for 4-lane roadway	\$92
MON-MRY006-MY	Fremont - Aguajito Intersection Improvements	Widen north leg for left turn pocket; modify signal to 8-phase operations; provide median landscaping	\$2,000
MON-MRY008-MY	Lighthouse and Foam Corridor Operational Improvements	Implement operational improvements on Lighthouse and Foam including installing traffic signal adaptive system on Lighthouse and Foam	\$3,000
MON-MRY009-MY	Mar Vista and Soledad Storm Drains	Extend storm drains to Mar Vista and Soledad	\$800
MON-MRY011-MY	Munras - Webster Improvements	Intersection improvements	\$650
MON-MRY017-MY	Munras - Soledad intersection Improvements	Capacity and operational improvements and bike ped safety improvements	\$3,000
MON-MRY018-MY	York Road Improvements	Road rehabilitation, widening, bike lanes and signal installations and modification	\$6,000
MON-MRY019-MY	Sloat - Mark Thomas Intersection Improvements	New left turn lane and intersection improvements; install bike detection for left-turning bicyclists.	\$700
MON-MRY021-MY	Citywide Street Overlay	Street overlay program	\$2,500
MON-MRY022-MY	Citywide Street Reconstruction	Street reconstruction	\$3,000
MON-MRY023-MY	Citywide Street Panel Replacement	Street panel replacement	\$3,500
MON-MRY033-MY	Munras/El Dorado Roundabout	Construct roundabout with bike improvements	\$5,000
MON-MRY034-MY	Citywide Adaptive Signal System	Install adaptive signal control on all arterial streets, install fiber connections to all signals	\$3,000
MON-MRY036-MY	Citywide Traffic Signal Pole Replacement	Citywide traffic signal pole replacement	\$20,000

Appendix B: Project List  
**Monterey County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MRY039-MY	Install Protected Left Turns	Add protected left turns at signalized intersections based on SSARP recommendations	\$4,000
MON-MRY045-MY	Del Monte and Sloat Safety Improvements	Add left turn lane for Del Monte turning southbound onto Sloat	\$2,000
MON-MRY046-MY	Citywide Road Rehabilitation	Reconstruction of various streets	\$2,000
MON-MRY047-MY	Citywide Curb Ramps	Reconstruction of curb ramps	\$3,000
MON-MRY049-MY	Citywide Street Resurfacing	Street resurfacing program	\$2,000
MON-MYC043-UM	Jolon Rd Overlay Safety Improvements	Shoulder widening, & geometric improvements, and installation of 39.2 miles of Class II bikeway.	\$58,000
MON-MYC136-UM	Bridge Barrier Rail Replacement	Replace and rehabilitation of various bridges Countywide	\$500
MON-MYC154-UM	Crazy Horse Canyon Road Improvements	Add passing lanes and construct Class II bike lanes from San Juan Grade Rd to US 101.	\$27,900
MON-MYC156-UM	CVMP - Laureles Grade Paved Turnouts and Signs	Paved turnouts and signs	\$1,538
MON-MYC157-UM	CVMP - Carmel Valley Road btwn Laureles Grade and Ford Shoulder Widening	Shoulder widening	\$2,308
MON-MYC159-UM	CVMP - Carmel Valley Road Passing Lanes (Front of September Ranch)	Passing lanes in front of September Ranch	\$8,014
MON-MYC161-UM	CVMP - Grade Separation at Laurels Grade/Carmel Valley Road	Grade separation	\$13,538
MON-MYC162-UM	CVMP - Laureles Grade at Carmel Valley Road Roundabout, Signalization, or Widening	Install signal or widen (prior to Grade Separation)	\$7,890
MON-MYC163-UM	CVMP - Laureles Grade Climbing Lane	Climbing lanes and Class II bike lanes	\$3,077
MON-MYC164-UM	CVMP - Laureles Grade Shoulder Addition	Shoulder improvements	\$5,105
MON-MYC165-UM	CVMP - Left-Turn Channelization - W of Ford Drive	Left-turn channelization	\$2,000
MON-MYC167-UM	CVMP - Sight Distance Improvements at Dorris	Sight distance improvements	\$2,377
MON-MYC181-UM	G12 San Miguel Canyon Corridor Project	Operational and capacity improvements, including road widening, turning lanes, signalization and intersection improvements, and bicycle and pedestrian facilities. Refer to project area 1 to 6 of the G12 Pajaro to Prunedale Corridor Study (Two Project Areas are listed individually as MYC311 & MYC313)	\$55,000
MON-MYC188-UM	Gonzales River Rd Bridge Replace	Bridge replacement	\$20,000

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MYC200-UM	Johnson Cyn Land - Phase I	Overlay Existing Roadways: Gloria, Iverson, and Johnson Cyn Rds	\$3,000
MON-MYC202-UM	Johnson Road Bridge	Bridge replacement	\$1,520
MON-MYC217-UM	Nacimiento Lake Dr Bridge No. 449	Replace current structure with two-lane approx. 300' long by approx. 28' wide bridge with associated retaining walls, approach road and right-of-way.	\$9,800
MON-MYC227-UM	Pine Canyon Road Improvements	Add turn lanes and Class II bike lanes on Pine Canyon Road from Pine Meadow Drive to Jolon Road (County Road G14). Construct traffic signal and perform intersection improvements on Pine Canyon Road at Jolon Road.	\$11,000
MON-MYC232-UM	Reservation Rd Slip Out	Backfilling slopes (keyed in/stepped), drainage systems, pavement reconstruct, guardrail, and erosion control/planting.	\$620
MON-MYC238-UM	Salinas Road Improvements	Widen to four lanes between future Hwy 1 and Salinas Rd interchange and existing four lane section. Widen existing three lane section of Salinas Rd from Werner Rd to Elkhorn Rd to four lanes. Add Class II bike lanes on Salinas Rd from SR 1 to Elkhorn Rd. Install roundabout [not traffic signal] and construct Intersection Improvements at Salinas Rd /Werner Rd. Construct traffic signal on Elkhorn Rd at Salinas Rd. Realign Salinas Rd and Werner Rd to intersect Elkhorn Rd at a single location with a traffic signal.	\$15,200
MON-MYC247-UM	San Miguel Cyn Rd at Castroville Blvd	Roundabout [not signalization of the intersection], roadway widening, and striping improvements.	\$2,652
MON-MYC260-UM	Scenic Road Protection	Protect Scenic Rd from erosion due to wind & surf, and Carmel River.	\$92
MON-MYC266-UM	Street Rehabilitation/Overlay	Overlay roadways.	\$473,176
MON-MYC289-UM	RMA- PW&F Countywide Community Street Repair	Extend life of various streets - repair and seal various streets to continue providing transportation mobility (target areas include Chualar, Castroville, Pajaro and Boronda)	\$7,000
MON-MYC290-UM	Countywide Local Bridge Repair and Maintenance	Unspecified countywide local bridge repair and maintenance costs.	\$395,004
MON-MYC294-UM	Bradley Road Bridge Scour Repair	Placement of scour countermeasures to protect two exposed bridge pier footings. Includes placing rock slope protection, sheet pile or other control measures. Will extend 100-ft from each bridge face. (RMA-PW&F)	\$3,779
MON-MYC295-UM	Carmel Valley Road Repair	Project will stabilize the slope by constructing a permanent concrete barrier and/or placing rock slope protection (result of 2019 winter storms) (RMA-PW&F)	\$1,688
MON-MYC297-UM	Alisal Road Rehabilitation	Rehabilitate pavement of Alisal Road using pavement recycling techniques. (RMA-PW&F)	\$2,968

Appendix B: Project List  
**Monterey County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MYC298-UM	Ongoing Seal Coat Program	Place chip seal on various roads consistent with 2015 Pavement Asset Management Plan. (RMA-PW&F)	\$12,000
MON-MYC299-UM	Emergency Repair Funds	Unanticipated emergency and non-emergency repairs to county facilities. (RMA-PW&F)	\$1,000
MON-MYC300-UM	HSIP Guardrail Replacement Project	Replace various metal beam guardrails throughout County. (RMA-PW&F)	\$600
MON-MYC301-UM	Streetsweeping Program under NPDES	Scheduled sweeping efforts, stenciling of drain inlets, monitoring storm drain outfall, code enforcement of private construction, inspections, public educations, detection of illicit discharge, staff training for NPDES stormwater inspection. (RMA PW&F)	\$1,080
MON-MYC302-UM	Proactive Drainage Maintenance and Flood Protection	Perform ongoing drainage maintenance at various locations. (RMA-PW&F)	\$2,700
MON-MYC303-UM	Roadway Safety Signage/Striping Audit	Conduct roadway safety/signage audit; based on findings conduct repairs/adjustments. (RMA-PW&F)	\$3,426
MON-MYC304-UM	Countywide Striping Program	Traffic safety maintenance project including painted striping--Contract Year 2 (RMA-PW&F)	\$600
MON-MYC305-UM	Unscheduled Repairs	Various repairs to the countywide facilities on an as needed basis. (RMA-PW&F)	\$903
MON-MYC306-UM	Vegetation Removal	Remove encroachment onto County roads/visibility such as vegetation. (RMA PW&F)	\$900
MON-MYC309-UM	Echo Valley Road Repair	Excavate and repair the road and including unplugging concrete culvert. (RMA-PW&F)	\$432
MON-MYC310-UM	Elkhorn/Werner/Salinas Safety Improvements	Intersection safety improvement project that includes signage and striping enhancements. (RMA-PW&F)	\$344
MON-MYC311-UM	Pajaro to Prunedale Corridor- Project Area 1	Project Area 1 is on San Miguel Canyon Rd, extending between US 101 and Castroville Blvd and includes: addition of a NB lane on San Miguel Canyon Rd between Moro Rd and Castroville Blvd; installation of traffic signal at San Miguel Canyon Rd between Moro Rd and Castroville Blvd; Install traffic signal at San Miguel Canyon Rd and Langley Canyon Rd; Providing signal coordination and adaptive timing btwn Langley Canyon Rd and US 101; Installing modern roundabout at San Miguel Canyon Rd and Castroville Blvd; Installing Class 1 bike path SB on San Miguel Canyon btwn the current bike lane and Prunedale North Rd; and installing sidewalk curb and gutter NB between	\$4,515

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MYC312-UM	G12 Pajaro to Prunedale Corridor Study- Project Area 6	Project area 6 is on north end of G12 corridor in Pajaro and includes: implement road diet on Salinas Rd, reduce lanes from 4 to 2 lanes; Install a buffered bike lane; install a raised median south of railroad crossing/on Salinas Rd; Welcome sign for Pajaro; Class II Bike Lanes; Construct sidewalk at sidewalk gaps; install rectangular rapid flashing beacons at existing mid-block crossings; reconfigure the parking north of Bishop St on West side of G12 to be off-street; adjacent to roadway, construct curb and gutter, sidewalk, and landscaped buffer. Provide diagonal front-end parking; provide a 13' one-way Aisle for parking maneuvers, entry and exit; provide a 5'	\$1,950
MON-MYC313-UM	Gloria, Iverson, and Johnson Canyon Roads Rehabilitation	Reconstruction, grinding, and paving of existing pavement with hot mix asphalt and placement of reinforcing fabrics. (RMA-PW&F)	\$10,529
MON-MYC314-UM	Hartnell Road- Bridge Replacement (RMA-PW&F)	Replace existing two-lane box culvert/bridge over Alisal Creek. (RMA-PW&F)	\$3,183
MON-MYC315-UM	Las Lomas Drainage Project	Provide underground drainage facility on Los Lomas. (RMA-PW&F)	\$5,243
MON-MYC318-UM	River Road Rehabilitation	Rehabilitate roadway pavement using pavement reconstruction techniques and place hot-mix asphalt. (RMA PW&F)	\$7,712
MON-MYC319-UM	Monterey Dunes Road Repair	Fix collapsed culvert under Monterey Dunes Road; repair project will construct a permanent repair of the roadway including pipe replacement to restore underground water flow. (RMA-PW&F)	\$582
MON-MYC320-UM	Nacimiento Lake Drive Bridge No. 449 Replacement	Replacement of existing Nacimiento Lake Drive Bridge over San Antonio River. (RMA-PW&F)	\$9,826
MON-MYC321-UM	Palo Colorado Road	Repair from severe storm damage along Palo Colorado Road near Big Sur; rebuild the road with suitable fill, installation of soil nail walls, and improve stormwater drainage. MP 4.0 to MP 7.8 Emergency (RMA-PW&F)	\$10,887
MON-MYC322-UM	River Road Overlay	Extend life of River Road from Las Palmas Parkway to SR 68 through rehabilitation of pavement using pavement recycling techniques. (RMA PW&F)	\$5,187
MON-MYC323-UM	Robinson Canyon Road Bridge Scour Replacement	Replacement of scour countermeasures to protect two exposed bridge pier footings. (RMA-PW&F)	\$2,346
MON-MYC324-UM	Rogge Road Intersection Improvements	Construct intersection improvements. (RMA PW&F)	\$1,125
MON-MYC325-UM	San Juan Grade Road Erosion Damage	Stabilize the slope with construction of permanent concrete barrier and/or placing rock slope protection at MP 8.6. (RMA PW&F)	\$625

Appendix B: Project List  
Monterey County

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MYC326-UM	Toro Road - Slope, Road, and Guardrail Repair	Repair roadway to its pre-storm condition including guardrail repair and pavement slope. (RMA PW&F)	\$558
MON-MYC331-UM	Viejo Road Shoulder and Asphalt Repair	Repair roadway to pre-storm conditions. (RMA PW&F)	\$556
MON-PGV001-PG	Congress - Sunset Roundabout	Construct a roundabout at Congress and Sunset including ROW, landscaping, curb, and paving; make accommodations for bicyclists and pedestrians.	\$2,500
MON-PGV005-PG	Lighthouse Ave. Resurfacing	Resurface Street, drainage improvements	\$1,400
MON-PGV012-PG	Ocean View Blvd. Resurfacing	Repair and resurface street	\$7,680
MON-PGV013-PG	Pine Ave. Resurfacing	Repair and resurface street	\$11,800
MON-PGV014-PG	Miscellaneous Street Improvements - Various Streets	Pavement repair, cross gutter, curb and gutter, sidewalks, traffic striping, signs	\$800
MON-PGV015-PG	Miscellaneous Drainage Improvements - Various Streets	Storm drain repair/improvements, catch basins, manholes, cross gutters	\$800
MON-SCY003-SA	California Ave. - Playa Ave. Signal	Install new traffic signal with bike and pedestrian accommodations.	\$225
MON-SCY005-SA	Sand City Rehab in Old Town Area	Install street lighting, reconstruct streets in Old Town area; design shared streets.	\$3,500
MON-SCY013-SA	California Avenue Pavement Overlay	Overlay street; install Class II/Class III markings.	\$156
MON-SCY014-SA	Contra Costa St. Realignment	Realign Contra Costa St. to at Del Monte Ave.	\$500
MON-SEA005-SE	Fremont - Broadway	Roadway improvements, utility relocation, ADA ramps, landscaping and signal upgrade	\$387
MON-SEA028-SE	West Broadway Ave Corridor improvements	Corridor rehabilitation including intersection improvements, bikeways, road rehab	\$4,000
MON-SEA030-SE	Update and Implement Pavement Management System and Maintenance	Roadway improvements to include total reconstruction and overlay	\$58,951
MON-SEA039-SE	Broadway Corridor Improvements	Road diet and roundabouts along Broadway, from Fremont to General Jim Moore. Includes complete streets elements- such as bike lanes on both sides of the road.	\$11,000
MON-SEA040-SE	General Jim Corridor Moore Improvements	Roundabout installation intersection improvements along General Jim Moore at Hilby, San Pablo, McClure, Normandy and Gigling	\$15,000
MON-SEA041-SE	Canyon Del Rey Corridor Improvements	Bike lanes, intersection improvements two roundabouts from Fremont Blvd to Del Monte Boulevard	\$17,500
MON-SNS011-SL	Boronda - Main Improvements	Construct intersection improvements	\$2,161

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-SNS024-SL	Elvee Drive Extension	Construct 49' span bridge and extend two lanes between Work to Elvee; Widen Elvee Drive from Sanborn Road to elbow of Elvee Drive	\$3,600
MON-SNS033-SL	Laurel Drive Intersection Improvements	Median Improvements/median left turn lanes btwn Adams St and Main St	\$583
MON-SNS041-SL	Maryal Drive Reconstruction	Widen roadway behind Rodeo Grounds (from 36' to 40')	\$1,260
MON-SNS042-SL	Natividad - Laurel Intersection	Install NB/SB lanes, convert EB right turn lane into shared thru	\$1,250
MON-SNS106-SL	Alisal Street Improvements	Add left turn channelizations at major intersections	\$33
MON-SNS107-SL	John Street Improvements	Add left turn channelization and eliminate on street parking	\$766
MON-SNS109-SL	San Juan Grade - Russell Rd Intersection Improvements	Install signal	\$371
MON-SNS112-SL	Boronda Rd -East Constitution Intersection Improvements	Install signal	\$546
MON-SNS113-SL	Boronda Rd - Sanborn Rd Intersection Improvements	Install traffic circle	\$6,535
MON-SNS114-SL	Boronda Rd - Williams Rd Intersection Improvements	Install signal	\$5,224
MON-SNS115-SL	Natividad Rd - Russell Rd (Future Extension) Intersection Improvements	Install signal	\$5,142
MON-SNS128-SL	Front Street/Sherwood/Rossi TS Coord	Signal coordination on Front St/Sherwood Drive	\$450
MON-SNS142-SL	North Main Street Intersection Improvements	Traffic signal/intersection control	\$586
MON-SNS144-SL	Boronda Road Roundabouts	Roundabouts at 4 intersections	\$44,000
MON-SNS147-SL	Sherwood Dr/Sherwood Place Intersection	Traffic signal installation	\$400
MON-SNS148-SL	Market Street/Merced	Traffic signal installation	\$400
MON-SNS149-SL	Sanborn Rd-Mayfair Intersection	Traffic signal installation	\$400
MON-SNS150-SL	Alisal Street-Capitol Intersection Improvements	Traffic signal installation	\$400
MON-SNS151-SL	Alvin Drive-Linwood Intersection Improvements	Traffic signal installation	\$400
MON-SNS153-SL	Williams/Garner Intersecton Improvements	Traffic signal installation	\$631
MON-SNS154-SL	Boronda/Sanborn Intersection	Roundabout installation	\$400
MON-SNS155-SL	Constitution Blvd/Las Casitas Intersection Improvements	Traffic signal installation	\$760
MON-SNS157-SL	Davis Road/Chevron Station Intersection	Traffic signal installation	\$400
MON-SNS160-SL	Traffic Calming Projects	Traffic calming local	\$2,500

Appendix B: Project List  
**Monterey County**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-SNS165-SL	Work Street	Overlay	\$500
MON-SNS260-SL	Alisal St and Murphy Street Traffic Signal	Install traffic signal	\$905
MON-SNS261-SL	Old State Road and Williams Rd Traffic Signal	Traffic signal installation	\$4,508
MON-SNS262-SL	Natividad and Rogge Road Traffic Signal	Install traffic signal	\$2,243
MON-SNS263-SL	N Main St and Bernal Dr Signal Modification	Install NBT lane, NBO phase, convert WBT to shared thru left	\$873
MON-SNS264-SL	Sherwood Dr/Natividad Rd & East Bernal Dr/La Posada Way Intersection Improvements	Install EB left turn lane, NB thru lane and SB thru lanes	\$2,062
MON-SNS265-SL	East Front St/Sherwood Dr/Market St Intersection Improvements	Installation of southbound left turn lane	\$6,433
MON-SNS266-SL	Salinas St/North Main/West Market/East Market Intersection Improvements	Install SB left turn lane and EB thru lane	\$1,321
MON-SNS267-SL	South Main St/West Blanco/East Blanco Intersection	Install NB left turn lane	\$489
MON-SNS268-SL	Sun St/Market St Install Traffic Signal	New traffic signal	\$800
MON-SNS269-SL	Airport Blvd/Terven Ave & SB US 101 On/Off Ramp Intersection Improvements	Signal modifications or roundabout	\$1,500
MON-SNS270-SL	Blanco Rd/Sanborn Rd/Abbott St Intersection Improvements	Convert shared through/left turn lanes to through lanes and adding a second left turn lane on the north and south Abbott St approaches	\$96
MON-SNS271-SL	Harkins Rd and Abbott St Intersection Improvements	Add a second westbound left turn lane on Harkins Rd	\$645
MON-SNS272-SL	Harkins Rd and Hansen St Intersection Improvements	Install NB left, EB thru and EB right	\$221
MON-SNS273-SL	Airport Blvd and Hansen St Intersection Improvements	Install a second northbound right turn lane on Hansen St	\$85
MON-SNS274-SL	Roy Diaz St and De La Torre St South Intersection Improvements	Install traffic signal	\$800
MON-SNS275-SL	Roy Diaz St and US 101 Northbound Ramps Intersection Improvements	Install traffic signal or roundabout	\$1,370
MON-SNS276-SL	Skyway Blvd and Airport Blvd Intersection Improvements	Install traffic signal or roundabout	\$1,370
MON-SNS277-SL	Constitution Blvd/Medical Center Driveway Intersection Improvements	Install traffic signal	\$800
MON-SNS283-SL	Road Maintenance and Rehabilitation	Road maintenance using the Pavement Management Systems	\$140,000

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-SOL007-SO	Street Resurfacing & Sidewalk Repair	Apply seal coats and resurface various local streets. Construct missing sidewalk and handicap ramps. Replace broken sidewalk and ramps. Mark bike facilities.	\$2,135
MON-SOL030-SO	Front St and Hector de la Rosa St Intersection Improvements	Install signal	\$854
MON-SOL031-SO	Front St and East St Intersection Improvements	Construct intersection, install signal	\$2,548
MON-SOL032-SO	SR 146/Metz Rd and SR 146 Bypass Intersection Improvements	Construct intersection, install signal	\$1,721
MON-SOL033-SO	Front St/Gabilan Dr Intersection Improvements	Construct intersection, install signal/roundabout	\$2,883
MON-SOL034-SO	New Arterial 1 and Camphora Gloria Intersection Improvements	Construct intersection, install signal	\$2,120
MON-SOL035-SO	New Arterial 1/Front St Extension Intersection Improvements	Construct intersection, install signal	\$2,878
MON-SOL036-SO	New Arterial 1/San Vicente Rd Intersection Improvements	Construct intersection, install signal	\$2,503
MON-SOL037-SO	New Arterial 1/West St Intersection Improvements	Construct intersection, install signal	\$2,119
MON-SOL038-SO	West Street Extension/Camphora Gloria Rd Intersection Improvements	Construct intersection, install signal	\$2,262
MON-SOL039-SO	West St Extension/San Vicente Rd Intersection Improvements	Construct intersection, install signal	\$2,879
MON-SOL040-SO	West St Extension/San Vicente Rd Intersection Improvements	Construct intersection, install signal	\$2,584
MON-SOL042-SO	Gabilan Dr/San Vicente Rd Intersection Improvements	Construct intersection and install signal	\$324
MON-SOL053-SO	Andalucia Drive and Gabilan Drive Intersection Improvements	Intersection Improvements (2013 TIF M1); install signal	\$467
MON-SOL076-SO	Traffic Signals	Traffic Signals (2007 TIF M1, 2013 TIF M1 remainder); construct traffic signals at 4 locations	\$20,166
MON-SOL079-SO	Pavement Maintenance 2020-2021 -1	Pavement Maintenance 2020-2021 - 1; apply seal coats and resurface	\$2,000
MON-SOL080-SO	Pavement Maintenance 2020-2021 -2	Pavement Maintenance 2020-2021 - 2; apply seal coats and resurface	\$2,000

**Table 6 Other Projects**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MAA002-MAA	Environmental Assessment	EA for Runway and Parallel Taxiway A extension to west, apron expansion west end, acquire land - 11.4 acres for RPZ	\$600
MON-MAA006-MAA	Environmental Assessment	Conduct Environmental assessment for construction improvements including hangar infill projects	\$150
MON-MAA015-MAA	Environmental Assessment	EA for North area of airport including north-side parallel Taxiway B, north perimeter aviation access road and development for approximately 250 acres aviation and mixed use	\$500
MON-MAA021-MAA	Pavement Rehabilitation	Pavement rehabilitation at various areas throughout the airport in accordance with the PMMP	\$600
MON-MAA027-MAA	Airport Utility Upgrades	Replacements, extensions and enhancements to existing water, sanitary sewer, and cable and wire infrastructure	\$7,500
MON-MAA028-MAA	Rehabilitate Existing Airport Buildings	Rehabilitate former military buildings including ADA facilities and upgrades, new roofs, building skin, structural retrofits, glazing and heat systems	\$12,300
MON-MAA029-MAA	Rehabilitate Airport Access and Service Roads	Localized removal and reconstruction of failed areas, asphalt pavement overlay, curb and gutter repair upgrades including ADA, and road widening	\$11,600
MON-MDR001-MDR	Airport Land Use Compatibility Plan Update	Update Airport Land Use Compatibility Plan (ALUCP)	\$154
MON-MDR002-MDR	Taxiway Reconstruction & Rehabilitation (Design)	Design of Taxiway reconstruction and rehabilitation	\$105
MON-MDR003-MDR	Taxiway Reconstruction & Rehabilitation (Construction)	Construction of taxiway rehabilitation and reconstruction	\$1,780
MON-MDR005-MDR	Apron Rehabilitation (Design)	Design of Apron Rehabilitation	\$250
MON-MDR006-MDR	Instrument Approach Feasibility Study & AWOS (Design)	Instrument Approach Feasibility Study & AWOS (Design Only)	\$160
MON-MDR008-MDR	AWOS (Construction)	AWOS (Construction)	\$300
MON-MDR009-MDR	Wildlife Hazardous Environmental Assessment	Wildlife hazardous environmental assessment	\$120
MON-MPA061-MRA	Terminal Complex - Construction (Terminal Building)	Construct Terminal Building	\$64,000

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MPA062-MRA	Terminal Complex - Construction (Roads & Surface Parking)	Construct Roads and Surface Parking	\$28,231
MON-SAP026-SLA	Master Plan Environmental Assessment	Perform NEPA/CEQA environmental process	\$300
MON-SAP039-SLA	Environmental Study RSA Improvements	Environmental Study RSA Improvements	\$500
MON-SAP040-SLA	Enhance RSA, Runway 13-31	Runway Improvements to Meet Standards	\$960
MON-SAP041-SLA	Enhance RSA, Runway 8-26	Runway Improvements to Meet Standards	\$20,790
MON-SAP043-SLA	Master Plan	Perform airport master plan	\$120,000
MON-TAMC009-TAMC	Habitat Preservation/Advanced Mitigation	Countywide Habitat Preservation/Advance Mitigation for projects	\$5,000

**Table 7 Transportation Demand Management**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-TAMC005-TAMC	Monterey County Go831 Traveler Information and Rideshare/Commute Alternatives	Administer Go831 Traveler Information program and rideshare/Commute Alternative programs for Monterey County.	\$5,250

**Table 8 Transit ADA**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MST014-MST	Mobility Management	Mobility Management	\$92,000
MON-MST015-MST	RIDES Bus Replacement	RIDES Bus Replacement	\$16,000
MON-MST017-MST	RIDES Operations	RIDES Operations	\$137,819
MON-TAMC012-TAMC	Senior & Disabled Transportation	Countywide support for Senior & Disabled Transportation	\$15,000

**Table 9 Transit Improvements**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-KCY053-CK	King City Multimodal Transit Station	Build new multimodal transit station; includes new Amtrak connection to Coast Rail Line. Element of Coast Rail Project (TAMC004) Includes bike/pedestrian connections and parking	\$35,000
MON-MST008-MST	Salinas-Marina Multimodal Corridor	Construct multimodal Bus Rapid Transit improvements between Salinas and Marina, including a multimodal transit corridor through the former Fort Ord in Marina.	\$60,000
MON-MST011-MST	Salinas Bus Rapid Transit	Construct Bus Rapid Transit improvements along E. Alisal Street.	\$20,000
MON-MST016-MST	Transit Capacity for SR 1/Surf! Busway and BRT	Construct improvements to accommodate regional MST bus service along the TAMC Branch Line during peak travel periods and construct 5th Street Station.	\$52,000
MON-TAMC003-TAMC	Rail Extension to Monterey County-Phase 1, Kick Start Project	Extends existing rail service from Gilroy to Salinas and constructs station improvements in Gilroy and Salinas. Kick Start project (phase 1) to be completed by 2022 constructs Gilroy and Salinas station and track improvements.	\$81,500
MON-TAMC014-TAMC	Rail Extension to Monterey County - Phase 2, Pajaro/Watsonville Station	Constructs the Pajaro/ Watsonville passenger rail/multimodal station	\$68,500
MON-TAMC015-TAMC	Rail Extension to Monterey County - Phase 3, Castroville Station	Constructs the Castroville passenger rail/multimodal station	\$34,000

**Table 10 Transit Operations**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MST002-MST	Bus Operations	General operations for fixed route and public demand response services (On-call)	\$931,821

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**Table 11 Transit Rehabilitation**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MST003-MST	Bus Station/Stops	General transit station and stop improvements	\$42,000
MON-MST004-MST	Bus Support Equipment and Facilities/Intelligent Transportation Systems (ITS)	Bus Support Equipment and Facilities/Intelligent Transportation Systems (ITS)	\$20,000
MON-MST005-MST	Communication/Radio Equipment	Communication/Radio Equipment	\$30,000
MON-MST006-MST	Preventative Maintenance	Preventative Maintenance	\$21,000
MON-MST007-MST	Safety and Security	Safety and Security	\$2,000
MON-MST009-MST	Operations & Maintenance Facilities	Maintenance and Operations Facilities including: \$12M Measure X for Salinas Maintenance & Ops Facility & \$10.3M Measure X for S County Maintenance & Ops Facility (under construction, estimated to be completed in late 2021 or early 2022)	\$100,000
MON-MST010-MST	Bus Replacement	Combining MON-MST001-MST and MON-MST010-MST	\$100,000
MON-MST012-MST	Bus Rehab/Renovate	Bus Rehab/Renovate	\$28,400
MON-MST018-MST	South Monterey County Regional Transit Improvements	Increases the frequency of MST Line 23 service between King City and Salinas and constructs improvements along Abbott Street between US 101 and Romie Way in Salinas. Stops in King City, Greenfield, Soledad, Gonzales, Chualar and Salinas.	\$27,500
MON-SNS120-SL	Salinas ITC Station Improvements	TAMC Lead - Upgrades to passenger terminal and freight buildings	\$2,300

**Table 12 Transportation System Management**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MRY015-MY	Traffic Signal Operational Improvements to Pacific, Franklin and Munras Corridors	Install traffic signal adaptive system and upgrade signal infrastructure	\$382

## San Benito County

**Table 1 Active Transportation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COG-A57	Safe Routes to Schools Implementation Program	Infrastructure improvements to achieve safer routes to schools for walking and bicycling at R.O. Hardin & Calaveras Elementary Schools. Lead agency role will vary from the City of Hollister, County and the Hollister School District.	\$1,126
SB-COH-A20	Sunnyslope Road Bike Lane	Construct Class II bike lane from Cerra Vista to Memorial Drive	\$21
SB-COH-A23	Ladd Lane Bike Lane	Traffic calming measures on Ladd Lane and Southside Road to reduce vehicle speeds and improve safety for pedestrians and cyclists.	\$184
SB-COH-A24	South Street/Hillcrest Road Bike Lane	Construct Class II bike lane from McCray St. to proposed Class II on Hillcrest Road	\$14
SB-COH-A25	Central Avenue Traffic Calming Project	Traffic calming enhancements between Bridge Road and East Street.	\$505
SB-COH-A26	Memorial Drive Bike Lane	Construct Class II bike lane from Sunset Dr. to Meridian St.	\$34
SB-COH-A28	Fourth Street Bike Route	Construct Class III bike route from McCray Street to Westside Boulevard.	\$11
SB-COH-A29	Sally Street Bike Route and Traffic Calming Project	Construct Class III bike route from Nash Rd. to 4th St., road rehabilitation, and traffic calming measures.	\$570
SB-COH-A30	Meridian Street Bike Lane	Construct Class II bike lane from Memorial Drive to McCray Street.	\$32
SB-COH-A31	San Felipe Road Bike Lane	Construct Class II bike lane from Santa Ana Road to Northern San Benito County.	\$197
SB-COH-A32	Sunset Drive Bike Route	Construct Class III bike route from Cerra Vista Road to Airline Highway.	\$11
SB-COH-A33	Hillcrest Road Bike Lane	Construct Class II bike lane from Fairview Road and proposed Class III bike route on Hillcrest Road.	\$53
SB-COH-A36	Monterey Street Bike Route	Construct Class III bike route from Nash Road to 4th Street	\$14
SB-COH-A60	Complete Streets Project for Nash/Tres Pinos/Sunnyslope Roads and McCray Street	Complete street segments include: sidewalks, bike lanes, curb extensions, median islands, narrower travel lanes, roundabouts and more.	\$6,760
SB-COH-A66	McCray Street Bike Lane	Class II, 0.61 miles, Hillcrest to Santa Ana Road.	\$18
SB-COH-A67	Cerra Vista Bike Lane	Class III Bike Route, 0.73 miles, Union Road to Sunnyslope Road.	\$10
SB-COH-A68	Hawkins Street Bike Route	Class III, 0.45 miles, Monterey Street to Prospect Avenue.	\$6
SB-COH-A69	Clearview Drive Bike Route	Class III, 1.15 miles, Sunset Drive to Meridian Street, Tier No. 2.	\$15
SB-COH-A70	Steinbeck Drive Bike Lane	Class III, .10 miles, Line Street to Westside Boulevard, Tier No. 3.	\$1

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COH-A71	Meridian Road Bike Lane	Class III, .47 miles, End of Meridian Road to Memorial Drive.	\$6
SB-COH-A72	Bridgevale Road Bike Lane	Class III, .26 miles, from Fourth Street (Previously San Juan Road) to Central Avenue, Tier No. 3.	\$3
SB-COH-A73	Beverly Drive Bike Lane	Class III, .53 miles, Sunnyslope Road to Hillcrest Road, Tier No. 3.	\$7
SB-COH-A79	Westside Boulevard Bike Lane	Class II, .28 miles, between South Street and Jan Avenue.	\$5
SB-SBC-A22	Airline Highway Bike Lane	Class I bike path from Sunset Drive to existing Class I on Airline Hwy (Tres Pinos Town).	\$42
SB-SBC-A34	Santa Ana Road/Buena Vista Road/North Street Bike Lane	Construct Class II bike lane, 3.97 miles, partially located in the City of Hollister.	\$118
SB-SBC-A60	Highway 156 Bike Lane	Class II, 6.88 miles, The Alameda (San Juan Bautista) to Buena Vista Road (Hollister).	\$205
SB-SBC-A61	Valley View Drive Bike Lane	Class II, 0.52 miles, Sunset Drive to Union Road.	\$9
SB-SBC-A62	The Alameda - Salinas Road Bike Route	Class III, 0.65 miles, 4th Street to Old Stagecoach Road.	\$9
SB-SBC-A63	Union Road Bike Lane	Class III, 3.83 miles, Highway 156 to Cienega Road.	\$51
SB-SBC-A64	Buena Vista Road Bike Route	Class III, 0.74 miles, Proposed Class II on Buena Vista to Highway 156.	\$10
SB-SBC-A65	San Benito River Recreational Trail Phase 1	Construct a portion of recreational bicycle/pedestrian/equestrian trail along the San Benito River.	\$5,627
SB-SBC-A66	San Benito River Recreational Trail Phase 2	Construct a portion of recreational bicycle/pedestrian/equestrian trail along the San Benito River.	\$8,538
SB-SBC-A68	Union Pacific Railroad Multi-Use Path	Class I, 8.81 miles. Construct a multi-use path adjacent to the Union Pacific Railroad right of way.	\$7,800
SB-SBC-A80	Fallon Road Bike Route	Class III, 2.29 miles, Fairview Road to Frontage Road, Tier 3. Located in the City and County.	\$30
SB-SBC-A85	San Juan - Hollister Road Bike Lane	Stripping a bike lane on San Juan - Hollister Road.	\$10
SB-SJB-A06	Pedestrian Crosswalk at Intersection of The Alameda & Hwy 156	Install meters, screens and stripe on east side of The Alameda & Highway 156.	\$75
SB-SJB-A11	Third Street Bike Lane	Striping a bike lane on Third Street.	\$25
SB-SJB-A12	First Street Bike Lane	Striping a bike lane on First Street.	\$25
SB-SJB-A13	Fourth Street Bike Lane	Striping a bike lane on First Street.	\$35
SB-SJB-A17	Franklin Street Bike Lane	Class III, .17 miles, 4th Street to South side of San Juan Bautista Historic Park, S-6 of the Bike Plan.	\$10
SB-SJB-A18	4th Street - San Jose Bike Lane	Class II, 0.16 miles, 4th Street to North side of San Juan Bautista Historic Park.	\$5

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-SJB-A19	San Jose Street - The Alameda Bike Lane	Class III, .54 miles, 4th Street from San Jose to Monterey Street, S-8 of Bike Plan.	\$10
SB-SJB-A20	Second Street Bike Lane	Class III, 0.14 miles, San Jose Street to Monterey Street.	\$10
SB-SJB-A23	1st Street Bike Lane	Class III, 0.10 miles, Monterey Street to existing Class II on 1st Street.	\$35
SB-SJB-A26	The Alameda - Salinas Road Bike Route	Class III - Stripping a bike lane from Franklin to Old SJ Hollister Rd., S-10 of the Bike Plan.	\$50

**Table 2 Highway Improvements**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-CT-A01	San Benito Route 156 Improvement Project San Juan Bautista to Union Road	Construct a 4-lane expressway south of the existing State Route 156 and use the existing SR 156 as the northern frontage road. Partial TIF	\$68,339
SB-CT-A17	Airline Highway Widening/SR 25 Widening: Sunset Drive to Fairview Road	Convert to 4-lane expressway from Sunset Drive to Fairview Road with bicycle lanes. TIF	\$28,214
SB-CT-A44	Route 25 Expressway Conversion Project, Phase 1	Convert to 4-lane expressway from San Felipe Road to Hudner Lane. Includes Area No. 1. SR - 25/SR156 interchange to Hudner Lane and Area No. 2-south of the SR 25/SR 156 interchange to San Felipe Road. Partial TIF.	\$106,000
SB-CT-A45	Route 25 Expressway Conversion Project, Phase 2	Convert to 4-lane expressway from Hudner Lane to County Line. Includes Area No 3. SR 25/SR 156 interchange to County line and Area No. 4 County line to Bloomfield Road. Partial TIF.	\$135,000
SB-CT-A55	U.S. 101: Las Aromitas: Monterey/San Benito County Line to State Route 156	Convert to 6 lanes from Monterey/San Benito County line to SR 156 in San Benito County.	\$196,000

**Table 3 Highway Operational, Maintenance and Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-CT-A02	SR 156/Fairview Road Intersection Improvements	Construct new turn lanes at the intersection. TIF	\$6,824
SB-CT-A43	SHOPP Group Lump Sum Project Listing	Varies, grouped project listing.	\$213,249
SB-CT-A57	SR 156 Bridge/Ramps at US 101 Operational Improvements (Caltrans EA: 05-1N910)	In San Benito County, At US 101/SR 156E interchange. Extend southbound US 101 connector and construct a ramp meter - Minor A	\$1,250

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**Table 4 Local Street and Road Improvements**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COH-A11	Union Road (Formerly Crestview Drive) Construction	Construct new 2-lane road	\$11,000
SB-COH-A16	Memorial Drive South Extension: Meridian Street to Santa Ana Road	Construct 4-lane road extension with bicycle lanes. TIF	\$3,355
SB-COH-A18	Westside Boulevard Extension	Construct 2-lane road. Westside Boulevard Extension: Nash Road to Southside Road/San Benito Street Intersection with bicycle lanes. TIF	\$13,360
SB-COH-A55	Memorial Drive North Extension: Santa Ana Road to Flynn Road/Shelton Intersection	Construct new 4-lane road and extension with bicycle lanes. TIF	\$13,842
SB-SBC-A04	Union Road Widening (East): San Benito Street to Highway 25	Widen to 4-lane arterial with bicycle lanes. TIF	\$5,463
SB-SBC-A05	Union Road Widening (West) San Benito Street to Highway 156	Widen to 4-lane arterial with bicycle lanes. TIF	\$15,448
SB-SBC-A09	Fairview Road Widening: McCloskey to SR 25	Widen to 4-lane arterial; construct new bridge south of Santa Ana Valley Road with bicycle lanes. TIF	\$20,790
SB-SBC-A14	San Benito Regional Park Access Road	Construct new 2-lane roadway from Nash Road to San Benito Street.	\$162
SB-SBC-A50	Hospital Road Bridge	Hospital Road over San Benito River, between South Side Road and Cienega Road. Replace lane low water crossing with 2 lane bridge. Bridge No. 00L0026.	\$15,200
SB-SBC-A67	Shore Road Extension	4-Lane Arterial with Class II bike lanes.	\$20,350
SB-SBC-A79	Enterprise Road Extension	Extend Enterprise Road westerly from Southside Road toward Union Road.	\$3,000
SB-SBC-A81	Meridian Street Extension: 185 feet east of Clearview Road to Fairview Road	Construct 4-lane road. Located in the City of Hollister and County with bicycle lanes. TIF	\$9,445
SB-SBC-A82	Flynn Road Extension	San Felipe Road to Memorial Drive north Extension. New roadway construction south of McCloskey Road with bicycle lanes. Located within the City of Hollister and County. TIF	\$7,709
SB-SJB-A07	Third Street Extension	Constructing Third Street to connect to First Street.	\$450
SB-SJB-A09	Lang Street to Lang Street	Construct and connect Lang Street to The Alameda, 2 lanes.	\$800
SB-SJB-A14	Muckelemi Street to Muckelemi Street	Reconstruction of Muckelemi Street to Monterey Street adding planting strip median.	\$650

**Table 5 Local Street and Road Operational, Maintenance and Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COH-A13	West Gateway Improvement Project	Streetscape and intersection improvements.	\$4,237
SB-COH-A58	Westside Boulevard & Nash Road Westside Boulevard Extension (Intersection)	New signalization of 2-lane collector south leg (Westside Extension), existing 4-lane north leg with existing 2-lane local; 4 approaches, turning lanes will be added. TIF	\$575
SB-COH-A59	Westside Boulevard Extension (Intersection)	New signalization of new 2-lane collector (Westside Extension) with 2-lane arterial; 4 approaches, turning lanes will be constructed at Westside Boulevard & San Benito Street. TIF	\$500
SB-COH-A61	City of Hollister Local Street & Roadway Maintenance: 2020-2045	System preservation and maintenance.	\$113,401
SB-COH-A63	South Street & Westside Boulevard Intersection	New signalization of 4-lane collector with 2-lane collector; 4 approaches, retain current lane configuration. TIF	\$550
SB-COH-A64	Fourth Street (San Juan Road) & West Street or Monterey Street Intersection	New signalization of 2-lane collector with 2-lane local; 4 approaches, retain current lane configuration. TIF	\$400
SB-COH-A65	Memorial Drive & Hillcrest Road Intersection	New signalization of 4-lane arterial with 4-lane arterial, 4 approaches. Existing lane configuration to remain with bicycle lanes. TIF	\$700
SB-COH-A74	Flynn Road & San Felipe Road Intersection	New signalization of 4-lane arterial with 4-lane arterial. TIF	\$800
SB-COH-A75	Memorial Drive & Santa Ana Road Memorial Drive South Extension (Intersection)	New signalization of future 4-lane arterial (Memorial) with non-TIMF widening to 4-lane arterial; 4 approaches, turning lanes will be constructed.	\$800
SB-COH-A76	Memorial Drive South Extension: Meridian Street to Memorial Drive (Intersection)	New signalization of future 4-lane arterial (Memorial) with 4-lane arterial; 4 approaches, turning lanes will be constructed. TIF	\$800
SB-COH-A77	Gateway Drive & San Felipe Road Intersection	New signalization of new 2-lane collector with 4-lane arterial; 3 approaches, LTO's exist. TIF	\$525
SB-COH-A78	Rancho Drive & East Nash (Tres Pinos Road) Intersection	New roundabout. TIF	\$700
SB-SBC-A52	Union Road Bridge	Union Road Over San Benito River, East Cienega Road. Replace bridge, no added capacity. Bridge No. 43C0002. HBP	\$24,450
SB-SBC-A53	Panoche Road Bridge (Bridge No. 43C0016)	Panoche Road over Tres Pinos Creek, 6 Mi. E of SH 25. Scour Countermeasure. Bridge No. 43C0016. HBP	\$3,700
SB-SBC-A54	Panoche Road Bridge (Bridge No. 43C0027)	Panoche Road, over Tres Pinos Creek, 12 miles west Little Panoche Road. Replace 1-lane bridge with 2-lane bridge. Bridge No. 43C0027. HBP	\$4,825
SB-SBC-A56	Rosa Morada Bridge	Rosa Morada Rd over Arroyo Dos Picachos, 0.6 Mi E Fairview Road. Replace bridge (no added lane capacity) Bridge No. 43C0041. HBP	\$3,300

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-SBC-A57	Limekiln Road Bridge	Limekiln Road over Pescadero Creek, 0.1 Mi S Cienega Road. Replace 1-lane bridge with 2-lane bridge. Bridge No. 43C0054	\$2,800
SB-SBC-A58	Rocks Road Bridge	Rocks Road over Pinacate Rock Creek, East Little Merrill Road. Replace 1-lane bridge with 2-lane bridge. Bridge No. 43C0053. HBP	\$2,540
SB-SBC-A59	Anzar Road Bridge	Anzar Road over San Juan Creek, 0.35 Miles with San Juan Hwy Road. Replace 2-lane with 2-lane bridge (no added capacity) Bridge No. 43C0039. HBP	\$2,870
SB-SBC-A69	Fairview Road & Hillcrest Road Intersection	New signalization of future widening to 4-lane arterial (north & south legs) with future non-TIMF widening to 4-lane arterial (west leg only); 3 approaches. Turning lanes existing on all approaches, SB & NB through lanes will be constructed with Fairview Road widening. TIF	\$600
SB-SBC-A70	Union Road & Fairview Road Intersection	New signalization of future widening to 4-lane arterial (north & south legs) with future new 4-lane arterial (west leg only); 3 approaches. Turning lanes on Fairview Road added with Project No. 8; turning lanes on Union Road. Included as regional component of developer-constructed improvements. TIF	\$655
SB-SBC-A71	Enterprise Road & Airline Highway (SR 25) Intersection	New signalization of future widening to 4-lane arterial (north & south legs) with 2-lane arterial; 4 approaches, EB & WB through lanes will be constructed with Airline Hwy Project No. 5 with bicycle lanes. TIF	\$700
SB-SBC-A73	McCloskey Road & Fairview Road Intersection	New signalization of 4-lane arterial with 2-lane local, 3 approaches. LTO on lanes 3 approaches, RTO on 2 approaches. TIF	\$734
SB-SBC-A74	Meridian Street & Fairview Road Meridian Street Extension (Intersection)	New signalization of 4-lane arterial with 4-lane arterial: 3 approaches, turning lanes exist, through lane on Fairview will be constructed. TIF	\$600
SB-SBC-A75	Fairview Road & Fallon Road Intersection	New signalization of 4 lane arterial with 2-lane collector, 4 approaches. LTO & RTO on all approaches. TIF	\$944
SB-SBC-A77	San Benito County Local Street & Roadway Maintenance: 2020-2045	System preservation and maintenance.	\$131,313
SB-SBC-A83	Fairview Road & Airline Highway/SR 25 Intersection	New signalization of 4-lane arterial (east & west legs) with 4-lane arterial (north leg) & 2-lane (south leg). LTO & RTO existing on all approaches, EB & WB through lanes constructed. County and Caltrans. TIF	\$850
SB-SBC-A84	SR 156 & Buena Vista Road Intersection	New signalization of new 2-lane collector with 4-lane arterial, LTO on 4 approaches. County and Caltrans. TIF	\$765
SB-SBC-A86	John Smith Realignment at Fairview Intersection	This project will realign John Smith Road to intersect Fairview Road at St. Benedict Way and add left and right turn lanes into John Smith Road.	\$2,200

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-SBC-A88	Carr Avenue Bridge Project	Potential bridge replacement. The bridge is located on Carr Avenue, 0.23 miles east from Carpenteria Road intersection.	\$657
SB-SJB-A02	Roundabout at Muckelemi Street & Monterey Street	Constructing a roundabout.	\$450
SB-SJB-A03	Roundabout at Muckelemi and Fourth Street	Slight widening/re-paving and construction of roundabout.	\$450
SB-SJB-A04	Roundabout at Old San Juan - Hollister Road & San Juan Canyon Road	Constructing a roundabout and repaving.	\$250
SB-SJB-A05	Roundabout at Third Street & Donner Street	Striping a roundabout widening Third Street.	\$250
SB-SJB-A15	City of San Juan Bautista Local Street & Roadway Maintenance: 2020-2030	System preservation and maintenance.	\$9,553
SB-SJB-A25	Roundabout at First Street & Lavagnino Road	Constructing a roundabout.	\$400

**Table 6 Other Projects**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COG-A58	COG Planning and Administration	COG and LTA short and long range transportation planning studies. Transportation Development Act (TDA) for COG Administration, transit, bicycle & pedestrian facilities, approx.	\$40,000
SB-COH-A40	Hollister Airport Operations and Maintenance 2020-2045	Continued operations and maintenance of the airport.	\$22,500
SB-COH-A41	Hollister Airport Capital Improvement Program	Capital improvements grouped project list 2020-2026 from the Airport Capital Improvement Program. Project need for years 2027 and beyond are not available.	\$10,574

**Table 7 Transportation Demand Management**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COG-A08	Regional Rideshare Program	Promote the use of alternative modes of transportation.	\$125
SB-COG-A53	Vanpool Program	Provide vehicle lease program, planning and coordination.	\$525

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**Table 8 Transit Improvements**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-LTA-A46	Regional Transit Connection to Salinas	Transit connection from City of Hollister to City of Salinas.	\$3,113
SB-LTA-A47	Regional Transit Connection to Watsonville	Transit connection from City of Hollister to City of Watsonville.	\$3,124
SB-LTA-A53	Passenger Rail to Santa Clara County	Commuter rail from Hollister to Gilroy	\$87,247

**Table 9 Transit Operations**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-LTA-A37	General Transit Service Operations	Ongoing operations of County Express and Specialized Transportation Services, including services outside of San Benito County.	\$54,800
SB-LTA-A42	Regional Transit Planning	Planning transit infrastructure, new service and operational improvements, including transitioning to zero emission fleet.	\$2,500
SB-LTA-A52	Transit Technology and Infrastructure Improvements	Improve transit infrastructure to accommodate operations.	\$840
SB-LTA-A54	Bus Beside Rail to Santa Clara County	Constructing a single-lane bus route beside the existing rail, allowing bypassing traffic congestion.	\$51,510

**Table 10 Transit Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-LTA-A48	Transit Vehicle Replacements	Replace transit vehicles.	\$5,337
SB-LTA-A51	Bus Stop Improvement Program	Provides bus stop improvements, such as benches, shelters, and other amenities.	\$2,751

**Table 11 Transportation System Management**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COG-A44	Emergency Motorist Aid System (SAFE)	Emergency Call Box Program and additional CHP safety patrol are administered by the Service Authority for Freeways and Expressways (SAFE)	\$1,300
SB-COG-A56	Intelligent Transportation Systems Lump Sum Projects	Implement projects identified in the Central Coast Intelligent Transportation Systems Plan.	\$7,355

## Santa Cruz County

**Table 1 Active Transportation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
CAP 17SC	Upper Pacific Cove Parking Lot Pedestrian Trail and Depot Park Metro Development	Construct 4-foot-wide pedestrian pathway along City owned Upper Pacific Cove Parking lot, adjacent to rail line (680'). Includes new signal for ped crossing over Monterey Avenue. Includes a new metro shelter located and landscaped setting along the rail corridor/Park Avenue.	\$743
CO 42bSC	Green Valley Rd Pedestrian Safety Project	Build 6-foot wide sidewalk with some curb and gutter on NW side of Green Valley Road from Airport Boulevard to Amesti Road (1800 ft).	\$390
CO 84 SC	Hwy 152/Holohan - College Intersection	Intersection capacity enhancements and signal modifications, pedestrian and bicycle safety improvements. Add sidewalks and bicycle lanes on Holohan Rd, an additional left-turn lane from Holohan to EB Hwy 152, sidewalk on north side of Hwy 152 from Holohan to Corralitos Creek bridge, adds crosswalks and speed feedback signs.	\$3,650
SC-CAP-P03-CAP	Upper Capitola Avenue Improvements	Installation of bike lanes and sidewalks on Capitola Avenue (Bay Avenue - SR 1) and sidewalks on Hill Street from Bay Avenue to Rosedale Avenue.	\$500
SC-CAP-P12-CAP	Monterey Avenue Multimodal Improvements	Installation of sidewalks and bike lanes in area near school and parks.	\$360
SC-CAP-P16-CAP	Clares Street Pedestrian Crossing	Construct signalized ped crossing 0.20 miles west of 40th Avenue.	\$250
SC-CAP-P42-CAP	Clares Street Bike Lanes/Sharrows	Evaluate and if found necessary, add bike lanes/sharrows to Clares.	\$100
SC-CAP-P43-CAP	Clares Street/41st Avenue Bicycle Intersection Improvement	Bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) at Clares across 41st Avenue.	\$100
SC-CAP-P44-CAP	Gross/41st Avenue Bicycle Intersection Improvement	Bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) from Gross E/B to 41st N/B.	\$100
SC-CAP-P46-CAP	40th Ave (at Deanes Ln) Bike/Ped connection	40th Avenue N/S bike/pedestrian connection at Deanes Lane.	\$10
SC-CAP-P47-CAP	41st Ave (Highway 1 South to City Limits) Crosswalks	Evaluate and if found necessary, increase number of crosswalks on 41st to closer to every 300 ft.	\$100
SC-CAP-P48-CAP	Capitola Mall (Capitola Rd to Clares) Bike Path	Separated bicycle facility through Capitola Mall parking lot to connect 38th Avenue bike lanes and 40th Avenue.	\$50
SC-CAP-P51-CAP	Citywide Sidewalk Program	Install sidewalks to fill gaps. Annual Cost \$50k/yr.	\$750

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-CAP-P52-CAP	Citywide Bike Projects	Bike projects based on needs identified through the Bicycle Plan. These projects are in addition to projects listed individually in the RTP.	\$400
SC-CO-89-USC	Soquel Dr Buffered Bike Lane and Congestion Mitigation Project	Adaptive traffic signal control/transit signal priority at all 23 intersections between La Fonda Ave and State Park Dr; Protected bike lanes with striping/bollards for approximately 2.4 miles (4.8 miles bidirectional) and buffered bike lanes with striping for approximately 2.65 miles (5.3 miles bidirectional); 46 green bike boxes at 23 intersections for left turn movements; Pedestrian improvements including: 10 rectangular rapid flashing beacons at midblock crossings; 0.46 miles of new curb, gutter, retaining wall and sidewalk construction; 96 crosswalk upgrades, 12 sidewalk curb extensions; 100 ADA ramps; and reconstruction of 17 driveway and side street	\$27,000
SC-CO-P38-USC	Pajaro River Bike Path System	Construction of a Class 1 bike path along the levees and a Class 2 bikeway on Thurwatcher Road and Beach Road.	\$2,500
SC-CO-P41-USC	Countywide Sidewalks	Install sidewalks.	\$7,000
SC-CO-P46a-USC	San Lorenzo Valley Trail: Hwy 9 - Downtown Felton Bike Lanes & Sidewalks	Install sidewalks and bicycle lanes on Hwy 9 through downtown Felton.	\$3,500
SC-CO-P46b-USC	San Lorenzo Valley Trail: Hwy 9 - North Felton Bike Lanes & Sidewalks	Install sidewalk/pedestrian path on west side, shoulder widening to 5' for bicycle lanes from Felton-Empire/Graham Hill Road to Glen Arbor Road, Ben Lomond, including frontage of SLV elementary, middle and high schools. Includes new and replacement bike/ped bridges.	\$5,000
SC-CO-P50-USC	East Cliff Drive Pedestrian Pathway (7th - 12th Avenue)	Construct pedestrian pathway on East Cliff.	\$1,760
SC-CT-09-CT	Hwy 9 Felton Pedestrian Safety Improvements	Construct pedestrian path on Route 9 from the San Lorenzo Valley (SLV) High School to the intersection of Graham Hill Rd/Felton-Empire, plus signage and crosswalk improvements between Kirby St and Graham Hill Road.	\$15,800
SC-CT-P61-CT	Hwy 152 Corralitos Creek ADA	Construct accessible pathway, concrete barrier, retaining wall, curb, gutter and sidewalk to meet Americans with Disabilities Act (ADA) standards.	\$7,452
SC-CT-P69-CT	Pedestrian Signals #2: Hwys 1 and 129	Install Accessible Pedestrian Signal (APS) push buttons, Countdown Pedestrian Signal (CPS) heads, pedestrian barricades, and crosswalk signage to improve pedestrian and bicycle safety. (Project in MON, SCR, SLO and SB counties, PPNO2628).	\$4,580
SC-EA-02-USC	Ecology Action Countywide SRTS Youth Pedestrian and Bicycle Safety Education	EA will serve approximately 120 second grade classrooms with feet on the ground pedestrian safety education and 88 fifth grade classrooms with bike safety education and rodeos serving a total of 44 local schools.	\$440

Appendix B: Project List  
Santa Cruz County

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-RTC 27a-RTC	Monterey Bay Sanctuary Scenic Trail Network - Design, Environmental Clearance, and Construction	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.)	\$121,000
SC-RTC 27b-RTC	Monterey Bay Sanctuary Scenic Trail Network (Coastal Rail Trail) - Maintenance & Operations	Ongoing maintenance rail trail corridor. Includes clean-up, trash/recycling removal, graffiti abatement, brush clearance, surface repairs (from drainage issues, tree root intrusion) etc. and encroachments (est. \$700k/yr)	\$17,500
SC-RTC 27c-RTC	Monterey Bay Sanctuary Scenic Trail Network (Coastal Rail Trail) - Trail Management Program	Coordinate trail implementation as it traverses multiple jurisdictions to ensure uniformity; serve as Project Manager for construction of some segments; handle environmental clearance; coordinate use in respect to other requirements (closures for ag spraying, etc); solicit ongoing funding and distribute funds to implementing entities through MOUs; coordinate with community initiatives; etc.	\$7,550
SC-RTC-16-RTC	Bike Parking Subsidy Program	Subsidies for bicycle racks and lockers for businesses, schools, government agencies, and non-profit organizations are all eligible. Recipients are responsible for installation and maintenance of the equipment. Avg annual cost: \$25K/yr.	\$240
SC-RTC-P26-VAR	Countywide Pedestrian Signal Upgrades	Grant program to fund installation of accessible pedestrian equipment with locator tones including rapid flashing beacons and count down times etc. to facilitate roadway crossings by visually and mobility impaired persons.	\$1,035
SC-SC-23-SCR	West Cliff Path Minor Widening (David Way Lighthouse to Swanton)	Improve existing path.	\$520
SC-SC-P09-SCR	Sidewalk Program	Install and maintain sidewalks and access ramps.	\$5,500
SC-SC-P105-SCR	Market Street Sidewalks and Bike Lanes	Completion of sidewalks and bicycle lanes. Includes retaining walls, right-of-way, tree removals and a bridge modification.	\$1,030
SC-SC-P123-SCR	Soquel/Branciforte/Water (San Lorenzo River to Branciforte) Bike Lane Treatments	Consider bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) to address speed inconsistency and parking conflicts between bicyclists and vehicles.	\$410
SC-SC-P125-SCR	Citywide Safe Routes to School Projects - ATP	Projects to improve pedestrian and bicycle safety near schools.	\$1,404
SC-SC-P126-SCR	Almar Avenue Sidewalks	Fill gaps in sidewalks and access ramps to improve pedestrian safety.	\$200
SC-SC-P127-SCR	Pacific Avenue Sidewalk	Construct 200' of new sidewalk on Pacific Avenue between Front Street and 55 Front St, including installation of a new accessible crosswalk at Front and Pacific; 150' bike lane.	\$400

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-SC-P133-SCR	San Lorenzo River Walk Lighting	Install pedestrian scale lighting on the Riverwalk. The San Lorenzo Riverwalk Lighting northern section, is funded in the amount of \$970,000 from an ATP grant. There still a need for another \$1M for the southern reach unconstrained.	\$970
SC-SC-P134-SC	Ocean-Plymouth Multi-modal Transportation Improvements	Improve the bike and pedestrian connections through the intersection.	\$200
SC-SC-P23-SCR	Delaware Avenue Complete Streets	Fill gaps in bicycle lanes, sidewalks and sidewalk access ramps.	\$150
SC-SC-P29-SCR	Morrissey Boulevard Bike Path over Hwy 1	Install a Class 1 bicycle and pedestrian facility on freeway overpass.	\$300
SC-SC-P30-SCR	Murray Street to Harbor Path Connection	Install a Class 1 bicycle/pedestrian facility to connect the Segment 9 Rail Trail project, for the east and west side of the harbor.	\$210
SC-SC-P35-SCR	San Lorenzo River Levee Path Connection	Install a Multi-Use bicycle/pedestrian facility connecting the end of the San Lorenzo River Levee path on the eastern side of the river, up East Cliff Drive near Buena Vista Ave.	\$2,070
SC-SC-P59-SCR	King Street Bike Facility (entire length)	Install Class 2 bike lanes on residential collector street which includes some parking and landscape strip removals and some drainage inlet modifications.	\$2,070
SC-SC-P69-SCR	Seabright Avenue Bike Lanes (Pine-Soquel)	Install Class 2 bike lanes on arterial street to complete the Seabright Avenue bike lane corridor and connect to bike lane corridor on Soquel Avenue and Murray. Includes removal of some parking and some landscape strips.	\$2,070
SC-SV-30a-SCV	Mt Hermon Road Sidewalk Connections	Fill gaps in sidewalks on Bluebonnet and Kings Village Rd. to improve access between middle school, library and park.	\$250
SC-SV-32-SCV	Sidewalk Masterplan Implementation	Installation or widening of sidewalks and ramps that are missing, damaged or do not meet current ADA requirements. May include signage for safety.	\$500
SC-SV-P05-SCV	Citywide Sidewalk Program	Install sidewalks to fill gaps. Annual Cost \$50k/yr	\$4,000
SC-SV-P100-SCV	Whispering Pines Dr (Mt Hermon-Lundy Ln) Separated Bikeways	Upgrade bike lanes to buffered bike lane or Class IV separated bikeway. From SRTS Plan	\$75
SC-SV-P21-SCV	Lockwood Lane Pedestrian Signal Near Golf Course	Construct a pedestrian signal at unprotected ped crossing on Lockwood Lane.	\$50
SC-SV-P30A-SCV	Blue Bonnet Lane and Kings Village Rd Sidewalk Infill	Add sidewalks to fill gaps in business district	\$520
SC-SV-P35-SCV	Bean Creek Road Sidewalks (SVMS to Blue Bonnet)	Fill gaps in sidewalks on Bean Creek Road.	\$410
SC-SV-P41-SCV	Citywide Bike Lanes	Construction of additional bike lanes and paths citywide (including Green Hills).	\$2,060

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-SV-P45-SCV	Scotts Valley Town Center Bicycle/Pedestrian Facilities	Bicycle and pedestrian facilities and circulation elements within planned development.	\$4,130
SC-SV-P49-SCV	Mt Hermon Road and Scotts Valley Drive - Crosswalks	Increase number of crosswalks on Mt Hermon/Scotts Valley Dr, update crosswalks to block pattern, add pedestrian treatments where necessary at intersections to decrease distance across using refuge islands. Add crosswalks to all sides of intersections (particularly an issue on Scotts Valley Dr). Add HAWK signals to provide a low delay signalized crossing opportunity at select locations. Examples include the Safeway Driveway on Mt. Hermon Rd, at Victor Square/Scotts Valley Dr., and at Tramell Way/Scotts Valley Dr.	\$515
SC-SV-P53-SCV	Mt Hermon Road to El Rancho Drive Bike/Ped Connection	New bike/ped connection between Mt Hermon Road and El Rancho Drive which could include improved bike/ped facilities on existing interchange or new bike/ped crossing.	\$1,030
SC-SV-P56-SCV	Bean Creek Road at SV Middle School driveway crosswalk improvements	Realign crossing and rebuild ADA ramp on west side. Upgrade crosswalk to high visibility. Source SRTS Plan	\$53
SC-SV-P74-SCV	Hacienda Way Intersection Modification and Improvements	Install curb extensions to reduce crossing distance. Reduce Hacienda Way to one lane at intersection. Look into undergrounding utility pole at northern corner of intersection. Source SRTS Plan	\$100
SC-SV-P79-SCV	Lockwood Lanes Sidewalk & Sharrows	Fill sidewalk gaps on south side of street. Install green backed sharrows. (Short term)	\$90
SC-SV-P95-SCV	Highway 17 On/Off Ramp Bike & Pedestrian Improvements	Short term option to install leading pedestrian interval and curb extension at NE corner of intersection. Upgrade all crosswalks to high visibility. Install green bike conflict markings through intersection. Install bicycle detection at Glenwood/Scotts Valley Drive intersection approaches. Source SRTS Plan.	\$207
SC-SV-P99-SCV	Vine Hill School Rd (Glenwood Dr-Tabor Dr) Bike Lane Widening	Narrow travel lanes to 11' to widen bike lanes to 6'. Remove signs that indicate bike lanes are dependent on time of day. Source SRTS Plan	\$44
SC-UC-P33-UC	UCSC Bicycle Parking Improvements	Install bicycle parking facilities to serve bicycle commuters to the University.	\$520
SC-UC-P38-UC	Pedestrian Directional Map/Wayfinding System	Develop and install signs throughout campus.	\$520
SC-VAR-P03-VAR	Bicycle Sharrows	Install sharrows (shared roadway marking) designating areas where bicyclists should ride on streets, especially when bicycle lanes are not available. To be implemented by local jurisdictions.	\$520
SC-VAR-P05-VAR	Bike-Activated Traffic Signal Program	Provide traffic signal equipment to ensure that the traffic signals will detect bicycles just as cars are detected and ensure that the appropriate traffic signal phase is activated by the bicycles.	\$1,030

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SC-VAR-P08-VAR	Safe Paths of Travel	Regional program to construct and/or repair pedestrian facilities adjacent to high frequency use origins and destinations, particularly near transit stops.	\$3,100
SC-VAR-P10-VAR	Safe Routes to Schools Studies	Studies to assess pedestrian and bicycle safety near schools.	\$210
SC-VAR-P16-VAR	Bike Share	Establish and maintain an urban centered bike share program allowing county residents to access loaner bikes at key locations such as downtowns, transit centers, shopping districts and tourist destinations.	\$5,170
SC-VAR-P27-VAR	Complete Streets Implementation	Additional projects for complete streets implementation that would fall under the Complete Streets Guidelines.	\$20,000
SC-VAR-P28-VAR	Complete Streets Area Plan	Detailed complete street circulation and design plans, including consideration of multimodal green travelways, for areas identified for intensified development in Sustainable Communities Strategy.	\$400
SC-VAR-P29-VAR	Public/Private Partnership Bicycle and Pedestrian Connection Plan	Develop model for assisting local jurisdictions in working with private property owners to allow bicycle and pedestrian access through private property in areas identified for more intensified development in Sustainable Communities Strategy.	\$150
SC-VAR-P31-VAR	Uncontrolled Pedestrian Crossing Improvements	Implement improvements to uncontrolled pedestrian crossing such as painted and/or raised crosswalks, flashing beacons and pedestrian islands.	\$2,570
SC-VAR-P32-VAR	Bicycle Treatments for Intersection Improvements (ADD)	Add painted bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike detection and signals) at major intersections.	\$4,130
SC-VAR-P35-VAR	School Complete Streets Projects	Implement ped/bike programs and facilities near schools.	\$10,330
SC-VAR-P39-VAR	Active Transportation Plan	Prepare Active Transportation Plans that address bicycle, pedestrian, safe routes to schools and complete streets facilities within the jurisdictions of Santa Cruz County as well as the Santa Cruz Harbor Port District.	\$2,380
SC-VAR-P44-VAR	Electric Bicycle Commuter Incentive Program	Financial incentives, promotion and/or education to encourage residents to use electric bikes instead of commuting by car.	\$1,140
SC-WAT-P19-WAT	Lump Sum Bicycle Projects	Update the City Bicycle Plan and construction of additional routes and paths (250k/yr).	\$3,125
SC-WAT-P36-WAT	Alley Improvements	Repair & reconstruct some alleys.	\$60
SC-WAT-P49-WAT	2nd/Maple Avenue (Lincoln to Walker) Traffic Calming and Greenway	Evaluate and if found necessary, add traffic calming/bicycle traffic priority with wayfinding signage to provide access to MBSST and create low stress grid around downtown.	\$25
SC-WAT-P50-WAT	5th Street (Lincoln to Walker) - Traffic Calming and Greenway	Evaluate and if found necessary, add traffic calming/bicycle traffic priority with wayfinding signage to provide access to MBSST and create low stress grid around downtown.	\$25
SC-WAT-P54-WAT	Main Street - 3 HAWK Signals	Evaluate and if found necessary, add Hawk signals in 3 locations on Main Street.	\$890

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-WAT-P62-WAT	Freedom Boulevard Pedestrian Crossings (Airport to Lincoln)	Evaluate and if feasible, install new and improve existing uncontrolled pedestrian crossings at Roach Road, Davis Avenue, Clifford Lane, Mariposa Avenue, Alta Vista Street, Crestview Drive, Martinelli Street and Marin Street).	\$600
SC-WAT-P65-WAT	Upper Struve Slough Trail	Construction of 450 foot long pedestrian/bicycle path along upper Struve Slough from Green Valley Road to Pennsylvania Drive. The trail shall consist of a twelve-foot wide by one foot deep aggregate base section with the center eight feet covered with a chip seal. Additional improvements include installing a 130-length of modular concrete block retaining wall, reinforcing a 160-foot length of slough embankment with rock slope protection and installing a 175-foot long by eight-foot-wide boardwalk.	\$530
SC-WAT-P75-WAT	Complete Streets - Downtown	Provide complete streets improvements including sidewalk, parking, bike lane, sharrows, curb bulb outs, high visibility crosswalks, striping, signage, street trees, pedestrian lighting, bus shelters, bike parking and benches	\$5,000
SC-WAT-P76-WAT	Complete Streets - Watsonville Schools	Provide complete streets improvements including sidewalk, bike lane, sharrows, curb bulb outs, high visibility crosswalks, striping, signage and pedestrian lighting.	\$4,000
SC-WAT-P81-WAT	Lee Rd Trail	Prepare environmental documents and construction plans, secure permits	\$700
TRL 05aSC	MBSST - North Coast Rail Trail: Segment 5 Phase 1	Monterey Bay Sanctuary Scenic Trail Network (MBSST) - ph. 1 Wilder Ranch-Coast Dairies (5.4 mi)	\$13,500
TRL 05bSC	MBSST - North Coast Rail Trail: Segment 5 Phase 2	2.1 miles of Class 1, 8 to 12-foot-wide multi-use bicycle/pedestrian paved path with decomposed granite shoulders within the rail line right of way along the north coast of Santa Cruz County from Yellowbank Beach to Davenport. Project also includes Davenport crosswalk at Hwy 1/Ocean St and preliminary engineering and environmental compliance for parking lots at Yellowbank Beach and Davenport Beach and a path from the Bonny Doon parking lot to the rail trail.	\$8,700
TRL 07bSC	MBSST (Coastal Rail Trail): Segment 7-Phase 2 (Bay/California St to Pacific Ave/Wharf)	Bicycle/pedestrian pathway adjacent to railroad tracks. MBSST Segment 7-phase 2	\$11,000
TRL 07cSC	MBSST (Coastal Rail Trail): Segment 7-Phase 3 (Natural Bridges to Shaffer Rd)	Bicycle/pedestrian multiuse path adjacent to railroad tracks from Natural Bridges to Shaffer Rd crossing Antonelli Pond. MBSST Segment 7-phase 3	\$200
TRL 10-11	MBSST Rail Trail: 17th Ave-Jade St Park & Monterey Ave to Aptos Crk Road	Bicycle/pedestrian pathway parallel to railroad tracks through sections of Live Oak, Capitola, and Aptos. Segments 10 & 11 of Monterey Bay Sanctuary Scenic Trail Network (MBSST)/Rail Trail.	\$66,000

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
TRL 18L	MBSST (Coastal Rail Trail): Lee Road-Ohlone Pkwy	Construction of pathway parallel to the railroad tracks: includes asphalt path, retaining walls, fencing, drainage, at grade RR crossings, and installation of pathway or sidewalk to link to the existing sidewalk at Lee Road.	\$3,260
TRL 18W	MBSST Rail Trail: Walker Street to City Slough Trail connection	Construction of 2400 ft pedestrian and bicycle path parallel to the existing railroad tracks and within the rail right-of-way. Also includes public outreach and training to improve bicycle and pedestrian safety.	\$2,000
TRL 8-9a	MBSST (Coastal Rail Trail - Segment 8 and 9)	Rail Trail design, environmental clearance and construction along the rail corridor between Pacific Avenue in the City of Santa Cruz to 17th Avenue in Santa Cruz County.	\$34,500

**Table 2 Highway Improvements**

AMBAG ID	Project	PROJECT DESCRIPTION	Total Cost (\$ 000s)
SC-CT-P48-CT	Hwy 17 Wildlife Crossing	Construct wildlife undercrossing north of Laurel Road (CT#1G260). 60 foot long single span bridge will extend from the existing Laurel Road Sidehill Viaduct (Br. No. 36-0111) on the west side of Route 17 to the east. The final product will provide a 16-foot-wide natural soil bottom wildlife crossing under Route 17 with side slopes to the abutment faces. The wildlife under-crossing will slope downward to the west. A minimum vertical clearance of 10 feet will be provided.	\$5,155
SC-RTC 24f-RTC	2 - Hwy 1: Auxiliary Lanes from 41st Ave to Soquel Ave and Chanticleer Bike/Ped Bridge	Construct auxiliary lanes and a bicycle/pedestrian overcrossing of Hwy 1 at Chanticleer Ave. Caltrans Project ID 05-0C732	\$32,000
SC-RTC 24r-RTC	94 - Hwy 1: Northbound Auxiliary Lane from San Andreas Rd/Larkin Valley Rd to Freedom Blvd	Construct northbound auxiliary lane. [Note: This project was not included as part of Highway 1 CIP project (RTC 24a).]	\$10,000
SC-RTC-24e-RTC	3 - Hwy 1-State Park Dr-Bay/Porter Auxiliary Lanes, Bus on Shoulders, & Mar Vista Bike/Ped Crossing	Construct approximately 2.5 miles of auxiliary lanes northbound and southbound between State Park Dr and Park Ave interchange (1.2 miles) and the Park Ave and Bay/Porter interchange (0.7 miles); hybrid bus-on-shoulder/auxiliary lane facility between Bay Ave/Porter St and State Park Dr (total distance 3 miles). Includes bicycle/pedestrian overcrossing of Hwy 1 at Mar Vista Dr with sidewalk, ADA ramps, and intersection improvements at bridge approaches; reconstruction of Capitola Avenue overcrossing with wider sidewalks and bike lanes; and emergency pullouts and enforcement areas, sound wall, retaining walls	\$90,000
SC-RTC-24g-RTC	4 - Hwy 1 Auxiliary Lanes and Bus on Shoulders: Freedom Blvd to State Park Dr	Construct auxiliary lanes between State Park Dr-Rio Del Mar and Rio Del Mar Blvd - Freedom Blvd interchanges and modify shoulders to allow buses to use shoulders. Includes soundwalls and retaining walls; widening of the bridge over Aptos Creek/Spreckles Drive; Segment 12 of the MBSST (State Park Dr-Rio Del Mar Blvd/Sumner); and reconstruction of two railroad bridges over Highway 1, including bike/ped trail. [Part of Highway 1 CIP project (RTC 24a)]	\$102,000

**Table 3 Highway Operational, Maintenance and Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC 25SC	Hwy 1/9 Intersection Modifications	Intersection modifications including new turn lanes, bike lanes, shoulders, lighting, sidewalks and access ramps. Includes adding second left-turn lane on Highway 1 southbound to Highway 9 northbound; second northbound through lane and shoulder on northbound Highway 9, from Highway 1 to Fern Street; a right-turn lane and shoulder on northbound Highway 9; through-left turn lane on northbound River St; replace channelizers on Highway 9 at the intersection of Coral Street; sufficient lane width along the northbound through/left turn lane on Highway 9 from Fern Street to Encinal Street; new sidewalk along the east side of Highway 9 from Fern Street	\$7,900
SC-CT-34-CT	Hwy 1 Scotts Creek Restoration and Bridge Reconstruction	Replacement of bridge, road fill removal, and associated infrastructure to re-establish marsh/estuarine system currently restricted by Highway 1, benefiting multiple threatened and endangered species and resulting in a more resilient ecosystem and transportation corridor. Anticipated to be funded in-part by environmental resource/water grants. Partnership with Caltrans, CDF&W, RTC, RCD, Coastal Conservancy, and others.	\$10,000
SC-CT-P45-CT	State Highway Preservation (bridge, roadway, roadside)	Various SHOPP projects that address bridge preservation, roadway & roadside preservation and limited mobility improvements. (Constrained=30% of cost to maintain).	\$280,000
SC-CT-P46-CT	Collision Reduction & Emergency Projects	Various SHOPP projects that address collision reduction, mandates (including stormwater mandates) and emergency projects. (Constrained=30% of total cost).	\$285,569
SC-CT-P47-CT	Minors	Various small SHOPP projects (less than \$1 million) that reduce/enhance maintenance efforts by providing minor operational, pavement rehab, drainage, intersection, electrical upgrades, landscape and barrier improvements. (Constrained=30% of total cost).	\$2,000
SC-CT-P49-CT	Hwy 17 Access Management - Operational Improvements	Operational improvements to existing facilities including ramp modifications, accel/decel lanes, turning lanes, driveway consolidation, driveway channelization, etc.	\$10,000
SC-CT-P54-CT	Hwy 9 Viaduct Wall Extension	Construct side hill viaduct extension with cutoff retaining wall, restore roadway and facilities, and install permanent erosion control. (201.131) (Caltrans EA# 1K060 0518000115). Cost (\$1,000): CON/RW \$3,280 /\$60	\$6,910
SC-CT-P55-CT	Hwy 1 Replace Culverts	Safety updates to replace Culverts.	\$13,080
SC-CT-P56-CT	Hwy 1 Soquel Creek Scour Protection	Place Rock Slope Protection (RSP) to protect bridge foundation.	\$7,703
SC-CT-P57-CT	Countywide Highway Rumble Strips and Restriping	Install both centerline and edge line rumble strips and restripe with thermoplastic stripe routes 9, 1, 17, 25, 129 and 156 in SCZ and SB counties.	\$4,761
SC-CT-P58-CT	Hwy 17 Jarvis Slide Rock Fence	Construct rock fence/barrier at Jarvis Slide.	\$7,438
SC-CT-P59-CT	Hwy 9 San Lorenzo River Bridge & Kings Creek Bridge Replacement	Near Boulder Creek, at San Lorenzo River Bridge No. 36-0052 (PM 13.61) and Kings Creek Bridge No. 36-0054 (PM 15.49).	\$23,210

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CT-P60-CT	Hwy 9 Upper Drainage and Erosion Control Improvements	Replace failed culverts systems and construct energy dissipaters.	\$12,557
SC-CT-P62-CT	Hwy 9 PM 1.0 and 4.0 Viaduct	Construct sidehill viaducts, restore roadway and facilities, provide erosion control.	\$18,231
SC-CT-P66-CT	CZU August Lightning Complex Fire Recovery	Remove fire debris, burned trees, replace guardrail, drainage systems, timber wall lagging, and signs on Routes 1, 9 and 236 at various locations. (EA#1M650)	\$14,800
SC-CT-P68-CT	Hwy 9 Hairpin Tieback at PM 19.97	Construct Soldier Tieback Retaining Wall near Boulder Creek about 1.1 mile south of Junction 236/9.	\$7,630
SC-CT-P70-CT	Hwy 17 Paving	Grind pavement and place Hot Mix Asphalt	\$8,563
SC-CT-P71-CT	Hwy 236 Heartwood Hill Embankment Restoration	(HMA), apply High Friction Surface Treatment (HFST), and contrasting surface treatment	\$4,855
SC-CT-P73-CT	Hwy 17 Drainage Improvements	Construct and install stormwater quality Best Management Practices (BMPs) and rehabilitate drainage systems. (Long Lead Project)	\$9,502
SC-CT-P74-CT	Hwy 1 Capital Maintenance (SR 9 to north of Western Drive)	Preserve pavement and replace 87 ADA ramps as needed.	\$10,400
SC-CT-P76-CT	Hwy 9 Capital Maintenance (CapM)	(South of Mt Hermon Road to 0.6 mile north of Glenwood Drive).	\$26,400
SC-CT-P77-CT	Hwy 9 Capital Maintenance North	Preserve pavement, reconstruct guardrail, rehabilitate 6 drainage systems. (Saratoga Toll Rd in Boulder Creek to SR 35/county line)	\$9,200
SC-CT-P78-CT	Hwy 17 Capital Maintenance (SR 1 to Vine Hill School Road area)	Preserve pavement, upgrade median barrier, install 12 TMS	\$17,200
SC-CT-P79-CT	Hwy 129 Capital Maintenance	Preserve pavement, rehabilitate 6 drainage systems. (Salsipuedes Creek to Old Chittenden Road)	\$12,500
SC-RTC-24j-RTC	7 - Hwy 1: Reconstruct Bay Ave/Porter St and 41st Avenue Interchange	Reconstruct highway to operate as a single interchange. Includes construction of a frontage road that includes bike lanes and sidewalks connecting the Bay/Porter and 41st Ave intersections; reconstruction of the Bay/Porter undercrossing and the 41st Avenue overcrossing with enhanced pedestrian and bicycle treatments on both sides, and reconfiguration of ramps and local streets to accommodate local traffic and ramp metering. [Part of the Highway 1 CIP project (RTC 24a), but is listed here as a standalone project.]	\$14,000
SC-SC-38-SCR	Hwy 1/San Lorenzo Bridge Replacement	Replace the Highway 1 bridge over San Lorenzo River to increase capacity, improve safety and improve seismic stability, from Highway 17 to the Junction of 1/9. Reduce flooding potential and improve fish passage. Caltrans Project ID 05-0P460	\$20,000
SC-SC-P81-SCR	Hwy 1/Mission Street at Chestnut/King/Union Intersection Modification	Modify design of existing intersections to add lanes and upgrade the traffic signal operations to add capacity, reduce delay and improve safety. Provide access ramps and bike lanes on King and Mission. Includes traffic signal coordination.	\$4,650

**Table 4 Local Street and Road Operational, Maintenance and Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
CAP 11SC	Clares Street Traffic Calming: Phase I and II	Implementation of traffic calming measures: chicanes, center island median, new bus stop, and road edge landscape treatments to slow traffic. Construct new safe, accessible ped crossing at 42nd and 46th Avenue.	\$1,350
CAP 16SC	Bay Avenue/Capitola Avenue Intersection Modifications/Roundabout	Multimodal improvements to intersection. Roundabout.	\$500
CO 64SC	Aptos Village Plan Improvements	Modifications for ped, bike, bus and auto traffic. Add pedestrian facilities and drainage infrastructure on both sides of Soquel Drive; improve bike lanes; new bike parking; new bus pullout and shelter on north side. Trout Gulch: Replace sidewalks with standard sidewalks on east side, ADA upgrades to west side sidewalks. Install traffic signals at Soquel Drive/Aptos Creek Road & Soquel/Trout Gulch. Left turn lanes on Soquel at new street - Parade Street and at Aptos Creek Road. RR crossing modifications - new crossing arms, concrete panels for vehicle and pedestrian crossings. New RR crossing at Parade Street. Phase 1: Trout Gulch Road improvements with traffic signal and upgraded railroad crossing at Soquel Dr. Pavement overlay of Soquel Dr (Spreckels to Trout Gulch) and a portion of Aptos Creek Road.	\$5,200
CO 66SC	East Cliff Drive Cape Seal (12th-17th)	Pavement maintenance, isolated section digout and asphalt replacement and cape seal on entire roadway.	\$230
CO 82 SC	Branciforte Drive Chip Seal Project (Granite Creek Road to SC city limits - 1.91mi)	Roadway rehabilitation: Digouts, Rubberized Chip Seal, and restriping of a portion of Branciforte Drive	\$433
CO-P28i	Varni Road Improvements (Corralitos Road to Amesti Road)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$340
SC 42SC	Soquel Avenue at Frederick Street Intersection Modifications	Widen to improve eastbound through-lane transition on Soquel Ave and lengthen right-turn pocket and bicycle lane on Frederick St. Upgrade access ramps.	\$350
SC-CAP 19-CAP	Capitola Street Pavement Management	System preservation. Streets identified include 41st Avenue, Clares Street, Bay Avenue, Capitola Road and numerous residential streets including but not limited to 42nd, 47th, 48th, Fanmar, Diamond, and Ruby Court.	\$1,450
SC-CAP-P06-CAP	Citywide General Maintenance and Operations	Ongoing maintenance, repair and operation of road/street system within the City limits.	\$51,300
SC-CAP-P07-CAP	Bay Avenue/Hill Street Intersection	Intersection improvements to improve traffic flow. Roundabout.	\$210
SC-CAP-P07p-CAP	Stockton Avenue Bridge Rehab	Replace bridge with wider facility that includes standard bike lanes and sidewalks.	\$1,500

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CAP-P09-CAP	Park Avenue/Kennedy Drive Improvements	Construct intersection improvements, especially for bikes/peds. May include traffic signal.	\$360
SC-CAP-P27-CAP	Wheelchair Access Ramps	Install wheelchair access/curb cut ramps on sidewalks citywide.	\$200
SC-CAP-P28-CAP	Monterey Avenue at Depot Hill	Improve vehicle ingress and egress to Depot Hill along Escalona Avenue and improve pedestrian facilities.	\$260
SC-CAP-P30-CAP	47th Avenue Traffic Calming and Greenway	Traffic calming and traffic dispersion improvements along 47th Avenue from Capitola Road to Portola Drive and implementation of greenway, which gives priority to bicycles and pedestrians on low volume, low speed streets including, pedestrian facilities, way finding and pavement markings, bicycle treatments to connect to MBSST.	\$100
SC-CAP-P32-CAP	Bay Avenue/Monterey Avenue Intersection Modification	Multimodal improvements to the intersection. Include signalization or roundabout along with pedestrian, bicycle treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) and transit access.	\$310
SC-CAP-P34-CAP	Capitola Village Enhancements: Capitola Ave	Multimodal enhancements along Capitola Avenue.	\$350
SC-CAP-P37-CAP	41st Avenue/Capitola Road Intersection Improvements	Widen intersection and reconfigure signal phasing.	\$320
SC-CAP-P38-CAP	40th Avenue/Clares Street Intersection Improvements	Widen intersection and signalize.	\$500
SC-CAP-P40-CAP	46th/47th Avenue (Clares to Cliff Drive) Bike Lanes/Traffic Calming	46th/47th Avenue from Clares to Portola/Cliff Drive- Add traffic calming and wayfinding signage to connect to Brommer and MBSST.	\$20
SC-CAP-P41-CAP	Brommer/Jade/Topaz Street Bike Lanes/Traffic Calming (Western City Limit on Brommer to 47th Ave.)	Add buffered bike lanes, traffic calming and wayfinding signage and bike/ped priority crossing at 41st Avenue, connecting the two N/S neighborhood greenways.	\$20
SC-CAP-P55-CAP	Porter Street and Highway 1 I/S Improvements	Add additional dedicated right turn lane on Porter Street to northbound on ramp.	\$250
SC-CO-P02-USC	Airport Boulevard Improvements (City limits to Green Valley Road)	Major rehab, addition of bike lanes, transit facilities, merge lanes, intersection improvements, sidewalks, drainage and landscaping.	\$1,240
SC-CO-P03-USC	Amesti Road Multimodal Improvements (Green Valley to Brown Valley Road)	Roadway rehab and reconstruction, left turn pockets at Green Valley Road, Pioneer Road/Varni Road. Add bike lanes, transit turnouts, sidewalks, merge lanes, landscaping and intersection improvements.	\$600
SC-CO-P04-USC	Bear Creek Road Improvements (Hwy 9 to Hwy 35)	Major rehab, add bike lanes, turnouts, merge lanes and intersection improvements. Some landscaping and drainage improvements also.	\$250

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-CO-P08-USC	Corralitos Road Rehab and Improvements (Freedom Boulevard to Hames Road)	Major rehab, transit, bike and ped facilities. May also include drainage, merge lanes, landscaping and intersection improvements.	\$620
SC-CO-P09-USC	East Cliff Drive Improvements (32nd Avenue to Harbor)	Roadway rehab, add left turn pockets at 26th and 30th Avenue, fill gaps in bikeways and sidewalks, add transit turnouts, intersection improvements. Some landscaping and drainage improvements.	\$1,500
SC-CO-P10-USC	Empire Grade Improvements	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.	\$1,190
SC-CO-P11-USC	Freedom Blvd Multimodal Improvements (Bonita Dr to City of Watsonville)	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.	\$775
SC-CO-P12-USC	Graham Hill Road Multimodal Improvements (City of SC to Hwy 9)	Bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes, traffic signals. Major rehabilitation and maintenance. Drainage improvements. Signal upgrade at SR 9.	\$1,755
SC-CO-P13-USC	Green Valley Road Improvements	Add two-way left turn lanes from Mesa Verde to Pinto Lake on Green Valley Road. Also includes some road rehab and maintenance, bike lanes, sidewalks, transit facilities, landscaping and merge lanes.	\$1,030
SC-CO-P14-USC	La Madrona Drive Improvements (El Rancho Drive to City of Scotts Valley)	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.	\$905
SC-CO-P17-USC	Sims Road Improvements (Graham Hill Road to La Madrona Drive)	Road rehab and maintenance, drainage, intersection improvements, landscaping. Add bike, ped and transit facilities.	\$440
SC-CO-P18-USC	Soquel Avenue Improvements (City of SC to Gross Road)	Transit turnouts, two way left turn lanes from Chanticleer to Mattison, merge lanes, signalization and intersection improvements. Signals at Chanticleer and Gross Road. Roadwork: major rehabilitation and maintenance, perhaps drainage improvements. Roadside: sidewalks, landscaping, and new transit facilities.	\$3,310
SC-CO-P20-USC	State Park Drive Improvements Phase 2	Transit turnouts, two way left turn, merge lanes, intersection improvements, and fill gaps in bike and ped facilities including pedestrian crossing improvements, bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals). Plus, major rehabilitation and maintenance, drainage improvements, landscaping.	\$335
SC-CO-P22-USC	Paul Sweet Road Improvements (Soquel Dr to end)	Major road rehab and maintenance. Also adds bike lanes, sidewalks, landscaping. Drainage improvements, merge lanes and intersection improvements, and new transit facilities may also be needed.	\$310

Appendix B: Project List  
Santa Cruz County

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CO-P24-USC	Lockwood Lane Improvements (Graham Hill Road to SV limits)	Major road rehab, add bicycle lanes, sidewalks, some transit facilities, landscaping and intersection improvements.	\$243
SC-CO-P26a-USC	41st Avenue Improvements Phase 2 (Hwy 1 Interchange to Soquel Drive)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$340
SC-CO-P26b-USC	Beach Road Improvements (City limits to Pajaro Dunes)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$340
SC-CO-P26d-USC	Brown Valley Road Improvements (Corralitos Road to Redwood Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$340
SC-CO-P26e-USC	Buena Vista Road Improvements (San Andreas to Freedom Boulevard)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$825
SC-CO-P26g-USC	Cassery Road Improvements (Hwy 152 to Green Valley Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$208
SC-CO-P26h-USC	Center Avenue/Seacliff Drive Improvements (Broadway to Aptos Beach Drive)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$340
SC-CO-P26i-USC	Chanticleer Avenue Improvements (Hwy 1 to Soquel Drive)	Roadway and roadside improvements including bike lanes, sidewalks, drainage and intersection improvements.	\$340
SC-CO-P26j-USC	East Zayante Road Improvements (Lompico Road to just before Summit Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$485
SC-CO-P26k-USC	El Rancho Drive Improvements (Mt. Hermon/Hwy 17 to SC city limits)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$655
SC-CO-P26l-USC	Eureka Canyon Road Improvements (Hames Road to Buzzard Lagoon Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$655
SC-CO-P26m-USC	Glen Canyon Road Improvements (Branciforte Drive to City of Scotts Valley)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$1,640
SC-CO-P26n-USC	Glenwood Drive Improvements (Scotts Valley city limits to State Hwy 17)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$825
SC-CO-P26p-USC	Mattison Lane Improvements (Chanticleer Avenue to Soquel Avenue)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$400
SC-CO-P26q-USC	Mt. Hermon Road Improvements (Lockhart Gulch to Graham Hill Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$825

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CO-P26r-USC	Porter Street Improvements (Soquel Drive to Paper Mill Road)	Roadway and roadside improvements including buffered sidewalks and bicycle treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) to address speed inconsistency between bicyclists and vehicles, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$340
SC-CO-P26s-USC	Seascape Boulevard Improvements (Sumner Avenue to San Andreas Road)	Roadway improvements and pavement rehabilitation.	\$170
SC-CO-P26u-USC	Summit Road Improvements	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$1,530
SC-CO-P27a-USC	37th/38th Avenue (Brommer to East Cliff) Multimodal Circulation Improvements and Greenway	Evaluate and if feasible improve vehicle and transit access on 38th Avenue from East Cliff to Brommer and develop greenway on 37th Avenue from East Cliff to Portola. Roadway improvements may include roadway and roadside improvements including sidewalks, bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals), transit turnouts, left turn pockets and intersection improvement.	\$570
SC-CO-P27c-USC	Corcoran Avenue Improvements (Alice Street to Felt Street)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$150
SC-CO-P27e-USC	Main Street Improvements (Porter Street to Cherryvale Avenue)	Roadway and roadside improvements on Major Collector including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$1,760
SC-CO-P27f-USC	Mill Street Improvements (entire length)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$360
SC-CO-P27h-USC	Paulsen Road Improvements (Green Valley Road to Whiting Road)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$240
SC-CO-P27i-USC	Pinehurst Dr Improvements (entire length)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$180
SC-CO-P27k-USC	Spreckels Drive Improvements (Soquel Drive to Aptos Beach Drive)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$340
SC-CO-P27l-USC	Winkle Avenue Improvements (entire length from Soquel Drive)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$655
SC-CO-P28a-USC	Bean Creek Road Improvements (Scotts Valley City Limits to Glenwood Drive)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$485
SC-CO-P28c-USC	Commercial Way Improvements (Mission Drive to Soquel Drive)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$170

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CO-P28d-USC	Felton Empire Road Improvements (entire length to State Hwy 9)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$655
SC-CO-P28f-USC	Pine Flat Road Improvements (Bonny Doon Road to Empire Grade Road)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$655
SC-CO-P28g-USC	Soquel-Wharf Road Improvements (Robertson Street to Porter Street)	Roadway and roadside improvements on various Minor Arterials including addition of bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals), transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$515
SC-CO-P28h-USC	Thurber Lane Improvements (entire length)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$485
SC-CO-P29e-USC	Maciel Avenue Improvements (Capitola Road to Mattison Lane)	Improvements of roadways and roadsides on various Minor Collectors including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$400
SC-CO-P29f-USC	Paul Minnie Avenue Improvements (Rodriguez Street to Soquel Avenue)	Improvements of roadways and roadsides on various Minor Collectors including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$340
SC-CO-P30d-USC	Cabrillo College Drive Improvements (Park Avenue to Twin Lakes Church)	Improvements of roadways and roadsides on various Major Arterials 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.	\$240
SC-CO-P30n-USC	Rio Del Mar Boulevard Improvements (Esplanade to Soquel Drive)	Improvements of roadways and roadsides on various Major Arterials including addition of bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road and roadsides.	\$725
SC-CO-P31g-USC	Opal Cliff Drive Improvements (41st Avenue to Capitola City Limits)	Roadway, roadside and intersection improvements including sidewalks, bike treatments (such as buffered and/or painted bike lanes), designed to accommodate the number of users and link to East Cliff Drive.	\$290
SC-CO-P33d-USC	Harper St Improvements (entire length-El Dorado Ave to ECM)	Roadway and roadside improvements on various Minor Collectors including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$310

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CO-P35-USC	Countywide General Road Maintenance and Operations	Ongoing maintenance, repair, and operation of road/street system within the unincorporated areas of the county.	\$415,000
SC-CO-P36-USC	Soquel-San Jose Road Improvements (Paper Mill Road to Summit Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$580
SC-CO-P37-USC	Countywide ADA Access Ramps	Construction of handicapped access ramps countywide.	\$620
SC-CO-P62-USC	Soquel Dr Road Improvements (Robertson St to Daubenbiss)	Roadway and roadside improvements including curb, gutter, sidewalk, bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals), left turn lanes, intersection improvements and roadway rehabilitation.	\$410
SC-CO-P83-USC	San Lorenzo Way Bridge Replacement Project	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.	\$3,190
SC-CO-P85-USC	Green Valley Rd Bridge Replacement Project	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.	\$2,110
SC-CO-P88-USC	Either Way Ln Bridge Replacement Project	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.	\$2,180
SC-CO-P90-USC	Fern Dr @ San Lorenzo River Bridge Replacement Project	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.	\$2,830
SC-CO-P91-USC	Larkspur Bridge @ San Lorenzo River	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.	\$3,930
SC-CO-P97-USC	County wide guardrail	Install guardrail on County roads.	\$15,000
SC-SC-37-SCR	Murray Street Bridge Retrofit	Seismic retrofit of existing Murray St. bridge (36C0108) over Woods Lagoon at harbor and associated approach roadway improvements and replacement of barrier rail. Includes wider bike lanes and sidewalk on ocean side. Include access paths to harbor if eligible.	\$11,440
SC-SC-48-SCR	Ocean Street Pavement Rehabilitation	Pavement rehabilitation using cold-in-place recycling process; includes new curb ramps, restriping of bicycle lanes and crosswalks.	\$1,030
SC-SC-P07-SCR	Citywide Operations and Maintenance	Ongoing maintenance, repair, and operation of street system within the City limits. (Const=\$3.0M/yr; Unconst=\$4.2M/yr)	\$79,000
SC-SC-P100-SCR	Seabright/Murray Traffic Signal Modifications	Remove split phasing on Seabright and add right-turn lane northbound.	\$1,030

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-SC-P101-SCR	Swift/Delaware Intersection Roundabout or Traffic Signal	Install Traffic Signal or Roundabout at Intersection to improve capacity and safety.	\$500
SC-SC-P104-SCR	Measure H Road Projects	Road rehabilitation and reconstruction projects citywide to address backlog of needs using Measure H sales tax revenues. (Some Measure H funds anticipated to fund specific projects listed in the RTP).	\$41,800
SC-SC-P109-SCR	Bay/High Intersection Modification	Install a roundabout or modify the traffic signal to include protected left-turns and new turn lanes. Revise sidewalks, access ramps and bike lanes as appropriate.	\$2,150
SC-SC-P128-SCR	Citywide Street Sweeping	Ongoing street sweeping, funded from City Refuse Enterprise Fund.	\$22,500
SC-SC-P129-SCR	Downtown Intersection Improvements	Modify Front/Soquel, Front/Laurel and Pacific/Front Intersections stemming from additional residential and commercial development in the Downtown.	\$300
SC-SC-P13-SCR	Riverside Avenue/Second Street Intersection Modification.	Modify intersection to reduce congestion and improve pedestrian crossing.	\$175
SC-SC-P77-SCR	Bay Street Corridor Modifications	Intersection modifications on Bay Street Corridor from Mission Street to Escalona Drive, including widening at the Mission Street northeast corner and widening on Bay. Improve bike lanes and add sidewalks to west side of Bay.	\$970
SC-SC-P83-SCR	West Cliff/Bay Street Modifications	Install signal or roundabout to replace the all-way stop to improve safety and capacity.	\$500
SC-SC-P86-SCR	Ocean Street Streetscape and Intersection, Plymouth to Water	Implement this phase of the Ocean Street plan and modify Plymouth Street to provide separate turn lanes and through lanes, widen sidewalks, pedestrian islands/bulbouts, transit improvements, street trees, street lighting and medians landscaping improvements. This includes pedestrian and bicycle crossing improvements and detection and connectivity to the pedestrian and bicycle path on the San Lorenzo River and adjacent neighborhoods. Include Gateway treatment.	\$2,000
SC-SC-P90-SCR	High Street/Moore Street Intersection Modification	Add a protected left turn to existing signalized intersection along High Street at city arterial. Project is located in high pedestrian and bicycle use activity area.	\$100
SC-SC-P91-SCR	Shaffer Road Widening and Railroad Crossing	Construction of a new crossing of the Railroad line at Shaffer Road and widening at the southern leg of Shaffer in conjunction with development. Complete sidewalks and bike lanes.	\$1,000
SC-SC-P93-SCR	Beach/Cliff Intersection Signalization	Signalize intersection for pedestrian and train safety.	\$210
SC-SC-P96-SCR	Bay/California Traffic Signals	Install traffic signals and roundabouts for safety and capacity improvements.	\$100
SC-SV-P06-SCV	Citywide Access Ramps	Place handicap ramps at various locations. Avg annual cost: \$8K/yr.	\$210
SC-SV-P27-SCV	Citywide General Maintenance and Operations	Ongoing maintenance, repairs and operation of road/street system within the City limits. (\$400K/yr const; \$250/yr unconst).	\$18,000

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-SV-P28-SCV	Neighborhood Traffic Calming	Citywide traffic calming devices.	\$770
SC-SV-P47-SCV	Mt Hermon/Scotts Valley Drive - Transit Queue Jump	Evaluate and if found to be beneficial, remove right turn islands at Mt Hermon Road/Scotts Valley Drive to add transit queue jump lanes/signals.	\$620
SC-SV-P51-SCV	Mt. Hermon Road/Town Center Entrance Traffic Signal	Install new traffic signal at the intersection of the future Town Center road that will accommodate increased pedestrian travel. Add a right-turn lane on the westbound approach. New signalization of the intersection at the future Town Center's primary access point on Mt. Hermon Road would provide protected pedestrian crossing, ADA accessible curb ramps and detectable surfaces on all intersection corners. Permitted left-turn phasing shall be used for the northbound and southbound approaches, while protected left-turn phasing shall be provided on the eastbound and westbound Mt. Hermon Road approaches.	\$130
SC-SV-P52-SCV	Kings Village Road/Town Center Entrance Traffic Signal	Install new traffic signal at the intersection of Kings Village Road and new Town Center entrance (near transit center) with protected pedestrian crossings and transit signal priority. New Signalization of the intersection on Kings Village Road at the transit center exit and future Plan street connection would provide a location for protected pedestrian crossings, and would allow transit operators to easily exit the transit center and maintain operating schedules.	\$105
SC-UC-P01-UC	UCSC Main Entrance Improvements	Realign roadway, transit pullout/shelter, relocate bike parking, construct pedestrian path, historic resource analysis. Work may be done in conjunction with City Roundabout project.	\$2,070
SC-UC-P59-UC	UCSC Lump Sum Roadway Maintenance	Repaving and rehabilitation of roadways on UCSC campus to maintain existing network.	\$2,275
SC-UC-P66-UC	Transportation-Related Stormwater Management Projects	Retrofitting existing transportation facilities and developing new facilities with new stormwater management techniques.	\$1,030
SC-VAR-P13-VAR	Lump Sum Emergency Response Local Roads	Lump sum for repair of local roads damaged in emergency. (Based on average ER/FEMA/CalEMA funds, storm damage, fire, etc. Costs of repairs assumed under lump sum maintenance and operations within local jurisdiction listings.)	\$240,000
SC-VAR-P14-VAR	Lump Sum Bridge Preservation	Painting, Barrier Rail Replacement, Low Water Crossing, Rehab, and Replacement bridges for SHOPP and Highway Bridge Program (HBP).	\$100,000
SC-WAT-45-WAT	Freedom Blvd Reconstruction (Alta Vista to Green Valley)	Remove and replace non-ADA compliant driveways and curb ramps, install high visibility crosswalks, provide sharrows and bicycle signage, upgrade existing bus stop shelter, install new traffic signal at Sydney Ave with pedestrian signal heads, pedestrian actuated traffic signals, audible countdown, pedestrian-level lighting and illumination at crosswalks and reconstruct roadway.	\$2,175
SC-WAT-46-WAT	Watsonville Road Maintenance (Various Locations)	Place three-layer coating system on road surface	\$2,505

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-WAT-O1A-WAT	Hwy 1/Harkins Slough Road Interchange: Bicycle/Pedestrian Bridge	Construction of Pedestrian/Bicycle Bridge over Highway 1. Caltrans Project ID 05-1G490	\$15,800
SC-WAT-P06-WAT	Citywide General Maintenance and Operations	Ongoing maintenance, repair, and operation of road/street system, including bicycle and pedestrian facilities. (Total Need = \$2,600/year, constr=\$1500/yr)	\$54,270
SC-WAT-P13-WAT	Neighborhood Traffic Plan Implementation	Address concerns about traffic complaints through Education, Enforcement, and Engineering solutions. Install traffic calming devices that do not impede bicyclist access (\$20k/yr).	\$470
SC-WAT-P24-WAT	Citywide Transportation Projects	Lump sum of transportation projects to be identified in the future. Including major rehabilitation and operational improvements (\$1.2M/yr).	\$16,200
SC-WAT-P35-WAT	Bridge Maintenance	Maintenance of bridges.	\$115
SC-WAT-P45-WAT	Green Valley Rd Improvement (Freedom Blvd to City Limit)	Reconstruct existing roadway, install a median island to encourage safer turning movements, remove and replace existing driveways and curb ramps that do not comply with existing accessibility standards, restripe roadway to provide striping for bike lanes where none exist.	\$2,000
SC-WAT-P47-WAT	Main Street Modifications (City Limit to Lake Avenue)	Repave roadway and bike lanes; repair, replace and install curb, gutter, sidewalk and curb ramps: replace and upgrade signage and striping. Evaluate and if feasible, provide bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) and buffered sidewalks.	\$1,670
SC-WAT-P72-WAT	Freedom Boulevard (Green Valley Road to Airport Blvd)	Repair and resurface damaged roadway and bike lanes, replace damaged sidewalks, add pedestrian facilities where none exist.	\$2,650
SC-WAT-P77-WAT	Elm St. Improvements Project	Road reconstruction and sidewalk improvements	\$350
SC-WAT-P79-WAT	Harkins Slough Rd Pedestrian & Bicycle Bridge	Install pedestrian & bicycle bridge, pedestrian path, sidewalk, striping and signage	\$90
SC-WAT-P86-WAT	Main Street Traffic Study	Conduct traffic study on Main Street between Freedom Blvd and Riverside Dr to determine the feasibility of a lane reduction/road diet. Determine possible impacts on adjacent streets and any necessary improvements. Study shall be coordinated with 2019 Downtown Watsonville Complete Streets and 2020 Downtown Specific Plan.	\$25
SC-WAT-P87-WAT	Airport Blvd/Holm Road Signal Installation	Install traffic signal	\$460
SC-WAT-P88-WAT	Airport Blvd Pavement Reconstruction	Reconstruct roadway	\$575
SC-WAT-P89-WAT	West Beach St/Ohlone Pkwy Signal	Install traffic signal	\$130

**Table 5 Other Projects**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
CO 36SC	State Park Drive/Seacliff Village Improvements	Construct sidewalks, bike lanes, bus turnouts, central plaza, street lighting, EV charging station, parking, landscaping, drainage and roadway overlay in Seacliff core area- consistent with the Seacliff Village Plan adopted by the BOS in 2003.	\$3,060
RTC 04SC	Planning, Programming & Monitoring (PPM) - SB 45	Development and amendments to state and federally mandated planning and programming documents, monitoring of programmed projects. Avg annual cost: \$250k/yr.	\$5,000
SC-AIR-P01-WAT	Lump Sum Watsonville Airport Capital Projects	Projects from the Watsonville Airport Capital Improvement Program. Includes new hangers, reconstruction of aviation apron, security feature and runway extensions.	\$27,000
SC-AIR-P02-WAT	Watsonville Municipal Airport Operations	Ongoing operations/maintenance. Average \$2M/year.	\$49,925
SC-CAP-P53-CAP	Capitola Road & 45th Avenue I/S Improvements	Signalization or other LOS improvements.	\$400
SC-CAP-P54-CAP	Wharf Road and Stockton Avenue I/S Improvements	Signalization or other LOS improvements.	\$350
SC-CAP-P57-CAP	Stockton Avenue and Capitola Avenue I/S Improvements	Signalization or other LOS improvements.	\$500
SC-CO-P96-USC	Capital improvement projects consistent with the Sustainable Santa Cruz County Plan	Construct associated multi-modal infrastructure improvements associated with the Sustainable Santa Cruz County Plan	\$7,000
SC-CT-P09e-CT	Hwy 9 SLV Corridor Projects	May be implemented by Caltrans or County of SC, in partnership with others. Implementation of priorities identified in the Complete Streets Corridor Plan. Includes improvements to increase safety and discourage speeding, updated and expanded bicycle and pedestrian facilities including shoulder widening, auto turn lanes and other auto circulation improvements, and transit improvements in SLV. SLV Complete Streets PID development efforts underway; some may be integrated into SHOPP projects. Capital Cost Est. TBD - preliminary estimate \$100-150 million. \$10M Measure D. Some bike/ped elements also shown in CO-P46a/b.	\$30,000
SC-CT-P50-CT	Hwy 17 Access Management - Multimodal Improvements	Multimodal improvements including park and ride improvements and facilities serving separated bike/ped crossing or express transit route.	\$5,000
SC-CT-P67-CT	Hwy 236 Hazardous Tree Removal	Remove hazardous trees and fire debris near Boulder Creek, from Forest Drive to 2.2 miles south of Route 9. (EA#1M790)	\$15,625
SC-CT-P75-CT	Hwy 1 Long Toed Salamander Mitigation	Long Toed Salamander mitigation partnering (Main St interchange in Watsonville to north of Larkin Valley Rd interchange)	\$2,800

Appendix B: Project List  
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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-RTC 03a-RTC	Rail Line Repairs and Bridge Rehabilitation	Infrastructure preservation for current uses and future transportation purposes. Includes railroad bridge rehabilitation and 2017 storm damage repairs.	\$5,800
SC-RTC 03b-RTC	Rail Line: Track Infrastructure, Signage, Maintenance and Repairs	Ongoing operating, maintenance, repair, rehabilitation, and oversight of railroad track infrastructure and signage (~\$175k/year)	\$4,375
SC-RTC 03d-RTC	Railroad Bridge Inspections & Analysis	Railroad Bridges are required to be inspected and load rated every 540 days per Federal Railroad Administration (FRA) requirements	\$6,250
SC-RTC-P07-RTC	SCCRTC Administration (TDA)	SCCRTC as Regional Transportation Planning Agency for Santa Cruz County distributes Transportation Development Act Local Transportation Funds and State Assistance Funds for planning, transit, bicycle facilities and programs, pedestrian facilities and programs and specialized transportation in accordance with state law and the unmet transit needs process. Average annual cost: \$650K/yr.	\$16,250
SC-RTC-P08-RTC	SCCRTC Planning	SCCRTC Planning Tasks. Includes public outreach, long and short range planning, interagency coordination. Avg annual cost: \$625k/yr.	\$15,625
SC-RTC-P25-VAR	Transit Oriented Development Grant Program	Smart growth grant program to fund TODs that encourage land use and transportation system coordination. May include joint childcare/PNR/transit centers.	\$2,570
SC-RTC-P50-RTC	Countywide Bicycle, Pedestrian and Vehicle Occupancy Counts	Conduct counts to assess mode split over time and assess impact of new facilities.	\$330
SC-RTC-P51-RTC	Performance Monitoring	Transportation data collection and compilation to monitor performance of transportation system to advance goals/targets. Includes travel surveys of commuters, Transportation Demand Management plan, a low-stress bicycle network plan and parking standards plan.	\$220
SC-RTC-P59-RTC	Measure D Administration and Implementation	SCCRTC administration, implementation and oversight of Measure D and the revenues generated from the 2016 Santa Cruz County Transportation Sales Tax - Measure D. Costs include annual independent fiscal audits, reports to the public, preparation and implementation of state-mandated reports, oversight committee, preparation of implementation, funding and financing plans, and other responsibilities as may be necessary to administer, implement and oversee the Ordinance and the Expenditure Plan.	\$14,375
SC-VAR-P07-VAR	Transportation System Electrification	Partnership with local gov't agencies, electric vehicle manufactures, businesses, and Ecology Action to establish electric vehicle charging stations for EV's, plug-in hybrids, NEV's, as well as e-bikes and e-scooters. Work with manufacturers on developing advanced electric vehicles and educating the public regarding the ease of use and benefits of electric vehicles.	\$51,650
SC-VAR-P25-VAR	Planning for Transit Oriented Development for Seniors	Evaluate opportunities for Transit Oriented Development serving seniors including access to medical facilities.	\$80

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-VAR-P30-VAR	Public/Private Partnership Transit Stops and Pull Outs Plan	Develop model for assisting local jurisdictions in working with businesses to install transit pullouts and shelters on property in areas identified as high-quality transit corridors in Sustainable Communities Strategy.	\$150
SC-VAR-P36-VAR	Safety Plan	Develop a safety plan that addresses traffic related injuries and fatalities for all modes of transportation.	\$310
SC-VAR-P38-VAR	Environmental Mitigation Program	Allocate funds to protect, preserve, and restore native habitat that construction of transportation projects listed in SCCRTC's RTP could potentially impact. EMP funds will be for uses such as, but not limited to, purchasing land prior to project development to bank for future mitigation needs, funding habitat improvements in advance of project development to leverage and enhance investments by partner agencies.	\$5,680
SC-WAT-P04-WAT	Neighborhood Traffic Plan	Plan to identify and address concerns regarding speeding, bicycle and pedestrian access and safety, and other neighborhood traffic issues (\$5k/yr).	\$115
SC-WAT-P80-WAT	Lake Avenue Underground Utilities	Underground existing overhead utilities.	\$2,400
WAT 43SC	Freedom Boulevard Plan Line	Preparation of a plan line for Freedom Boulevard between Green Valley Road and Buena Vista Drive that delineates multimodal modifications supported by the community.	\$160

**Table 6 Transportation Demand Management**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
RTC 17SC	Ecology Action Transportation Employer Membership Program	Community organization that promotes alternative commute choices. Work with employers, incentives for travelers to get out of SOVs including: emergency ride home, interest-free bike loans, discounted bus passes. Avg cost: \$90K/yr. Coordinates with Bike to Work program.	\$1,125
SC-CO 50-USC	Santa Cruz County Health Service Agency - Traffic Safety Education	Ongoing education program to decrease the risk and severity of collisions. Includes bicycle and pedestrian programs: Community Traffic Safety Coalition, South County coalition and Ride n' Stride Bicycle/Pedestrian Education Program.	\$2,500
SC-EA-03a-USC	Bike Challenge +	Online tracking and encouragement platform to encourage and reward people to bike commute more often. Twice-a-year monthly bike challenge, year-round encouragement tools, bike commuter workshops, marketing, group rides, and data/survey collection.	\$181
SC-RTC 02a-RTC	Cruz511 TDM and Traveler Information	Transportation demand management including centralized traveler information system and ride matching services. Outreach, education and incentives; multimodal traveler information system on traffic conditions, incidents, road and lane closures; ride matching service for carpools, vanpools, and bicyclists; services and information about availability and benefits of all transportation modes, including sharing rides, transit, walking, bicycling, telecommuting, alternative work schedules, alternative fuel vehicles, and park-n-ride lots. Avg annual cost: \$315k.	\$4,334
SC-RTC-15-RTC	Vanpool Incentive Program	Assist in start up and retention of vanpools. Includes financial incentives: new rider subsidies, driver bonuses, and empty seat subsidies. Also may include installation of wifi on vans. Avg Annual Cost: \$25k/yr.	\$100
SC-RTC-26-OTH	Bike To Work/School Program	Countywide education, promotion, and incentive program to actively encourage bicycle commuting and biking to school. Coordinates efforts with local businesses, schools, and community organizations to promote bicycling on a regular basis. Provides referrals to community resources. Avg annual cost: \$140K/yr-includes in-kind donations and staff time.	\$1,870
SC-RTC-33-VAR	Cabrillo College TDM Programs	Provide students and employees at all four Cabrillo College campuses with education, promotion, and incentives that support the use of sustainable transportation modes. Develop information, programs and services customized to meet the transportation needs of the Cabrillo College community. Provide Sustainable Transportation education, promotion, and Go Green program enrollment to Cabrillo College students and employees. Partner with Cabrillo staff and students to reduce SOV trips to the Aptos, Watsonville and Scotts Valley campuses. Provided targeted information and services to Cabrillo members.	\$890

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-RTC-P48-VAR	Climate Action Transportation Programs	Projects that reduce greenhouse gas emissions through reducing vehicle trips and vehicle miles traveled, increasing fuel efficiency and expanding use of alternatively fueled vehicles. Includes comprehensive outreach and education campaigns, a countywide emergency ride home for those using alternatives, and TDM incentive programs: \$100k/year.	\$2,330
SC-RTC-P49-RTC	RTC Bikeway Map	Bikeway Map and update GIS files as needed.	\$320
SC-RTC-P53-VAR	TDM Individualized Employer/Multiunit Housing Program	Implement individualized employer and multiunit housing TDM programs with incentives for existing development.	\$2,325
SC-RTC-P54-RTC	School-Based Mobility/TDM Programs	Student transportation programs aimed at improving health and wellbeing, transportation safety and sustainability and that facilitate mode shift from driving alone in a motor vehicle to active and group transportation.	\$1,150
SC-UC-P61-UC	Traveler Safety Education/Information Programs	Bike/pedestrian safety programs; light and helmet giveaways, safety classes, distracted driver programs, bus etiquette program	\$100
SC-UC-P63-UC	UCSC Vanpool Program	Maintain, operate and expand upon UCSC vanpool program.	\$9,863
SC-UC-P68-UC	Parking Management Technology Improvements	Updating existing parking management technologies to allow for more effective management.	\$410
SC-UC-P69-UC	UCSC Commute Counseling Program	Staffing, program development to individually market to UCSC affiliates on more sustainable means of travel to campus.	\$3,100
SC-UC-P70-UC	UCSC Commuter Incentive Programs	Provide ongoing support and development of new programs to encourage travel to campus via sustainable modes of travel.	\$1,750
SC-UC-P73-UC	UCSC Parking Operations & Maintenance	Operate and administer the parking operations for UCSC including planning, TDM, marketing and debt service.	\$80,000
SC-VAR-02-VAR	Project PASEO - Open Streets, Earn-a-Bike, Pop Up Bike Lanes, Slow Streets	Slow Streets temporary barricades and signage on neighborhood streets aimed at increasing space for walking and biking, reducing speeds and cut through traffic. Open Streets community events temporarily open roadways to bicycle and pedestrian travel only, diverting automobiles to other roadways. Earn-a-bike program provides bikes, tools, safety supplies, as well as bike repair, cycling safety, and nutrition education middle school students. Pop-up bike lanes is a temp demo of a protected bicycle lane. Open Streets: Santa Cruz, Watsonville, +; Earn-a-bike: middle schools; Pop-up Bike Lanes: Live Oak & Watsonville; Slow Streets: Unincorporated	\$50
SC-VAR-P06-VAR	Carsharing Program	Program to assist people in sharing a vehicle for occasional use. Implementing Agency TBD, varies.	\$1,470
SC-VAR-P17-VAR	Eco-Tourism - Sustainable Transportation	Provide sustainable transportation information, incentives and promotions to the estimated one million visitors to Santa Cruz County. Work with the Santa Cruz County Conference and Visitors Council, local lodgings, and tourist attractions.	\$515

Appendix B: Project List  
Santa Cruz County

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-VAR-P18-VAR	Mission Street/Hwy 1 Bike/Truck Safety Campaign	Partnership with road safety shareholders including Caltrans, UCSC, City of Santa Cruz, Ecology Action, trucking companies and others to improve bike/truck safety along the Mission Street corridor. Provide safety presentations, videos, brochures, safety equipment, etc.	\$520
SC-VAR-P19-VAR	School Safety Programs	Bicycle and walking safety education and encouragement programs targeting K-12 schools in Santa Cruz County including Ecology Action's Safe Routes to School and Bike Smart programs. Provide classroom and on the bike safety training in an age-appropriate method. Provide a variety of bicycle, walking, busing and carpooling encouragement projects ranging from bike to school events, to incentive driven tracking, and educational support activities. Est. annual cost \$150k.	\$1,910
SC-VAR-P20-VAR	Public Transit Marketing	Initiatives that increase public transit ridership including discount passes, free fare days, commuter clubs, and promotional and marketing campaigns.	\$775
SC-VAR-P24-VAR	Countywide Senior Driving Training	Coordinate and enhance current programs that help maturing drivers maintain their driving skills and provides transitional info about driving alternatives. (Current programs are run by AARP and CHP.)	\$90
SC-VAR-P26-VAR	Park and Ride Lot Development	Upgrade and maintain existing park and ride lots for commuters countywide. Secure additional park and ride lot spaces for motorized vehicles and bicycles. Long range plan: identify, purchase land, construct Park & Ride lots.	\$3,100
SC-VAR-P37-VAR	Transportation Demand Management Plan	Collaborate with other organizations to develop a coordinated plan for transportation demand management program implementation for Santa Cruz County.	\$310
SC-VAR-P40-VAR	Santa Cruz County Open Streets	Community events promoting alternatives to driving alone as part of a sustainable, healthy, and active lifestyle. Temporarily opens roadways to bicycle and pedestrian travel only, diverting automobiles to other roadways. (Average cost ~ \$25k/event)	\$250

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**Table 7 Transit ADA**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-CTSA-P01-OTH	Countywide Specialized Transportation	Non-ADA mandated paratransit and other specialized transportation service for seniors and people with disabilities. Includes medical service rides, Elderday, out-of-county rides, Sr. Meal Site, Taxi Script, and same day rides etc. Current avg annual need \$2.58M. Constrained=\$2M.	\$45,500
SC-CTSA-P02-OTH	Lift Line Maintenance/Operations Center	Construct a permanent maintenance center/consolidated operations facility for paratransit program (currently Lift Line).	\$15,500
SC-MTD-02-MTD	ADA Paratransit Vehicle Replacements	Replace buses/vans for ADA paratransit fleet (including Accessible Taxi program).	\$5,250
SC-MTD-P10C-MTD	ADA Paratransit Service - Continuation of Existing Service	Operation & maintenance cost of existing Paratransit service. Avg Annual Cost: \$6.5M.	\$162,500
SC-MTD-P19-MTD	Transit Mobility Training Program Expansion	Expand public outreach and training to encourage fixed route, rather than Paratransit, use. Outreach may also involve other partners (ex. DMV, doctors, senior centers, etc). Avg annual cost: \$80K/yr.	\$2,000
SC-MTD-P28-MTD	ParaCruz Operating Facility	Design, Right-of-Way and construction for new ParaCruz Operating Facility.	\$12,400
SC-MTD-P30-MTD	ParaCruz Mobile Data Terminals/Radios	Replace mobile data terminals in vehicles.	\$400
SC-MTD-P51-MTD	ADA Access Improvements	Add or improve ADA accessibility to all bus stops and METRO facilities.	\$350
SC-RTC-P43-OTH	Senior Employment Ride Reimbursement	Reimburse low income seniors for transit expenses to/from employer sites.	\$1,600
SC-VAR-P48-VAR	On-Demand Wheelchair Accessible Vehicle Program	TNC Access for All Program to implement SB1376 (Hill: 2018) which directed the CPUC to establish a program relating to accessibility of on-demand transportation services for persons with disabilities, including wheelchair users who need a wheelchair accessible vehicle (WAV), to be funded in-part by Transportation Network Companies (e.g., Lyft/Uber) that do not have WAV fleet. [constrained reflects CPUC forecasted funds=\$60k/yr]	\$1,500

**Table 8 Transit Improvements**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-MTD-P12-MTD	Hwy 17 Express Service Restoration and Expansion	Restore Hwy 17 Express service to FY16 levels, then expand service 2% annually. Restore \$353K/yr operating plus 2% annually plus capital costs (2 buses)	\$5,050
SC-MTD-P14-MTD	Local Transit Service Restoration and Expansion	Restore local service to FY16 levels, then expand service 2% annually. Restore \$7.0M/yr operating plus 2% annually plus capital costs (16 buses)	\$98,800
SC-RTC-P02-RTC	Public Transit on Watsonville-Santa Cruz Rail Corridor	Design, construction, and operation of public transit between Santa Cruz and Watsonville in the rail corridor. May be a joint project with the SCCRTC, SCMTD, and local jurisdictions. Annual op cost est: \$25M/yr; Capital: \$475M (Total cost reflects 2021 TCAA est. for rail). Pending final outcome of Transit Corridor Alternatives Analysis and environmental review. Cost shown includes 15 years of service during RTP period; Constrained=environmental/prelim. design assessment of possible future public transit system in the rail corridor right-of-way.	\$25,000
SC-RTC-P60-RTC	Regional State Transit Assistance Projects	State Transit Assistance (STA) eligible transit projects	\$33,220
SC-UC-P23-UC	Transit Vehicles (ongoing)	Ongoing capital acquisition of transit vehicles for on-campus transit and University shuttles.	\$5,875
SC-VAR-P45-VAR	West Side Transit Hub	Transfer node near rail corridor at Natural Bridges Dr - may include transit, rideshare, bicycle, bikeshare, pedestrian to provide regional connections to/from other parts of the county and the university.	\$580
SC-VAR-P46-VAR	Live Oak Transit Hub	Transfer node near rail corridor at 17th Avenue - may include transit, rideshare, bicycle, bikeshare, pedestrian to provide regional connections to/from other parts of the county.	\$530
SC-VAR-P47-VAR	Watsonville Transit Hub	Expand transportation mode options at transfer node near rail corridor and current transit center to increase use of transit, rideshare, bicycle, bikeshare, pedestrian to provide regional connections to/from other parts of the county.	\$585

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**Table 9 Transit Operations**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-MTD-P10B-MTD	Hwy 17 Express Service - Continuation of Baseline Service Levels	Operation & maintenance cost of existing Highway 17 Express bus service. Avg annual cost: \$5.3M.	\$132,500
SC-MTD-P10-MTD	Local Transit - Continuation of Baseline Service Levels 2020-2045	Operation & maintenance cost of existing local fixed route bus service. Avg annual cost: \$42.1M.	\$1,077,500
SC-RTC-P58-RTC	Real-Time Transit Info	Develop and maintain system for disseminating real time transit arrival and departure information to Santa Cruz Metro users. To be developed in coordination with Santa Cruz Metro.	\$220
SC-UC-P74-UC	UCSC Transit Service	Operate the on campus shuttle service and Night Owl (\$3.01m/year).	\$77,750
SC-UC-P75-UC	Disability Van Service	Operate disability van service (\$240k/yr).	\$6,250
SC-VC-P1-OTH	Volunteer Center Transportation Program	Program providing specialized transportation to seniors and people with disabilities. Constrained = existing TDA allocations.	\$1,640

**Table 10 Transit Rehabilitation**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MTD 18SC	Account-Based Electronic Fare Collection System	Account-based electronic fare collection system including the ability to use a variety of fare media including smart cards, mobile tickets on smartphones, contactless credit and debit cards, Google Pay and Apple Pay. Replacement of fareboxes at the end of useful life for cash acceptance onboard. Replacement Transit Fareboxes, Ticket Vending Machines or Retail Vendor Network.	\$2,250
SC-MTD-13-MTD	Santa Cruz Metro Center/Pacific Station Renovation	Renovate Pacific Station or construct new transit center in alternate location as part of development partnership with the City of Santa Cruz.	\$10,000
SC-MTD-P04-MTD	Bus Replacements	Replace fleet at the end of normal bus lifetime (approximately every 12 years; \$700 each for local fixed route; \$900k each for Hwy 17 Over the Road coaches). \$1.25M for ZEB	\$67,200
SC-MTD-P31-MTD	Bus Rebuild and Maintenance	Rebuild engines; Fleet maintenance equipment. Avg. cost is ~\$250k/bus, increases useful life up to 8 years at 40% of the cost of new buses.	\$6,000
SC-MTD-P32-MTD	Non-Revenue Vehicle Replacement	Replace support vehicles.	\$1,000
SC-MTD-P36-MTD	Metro Facilities Repair/Upgrades	Maintain and upgrade facilities.	\$4,300
SC-MTD-P52-MTD	Bus Stop and Station Improvements	Improve customer access and/or amenities at bus stops; add bus stop pads to preserve pavement.	\$500
SC-RTC 03e-RTC	Rail Line: Pajaro River Railroad Bridge Rehabilitation	Rehabilitate the bridge structure and tracks over Pajaro River.	\$670
SC-SV-P46-SCV	Mt Hermon/King's Village Road - Transit Signal Priority	Transit signal priority at Kings Village Road/Mt Hermon Road.	\$80
SC-UC-P62-UC	Bus Tracking and AVL Transit Programs	GPS bus tracking and Automatic Vehicle Locator programs inform travelling population of transit locations so they can make informed mode choices.	\$260
SC-UC-P64-UC	Alternative Fuel Fleet Vehicles	Purchase and upgrade fleet vehicles to alternative fueled vehicles (refuse trucks, street sweepers, fleet cars, etc.)	\$500

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**Table 11 Transportation System Management**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
RTC 01SC	Freeway Service Patrol (FSP) on Hwy 1 and Hwy 17	Maintain and expand tow truck patrols on Highways 1 and 17. Work with the CHP to quickly clear collisions, remove debris from travel lanes, and provide assistance to motorists during commute hours to keep incident related congestion to a minimum and keep traffic moving. Avg need: \$300k/yr constrained (some from SB1); \$430k/yr total cost.	\$7,500
SC-CAP-P49-CAP	41st Ave (Soquel to Brommer) Signal Synchronization	Update synchronization of signals on 41st. Coordinate synchronization of 41st Ave with Portola, Soquel, Capitola and Hwy 1 ramps with County.	\$350
SC-CAP-P50-CAP	Capitola-wide HOV priority	Evaluate HOV priority at signals and HOV queue bypass.	\$40
SC-CHP-P01-CHP	Hwy 17 Safety Program	Continuation of Highway 17 Safety Program in Santa Cruz County at \$100/year. Includes public education and awareness, California Highway Patrol (CHP) enhancement, pilot cars, electronic speed signs.	\$3,750
SC-CHP-P04-CHP	Hwy 1 Safety and Bus on Shoulder Enforcement	Additional CHP enforcement and public education campaign when new bus on shoulder facilities operational (anticipate 4 years of enforcement).	\$250
SC-CT-P63-CT	Hwy 129 Paving, Sign Panels, Lighting, TMS Improvement	Rehabilitate pavement and lighting, replace sign panels, and install Transportation Management System (TMS) elements.	\$14,809
SC-CT-P64-CT	Hwy 1 Drainage Improvements	Rehabilitate drainage systems and lighting, install Transportation Management System (TMS) elements, pave areas behind the gore and construct Maintenance Vehicle Pullouts (MVPs) to reduce maintenance and enhance highway worker safety.	\$16,554
SC-CT-P65-CT	Hwy 1 Roadside Safety	Rehabilitate drainage systems, enhance highway worker safety, replace lighting and install Transportation Management System (TMS) elements.	\$24,021
SC-CT-P80-CT	Hwy 236 Drainage and System Upgrades in Boulder Creek	Drainage System and TMS upgrades	\$13,400
SC-MTD-P06-MTD	Transit Technological Improvements	IT software and hardware upgrades for scheduling, customer service and planning systems. Upgrades every 5 years.	\$2,500
SC-MTD-P50-MTD	ITS Equipment: Automatic Passenger Counter System and Real Time Bus Arrival/Departure Displays	Automatic Vehicle Locator (AVL), Automatic Passenger Counters, and automatic vehicle announcing systems on METRO buses. Provide real time bus arrival/departure displays at bus stops. Necessary IT upgrades and data collection for system operations, security, planning and maintenance.	\$1,600
SC-RTC 34-RTC	Hwy 1 Ramp Metering: Northern Sections Between San Andreas Road and Morrissey Blvd	Reconfiguration of ramps and local streets to allow for ramp metering and installation of ramp meters. Could be expensed under a separate stand-alone project (\$6.7 M)	\$1

Appendix B: Project List  
**Santa Cruz County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-RTC-P01-RTC	SAFE: Call Box System Along Hwys	Motorist aid system of telephone call boxes along all highways plus maintenance and upgrades. Call boxes may be used to request assistance or report incidents. Avg annual cost: \$245/yr	\$6,125
SC-SV-P42-SCV	Synchronize Traffic Signals along Mt. Hermon Road	Re-time to coordinate traffic signals along Mt. Hermon Road.	\$100
SC-UC-P58-UC	UCSC Traffic Control	Non-traditional traffic control/crossing guard program at key intersections on UCSC campus to improve pedestrian and vehicle safety, reduce conflicts, improve travel times.	\$2,580
SC-VAR-P34-VAR	Transit Priority	Install transit queues at major intersections.	\$2,585
SC-WAT-P78-WAT	Green Valley Adaptive Signal Project	Update signals to provide dynamic signal timing, optimizing traffic flow and decreasing vehicle emission.	\$393

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# Appendix C

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Performance Metric Data

Performance Measures for 2045 MTP/SCS Environmental Impact Report

PM ID	DESCRIPTION	2015 Existing	2020 Modeled	2035 No Project	2035 Project (Revenue Constrained)	2045 No Project	Alt 2: 2045 Alternative Transportation Modes Alternatives	Alt 3: 2045 Infill and Transit Focus Alternative	2045 Project (Revenue Constrained)
1	Percent of work trips that are 30 minutes or less by mode peak period (Percent)								
1a	SOV/Drive alone	85.1%	85.1%	84.7%	84.4%	84.8%	84.4%	84.9%	84.3%
1b	Shared Ride	85.1%	85.1%	84.7%	84.4%	84.8%	84.4%	84.9%	84.3%
1c	Transit	58.1%	57.6%	59.6%	60.6%	59.5%	62.2%	62.1%	60.8%
2	Average work trip travel time peak period (in minutes)	15.3	15.4	15.5	15.5	15.5	15.6	15.4	15.6
3	Percent of jobs within 1/2 mile of a high quality transit (Regional)	12.0%	12.0%	11.8%	23.8%	11.8%	31.7%	30.5%	24.8%
3a	Monterey County	20.1%	20.1%	19.9%	26.7%	19.8%	29.8%	29.1%	28.2%
3b	San Benito County	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3c	Santa Cruz County	0.0%	0.0%	0.0%	22.7%	0.0%	40.3%	38.0%	23.3%
4	Daily truck hours of delay (Truck Vehicle Hours)	3,772	6,404	7,381	6,746	9,611	8,252	8,449	8,218
5	Emissions								
5a	GHG (CO <sub>2</sub> ) Emissions from all land use and VMT (lbs)	15,407,659	14,996,815	10,852,352	10,837,500	11,064,845	11,128,633	11,010,269	11,081,610
5b	Per capita GHG (Full Fleet)	20.2	19.4	12.9	12.9	12.7	12.8	12.7	12.7
5c	GHG emissions (Passenger vehicles, excludes external trips, does not include off model adjustments) for SB 375 VMT (in lbs)	12,952,601	13,813,773	14,392,317	14,318,733	15,500,432	15,456,673	15,331,830	15,391,854
5d	Per capita GHG (Auto and light duty truck only- SB375)	17.0	17.8	17.1	17.0	17.8	17.8	17.6	17.7
5e	Smog forming pollutants (TOG) (pounds/daily)	8,734	5,391	2,264	2,254	2,007	2,004	1,991	1,998
5f	Smog-forming pollutants (TOG) (pounds/day) per capita	0.011	0.007	0.003	0.003	0.002	0.002	0.002	0.002
6	Total bike, walk and transit trips (without/ Post Processing)	346,586	345,346	369,905	374,068	378,437	381,872	385,032	382,059
6a	Percent of trips by walk mode	11.6%	11.4%	11.3%	11.4%	11.2%	11.3%	11.4%	11.3%
6b	Percent of trips by bike mode	2.2%	2.2%	2.2%	2.2%	2.1%	2.2%	2.2%	2.2%
7	Congested vehicle miles travelled peak periods (LOS E & F)**	552,221	707,987	788,091	729,353	875,310	817,574	893,549	797,962
8	Transit Ridership	34,225	34,864	37,317	37,439	37,803	37,829	38,182	37,939
8a	Monterey-Salinas Transit	14,457	14,742	15,699	15,811	16,039	16,187	16,599	16,133
8b	San Benito County Express	583	624	828	822	888	880	866	883
8c	Santa Cruz Metro	19,184	19,498	20,790	20,806	20,876	20,762	20,716	20,923
9	Percent of population within 1/2 mile of a high quality transit (Regional)	15.3%	15.4%	14.9%	25.9%	14.7%	35.5%	35.3%	30.0%
9a	Monterey County	27.0%	27.0%	26.4%	35.4%	25.9%	44.3%	43.8%	42.1%
9b	San Benito County	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
9c	Santa Cruz County	0.0%	0.0%	0.0%	17.3%	0.0%	31.0%	31.0%	18.4%
10	VMT Total	16,007,118	17,331,954	18,294,987	18,278,130	20,041,051	20,126,625	19,904,230	20,032,142
11	VMT Total per capita	21.0	22.4	21.7	21.7	23.0	23.1	22.9	23.0
12	VMT light trucks and cars only	14,451,014	15,612,061	16,538,080	16,509,681	18,006,732	18,059,617	17,837,538	17,956,476

# Appendix D

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Special Status Species

# Special-Status Species Known to Occur or with Potential to Occur within Monterey, San Benito, and Santa Cruz Counties

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR or CDFW	Habitat Requirements
<b>Plants</b>		
<i>Abies bracteata</i> bristlecone fir	None/None G2G3 / S2S3 1B.3	Lower montane coniferous forest, broadleaved upland forest, chaparral, riparian woodland. Rocky sites in Monterey and San Luis Obispo counties. Sometimes serpentine. 150-1465 m.
<i>Acanthomintha lanceolata</i> Santa Clara thorn-mint	None/None G4 / S4 4.2	Chaparral, cismontane woodland, coastal scrub. Shale scree and serpentine. 80-1200 m.
<i>Acanthomintha obovata</i> ssp. <i>cordata</i> heart-leaved thorn-mint	None/None G4T3 / S3 4.2	Cismontane woodland, chaparral, valley and foothill grassland, pinyon-juniper woodland. Heavy adobe-clay soil (probably a Vertisol). Grassy openings in woodland & chaparral. 785-1540 m.
<i>Acanthomintha obovata</i> ssp. <i>obovata</i> San Benito thorn-mint	None/None G4T3T4 / S3S4 4.2	Chaparral, cismontane woodland, valley and foothill grassland. Heavy clay, sometimes alkaline soil, or sometimes serpentine, in grassy openings in blue oak woodland or chaparral. 395-1500 m.
<i>Agrostis blasdalei</i> Blasdale's bent grass	None/None G2 / S2 1B.2	Coastal dunes, coastal bluff scrub, coastal prairie. Sandy or gravelly soil close to rocks; often in nutrient-poor soil with sparse vegetation. 5-365 m.
<i>Agrostis lacuna-vernalis</i> vernal pool bent grass	None/None G1 / S1 1B.1	Vernal pools. In mima mound areas or on the margins of vernal pools. 125-150 m.
<i>Allium hickmanii</i> Hickman's onion	None/None G2 / S2 1B.2	Closed-cone coniferous forest, chaparral, coastal scrub, coastal prairie, cismontane woodland. Sandy loam, damp ground and vernal swales; mostly in grassland though can be associated with chaparral or woodland. 5-200 m.
<i>Allium howellii</i> var. <i>howellii</i> Howell's onion	None/None G3G4T3 / S3 4.3	Valley and foothill grassland. Clay or serpentinite. 50-2200 m.
<i>Allium howellii</i> var. <i>sanbenitense</i> San Benito onion	None/None G3G4T2 / S2 1B.3	Chaparral, valley and foothill grassland. Openings. Clay, often steep slopes. 390-1365 m.
<i>Amsinckia douglasiana</i> Douglas' fiddleneck	None/None G3 / S3 4.2	Valley and foothill grassland, oak woodland. Monterey shale; dry habitats. 0-1950 m.
<i>Amsinckia furcata</i> forked fiddleneck	None/None G4 / S4 4.2	Cismontane woodland, valley and foothill grassland. Often on shale outcrops in disturbed, rather open sites. Often in gypsum-affected soils. 50-1000 m.
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	None/None G2G3 / S2S3 1B.2	Cismontane woodland, valley and foothill grassland, coastal bluff scrub. 3-795 m.

**2045 Metropolitan Transportation Plan/ Sustainable Communities Strategy and Regional Transportation Plans for Monterey, San Benito and Santa Cruz Counties**

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR or CDFW	Habitat Requirements
<i>Androsace elongata</i> ssp. <i>acuta</i> California androsace	None/None G5?T3T4 / S3S4 4.2	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland, meadows and seeps, pinyon and juniper woodland. Highly localized and often overlooked little plant. 150-1200 m.
<i>Anomobryum julaceum</i> slender silver moss	None/None G5? / S2 4.2	Broadleafed upland forest, lower montane coniferous forest, north coast coniferous forest. Moss which grows on damp rocks and soil; acidic substrates. Usually seen on roadcuts. 100-1000 m.
<i>Antirrhinum ovatum</i> oval-leaved snapdragon	None/None G3 / S3 4.2	Chaparral, cismontane woodland, pinyon-juniper woodland, valley and foothill grassland. From open hillsides to small vernal pools in clay or gypsum soils w/in grassland or woodland. Sites often alkaline. 200-1000 m.
<i>Arabis blepharophylla</i> coast rockcress	None/None G4 / S4 4.3	Broadleafed upland forest, coastal prairie, coastal scrub, coastal bluff scrub. Rocky sites. 3-1100 m.
<i>Arctostaphylos andersonii</i> Anderson's manzanita	None/None G2 / S2 1B.2	Broadleafed upland forest, chaparral, north coast coniferous forest. Open sites, redwood forest. 60-760 m.
<i>Arctostaphylos cruzensis</i> Arroyo de la Cruz manzanita	None/None G1G2 / S1S2 1B.2	Broadleafed upland forest, coastal bluff scrub, closed-cone coniferous forest, chaparral, coastal scrub, & valley and foothill grassland. On sandy soils in several different habitat types from chaparral to coastal scrub to woodland. 5-150 m.
<i>Arctostaphylos edmundsii</i> Little Sur manzanita	None/None G2 / S2 1B.2	Coastal bluff scrub, chaparral. Forming mounds on sandy terraces on ocean bluffs. 30-95 m.
<i>Arctostaphylos gabilanensis</i> Gabilan Mountains manzanita	None/None G1 / S1 1B.2	Chaparral, cismontane woodland. Granitic substrates. 425-670 m.
<i>Arctostaphylos glutinosa</i> Schreiber's manzanita	None/None G1 / S1 1B.2	Closed-cone coniferous forest, chaparral. Mudstone or diatomaceous shale outcrops; often with <i>Pinus attenuata</i> . 170-685 m.
<i>Arctostaphylos hookeri</i> ssp. <i>hookeri</i> Hooker's manzanita	None/None G3T2 / S2 1B.2	Chaparral, coastal scrub, closed-cone coniferous forest, cismontane woodland. Sandy soils, sandy shales, sandstone outcrops. 30-550 m.
<i>Arctostaphylos hooveri</i> Hoover's manzanita	None/None G3 / S3 4.3	Chaparral, broadleafed upland forest, cismontane woodland, lower montane coniferous forest. Rocky sites. 480-1010 m.
<i>Arctostaphylos montereyensis</i> Toro manzanita	None/None G2G3 / S2S3 1B.2	Chaparral, cismontane woodland, coastal scrub. Sandy soil, usually with chaparral associates. 75-735 m.
<i>Arctostaphylos obispoensis</i> Bishop manzanita	None/None G4 / S4 4.3	Closed-cone coniferous forest, cismontane woodland, chaparral Rocky, serpentine sites. 150-1005 m.
<i>Arctostaphylos ohloneana</i> Ohlone manzanita	None/None G1 / S1 1B.1	Coastal scrub, closed cone coniferous forests. Monterey shale. 455-520 m.
<i>Arctostaphylos pajaroensis</i> Pajaro manzanita	None/None G1 / S1 1B.1	Chaparral. Sandy soils. 30-155 m.

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<i>Arctostaphylos pumila</i> sandmat manzanita	None/None G1 / S1 1B.2	Closed-cone coniferous forest, chaparral, cismontane woodland, coastal dunes, coastal scrub. On sandy soil with other chaparral associates. 3-210 m.
<i>Arctostaphylos regismontana</i> Kings Mountain manzanita	None/None G2 / S2 1B.2	Broadleaved upland forest, chaparral, north coast coniferous forest. Granitic or sandstone outcrops. 240-705 m.
<i>Arctostaphylos silvicola</i> Bonny Doon manzanita	None/None G1 / S1 1B.2	Chaparral, closed-cone coniferous forest, lower montane coniferous forest. Only known from Zayante (inland marine) sands in Santa Cruz County. 150-520 m.
<i>Arenaria paludicola</i> marsh sandwort	Endangered/Endangered G1 / S1 1B.1	Marshes and swamps. Growing up through dense mats of <i>Typha</i> , <i>Juncus</i> , <i>Scirpus</i> , etc. in freshwater marsh. Sandy soil. 3-170 m.
<i>Aristocapsa insignis</i> Indian Valley spineflower	None/None G2? / S2? 1B.2	Cismontane woodland. Sandy substrates. 180-1060 m.
<i>Aspidotis carlotta-halliae</i> Carlotta Hall's lace fern	None/None G3 / S3 4.2	Chaparral, cismontane woodland. Generally serpentine slopes, crevices, or outcrops. 100-1400 m.
<i>Astragalus macrodon</i> Salinas milk-vetch	None/None G4 / S4 4.3	Chaparral, cismontane woodland, valley and foothill grassland. Open hillsides, sometimes follows burns, on bare ridges & along draws; shale, sandstone, & serpentine. 250-950 m.
<i>Astragalus nuttallii</i> var. <i>nuttallii</i> ocean bluff milk-vetch	None/None G4T4 / S4 4.2	Coastal bluff scrub, coastal dunes. 3-120 m.
<i>Astragalus rattanii</i> var. <i>jepsonianus</i> Jepson's milk-vetch	None/None G4T3 / S3 1B.2	Cismontane woodland, valley and foothill grassland, chaparral. Commonly on serpentine in grassland or openings in chaparral. 175-1005 m.
<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	None/None G2T2 / S2 1B.2	Alkali playa, valley and foothill grassland, vernal pools. Low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal pools. 0-168 m.
<i>Astragalus tener</i> var. <i>titi</i> coastal dunes milk-vetch	Endangered/Endangered G2T1 / S1 1B.1	Coastal bluff scrub, coastal dunes, coastal prairie. Moist, sandy depressions of bluffs or dunes along and near the Pacific Ocean; one site on a clay terrace. 1-45 m.
<i>Atriplex coronata</i> var. <i>coronata</i> crownscale	None/None G4T3 / S3 4.2	Chenopod scrub, valley and foothill grassland, vernal pools. Fine, alkaline soils, and clay soils. 1-590 m.
<i>Atriplex coronata</i> var. <i>vallicola</i> Lost Hills crownscale	None/None G4T3/S3 1B.2	Chenopod scrub, valley and foothill grassland, vernal pools. In powdery, alkaline soils that are vernal moist with <i>Frankenia</i> , <i>Atriplex</i> spp. and <i>Distichlis</i> . 45-885 m.
<i>Azolla microphylla</i> Mexican mosquito fern	None/None G5/S4 4.2	Marshes and swamps. Ponds and still water. 30-100 m.
<i>Baccharis plummerae</i> ssp. <i>glabrata</i> San Simeon baccharis	None/None G3T1 / S1 1B.2	Coastal scrub. In open shrub-grassland associations. 25-485 m.
<i>Benitoa occidentalis</i> western lessingia	None/None G4 / S4 4.3	Cismontane woodland, chaparral, coastal scrub, valley and foothill grassland. On serpentine or clay. 450-1070 m.

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<i>Bryoria spiralifera</i> twisted horsehair lichen	None/None G3 / S1S2 1B.1	North coast coniferous forest. Usually on conifers. 0-30 m.
<i>Calandrinia breweri</i> Brewer's calandrinia	None/None G4 / S4 4.2	Chaparral, coastal scrub. Sandy or loamy soils. Disturbed sites, burns. 10-1200 m.
<i>Calochortus clavatus</i> var. <i>clavatus</i> club-haired mariposa-lily	None/None G4T3 / S3 4.3	Chaparral, cismontane woodland, valley and foothill grassland, coastal scrub. Generally, on serpentine clay, rocky soils. 75-1300 m.
<i>Calochortus fimbriatus</i> late-flowered mariposa-lily	None/None G3 / S3 1B.3	Chaparral, cismontane woodland, riparian woodland. Dry, open coastal woodland, chaparral; on serpentine. 270-1435 m.
<i>Calochortus uniflorus</i> pink star-tulip	None/None G4 / S4 4.2	Coastal scrub, coastal prairie, north coast coniferous forest, meadows and seeps. Seasonally moist meadows, sometimes within coastal scrub, or forested habitats. Usually at low elevations on the coast. 10-1070 m.
<i>Calycadenia micrantha</i> small-flowered calycadenia	None/None G2 / S2 1B.2	Chaparral, valley and foothill grassland, meadows and seeps. Rocky talus or scree; sparsely vegetated areas. occasionally on roadsides; sometimes on serpentine. 435-1405 m.
<i>Calycadenia villosa</i> dwarf calycadenia	None/None G3 / S3 1B.1	Chaparral, cismontane woodland, valley and foothill grassland, meadows and seeps. Open, dry meadows, hillsides, gravelly outwashes. 240-1350 m.
<i>Calyptridium parryi</i> var. <i>hesseae</i> Santa Cruz Mountains pussypaws	None/None G3G4T2 / S2 1B.1	Chaparral, cismontane woodland. Sandy or gravelly openings. 300-1535 m.
<i>Calystegia collina</i> ssp. <i>oxyphylla</i> Mt. Saint Helena morning-glory	None/None G4T3 / S3 4.2	Chaparral, lower montane coniferous forest, valley and foothill grassland. On serpentine barrens, slopes, and hillsides. 280-1010 m.
<i>Calystegia collina</i> ssp. <i>venusta</i> South Coast Range morning-glory	None/None G4T4 / S4 4.3	Chaparral, cismontane woodland, valley and foothill grassland. Most common on serpentine, but also on sedimentary substrate. In open, rocky areas. 425-1490 m.
<i>Camissonia benitensis</i> San Benito evening-primrose	Threatened/None G2 / S2 1B.1	Chaparral, cismontane woodland, valley and foothill grassland. On gravelly serpentine alluvial terraces. 485-1435 m.
<i>Camissoniopsis hardhamiae</i> Hardham's evening-primrose	None/None G2 / S2 1B.2	Chaparral, cismontane woodland. Sandy, decomposed carbonate. 140-945 m.
<i>Campanula californica</i> swamp harebell	None/None G3 / S3 1B.2	Bogs and fens, closed-cone coniferous forest, coastal prairie, meadows and seeps, freshwater marsh, north coast coniferous forest. Bogs and marshes in a variety of habitats; uncommon where it occurs. 1-405 m.
<i>Campanula exigua</i> chaparral harebell	None/None G2 / S2 1B.2	Chaparral. Rocky sites, usually on serpentine in chaparral. 90-1375 m.

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<i>Carex comosa</i> bristly sedge	None/None G5 / S2 2B.1	Marshes and swamps, coastal prairie, valley and foothill grassland. Lake margins, wet places; site below sea level is on a Delta island. -5-1620 m.
<i>Carex obispoensis</i> San Luis Obispo sedge	None/None G3? / S3? 1B.2	Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland. Usually in transition zone on sand, clay, serpentine, or gabbro. In seeps. 5-845 m.
<i>Carex saliniformis</i> deceiving sedge	None/None G2 / S2 1B.2	Coastal prairie, coastal scrub, meadows and seeps, marshes and swamps (coastal salt). Mesic sites. 3-230 m.
<i>Carlquistia muirii</i> Muir's tarplant	None/None G2 / S2 1B.3	Chaparral, lower montane coniferous forest, upper montane coniferous forest. Crevices of granite ledges and dry sandy soils. 1185-2500 m.
<i>Castilleja ambigua</i> var. <i>ambigua</i> johnny-nip	None/None G4T5 / S4 4.2	Coastal bluff scrub, coastal scrub, coastal prairie, marshes and swamps, valley and foothill grassland, vernal pool margins. 0-435 m.
<i>Castilleja ambigua</i> var. <i>insalutata</i> pink Johnny-nip	None/None G4T2 / S2 1B.1	Coastal bluff scrub, coastal prairie. 0-100 m.
<i>Castilleja latifolia</i> Monterey Coast paintbrush	None/None G4 / S4 4.3	Coastal dunes, coastal scrub, closed-cone coniferous forest, cismontane woodland (openings). Sand dunes, coastal strand and sandy bluffs. 0-185 m.
<i>Caulanthus lemmonii</i> Lemmon's jewelflower	None/None G3 / S3 1B.2	Pinyon and juniper woodland, valley and foothill grassland. 75-1585 m.
<i>Ceanothus rigidus</i> Monterey ceanothus	None/None G4 / S4 4.2	Closed-cone coniferous forest, coastal scrub, chaparral. Sandy hills, flats. 3-550 m.
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	None/None G3T2 / S2 1B.1	Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. 0-230 m.
<i>Chlorogalum purpureum</i> var. <i>purpureum</i> Santa Lucia purple amole	Threatened/None G2T2 / S2 1B.1	Chaparral, cismontane woodland, valley and foothill grassland. Often in grassy areas with blue oaks in foothill woodland. Gravelly clay soils. 240-390 m.
<i>Chorizanthe biloba</i> var. <i>immemora</i> Hernandez spineflower	None/None G3T1 / S1 1B.2	Chaparral, cismontane woodland. Usually serpentinite, sometimes clay. 425-1115 m.
<i>Chorizanthe breweri</i> Brewer's spineflower	None/None G3 / S3 1B.3	Chaparral, cismontane woodland, coastal scrub, closed-cone coniferous forest. Rocky or gravelly serpentine sites; usually in barren areas. 45-765 m.
<i>Chorizanthe douglasii</i> Douglas' spineflower	None/None G4 / S4 4.3	Cismontane woodland, lower montane coniferous forest, chaparral, coastal scrub. 55-1600 m.
<i>Chorizanthe minutiflora</i> Fort Ord spineflower	None/None G1 / S1 1B.2	Coastal scrub, chaparral (maritime). Sandy, openings. 55-150 m.
<i>Chorizanthe palmeri</i> Palmer's spineflower	None/None G4? / S4 4.2	Chaparral, cismontane woodland, valley and foothill grassland. Dry, rocky places and hillsides; sometimes on serpentine. 60-945 m.
<i>Chorizanthe pungens</i> var. <i>hartwegiana</i> Ben Lomond spineflower	Endangered/None G2T1 / S1 1B.1	Lower montane coniferous forest. Zayante coarse sands in maritime ponderosa pine sandhills. 105-475 m.

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<i>Chorizanthe pungens</i> var. <i>pungens</i> Monterey spineflower	Threatened/None G2T2 / S2 1B.2	Coastal dunes, chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Sandy soils in coastal dunes or more inland within chaparral or other habitats. 0-170 m.
<i>Chorizanthe rectispina</i> straight-awned spineflower	None/None G2 / S2 1B.3	Chaparral, cismontane woodland, coastal scrub. Often on granite in chaparral. 45-1040 m.
<i>Chorizanthe robusta</i> var. <i>hartwegii</i> Scotts Valley spineflower	Endangered/None G2T1 / S1 1B.1	Meadows, valley and foothill grassland. In grasslands with mudstone and sandstone outcrops. 105-245 m.
<i>Chorizanthe robusta</i> var. <i>robusta</i> robust spineflower	Endangered/None G2T1 / S1 1B.1	Cismontane woodland, coastal dunes, coastal scrub, chaparral. Sandy terraces and bluffs or in loose sand. 9-245 m.
<i>Chorizanthe ventricosa</i> potbellied spineflower	None/None G4 / S4 4.3	Valley and foothill grassland, cismontane woodland. Serpentine. 65-1235 m.
<i>Cirsium occidentale</i> var. <i>compactum</i> compact cobwebby thistle	None/None G3G4T2 / S2 1B.2	Chaparral, coastal dunes, coastal prairie, coastal scrub. On dunes and on clay in chaparral; also in grassland. 5-245 m.
<i>Clarkia breweri</i> Brewer's clarkia	None/None G4 / S4 4.2	Chaparral, cismontane woodland, coastal scrub. Often found on serpentine. 215-1115 m.
<i>Clarkia concinna</i> ssp. <i>automixa</i> Santa Clara red ribbons	None/None G5?T3 / S3 4.3	Cismontane woodland, chaparral. On slopes and near drainages. 90-1500 m.
<i>Clarkia jolonensis</i> Jolon clarkia	None/None G2 / S2 1B.2	Cismontane woodland, chaparral, coastal scrub, riparian woodland. 10-1280 m.
<i>Clarkia lewisii</i> Lewis' clarkia	None/None G4 / S4 4.3	Coastal scrub, chaparral, cismontane woodland, broadleaved upland forest, closed-cone coniferous forest. 30-610 m.
<i>Clinopodium mimuloides</i> monkey-flower savory	None/None G3 / S3 4.2	North coast coniferous forest, chaparral Streambanks, mesic sites. 305-1800 m.
<i>Collinsia antonina</i> San Antonio collinsia	None/None G2 / S2 1B.2	Chaparral, cismontane woodland. Shale substrates. 280-365 m.
<i>Collinsia multicolor</i> San Francisco collinsia	None/None G2 / S2 1B.2	Closed-cone coniferous forest, coastal scrub. On decomposed shale (mudstone) mixed with humus; sometimes on serpentine. 30-275 m.
<i>Convolvulus simulans</i> small-flowered morning-glory	None/None G4 / S4 4.2	Chaparral, coastal scrub, valley and foothill grassland. Wet clay, serpentine ridges. 30-700 m.
<i>Cordylanthus rigidus</i> ssp. <i>littoralis</i> seaside bird's-beak	None/Endangered G5T2 / S2 1B.1	Closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub, coastal dunes. Sandy, often disturbed sites, usually within chaparral or coastal scrub. 30-520 m.

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<i>Corethrogyne leucophylla</i> branching beach aster	None/None G3Q / S3 3.2	Closed-cone coniferous forest, coastal dunes. 3-60 m.
<i>Cryptantha rattanii</i> Rattan's cryptantha	None/None G4 / S4 4.3	Cismontane woodland, valley and foothill grassland, riparian woodland. On steep, south-facing shale talus slopes and canyon bottoms and decomposing talus outcroppings. 245-915 m.
<i>Cypripedium fasciculatum</i> clustered lady's-slipper	None/None G4 / S4 4.2	North Coast coniferous forest, lower montane coniferous forest. In serpentine seeps and moist streambanks. 100-2435 m.
<i>Cypripedium montanum</i> mountain lady's-slipper	None/None G4 / S4 4.2	Lower montane coniferous forest, broadleaved upland forest, cismontane woodland, north coast coniferous forest. On dry, undisturbed slopes. 185-2225 m.
<i>Dacryophyllum falcifolium</i> tear drop moss	None/None G2 / S2 1B.3	North Coast coniferous forest. Limestone substrates and rock outcrops. 50-275 m.
<i>Deinandra halliana</i> Hall's tarplant	None/None G1 / S1 1B.1	Cismontane woodland, chenopod scrub, valley and foothill grassland. Reported from a variety of substrates including clay, sand, and alkaline soils. 155-910 m.
<i>Delphinium californicum</i> ssp. <i>interius</i> Hospital Canyon larkspur	None/None G3T3 / S3 1B.2	Cismontane woodland, chaparral, coastal scrub. In wet, boggy meadows, openings in chaparral and in canyons. 195-1095 m.
<i>Delphinium gypsophilum</i> ssp. <i>parviflorum</i> small-flowered gypsum-loving larkspur	None/None G4T2T3Q / S2S3 3.2	Cismontane woodland, valley and foothill grassland. On clayey soil. 200-350m.
<i>Delphinium hutchinsoniae</i> Hutchinson's larkspur	None/None G2 / S2 1B.2	Broadleaved upland forest, chaparral, coastal prairie, coastal scrub. On semi-shaded, slightly moist slopes, usually west-facing. 15-535 m.
<i>Delphinium recurvatum</i> recurved larkspur	None/None G2? / S2? 1B.2	Chenopod scrub, valley and foothill grassland, cismontane woodland. On alkaline soils; often in valley saltbush or valley chenopod scrub. 3-790 m.
<i>Delphinium umbracolorum</i> umbrella larkspur	None/None G3 / S3 1B.3	Cismontane woodland, chaparral. Mesic sites. 215-2075 m.
<i>Elymus californicus</i> California bottle-brush grass	None/None G4 / S4 4.3	North Coast coniferous forest, cismontane woodland, broadleaved upland forest, riparian woodland. In sandy humus soils. 15-470 m.
<i>Eriastrum luteum</i> yellow-flowered eriastrum	None/None G2 / S2 1B.2	Broadleaved upland forest, cismontane woodland, chaparral. On bare sandy decomposed granite slopes. 240-580 m.
<i>Eriastrum sparsiflorum</i> few-flowered eriastrum	None/None G5/S4 4.3	Great Basin scrub, Mojave Desert scrub, cismontane woodland, pinyon and juniper woodland, Joshua tree woodland, chaparral. Granitic soils; mostly in openings. 1075-1710 m.
<i>Eriastrum virgatum</i> virgate eriastrum	None/None G4 / S4 4.3	Coastal dunes, chaparral, coastal bluff scrub, coastal scrub. Sandy sites. 45-700 m.
<i>Ericameria fasciculata</i> Eastwood's goldenbush	None/None G2 / S2 1B.1	Closed-cone coniferous forest, chaparral (maritime), coastal scrub, coastal dunes. In sandy openings. 30-215 m.

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<i>Eriogonum argillosum</i> clay buckwheat	None/None G3 / S3 4.3	Cismontane woodland. Serpentine or clay soil. 150-800 m.
<i>Eriogonum butterworthianum</i> Butterworth's buckwheat	None/Rare G2 / S2 1B.3	Chaparral, valley and foothill grassland. Dry sandstone outcrops and crevices. 335-715 m.
<i>Eriogonum eastwoodianum</i> Eastwood's buckwheat	None/None G2 / S2 1B.3	Cismontane woodland, valley and foothill grassland. Shale, including diatomaceous shale. 530-1045 m.
<i>Eriogonum elegans</i> elegant wild buckwheat	None/None G3G4 / S3S4 4.3	Cismontane woodland, valley and foothill grassland. Usually in sandy or gravelly substrates; often in washes, sometimes roadsides. 200-1525 m.
<i>Eriogonum heermannii</i> var. <i>occidentale</i> western Heermann's buckwheat	None/None G5T2 / S2 1B.2	Cismontane woodland. Openings. Often on serpentine alluvium or on roadsides; rarely on clay or shale slopes. 410-805 m.
<i>Eriogonum nortonii</i> Pinnacles buckwheat	None/None G2 / S2 1B.3	Chaparral, valley and foothill grassland. Sandy soils; often on recent burns; western Santa Lucias. 90-975 m.
<i>Eriogonum nudum</i> var. <i>decurrens</i> Ben Lomond buckwheat	None/None G5T1 / S1 1B.1	Chaparral, cismontane woodland, lower montane coniferous forest. Ponderosa pine sandhills in Santa Cruz County. 90-235 m.
<i>Eriogonum nudum</i> var. <i>indictum</i> protruding buckwheat	None/None G5T4 / S4 4.2	Chaparral, chenopod scrub, cismontane woodland. Barren slopes; clay, serpentine. 150-1465 m.
<i>Eriogonum temblorense</i> Temblor buckwheat	None/None G2 / S2 1B.2	Valley and foothill grassland. Barren clay or sandstone substrates. 230-840 m.
<i>Eriogonum umbellatum</i> var. <i>bahiiforme</i> bay buckwheat	None/None G5T3 / S3 4.2	Cismontane woodland, lower montane coniferous forest. Rocky sites; often serpentine. 700-2200 m.
<i>Eriogonum vestitum</i> Idria buckwheat	None/None G3Q / S3 4.3	Valley and foothill grassland. Semi-siliceous diatomaceous shale; barren, clay places. 235-900 m.
<i>Eriophorum gracile</i> slender cottongrass	None/None G5/S4 4.3	Bogs and fens, meadows and seeps, upper montane coniferous forest. Acidic soils. 1280-2900 m.
<i>Eriophyllum jepsonii</i> Jepson's woolly sunflower	None/None G3 / S3 4.3	Coastal scrub, chaparral, cismontane woodland. Sometimes on serpentine. 200-1025 m.
<i>Eryngium aristulatum</i> var. <i>hooveri</i> Hoover's button-celery	None/None G5T1 / S1 1B.1	Vernal pools. Alkaline depressions, vernal pools, roadside ditches and other wet places near the coast. 1-50 m.
<i>Erysimum ammophilum</i> sand-loving wallflower	None/None G2 / S2 1B.2	Chaparral (maritime), coastal dunes, coastal scrub. Sandy openings. 5-130 m.
<i>Erysimum franciscanum</i> San Francisco wallflower	None/None G3 / S3 4.2	Coastal dunes, coastal scrub, chaparral, valley and foothill grassland. Often occurs on serpentine soils or outcrops; sometimes granite. Occasionally on grassy, rocky slopes. 0-550 m.
<i>Erysimum menziesii</i> Menzies' wallflower	Endangered/Endangered G1 / S1 1B.1	Coastal dunes. Localized on dunes and coastal strand. 1-25 m.

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<i>Erysimum teretifolium</i> Santa Cruz wallflower	Endangered/Endangered G1 / S1 1B.1	Lower montane coniferous forest, chaparral. Inland marine sands (Zayante coarse sand). 180-515 m.
<i>Erythranthe hardhamiae</i> Santa Lucia monkeyflower	None/None G1 / S1 1B.1	Chaparral. Sandy soils in openings, sand-filled crevices of sandstone outcrops, sometimes serpentinite. 300-705 m.
<i>Eschscholzia hypocoides</i> San Benito poppy	None/None G4 / S4 4.3	Valley and foothill grassland, chaparral, cismontane woodland. Serpentine clay. 200-1500 m.
<i>Extriplex joaquinana</i> San Joaquin spearscale	None/None G2 / S2 1B.2	Chenopod scrub, alkali meadow, playas, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with <i>Distichlis spicata</i> , <i>Frankenia</i> , etc. 0-840 m.
<i>Fissidens pauperculus</i> minute pocket moss	None/None G3? / S2 1B.2	North coast coniferous forest. Moss growing on damp soil along the coast. In dry streambeds and on stream banks. 10-1024 m.
<i>Fritillaria agrestis</i> stinkbells	None/None G3 / S3 4.2	Cismontane woodland, chaparral, valley and foothill grassland. Sometimes on serpentinite; mostly found in nonnative grassland or in grassy openings in clay soil. 10-1555 m.
<i>Fritillaria falcata</i> talus fritillary	None/None G2 / S2 1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. On shale, granite, or serpentinite talus. 425-1435 m.
<i>Fritillaria liliacea</i> fragrant fritillary	None/None G2 / S2 1B.2	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland. Often on serpentinite; various soils reported though usually on clay, in grassland. 3-400 m.
<i>Fritillaria ojaiensis</i> Ojai fritillary	None/None G2? / S2? 1B.2	Broadleafed upland forest (mesic), chaparral, lower montane coniferous forest, cismontane woodland. Usually loamy soil. Sometimes on serpentinite; sometimes along roadsides. 225-1000 m.
<i>Fritillaria viridea</i> San Benito fritillary	None/None G2 / S2 1B.2	Chaparral, cismontane woodland. Serpentine slopes. Sometimes on rocky streambanks. 365-1360 m.
<i>Galium andrewsii</i> ssp. <i>gatense</i> phlox-leaf serpentinite bedstraw	None/None G5T3 / S3 4.2	Chaparral, cismontane woodland, lower montane coniferous forest. Dry, rocky places in serpentinite soil. 150-1450 m.
<i>Galium californicum</i> ssp. <i>luciense</i> Cone Peak bedstraw	None/None G5T3 / S3 1B.3	Broadleafed upland forest, lower montane coniferous forest, cismontane woodland, chaparral. In forest duff or gravelly talus of pine and oak forest, in partial shade. 400-1525 m.
<i>Galium clementis</i> Santa Lucia bedstraw	None/None G3 / S3 1B.3	Lower montane coniferous forest, upper montane coniferous forest. Forming soft mats in shady rocky patches; on granite or serpentinite; mostly on exposed peaks. 990-1645 m.
<i>Galium cliftonsmithii</i> Santa Barbara bedstraw	None/None G4 / S4 4.3	Cismontane woodland. 200-1220 m.
<i>Galium hardhamiae</i> Hardham's bedstraw	None/None G3 / S3 1B.3	Closed-cone coniferous forest, chaparral. On serpentinite with <i>Cupressus sargentii</i> . 300-930 m.
<i>Gilia tenuiflora</i> ssp. <i>amplifaucalis</i> trumpet-throated gilia	None/None G3G4T3 / S3 4.3	Cismontane woodland, valley and foothill grassland. Sandy soils. 390-900 m.
<i>Gilia tenuiflora</i> ssp. <i>arenaria</i> Monterey gilia	Endangered/Threatened G3G4T2 / S2	Coastal dunes, coastal scrub, chaparral (maritime), cismontane woodland. Sandy openings in bare, wind-

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	1B.2	sheltered areas. Often near dune summit or in the hind dunes; two records from Pleistocene inland dunes. 5-245 m.
<i>Githopsis tenella</i> delicate bluecup	None/None G2 / S2 1B.3	Chaparral, cismontane woodland. Mesic sites. Sometimes on serpentine. 455-1830 m.
<i>Grimmia torenii</i> Toren's grimmia	None/None G2 / S2 1B.3	Cismontane woodland, lower montane coniferous forest, chaparral. Openings, rocky, boulder and rock walls, carbonate, volcanic. 325-1160 m.
<i>Grimmia vaginulata</i> vaginulate grimmia	None/None G2G3 / S1 1B.1	Chaparral. Openings; rocky, boulder and rock walls, carbonate. 685-1135 m.
<i>Hesperevax caulescens</i> hogwallow starfish	None/None G3 / S3 4.2	Valley and foothill grassland, vernal pools. Clay soils; mesic sites. 0-505 m.
<i>Hesperevax sparsiflora</i> var. <i>brevifolia</i> short-leaved evax	None/None G4T3 / S2 1B.2	Coastal bluff scrub, coastal dunes, coastal prairie. Sandy bluffs and flats. 0-215 m.
<i>Hesperocyparis abramsiana</i> var. <i>abramsiana</i> Santa Cruz cypress	Threatened/Endangered G1T1 / S1 1B.2	Chaparral, closed-cone coniferous forest, lower montane coniferous forest. Restricted to the Santa Cruz Mountains, on sandstone & granitic-derived soils; often w/ <i>Pinus attenuata</i> , redwoods. 300-1085 m.
<i>Hesperocyparis goveniana</i> Gowen cypress	Threatened/None G1 / S1 1B.2	Closed-cone coniferous forest, chaparral. Coastal terraces; usually in sandy soils; sometimes with Monterey pine, bishop pine. 100-125 m.
<i>Hesperocyparis macrocarpa</i> Monterey cypress	None/None G1 / S1 1B.2	Closed-cone coniferous forest. Granitic soils. 10-20 m.
<i>Holocarpha macradenia</i> Santa Cruz tarplant	Threatened/Endangered G1 / S1 1B.1	Coastal prairie, coastal scrub, valley and foothill grassland. Light, sandy soil or sandy clay; often with nonnatives. 10-220 m.
<i>Hordeum intercedens</i> vernal barley	None/None G3G4 / S3S4 3.2	Valley and foothill grassland, vernal pools, coastal dunes, coastal scrub. Vernal pools, dry, saline streambeds, alkaline flats. 5-1000 m.
<i>Horkelia cuneata</i> var. <i>sericea</i> Kellogg's horkelia	None/None G4T1? / S1? 1B.1	Closed-cone coniferous forest, coastal scrub, coastal dunes, chaparral. Old dunes, coastal sandhills; openings. Sandy or gravelly soils. 5-430 m.
<i>Horkelia marinensis</i> Point Reyes horkelia	None/None G2 / S2 1B.2	Coastal dunes, coastal prairie, coastal scrub. Sandy flats and dunes near coast; in grassland or scrub plant communities. 2-775 m.
<i>Horkelia yadonii</i> Santa Lucia horkelia	None/None G3 / S3 4.2	Meadows, chaparral, cismontane woodland, broadleafed upland forest, riparian woodland. Sandy meadow edges, seasonal streambeds. Granitic soils. 300-1900 m.
<i>Hosackia gracilis</i> harlequin lotus	None/None G4 / S3 4.2	Broadleafed upland forest, coast bluff scrub, coast prairie, cismontane woodland, coastal scrub, closed-cone coniferous forest, meadows and seeps, marshes and swamps, north coast coniferous forest, valley and foothill grassland. Wetlands and roadsides. 0-700 m.

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<i>Iris longipetala</i> coast iris	None/None G3 / S3 4.2	Coastal prairie, lower montane coniferous forest, meadows and seeps. Mesic sites, heavy soils. 0-600 m.
<i>Isocoma menziesii</i> var. <i>diabolica</i> Satan's goldenbush	None/None G3G5T3 / S3 4.2	Cismontane woodland. 15-400 m.
<i>Jepsonia malvifolia</i> island jepsonia	None/None G4/S4 4.2	Chaparral, coastal scrub. On ridgetops and among rocks on north-facing slopes. 15-1000 m.
<i>Juglans californica</i> southern California black walnut	None/None G4/S4 4.2	Chaparral, coastal scrub, cismontane woodland, riparian woodland. Slopes, canyons, alluvial habitats. 50-900 m.
<i>Juncus luciensis</i> Santa Lucia dwarf rush	None/None G3 / S3 1B.2	Vernal pools, meadows and seeps, lower montane coniferous forest, chaparral, Great Basin scrub. Vernal pools, ephemeral drainages, wet meadow habitats and streamsides. 300-2040 m.
<i>Lagophylla diabolensis</i> Diablo Range hare-leaf	None/None G2 / S2 1B.2	Cismontane woodland, valley and foothill grassland. Clay. 365-1070 m.
<i>Lasthenia californica</i> ssp. <i>macrantha</i> perennial goldfields	None/None G3T2 / S2 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub. 5-185 m.
<i>Lasthenia conjugens</i> Contra Costa goldfields	Endangered/None G1 / S1 1B.1	Valley and foothill grassland, vernal pools, alkaline playas, cismontane woodland. Vernal pools, swales, low depressions, in open grassy areas. 1-450 m.
<i>Lasthenia ferrisiae</i> Ferris' goldfields	None/None G3 / S3 4.2	Vernal pools. Alkaline, clay soils. 20-700 m.
<i>Lasthenia leptalea</i> Salinas Valley goldfields	None/None G3 / S3 4.3	Cismontane woodland, valley and foothill grassland. 60-1065 m.
<i>Layia carnosa</i> beach layia	Endangered/Endangered G2 / S2 1B.1	Coastal dunes, coastal scrub. On sparsely vegetated, semi-stabilized dunes, usually behind foredunes. 0-30 m.
<i>Layia discoidea</i> rayless layia	None/None G2 / S2 1B.1	Chaparral, cismontane woodland, lower montane coniferous forest. On serpentine alluvium and serpentine talus. 790-1585 m.
<i>Layia heterotricha</i> pale-yellow layia	None/None G2 / S2 1B.1	Cismontane woodland, coastal scrub, pinyon and juniper woodland, valley and foothill grassland. Alkaline or clay soils; open areas. 90-1800 m.
<i>Layia munzii</i> Munz's tidy-tips	None/None G2 / S2 1B.2	Chenopod scrub, valley and foothill grassland. Hillsides, in white-grey alkaline clay soils, w/grasses and chenopod scrub associates. 45-765 m.
<i>Legenere limosa</i> legenere	None/None G2 / S2 1B.1	Vernal pools. In beds of vernal pools. 1-880 m.
<i>Lepidium jaredii</i> ssp. <i>album</i> Panoche pepper-grass	None/None G2T2T3 / S2S3 1B.2	Valley and foothill grassland. White or grey clay lenses on steep slopes; incidental in alluvial fans and washes. Clay and gypsum-rich soils. 65-915 m.

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<i>Leptosiphon acicularis</i> bristly leptosiphon	None/None G4?/S4? 4.2	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Grassy areas, woodland, chaparral. 55-1500 m.
<i>Leptosiphon ambiguus</i> serpentine leptosiphon	None/None G4 / S4 4.2	Cismontane woodland, coastal scrub, valley and foothill grassland (margin with chaparral). Grassy areas on serpentine soil. 120-1130 m.
<i>Leptosiphon grandiflorus</i> large-flowered leptosiphon	None/None G3 / S3 4.2	Coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal dunes, coastal prairie, coastal scrub, valley and foothill grassland. Open, grassy flats, generally sandy soil. 5-1200 m.
<i>Leptosiphon latisectus</i> broad-lobed leptosiphon	None/None G4/S4 4.3	Broadleaved upland forest, cismontane woodland. 170-1500 m.
<i>Lessingia hololeuca</i> woolly-headed lessingia	None/None G3? / S3? 3	Coastal scrub, lower montane coniferous forest, valley and foothill grassland, broadleaved upland forest. Clay, serpentine; roadsides, fields. 15-305 m.
<i>Lessingia tenuis</i> spring lessingia	None/None G4 / S4 4.3	Chaparral, cismontane woodland, lower montane coniferous forest. Openings. 300-2150 m.
<i>Lomatium parvifolium</i> small-leaved lomatium	None/None G4 / S4 4.2	Closed-cone coniferous forest, chaparral, coastal scrub, riparian woodland. On serpentine. 20-700 m.
<i>Lupinus albifrons</i> var. <i>abramsii</i> Abrams' lupine	None/None G5T3?Q / S3? 3.2	Lower montane coniferous forest, broadleaved upland forest, chaparral, coastal scrub, valley and foothill grassland. Open woods; 125-2000 m.
<i>Lupinus cervinus</i> Santa Lucia lupine	None/None G3 / S3 4.3	Lower montane coniferous forest, broadleaved upland forest. Dry, rocky slopes in pine woods in semi-shade; on ridges, peaks, & upper canyon slopes; responds well to fires. 305-1370 m.
<i>Lupinus tidestromii</i> Tidestrom's lupine	Endangered/Endangered G1 / S1 1B.1	Coastal dunes. Partially stabilized dunes, immediately near the ocean. 4-25 m.
<i>Madia radiata</i> showy golden madia	None/None G2 / S2 1B.1	Valley and foothill grassland, cismontane woodland. Mostly on adobe clay in grassland or among shrubs. 75-1220 m.
<i>Malacothamnus abbottii</i> Abbott's bush-mallow	None/None G1 / S1 1B.1	Riparian scrub. Among willows near rivers and along roadsides. 135-490 m.
<i>Malacothamnus aboriginum</i> Indian Valley bush-mallow	None/None G3 / S3 1B.2	Cismontane woodland, chaparral. Granitic outcrops and sandy bare soil, often in disturbed soils. 150-1130 m.
<i>Malacothamnus arcuatus</i> arcuate bush-mallow	None/None G2Q / S2 1B.2	Chaparral, cismontane woodland. Gravelly alluvium. 1-735 m.
<i>Malacothamnus davidsonii</i> Davidson's bush-mallow	None/None G2 / S2 1B.2	Coastal scrub, riparian woodland, chaparral, cismontane woodland. Sandy washes. 150-1525 m.
<i>Malacothamnus jonesii</i> Jones' bush-mallow	None/None G4 / S4 4.3	Chaparral, cismontane woodland. 160-825 m.
<i>Malacothamnus palmeri</i> var. <i>involutus</i>	None/None G3T2Q / S2	Cismontane woodland, chaparral, coastal scrub. Talus hilltops and slopes, sometimes on serpentine. Fire dependent. 5-520

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Carmel Valley bush-mallow	1B.2	m.
<i>Malacothamnus palmeri</i> var. <i>lucianus</i> Arroyo Seco bush-mallow	None/None G3T1Q / S1 1B.2	Chaparral, cismontane woodland, meadows and seeps. Gravel banks and sandstone rocks on west-facing slopes in full sun. 10-825 m.
<i>Malacothrix saxatilis</i> var. <i>arachnoidea</i> Carmel Valley malacothrix	None/None G5T2 / S2 1B.2	Chaparral, coastal scrub. Rock outcrops or steep rocky roadcuts. 25-1220 m.
<i>Meconella oregana</i> Oregon meconella	None/None G2G3 / S2 1B.1	Coastal prairie, coastal scrub. Open, moist places. 60-640 m.
<i>Micropus amphibolus</i> Mt. Diablo cottonweed	None/None G3G4 / S3S4 3.2	Valley and foothill grassland, cismontane woodland, chaparral, broadleaved upland forest. Bare, grassy or rocky slopes. 45-825 m.
<i>Microseris paludosa</i> marsh microseris	None/None G2 / S2 1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. 3-610 m.
<i>Microseris sylvatica</i> sylvan microseris	None/None G4 / S4 4.2	Chaparral, cismontane woodland, Great Basin scrub, pinyon-juniper woodland, valley and foothill grassland. 45-1500 m.
<i>Mielichhoferia elongata</i> elongate copper moss	None/None G5 / S4 4.3	Cismontane woodland. Moss growing on very acidic, metamorphic rock or substrate; usually in higher portions in fens. Often on substrates naturally enriched with heavy metals (e.g. copper). 500-1300 m.
<i>Mimulus rattanii</i> ssp. <i>decurtatus</i> Santa Cruz County monkeyflower	None/None G4T1T3Q / S1S3 4.2	Chaparral, lower montane coniferous forest. Gravelly sites at margins of vegetation. 400-500 m.
<i>Mimulus subsecundus</i> one-sided monkeyflower	None/None G3G4Q / S3S4 4.3	Lower montane coniferous forest. One site states: "on rock talus outcrop, south-facing slope, in herbaceous community. 450-915 m.
<i>Monardella antonina</i> ssp. <i>antonina</i> San Antonio Hills monardella	None/None G4T1T3Q / S1S3 3	Cismontane woodland, chaparral. 320-1000 m.
<i>Monardella antonina</i> ssp. <i>benitensis</i> San Benito monardella	None/None G4T3 / S3 4.3	Chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland. Serpentine barrens. 500-1570 m.
<i>Monardella palmeri</i> Palmer's monardella	None/None G2 / S2 1B.2	Cismontane woodland, chaparral. On serpentine, often found associated with Sargent cypress forests. 90-945 m.
<i>Monardella sinuata</i> ssp. <i>nigrescens</i> northern curly-leaved monardella	None/None G3T2 / S2 1B.2	Coastal dunes, coastal scrub, chaparral, lower montane coniferous forest. Sandy soils. 10-245 m.
<i>Monolopia congdonii</i> San Joaquin woollythreads	Endangered/None G2 / S2 1B.2	Chenopod scrub, valley and foothill grassland. Alkaline or loamy plains; sandy soils, often with grasses and within chenopod scrub. 55-840 m.
<i>Monolopia gracilens</i> woodland woollythreads	None/None G3 / S3 1B.2	Chaparral, valley and foothill grassland, cismontane woodland, broadleaved upland forest, North Coast coniferous forest. Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns but may have only weak affinity to serpentine. 120-975 m.

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<i>Muhlenbergia utilis</i> aparejo grass	None/None G4/S2S3 2B.2	Meadows and seeps, marshes and swamps, chaparral, coastal scrub, cismontane woodland. Sometimes alkaline, sometimes serpentinite. 25-2325 m.
<i>Navarretia nigelliformis</i> ssp. <i>nigelliformis</i> adobe navarretia	None/None G4T3 / S3 4.2	Valley and foothill grassland, vernal pools. Clay soils; sometimes on serpentinite. 100-1000 m.
<i>Navarretia nigelliformis</i> ssp. <i>radians</i> shining navarretia	None/None G4T2 / S2 1B.2	Cismontane woodland, valley and foothill grassland, vernal pools. Apparently in grassland, and not necessarily in vernal pools. 60-975 m.
<i>Navarretia panochensis</i> Panoche navarretia	None/None G3/S3 1B.3	Chenopod scrub, valley and foothill grassland. Clay, often gravelly. 330-860 m.
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	None/None G2 / S2 1B.1	Coastal scrub, valley and foothill grassland, vernal pools, meadows and seeps. Alkaline soils in grassland, or in vernal pools. Mesic, alkaline sites. 3-1235 m.
<i>Nemacladus gracilis</i> graceful nemacladus	None/None G4/S4 4.3	Cismontane woodland, valley and foothill grassland. Sandy or gravelly places. 120-1900 m.
<i>Nemacladus secundiflorus</i> var. <i>robbinsii</i> Robbins' nemacladus	None/None G3T2 / S2 1B.2	Chaparral, valley and foothill grassland. Dry, sandy or gravelly slopes. 350-1700 m.
<i>Ophioglossum californicum</i> California adder's-tongue	None/None G4 / S4 4.2	Chaparral, vernal pool areas, valley and foothill grassland. Grassy pastures, vernal pool margins, chaparral. Mesic sites. 60-525 m.
<i>Orthotrichum kellmanii</i> Kellman's bristle moss	None/None G2 / S2 1B.2	Chaparral, cismontane woodland. Sandstone outcrops with high calcium concentrations from eroded boulders out of non-calcareous sandstone bedrock. Rock outcrops in small openings within dense chaparral with overstory of scattered <i>Pinus attenuata</i> . 343-685 m.
<i>Pedicularis dudleyi</i> Dudley's lousewort	None/Rare G2 / S2 1B.2	Chaparral, cismontane woodland, North Coast coniferous forest, valley and foothill grassland. Deep shady woods of older coast redwood forests; also in maritime chaparral. 60-330 m.
<i>Penstemon rattanii</i> var. <i>kleei</i> Santa Cruz Mountains beardtongue	None/None G4T2 / S2 1B.2	Chaparral, lower montane coniferous forest, north coast coniferous forest. Sandy shale slopes; sometimes in the transition between forest and chaparral. 400-1100 m.
<i>Pentachaeta bellidiflora</i> white-rayed pentachaeta	Endangered/Endangered G1 / S1 1B.1	Valley and foothill grassland, cismontane woodland. Open dry rocky slopes and grassy areas, often on soils derived from serpentinite bedrock. 35-610 m.
<i>Pentachaeta exilis</i> ssp. <i>aeolica</i> San Benito pentachaeta	None/None G5T2 / S2 1B.2	Cismontane woodland, valley and foothill grassland. Grassy areas. 365-855 m.
<i>Perideridia gairdneri</i> ssp. <i>gairdneri</i> California Gairdner's yampah	None/None G5T4 / S4 4.2	Broadleaved upland forest, chaparral, coastal prairie, valley and foothill grassland, vernal pools. Adobe flats or grasslands, wet meadows and vernal pools, under <i>Pinus radiata</i> along the coast; mesic sites. 0-610 m.
<i>Perideridia pringlei</i> adobe yampah	None/None G4 / S4 4.3	Chaparral, cismontane woodland, pinyon and juniper woodland, coastal scrub. Serpentine, clay soils. Grassland hillsides; seasonally wet sites. 300-1800 m.
<i>Phacelia phacelioides</i> Mt. Diablo phacelia	None/None G2 / S2 1B.2	Chaparral, cismontane woodland. Adjacent to trails, on rock outcrops and talus slopes; sometimes on serpentinite. 605-1345 m.

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<i>Pinus radiata</i> Monterey pine	None/None G1 / S1 1B.1	Closed-cone coniferous forest, cismontane woodland. Three primary stands are native to California. Dry bluffs and slopes. 60-125 m.
<i>Piperia candida</i> white-flowered rein orchid	None/None G3 / S3 1B.2	North Coast coniferous forest, lower montane coniferous forest, broadleaved upland forest. Sometimes on serpentine. Forest duff, mossy banks, rock outcrops, and muskeg. 45-1615 m.
<i>Piperia michaelii</i> Michael's rein orchid	None/None G3 / S3 4.2	Coastal bluff scrub, coastal scrub, cismontane woodland, chaparral, closed-cone coniferous forest, lower montane coniferous forest. Mudstone and humus, generally dry sites. 3-915 m.
<i>Piperia yadonii</i> Yadon's rein orchid	Endangered/None G1 / S1 1B.1	Closed-cone coniferous forest, chaparral, coastal bluff scrub. On sandstone and sandy soil, but poorly drained and often dry. 10-505 m.
<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i> Choris' popcornflower	None/None G3T2Q / S2 1B.2	Chaparral, coastal scrub, coastal prairie. Mesic sites. 15-160 m.
<i>Plagiobothrys chorisianus</i> var. <i>hickmanii</i> Hickman's popcornflower	None/None G3T3Q / S3 4.2	Closed-cone coniferous forest, chaparral, coastal scrub, marshes and swamps, vernal pools. 15-185 m.
<i>Plagiobothrys diffusus</i> San Francisco popcornflower	None/Endangered G1Q / S1 1B.1	Valley and foothill grassland, coastal prairie. Historically from grassy slopes with marine influence. 45-360 m.
<i>Plagiobothrys glaber</i> hairless popcornflower	None/None GH / SH 1A	Meadows and seeps, marshes and swamps. Coastal salt marshes and alkaline meadows. 5-125 m.
<i>Plagiobothrys uncinatus</i> hooked popcornflower	None/None G2 / S2 1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Sandstone outcrops and canyon sides; often in burned or disturbed areas. 210-855 m.
<i>Plagiobryoides vinosula</i> wine-colored tufa moss	None/None G3G4 / S2 4.2	Cismontane woodland, meadows and seeps, Mojavean desert scrub, pinyon and juniper woodland, riparian woodland. Usually granitic rock or granitic soil along seeps and streams, sometimes clay. 30-1735 m.
<i>Pogogyne clareana</i> Santa Lucia mint	None/Endangered G2 / S2 1B.2	Chaparral, cismontane woodland, riparian woodland. In intermittent streams; in moist sandy soil. 325-505 m.
<i>Polygonum hickmanii</i> Scotts Valley polygonum	Endangered/Endangered G1 / S1 1B.1	Valley and foothill grassland. Purisima sandstone or mudstone with a thin soil layer; vernal moist due to runoff. 210-230 m.
<i>Potentilla hickmanii</i> Hickman's cinquefoil	Endangered/Endangered G1 / S1 1B.1	Coastal bluff scrub, closed-cone coniferous forest, meadows and seeps, marshes and swamps. Freshwater marshes, seeps, and small streams in open or forested areas along the coast. 5-125 m.
<i>Puccinellia simplex</i> California alkali grass	None/None G3 / S2 1B.2	Meadows and seeps, chenopod scrub, valley and foothill grasslands, vernal pools. Alkaline, vernal mesic. Sinks, flats, and lake margins. 1-915 m.
<i>Ramalina thrausta</i> angel's hair lichen	None/None G5 / S2? 2B.1	North coast coniferous forest. On dead twigs and other lichens. 75-430 m.
<i>Ranunculus lobbii</i> Lobb's aquatic buttercup	None/None G4 / S3 4.2	Cismontane woodland, valley and foothill grassland, vernal pools, north coast coniferous forest. Mesic sites. 15-470 m.

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<i>Ribes sericeum</i> Santa Lucia gooseberry	None/None G4? / S4? 4.3	North coast coniferous forest, coastal bluff scrub, broadleaved upland forest. Along streams in redwood forests and on the coastal slopes of the Santa Lucia Mtns. 305-1220 m.
<i>Rosa pinetorum</i> pine rose	None/None G2 / S2 1B.2	Closed-cone coniferous forest, cismontane woodland. 5-1090 m.
<i>Sanicula hoffmannii</i> Hoffmann's sanicle	None/None G3 / S3 4.3	Broadleaved upland forest, coastal scrub, coastal bluff scrub, chaparral, cismontane woodland, lower montane coniferous forest. Cool slopes in deep soil, often in moist shaded serpentine soils, or in clay soils. 30-300 m.
<i>Sanicula maritima</i> adobe sanicle	None/Rare G2 / S2 1B.1	Meadows and seeps, valley and foothill grassland, chaparral, coastal prairie. Moist clay or ultramafic soils. 30-240 m.
<i>Senecio aphanactis</i> chaparral ragwort	None/None G3 / S2 2B.2	Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. 20-855 m.
<i>Senecio astephanus</i> San Gabriel ragwort	None/None G3 / S3 4.3	Chaparral, coastal bluff scrub. Rocky slopes. 400-1500 m.
<i>Sidalcea hickmanii</i> ssp. <i>hickmanii</i> Hickman's checkerbloom	None/None G3T2 / S2 1B.3	Chaparral. Grassy openings in chaparral, and on dry ridges. 335-1200 m.
<i>Sidalcea malachroides</i> maple-leaved checkerbloom	None/None G3 / S3 4.2	Broadleaved upland forest, coastal prairie, coastal scrub, north coast coniferous forest, riparian forest. Woodlands and clearings near coast; often in disturbed areas. 0-730 m.
<i>Silene verecunda</i> ssp. <i>verecunda</i> San Francisco campion	None/None G5T2 / S2 1B.2	Coastal scrub, valley and foothill grassland, coastal bluff scrub, chaparral, coastal prairie. Often on mudstone or shale; one site on serpentine. 30-645 m.
<i>Solidago guiradonis</i> Guirado's goldenrod	None/None G3G4 / S3S4 4.3	Cismontane woodland, valley and foothill grassland. Near streams or seeps in asbestos-laden soils; serpentine. 600-1370 m.
<i>Stebbinsoseris decipiens</i> Santa Cruz microseris	None/None G2 / S2 1B.2	Broadleaved upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland. Open areas in loose or disturbed soil, usually derived from sandstone, shale or serpentine, on seaward slopes. 90-750 m.
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i> most beautiful jewelflower	None/None G2T2 / S2 1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Serpentine outcrops, on ridges and slopes. 95-1000 m.
<i>Stylocline masonii</i> Mason's neststraw	None/None G1 / S1 1B.1	Chenopod scrub, pinyon and juniper woodland. Sandy washes. 100-1200 m.
<i>Syntrichopappus lemmonii</i> Lemmon's syntrichopappus	None/None G4 / S4 4.3	Chaparral, Joshua tree woodland, pinyon and juniper woodland. Decomposed granite; sandy or gravelly soils. 500-1830 m.
<i>Systemotheca vortriedei</i> Vortriede's spineflower	None/None G3 / S3 4.3	Cismontane woodland, chaparral. Sandy or serpentine soils. 500-1600 m.
<i>Texasporium sancti-jacobi</i> woven-spored lichen	None/None G3 / S1 3	Chaparral. Open sites; in California with <i>Adenostoma fasciculatum</i> , <i>Eriogonum</i> , <i>Selaginella</i> . At Pinnacles, on small mammal pellets. 290-660 m.
<i>Tortula californica</i>	None/None	Chenopod scrub, valley and foothill grassland. Moss growing

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California screw moss	G2G3 / S2S3 1B.2	on sandy soil. 10-1460 m.
<i>Toxicoscordion fontanum</i> marsh zigadenus	None/None G3 / S3 4.2	Chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, marshes and swamps. Vernal moist or marshy areas; often on serpentine areas. 15-1000 m.
<i>Trichostema ovatum</i> San Joaquin bluecurls	None/None G3/S3 4.2	Chenopod scrub, valley and foothill grassland. Sandy alluvial soil. In grassland, and disturbed sites. 65-320 m.
<i>Trichostema rubisepalum</i> Hernandez bluecurls	None/None G4 / S4 4.3	Broadleaved upland forest, chaparral, cismontane woodland, lower montane woodland, vernal pools. Volcanic and serpentine substrates. 300-1435 m.
<i>Trifolium buckwestiorum</i> Santa Cruz clover	None/None G2 / S2 1B.1	Coastal prairie, broadleaved upland forest, cismontane woodland. Moist grassland. Gravelly margins. 30-550 m.
<i>Trifolium hydrophilum</i> saline clover	None/None G2 / S2 1B.2	Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 1-335 m.
<i>Trifolium polyodon</i> Pacific Grove clover	None/Rare G1 / S1 1B.1	Closed-cone coniferous forest, meadows and seeps, coastal prairie, valley and foothill grassland. Along small springs and seeps in grassy openings. 5-260 m.
<i>Trifolium trichocalyx</i> Monterey clover	Endangered/Endangered G1 / S1 1B.1	Closed-cone coniferous forest. Openings, burned areas, and roadsides. Sandy soils. 60-210 m.
<i>Triteleia ixioides</i> ssp. <i>cookii</i> Cook's triteleia	None/None G5T2T3 / S2S3 1B.3	Cismontane woodland, closed-cone coniferous forest. Streamsides, wet ravines; on serpentine and in serpentine seeps. Sometimes near cypresses. 120-735 m.
<i>Triteleia lugens</i> dark-mouthed triteleia	None/None G4? / S4? 4.3	Broadleaved upland forest, chaparral, lower montane coniferous forest, coastal scrub. 100-1000 m.
<i>Tropidocarpum capparideum</i> caper-fruited tropidocarpum	None/None G1 / S1 1B.1	Valley and foothill grassland. Alkaline clay. 0-360 m.
<i>Usnea longissima</i> Methuselah's beard lichen	None/None G4 / S4 4.2	North coast coniferous forest, broadleaved upland forest. Grows in the "redwood zone" on tree branches of a variety of trees, including big leaf maple, oaks, ash, Douglas-fir, and bay. 45-1465 m in California.
<b>Invertebrates</b>		
<i>Adela oplerella</i> Opler's longhorn moth	None/None G2 / S2	From Marin County and the Oakland area on the inner coast ranges south to Santa Clara County. One record from Santa Cruz County. All but Santa Cruz site is on serpentine grassland. Larvae feed on <i>Platystemon californicus</i> .
<i>Bombus caliginosus</i> obscure bumble bee	None/None G4? / S1S2	Coastal areas from Santa Barbara county to north to Washington state. Food plant genera include <i>Baccharis</i> , <i>Cirsium</i> , <i>Lupinus</i> , <i>Lotus</i> , <i>Grindelia</i> and <i>Phacelia</i> .
<i>Bombus crotchii</i> Crotch bumble bee	None/None G3G4 / S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .
<i>Bombus occidentalis</i> western bumble bee	None/None G2G3 / S1	Once common & widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease.
<i>Branchinecta lynchi</i>	Threatened/None G3 / S3	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled

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vernal pool fairy shrimp		pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.
<i>Calicina arida</i> San Benito harvestman	None/None G1 / S1	Known only from the type locality, Panoche Road, San Benito County. Found on serpentine rocks.
<i>Calileptoneta ubicki</i> Ubick's leptonetid spider	None/None G1 / S1	Known only from the type locality, Arroyo Seco, Monterey County.
<i>Chrysis tularensis</i> Tulare cuckoo wasp	None/None G1G2 / S1S2	Unknown.
<i>Cicindela hirticollis gravida</i> sandy beach tiger beetle	None/None G5T2 / S2	Inhabits areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico. Clean, dry, light-colored sand in the upper zone. Subterranean larvae prefer moist sand not affected by wave action.
<i>Cicindela ohlone</i> Ohlone tiger beetle	Endangered/None G1 / S1	Remnant native grasslands with California oatgrass & purple needlegrass in Santa Cruz County. Substrate is poorly-drained clay or sandy clay soil over bedrock of Santa Cruz mudstone.
<i>Coelus globosus</i> globose dune beetle	None/None G1G2 / S1S2	Inhabitant of coastal sand dune habitat; erratically distributed from Ten Mile Creek in Mendocino County south to Ensenada, Mexico. Inhabits foredunes and sand hummocks; it burrows beneath the sand surface and is most common beneath dune vegetation.
<i>Coelus gracilis</i> San Joaquin dune beetle	None/None G1 / S1	Inhabits fossil dunes along the western edge of San Joaquin Valley; extirpated from Antioch Dunes (type locality). Inhabits sites containing sandy substrates.
<i>Danaus plexippus</i> pop. 1 monarch - California overwintering population	None/None G4T2T3 / S2S3	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.
<i>Euphilotes enoptes smithi</i> Smith's blue butterfly	Endangered/None G5T1T2 / S1S2	Most commonly associated with coastal dunes & coastal sage scrub plant communities in Monterey & Santa Cruz counties. Hostplant: <i>Eriogonum latifolium</i> and <i>Eriogonum parvifolium</i> are utilized as both larval and adult foodplants.
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	Threatened/None G5T1 / S1	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. <i>Plantago erecta</i> is the primary host plant; <i>Orthocarpus densiflorus</i> & <i>O. purpurescens</i> are the secondary host plants.
<i>Fissilicreagris imperialis</i> Empire Cave pseudoscorpion	None/None G1 / S1	Known only from Empire Cave in Santa Cruz County.
<i>Gonidea angulata</i> western ridged mussel	None/None G3/S1S2	Primarily creeks & rivers & less often lakes. Originally in most of state, now extirpated from Central & Southern Calif.
<i>Helminthoglypta sequoicola consors</i> redwood shoulderband	None/None G2T1 / S1	Known only from south slope of San Juan Grade, near Foot, 8 miles NW of Salinas.
<i>Hubbardia idria</i> Idria short-tailed whipscorpion	None/None G1 / S1	Known only from the type locality, 2.9 km SW of Idria, San Benito County. Serpentine endemic.
<i>Hubbardia secoensis</i> Arroyo Seco short-tailed whipscorpion	None/None G1 / S1	Known only from the type locality, Arroyo Seco, Monterey County.
<i>Idiostatus kathleenae</i> Pinnacles shieldback katydid	None/None G1G2 / S1S2	Known only from Pinnacles National Monument.
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	Endangered/None G4 / S3S4	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly

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		found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.
<i>Linderiella occidentalis</i> California linderiella	None/None G2G3 / S2S3	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity, and total dissolved solids.
<i>Lytta moesta</i> moestan blister beetle	None/None G2 / S2	Central California.
<i>Lytta morrisoni</i> Morrison's blister beetle	None/None G1G2 / S1S2	Inhabitant of the southern Central Valley of California.
<i>Margaritifera falcata</i> western pearlshell	None/None G4G5 / S1S2	Aquatic. Prefers lower velocity waters.
<i>Meta dolloff</i> Dolloff Cave spider	None/None G1 / S1	Known from caves in the Santa Cruz area. This species is an orb-weaver and occurs from the cave mouth into deep twilight.
<i>Neochthonius imperialis</i> Empire Cave pseudoscorpion	None/None G1 / S1	Known only from Empire Cave, Santa Cruz County. Found under rocks and wood in the dark to twilight zones of the cave.
<i>Optioservus canus</i> Pinnacles optioservus riffle beetle	None/None G1 / S1	Aquatic. Found on rocks and in gravel of riffles in cool, swift, clear streams.
<i>Philanthus nasalis</i> Antioch specid wasp	None/None G1 / S1	Previously known only from Antioch Dunes, in Contra Costa Co. Now known only from the inland sandhills in Santa Cruz Co.
<i>Polyphylla barbata</i> Mount Hermon (=barbate) June beetle	Endangered/None G1 / S1	Known only from sand hills in vicinity of Mt. Hermon, Santa Cruz County.
<i>Protodufourea wasbaueri</i> Wasbauer's protodufourea bee	None/None G1 / S1	Chaparral and desert scrub. Nests in the ground. Oligolectic on <i>Emmenanthe</i> sp., a plant that blooms in profusion after fires, then declines.
<i>Scaphinotus behrensi</i> Behrens' snail-eating beetle	None/None G2G4/S2S4	Found in extreme NW CA along the coast.
<i>Socalchemmis monterey</i> Monterey socalchemmis spider	None/None G1 / S1	Known from only two localities in Monterey Co.: Los Padres NF; Arroyo Seco (type locality) and Cone Peak Trail.
<i>Speyeria adiaste adiaste</i> unsilvered fritillary	None/None G1G2T1 / S1	Occurs in openings in redwood and coniferous forests, oak woodlands, chaparral.
<i>Stygobromus imperialis</i> Empire Cave amphipod	None/None G1/S1	Endemic to Empire Cave in Santa Cruz County.
<i>Stygobromus mackenziei</i> Mackenzie's Cave amphipod	None/None G1 / S1	Known only from Empire Cave (type locality), a metamorphosed limestone cave subject to intermittent flooding.
<i>Trimerotropis infantilis</i> Zayante band-winged grasshopper	Endangered/None G1 / S1	Isolated sandstone deposits in the Santa Cruz Mountains (the Zayante Sand Hills ecosystem) Mostly on sand parkland habitat but also in areas with well-developed ground cover & in sparse chaparral with grass.
<i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	None/None G2 / S2	Inhabits coastal lagoons, estuaries and salt marshes, from Sonoma County south to San Diego County. Found only in permanently submerged areas in a variety of sediment types; able to withstand a wide range of salinities.
<b>Fish</b>		
<i>Eucyclogobius newberryi</i>	Endangered/None	Brackish water habitats along the California coast from Agua

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tidewater goby	G3 / S3 SSC	Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.
<i>Lavinia exilicauda harengus</i> Monterey hitch	None/None G4T2T4/S2S4 SSC	Unknown.
<i>Lavinia symmetricus subditus</i> Monterey roach	None/None G4T2T3/S2S3 SSC	Tributaries to Monterey Bay, specifically the Salinas, Pajaro, & San Lorenzo drainages.
<i>Oncorhynchus kisutch</i> pop. 4 coho salmon - central California coast ESU	Endangered/Endangered G4 / S2?	Federal listing = pops between Punta Gorda & San Lorenzo River. State listing = pops south of Punta Gorda. Require beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water & sufficient dissolved oxygen.
<i>Oncorhynchus mykiss irideus</i> pop. 9 steelhead - south-central California coast DPS	Threatened/None G5T2Q / S2	Federal listing refers to runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River.
<i>Oncorhynchus mykiss irideus</i> pop. 8 steelhead - central California coast DPS	Threatened/None G5T2T3Q / S2S3	From Russian River, south to Soquel Creek and to, but not including, Pajaro River. Also San Francisco and San Pablo Bay basins.
<i>Spirinchus thaleichthys</i> longfin smelt	Candidate/Threatened G5 / S1 SSC	Euryhaline, nektonic & anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.
<i>Thaleichthys pacificus</i> eulachon	Threatened/None G5 / S3	Found in Klamath River, Mad River, Redwood Creek, and in small numbers in Smith River and Humboldt Bay tributaries. Spawn in lower reaches of coastal rivers with moderate water velocities and bottom of pea-sized gravel, sand, and woody debris.
<b>Amphibians</b>		
<i>Ambystoma californiense</i> California tiger salamander	Threatened/Threatened G2G3 / S2S3 WL	Central Valley DPS federally listed as threatened. Santa Barbara and Sonoma counties DPS federally listed as endangered. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.
<i>Ambystoma macrodactylum croceum</i> Santa Cruz long-toed salamander	Endangered/Endangered G5T1T2 / S1S2 FP	Wet meadows near sea level in a few restricted locales in Santa Cruz and Monterey counties. Aquatic larvae prefer shallow (<12 inches) water, using clumps of vegetation or debris for cover. Adults use mammal burrows.
<i>Anaxyrus californicus</i> arroyo toad	Endangered/None G2G3 / S2S3 SSC	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.
<i>Aneides niger</i> Santa Cruz black salamander	None/None G3 / S3 SSC	Mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz, and Santa Clara counties. Adults found under rocks, talus, and damp woody debris.
<i>Dicamptodon ensatus</i> California giant salamander	None/None G3 / S2S3 SSC	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County, and east to Napa County. Aquatic larvae found in cold, clear streams,

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		occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.
<i>Rana boylei</i> foothill yellow-legged frog	None/Endangered G3 / S3 SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.
<i>Rana draytonii</i> California red-legged frog	Threatened/None G2G3 / S2S3 SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.
<i>Spea hammondi</i> western spadefoot	None/None G3 / S3 SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.
<i>Taricha torosa</i> Coast Range newt	None/None G4 / S4 SSC	Coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats & will migrate over 1 km to breed in ponds, reservoirs & slow moving streams.
<b>Reptiles</b>		
<i>Anniella pulchra</i> northern California legless lizard	None/None G3 / S3 SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.
<i>Arizona elegans occidentalis</i> California glossy snake	None/None G5T2 / S2 SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.
<i>Emys marmorata</i> western pond turtle	None/None G3G4 / S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.
<i>Gambelia sila</i> blunt-nosed leopard lizard	Endangered/Endangered G1 / S1 FP	Resident of sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief. Seeks cover in mammal burrows, under shrubs or structures such as fence posts; they do not excavate their own burrows.
<i>Masticophis flagellum ruddocki</i> San Joaquin coachwhip	None/None G5T2T3 / S2? SSC	Open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in the San Joaquin Valley. Needs mammal burrows for refuge and oviposition sites.
<i>Phrynosoma blainvillii</i> coast horned lizard	None/None G3G4 / S3S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.
<i>Thamnophis hammondi</i> two-striped gartersnake	None/None G4 / S3S4 SSC	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.
<i>Thamnophis sirtalis tetrataenia</i> San Francisco gartersnake	Endangered/Endangered G5T2Q / S2 FP	Vicinity of freshwater marshes, ponds and slow-moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot. Upland areas near water are also very important.
<b>Birds</b>		
<i>Accipiter cooperii</i> Cooper's hawk	None/None G5 / S4	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in

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	WL	canyon bottoms on river flood-plains; also, live oaks.
<i>Accipiter striatus</i> sharp-shinned hawk	None/None G5 / S4 WL	Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers riparian areas. North-facing slopes with plucking perches are critical requirements. Nests usually within 275 ft of water.
<i>Agelaius tricolor</i> tricolored blackbird	None/Candidate Endangered G2G3 / S1S2 SSC	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.
<i>Aquila chrysaetos</i> golden eagle	None/None G5 / S3 FP, WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.
<i>Ardea herodias</i> great blue heron	None/None G5 / S4	Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.
<i>Asio flammeus</i> short-eared owl	None/None G5 / S3 SSC	Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.
<i>Asio otus</i> long-eared owl	None/None G5 / S3? SSC	Riparian bottomlands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses. Require adjacent open land, productive of mice and the presence of old nests of crows, hawks, or magpies for breeding.
<i>Athene cunicularia</i> burrowing owl	None/None G4 / S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.
<i>Brachyramphus marmoratus</i> marbled murrelet	Threatened/Endangered G3G4 / S1	Feeds near-shore; nests inland along coast from Eureka to Oregon border and from Half Moon Bay to Santa Cruz. Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas-fir.
<i>Buteo regalis</i> ferruginous hawk	None/None G4 / S3S4 WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.
<i>Buteo swainsoni</i> Swainson's hawk	None/Threatened G5 / S3	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.
<i>Charadrius montanus</i> mountain plover	None/None G3 / S2S3 SSC	Short grasslands, freshly plowed fields, newly sprouting grain fields, & sometimes sod farms. Short vegetation, bare ground, and flat topography. Prefers grazed areas and areas with burrowing rodents.
<i>Charadrius alexandrinus nivosus</i> western snowy plover	Threatened/None G3T3 / S2S3 SSC	Sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.
<i>Circus cyaneus</i> northern harrier	None/None G5 / S3 SSC	Coastal salt & freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.
<i>Coccyzus americanus occidentalis</i>	Threatened/Endangered	Riparian forest nester, along the broad, lower flood-bottoms

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR or CDFW	Habitat Requirements
western yellow-billed cuckoo	G5T2T3 / S1	of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.
<i>Coturnicops noveboracensis</i> yellow rail	None/None G4/S1S2 SSC	Summer resident in eastern Sierra Nevada in Mono County. Freshwater marshlands.
<i>Cypseloides niger</i> black swift	None/None G4 / S2 SSC	Coastal belt of Santa Cruz and Monterey counties; central & southern Sierra Nevada; San Bernardino & San Jacinto mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf; forages widely.
<i>Elanus leucurus</i> white-tailed kite	None/None G5 / S3S4 FP	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.
<i>Eremophila alpestris actia</i> California horned lark	None/None G5T4Q / S4 WL	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.
<i>Falco columbarius</i> merlin	None/None G5 / S3S4 WL	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands & deserts, farms & ranches. Clumps of trees or windbreaks are required for roosting in open country.
<i>Falco mexicanus</i> prairie falcon	None/None G5 / S4 WL	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.
<i>Falco peregrinus anatum</i> American peregrine falcon	Delisted/Delisted G4T4 / S3S4 FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.
<i>Fratercula cirrhata</i> tufted puffin	None/None G5 / S1S2 SSC	Open-ocean bird; nests along the coast on islands, islets, or (rarely) mainland cliffs. Requires sod or earth into which the birds can burrow, on island cliffs or grassy island slopes.
<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	None/None G5T3 / S3 SSC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.
<i>Gymnogyps californianus</i> California condor	Endangered/Endangered G1 / S1 FP	Require vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.
<i>Haliaeetus leucocephalus</i> bald eagle	Delisted/Endangered G5 / S3 FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.
<i>Hydrobates homochroa</i> ashy storm-petrel	None/None G2/S2 SSC	Colonial nester on off-shore islands. Usually nests on driest part of islands. Forages over open ocean. Nest sites on islands are in crevices beneath loosely piled rocks or driftwood, or in caves.
<i>Icteria virens</i> yellow-breasted chat	None/None G5 / S3 SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.
<i>Lanius ludovicianus</i> loggerhead shrike	None/None G4 / S4	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub & washes.

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Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR or CDFW	Habitat Requirements
	SSC	Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.
<i>Laterallus jamaicensis coturniculus</i> California black rail	None/Threatened G3G4T1 / S1 FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.
<i>Pandion haliaetus</i> osprey	None/None G5 / S4 WL	Ocean shore, bays, freshwater lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.
<i>Pelecanus occidentalis californicus</i> California brown pelican	Delisted/Delisted G4T3 / S3 FP	Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators. Roosts communally.
<i>Phalacrocorax auritus</i> double-crested cormorant	None/None G5 / S4 WL	Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.
<i>Progne subis</i> purple martin	None/None G5 / S3 SSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly; also in human-made structures. Nest often located in tall, isolated tree/snag.
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	Endangered/Endangered G5T1 / S1 FP	Salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.
<i>Riparia riparia</i> bank swallow	None/Threatened G5 / S2	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.
<i>Setophaga petechia</i> yellow warbler	None/None G5 / S3S4 SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.
<i>Vireo bellii pusillus</i> least Bell's vireo	Endangered/Endangered G5T2 / S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.
<b>Mammals</b>		
<i>Ammospermophilus nelsoni</i> Nelson's antelope squirrel	None/Threatened G2 / S2S3	Western San Joaquin Valley from 200-1200 ft elev. On dry, sparsely vegetated loam soils. Dig burrows or use k-rat burrows. Need widely scattered shrubs, forbs and grasses in broken terrain with gullies and washes.
<i>Antrozous pallidus</i> pallid bat	None/None G5 / S3 SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	None/None G3G4 / S2 SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.
<i>Dipodomys ingens</i> giant kangaroo rat	Endangered/Endangered G1G2 / S1S2	Annual grasslands on the western side of the San Joaquin Valley, marginal habitat in alkali scrub. Need level terrain and

Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR or CDFW	Habitat Requirements
		sandy loam soils for burrowing.
<i>Dipodomys venustus elephantinus</i> big-eared kangaroo rat	None/None G4T2 / S2 SSC	Chaparral-covered slopes of the southern part of the Gabilan Range, in the vicinity of the Pinnacles. Forages under shrubs & in the open. Burrows for cover and for nesting.
<i>Dipodomys venustus venustus</i> Santa Cruz kangaroo rat	None/None G4T1 / S1	Silverleaf manzanita mixed chaparral in the Zayante Sand Hills ecosystem of the Santa Cruz Mountains. Needs soft, well-drained sand.
<i>Erethizon dorsatum</i> North American porcupine	None/None G5/S3	Forested habitats in the Sierra Nevada, Cascade, and Coast ranges, with scattered observations from forested areas in the Transverse Ranges. Wide variety of coniferous and mixed woodland habitat.
<i>Eumetopias jubatus</i> Steller (=northern) sea-lion	FD/None G3/S2	Breeds on Ano Nuevo, San Miguel and Farallon islands, Point St. George, & Sugarloaf. Hauls-out on islands & rocks. Needs haul-out and breeding sites with unrestricted access to water, near aquatic food supply and with no human disturbance.
<i>Eumops perotis californicus</i> western mastiff bat	None/None G5T4 / S3S4 SSC	Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.
<i>Lasiurus blossevillii</i> western red bat	None/None G5 / S3 SSC	Roosts primarily in trees, 2-40 ft above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.
<i>Lasiurus cinereus</i> hoary bat	None/None G5 / S4	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.
<i>Myotis ciliolabrum</i> western small-footed myotis	None/None G5 / S3	Wide range of habitats mostly arid wooded & brushy uplands near water. Seeks cover in caves, buildings, mines, and crevices. Prefers open stands in forests and woodlands. Requires drinking water. Feeds on a wide variety of small flying insects.
<i>Myotis evotis</i> long-eared myotis	None/None G5 / S3	Found in all brush, woodland and forest habitats from sea level to about 9000 ft. Prefers coniferous woodlands and forests. Nursery colonies in buildings, crevices, spaces under bark, and snags. Caves used primarily as night roosts.
<i>Myotis thysanodes</i> fringed myotis	None/None G4 / S3	In a wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood & hardwood-conifer. Uses caves, mines, buildings or crevices for maternity colonies and roosts.
<i>Myotis yumanensis</i> Yuma myotis	None/None G5 / S4	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	None/None G5T2T3 / S2S3 SSC	Forest habitats of moderate canopy & moderate to dense understory. May prefer chaparral & redwood habitats. Constructs nests of shredded grass, leaves & other material. May be limited by availability of nest-building materials.
<i>Neotoma macrotis luciana</i> Monterey dusky-footed woodrat	None/None G5T3 / S3 SSC	Forest habitats of moderate canopy and moderate to dense understory. Also in chaparral habitats. Nests constructed of grass, leaves, sticks, feathers, etc. Population may be limited by availability of nest materials.
<i>Onychomys torridus tularensis</i>	None/None	Hot, arid valleys and scrub deserts in the southern San

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Scientific Name Common Name	Status Fed/State ESA Global Rank/State Rank CRPR or CDFW	Habitat Requirements
Tulare grasshopper mouse	G5T1T2 / S1S2 SSC	Joaquin Valley. Diet almost exclusively composed of arthropods, therefore needs abundant supply of insects.
<i>Perognathus inornatus</i> <i>psammophilus</i> Salinas pocket mouse	None/None G4T2? / S1 SSC	Annual grassland and desert shrub communities in the Salinas Valley. Fine-textured, sandy, friable soils. Burrows for cover and nesting.
<i>Reithrodontomys megalotis</i> <i>distichlis</i> Salinas harvest mouse	None/None G5T1 / S1	Known only from the Monterey Bay region. Occurs in fresh and brackish water wetlands and probably in the adjacent uplands around the mouth of the Salinas River.
<i>Sorex ornatus salarius</i> Monterey shrew	None/None G5T1T2/S1S2 SSC	Riparian, wetland & upland areas in the vicinity of the Salinas River delta. Prefers moist microhabitats. feeds on insects & other invertebrates found under logs, rocks & litter.
<i>Taxidea taxus</i> American badger	None/None G5 / S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	Endangered/Threatened G4T2 / S2	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.

FT = Federally Threatened                      SE = State Endangered  
 FC = Federal Candidate Species              ST = State Threatened  
 FE = Federally Endangered                      SR = State Rare  
 FS = Federally Sensitive SS = State Sensitive  
 DL = Delisted

G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW’s CNDDDB RareFind5  
 SSC = CDFW Species of Special Concern FP = Fully Protected

**CRPR (California Rare Plant Rank):**

- 1A=Presumed Extinct in California
- 1B=Rare, Threatened, or Endangered in California and elsewhere
- 2=Rare, Threatened, or Endangered in California, but more common elsewhere
- 3=Need more information (a Review List)
- 4=Plants of Limited Distribution (a Watch List)

**CRPR Threat Code Extension:**

- .1=Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- .2=Fairly endangered in California (20-80% occurrences threatened)
- .3=Not very endangered in California (<20% of occurrences threatened)

Sources: CNDDDB (CDFW, 2017b); USFWS (2017b), CDFW Special Animals List (2017). CDFW Special Plants List (2017) and CNPS Rare Plant Inventory (2017)

# Appendix E

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2045 MTP/SCS Air Quality and GHG Emissions

# Appendix E.1

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2045 MTP/SCS Air Quality Emissions

# AMBAG 2045 MTP/SCS Air Quality Emission Calculations

Scenario	VMT	ROG (tons/day)	NO <sub>x</sub> (tons/day)	PM <sub>10</sub> (tons/day) <sup>1</sup>	PM <sub>2.5</sub> (tons/day) <sup>1</sup>	Total PM (tons/day)	Fugitive PM <sub>10</sub> (tons/day) <sup>2</sup>	Fugitive PM <sub>2.5</sub> (tons/day) <sup>2</sup>	Total Fugitive PM <sub>10</sub> (tons/day) <sup>2</sup>	CO (tons/day)	SOx (tons/day)	CO <sub>2</sub> e (tons/day)	CO <sub>2</sub> e ( metric tons/year)
<b>2015 AMBAG Baseline</b>													
On-Road Motor Vehicles	16,007,118	6.25	14.39	1.15	0.60	1.75	0.91	0.36	1.26	52.99	0.08		
<b>2020 AMBAG Baseline</b>													
On-Road Motor Vehicles	17,331,954	4.27	8.89	1.10	0.50	1.60	0.97	0.39	1.36	34.53	0.07	7,498	2,482,892
<b>2035 No Project</b>													
On-Road Motor Vehicles	18,294,987	2.06	3.71	1.06	0.44	1.50	1.02	0.40	1.42	17.97	0.05		
<b>2035 MTP/SCS</b>													
On-Road Motor Vehicles	18,278,130	2.05	3.73	1.06	0.44	1.50	1.01	0.40	1.42	17.88	0.05		
<b>2045 No Project</b>													
On-Road Motor Vehicles	20,041,051	1.73	3.69	1.15	0.48	1.63	1.11	0.44	1.55	17.62	0.05	5,532	1,831,910
<b>2045 MTP/SCS</b>													
On-Road Motor Vehicles	20,032,142	1.72	3.71	1.15	0.48	1.63	1.11	0.44	1.55	17.51	0.05	5,541	1,834,685
Difference (2045 MTP/SCS -													
Baseline)	2,700,187.67	-2.55	-5.18	0.06	-0.02	0.03	0.14	0.05	0.19	-17.02	-0.02	-1,957.60	-648,206.23
%	16%	-60%	-58%	5%	-5%	2%	14%	14%	14%	-49%	-27%	-26%	-26%

**Notes**

Annual emissions - Total

1) Includes tire and break wear in the total PM

2) Includes only tire and break wear

Scenario	Diesel PM2.5 (tons/day)	Diesel PM10 (tons/day) <sup>1</sup>	Diesel NOX (tons/day)	Diesel SOX (tons/day)	Diesel CO (tons/day)
<b>2020 AMBAG Baseline</b>					
On-Road Motor Vehicles	0.08	0.09	5.56	0.01	1.98
<b>2045 No Project</b>					
On-Road Motor Vehicles	0.03	0.03	2.68	0.01	1.96
<b>2045 MTP/SCS</b>					
On-Road Motor Vehicles	0.03	0.03	2.71	0.01	1.97
	68%	68%	51%	15%	0%

**Notes**

Diesel annual emissions -Total Exhaust

## Appendix E.2

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2045 MTP/SCS Greenhouse Gas Emissions - On Road Transportation Sources

**AMBAG 2045 MTP/SCS GHG Emissions Scenarios**

DESCRIPTION	2020 Modeled	2035 No Project	2035 Project (Revenue Constrained)	2045 No Project	Alt 2: 2045 Alternative Transportation Modes	Alt 3: 2045 Infill and Transit Focus Alternative	2045 Project (Revenue Constrained)	Interpolated 2030 VMT
VMT (VMT per Day)	17,331,954	18,284,987	18,278,130	20,041,051	20,126,625	19,904,230	20,032,142	17,962,738
VMT (VMT per Year, assuming 365 days)	6,326,163,357	6,677,670,384	6,671,517,372	7,314,983,589	7,346,218,063	7,265,044,092	7,311,731,857	6,556,399,367
GHG Emissions (CO <sub>2</sub> ) from AMBAG EMFAC Modeling (CO <sub>2</sub> tons per day)	7,498	5,426	5,419	5,532	5,564	5,505	5,541	6,285
CO <sub>2</sub> Emissions from full fleet from AMBAG EMFAC Modeling (tons per year, assuming 365)	2,736,919	1,980,554	1,977,844	2,019,334	2,030,976	2,009,374	2,022,394	2,293,902
CO <sub>2</sub> Emissions from full fleet from AMBAG EMFAC Modeling (metric tons per year, assuming 365)	2,482,892	1,796,729	1,794,270	1,831,910	1,842,471	1,822,874	1,834,685	2,080,993
CH <sub>4</sub> using emission factors (tons per year)	194	109	109	105	105	104	105	123
CH <sub>4</sub> (metric tons per year)	176	99	99	95	96	95	95	111
CH <sub>4</sub> converted into CO <sub>2</sub> e, using AR5 GWP, 28 (tons per year)	4,915	2,777	2,775	2,667	2,679	2,649	2,666	3,116
N <sub>2</sub> O using emission factors (tons per year)	189	123	123	129	129	128	128	133
N <sub>2</sub> O (metric tons per year)	171	112	112	117	117	116	117	121
N <sub>2</sub> O converted into CO <sub>2</sub> e, using AR5 GWP, 265 (tons per year)	45,400	29,683	29,655	30,898	31,030	30,687	30,884	32,019
On-road Transportation (metric tons of CO <sub>2</sub> e)	2,533,207	1,829,189	1,826,700	1,865,475	1,876,179	1,856,210	1,868,236	2,116,128
Land Use Inventory Sectors (metric tons of CO <sub>2</sub> e)	2,209,620	2,232,582	2,232,582	2,283,582	2,283,582	2,283,582	2,283,582	2,276,910
<b>Population</b>	<b>774,729</b>	<b>842,189</b>	<b>842,189</b>	<b>869,776</b>	<b>869,776</b>	<b>869,776</b>	<b>869,776</b>	<b>824,992</b>
<b>TOTAL On-Road + Land Use (MT per year, assuming 365)</b>	<b>4,742,827</b>	<b>4,061,771</b>	<b>4,059,282</b>	<b>4,149,057</b>	<b>4,159,762</b>	<b>4,139,793</b>	<b>4,151,818</b>	<b>4,393,038</b>
<b>Per Capita GHG Emissions (MT CO<sub>2</sub>/population/year)</b>	<b>6.12</b>	<b>4.82</b>	<b>4.82</b>	<b>4.77</b>	<b>4.78</b>	<b>4.76</b>	<b>4.77</b>	<b>5.32</b>
Difference (2045 MTP/SCS - "2020" Baseline) Metric Tons/Year				-593,770	-583,066	-603,035	-591,009	
Difference (2045 MTP/SCS - "2020" Baseline) Percent Change				-12.5%	-12.3%	-12.7%	-12.5%	
Difference (2045 MTP/SCS - "2020" Baseline) Per Capita Per Year				-1.35	-1.34	-1.36	-1.35	
Difference (2045 MTP/SCS - "2020" Baseline) Percent Change				-22.08%	-21.88%	-22.25%	-22.03%	

Notes: \*VMT was linearly interpolated and GHG emissions were calculated using emission factors. CO<sub>2</sub> Emissions are not from the provided AMBAG EMFAC modeling

GHG Emissions Factor Calculation			
Year	CO <sub>2</sub> (tons/mile)	CH <sub>4</sub> (tons/mile)	N <sub>2</sub> O (tons/mile)
2020	0.000467923	3.05882E-08	2.98522E-08
2025	0.000403176	2.25691E-08	2.40088E-08
2030	0.000349872	1.87087E-08	2.03142E-08
2035	0.000318847	1.63738E-08	1.84899E-08
2040	0.000303224	1.50285E-08	1.77424E-08
2045	0.000296407	1.4356E-08	1.75702E-08

## Appendix E.3

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2045 MTP/SCS Greenhouse Gas Emissions Forecast Inventory - Land Use Sources



# 2045 MTP/SCS and Regional Transportation Plans for Monterey, San Benito, and Santa Cruz Counties

## Greenhouse Gas Emissions Forecast

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## Executive Summary

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In development of the Association of Monterey Bay Area Governments (AMBAG) 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for Monterey, San Benito and Santa Cruz Counties, Rincon Consultants, Inc. (Rincon) has calculated a greenhouse gas (GHG) emissions forecast for GHG emissions sources associated with land use, off-road vehicle use, and aviation in the AMBAG region. This GHG emissions forecast is based on the results of the 2019/2020 GHG emissions inventories developed by AMBAG using regional demographics projections and current and future legislative actions to estimate future GHG emissions levels. The 2019/2020 GHG emissions inventories include calculation of GHG emissions sources in each county, including:

- Off-road vehicle use
- Aviation
- Residential energy consumption
- Commercial/Industrial energy consumption
- Solid waste landfilling and generation
- Wastewater generation
- Agriculture

GHG emissions from on-road transportation are not included in this analysis. This GHG emissions source will be modeled at a later date by AMBAG through use of their on-road transportation model.

The GHG emissions forecast was developed to better understand how growth in the region could affect future GHG emissions in the years 2025, 2030, 2035, 2040, and 2045. The GHG emissions forecast presents two scenarios, a *Business-as-Usual Scenario* (BAU) which projects GHG emissions levels that scale with population, employment, and transportation growth consistent with County and regional projections, and a *Legislative Adjusted Scenario* (Adjusted), which accounts for the GHG emissions reduction that are expected to occur within the region from currently adopted state legislation. The legislation considered in this analysis includes the reductions in GHG emissions associated with increasingly renewable electricity required by Senate Bill (SB) 100, and reduced energy consumption in new residential construction associated with increasingly stringent Title 24 buildings codes.<sup>1</sup> The presentation of these two GHG emissions forecast scenarios allows for an understanding of how GHG emissions levels may evolve without any further action and how state legislation will contribute to reducing future GHG emissions levels.

---

<sup>1</sup> California has passed a suite of legislation intended to reduce GHG emissions from multiple sources and sectors; however, the implementation of this legislation varies across jurisdictions throughout the State. This analysis conservatively estimates GHG reductions from SB 100 and the 2019 Title 24 code cycle, as these are clearly implemented consistently throughout the State. A detailed discussion of legislation not included in this analysis is provided in Section **Error! Reference source not found.** **Error! Reference source not found.**

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While there are numerous pieces of state legislation that are expected to influence a reduction in GHG emissions levels throughout the State, not all can be directly attributed to the three counties in the AMBAG planning area due to variations in how the legislation is expected to be implemented. Table 1 provides a summary of these pieces of legislation and a justification of why they are, or are not, included in this analysis. All on-road transportation GHG emissions reduction related legislation is excluded, as on-road transportation GHG emissions are not included in this analysis.

**Table 1 State Legislation Considered in GHG Emissions Forecast**

State Legislation Name	Description of Legislation	Considered in Forecast (Yes/No)	Reasoning for Inclusion/Exclusion
Senate Bill 1078 - Renewable Energy: California Renewables Portfolio Standard Program (2002)	Senate Bill 1078 created the Renewable Portfolio Standards (RPS) with an initial target of 20 percent renewable electricity by 2017, The California Public Utilities Commission (CPUC) regulates RPS rules for California’s retail sellers of electricity. The California Energy Commission (CEC) administers the certification of electrical generation facilities as eligible renewable energy resources and regulates RPS requirements for public owned utilities. <sup>1</sup>	No	The RPS goals set by Senate Bill 1078 have since been superseded by Senate Bill 100, which established increased RPS requirements for retail electricity sales. Therefore, this bill is excluded from this GHG emissions forecast analysis.
Building Energy Efficiency Standards - Title 24 (Triennial updates since 2007)	California’s energy code is designed to reduce wasteful and unnecessary energy consumption in newly constructed and existing buildings. The California Energy Commission updates the Building Energy Efficiency Standards (Title 24) every three years by working with stakeholders in a public and transparent process. The Title 24 was first implemented in 1978, and since 2007 has had consistent triennial updates. <sup>2,3</sup>	Yes	The 2019 Title 24 code cycle is included in the GHG emissions forecast analysis to show energy efficiency increases in this most recent code cycle for new construction, as compared to the previous 2016 cycle. Previous code cycles are inherently included in existing buildings covered by the baseline GHG inventory through use of real electricity consumption data in the GHG emissions calculations. Therefore, only the 2019 Title 24 code cycle is considered in this analysis.

State Legislation Name	Description of Legislation	Considered in Forecast (Yes/No)	Reasoning for Inclusion/Exclusion
Low Carbon Fuel Standards Program (2009)	The California Low Carbon Fuel Standards Regulation (LCFS) was approved in 2009, with subsequent amendments in 2011, 2015, and 2018. The program is intended to reduce the carbon intensity of the State's transportation fuels, setting a goal for reducing the carbon intensity of the State fuel pool by at least 20 percent by 2030. The State provides financial incentives to increase the production of renewable and lower-carbon intensity fuels. <sup>4</sup>	No	The LCFS regulation includes flexibility in how the reduction in fuel carbon intensity will be achieved to allow for renewable fuel markets to develop innovative renewable and low-carbon fuel techniques. Eligible fuel carbon intensity reductions can occur during fuel processing and from use of renewable fuels. This means that there could be numerous pathways in which the GHG reductions through the LCFS program are achieved, and these may not be directly from the tailpipe emissions that are considered in the baseline GHG inventory. As such, GHG reductions from the LCFS regulation are not considered in this analysis.
Senate Bill X7-7 – Water Conservation Act (2009)	Senate Bill X7-7 requires that all water suppliers increase their water use efficiency. This bill establishes an urban water use reduction target of 20 percent below 2010 per capita daily water use levels by 2020. The most recent water use reduction targets are typically provided in 2015 Urban Water Management Plans (UWMPs). Many jurisdictions are currently in the process of developing 2020 UWMPs to provide updated detail on water use efficiency and reduction target progress. <sup>5</sup>	No	Senate Bill X7-7's implementation results in GHG emissions reduction from reduced electricity consumption embedded in the water supply. These GHG reductions are not included in this analysis, because the proportion of total electricity consumption that could be attributed to water supply is not provided, and the attribution of any future energy consumption reductions would need to be disaggregated by each UWMP developed within the AMBAG planning area.

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State Legislation Name	Description of Legislation	Considered in Forecast (Yes/No)	Reasoning for Inclusion/Exclusion
Assembly Bill 341 – Solid Waste Diversion (2011)	Assembly Bill 341 strives to reduce GHG emissions by diverting commercial solid waste to recycling efforts and to expand the opportunity for additional recycling services and recycling manufacturing facilities in California. The bill sets forth requirements of the statewide mandatory commercial recycling program, by requiring that commercial waste generators and multi-family residential dwellings arrange for recycling services. The bill sets specific requirements for waste reduction that are enforced by CalRecycle. A goal of 75 percent of solid waste generated be reduced, recycled, or composted by the year 2020. <sup>6</sup>	No	Assembly Bill 341 aims to reduce waste sent to landfill before 2020, with GHG reductions achieved through the avoidance of landfill generated methane. Since the GHG emissions forecast analysis is considered for a post-2020 timeframe, the GHG reductions of Assembly Bill 341 may have already been achieved prior to this time period. As such, accounting for this bill in the GHG emissions forecast could result in double counting of GHG emissions reduction that may have already been achieved.
Senate Bill 350 – The Clean Energy and Pollution Reduction Act (2015)	Senate Bill 350 establishes an extension of the RPS requirements set by Senate Bill 1078, increasing RPS goals for retail electricity sales to 33 percent by 2020 and 50 percent by 2030. This bill also requires the state double statewide energy efficiency savings in electricity and natural gas end uses by 2030. The implementation of the energy efficiency savings is done through the increasingly stringent building code standards of Title 24, and the reinvestment of revenue into customer end use energy efficiency programs by large utilities. <sup>7</sup>	No	The RPS goals set by Senate Bill 350 have since been superseded by Senate Bill 100, which established increased RPS requirements for retail electricity sales. Additionally, the energy efficiency savings through this bill are partially accounted for through Title 24, which is accounted for in new construction in the GHG emissions forecast analysis. Since the energy efficiency savings targets include both Title 24 and additional energy efficiency programs, it is difficult to calculate to what degree this will reduce energy consumption in new construction versus existing buildings. Therefore, Title 24 is accounted for, but additional energy efficiency from this bill is not included.

State Legislation Name	Description of Legislation	Considered in Forecast (Yes/No)	Reasoning for Inclusion/Exclusion
Senate Bill 1383 – Short Lived Climate Pollutants (2016)	Senate Bill 1383 established a requirement that the California Air Resources Board implement a comprehensive strategy to reduce short lived climate pollutants emissions. This includes goals of reducing methane emissions by 40%, hydrofluorocarbon gases by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030, as specified. The bill also established reduction goals for landfilled organic waste of 50 percent below 2014 statewide disposal levels by 2020 and 75 percent below statewide disposal levels by 2025. <sup>8</sup>	No	The implementation of organic waste reduction is expected to decrease methane emissions generated through the disposal of solid waste throughout the State; however, the implementation of policies to influence this reduction can vary between and within jurisdictions. Specifically, within the AMBAG planning area, there are rural and low population areas that may be exempt from the requirements of Senate Bill 1383. Since there is uncertainty with how these exemptions may influence the total organic waste reduction within the AMBAG planning area, GHG reductions are conservatively excluded from the GHG emissions forecast analysis.
Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities (2017)	The Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities, or Oil and Gas Regulation is designed to reduce methane emissions from oil and gas production, processing, storage, and transmission compressor stations. Entities regulated under the State’s Mandatory Greenhouse Gas Reporting Requirements (MRR) are required to take action to limit intentional and unintentional emissions from equipment and operation. <sup>9</sup>	No	The GHG emissions reduction associated with the Oil and Gas Regulation is specific to entities regulated under the MRR. These methane emissions are not considered in the baseline GHG inventory for the AMBAG planning region, as they are monitored and regulated by CARB. As such these GHG emissions reductions are not included in the GHG emissions forecast analysis.

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State Legislation Name	Description of Legislation	Considered in Forecast (Yes/No)	Reasoning for Inclusion/Exclusion
Senate Bill 100 - California Renewables Portfolio Standard Program: emissions of greenhouse gases (2018)	Senate Bill 100 provides an extension of the RPS targets established by Senate Bill 1078, creating additional targets of achieving 60 percent eligible RPS electricity retail sales by 2030, and 100 percent zero-carbon or RPS eligible retail sales by 2045. This bill also sets an exclusion of large hydroelectric energy generation as an RPS eligible renewable energy source. <sup>10</sup>	Yes	The RPS goals set by Senate Bill 100 are included in this GHG emissions forecast analysis. As all retail providers of electricity will be required by the state to meet the established RPS goals, it is appropriate to include the associated reductions in GHG emissions from future electricity consumption.

<sup>1</sup> California Legislative Information. 2002. SB-1078 Renewable energy: California Renewables Portfolio Standard Program. Available: [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=200120020SB1078](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200120020SB1078). Accessed June 23, 2021.

<sup>2</sup> California Energy Commission. ND. Building Energy Efficiency Standards - Title 24. Available: <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards>. Accessed June 23, 2021.

<sup>3</sup> California Energy Commission. ND. Past Building Energy Efficiency Standards. Available: <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/past-building-energy-efficiency>. Accessed June 23, 2021.

<sup>4</sup> California Air Resources Board. 2020. Low Carbon Fuel Standards Basics. Available: <https://ww2.arb.ca.gov/sites/default/files/2020-09/basics-notes.pdf>. Accessed June 23, 2021.

<sup>5</sup> California Department of Water Resources. ND. SB X7-7. Available: <https://water.ca.gov/Programs/Water-Use-And-Efficiency/SB-X7-7>. Accessed June 23, 2021.

<sup>6</sup> CalRecycle. 2021. Mandatory Commercial Recycling. Available: <https://www.calrecycle.ca.gov/recycle/commercial>. Accessed June 23, 2021.

<sup>7</sup> California Legislative Information. 2015. SB-350 Clean Energy and Pollution Reduction Act of 2015. Available: [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201520160SB350](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB350). Accessed June 23, 2021.

<sup>8</sup> California Legislative Information. 2016. SB-1383 Short-lived climate pollutants: methane emissions: dairy and livestock: organic waste: landfills. Available: [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201520160SB1383](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB1383). Accessed June 23, 2021.

<sup>9</sup> University of California, Berkeley, Center for Law, Energy and the Environment. California Climate Policy Factsheet: Methane. Available: <https://www.law.berkeley.edu/wp-content/uploads/2019/11/Fact-Sheet-Methane.pdf>. Accessed June 23, 2021.

<sup>10</sup> California Legislative Information. 2018. SB-100 California Renewables Portfolio Standard Program: emissions of greenhouse gases. Available: [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201720180SB100](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100). Accessed June 23, 2021.

The AMBAG planning area has a unique GHG emissions profile compared to many regions of the state due to the availability of electricity that is generated from primarily renewable and GHG-free sources delivered by Pacific Gas and Electric (PG&E) and Central Coast Community Energy (3CE). In the 2019/2020 GHG emissions inventory, 100 percent of PG&E’s and 3CE’s electricity was delivered as eligible GHG-free or renewable electricity, using the Power

Content Label method for attributing GHG emissions associated with electricity.<sup>2,3</sup> The Power Content Label method is the preferred method used to calculate GHG emission factors in the AMBAG region, as this allows a consistent comparison of GHG emission factors across all electricity providers. This resulted in GHG emissions associated with electricity use that were near zero in the 2019/2020 GHG emissions inventory. As such, the future GHG emissions impact of legislation that is intended to reduce GHG emissions from electricity consumption (e.g. SB 100 and Title 24) is small, since the GHG emissions from electricity in the region are already comparatively low.

The following section provides a summary of the GHG emissions forecast for both the BAU and Adjusted GHG emissions forecast scenarios for Monterey, San Benito, and Santa Cruz Counties, as well as a regional summary which combines GHG emissions from all three counties. The BAU forecast demonstrates how GHG emissions are expected to change with growth in each jurisdiction, while the Adjusted forecast demonstrates expected GHG emissions reductions that would occur as a result of SB 100 and the 2019 code cycle of Title 24.

## Monterey County GHG Emissions Forecast Results Summary

The GHG Emissions forecast for Monterey County projects an overall increase of GHG emissions with population, housing, and employment growth. Under the BAU scenario, GHG emissions are expected to increase 2.8 percent above 2020 GHG emissions levels by 2030, and 6.5 percent by 2045. This increase in GHG emissions is driven by growth in population, housing, and employment in Monterey County. A significant increase in GHG emissions is expected between 2020 and 2025 due to increased GHG emissions associated with electricity delivered by 3CE caused by a potential increase in GHG-generating electricity sources; however, these emissions would decrease again leading up to 2030, and are expected to remain low compared to 2025 levels for the remainder of the forecast period. SB 100 and Title 24 are expected to provide some reductions in GHG emissions resulting from electricity consumption and residential natural gas consumption in new construction; however, since GHG emissions associated with electricity consumption are already low, the GHG reduction impact of these is minimal. Overall, the GHG emissions reduction impact of SB 100 and Title 24 is expected to be approximately one percent throughout the forecast period. Figure 1 and Table 2 provide the results summary of the GHG emissions forecast for Monterey County, including the BAU forecast, Adjusted forecast, and the expected GHG emissions reduction from legislation.

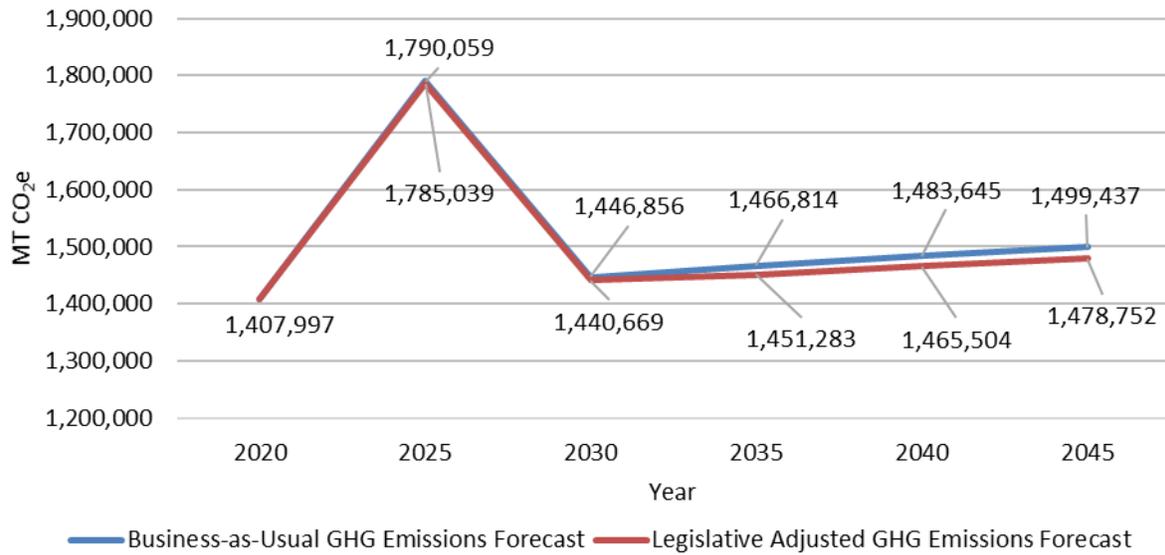
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<sup>2</sup> Pacific Gas and Electric. 2020. 2019 Power Content Label. Available: [https://www.pge.com/pge\\_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2020/1220-PowerContent-ADA.pdf](https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2020/1220-PowerContent-ADA.pdf). Accessed June 20, 2021.

<sup>3</sup> Central Coast Community Choice Energy. 2020. 2019 Power Content Label. Available: <https://3cenergy.org/wp-content/uploads/2020/11/3CE2020-PCL-Postcard-Web-ADA-v7.pdf>. Accessed June 21, 2021.

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**Figure 1 Monterey County GHG Emissions Forecast Results Summary**



**Table 2 Monterey County GHG Emissions Forecast Results Summary**

Forecast Scenario	2020	2025	2030	2035	2040	2045
Business-as-Usual Forecast	1,407,997	1,790,059	1,446,856	1,466,814	1,483,645	1,499,437
Title 24 Reductions	0	2,895	1,853	2,658	3,197	3,613
SB 100 Reductions	0	2,124	4,333	12,873	14,944	17,073
Legislative Adjusted Forecast	1,407,997	1,785,039	1,440,669	1,451,283	1,465,504	1,478,752
Percent Reduction in GHG Emissions from Legislation	0.0%	0.3%	0.4%	1.1%	1.2%	1.4%

Notes: All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)

## San Benito County GHG Emissions Forecast Results Summary

The GHG Emissions forecast for San Benito County projects a decrease of GHG emissions through the forecast period, with the expected closure of the John Smith landfill in 2033 significantly reducing community GHG emissions<sup>4,5</sup>. Under the BAU scenario, GHG emissions are expected to increase 6.5 percent above 2020 GHG emissions levels by 2030, and then reduce to 7.8 percent below 2020 levels by 2045. A significant increase in GHG emissions is expected between 2020 and 2025 due to increased GHG emissions associated with electricity delivered by 3CE caused by a potential increase in GHG-generating electricity sources; however, these emissions would decrease again leading up to 2030, and are expected to remain low compared to 2025 levels for the remainder of the forecast period. SB 100 and Title 24 are expected to provide some reductions in GHG emissions resulting from electricity consumption and residential natural gas consumption in new construction; however, since GHG emissions associated with electricity consumption are already low, the GHG reduction impact of these is minimal. Overall, the GHG emissions reduction impact of SB 100 and Title 24 is expected to be less than one percent throughout the forecast period.

Figure 2 and Table 3 provide the results summary of the GHG emissions forecast for San Benito County, including the BAU forecast, Adjusted forecast, and the expected GHG emissions reduction from legislation.

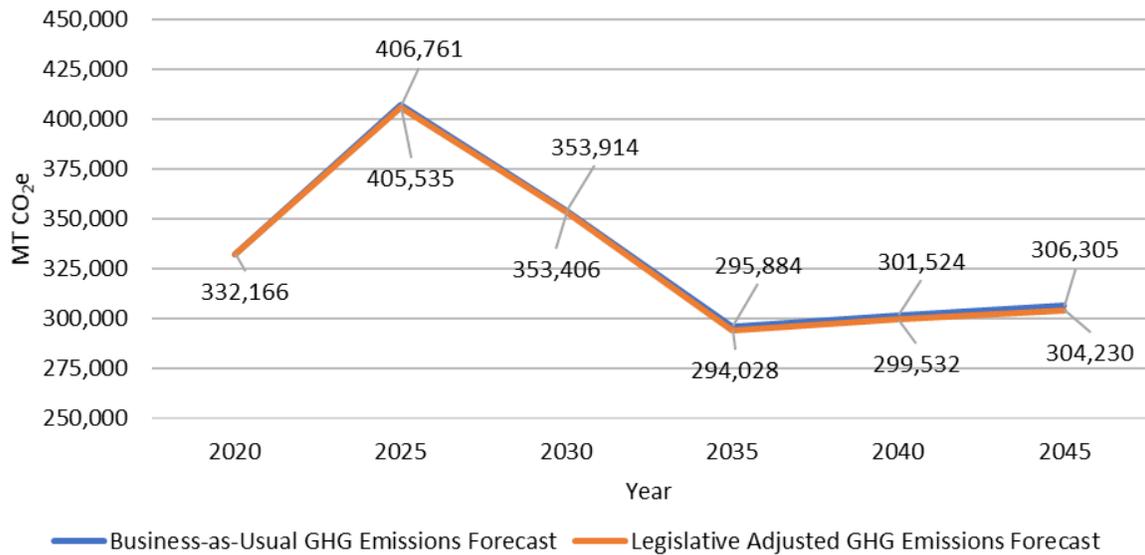
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<sup>4</sup> Personal Communication. Email from AMBAG. March 5, 2021.

<sup>5</sup> The methodology used for accounting for methane emissions from landfills considers the “methane commitment” of the waste disposed in landfills in a given year. The methane commitment represents the amount of methane that is expected to be emitted in the future as waste decays. Although there will be expected GHG emissions in the future from waste sent to landfill prior to the landfill closure date, these GHG emissions are accounted for in the year that waste was disposed in landfill. Additionally, the waste accounted for in disposal at this landfill only includes waste generated outside of Monterey, San Benito, and Santa Cruz Counties, and it is assumed that after the closure of the facility within the AMBAG planning area, waste generated by outside jurisdictions would go to existing or new landfills outside of the AMBAG planning area. As such, it is appropriate to assume the waste sent to the landfill within the AMBAG planning area would be zero after closure.

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**Figure 2 San Benito County GHG Emissions Forecast Results Summary**



**Table 3 San Benito County GHG Emissions Forecast Results Summary**

Forecast Scenario	2020	2025	2030	2035	2040	2045
Business-as-Usual Forecast	332,166	406,761	353,914	295,884	301,524	306,305
Title 24 Reductions	0	1,211	477	677	772	817
SB 100 Reductions	0	15	32	1,179	1,220	1,257
Legislative Adjusted Forecast	332,166	405,535	353,406	294,028	299,532	304,230
Percent Reduction in GHG Emissions from Legislation	0.0%	0.3%	0.1%	0.6%	0.7%	0.7%

Notes: All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)

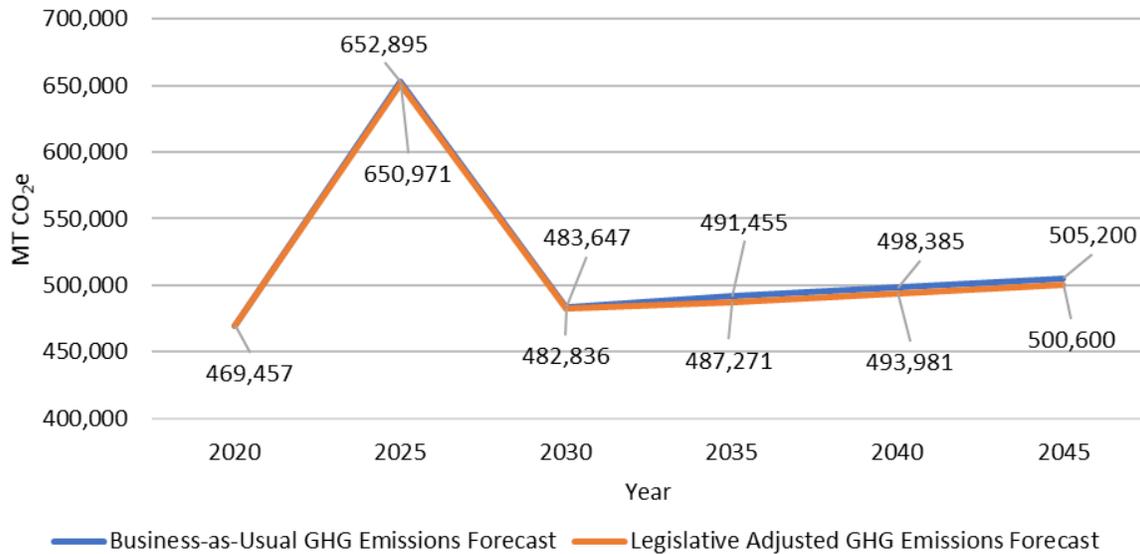
## Santa Cruz County GHG Emissions Forecast Results Summary

The GHG Emissions forecast for Santa Cruz County projects an increase of GHG emissions associated with population, housing, and employment growth. Under the BAU scenario, GHG emissions are expected to increase 3.0 percent above 2020 GHG emissions levels by 2030, and 7.6 percent by 2045. This increase in GHG emissions is driven by growth in population, housing, and employment in Santa Cruz County. A significant increase in GHG emissions is expected between 2020 and 2025 due to increased GHG emissions associated with electricity delivered by 3CE caused by a potential increase in GHG-generating electricity sources; however, these emissions would decrease again leading up to 2030, and are expected to remain low compared to 2025 levels for the remainder of the forecast period. SB 100 and Title 24 are expected to provide reductions in GHG emissions resulting from electricity

consumption and residential natural gas consumption in new construction; however, since GHG emissions associated with electricity consumption are already relatively low, the GHG reduction impact of these is minimal. Overall, the GHG emissions reduction impact of SB 100 and Title 24 is expected to be less than one percent throughout the forecast period.

Figure 3 and Table 4 provide the results summary of the GHG emissions forecast for Santa Cruz County, including the BAU forecast, Adjusted forecast, and the expected GHG emissions reduction from legislation.

**Figure 3 Santa Cruz County GHG Emissions Forecast Results Summary**



**Table 4 Santa Cruz County GHG Emissions Forecast Results Summary**

Forecast Scenario	2020	2025	2030	2035	2040	2045
Business-as-Usual Forecast	469,457	652,895	483,647	491,455	498,385	505,200
Title 24 Reductions	0	1,831	621	778	871	939
SB 100 Reductions	0	93	190	3,406	3,532	3,661
Legislative Adjusted Forecast	469,457	650,971	482,836	487,271	493,981	500,600
Percent Reduction in GHG Emissions from Legislation	0.0%	0.3%	0.2%	0.9%	0.9%	0.9%

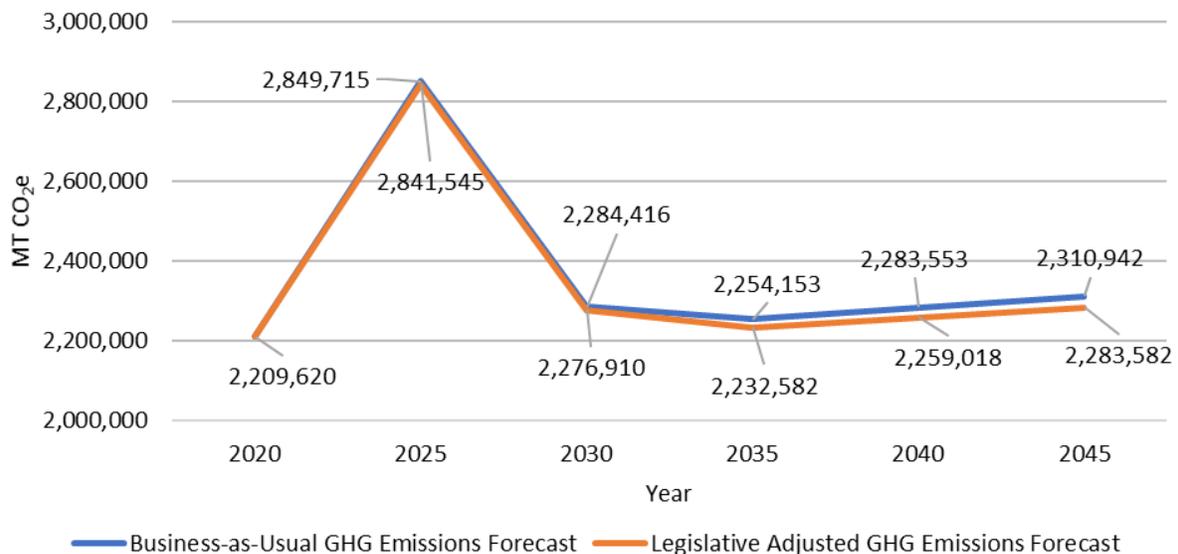
Notes: All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)

**AMBAG Regional GHG Emissions Forecast Results Summary**

The GHG Emissions forecast for the entire AMBAG planning area, including Monterey, San Benito, and Santa Cruz Counties estimates a similar growth trajectory as the individual counties, with a long-term trend of GHG emissions level growth and a spike in emissions in 2025 due to 3CE electricity. Under the BAU scenario, GHG emissions are expected to increase 8.5 percent above 2020 GHG emissions levels by 2030, and 17.4 percent by 2045. This increase in GHG emissions is driven by growth in population, housing, and employment. The overall GHG emissions reduction seen in San Benito County in the forecast period provide some influence towards reduction in GHG emissions growth; however, since the total GHG emissions of San Benito County represent less than 15 percent of the total region’s GHG emissions, this influence is minor. Similar to the individual counties, SB 100 and Title 24 are expected to provide some reductions in GHG emissions resulting from electricity consumption and residential natural gas consumption in new construction due to the already low GHG emission factors associated with electricity consumption. Overall, the GHG emissions reduction impact of SB 100 and Title 24 is expected to be less than one percent throughout the forecast period.

Figure 4 and Table 5 provide the results summary of the GHG emissions forecast for AMBAG region, including the BAU forecast, Adjusted forecast, and the expected GHG emissions reduction from legislation.

**Figure 4 AMBAG Regional GHG Emissions Forecast Results Summary**



**Table 5 AMBAG Regional GHG Emissions Forecast Results Summary**

<b>Forecast Scenario</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
Business-as-Usual Forecast	2,209,620	2,849,715	2,284,416	2,254,153	2,283,553	2,310,942
Title 24 Reductions	0	5,937	2,951	4,113	4,840	5,369
SB 100 Reductions	0	2,233	4,555	17,458	19,695	21,991
Legislative Adjusted Forecast	2,209,620	2,841,545	2,276,910	2,232,582	2,259,018	2,283,582
Percent Reduction in GHG Emissions from Legislation	0.0%	0.3%	0.3%	1.0%	1.1%	1.2%

Notes: All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)

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# 1 Introduction

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In development of the Association of Monterey Bay Area Governments (AMBAG) 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for Monterey, San Benito and Santa Cruz Counties, Rincon Consultants, Inc. (Rincon) has calculated a greenhouse gas (GHG) emissions forecast for GHG emissions sources associated with land use in the AMBAG planning area. This GHG emissions forecast is based on the results of the 2019/2020 GHG emissions inventories developed by AMBAG using regional demographics projections to estimate future GHG emissions levels. By calculating the difference between the forecasted GHG emissions and GHG emissions goals determines the gap to be closed through local climate action policies.

The GHG emissions forecast was developed to better understand how population and job growth in the region could affect future GHG emissions in the years 2025, 2030, 2035, 2040, and 2045. The GHG emissions forecast presents two scenarios, a *Business-as-Usual Scenario* (BAU) which projects GHG emissions levels that scale with population, employment, and transportation growth consistent with County and regional projections, and a *Legislative Adjusted Scenario* (Adjusted), which accounts for the GHG emissions reduction that are expected to occur from currently adopted legislation. The legislation considered in this analysis includes the reductions in GHG emissions associated with increasingly renewable electricity required by Senate Bill (SB) 100, and reduced energy consumption in new residential construction associated with increasingly stringent Title 24 buildings codes.<sup>6</sup> The presentation of these two GHG emissions forecast scenarios allows for an understanding of how GHG emissions levels may evolve without any further action and how state-level legislation will contribute to reducing future GHG emissions levels.

## 1.1 GHG Emissions Sectors and Sources

The GHG emissions forecast presented herein is based on the 2019/2020 GHG emissions inventories calculated by AMBAG for the Monterey Bay region, specifically for Monterey, San Benito, and Santa Cruz Counties, including all incorporated and unincorporated areas. The GHG emissions sources included in this analysis align with those in the GHG inventories, which includes GHG emissions sources related to land use and non-road fuel consumption on the AMBAG planning area. On-road vehicle GHG emissions are excluded from this analysis, as those emissions will be addressed separately by AMBAG through modeling of regional vehicle travel and GHG emissions rates. The GHG emissions sectors and associated sources included in this analysis are provided in Table 6.

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<sup>6</sup> California has passed a suite of legislation intended to reduce GHG emissions from multiple sources and sectors; however, the implementation of this legislation varies across jurisdictions throughout the State. This analysis conservatively estimates GHG reductions from SB 100 and the 2019 Title 24 code cycle, as these are clearly implemented consistently throughout the State. A detailed discussion of legislation not included in this analysis is provided in Section 4.1 California GHG Reduction Legislation.

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**Table 6 GHG Emissions Forecast GHG Emissions Sectors and Sources**

GHG Emissions Sector	GHG Emissions Source
Transportation	Aviation Fuel Sales
	Off-road Gasoline Consumption
	Off-road Diesel Consumption
	Off-road Natural Gas Consumption
Residential	Residential Electricity Consumption <sup>1</sup>
Commercial/Industrial	Commercial/Industrial Electricity Consumption <sup>1</sup>
	Commercial/Industrial Natural Gas Consumption
Wastewater	Fugitive Emissions from Septic Systems
	Process N <sub>2</sub> O Emissions from Wastewater Treatment
	Process N <sub>2</sub> O from Effluent Discharge
Solid Waste	Solid Waste Disposed at Landfills in Jurisdiction Boundaries
	Community Generated Solid Waste
Agricultural	Nitrogen Fertilizer Application
	Livestock Enteric Fermentation
	Livestock Manure Management

<sup>1</sup> Electricity Consumption includes electricity provided by Pacific Gas and Electric, Central Coast Community Energy, and King City Community Power.

## 1.2 Greenhouse Gases

According to the International Council for Local Environmental Initiatives (ICLEI) methodologies, specifically, the *U.S. Community Protocol for Accounting and Reporting Greenhouse Gas Emissions* Version 1.2, local governments should assess emissions of six internationally recognized GHGs.<sup>7</sup> These gases are outlined in Table 7, which includes their sources and global warming potential (GWP).<sup>8</sup> This GHG emissions forecast was prepared in conformance with ISO 14064-1 and therefore, uses the 100-year GWP values published in the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5).<sup>9</sup> The GWP refers to the ability of each gas to trap heat in the atmosphere. For example, one pound of

<sup>7</sup> ICLEI – Local Government for Sustainability. 2019 US Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions Version 1.2.

<sup>8</sup> According to the United States Environmental Protection Agency (USEPA), the GWP was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of one ton of a gas will absorb over a given period of time, relative to the emissions of one ton of carbon dioxide. Source: USEPA. 2017. Understanding Global Warming Potentials. Available: <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>. Accessed June 21, 2021.

<sup>9</sup> International Organization for Standardization (ISO). 2018. ISO 14064-1:2018 Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals. Available: <https://www.iso.org/standard/66453.html>. Accessed June 21, 2021.

methane has 28 times more heat capturing potential than one pound of carbon dioxide. This report focuses on the three GHGs most relevant to local government policymaking: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). These gases comprise a large majority of GHG emissions at the community level. The other gases, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluorides are emitted primarily in private sector manufacturing and electricity transmission and are the subject of regulation at the state level and therefore, have been excluded from this inventory. GHG emissions are reported in metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e) units, per standard practice. When dealing with an array of emissions, the gases are converted to their carbon dioxide equivalents for comparison purposes.

**Table 7 Summary of Greenhouse Gas Emission**

Greenhouse Gas	Formula	Source	GWP (CO <sub>2</sub> e)
Carbon Dioxide	CO <sub>2</sub>	Combustion	1
Methane	CH <sub>4</sub>	Combustion, anaerobic decomposition of organic waste (landfills, wastewater treatment plants), fuel handling	28
Nitrous Oxide	N <sub>2</sub> O	Combustion and wastewater treatment	265
Hydrofluorocarbons	Various	Leaking refrigerants and fire suppressants	4 – 12,400
Perfluorocarbons	Various	Aluminum production, semiconductor manufacturing, HVAC equipment manufacturing	6,630 – 11,100
Sulfur Hexafluoride	SF <sub>6</sub>	Transmission and distribution of power	23,500

Notes: GWP: global warming potential; CO<sub>2</sub>e = carbon dioxide equivalent

Source: Intergovernmental Panel on Climate Change (IPCC). 2014. Fifth Assessment Report AR5. Chapter 8: Anthropogenic and Natural Radiative Forcing. Available:

[https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5\\_Chapter08\\_FINAL.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf). Accessed June 21, 2021.

The analysis presented in the following sections provides an overview of the 2019/2020 GHG emissions inventory used as a baseline for the GHG emissions forecast, and then provides the methodology and detailed results of the BAU and Adjusted forecasts for the three counties in the AMBAG planning area.

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## 2 Baseline 2019/2020 GHG Emissions Inventory

The GHG emissions forecast analysis presented here is based upon the GHG emissions levels from each emissions source as calculated in the 2019/2020 GHG emissions inventory developed by AMBAG. It is essential to present the results of this *baseline* GHG inventory to understand the data and calculations used to project future GHG emissions in the BAU forecast. The baseline GHG emissions inventory provides a detailed assessment of GHG emissions from each of the emissions sectors and sources described previously.

### 2.1 Monterey County Baseline GHG Emissions Inventory

The results for the Monterey County 2019/2020 baseline GHG Inventory are provided in Table 8, including GHG emissions totals from each source and the activity data used to calculate GHG emissions.

**Table 8 Monterey County Baseline 2019/2020 GHG Emissions Inventory Summary**

GHG Emissions Sector/ Source	CO <sub>2</sub> (MT)	CH <sub>4</sub> (MT)	N <sub>2</sub> O (MT)	CO <sub>2e</sub> (MT)	Activity Data	Activity Data Units
<b>Transportation</b>						
Aviation Gasoline Fuel Sales	1,027	<1	<1	1,030	123,528	Gallons
JET-A Fuel Sales	4,763	<1	<1	4,779	488,538	Gallons
Monterey Regional Airport	41,282	0	0	41,282	0	NA <sup>1</sup>
Off-road Natural Gas	4,613	<1	<1	4,613	702,541	Gallons
Off-road Diesel	110,126	<1	<1	110,126	10,786,086	Gallons
Off-road Gasoline	50,954	2.8780	1.2663	50,954	5,755,965	Gallons
<b>Residential</b>						
Electricity – 3CE	3,000	10	7	5,036	661,971,269	kWh
Electricity – PG&E	29	1	1	51	23,987,578	kWh
Electricity – KCCP	2,733	1	1	2,744	12,135,267	kWh
Natural Gas	273,416	26	1	274,275	51,568,504	therms
<b>Commercial/Industrial</b>						
Electricity – PG&E	372	5	1	652	306,137,315	kWh
Electricity – 3CE	6,525	22	14	10,954	,439,854,829	kWh
Electricity – KCCP	5,983	1	1	6,008	26,566,071	kWh
Natural Gas	336,309	32	1	337,365	63,430,578	therms

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GHG Emissions Sector/ Source	CO <sub>2</sub> (MT)	CH <sub>4</sub> (MT)	N <sub>2</sub> O (MT)	CO <sub>2</sub> e (MT)	Activity Data	Activity Data Units
<b>Wastewater</b>						
Fugitive Emissions from Septic Systems	0	191	0	5,362	44,130	Population
Process N <sub>2</sub> O from Wastewater Treatment	0	0	2	421	397,174	Population
Process N <sub>2</sub> O from Effluent Discharge	0	0	31	8,110	397,174	Population
<b>Solid Waste</b>						
Monterey Peninsula Landfill	0	3,508	0	98,232	390,189	Tons of waste
Johnson Canyon Sanitary Landfill	0	9	0	242	959	Tons of waste
Community Generated Solid Waste	0	4,818	0	134,893	535,811	Tons of waste
<b>Agricultural</b>						
Enteric Fermentation	0	5,514	0	154,380	NA <sup>2</sup>	Heads of Livestock
Manure Management	0	126	106	31,727	NA <sup>2</sup>	Heads of Livestock
Nitrogen Fertilizer Application	0	0	471	124,762	NA <sup>2</sup>	Acreage of Crops

Notes: Values in this table may not add up to totals due to rounding.

NA = not applicable; CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent; PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; KCCP = King City Community Power; kWh = kilowatt-hour

<sup>1</sup> Activity data for Monterey Regional Airport was not provided.

<sup>2</sup> Agricultural GHG emissions use a breakdown of livestock and crop types in the county, resulting in numerous activity data values.

## 2.2 San Benito County Baseline GHG Emissions Inventory

The results for the San Benito County 2019/2020 baseline GHG inventory are provided in Table 9, including GHG emissions totals from each source and the activity data used to calculate GHG emissions.

**Table 9 San Benito County Baseline 2019/2020 GHG Emissions Inventory Summary**

GHG Emissions Sector/ Source	CO <sub>2</sub> (MT)	CH <sub>4</sub> (MT)	N <sub>2</sub> O (MT)	CO <sub>2</sub> e (MT)	Activity Data	Activity Data Units
<b>Transportation</b>						
Aviation Gasoline Fuel Sales	347	<1	<1	348	41,703	Gallons
JET-A Fuel Sales	2,467	<1	<1	2,475	252,995	Gallons
Off-road Diesel	23,933	<1	<1	23,933	2,344,109	Gallons
Off-road Gasoline	4,132	<1	<1	4,132	466,799	Gallons
Off-road Natural Gas	659	<1	<1	659	100,401	Gallons
<b>Residential</b>						
Electricity – 3CE	518	2	1	870	114,380,637	kWh
Electricity – PG&E	22	1	1	38	17,725,167	kWh
Natural Gas	36,642	3	1	36,757	6,910,951	therms
<b>Commercial/Industrial</b>						
Electricity – 3CE	1,059	4	2	1,777	233,588,651	kWh
Electricity – PG&E	17	1	1	30	14,175,965	kWh
Natural Gas	46,599	4	0	46,745	8,788,887	therms
<b>Wastewater</b>						
Fugitive Emissions from Septic Systems	0	27	0	747	6,151	Population
Process N <sub>2</sub> O from Wastewater Treatment	0	0	1	59	55,362	Population
Process N <sub>2</sub> O from Effluent Discharge	0	0	5	1,227	55,362	Population
<b>Solid Waste</b>						
John Smith Landfill	0	2,032	0	56,908	226,045	Tons of waste
Community Generated Solid Waste	0	867	0	24,268	96,397	Tons of waste
<b>Agricultural</b>						
Enteric Fermentation	0	0	52	13,727	NA <sup>1</sup>	Heads of Livestock
Manure Management	0	3,501	0	98,039	NA <sup>1</sup>	Heads of Livestock

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GHG Emissions Sector/ Source	CO <sub>2</sub> (MT)	CH <sub>4</sub> (MT)	N <sub>2</sub> O (MT)	CO <sub>2</sub> e (MT)	Activity Data	Activity Data Units
Nitrogen Fertilizer Application	0	63	67	19,425	NA <sup>1</sup>	Acreage of Crops

Notes: Values in this table may not add up to totals due to rounding.

NA = not applicable; CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent; PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; kWh = kilowatt-hour

<sup>1</sup> Agricultural GHG emissions use a breakdown of livestock and crop types in the county, resulting in numerous activity data values.

## 2.3 Santa Cruz County Baseline GHG Emissions Inventory

The results for the Santa Cruz County 2019/2020 baseline GHG emissions inventory are provided in Table 10, including GHG emissions totals from each source and the activity data used to calculate GHG emissions.

**Table 10 Santa Cruz County Baseline 2019/2020 GHG Emissions Inventory Summary**

GHG Emissions Sector/ Source	CO <sub>2</sub> (MT)	CH <sub>4</sub> (MT)	N <sub>2</sub> O (MT)	CO <sub>2</sub> e (MT)	Activity Data	Activity Data Units
<b>Transportation</b>						
Aviation Gasoline Fuel Sales	1,296	1	1	1,301	156,000	Gallons
JET-A Fuel Sales	928	1	1	931	95,156	Gallons
Off-road Diesel	116,732	1	1	116,732	11,433,110	Gallons
Off-road Gasoline	8,514	1	1	8,585	969,882	Gallons
Off-road Natural Gas	0	1	1	4,325	658,653	Gallons
<b>Residential</b>						
Electricity – 3CE	2,464	8	5	4,136	543,716,284	kWh
Electricity – PG&E	12	1	1	21	9,697,893	kWh
Natural Gas	172,763	16	1	173,306	32,584,537	therms
<b>Commercial/Industrial</b>						
Electricity – 3CE	2,077	7	5	3,486	458,241,683	kWh
Electricity – PG&E	230	3	1	402	189,028,386	kWh
Natural Gas	108,251	10	1	108,591	20,416,942	therms

Baseline 2019/2020 GHG Emissions Inventory

GHG Emissions Sector/ Source	CO <sub>2</sub> (MT)	CH <sub>4</sub> (MT)	N <sub>2</sub> O (MT)	CO <sub>2</sub> e (MT)	Activity Data	Activity Data Units
<b>Wastewater</b>						
Fugitive Emissions from Septic Systems	0	118	0	3,311	27,250	Population
Process N <sub>2</sub> O from Wastewater Treatment	0	0	1	260	245,251	Population
Process N <sub>2</sub> O from Effluent Discharge	0	0	19	5,008	245,251	Population
<b>Solid Waste</b>						
Buena Vista Landfill	0	1	0	19	77	Tons of waste
Community Generated Solid Waste	0	2,128	0	59,576	236,643	Tons of waste
<b>Agricultural</b>						
Enteric Fermentation	0	0	25	6,564	NA <sup>1</sup>	Heads of Livestock
Manure Management	0	202	0	5,652	NA <sup>1</sup>	Heads of Livestock
Nitrogen Fertilizer Application	0	3	3	821	NA <sup>1</sup>	Acreage of Crops

Notes: Values in this table may not add up to totals due to rounding.

NA = not applicable; CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent; PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; kWh = kilowatt-hour

<sup>1</sup> Agricultural GHG emissions use a breakdown of livestock and crop types in the county, resulting in numerous activity data values.

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### 3 Business-as-Usual GHG Emissions Forecast

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A BAU GHG emission forecast uses demographic projections and modeled off-road transportation emissions to estimate future GHG emissions without the influence of any GHG reduction legislation or policies. The BAU forecast is based on growth projected trends in population, and employment over time, consistent with County and regional projections. The BAU forecast does not account for GHG emissions reduction associated with local GHG reduction measures or legislative actions. BAU forecasts were estimated for 2020, 2025, 2030, 2035, 2040 and 2045.

The BAU GHG emissions projections were calculated based on the guidance of the Association of Environmental Professionals 2012 whitepaper *Forecasting Community-Wide Greenhouse Gas Emissions and Setting Reduction Targets*.<sup>10</sup> To develop a GHG emissions forecast, the appropriate “growth metrics” (e.g., population, housing, and employment projections) are multiplied by BAU “growth indicators”, which represent a baseline metric developed from the baseline GHG emissions inventory. This allows for projections of activity data that can be converted into GHG emissions estimates using specific GHG emissions factors, which is assumed to be the same in the future as in the baseline GHG emissions inventory.<sup>11</sup> The result is a BAU forecast in which GHG emissions change with time in relation to demographics, with the assumption that GHG emissions rates and activity data will continue in the future as they did in the year of the 2019/2020 GHG emissions inventory. This methodology is used for all GHG emissions sectors and sources include in the 2019/2020 GHG emissions inventory, with the exception of off-road transportation and agriculture. Off-road transportation emissions were projected from fuel consumption activity data obtained from the California Air Resources Board (CARB) OFFROAD2017 model as well as several other CARB models as discussed below.<sup>12</sup> For projections of agriculture GHG emissions, changes in crop production and livestock inventories are difficult to project, which is discussed further later in this section.

The following provides an overview of the growth metrics, growth indicators, and GHG emissions factors used to project GHG emissions for each of the three counties BAU forecast calculations. Additional discussion of the projections for off-road fuel consumption and agricultural GHG emissions are also provided in this section.

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<sup>10</sup> Association of Environmental Professionals (AEP). 2012. *Forecasting Community-Wide Greenhouse Gas Emissions and Setting Reduction Targets*. Available: [https://califaep.org/docs/Forecasting\\_and\\_Target\\_Setting.pdf](https://califaep.org/docs/Forecasting_and_Target_Setting.pdf). Accessed June 20, 2021.

<sup>11</sup> An exception to the use of the baseline 2019/2020 GHG emissions inventory GHG emission factor is for electricity provided by 3CE. 3CE has published expected GHG emission factors for the years 2018 through 2030. These changes in GHG emission factors are not a result of any policy or legislation, and as such are appropriate to include as the BAU forecast. The GHG emission factors for 3CE are discussed further in Section 3.5.1 3CE BAU GHG Emissions Factors.

<sup>12</sup> California Air Resources Board. 2017. OFFROAD2017 – ORION. Available: <https://www.arb.ca.gov/orion/>. Accessed June 20, 2021.

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**3.1 Growth Metrics**

GHG emissions are largely driven by consumption of fuel and energy, and generation of solid waste and wastewater by residents, households, and employees in a jurisdiction. As such, as population and employment grow over time, it is expected that GHG emissions levels will also grow. In a BAU forecast, this growth is assumed to be the primary metric for determining changes in future GHG emissions. For the AMBAG planning area, specifically, the growth and demographic projections developed as part of the 2045 MTP/SCS are used as the growth metrics for the BAU GHG emissions forecast.

Growth projections were provided by AMBAG for each of the three counties in the planning area. These projections, used as growth metrics for the BAU forecast, are provided in Table 11.

**Table 11 AMBAG Regional Growth Metrics for BAU Forecast**

<b>Growth Metric</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
<b>Monterey County</b>						
Population	441,143	452,761	467,068	476,028	483,884	491,443
Housing	141,764	146,716	153,852	159,100	162,612	165,328
Employment	243,015	245,054	249,613	253,918	258,553	263,437
Service Population	684,158	697,815	716,681	729,946	742,437	754,880
<b>San Benito County</b>						
Population	62,353	69,324	73,778	77,638	80,788	83,366
Housing	19,913	21,721	23,333	24,773	25,452	25,775
Employment	23,263	23,572	24,203	24,802	25,475	26,126
Service Population	85,616	92,896	97,981	102,440	106,263	109,492
<b>Santa Cruz County</b>						
Population	271,233	278,641	284,146	288,523	293,156	294,967
Housing	106,135	109,208	111,201	112,479	113,243	113,797
Employment	140,002	141,391	144,316	147,125	150,119	153,261
Service Population	411,235	420,032	428,462	435,648	443,275	448,228

## 3.2 Growth Indicators

Growth indicators were developed from the baseline 2019/2020 GHG emissions inventories by dividing the activity data for each emissions source by the appropriate metric for the year 2020. The appropriate metric used for each growth indicator is developed based on the relevance of the GHG emissions source. For example, residential energy consumption would be expected to grow with the number of new households, commercial/industrial energy consumption would be expected to grow with the number of new jobs, and total solid waste generation would be expected to grow with both residents and employment (service population). Table 12 provides the metrics that were associated with each GHG emissions sector to develop growth indicators and project GHG emissions from each GHG emissions source in the respective sectors.

**Table 12 Growth Metrics and Associated GHG Emissions Sectors**

GHG Emissions Sector	Associated Growth Metric
Transportation	Service Population
Residential	Households
Commercial/Industrial	Employment
Wastewater	Service Population
Solid waste	Service Population

The growth indicators for each of the three counties are provided in Table 13 for each GHG emissions source, excluding agriculture and off-road fuel consumption.

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**Table 13 Growth Indicators for BAU Forecast**

<b>GHG Emissions Source</b>	<b>Monterey County</b>	<b>San Benito County</b>	<b>Santa Cruz County</b>	<b>Units</b>
<b>Transportation</b>				
Aviation Gasoline Fuel Sales	0.1806	0.4871	0.3793	Gallons/SP
JET-A Fuel Sales	0.7141	2.9550	0.2314	Gallons/SP
Monterey Regional Airport	0.06034	NA	NA	MT CO <sub>2</sub> e/SP
<b>Residential</b>				
Electricity – 3CE	4,669.53	5,744.02	5,122.87	kWh/Household
Electricity – PG&E	169.21	890.13	91.37	kWh/Household
Electricity – KCCP	85.60	NA	NA	kWh/Household
Natural Gas	363.76	347.06	307.01	therms/Household
<b>Commercial/Industrial</b>				
Electricity – 3CE	5,924.96	10,041.21	3,273.11	kWh/Employment
Electricity – PG&E	1,259.75	609.38	1,350.18	kWh/Employment
Electricity – KCCP	109.32	NA	NA	kWh/Employment
Natural Gas	261.02	377.81	145.83	therms/Employment
<b>Wastewater</b>				
Fugitive Emissions from Septic Systems	0.0002799	0.0003118	0.0002875	MT CH <sub>4</sub> /SP
Process N <sub>2</sub> O from Wastewater Treatment	0.000002322	0.000002587	0.000002386	MT N <sub>2</sub> O/SP
Process N <sub>2</sub> O from Effluent Discharge	0.00004473	0.00005407	0.00004595	MT N <sub>2</sub> O/SP
<b>Solid Waste</b>				
Monterey Peninsula Landfill	0.5703	NA	NA	Tons of Waste/SP
Johnson Canyon Sanitary Landfill	0.001402	NA	NA	Tons of Waste/SP
John Smith Landfill	NA	2.6402	NA	Tons of Waste/SP
Buena Vista Landfill	NA	NA	0.0001872	Tons of Waste/SP
Community Generated Solid Waste	0.7832	1.1259	0.5754	Tons of Waste/SP
Notes: NA = not applicable; SP = service population; CH <sub>4</sub> = methane; N <sub>2</sub> O = nitrous oxide; CO <sub>2</sub> e = carbon dioxide equivalent; PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; KCCP = King City Community Power; kWh = kilowatt-hour				

### 3.2.1 Solid Waste BAU Growth Adjustments

The growth of waste disposal activity data was forecasted using the above growth metrics and growth indicators; however, adjustments were made to the waste disposal at specific landfills in the AMBAG planning area based on expected closure dates of landfills.<sup>13</sup> The following landfill closure dates were incorporated into the BAU GHG emissions projections:

- Buena Vista landfill closure in 2033.
- John Smith Landfill closure in 2032.

The waste disposal activity data for these landfills were set to zero after the closure year, while growth in waste disposal activity data prior to the closure year was conservatively assumed to grow with service population.<sup>14</sup>

### 3.3 BAU Off-road Activity Data

Activity data for the forecast of off-road GHG emissions was modeled separately from the above growth metrics and growth indicators, using several off-road models. These included CARB's OFFROAD2017 model which breaks down regional fuel consumption by equipment class, the SORE2020 model for lawn and garden equipment data, the SORE2020 model for transportation refrigeration units' data, RV2018 for recreational vehicle data, and PC2014 for pleasure craft data. These models were run for each of the three counties for the forecast years to obtain fuel consumption for gasoline, diesel, and natural gas/liquefied petroleum gas. Based on the CARB 2019 *Update to Inventory for Ocean-Going Vessels At Berth: Methodology and Results*, the harbors of Monterey and Santa Cruz are not included as ports for which fuel consumption and emissions are modeled in CARB off-road fuel consumption models.<sup>15</sup> As such, fuel consumption attributed to the Ocean Going Vessels was excluded from the CARB OFFROAD2017 forecast activity data, as these are primarily attributed to pass-through emissions and not under operational control of the counties. Further, all activity data relating to locomotives and military tactical support was excluded. These sectors are considered outside of these jurisdictions' operational control. The results of the models were summarized for each county, as provided in Table 14.

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<sup>13</sup> Personal Communication. Email from AMBAG. March 5, 2021.

<sup>14</sup> The methodology used for accounting for methane emissions from landfills considers the "methane commitment" of the waste disposed in landfills in a given year. The methane commitment represents the amount of methane that is expected to be emitted in the future as waste decays. Although there will be expected GHG emissions in the future from waste sent to landfill prior to the landfill closure date, these GHG emissions are accounted for in the year that waste was disposed in landfill. Additionally, the waste accounted for in disposal at this landfill only includes waste generated outside of Monterey, San Benito, and Santa Cruz Counties, and it is assumed that after the closure of the facility within the AMBAG planning area, waste generated by outside jurisdictions would go to existing or new landfills outside of the AMBAG planning area. As such, it is appropriate to assume the waste sent to the landfills within the AMBAG planning area would be zero after closure.

<sup>15</sup> California Air Resources Board. 2019. 2019 Update to Inventory for Ocean-Going Vessels at Berth: Methodology and Results. Available: [https://ww3.arb.ca.gov/msei/offroad/pubs/2019\\_ogv\\_inventory\\_writeup\\_ver\\_oct\\_18\\_2019.pdf](https://ww3.arb.ca.gov/msei/offroad/pubs/2019_ogv_inventory_writeup_ver_oct_18_2019.pdf). Accessed August 20, 2021.

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**Table 14 BAU Forecast Off-road Fuel Consumption**

Off-road Fuel Category	2020	2025	2030	2035	2040	2045
<b>Monterey County</b>						
<b>OFFROAD2017</b>						
Diesel	10,592,025	11,237,506	11,785,094	11,978,020	12,140,565	12,303,369
Gasoline	1,499,719	1,547,443	1,605,073	1,672,999	1,736,769	1,736,769
Natural Gas	702,541	723,054	750,422	782,611	810,833	810,833
<b>SORE2020 L&amp;G</b>						
Diesel	18,539	19,837	21,164	22,621	24,227	24,224
Gasoline	1,015,597	1,070,126	1,100,551	1,126,019	1,147,909	1,168,429
Natural Gas	0	0	0	0	0	0
<b>SORE2020 TRU</b>						
Diesel	0	0	0	0	0	0
Gasoline	39,743	40,839	42,351	44,129	45,670	46,516
Natural Gas	0	0	0	0	0	0
<b>RV2018</b>						
Diesel	0	0	0	0	0	0
Gasoline	294,256	317,541	340,400	365,398	391,758	420,064
Natural Gas	0	0	0	0	0	0
<b>PC2014</b>						
Diesel	175,522	170,736	168,082	164,723	159,734	161,981
Gasoline	2,906,650	3,009,581	3,156,885	3,330,221	3,515,970	3,753,918
Natural Gas						
<b>Total Off-road</b>						
Diesel	10,786,086	11,428,078	11,974,341	12,165,364	12,324,526	12,489,574
Gasoline	5,755,965	5,985,529	6,245,260	6,538,767	6,838,075	7,125,696
Natural Gas	702,541	723,054	750,422	782,611	810,833	810,833
<b>San Benito County</b>						
<b>OFFROAD2017</b>						
Diesel	2,341,326	2,441,066	2,432,275	2,505,673	2,580,156	2,656,238
Gasoline	210,642	212,813	212,967	216,179	217,993	217,993
Natural Gas	100,401	100,309	98,320	98,743	97,499	97,499

Business-as-Usual GHG Emissions Forecast

Off-road Fuel Category	2020	2025	2030	2035	2040	2045
<b>SORE2020 L&amp;G</b>						
Diesel	2,453	2,625	2,801	2,994	3,206	3,206
Gasoline	134,171	141,398	145,421	148,781	151,665	154,369
Natural Gas	0	0	0	0	0	0
<b>SORE2020 TRU</b>						
Diesel	0	0	0	0	0	0
Gasoline	5,355	5,352	5,245	5,269	5,202	5,038
Natural Gas	0	0	0	0	0	0
<b>RV2018</b>						
Diesel	0	0	0	0	0	0
Gasoline	111,169	119,359	127,561	136,725	146,456	156,760
Natural Gas	0	0	0	0	0	0
<b>PC2014</b>						
Diesel	330	321	316	310	300	304
Gasoline	5,462	5,655	5,932	6,258	6,607	7,054
Natural Gas	0	0	0	0	0	0
<b>Total Off-road</b>						
Diesel	2,344,109	2,444,012	2,435,392	2,508,976	2,583,662	2,659,748
Gasoline	466,799	484,577	497,126	513,211	527,923	541,214
Natural Gas	100,401	100,309	98,320	98,743	97,499	97,499
<b>Santa Cruz County</b>						
<b>OFFROAD2017</b>						
Diesel	4,920,695	5,034,037	5,107,691	5,190,315	5,245,071	5,311,348
Gasoline	969,882	974,962	972,692	978,288	979,463	979,463
Natural Gas	658,653	661,584	657,902	660,019	658,219	658,219
<b>SORE2020 L&amp;G</b>						
Diesel	14,411	15,420	16,452	17,585	18,833	18,831
Gasoline	787,173	829,577	853,167	872,867	889,779	905,629
Natural Gas	0	0	0	0	0	0
<b>SORE2020 TRU</b>						
Diesel	0	0	0	0	0	0
Gasoline	26,089	26,202	26,059	26,144	26,070	25,506
Natural Gas	0	0	0	0	0	0

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Off-road Fuel Category	2020	2025	2030	2035	2040	2045
<b>RV2018</b>						
Diesel	0	0	0	0	0	0
Gasoline	205,653	221,560	236,240	252,930	270,747	289,411
Natural Gas	0	0	0	0	0	0
<b>PC2014</b>						
Diesel	151,490	147,359	145,068	142,169	137,864	139,803
Gasoline	2,508,676	2,597,513	2,724,649	2,874,252	3,034,568	3,239,937
Natural Gas	0	0	0	0	0	0
<b>Total Off-road</b>						
Diesel	5,086,596	5,196,816	5,269,212	5,350,069	5,401,767	5,469,982
Gasoline	4,497,473	4,649,815	4,812,807	5,004,481	5,200,627	5,439,945
Natural Gas	658,653	661,584	657,902	660,019	658,219	658,219

Notes: All values are of the unit gallons of fuel

Data Sources: California Air Resources Board. 2017. OFFROAD2017 – ORION. Available: <<https://www.arb.ca.gov/orion/>>. Accessed June 20, 2021.; California Air Resources Board. 2020. Off-Road-Gasoline Equipment. Available: <<https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-documentation-road-0>>. Accessed October 7, 2021.

### 3.4 BAU Agricultural GHG Emissions Forecast

GHG emissions associated with agriculture are dependent on the type of agricultural production. It is difficult to develop accurate forecasting metrics since agricultural production is dependent on regional and global markets. The AEP 2012 whitepaper *Forecasting Community-Wide Greenhouse Gas Emissions and Setting Reduction Targets* recommends using projected agricultural land use change as a growth metric; however, this methodology presents challenge for multiple reasons.<sup>16</sup> First, agricultural land use change would only be representative of conversion between agricultural and urban land use, and therefore does not capture changes in the type of crop production. Crop production only represents a portion of agricultural GHG emissions. GHG emissions from livestock can represent a significant proportion of total agricultural GHG emissions. For Monterey and San Benito Counties specifically, livestock generated GHG emissions represented approximately 60 and 92 percent agricultural GHG emissions, respectively, in the 2019/2020 GHG emissions inventory. Second, land use change does not account for changes in crop production per acre or the number of livestock on grazing lands, which can be heavily influenced by markets and technology used in production. Due to the challenges in using land use change to project

<sup>16</sup> Association of Environmental Professionals (AEP). 2012. *Forecasting Community-Wide Greenhouse Gas Emissions and Setting Reduction Targets*. Available: < [https://califaep.org/docs/Forecasting\\_and\\_Target\\_Setting.pdf](https://califaep.org/docs/Forecasting_and_Target_Setting.pdf)>. Accessed June 20, 2021.

agricultural GHG emissions, historical agricultural production data was analyzed for trends in crop production acreage and livestock inventories to determine whether historical trends could be used to project future changes in agricultural production and included in the GHG emissions forecast.

### 3.4.1 Livestock BAU GHG Emissions Forecast

Multiple data sets were analyzed and reviewed to obtain useful data for projecting GHG emissions from livestock. Livestock inventory data from the United States Department of Agriculture's (USDA's) quinquennial National Agriculture Statistics Service (NASS) Census of Agriculture was compiled and analyzed for the 2002, 2007, 2012 and 2017 years for Monterey, San Benito, and Santa Cruz Counties.<sup>17</sup> When compiled and analyzed for a trend over time using a linear regression, no apparent trend appeared that would be appropriate for projecting future livestock inventories. Long-term livestock market projections from the USDA were also reviewed for relevant data for livestock GHG emissions projections. In February 2021, the USDA produced a forecast of livestock inventories in the United States through the year 2030; however, the challenge with these projections is that data specific to California is not provided and it is not clear how these projected increases livestock populations would be realized geographically. Therefore, this data was determined to be inappropriate for projecting local livestock populations in the AMBAG region. Due to the challenges of determining historical trends in livestock populations and the strong influence of regional and global markets, GHG emissions from livestock, including manure management and enteric fermentation are assumed to remain constant through the forecast period in this GHG emissions forecast analysis.

### 3.4.2 Crop Production BAU GHG Emissions Forecast

To forecast GHG emissions associated with crop production, annual historical crop production from County Crop Reports for each of the three counties was analyzed for apparent trends over time. Total crop production acreage for all relevant crop types was compiled and analyzed using a linear regression between the years 2010 and 2019.<sup>18</sup> This data was obtained from the USDA's NASS, which compiles annual County Crop Report Data for all California counties into a database of agricultural production statistics.<sup>19</sup> Data prior to 2010 was excluded to reduce the influences of the global recession in the years prior. The linear regression analysis of the 2010 to 2019 total crop production acreage provided evidence that crop production acreage in each of the three counties has experienced consistent trends over time, with crop production in Monterey and Santa Cruz Counties decreasing over time, at a rate of 1.32 and 0.88 percent per year, respectively. During the same time period, crop production acreage increased in San Benito at a rate of 1 percent per year. As such, GHG

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<sup>17</sup> United States Department of Agriculture's National Agricultural Statistics Service. ND. Census of Agriculture. California. Available: <<https://www.nass.usda.gov/AgCensus/index.php>>. Accessed June 21, 2021.

<sup>18</sup> Crop production categories were excluded from this analysis to maintain consistency with the 2019/2020 GHG emissions inventory. Excluded crop production categories included: pasture, nursery products, cut flowers, and seed production.

<sup>19</sup> United States Department of Agriculture's National Agricultural Statistics Service. 2021. County Ag Commissioners' Data Listing. California Field Office. Available: <[https://www.nass.usda.gov/Statistics\\_by\\_State/California/Publications/AgComm/index.php](https://www.nass.usda.gov/Statistics_by_State/California/Publications/AgComm/index.php)>. Accessed June 20, 2021.

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emissions from nitrogen fertilizer application are projected to change at the same rates as determined through the linear regression analysis. BAU GHG emissions projections for nitrogen fertilizer application for each of the three counties are provided in Table 15.

**Table 15 BAU Forecast Nitrogen Fertilizer Application GHG Emissions**

County	Growth Rate	2020	2025	2030	2035	2040	2045
Monterey	-1.32%	124,762	116,757	109,266	102,256	95,695	89,556
San Benito	1.00%	13,728	14,430	15,168	15,943	16,758	17,615
Santa Cruz	-0.88%	6,564	6,281	6,010	5,751	5,504	5,266

Notes: All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)

### 3.5 BAU GHG Emissions Factors

The BAU GHG emissions forecast is representative of a scenario where community activities are generally similar to that of the baseline 2019/2020 GHG emissions inventory. As such, BAU activity data growth is multiplied by the emissions factors used to calculate GHG emissions from the baseline GHG emissions inventory to generate an estimate of future GHG emissions with influence from GHG reduction policies at the state or local level. The BAU GHG emissions factors for the relevant GHG emissions sources and sectors are provided in Table 16, reported in MT CO<sub>2</sub>e. GHG emissions factors for the wastewater sector, agriculture sector, and Monterey Regional Airport are not included, as these sectors and sources have already been forecast based purely on GHG emissions, and not on activity data (i.e., MT CH<sub>4</sub> per service population). GHG emissions factors for electricity provided by Central Coast Community Energy (3CE) are also excluded from the below table but are presented in the discussion that follows.

**Table 16 BAU GHG Emissions Factors**

GHG Emissions Source	GHG Emissions Factor	Units
<b>Transportation</b>		
Aviation Gasoline Fuel Sales	0.008339	MT CO <sub>2</sub> e/gallon
JET-A Fuel Sales	0.009782	MT CO <sub>2</sub> e/gallon
Monterey Regional Airport	NA	NA
Off-road Diesel	0.01021	MT CO <sub>2</sub> e/gallon
Off-road Gasoline	0.008852	MT CO <sub>2</sub> e/gallon
Off-road Natural Gas	0.006566	MT CO <sub>2</sub> e/gallon
<b>Residential and Commercial/Industrial</b>		
Electricity – PG&E	0.000002130	MT CO <sub>2</sub> e/kWh
Electricity – KCCP	0.0002261	MT CO <sub>2</sub> e/kWh
Natural Gas	0.005319	MT CO <sub>2</sub> e/therm
<b>Wastewater</b>		
Fugitive Emissions from Septic Systems	NA	NA
Process N <sub>2</sub> O from Wastewater Treatment	NA	NA
Process N <sub>2</sub> O from Effluent Discharge	NA	NA
<b>Solid Waste – All Sources</b>	<b>0.2518</b>	<b>MT CO<sub>2</sub>e/ton of waste</b>
<b>Agriculture</b>		
Enteric Fermentation	NA	NA
Manure Management	NA	NA
Nitrogen Fertilizer Application	NA	NA
Notes: NA = not applicable CO <sub>2</sub> e = carbon dioxide equivalent; PG&E = Pacific Gas and Electric; KCCP = King City Community Power; kWh = kilowatt-hour.		

### 3.5.1 3CE BAU GHG Emissions Factors

GHG emissions associated with electricity provided by 3CE are expected to change between the baseline 2019/2020 GHG emissions inventory and the 2030 forecast year, and as such are accounted for in the BAU GHG emissions forecast. 3CE has published the expected GHG emissions factor associated with its electricity procurement between 2018 and 2030, with the GHG emissions factors increasing between 2020 and 2025, before decreasing again from 2026 to 2030.<sup>20</sup> These changes to the emissions factor are expected to occur regardless of the effects of local policies or state legislation. As such, it would not be appropriate to account for these adjustments in the legislative reductions in the Adjusted forecast, and they are instead accounted for here in the BAU forecast. GHG reductions associated with 3CE

<sup>20</sup> Central Coast Community Energy. 2021. 3CE Electricity Emission Factor Forecast. Provided by AMBAG through email on June 1, 2021.

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electricity and the requirements of SB 100 beyond 2030 are accounted for in the Adjusted Forecast.

Table 17 provides the GHG emissions factors used in the BAU forecast for 3CE provided electricity for each of the forecast years.

**Table 17 BAU GHG Emission Factors for 3CE Electricity**

Electricity Provider	2020	2025	2030	2035	2040	2045
Central Coast Community Energy (3CE)	0.000007608	0.000177300	0.000003007	0.000003007	0.000003007	0.000003007

Notes: All values are of the unit metric tons of carbon dioxide equivalent per kilowatt-hour (MT CO<sub>2</sub>e/kWh)

Data Source: Central Coast Community Energy. 2021. 3CE Electricity Emission Factor Forecast. Provided by AMBAG through email on June 1, 2021.

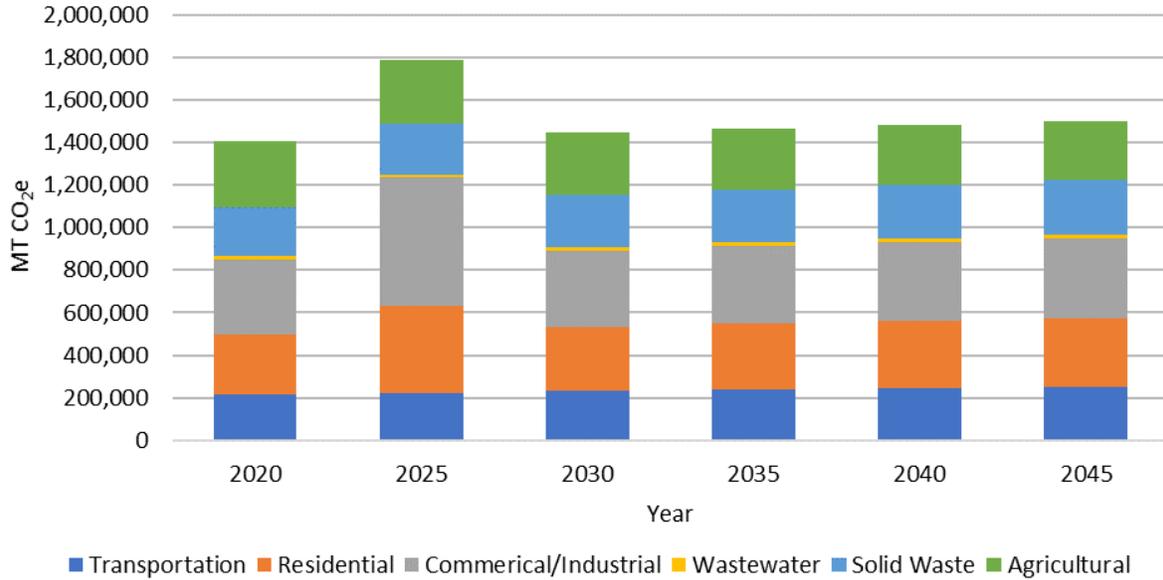
### 3.6 BAU Forecast Results

The following provides a summary of the results of the BAU GHG emissions forecast for each source in each of the three counties and the region as a whole. The results have been reported in MT CO<sub>2</sub>e.

#### 3.6.1 Monterey County BAU Forecast Results

The BAU forecast for Monterey County projects an increase in GHG emissions above the baseline 2019/2020 GHG emissions inventory from all GHG emissions sources through 2045. An increase in the GHG emissions factor for 3CE electricity leading up to 2025 is expected to create a sharp increase in GHG emissions associated with electricity and the overall GHG emissions for Monterey County. The subsequent decrease of the 3CE electricity GHG emissions factor results in a leveling off of GHG emissions levels in 2030, at which point steady growth in GHG emissions continues through 2045. Figure 5 provides a summary of the BAU GHG emissions forecast, highlighting the contribution of each sector to the overall Monterey County GHG emissions forecast.

**Figure 5 Monterey County BAU Forecast GHG Emissions Sector Summary**



A detailed summary of the Monterey County BAU Forecast is provided in Table 18, with GHG emissions reported in MT CO<sub>2</sub>e.

**Table 18 Monterey County BAU Forecast Detailed Summary**

GHG Emissions Source	2020	2025	2030	2035	2040	2045
<b>Transportation</b>	<b>212,784</b>	<b>222,446</b>	<b>231,800</b>	<b>237,473</b>	<b>242,793</b>	<b>247,881</b>
Aviation Gasoline Fuel Sales	1,030	1,051	1,079	1,099	1,118	1,137
JET-A Fuel Sales	4,779	4,875	5,006	5,099	5,186	5,273
Monterey Regional Airport	41,282	42,106	43,244	44,044	44,798	45,549
Off-road Natural Gas	4,613	4,748	4,927	5,139	5,324	5,324
Off-road Diesel	110,126	116,681	122,258	124,209	125,834	127,519
Off-road Gasoline	50,954	52,986	55,285	57,883	60,533	63,079
<b>Residential</b>	<b>282,106</b>	<b>408,216</b>	<b>302,856</b>	<b>313,187</b>	<b>320,100</b>	<b>325,446</b>
Electricity – 3CE	5,036	121,467	2,161	2,234	2,284	2,322
Electricity – PG&E	51	53	55	57	59	60
Electricity – KCCP	2,744	2,840	2,978	3,080	3,148	3,200
Natural Gas	274,275	283,856	297,662	307,815	314,610	319,865

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<b>GHG Emissions Source</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
<b>Commercial/Industrial</b>	<b>354,978</b>	<b>604,338</b>	<b>357,812</b>	<b>363,983</b>	<b>370,628</b>	<b>377,629</b>
Electricity – PG&E	652	657	669	681	693	706
Electricity – 3CE	10,954	257,428	4,448	4,524	4,607	4,694
Electricity – KCCP	6,008	6,058	6,171	6,277	6,392	6,512
Natural Gas	337,365	340,196	346,525	352,501	358,936	365,716
<b>Wastewater</b>	<b>13,893</b>	<b>14,170</b>	<b>14,553</b>	<b>14,823</b>	<b>15,076</b>	<b>15,329</b>
Fugitive Emissions from Septic Systems	5,362	5,469	5,617	5,721	5,818	5,916
Process N <sub>2</sub> O from Wastewater Treatment	421	429	441	449	457	465
Process N <sub>2</sub> O from Effluent Discharge	8,110	8,272	8,496	8,653	8,801	8,949
<b>Solid Waste</b>	<b>233,367</b>	<b>238,025</b>	<b>244,460</b>	<b>248,985</b>	<b>253,246</b>	<b>257,490</b>
Monterey Peninsula Landfill	98,232	100,193	102,902	104,806	106,600	108,386
Johnson Canyon Sanitary Landfill	242	246	253	258	262	266
Community Generated Solid Waste	134,893	137,586	141,305	143,921	146,384	148,837
<b>Agricultural</b>	<b>310,869</b>	<b>302,864</b>	<b>295,373</b>	<b>288,363</b>	<b>281,802</b>	<b>275,663</b>
Enteric Fermentation	154,380	154,380	154,380	154,380	154,380	154,380
Manure Management	31,727	31,727	31,727	31,727	31,727	31,727
Nitrogen Fertilizer Application	124,762	116,757	109,266	102,256	95,695	89,556
<b>Total</b>	<b>1,407,997</b>	<b>1,790,059</b>	<b>1,446,856</b>	<b>1,466,814</b>	<b>1,483,645</b>	<b>1,499,437</b>

Notes: Values in this table may not add up to totals due to rounding

All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)

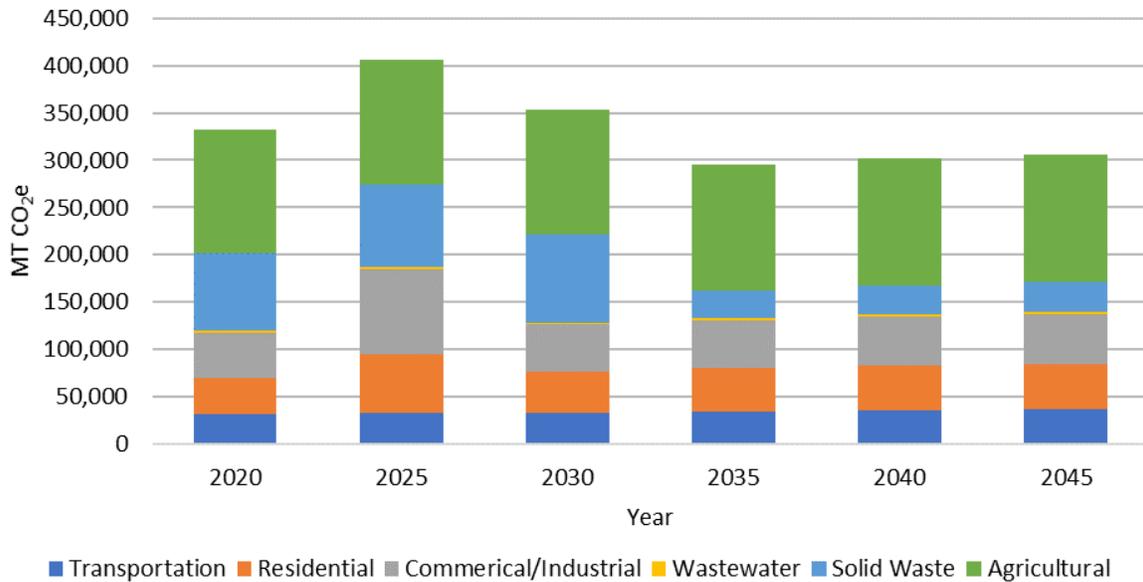
PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; KCCP = King City Community Power; N<sub>2</sub>O = nitrous oxide

### 3.6.2 San Benito County BAU Forecast Results

The BAU forecast for San Benito County projects an increase in GHG emissions above the baseline 2019/2020 GHG emissions inventory through 2025 from the increased GHG emissions associated with the 3CE electricity supply, with a sharp decrease in emissions beyond 2030. After 2030, GHG emissions levels continue to grow, but do not reach above the baseline level, which can largely be attributed to the closure of the John Smith Landfill after 2030. GHG emissions from all sources are expected to increase under the BAU forecast, except for emissions associated with 3CE provided electricity and the John Smith Landfill.

Figure 6 provides a summary of the BAU GHG emissions forecast, highlighting the contribution of each GHG emissions sector to the overall San Benito County GHG emissions.

**Figure 6 San Benito County BAU Forecast GHG Emissions Sector Summary**



A detailed summary of the San Benito County BAU Forecast is provided in Table 19, with GHG emissions reported in MT CO<sub>2</sub>e.

**Table 19 San Benito County BAU Forecast Detailed Summary**

GHG Emissions Source	2020	2025	2030	2035	2040	2045
<b>Transportation</b>	<b>31,548</b>	<b>32,965</b>	<b>33,142</b>	<b>34,186</b>	<b>35,196</b>	<b>36,197</b>
Aviation Gasoline Fuel Sales	348	377	398	416	432	445
JET-A Fuel Sales	2,475	2,685	2,832	2,961	3,072	3,165
Off-road Diesel	23,933	24,953	24,865	25,617	26,379	27,156
Off-road Gasoline	4,132	4,290	4,401	4,543	4,673	4,791
Off-road Natural Gas	659	659	646	648	640	640
<b>Residential</b>	<b>37,665</b>	<b>62,256</b>	<b>43,517</b>	<b>46,203</b>	<b>47,469</b>	<b>48,072</b>
Electricity – 3CE	870	22,121	403	428	440	445
Electricity – PG&E	38	41	44	47	48	49
Natural Gas	36,757	40,094	43,070	45,728	46,981	47,577
<b>Commercial/Industrial</b>	<b>48,552</b>	<b>89,362</b>	<b>49,396</b>	<b>50,619</b>	<b>51,992</b>	<b>53,321</b>
Electricity – 3CE	1,777	41,965	731	749	769	789
Electricity – PG&E	30	31	31	32	33	34
Natural Gas	46,745	47,366	48,634	49,838	51,190	52,498

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<b>GHG Emissions Source</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
<b>Wastewater</b>	<b>2,033</b>	<b>2,206</b>	<b>2,326</b>	<b>2,432</b>	<b>2,523</b>	<b>2,600</b>
Fugitive Emissions from Septic Systems	747	811	855	894	928	956
Process N <sub>2</sub> O from Wastewater Treatment	59	64	67	70	73	75
Process N <sub>2</sub> O from Effluent Discharge	1,227	1,331	1,404	1,468	1,522	1,569
<b>Solid Waste</b>	<b>81,176</b>	<b>88,079</b>	<b>92,900</b>	<b>29,037</b>	<b>30,121</b>	<b>31,036</b>
John Smith Landfill	56,908	61,747	65,127	0	0	0
Community Generated Solid Waste	24,268	26,332	27,773	29,037	30,121	31,036
<b>Agricultural</b>	<b>131,192</b>	<b>131,894</b>	<b>132,632</b>	<b>133,407</b>	<b>134,222</b>	<b>135,079</b>
Enteric Fermentation	13,728	14,430	15,168	15,943	16,758	17,615
Manure Management	98,039	98,039	98,039	98,039	98,039	98,039
Nitrogen Fertilizer Application	19,425	19,425	19,425	19,425	19,425	19,425
<b>Total</b>	<b>332,166</b>	<b>406,761</b>	<b>353,914</b>	<b>295,884</b>	<b>301,524</b>	<b>306,305</b>

Notes: Values in this table may not add up to totals due to rounding

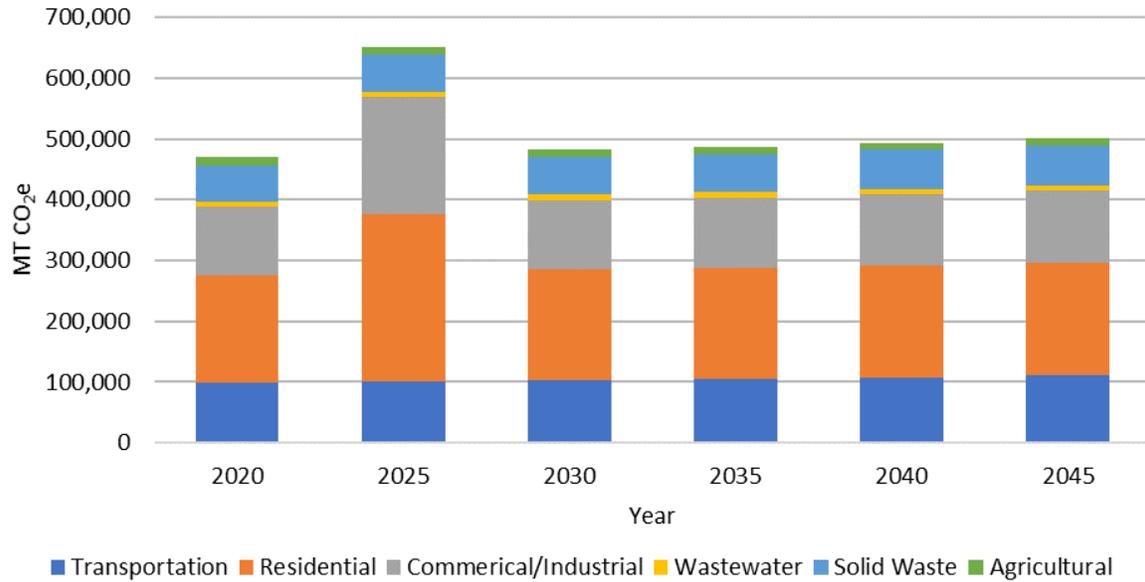
All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)

PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; N<sub>2</sub>O = nitrous oxide

### 3.6.3 Santa Cruz County BAU Forecast Results

The BAU forecast for Santa Cruz County estimates an increase in GHG emissions above the baseline 2019/2020 GHG emissions inventory from all sources through 2045. An increase in the GHG emissions factor for 3CE electricity leading up to 2025 is expected to create a sharp increase in GHG emissions associated with electricity and the overall GHG emissions for Santa Cruz County. The subsequent decrease of the 3CE electricity GHG emissions factor results in a leveling off of GHG emissions levels in 2030, at which point steady growth in GHG emissions continues through 2045. Figure 7 provides a summary of the BAU GHG emissions forecast, highlighting the contribution of each GHG emissions sector to the overall Santa Cruz County GHG emissions.

**Figure 7 Santa Cruz County BAU Forecast GHG Emissions Sector Summary**



A detailed summary of the Santa Cruz County BAU Forecast is provided in Table 20, with GHG emissions reported in MT CO<sub>2</sub>e.

**Table 20 Santa Cruz County BAU Forecast Detailed Summary**

GHG Emissions Source	2020	2025	2030	2035	2040	2045
<b>Transportation</b>	<b>98,304</b>	<b>100,845</b>	<b>103,048</b>	<b>105,624</b>	<b>107,917</b>	<b>110,759</b>
Aviation Gasoline Fuel Sales	1,301	1,329	1,355	1,378	1,402	1,418
JET-A Fuel Sales	931	951	970	986	1,003	1,015
Off-road Diesel	51,934	53,060	53,799	54,624	55,152	55,849
Off-road Gasoline	39,813	41,162	42,605	44,301	46,038	48,156
Off-road Natural Gas	4,325	4,344	4,320	4,334	4,322	4,322
<b>Residential</b>	<b>177,463</b>	<b>277,537</b>	<b>183,313</b>	<b>185,419</b>	<b>186,679</b>	<b>187,592</b>
Electricity – 3CE	4,136	99,192	1,713	1,733	1,745	1,753
Electricity – PG&E	21	21	22	22	22	22
Natural Gas	173,306	178,324	181,578	183,665	184,912	185,817
<b>Commercial/Industrial</b>	<b>112,479</b>	<b>192,126</b>	<b>113,772</b>	<b>115,986</b>	<b>118,347</b>	<b>120,824</b>
Electricity – 3CE	3,486	82,052	1,421	1,448	1,478	1,509
Electricity – PG&E	402	406	415	423	431	440
Natural Gas	108,591	109,668	111,937	114,115	116,438	118,875

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<b>GHG Emissions Source</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
<b>Wastewater</b>	<b>8,579</b>	<b>8,762</b>	<b>8,938</b>	<b>9,088</b>	<b>9,247</b>	<b>9,350</b>
Fugitive Emissions from Septic Systems	3,311	3,382	3,449	3,507	3,569	3,609
Process N <sub>2</sub> O from Wastewater Treatment	260	266	271	275	280	283
Process N <sub>2</sub> O from Effluent Discharge	5,008	5,115	5,218	5,305	5,398	5,459
<b>Solid Waste</b>	<b>59,595</b>	<b>60,870</b>	<b>62,092</b>	<b>63,113</b>	<b>64,218</b>	<b>64,935</b>
Buena Vista Landfill	19	20	20	0	0	0
Community Generated Solid Waste	59,576	60,850	62,072	63,113	64,218	64,935
<b>Agricultural</b>	<b>13,037</b>	<b>12,754</b>	<b>12,484</b>	<b>12,225</b>	<b>11,977</b>	<b>11,739</b>
Enteric Fermentation	6,564	6,281	6,010	5,751	5,504	5,266
Manure Management	5,652	5,652	5,652	5,652	5,652	5,652
Nitrogen Fertilizer Application	821	821	821	821	821	821
<b>Total</b>	<b>469,457</b>	<b>652,895</b>	<b>483,647</b>	<b>491,455</b>	<b>498,385</b>	<b>505,200</b>

Notes: Values in this table may not add up to totals due to rounding

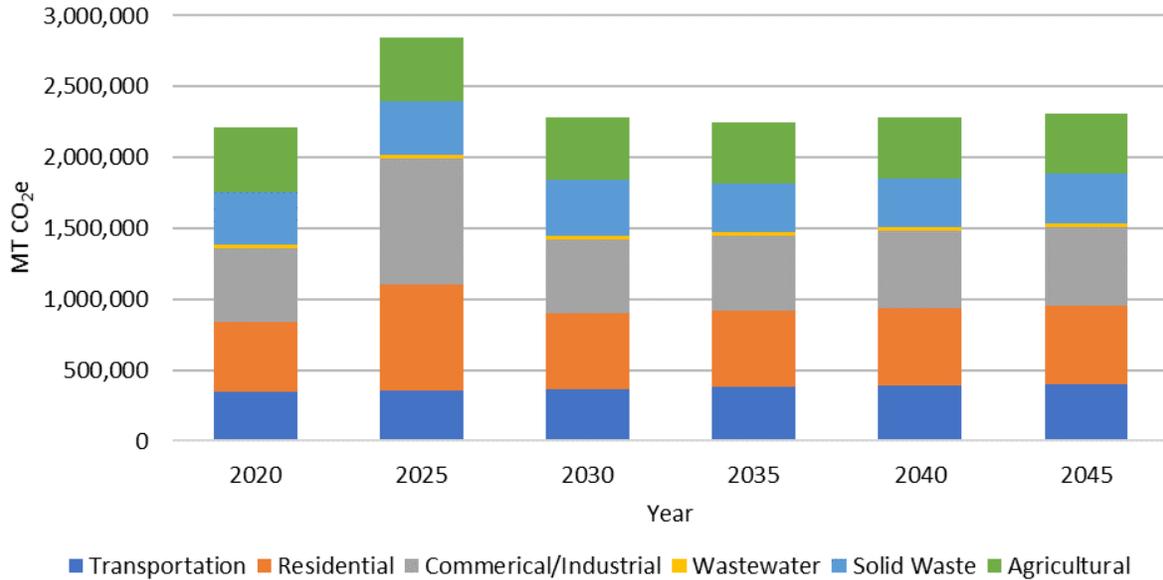
All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)

PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; N<sub>2</sub>O = nitrous oxide

### 3.6.4 AMBAG Regional BAU Forecast Results

The combined regional BAU forecast for AMBAG planning area projects an increase in GHG emissions above the baseline 2019/2020 GHG emissions inventory from most sources through 2045. Similar to the individual county BAU forecasts, an increase in the GHG emissions factor for 3CE electricity leading up to 2025 is expected to create a sharp increase in GHG emissions associated with electricity and the overall GHG emissions for the region. The subsequent decrease of the 3CE electricity GHG emissions factor results in a leveling off of GHG emissions levels in 2030, at which point steady growth in GHG emissions continues through 2045. Figure 8 provides a summary of the BAU GHG emissions forecast, highlighting the contribution of each GHG emissions sector to the overall AMBAG regional GHG emissions.

**Figure 8 AMBAG Regional BAU Forecast GHG Emissions Sector Summary**



A detailed summary of the AMBAG regional BAU Forecast is provided in Table 21, with GHG emissions reported in MT CO<sub>2</sub>e.

**Table 21 AMBAG Regional BAU Forecast Detailed Summary**

GHG Emissions Source	2020	2025	2030	2035	2040	2045
<b>Transportation</b>	<b>342,636</b>	<b>356,255</b>	<b>367,991</b>	<b>377,282</b>	<b>385,907</b>	<b>394,837</b>
Aviation Gasoline Fuel Sales	2,679	2,757	2,832	2,893	2,952	2,999
JET-A Fuel Sales	8,185	8,511	8,809	9,047	9,262	9,453
Monterey Regional Airport	41,282	42,106	43,244	44,044	44,798	45,549
Off-road Natural Gas	9,597	9,750	9,893	10,121	10,286	10,286
Off-road Diesel	185,994	194,694	200,923	204,450	207,365	210,524
Off-road Gasoline	94,899	98,437	102,290	106,728	111,244	116,026
<b>Residential</b>	<b>497,234</b>	<b>748,008</b>	<b>529,686</b>	<b>544,809</b>	<b>554,248</b>	<b>561,110</b>
Electricity – 3CE	10,043	242,780	4,277	4,395	4,468	4,520
Electricity – PG&E	109	115	121	126	129	131
Electricity – KCCP	2,744	2,840	2,978	3,080	3,148	3,200
Natural Gas	484,338	502,273	522,310	537,208	546,504	553,259

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<b>GHG Emissions Source</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
<b>Commercial/Industrial</b>	<b>516,010</b>	<b>885,826</b>	<b>520,981</b>	<b>530,588</b>	<b>540,967</b>	<b>551,773</b>
Electricity – 3CE	16,217	381,445	6,599	6,722	6,854	6,991
Electricity – PG&E	1,084	1,094	1,115	1,136	1,158	1,181
Electricity – KCCP	6,008	6,058	6,171	6,277	6,392	6,512
Natural Gas	492,701	497,230	507,095	516,454	526,563	537,089
<b>Wastewater</b>	<b>24,504</b>	<b>25,138</b>	<b>25,818</b>	<b>26,343</b>	<b>26,846</b>	<b>27,279</b>
Fugitive Emissions from Septic Systems	9,420	9,661	9,921	10,122	10,315	10,480
Process N <sub>2</sub> O from Wastewater Treatment	740	759	779	795	810	823
Process N <sub>2</sub> O from Effluent Discharge	14,345	14,718	15,117	15,426	15,722	15,976
<b>Solid Waste</b>	<b>374,139</b>	<b>386,974</b>	<b>399,453</b>	<b>341,135</b>	<b>347,584</b>	<b>353,461</b>
Monterey Peninsula Landfill	98,232	100,193	102,902	104,806	106,600	108,386
Johnson Canyon Sanitary Landfill	242	246	253	258	262	266
John Smith Landfill	56,908	61,747	65,127	0	0	0
Buena Vista Landfill	19	20	20	0	0	0
Community Generated Solid Waste	218,737	224,768	231,151	236,071	240,722	244,809
<b>Agricultural</b>	<b>455,098</b>	<b>447,513</b>	<b>440,489</b>	<b>433,995</b>	<b>428,001</b>	<b>422,481</b>
Enteric Fermentation	174,672	175,091	175,558	176,075	176,642	177,262
Manure Management	135,418	135,418	135,418	135,418	135,418	135,418
Nitrogen Fertilizer Application	145,008	137,004	129,513	122,502	115,942	109,802
<b>Total</b>	<b>2,209,621</b>	<b>2,849,715</b>	<b>2,284,416</b>	<b>2,254,152</b>	<b>2,283,554</b>	<b>2,310,941</b>

Notes: Values in this table may not add up to totals due to rounding

All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)

PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; KCCP = King City Community Power; N<sub>2</sub>O = nitrous oxide

## 4 Legislative Adjusted GHG Emissions Forecast

The Adjusted forecast accounts for GHG emissions reductions that can be reasonably expected from state legislation and regulations. While there are numerous pieces of legislation that are likely to achieve long-term GHG emissions reduction, there can be wide variations on how these are implemented within a specific jurisdiction. This section outlines the state legislation considered in the Adjusted forecast, the methodology used to calculate GHG emissions reduction from legislation, and the results of the Adjusted forecast.

### 4.1 California GHG Reduction Legislation

Several state regulations have been enacted that reduce the AMBAG planning area's GHG emissions during the forecast period. The impact of these regulations was quantified and incorporated into an Adjusted forecast to provide a more accurate depiction of future GHG emissions growth and the responsibility of GHG emissions reduction for each jurisdiction once established state regulations have been implemented. A description of the relevant state legislation and the applicability of legislative reductions to be applied to the BAU forecasts based on the unique sectors within the Monterey Bay area is provided in Table 22.

**Table 22 State Legislation Considered in GHG Emissions Forecast**

State Legislation Name	Description of Legislation	Considered in Forecast (Yes/No)	Reasoning for Inclusion/Exclusion
Senate Bill 1078 - Renewable Energy: California Renewables Portfolio Standard Program (2002)	Senate Bill 1078 created the Renewable Portfolio Standards (RPS) with an initial target of 20 percent renewable electricity by 2017, The California Public Utilities Commission (CPUC) regulates RPS rules for California's retail sellers of electricity. The California Energy Commission (CEC) administers the certification of electrical generation facilities as eligible renewable energy resources and regulates RPS requirements for public owned utilities. <sup>1</sup>	No	The RPS goals set by Senate Bill 1078 have since been superseded by Senate Bill 100, which established increased RPS requirements for retail electricity sales. Therefore, this bill is excluded from this GHG emissions forecast analysis.

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State Legislation Name	Description of Legislation	Considered in Forecast (Yes/No)	Reasoning for Inclusion/Exclusion
Building Energy Efficiency Standards - Title 24 (Triennial updates since 2007)	California’s energy code is designed to reduce wasteful and unnecessary energy consumption in newly constructed and existing buildings. The California Energy Commission updates the Building Energy Efficiency Standards (Title 24) every three years by working with stakeholders in a public and transparent process. The Title 24 was first implemented in 1978, and since 2007 has had consistent triennial updates. <sup>2,3</sup>	Yes	The 2019 Title 24 code cycle is included in the GHG emissions forecast analysis to show energy efficiency increases in this most recent code cycle for new construction, as compared to the previous 2016 cycle. Previous code cycles are inherently included in existing buildings covered by the baseline GHG inventory through use of real electricity consumption data in the GHG emissions calculations. Therefore, only the 2019 Title 24 code cycle is considered in this analysis.
Low Carbon Fuel Standards Program (2009)	The California Low Carbon Fuel Standards Regulation (LCFS) was approved in 2009, with subsequent amendments in 2011, 2015, and 2018. The program is intended to reduce the carbon intensity of the State’s transportation fuels, setting a goal for reducing the carbon intensity of the State fuel pool by at least 20 percent by 2030. The State provides financial incentives to increase the production of renewable and lower-carbon intensity fuels. <sup>4</sup>	No	The LCFS regulation includes flexibility in how the reduction in fuel carbon intensity will be achieved to allow for renewable fuel markets to develop innovative renewable and low-carbon fuel techniques. Eligible fuel carbon intensity reductions can occur during fuel processing and from use of renewable fuels. This means that there could be numerous pathways in which the GHG reductions through the LCFS program are achieved, and these may not be directly from the tailpipe emissions that are considered in the baseline GHG inventory. As such, GHG reductions from the LCFS regulation are not considered in this analysis.

State Legislation Name	Description of Legislation	Considered in Forecast (Yes/No)	Reasoning for Inclusion/Exclusion
Senate Bill X7-7 – Water Conservation Act (2009)	Senate Bill X7-7 requires that all water suppliers increase their water use efficiency. This bill establishes an urban water use reduction target of 20 percent below 2010 per capita daily water use levels by 2020. The most recent water use reduction targets are typically provided in 2015 Urban Water Management Plans (UWMPs). Many jurisdictions are currently in the process of developing 2020 UWMPs to provide updated detail on water use efficiency and reduction target progress. <sup>5</sup>	No	Senate Bill X7-7’s implementation results in GHG emissions reduction from reduced electricity consumption embedded in the water supply. These GHG reductions are not included in this analysis, because the proportion of total electricity consumption that could be attributed to water supply is not provided, and the attribution of any future energy consumption reductions would need to be disaggregated by each UWMP developed within the AMBAG planning area.
Assembly Bill 341 – Solid Waste Diversion (2011)	Assembly Bill 341 strives to reduce GHG emissions by diverting commercial solid waste to recycling efforts and to expand the opportunity for additional recycling services and recycling manufacturing facilities in California. The bill sets forth requirements of the statewide mandatory commercial recycling program, by requiring that commercial waste generators and multi-family residential dwellings arrange for recycling services. The bill sets specific requirements for waste reduction that are enforced by CalRecycle. A goal of 75 percent of solid waste generated be reduced, recycled, or composted by the year 2020. <sup>6</sup>	No	Assembly Bill 341 aims to reduce waste sent to landfill before 2020, with GHG reductions achieved through the avoidance of landfill generated methane. Since the GHG emissions forecast analysis is considered for a post-2020 timeframe, the GHG reductions of Assembly Bill 341 may have already been achieved prior to this time period. As such, accounting for this bill in the GHG emissions forecast could result in double counting of GHG emissions reduction that may have already been achieved.

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State Legislation Name	Description of Legislation	Considered in Forecast (Yes/No)	Reasoning for Inclusion/Exclusion
Senate Bill 350 – The Clean Energy and Pollution Reduction Act (2015)	Senate Bill 350 establishes an extension of the RPS requirements set by Senate Bill 1078, increasing RPS goals for retail electricity sales to 33 percent by 2020 and 50 percent by 2030. This bill also requires the state double statewide energy efficiency savings in electricity and natural gas end uses by 2030. The implementation of the energy efficiency savings is done through the increasingly stringent building code standards of Title 24, and the reinvestment of revenue into customer end use energy efficiency programs by large utilities. <sup>7</sup>	No	The RPS goals set by Senate Bill 350 have since been superseded by Senate Bill 100, which established increased RPS requirements for retail electricity sales. Additionally, the energy efficiency savings through this bill are partially accounted for through Title 24, which is accounted for in new construction in the GHG emissions forecast analysis. Since the energy efficiency savings targets include both Title 24 and additional energy efficiency programs, it is difficult to calculate to what degree this will reduce energy consumption in new construction versus existing buildings. Therefore, Title 24 is accounted for, but additional energy efficiency from this bill is not included.
Senate Bill 1383 – Short Lived Climate Pollutants (2016)	Senate Bill 1383 established a requirement that the California Air Resources Board implement a comprehensive strategy to reduce short lived climate pollutants emissions. This includes goals of reducing methane emissions by 40%, hydrofluorocarbon gases by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030, as specified. The bill also established reduction goals for landfilled organic waste of 50 percent below 2014 statewide disposal levels by 2020 and 75 percent below statewide disposal levels by 2025. <sup>8</sup>	No	The implementation of organic waste reduction is expected to decrease methane emissions generated through the disposal of solid waste throughout the State; however, the implementation of policies to influence this reduction can vary between and within jurisdictions. Specifically, within the AMBAG planning area, there are rural and low population areas that may be exempt from the requirements of Senate Bill 1383. Since there is uncertainty with how these exemptions may influence the total organic waste reduction within the AMBAG planning area, GHG reductions are conservatively excluded from the GHG emissions forecast analysis.

State Legislation Name	Description of Legislation	Considered in Forecast (Yes/No)	Reasoning for Inclusion/Exclusion
Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities (2017)	The Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities, or Oil and Gas Regulation is designed to reduce methane emissions from oil and gas production, processing, storage, and transmission compressor stations. Entities regulated under the State's Mandatory Greenhouse Gas Reporting Requirements (MRR) are required to take action to limit intentional and unintentional emissions from equipment and operation. <sup>9</sup>	No	The GHG emissions reduction associated with the Oil and Gas Regulation is specific to entities regulated under the MRR. These methane emissions are not considered in the baseline GHG inventory for the AMBAG planning region, as they are monitored and regulated by CARB. As such these GHG emissions reductions are not included in the GHG emissions forecast analysis.
Senate Bill 100 - California Renewables Portfolio Standard Program: emissions of greenhouse gases (2018)	Senate Bill 100 provides an extension of the RPS targets established by Senate Bill 1078, creating additional targets of achieving 60 percent eligible RPS electricity retail sales by 2030, and 100 percent zero-carbon or RPS eligible retail sales by 2045. This bill also sets an exclusion of large hydroelectric energy generation as an RPS eligible renewable energy source. <sup>10</sup>	Yes	The RPS goals set by Senate Bill 100 are included in this GHG emissions forecast analysis. As all retail providers of electricity will be required by the state to meet the established RPS goals, it is appropriate to include the associated reductions in GHG emissions from future electricity consumption.

<sup>1</sup> California Legislative Information. 2002. SB-1078 Renewable energy: California Renewables Portfolio Standard Program. Available: [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=200120020SB1078](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200120020SB1078). Accessed June 23, 2021.

<sup>2</sup> California Energy Commission. ND. Building Energy Efficiency Standards - Title 24. Available: <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards>. Accessed June 23, 2021.

<sup>3</sup> California Energy Commission. ND. Past Building Energy Efficiency Standards. Available: <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/past-building-energy-efficiency>. Accessed June 23, 2021.

<sup>4</sup> California Air Resources Board. 2020. Low Carbon Fuel Standards Basics. Available: <https://ww2.arb.ca.gov/sites/default/files/2020-09/basics-notes.pdf>. Accessed June 23, 2021.

<sup>5</sup> California Department of Water Resources. ND. SB X7-7. Available: <https://water.ca.gov/Programs/Water-Use-And-Efficiency/SB-X7-7>. Accessed June 23, 2021.

<sup>6</sup> CalRecycle. 2021. Mandatory Commercial Recycling. Available: <https://www.calrecycle.ca.gov/recycle/commercial>. Accessed June 23, 2021.

<sup>7</sup> California Legislative Information. 2015. SB-350 Clean Energy and Pollution Reduction Act of 2015. Available: [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201520160SB350](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB350). Accessed June 23, 2021.

<sup>8</sup> California Legislative Information. 2016. SB-1383 Short-lived climate pollutants: methane emissions: dairy and livestock: organic waste: landfills. Available: [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201520160SB1383](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB1383). Accessed June 23, 2021.

<sup>9</sup> University of California, Berkeley, Center for Law, Energy and the Environment. California Climate Policy Factsheet: Methane. Available: <https://www.law.berkeley.edu/wp-content/uploads/2019/11/Fact-Sheet-Methane.pdf>. Accessed June 23, 2021.

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<sup>10</sup> California Legislative Information. 2018. SB-100 California Renewables Portfolio Standard Program: emissions of greenhouse gases. Available: [https://leginfo.ca.gov/faces/billNavClient.xhtml?bill\\_id=201720180SB100](https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100). Accessed June 23, 2021.

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A description of the methodology used to calculate GHG emissions reduction associated with the relevant legislation is provided in this section.

### **4.1.1 Title 24**

The California Code of Regulations Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption, which in turn reduces fossil fuel consumption and associated GHG emissions. The standards are updated triennially to allow consideration and possible incorporation of new energy-efficient technologies and methods. Since the 2018 inventory year, the 2019 Title 24 Energy Efficiency Standards have come into effect, creating significantly more efficient new building stock. Starting in 2020, new residential developments will include on-site solar generation and near-zero net energy use. For projects implemented after January 1, 2020, the California Energy Commission (CEC) estimates that the 2019 standards will reduce electricity and fuel consumption by 53 percent and 7 percent, respectively, for residential buildings and 30 percent reduction in electricity consumption for commercial buildings, relative to the 2016 standards.<sup>21</sup> These percentage savings relate to heating, cooling, lighting, and water heating only and do not include other appliances, outdoor lighting that is not attached to buildings, plug loads, or other energy uses. Since commercial/industrial energy consumption is likely to include additional energy consumption from commercial/industrial processes, and a detailed understanding of the energy use in commercial/industrial buildings is not available, the reductions associated with commercial buildings is conservatively excluded for GHG emissions reduction calculations in this analysis.

### **4.1.2 Renewables Portfolio Standard & SB 100**

Established in 2002 under Senate Bill 1078, enhanced in 2015 by Senate Bill 350, and accelerated in 2018 under SB 100, California's Renewables Portfolio Standard (RPS) is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities, publicly owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 50 percent of total procurement by 2026 and 60 percent of total procurement by 2030. With the adoption of SB 100, the RPS program further requires these entities to increase procurement from GHG-free electricity sources to 100 percent of total procurement by 2045.

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<sup>21</sup> California Energy Commission. 2018. 2019 Building Energy Efficiency Standards *Frequently Asked Questions*. Available: [https://www.energy.ca.gov/sites/default/files/2020-03/Title\\_24\\_2019\\_Building\\_Standards\\_FAQ\\_ada.pdf](https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf). Accessed June 21, 2021.

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## 4.2 Legislative GHG Reduction Calculations

The following section provides an overview of the methodology used to calculate GHG emissions reduction from Title 24 and SB 100.

### 4.2.1 Title 24 GHG Emissions Reduction Calculations

The calculations and GHG emissions forecast assume that all growth in the residential sector is from new construction. Accordingly, Title 24 GHG emissions reduction for natural gas and electricity are calculated as a percentage of the projected increase in energy consumption above the baseline 2019/2020 GHG emissions inventory, under the BAU forecast, as provided in Table 23. While both Title 24 and SB 100 influence GHG emissions reductions in the electricity sector, double counting of these reductions is avoided by accounting for Title 24 reductions first, and then accounting for reductions from SB 100.

**Table 23 Energy Consumption Reduction Impact of Title 24**

GHG Emissions Source	Reduction in Energy Consumption Growth Above 2019/2020 baseline
Residential Electricity	53%
Residential Natural Gas	7%

Data Source: California Energy Commission. 2018. 2019 Building Energy Efficiency Standards Frequently Asked Questions. Available: [https://www.energy.ca.gov/sites/default/files/2020-03/Title\\_24\\_2019\\_Building\\_Standards\\_FAQ\\_ada.pdf](https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf). Accessed June 21, 2021.

### 4.2.2 SB 100 GHG Emissions Reduction Calculations

Pacific Gas and Electric (PG&E), 3CE, and King City Community Power (KCCP) currently provide electricity in the AMBAG planning area and are subject to SB 100 requirements. GHG emissions from electricity consumption are largely determined by the emissions factor associated with the supplied electricity. As the percentage of GHG-free sources of energy increases, the emissions factor associated with electricity GHG will decrease, thereby decreasing overall GHG emissions. Legislative GHG emissions reductions from SB 100 are calculated as the difference between GHG emissions under the BAU forecast electricity and GHG emissions calculated using a SB 100 adjusted GHG emissions factor for a given forecast year. An adjusted GHG emission factors can be calculated by scaling the baseline electricity GHG emissions factor with the RPS percentage for eligible renewable electricity required for compliance with SB 100.

Each of the electricity providers in the AMBAG planning area had different electricity GHG emissions factors that were a result of different RPS percentages in their electricity delivery mix. As part of the BAU forecast, 3CE's 2030 emissions factor would reach the 100 percent RPS compliance rate. However, the GHG emission factors provided by 3CE show that a small amount of GHG emissions are expected to be generated by the 3CE electricity supply in 2030. To simplify calculations, it is expected that reaching the 100 percent RPS compliance, beyond 2030 for 3CE, would result in a GHG emission factors of zero for grid supplied electricity by

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the 2035 forecast year. The RPS percentages and associated GHG emissions factors used to determine the Adjusted forecast electricity GHG emissions are provided in Table 24. All GHG emissions factors have been converted from kilowatt-hour (kWh) to Megawatt-hour (MWh) in the table below.<sup>22</sup>

**Table 24 Electricity Provider Forecasted RPS and Electricity GHG Emissions Factors**

Sector	2020 (Baseline)	2025	2030	2035	2040	2045
<b>Pacific Gas and Electric</b>						
Renewable Portfolio Standard Percentage	29%	45%	60%	73%	87%	100%
Adjusted Electricity Emissions Factor (MT CO <sub>2</sub> e/MWh)	0.0021285	0.0016636	0.0011990	0.0007993	0.0003997	0.0000000
<b>Central Coast Community Energy</b>						
Renewable Portfolio Standard Percentage	33%	60%	100%	100%	100%	100%
Adjusted Electricity Emissions Factor (MT CO <sub>2</sub> e/MWh)	0.007608	0.177300	0.003007	0.000000	0.000000	0.000000
<b>King City Community Power</b>						
Renewable Portfolio Standard Percentage	28%	44%	60%	73%	87%	100%
Adjusted Electricity Emissions Factor (MT CO <sub>2</sub> e/MWh)	0.226138	0.175798	0.125458	0.083639	0.041819	0.000000

Notes: MT CO<sub>2</sub>e = metric tons of carbon dioxide equivalent; MWh = Megawatt-hour

### 4.3 Monterey County Adjusted Forecast Results

State legislation is expected to result in GHG emissions reduction from the BAU forecast in both the residential and commercial/industrial sectors for Monterey County. Title 24 is expected to reduce GHG emissions from reduced electricity and natural gas consumption in new residential housing units. SB 100 is expected to further reduce GHG emissions in the residential sector through reduced GHG emissions associated with electricity generation, as well as similar reductions in the commercial/industrial sector. The expected legislative reductions from SB 100 and Title 24 in Monterey County are summarized in Table 25.

<sup>22</sup> 1 Megawatt-hour = 1000 kilowatt-hours.

**Table 25 Monterey County Legislative GHG Emissions Reduction**

<b>GHG Emissions Source</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
<b>Title 24 Reduction</b>	<b>2,895</b>	<b>1,853</b>	<b>2,658</b>	<b>3,197</b>	<b>3,613</b>
<b>Residential</b>	<b>2,895</b>	<b>1,853</b>	<b>2,658</b>	<b>3,197</b>	<b>3,613</b>
Electricity - 3CE	2,173	90	129	155	175
Electricity - PG&E	1	2	3	4	5
Electricity - KCCP	51	124	178	214	242
Natural Gas	671	1,637	2,348	2,823	3,191
<b>Commercial/Industrial</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
Electricity - 3CE	NA	NA	NA	NA	NA
Electricity - PG&E	NA	NA	NA	NA	NA
Electricity - KCCP	NA	NA	NA	NA	NA
Natural Gas	NA	NA	NA	NA	NA
<b>SB 100 Reduction</b>	<b>2,124</b>	<b>4,333</b>	<b>12,873</b>	<b>14,944</b>	<b>17,073</b>
<b>Residential</b>	<b>632</b>	<b>1,294</b>	<b>3,968</b>	<b>4,564</b>	<b>5,160</b>
Electricity - 3CE	0	0	2,105	2,128	2,146
Electricity - PG&E	11	23	34	44	55
Electricity - KCCP	621	1,271	1,829	2,391	2,959
<b>Commercial/Industrial</b>	<b>1,492</b>	<b>3,039</b>	<b>8,905</b>	<b>10,380</b>	<b>11,913</b>
Electricity - 3CE	0	0	4,524	4,607	4,694
Electricity - PG&E	143	292	425	563	706
Electricity - KCCP	1,349	2,747	3,955	5,210	6,512
<b>Total Reduction</b>	<b>5,020</b>	<b>6,187</b>	<b>15,531</b>	<b>18,140</b>	<b>20,686</b>

Notes: Values in this table may not add up to totals due to rounding

All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)

NA = not applicable; PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; KCCP = King City Community Power; N<sub>2</sub>O = nitrous oxide

A detailed summary of the Monterey County Adjusted Forecast is provided in Table 26, with GHG emissions reported in MT CO<sub>2</sub>e.

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**Table 26 Monterey County Adjusted Forecast Detailed Summary**

<b>GHG Emissions Source</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
<b>Transportation</b>	<b>212,784</b>	<b>222,446</b>	<b>231,800</b>	<b>237,473</b>	<b>242,793</b>	<b>247,881</b>
Aviation Gasoline Fuel Sales	1,030	1,051	1,079	1,099	1,118	1,137
JET-A Fuel Sales	4,779	4,875	5,006	5,099	5,186	5,273
Monterey Regional Airport	41,282	42,106	43,244	44,044	44,798	45,549
Off-road Natural Gas	4,613	4,748	4,927	5,139	5,324	5,324
Off-road Diesel	110,126	116,681	122,258	124,209	125,834	127,519
Off-road Gasoline	50,954	52,986	55,285	57,883	60,533	63,079
<b>Residential</b>	<b>282,106</b>	<b>404,688</b>	<b>299,709</b>	<b>306,561</b>	<b>312,339</b>	<b>316,673</b>
Electricity – 3CE	5,036	119,294	2,071	0	0	0
Electricity – PG&E	51	41	30	20	10	0
Electricity – KCCP	2,744	2,168	1,583	1,073	543	0
Natural Gas	274,275	283,185	296,025	305,467	311,787	316,673
<b>Commercial/Industrial</b>	<b>354,978</b>	<b>602,846</b>	<b>354,773</b>	<b>355,078</b>	<b>360,248</b>	<b>365,716</b>
Electricity – PG&E	652	514	377	256	130	0
Electricity – 3CE	10,954	257,428	4,448	0	0	0
Electricity – KCCP	6,008	4,709	3,423	2,322	1,182	0
Natural Gas	337,365	340,196	346,525	352,501	358,936	365,716
<b>Wastewater</b>	<b>13,893</b>	<b>14,170</b>	<b>14,553</b>	<b>14,823</b>	<b>15,076</b>	<b>15,329</b>
Fugitive Emissions from Septic Systems	5,362	5,469	5,617	5,721	5,818	5,916
Process N <sub>2</sub> O from Wastewater Treatment	421	429	441	449	457	465
Process N <sub>2</sub> O from Effluent Discharge	8,110	8,272	8,496	8,653	8,801	8,949
<b>Solid Waste</b>	<b>233,367</b>	<b>238,025</b>	<b>244,460</b>	<b>248,985</b>	<b>253,246</b>	<b>257,490</b>
Monterey Peninsula Landfill	98,232	100,193	102,902	104,806	106,600	108,386
Johnson Canyon Sanitary Landfill	242	246	253	258	262	266
Community Generated Solid Waste	134,893	137,586	141,305	143,921	146,384	148,837

GHG Emissions Source	2020	2025	2030	2035	2040	2045
<b>Agricultural</b>	<b>310,869</b>	<b>302,864</b>	<b>295,373</b>	<b>288,363</b>	<b>281,802</b>	<b>275,663</b>
Enteric Fermentation	154,380	154,380	154,380	154,380	154,380	154,380
Manure Management	31,727	31,727	31,727	31,727	31,727	31,727
Nitrogen Fertilizer Application	124,762	116,757	109,266	102,256	95,695	89,556
<b>Total</b>	<b>1,407,997</b>	<b>1,785,039</b>	<b>1,440,669</b>	<b>1,451,283</b>	<b>1,465,504</b>	<b>1,478,752</b>

Notes: Values in this table may not add up to totals due to rounding

All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)

PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; KCCP = King City Community Power; N<sub>2</sub>O = nitrous oxide

#### 4.4 San Benito County Adjusted Forecast Results

State legislation is expected to result in GHG emissions reduction from the BAU forecast in both the residential and commercial/industrial sectors for San Benito County. Title 24 is expected to reduce GHG emissions from reduced electricity and natural gas consumption in new residential housing units. SB 100 is expected to further reduce GHG emissions in the residential sector through reduced GHG emissions associated with electricity generation, as well as similar reductions in the commercial/industrial sector. The expected legislative reductions from SB 100 and Title 24 in San Benito County are summarized in Table 27.

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**Table 27 San Benito County Legislative GHG Emissions Reduction**

<b>GHG Emissions Source</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
<b>Title 24 Reduction</b>	<b>1,211</b>	<b>477</b>	<b>677</b>	<b>772</b>	<b>817</b>
<b>Residential</b>	<b>1,211</b>	<b>477</b>	<b>677</b>	<b>772</b>	<b>817</b>
Electricity - 3CE	976	31	44	51	54
Electricity - PG&E	2	3	5	6	6
Natural Gas	234	442	628	716	757
<b>Commercial/Industrial</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
Electricity - 3CE	NA	NA	NA	NA	NA
Electricity - PG&E	NA	NA	NA	NA	NA
Natural Gas	NA	NA	NA	NA	NA
<b>SB 100 Reduction</b>	<b>15</b>	<b>32</b>	<b>1,179</b>	<b>1,220</b>	<b>1,257</b>
<b>Residential</b>	<b>9</b>	<b>18</b>	<b>410</b>	<b>424</b>	<b>435</b>
Electricity - 3CE	0	0	383	389	392
Electricity - PG&E	9	18	26	35	43
<b>Commercial/Industrial</b>	<b>7</b>	<b>14</b>	<b>769</b>	<b>796</b>	<b>823</b>
Electricity - 3CE	0	0	749	769	789
Electricity - PG&E	7	14	20	27	34
<b>Total Reduction</b>	<b>1,227</b>	<b>508</b>	<b>1,856</b>	<b>1,992</b>	<b>2,074</b>

Notes: Values in this table may not add up to totals due to rounding

All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)

NA = not applicable; PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; KCCP = King City Community Power; N<sub>2</sub>O = nitrous oxide

A detailed summary of the San Benito County Adjusted Forecast is provided in Table 28, with GHG emissions reported in MT CO<sub>2</sub>e.

**Table 28 San Benito County Adjusted Forecast Detailed Summary**

<b>GHG Emissions Source</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
<b>Transportation</b>	<b>31,548</b>	<b>32,965</b>	<b>33,142</b>	<b>34,186</b>	<b>35,196</b>	<b>36,197</b>
Aviation Gasoline Fuel Sales	348	377	398	416	432	445
JET-A Fuel Sales	2,475	2,685	2,832	2,961	3,072	3,165
Off-road Diesel	23,933	24,953	24,865	25,617	26,379	27,156
Off-road Gasoline	4,132	4,290	4,401	4,543	4,673	4,791
Off-road Natural Gas	659	659	646	648	640	640
<b>Residential</b>	<b>37,665</b>	<b>61,036</b>	<b>43,023</b>	<b>45,116</b>	<b>46,274</b>	<b>46,820</b>
Electricity – 3CE	870	21,145	372	0	0	0
Electricity – PG&E	38	31	23	16	8	0
Natural Gas	36,757	39,861	42,628	45,100	46,266	46,820
<b>Commercial/Industrial</b>	<b>48,552</b>	<b>89,355</b>	<b>49,382</b>	<b>49,850</b>	<b>51,196</b>	<b>52,498</b>
Electricity – 3CE	1,777	41,965	731	0	0	0
Electricity – PG&E	30	24	18	12	6	0
Natural Gas	46,745	47,366	48,634	49,838	51,190	52,498
<b>Wastewater</b>	<b>2,033</b>	<b>2,206</b>	<b>2,326</b>	<b>2,432</b>	<b>2,523</b>	<b>2,600</b>
Fugitive Emissions from Septic Systems	747	811	855	894	928	956
Process N <sub>2</sub> O from Wastewater Treatment	59	64	67	70	73	75
Process N <sub>2</sub> O from Effluent Discharge	1,227	1,331	1,404	1,468	1,522	1,569
<b>Solid Waste</b>	<b>81,176</b>	<b>88,079</b>	<b>92,900</b>	<b>29,037</b>	<b>30,121</b>	<b>31,036</b>
John Smith Landfill	56,908	61,747	65,127	0	0	0
Community Generated Solid Waste	24,268	26,332	27,773	29,037	30,121	31,036
<b>Agricultural</b>	<b>131,192</b>	<b>131,894</b>	<b>132,632</b>	<b>133,407</b>	<b>134,222</b>	<b>135,079</b>
Enteric Fermentation	13,728	14,430	15,168	15,943	16,758	17,615
Manure Management	98,039	98,039	98,039	98,039	98,039	98,039
Nitrogen Fertilizer Application	19,425	19,425	19,425	19,425	19,425	19,425
<b>Total</b>	<b>332,166</b>	<b>405,535</b>	<b>353,406</b>	<b>294,028</b>	<b>299,532</b>	<b>304,230</b>

Notes: Values in this table may not add up to totals due to rounding

All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)

PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; N<sub>2</sub>O = nitrous oxide

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**4.5 Santa Cruz County Adjusted Forecast Results**

State legislation is expected to result in GHG emissions reduction from the BAU forecast in both the residential and commercial/industrial sectors for Santa Cruz County. Title 24 is expected to reduce GHG emissions from reduced electricity and natural gas consumption in new residential housing units. SB 100 is expected to further reduce GHG emissions in the residential sector through reduced GHG emissions associated with electricity generation, as well as similar reductions in the commercial/industrial sector. The expected legislative reductions from SB 100 and Title 24 in Santa Cruz County are summarized in Table 29.

**Table 29 Santa Cruz County Legislative GHG Emissions Reductions**

<b>GHG Emissions Source</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
<b>Title 24 Reduction</b>	<b>1,831</b>	<b>621</b>	<b>778</b>	<b>871</b>	<b>939</b>
<b>Residential</b>	<b>1,831</b>	<b>621</b>	<b>778</b>	<b>871</b>	<b>939</b>
Electricity - 3CE	1,479	41	52	58	63
Electricity - PG&E	0	1	1	1	1
Natural Gas	351	579	725	812	876
<b>Commercial/Industrial</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
Electricity - 3CE	NA	NA	NA	NA	NA
Electricity - PG&E	NA	NA	NA	NA	NA
Natural Gas	NA	NA	NA	NA	NA
<b>SB 100 Reduction</b>	<b>93</b>	<b>190</b>	<b>3,406</b>	<b>3,532</b>	<b>3,661</b>
<b>Residential</b>	<b>5</b>	<b>9</b>	<b>1,694</b>	<b>1,704</b>	<b>1,712</b>
Electricity - 3CE	0	0	1,681	1,687	1,691
Electricity - PG&E	5	9	13	17	21
<b>Commercial/Industrial</b>	<b>89</b>	<b>181</b>	<b>1,712</b>	<b>1,828</b>	<b>1,949</b>
Electricity - 3CE	0	0	1,448	1,478	1,509
Electricity - PG&E	89	181	264	350	440
<b>Total Reduction</b>	<b>1,924</b>	<b>811</b>	<b>4,184</b>	<b>4,403</b>	<b>4,600</b>

Notes: Values in this table may not add up to totals due to rounding

All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)

NA = not applicable; PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; KCCP = King City Community Power; N<sub>2</sub>O = nitrous oxide

A detailed summary of the Santa Cruz County Adjusted Forecast is provided in Table 30, with GHG emissions reported in MT CO<sub>2</sub>e.

**Table 30 Santa Cruz County Adjusted Forecast Detailed Summary**

<b>GHG Emissions Source</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
<b>Transportation</b>	<b>98,304</b>	<b>100,845</b>	<b>103,048</b>	<b>105,624</b>	<b>107,917</b>	<b>110,759</b>
Aviation Gasoline Fuel Sales	1,301	1,329	1,355	1,378	1,402	1,418
JET-A Fuel Sales	931	951	970	986	1,003	1,015
Off-road Diesel	51,934	53,060	53,799	54,624	55,152	55,849
Off-road Gasoline	39,813	41,162	42,605	44,301	46,038	48,156
Off-road Natural Gas	4,325	4,344	4,320	4,334	4,322	4,322
<b>Residential</b>	<b>177,463</b>	<b>275,701</b>	<b>182,683</b>	<b>182,948</b>	<b>184,104</b>	<b>184,941</b>
Electricity – 3CE	4,136	97,713	1,672	0	0	0
Electricity – PG&E	21	16	12	8	4	0
Natural Gas	173,306	177,972	180,999	182,940	184,100	184,941
<b>Commercial/Industrial</b>	<b>112,479</b>	<b>192,038</b>	<b>113,591</b>	<b>114,274</b>	<b>116,519</b>	<b>118,875</b>
Electricity – 3CE	3,486	82,052	1,421	0	0	0
Electricity – PG&E	402	318	234	159	81	0
Natural Gas	108,591	109,668	111,937	114,115	116,438	118,875
<b>Wastewater</b>	<b>8,579</b>	<b>8,762</b>	<b>8,938</b>	<b>9,088</b>	<b>9,247</b>	<b>9,350</b>
Fugitive Emissions from Septic Systems	3,311	3,382	3,449	3,507	3,569	3,609
Process N <sub>2</sub> O from Wastewater Treatment	260	266	271	275	280	283
Process N <sub>2</sub> O from Effluent Discharge	5,008	5,115	5,218	5,305	5,398	5,459
<b>Solid Waste</b>	<b>59,595</b>	<b>60,870</b>	<b>62,092</b>	<b>63,113</b>	<b>64,218</b>	<b>64,935</b>
Buena Vista Landfill	19	20	20	0	0	0
Community Generated Solid Waste	59,576	60,850	62,072	63,113	64,218	64,935
<b>Agricultural</b>	<b>13,037</b>	<b>12,754</b>	<b>12,484</b>	<b>12,225</b>	<b>11,977</b>	<b>11,739</b>
Enteric Fermentation	6,564	6,281	6,010	5,751	5,504	5,266
Manure Management	5,652	5,652	5,652	5,652	5,652	5,652
Nitrogen Fertilizer Application	821	821	821	821	821	821
<b>Total</b>	<b>469,457</b>	<b>650,971</b>	<b>482,836</b>	<b>487,271</b>	<b>493,981</b>	<b>500,600</b>

Notes: Values in this table may not add up to totals due to rounding

All values are of the unit metric tons of carbon dioxide equivalent (MT CO<sub>2</sub>e)

PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; N<sub>2</sub>O = nitrous oxide

**2045 MTP/SCS and Regional Transportation Plans for Monterey, San Benito, and Santa Cruz Counties**

**4.6 AMBAG Regional Adjusted Forecast Results**

Consistent with the three counties in the AMBAG planning area, state legislation is expected to result in GHG emissions reduction from the BAU forecast in both the residential and commercial/industrial sectors for the region. Title 24 is expected to reduce GHG emissions from reduced electricity and natural gas consumption in new residential housing units. SB 100 is expected to further reduce GHG emissions in the residential sector through reduced GHG emissions associated with electricity generation, as well as similar reductions in the commercial/industrial sector. The expected legislative reductions from SB 100 and Title 24 for the AMBAG planning area are summarized in Table 31.

**Table 31 AMBAG Regional Legislative GHG Emissions Reduction**

<b>GHG Emissions Source</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
<b>Title 24 Reduction</b>	<b>5,937</b>	<b>2,951</b>	<b>4,113</b>	<b>4,840</b>	<b>5,369</b>
<b>Residential</b>	<b>5,937</b>	<b>2,951</b>	<b>4,113</b>	<b>4,840</b>	<b>5,369</b>
Electricity - 3CE	4,628	163	225	264	292
Electricity - PG&E	3	6	9	10	11
Electricity - KCCP	51	124	178	214	242
Natural Gas	1,256	2,658	3,701	4,352	4,825
<b>Commercial/Industrial</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
Electricity - 3CE	NA	NA	NA	NA	NA
Electricity - PG&E	NA	NA	NA	NA	NA
Electricity - KCCP	NA	NA	NA	NA	NA
Natural Gas	NA	NA	NA	NA	NA
<b>SB 100 Reduction</b>	<b>2,233</b>	<b>4,555</b>	<b>17,458</b>	<b>19,695</b>	<b>21,991</b>
<b>Residential</b>	<b>645</b>	<b>1,321</b>	<b>6,072</b>	<b>6,692</b>	<b>7,306</b>
Electricity - 3CE	0	0	4,170	4,204	4,228
Electricity - PG&E	25	50	73	96	119
Electricity - KCCP	621	1,271	1,829	2,391	2,959
<b>Commercial/Industrial</b>	<b>1,587</b>	<b>3,234</b>	<b>11,386</b>	<b>13,004</b>	<b>14,685</b>
Electricity - 3CE	0	0	6,722	6,854	6,991
Electricity - PG&E	239	487	709	940	1,181
Electricity - KCCP	1,349	2,747	3,955	5,210	6,512
<b>Total Reduction</b>	<b>8,170</b>	<b>7,506</b>	<b>21,571</b>	<b>24,535</b>	<b>27,360</b>

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NA = not applicable; PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; KCCP = King City Community Power; N<sub>2</sub>O = nitrous oxide

A detailed summary of the AMBAG regional Adjusted forecast is provided in Table 32, with GHG emissions reported in MT CO<sub>2</sub>e.

**Table 32 AMBAG Regional Adjusted Forecast Detailed Summary**

<b>GHG Emissions Source</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
<b>Transportation</b>	<b>342,636</b>	<b>356,255</b>	<b>367,991</b>	<b>377,283</b>	<b>385,907</b>	<b>394,837</b>
Aviation Gasoline Fuel Sales	2,679	2,757	2,832	2,893	2,952	2,999
JET-A Fuel Sales	8,185	8,511	8,809	9,047	9,262	9,453
Monterey Regional Airport	41,282	42,106	43,244	44,044	44,798	45,549
Off-road Natural Gas	9,597	9,750	9,893	10,121	10,286	10,286
Off-road Diesel	185,994	194,694	200,923	204,450	207,365	210,524
Off-road Gasoline	94,899	98,437	102,290	106,728	111,244	116,026
<b>Residential</b>	<b>497,234</b>	<b>741,426</b>	<b>525,414</b>	<b>534,624</b>	<b>542,717</b>	<b>548,435</b>
Electricity – 3CE	10,043	238,152	4,114	0	0	0
Electricity – PG&E	109	88	65	44	22	0
Electricity – KCCP	2,744	2,168	1,583	1,073	543	0
Natural Gas	484,338	501,018	519,652	533,507	542,152	548,435
<b>Commercial/Industrial</b>	<b>516,010</b>	<b>884,239</b>	<b>517,746</b>	<b>519,202</b>	<b>527,963</b>	<b>537,089</b>
Electricity – 3CE	16,217	381,445	6,599	0	0	0
Electricity – PG&E	1,084	855	628	427	217	0
Electricity – KCCP	6,008	4,709	3,423	2,322	1,182	0
Natural Gas	492,701	497,230	507,095	516,454	526,563	537,089
<b>Wastewater</b>	<b>24,504</b>	<b>25,138</b>	<b>25,818</b>	<b>26,343</b>	<b>26,846</b>	<b>27,279</b>
Fugitive Emissions from Septic Systems	9,420	9,661	9,921	10,122	10,315	10,480
Process N <sub>2</sub> O from Wastewater Treatment	740	759	779	795	810	823
Process N <sub>2</sub> O from Effluent Discharge	14,345	14,718	15,117	15,426	15,722	15,976
<b>Solid Waste</b>	<b>374,139</b>	<b>386,974</b>	<b>399,453</b>	<b>341,135</b>	<b>347,584</b>	<b>353,461</b>
Monterey Peninsula Landfill	98,232	100,193	102,902	104,806	106,600	108,386
Johnson Canyon Sanitary Landfill	242	246	253	258	262	266
John Smith Landfill	56,908	61,747	65,127	0	0	0
Buena Vista Landfill	19	20	20	0	0	0
Community Generated Solid Waste	218,737	224,768	231,151	236,071	240,722	244,809

Association of Monterey Bay Area Governments  
**2045 MTP/SCS and Regional Transportation Plans for Monterey, San Benito, and Santa Cruz Counties**

<b>GHG Emissions Source</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
<b>Agricultural</b>	<b>455,098</b>	<b>447,513</b>	<b>440,489</b>	<b>433,995</b>	<b>428,001</b>	<b>422,481</b>
Enteric Fermentation	258,071	258,071	258,071	258,071	258,071	258,071
Manure Management	51,973	51,973	51,973	51,973	51,973	51,973
Nitrogen Fertilizer Application	145,054	137,469	130,445	123,951	117,957	112,437
<b>Total</b>	<b>2,209,620</b>	<b>2,841,545</b>	<b>2,276,910</b>	<b>2,232,582</b>	<b>2,259,018</b>	<b>2,283,582</b>

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# Appendix F

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AB 52 Consultation



August 12, 2020

Monica Arellano  
Muwekma Ohlone Indian Tribe of the SF Bay Area  
20885 Redwood Road  
Suite 232  
Castro Valley, CA 94546

**SUBJECT: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 of 2014). Formal Notification of Project Undertaking, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC).**

Dear Ms. Arellano:

AMBAG will be undertaking preparation of the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), and will serve as the 2045 MTP/SCS EIR lead agency.

Attached is the Notice of Preparation for the 2045 MTP/SCS EIR, which includes a description of the proposed project, a map showing the project location, and the name of our project point of contact, pursuant to PRC § 21080.3.1 (d).

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with AMBAG.

Very Respectfully,

Heather Adamson  
Director of Planning

Attachment



**Notice of Preparation for an Environmental Impact Report**

**2045 Metropolitan Transportation Plan/Sustainable Communities Strategy  
2045 Regional Transportation Plans for San Benito, Santa Cruz, and Monterey Counties**

Notice is hereby given that the Association of Monterey Bay Area Governments (AMBAG) will be the lead agency in partnership with the Council of San Benito County Governments (SBtCOG), the Santa Cruz County Regional Transportation Commission (SCCRTC), and the Transportation Agency for Monterey County (TAMC), who are responsible agencies, for the preparation of an Environmental Impact Report (EIR) for the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). SBtCOG, SCCRTC, and TAMC are the state-designated Regional Transportation Planning Agencies (RTPAs) for San Benito, Santa Cruz, and Monterey counties, respectively. Each RTPA prepares a county-level long-range Regional Transportation Plan (RTP) that is consistent with the AMBAG 2045 MTP/SCS.

Pursuant to section 15082 of the California Environmental Quality Act (CEQA), AMBAG is soliciting your views on the scope and contents of the 2045 MTP/SCS EIR. The Draft EIR will be a Program EIR. A Program EIR is an EIR that may be prepared on a series of actions that can be characterized as one large project and acts as the first tier of environmental review. The EIR will serve as the Program EIR for the AMBAG 2045 MTP/SCS and as the Program EIR for the RTPs prepared by the RTPAs for San Benito, Santa Cruz, and Monterey counties.

The project description, location, environmental review requirements, and probable environmental effects to be addressed in the EIR are discussed below. An Initial Study is not attached and is not required, in accordance with State CEQA Guidelines Section 15060(d).

The 2045 MTP/SCS will guide the development of the Regional and Federal Transportation Improvement Programs (RTIP and FTIP) as well as other transportation programming documents and plans throughout San Benito, Santa Cruz and Monterey counties. The 2045 MTP/SCS outlines the region's goals and policies for meeting current and future mobility needs and identifies programs, actions, and a plan of projects intended to address these needs consistent with adopted goals and policies. The Regional Transportation Plans for the counties of San Benito, Santa Cruz, and Monterey are developed for each of the counties to provide a sound basis for the allocation of state and federal transportation funds to transportation projects within each county for a long-range timeframe. The Regional Transportation Plans address major forms of transportation, and include the priorities and actions embodied in the plans prepared by each of the county's cities and unincorporated areas.

The SCS component of the MTP/SCS is required by California Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008 (SB 375). SB 375 mandates regional greenhouse gas reduction targets for passenger vehicles and, pursuant to that law, the California Air Resources Board has established 2020 and 2035 greenhouse gas reduction targets for each region covered by one of the state's metropolitan planning

organizations (MPOs). AMBAG is required to prepare an SCS that demonstrates how its greenhouse gas reduction targets could feasibly be met through integrated land use, housing, and transportation planning.

Mail comments on the EIR scope and contents to Heather Adamson at AMBAG, **24580 Silver Cloud Court, Monterey, California 93940** or e-mail comments to [hadamson@ambag.org](mailto:hadamson@ambag.org) no later than **February 14, 2020**.

For more information, visit [www.ambag.org](http://www.ambag.org) or call (831) 883-3750.

**AMBAG will host a series of EIR Scoping Meetings/Public Workshops.** The purpose of the meetings is to solicit input on the scope and content of the environmental analysis that will be included in the Draft EIR, to inform the public of the 2045 MTP/SCS, as well as solicit public input on the 2045 MTP/SCS. The date, time and location of the meetings are as follows:

- **In Santa Cruz on January 22, 2020** from 6:00 PM to 7:30 PM at the Live Oak Community Room - Simpkins Center - 979 17th Ave, Santa Cruz, CA
- **In Hollister on January 23, 2020** from 6:00 PM to 7:30 PM at the San Benito County Board of Supervisors Chambers - 481 4th Street, Hollister, CA
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## **PROJECT DESCRIPTION AND SCOPE OF ENVIRONMENTAL ANALYSIS**

### **Project Title**

AMBAG 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy, SBtCOG 2045 Regional Transportation Plan, SCCRTC 2045 Regional Transportation Plan and TAMC 2045 Regional Transportation Plan

### **Project Location**

The geographical extent of the proposed 2045 MTP/SCS includes San Benito, Santa Cruz and Monterey counties, and all incorporated cities and unincorporated areas contained therein. The geographical extent for each RTPA's Regional Transportation Plan is the boundary for each respective county, including its incorporated and unincorporated areas. See location map at the end of this NOP.

### **Project Description**

As the MPO for the tri-county region of Monterey, San Benito, and Santa Cruz counties, AMBAG is charged with developing a 2045 MTP/SCS. The 2045 MTP/SCS is the metropolitan long-range transportation plan for Monterey, San Benito, and Santa Cruz counties. SBtCOG, SCCRTC, and TAMC are the state-designated RTPAs for San Benito, Santa Cruz and Monterey counties, respectively. Each RTPA prepares a county-level long-range RTP, which will be evaluated in this EIR. The 2045 MTP/SCS is used to guide the development of the Regional and Federal Transportation Improvement Programs, as

well as other transportation programming documents and plans. The MTP outlines the region's goals and policies for meeting current and future mobility needs, providing a foundation for transportation decisions by local, regional, and State officials that are ultimately aimed at achieving a coordinated and balanced transportation system. The 2045 MTP/SCS sets forth actions, programs, and projects to address these needs consistent with adopted policies and goals. The 2045 MTP/SCS also documents the financial resources needed to implement the plan.

The EIR will serve as the Program EIR for the AMBAG 2045 MTP/SCS as well as the Program EIR for the RTPs prepared by the RTPAs for San Benito, Santa Cruz, and Monterey counties.

The Sustainable Communities and Climate Protection Act of 2008 (SB 375, Steinberg) enhances California's ability to reach its greenhouse gas emissions reduction goals by promoting coordinated planning with the goal of creating more sustainable communities. SB 375 mandates regional greenhouse gas emission reduction targets for passenger vehicles. Pursuant to SB 375, the California Air Resources Board established targets for 2020 and 2035 for each region covered by one of the State's 18 MPOs. AMBAG, as the regional MPO, must prepare a SCS that demonstrates how the region will meet its greenhouse gas reduction target through integrated land use, housing, and transportation planning.

AMBAG is currently preparing the 2045 MTP/SCS for the region. The 2045 MTP/SCS EIR will analyze the plan's impacts on the physical environment and identify measures to avoid or mitigate significant environmental effects. It also will be an informational document intended to inform public decisionmakers, responsible or interested agencies, and the general public of the potential environmental effects of a project.

If the targets established by the California Air Resources Board cannot be feasibly met, an Alternative Planning Strategy (APS) would be prepared by AMBAG to show how the targets would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

The transportation component of the MTP/SCS will include road and transit networks, non-motorized transportation, and transportation strategies and policies. Furthermore, SB 375 requires that the SCS identify general land uses, residential densities, and building intensities as well as areas to house future residents, including housing to accommodate the eight-year Regional Housing Needs Assessment (RHNA) (see California Government Code Section 65080(b)(2)(B) for the full list of SB 375 requirements for the MTP/SCS). The RHNA must be consistent with the SCS.

The RTPs for the counties of San Benito, Santa Cruz, and Monterey are developed for each of the counties to provide a sound basis for the allocation of state and federal transportation funds to transportation projects within each county over a long-range timeframe through 2045. The RTPs address all forms of transportation, and include the priorities and actions embodied in the plans prepared by each of the county's cities and unincorporated areas. The RTPs follow guidelines established by the State of California's Transportation Commission (CTC) to describe the transportation issues and needs facing

each county; identify goals and policies for how each county will meet its needs; identify the amount of money that will be available for needed projects; and include a list of prioritized transportation projects to serve each county's long-term needs within the projected "budget" of transportation revenues with consideration towards environmental impacts, land use, and special transportation needs.

### **Impacts to Be Addressed in the EIR**

AMBAG, with input from the RTPAs for San Benito, Santa Cruz, and Monterey counties, is currently reviewing SCS scenarios to assess how future land use and transportation changes could achieve a coordinated and balanced regional transportation system while reducing greenhouse gas emissions from passenger vehicles and light trucks to meet the regional greenhouse gas reduction targets set by CARB. Following public review and input, the AMBAG Board of Directors will select a preferred SCS scenario. The EIR will evaluate the environmental effects of the preferred SCS scenario in detail.

The 2045 MTP/SCS EIR will analyze the potential for significant environmental effects for the following resource topics:

- Aesthetics/Visual Resources
- Agriculture and Forestry Resources
- Air Quality and Health Impacts/Risks
- Biological Resources
- Climate Change/Greenhouse Gases
- Cultural and Historic Resources
- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Transportation
- Tribal Cultural Resources
- Wildfire

The EIR also will also address cumulative impacts and growth inducing impacts.

### **Preliminary MTP/SCS Project Alternatives Scenarios**

The EIR also will evaluate the environmental impacts of alternative scenarios. The analysis of alternatives will focus on various land use and transportation scenarios that make different assumptions regarding the combinations of future land uses and transportation system improvements. The following preliminary MTP/SCS project alternatives may be addressed in the EIR:

- **No Project Alternative** – The No Project Alternative is required by CEQA. For this EIR, the No Project Alternative is defined as a land use base comprised of existing land use

plans and a transportation network comprised of committed transportation projects.

- **Active Transportation Mode and Transit Prioritized Alternative** – The Active Transportation Mode and Transit Prioritized Alternative would prioritize active transportation projects (e.g., bike lanes, pedestrian improvements) and public transit projects (e.g., bus stops, bus lanes) over projects that would improve or add to the road system that primarily serves personal motor vehicles. Thus, this alternative would encourage more active transportation and transit use in the region at an earlier date.
- **Intensified Land Use Alternative** – The Intensified Land Use Distribution Alternative will analyze a more compact land use pattern that further concentrates the forecasted population and employment growth in areas identified for more intensified use.

## 2045 MTP/SCS Location Map



*Imagery provided by ESRI and its licensors © 2017.*


**Project Location  
(County Boundaries)**

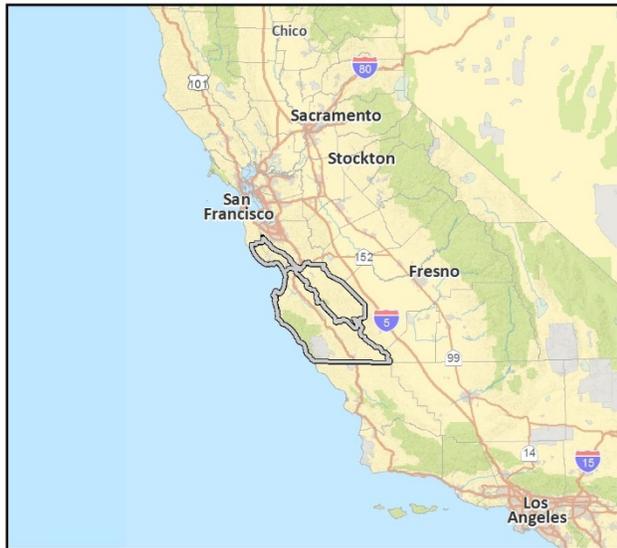


Fig 2 Project Location



August 12, 2020

Christanne Arias  
Vice Chairperson  
Ohlone/Castanoan-Esselen Nation  
519 Viejo Gabriel  
Soledad, CA 93960

**SUBJECT: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 of 2014). Formal Notification of Project Undertaking, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC).**

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## 2045 MTP/SCS Location Map



*Imagery provided by ESRI and its licensors © 2017.*


**Project Location  
(County Boundaries)**

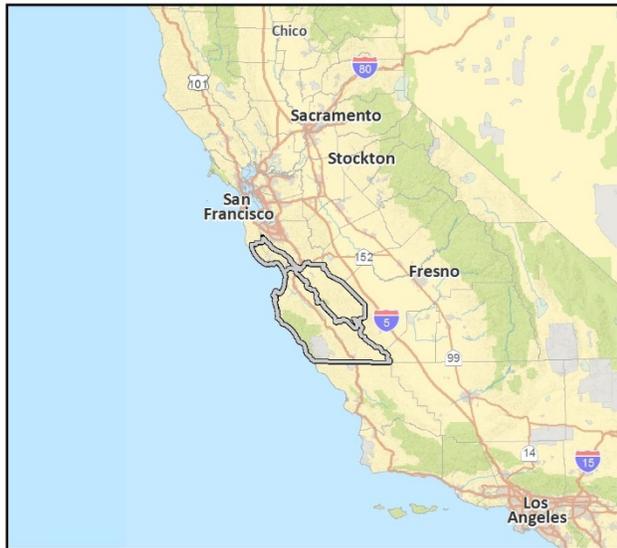


Fig 2 Project Location



August 12, 2020

Isaac Bojorquez

Chairman

Kokoon Ta Ruk Band of Ohlone-Costanoan Indians of the Big Sur Rancheria

P.O. Box 541

Esparto, CA 95627

**SUBJECT: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 of 2014). Formal Notification of Project Undertaking, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC).**

Dear Mr. Bojoquez:

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Attached is the Notice of Preparation for the 2045 MTP/SCS EIR, which includes a description of the proposed project, a map showing the project location, and the name of our project point of contact, pursuant to PRC § 21080.3.1 (d).

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with AMBAG.

Very Respectfully,

Heather Adamson

Director of Planning

Attachment



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**2045 Metropolitan Transportation Plan/Sustainable Communities Strategy  
2045 Regional Transportation Plans for San Benito, Santa Cruz, and Monterey Counties**

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The SCS component of the MTP/SCS is required by California Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008 (SB 375). SB 375 mandates regional greenhouse gas reduction targets for passenger vehicles and, pursuant to that law, the California Air Resources Board has established 2020 and 2035 greenhouse gas reduction targets for each region covered by one of the state's metropolitan planning

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## **PROJECT DESCRIPTION AND SCOPE OF ENVIRONMENTAL ANALYSIS**

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The geographical extent of the proposed 2045 MTP/SCS includes San Benito, Santa Cruz and Monterey counties, and all incorporated cities and unincorporated areas contained therein. The geographical extent for each RTPA's Regional Transportation Plan is the boundary for each respective county, including its incorporated and unincorporated areas. See location map at the end of this NOP.

### **Project Description**

As the MPO for the tri-county region of Monterey, San Benito, and Santa Cruz counties, AMBAG is charged with developing a 2045 MTP/SCS. The 2045 MTP/SCS is the metropolitan long-range transportation plan for Monterey, San Benito, and Santa Cruz counties. SBtCOG, SCCRTC, and TAMC are the state-designated RTPAs for San Benito, Santa Cruz and Monterey counties, respectively. Each RTPA prepares a county-level long-range RTP, which will be evaluated in this EIR. The 2045 MTP/SCS is used to guide the development of the Regional and Federal Transportation Improvement Programs, as

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Project Location  
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 N

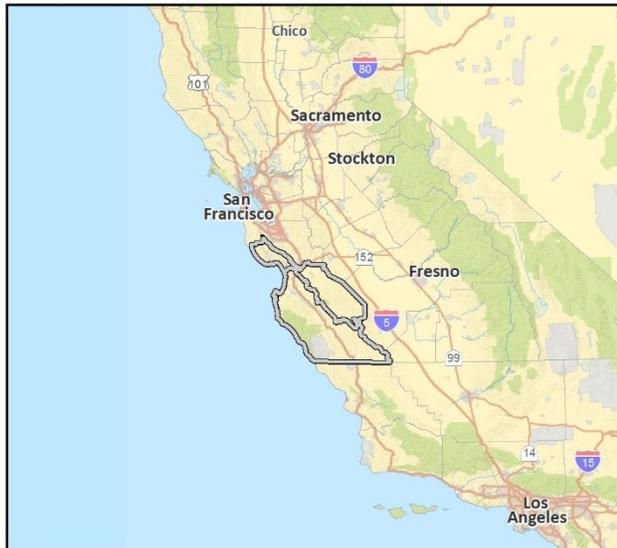


Fig 2. Project Location



August 12, 2020

Tony Cerda  
Chairperson  
Costanoan Rumsen Carmel Tribe  
244 E. 1<sup>st</sup> Street  
Pomona, CA 91766

**SUBJECT: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 of 2014). Formal Notification of Project Undertaking, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC).**

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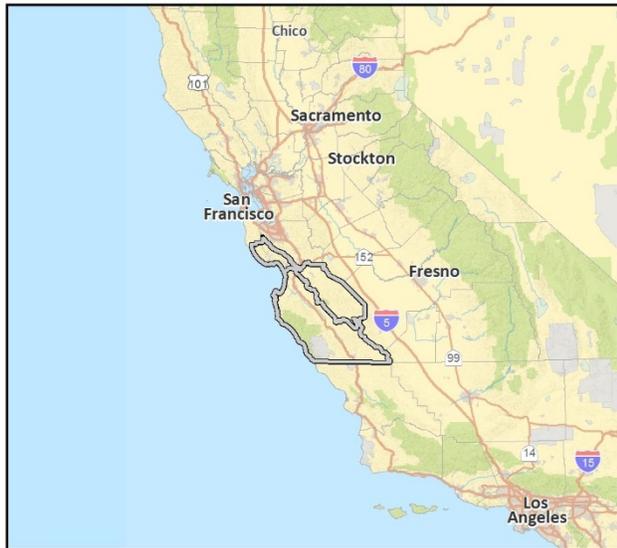


Fig 2. Project Location



August 12, 2020

Valentin Lopez  
Chairperson  
Amah Mutsun Tribal Band  
P.O. Box 5272  
Galt, CA 95632

**SUBJECT: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 of 2014). Formal Notification of Project Undertaking, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC).**

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*Imagery provided by ESRI and its licensors © 2017.*


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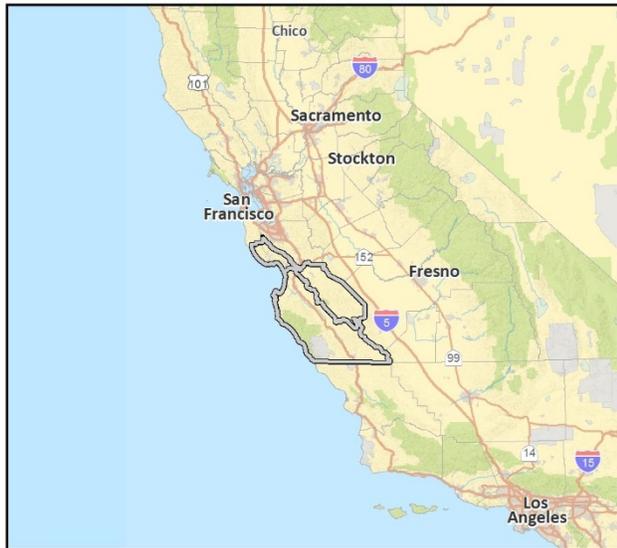


Fig 2. Project Location



August 12, 2020

Tom Little Bear Nason  
Chairman  
Esselen Tribe of Monterey County  
P.O. Box 95  
Carmel Valley, CA 93924

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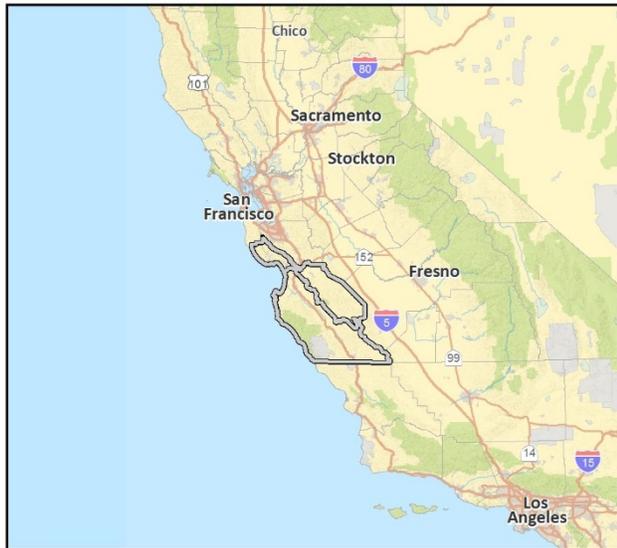


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August 12, 2020

Charlene Nijmeh  
Chairperson  
Muwekma Ohlone Indian Tribe of the SF Bay Area  
20885 Redwood Road  
Suite 232  
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## 2045 MTP/SCS Location Map



*Imagery provided by ESRI and its licensors © 2017.*


**Project Location**  
 (County Boundaries)
 

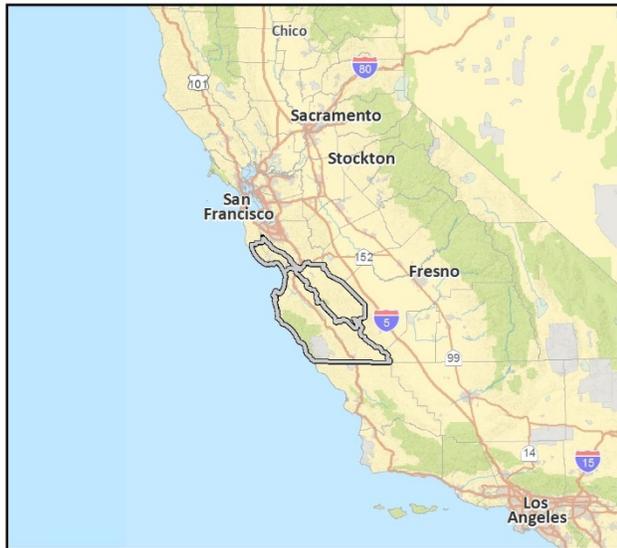


Fig 2. Project Location



August 12, 2020

Patrick Orozco  
Chairman  
Costanoan Ohlone Rumsen-Mutsun Tribe  
644 Peartree Drive  
Watsonville, CA 95076

**SUBJECT: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 of 2014). Formal Notification of Project Undertaking, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC).**

Dear Mr. Orozco:

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Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with AMBAG.

Very Respectfully,

Heather Adamson  
Director of Planning

Attachment



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**2045 Metropolitan Transportation Plan/Sustainable Communities Strategy  
2045 Regional Transportation Plans for San Benito, Santa Cruz, and Monterey Counties**

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The SCS component of the MTP/SCS is required by California Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008 (SB 375). SB 375 mandates regional greenhouse gas reduction targets for passenger vehicles and, pursuant to that law, the California Air Resources Board has established 2020 and 2035 greenhouse gas reduction targets for each region covered by one of the state's metropolitan planning

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The geographical extent of the proposed 2045 MTP/SCS includes San Benito, Santa Cruz and Monterey counties, and all incorporated cities and unincorporated areas contained therein. The geographical extent for each RTPA's Regional Transportation Plan is the boundary for each respective county, including its incorporated and unincorporated areas. See location map at the end of this NOP.

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AMBAG is currently preparing the 2045 MTP/SCS for the region. The 2045 MTP/SCS EIR will analyze the plan's impacts on the physical environment and identify measures to avoid or mitigate significant environmental effects. It also will be an informational document intended to inform public decisionmakers, responsible or interested agencies, and the general public of the potential environmental effects of a project.

If the targets established by the California Air Resources Board cannot be feasibly met, an Alternative Planning Strategy (APS) would be prepared by AMBAG to show how the targets would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

The transportation component of the MTP/SCS will include road and transit networks, non-motorized transportation, and transportation strategies and policies. Furthermore, SB 375 requires that the SCS identify general land uses, residential densities, and building intensities as well as areas to house future residents, including housing to accommodate the eight-year Regional Housing Needs Assessment (RHNA) (see California Government Code Section 65080(b)(2)(B) for the full list of SB 375 requirements for the MTP/SCS). The RHNA must be consistent with the SCS.

The RTPs for the counties of San Benito, Santa Cruz, and Monterey are developed for each of the counties to provide a sound basis for the allocation of state and federal transportation funds to transportation projects within each county over a long-range timeframe through 2045. The RTPs address all forms of transportation, and include the priorities and actions embodied in the plans prepared by each of the county's cities and unincorporated areas. The RTPs follow guidelines established by the State of California's Transportation Commission (CTC) to describe the transportation issues and needs facing

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The 2045 MTP/SCS EIR will analyze the potential for significant environmental effects for the following resource topics:

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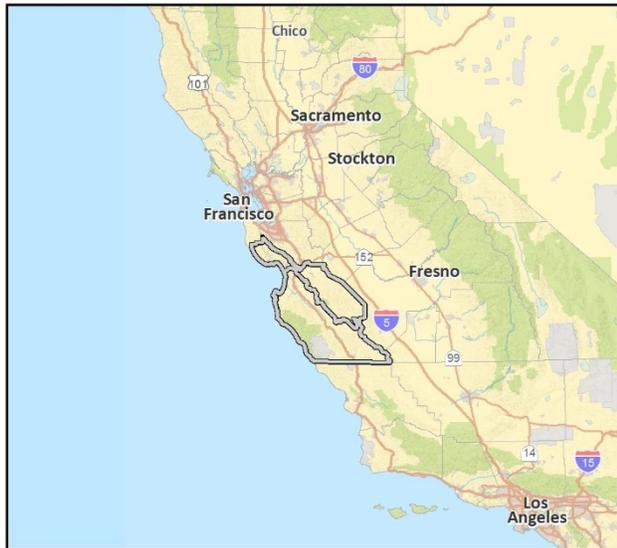


Fig 2. Project Location



August 12, 2020

Louise Miranda-Ramirez  
Chairperson  
Ohlone/Costanoan-Esselen Nation  
P.O. Box 1301  
Monterey, CA 93942

**SUBJECT: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 of 2014). Formal Notification of Project Undertaking, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC).**

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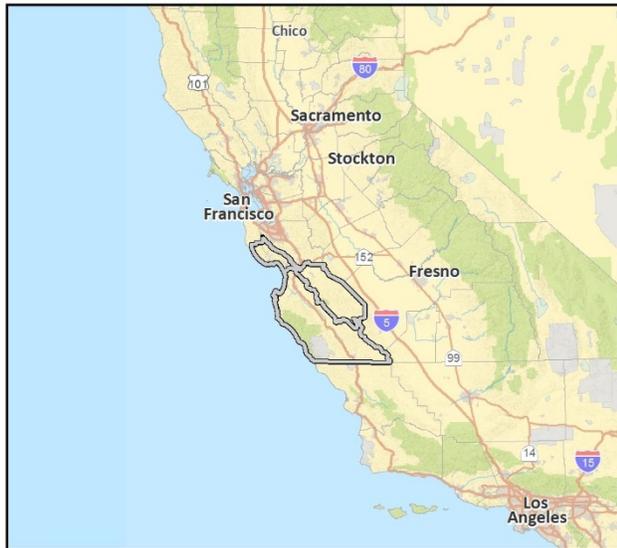


Fig 2. Project Location



August 12, 2020

Ann Marie Sayers  
Chairperson  
Indian Canyon Mutsun Band of Costanoan  
P.O. Box 28  
Hollister, CA 95024

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As the MPO for the tri-county region of Monterey, San Benito, and Santa Cruz counties, AMBAG is charged with developing a 2045 MTP/SCS. The 2045 MTP/SCS is the metropolitan long-range transportation plan for Monterey, San Benito, and Santa Cruz counties. SBtCOG, SCCRTC, and TAMC are the state-designated RTPAs for San Benito, Santa Cruz and Monterey counties, respectively. Each RTPA prepares a county-level long-range RTP, which will be evaluated in this EIR. The 2045 MTP/SCS is used to guide the development of the Regional and Federal Transportation Improvement Programs, as

well as other transportation programming documents and plans. The MTP outlines the region's goals and policies for meeting current and future mobility needs, providing a foundation for transportation decisions by local, regional, and State officials that are ultimately aimed at achieving a coordinated and balanced transportation system. The 2045 MTP/SCS sets forth actions, programs, and projects to address these needs consistent with adopted policies and goals. The 2045 MTP/SCS also documents the financial resources needed to implement the plan.

The EIR will serve as the Program EIR for the AMBAG 2045 MTP/SCS as well as the Program EIR for the RTPs prepared by the RTPAs for San Benito, Santa Cruz, and Monterey counties.

The Sustainable Communities and Climate Protection Act of 2008 (SB 375, Steinberg) enhances California's ability to reach its greenhouse gas emissions reduction goals by promoting coordinated planning with the goal of creating more sustainable communities. SB 375 mandates regional greenhouse gas emission reduction targets for passenger vehicles. Pursuant to SB 375, the California Air Resources Board established targets for 2020 and 2035 for each region covered by one of the State's 18 MPOs. AMBAG, as the regional MPO, must prepare a SCS that demonstrates how the region will meet its greenhouse gas reduction target through integrated land use, housing, and transportation planning.

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If the targets established by the California Air Resources Board cannot be feasibly met, an Alternative Planning Strategy (APS) would be prepared by AMBAG to show how the targets would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

The transportation component of the MTP/SCS will include road and transit networks, non-motorized transportation, and transportation strategies and policies. Furthermore, SB 375 requires that the SCS identify general land uses, residential densities, and building intensities as well as areas to house future residents, including housing to accommodate the eight-year Regional Housing Needs Assessment (RHNA) (see California Government Code Section 65080(b)(2)(B) for the full list of SB 375 requirements for the MTP/SCS). The RHNA must be consistent with the SCS.

The RTPs for the counties of San Benito, Santa Cruz, and Monterey are developed for each of the counties to provide a sound basis for the allocation of state and federal transportation funds to transportation projects within each county over a long-range timeframe through 2045. The RTPs address all forms of transportation, and include the priorities and actions embodied in the plans prepared by each of the county's cities and unincorporated areas. The RTPs follow guidelines established by the State of California's Transportation Commission (CTC) to describe the transportation issues and needs facing

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### **Impacts to Be Addressed in the EIR**

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The 2045 MTP/SCS EIR will analyze the potential for significant environmental effects for the following resource topics:

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The EIR also will also address cumulative impacts and growth inducing impacts.

### **Preliminary MTP/SCS Project Alternatives Scenarios**

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## 2045 MTP/SCS Location Map



*Imagery provided by ESRI and its licensors © 2017.*

Project Location  
 (County Boundaries)
 
 N

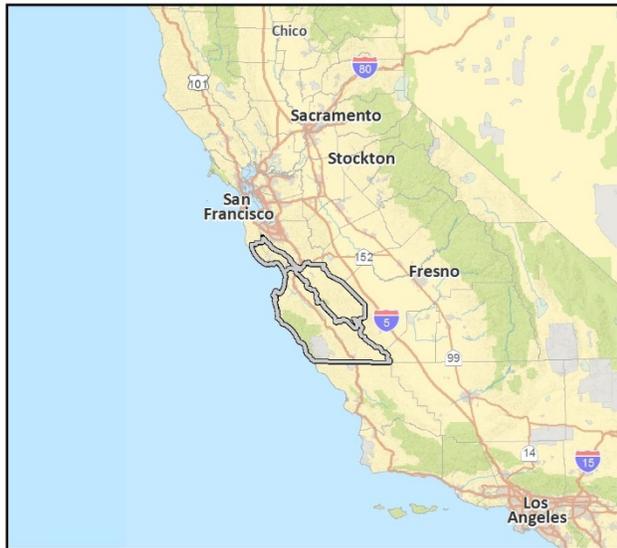


Fig 2. Project Location



August 12, 2020

Fredrick Segobia  
Tribal Representative  
Salinan Tribe of Monterey, San Luis Obispo Counties  
7070 Morro Road  
Suite A  
Atascadero, CA 93422

**SUBJECT: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 of 2014). Formal Notification of Project Undertaking, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC).**

Dear Mr. Segobia:

AMBAG will be undertaking preparation of the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), and will serve as the 2045 MTP/SCS EIR lead agency.

Attached is the Notice of Preparation for the 2045 MTP/SCS EIR, which includes a description of the proposed project, a map showing the project location, and the name of our project point of contact, pursuant to PRC § 21080.3.1 (d).

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with AMBAG.

Very Respectfully,

Heather Adamson  
Director of Planning

Attachment



**Notice of Preparation for an Environmental Impact Report**

**2045 Metropolitan Transportation Plan/Sustainable Communities Strategy  
2045 Regional Transportation Plans for San Benito, Santa Cruz, and Monterey Counties**

Notice is hereby given that the Association of Monterey Bay Area Governments (AMBAG) will be the lead agency in partnership with the Council of San Benito County Governments (SBtCOG), the Santa Cruz County Regional Transportation Commission (SCCRTC), and the Transportation Agency for Monterey County (TAMC), who are responsible agencies, for the preparation of an Environmental Impact Report (EIR) for the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). SBtCOG, SCCRTC, and TAMC are the state-designated Regional Transportation Planning Agencies (RTPAs) for San Benito, Santa Cruz, and Monterey counties, respectively. Each RTPA prepares a county-level long-range Regional Transportation Plan (RTP) that is consistent with the AMBAG 2045 MTP/SCS.

Pursuant to section 15082 of the California Environmental Quality Act (CEQA), AMBAG is soliciting your views on the scope and contents of the 2045 MTP/SCS EIR. The Draft EIR will be a Program EIR. A Program EIR is an EIR that may be prepared on a series of actions that can be characterized as one large project and acts as the first tier of environmental review. The EIR will serve as the Program EIR for the AMBAG 2045 MTP/SCS and as the Program EIR for the RTPs prepared by the RTPAs for San Benito, Santa Cruz, and Monterey counties.

The project description, location, environmental review requirements, and probable environmental effects to be addressed in the EIR are discussed below. An Initial Study is not attached and is not required, in accordance with State CEQA Guidelines Section 15060(d).

The 2045 MTP/SCS will guide the development of the Regional and Federal Transportation Improvement Programs (RTIP and FTIP) as well as other transportation programming documents and plans throughout San Benito, Santa Cruz and Monterey counties. The 2045 MTP/SCS outlines the region's goals and policies for meeting current and future mobility needs and identifies programs, actions, and a plan of projects intended to address these needs consistent with adopted goals and policies. The Regional Transportation Plans for the counties of San Benito, Santa Cruz, and Monterey are developed for each of the counties to provide a sound basis for the allocation of state and federal transportation funds to transportation projects within each county for a long-range timeframe. The Regional Transportation Plans address major forms of transportation, and include the priorities and actions embodied in the plans prepared by each of the county's cities and unincorporated areas.

The SCS component of the MTP/SCS is required by California Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008 (SB 375). SB 375 mandates regional greenhouse gas reduction targets for passenger vehicles and, pursuant to that law, the California Air Resources Board has established 2020 and 2035 greenhouse gas reduction targets for each region covered by one of the state's metropolitan planning

organizations (MPOs). AMBAG is required to prepare an SCS that demonstrates how its greenhouse gas reduction targets could feasibly be met through integrated land use, housing, and transportation planning.

Mail comments on the EIR scope and contents to Heather Adamson at AMBAG, **24580 Silver Cloud Court, Monterey, California 93940** or e-mail comments to [hadamson@ambag.org](mailto:hadamson@ambag.org) no later than **February 14, 2020**.

For more information, visit [www.ambag.org](http://www.ambag.org) or call (831) 883-3750.

**AMBAG will host a series of EIR Scoping Meetings/Public Workshops.** The purpose of the meetings is to solicit input on the scope and content of the environmental analysis that will be included in the Draft EIR, to inform the public of the 2045 MTP/SCS, as well as solicit public input on the 2045 MTP/SCS. The date, time and location of the meetings are as follows:

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## **PROJECT DESCRIPTION AND SCOPE OF ENVIRONMENTAL ANALYSIS**

### **Project Title**

AMBAG 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy, SBtCOG 2045 Regional Transportation Plan, SCCRTC 2045 Regional Transportation Plan and TAMC 2045 Regional Transportation Plan

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The geographical extent of the proposed 2045 MTP/SCS includes San Benito, Santa Cruz and Monterey counties, and all incorporated cities and unincorporated areas contained therein. The geographical extent for each RTPA's Regional Transportation Plan is the boundary for each respective county, including its incorporated and unincorporated areas. See location map at the end of this NOP.

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**Project Location  
(County Boundaries)**

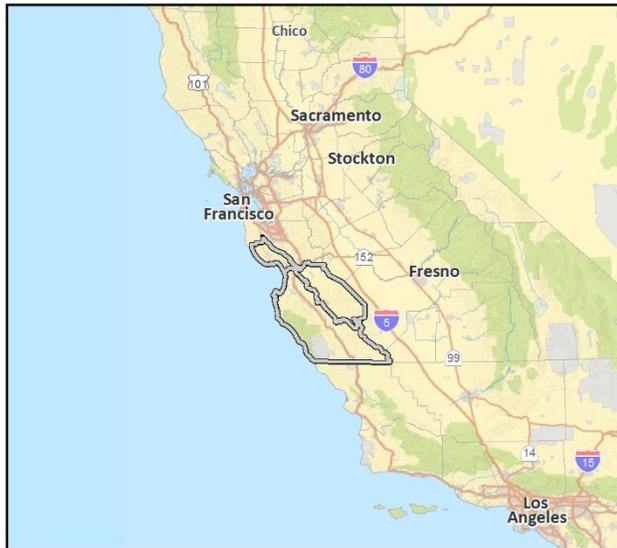


Fig 2. Project Location



August 12, 2020

Karen White  
Chairperson  
Xolon-Salinan Tribe  
P.O. Box 7045  
Spreckels, CA 93962

**SUBJECT: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 of 2014). Formal Notification of Project Undertaking, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC).**

Dear Ms. White:

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Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with AMBAG.

Very Respectfully,

Heather Adamson  
Director of Planning

Attachment



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2045 Regional Transportation Plans for San Benito, Santa Cruz, and Monterey Counties**

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## 2045 MTP/SCS Location Map



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Project Location  
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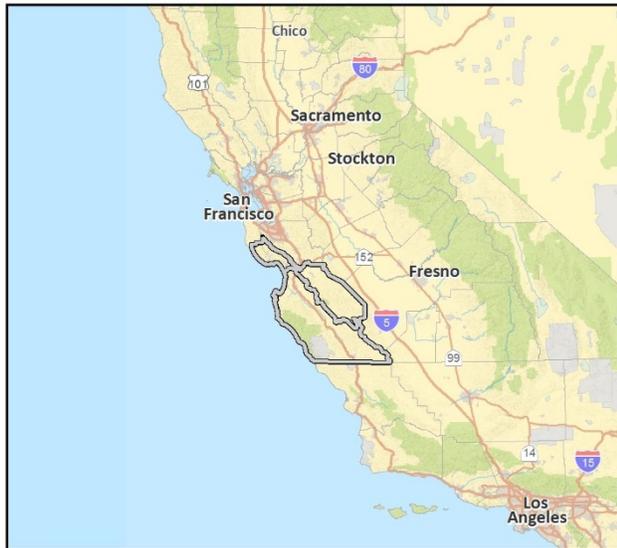


Fig 2. Project Location



August 12, 2020

Irene Zwierlein  
Chairperson  
Amah Mutsun Tribal Band of Mission San Juan Bautista  
789 Canada Road  
Woodside, CA 94062

**SUBJECT: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 of 2014). Formal Notification of Project Undertaking, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC).**

Dear Ms. Zwierlein:

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**2045 Metropolitan Transportation Plan/Sustainable Communities Strategy  
2045 Regional Transportation Plans for San Benito, Santa Cruz, and Monterey Counties**

Notice is hereby given that the Association of Monterey Bay Area Governments (AMBAG) will be the lead agency in partnership with the Council of San Benito County Governments (SBtCOG), the Santa Cruz County Regional Transportation Commission (SCCRTC), and the Transportation Agency for Monterey County (TAMC), who are responsible agencies, for the preparation of an Environmental Impact Report (EIR) for the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS). SBtCOG, SCCRTC, and TAMC are the state-designated Regional Transportation Planning Agencies (RTPAs) for San Benito, Santa Cruz, and Monterey counties, respectively. Each RTPA prepares a county-level long-range Regional Transportation Plan (RTP) that is consistent with the AMBAG 2045 MTP/SCS.

Pursuant to section 15082 of the California Environmental Quality Act (CEQA), AMBAG is soliciting your views on the scope and contents of the 2045 MTP/SCS EIR. The Draft EIR will be a Program EIR. A Program EIR is an EIR that may be prepared on a series of actions that can be characterized as one large project and acts as the first tier of environmental review. The EIR will serve as the Program EIR for the AMBAG 2045 MTP/SCS and as the Program EIR for the RTPs prepared by the RTPAs for San Benito, Santa Cruz, and Monterey counties.

The project description, location, environmental review requirements, and probable environmental effects to be addressed in the EIR are discussed below. An Initial Study is not attached and is not required, in accordance with State CEQA Guidelines Section 15060(d).

The 2045 MTP/SCS will guide the development of the Regional and Federal Transportation Improvement Programs (RTIP and FTIP) as well as other transportation programming documents and plans throughout San Benito, Santa Cruz and Monterey counties. The 2045 MTP/SCS outlines the region's goals and policies for meeting current and future mobility needs and identifies programs, actions, and a plan of projects intended to address these needs consistent with adopted goals and policies. The Regional Transportation Plans for the counties of San Benito, Santa Cruz, and Monterey are developed for each of the counties to provide a sound basis for the allocation of state and federal transportation funds to transportation projects within each county for a long-range timeframe. The Regional Transportation Plans address major forms of transportation, and include the priorities and actions embodied in the plans prepared by each of the county's cities and unincorporated areas.

The SCS component of the MTP/SCS is required by California Senate Bill 375, the Sustainable Communities and Climate Protection Act of 2008 (SB 375). SB 375 mandates regional greenhouse gas reduction targets for passenger vehicles and, pursuant to that law, the California Air Resources Board has established 2020 and 2035 greenhouse gas reduction targets for each region covered by one of the state's metropolitan planning

organizations (MPOs). AMBAG is required to prepare an SCS that demonstrates how its greenhouse gas reduction targets could feasibly be met through integrated land use, housing, and transportation planning.

Mail comments on the EIR scope and contents to Heather Adamson at AMBAG, **24580 Silver Cloud Court, Monterey, California 93940** or e-mail comments to [hadamson@ambag.org](mailto:hadamson@ambag.org) no later than **February 14, 2020**.

For more information, visit [www.ambag.org](http://www.ambag.org) or call (831) 883-3750.

**AMBAG will host a series of EIR Scoping Meetings/Public Workshops.** The purpose of the meetings is to solicit input on the scope and content of the environmental analysis that will be included in the Draft EIR, to inform the public of the 2045 MTP/SCS, as well as solicit public input on the 2045 MTP/SCS. The date, time and location of the meetings are as follows:

- **In Santa Cruz on January 22, 2020** from 6:00 PM to 7:30 PM at the Live Oak Community Room - Simpkins Center - 979 17th Ave, Santa Cruz, CA
- **In Hollister on January 23, 2020** from 6:00 PM to 7:30 PM at the San Benito County Board of Supervisors Chambers - 481 4th Street, Hollister, CA
- **In Monterey on January 29, 2020** from 6:00 PM to 7:30 PM at the Marina Library Community Room - 190 Seaside Circle, Marina, CA

## **PROJECT DESCRIPTION AND SCOPE OF ENVIRONMENTAL ANALYSIS**

### **Project Title**

AMBAG 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy, SBtCOG 2045 Regional Transportation Plan, SCCRTC 2045 Regional Transportation Plan and TAMC 2045 Regional Transportation Plan

### **Project Location**

The geographical extent of the proposed 2045 MTP/SCS includes San Benito, Santa Cruz and Monterey counties, and all incorporated cities and unincorporated areas contained therein. The geographical extent for each RTPA's Regional Transportation Plan is the boundary for each respective county, including its incorporated and unincorporated areas. See location map at the end of this NOP.

### **Project Description**

As the MPO for the tri-county region of Monterey, San Benito, and Santa Cruz counties, AMBAG is charged with developing a 2045 MTP/SCS. The 2045 MTP/SCS is the metropolitan long-range transportation plan for Monterey, San Benito, and Santa Cruz counties. SBtCOG, SCCRTC, and TAMC are the state-designated RTPAs for San Benito, Santa Cruz and Monterey counties, respectively. Each RTPA prepares a county-level long-range RTP, which will be evaluated in this EIR. The 2045 MTP/SCS is used to guide the development of the Regional and Federal Transportation Improvement Programs, as

well as other transportation programming documents and plans. The MTP outlines the region's goals and policies for meeting current and future mobility needs, providing a foundation for transportation decisions by local, regional, and State officials that are ultimately aimed at achieving a coordinated and balanced transportation system. The 2045 MTP/SCS sets forth actions, programs, and projects to address these needs consistent with adopted policies and goals. The 2045 MTP/SCS also documents the financial resources needed to implement the plan.

The EIR will serve as the Program EIR for the AMBAG 2045 MTP/SCS as well as the Program EIR for the RTPs prepared by the RTPAs for San Benito, Santa Cruz, and Monterey counties.

The Sustainable Communities and Climate Protection Act of 2008 (SB 375, Steinberg) enhances California's ability to reach its greenhouse gas emissions reduction goals by promoting coordinated planning with the goal of creating more sustainable communities. SB 375 mandates regional greenhouse gas emission reduction targets for passenger vehicles. Pursuant to SB 375, the California Air Resources Board established targets for 2020 and 2035 for each region covered by one of the State's 18 MPOs. AMBAG, as the regional MPO, must prepare a SCS that demonstrates how the region will meet its greenhouse gas reduction target through integrated land use, housing, and transportation planning.

AMBAG is currently preparing the 2045 MTP/SCS for the region. The 2045 MTP/SCS EIR will analyze the plan's impacts on the physical environment and identify measures to avoid or mitigate significant environmental effects. It also will be an informational document intended to inform public decisionmakers, responsible or interested agencies, and the general public of the potential environmental effects of a project.

If the targets established by the California Air Resources Board cannot be feasibly met, an Alternative Planning Strategy (APS) would be prepared by AMBAG to show how the targets would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

The transportation component of the MTP/SCS will include road and transit networks, non-motorized transportation, and transportation strategies and policies. Furthermore, SB 375 requires that the SCS identify general land uses, residential densities, and building intensities as well as areas to house future residents, including housing to accommodate the eight-year Regional Housing Needs Assessment (RHNA) (see California Government Code Section 65080(b)(2)(B) for the full list of SB 375 requirements for the MTP/SCS). The RHNA must be consistent with the SCS.

The RTPs for the counties of San Benito, Santa Cruz, and Monterey are developed for each of the counties to provide a sound basis for the allocation of state and federal transportation funds to transportation projects within each county over a long-range timeframe through 2045. The RTPs address all forms of transportation, and include the priorities and actions embodied in the plans prepared by each of the county's cities and unincorporated areas. The RTPs follow guidelines established by the State of California's Transportation Commission (CTC) to describe the transportation issues and needs facing

each county; identify goals and policies for how each county will meet its needs; identify the amount of money that will be available for needed projects; and include a list of prioritized transportation projects to serve each county's long-term needs within the projected "budget" of transportation revenues with consideration towards environmental impacts, land use, and special transportation needs.

### **Impacts to Be Addressed in the EIR**

AMBAG, with input from the RTPAs for San Benito, Santa Cruz, and Monterey counties, is currently reviewing SCS scenarios to assess how future land use and transportation changes could achieve a coordinated and balanced regional transportation system while reducing greenhouse gas emissions from passenger vehicles and light trucks to meet the regional greenhouse gas reduction targets set by CARB. Following public review and input, the AMBAG Board of Directors will select a preferred SCS scenario. The EIR will evaluate the environmental effects of the preferred SCS scenario in detail.

The 2045 MTP/SCS EIR will analyze the potential for significant environmental effects for the following resource topics:

- Aesthetics/Visual Resources
- Agriculture and Forestry Resources
- Air Quality and Health Impacts/Risks
- Biological Resources
- Climate Change/Greenhouse Gases
- Cultural and Historic Resources
- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Transportation
- Tribal Cultural Resources
- Wildfire

The EIR also will also address cumulative impacts and growth inducing impacts.

### **Preliminary MTP/SCS Project Alternatives Scenarios**

The EIR also will evaluate the environmental impacts of alternative scenarios. The analysis of alternatives will focus on various land use and transportation scenarios that make different assumptions regarding the combinations of future land uses and transportation system improvements. The following preliminary MTP/SCS project alternatives may be addressed in the EIR:

- **No Project Alternative** – The No Project Alternative is required by CEQA. For this EIR, the No Project Alternative is defined as a land use base comprised of existing land use

plans and a transportation network comprised of committed transportation projects.

- **Active Transportation Mode and Transit Prioritized Alternative** – The Active Transportation Mode and Transit Prioritized Alternative would prioritize active transportation projects (e.g., bike lanes, pedestrian improvements) and public transit projects (e.g., bus stops, bus lanes) over projects that would improve or add to the road system that primarily serves personal motor vehicles. Thus, this alternative would encourage more active transportation and transit use in the region at an earlier date.
- **Intensified Land Use Alternative** – The Intensified Land Use Distribution Alternative will analyze a more compact land use pattern that further concentrates the forecasted population and employment growth in areas identified for more intensified use.

## 2045 MTP/SCS Location Map



*Imagery provided by ESRI and its licensors © 2017.*


**Project Location  
(County Boundaries)**

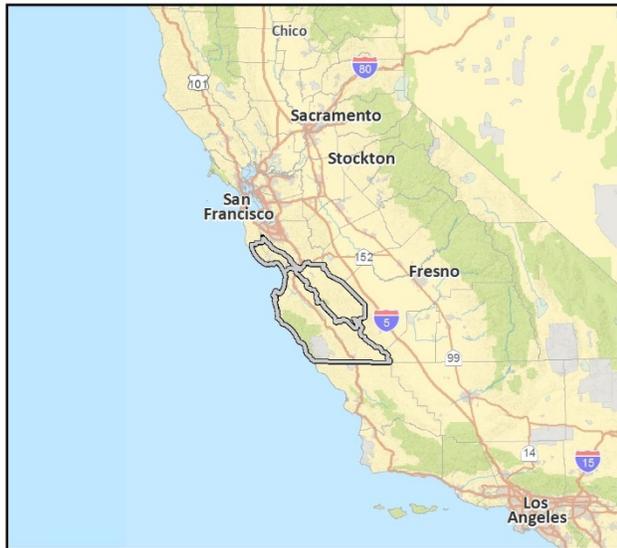


Fig 2. Project Location

# Appendix G

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2045 MTP/SCS and RTPs Transportation Alternative Project List

## Alternative 2 – Monterey County

**Table 1 Active Transportation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-CAR002-CM	Carmel to Pebble Beach Bike/Ped Facility	Construct Class I or Class II bike facility.	\$86
MON-CAR018-CM	Rio Road Carmel Middle School Bicycle Connection	Install Class II Bike Lanes on Rio Road; Install Class I Path from Val Verde Drive - Carmel Middle School.	\$1,500
MON-CAR019-CM	Highway 1 Intersection Improvements Through Carmel (Rio Road/Ocean/Carpenter)	Bicycle detection to cross Hwy 1; ADA ramps; audible countdown; widen shoulders for bicycles; upgrade wayfinding signage to add distances.	\$200
MON-CAR020-CM	Carmel to Monterey Bicycle Connection	Bikeway improvements and wayfinding signage along Hwy 1/Hwy 68 West/Viejo Road Path/Viejo Road and Soledad Drive. Install painted class II bike lanes Viejo Road and Soledad Drive.	\$700
MON-CAR021-CM	SR 1 Carmel Corridor between Carmel River Bridge and Carpenter Street	Provide accommodation for bicyclists along State Route 1 Bike Route.	\$500
MON-CAR023-CM	Scenic Pathway Pedestrian Trail	Install ADA ramps, ADA parking, and hardscape safety improvement along the Scenic Pathway	\$400
MON-CAR024-CM	Rio Road Traffic Calming, Pedestrian Access and Bicycle Lanes	Install traffic calming devices, enhance visibility and safety at the crossing zone, and provide bicycle lanes	\$250
MON-CAR025-CM	Eighth and San Antonio Avenues Class II Bike Improvements	Install signs, pavement markings, intersection modifications, etc. along Eighth and San Antonio Avenues	\$80
MON-CAR027-CM	Pedestrian Pathway behind Larson Field and Rio Park	Construct pedestrian and possible bike route around Larson Field across Rio Park site	\$75
MON-CAR035-CM	Downtown ADA Ramps	Install new and reconstruct non-conforming ADA ramps in Downtown Area (Est. 125 total)	\$1,000
MON-CAR037-CM	US Bike Route 95 Corridor Class II Bike Improvements	Install signs, pavement markings, intersection modifications, etc. along the USBR 95 route	\$100
MON-CAR038-CM	Downtown Sidewalk Repairs and Pedestrian Enhancements	Repair damaged sidewalks, add pedestrian enhancements, benches, signs, trash receptacles, etc.	\$250
MON-DRO006-DR	Gen. Jim Moore Bicycle Improvement	Stripe Class II both sides w/in City limits.	\$10
MON-DRO007-DR	Canyon Del Rey Boulevard (Hwy 218) Bicycle Gap	Stripe Class II Bike lanes on East side of Canyon Del Rey Blvd and complete gaps on Westside; Stripe/Restripe bike lanes to the left of right turn lanes	\$500

Association of Monterey Bay Area Governments

**2045 MTP/SCS and Regional Transportation Plans for Monterey, San Benito, and Santa Cruz Counties**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-GRN001-GR	Apple Avenue Bridge over US 101	Construct new bike/pedestrian bridge parallel to existing overpass.	\$3,548
MON-GRN005-GR	Thorne Road Bridge over US 101	Construct new bike/pedestrian bridge parallel to existing overpass.	\$1,548
MON-GRN010-GR	12th Street Bike Lanes	Construct Class II bike lanes.	\$1
MON-GRN011-GR	13th Street Bike Lanes	Construct Class II bike lanes.	\$1
MON-GRN012-GR	2nd Avenue Bike Lanes	Construct Class II bike lanes.	\$1
MON-GRN013-GR	3rd Street Bike Lanes	Construct Class II bike lanes	\$1
MON-GRN014-GR	7th Street Bike Lanes	Construct Class III bike lanes.	\$1
MON-GRN015-GR	El Camino Real Exit Bike Lane	Construct Class II/III bike lane (Class II preferred).	\$1
MON-GRN016-GR	Elm Avenue Bike Lanes	Construct Class II bike lanes.	\$1
MON-GRN017-GR	Pine Avenue Bike Lanes	Construct Class II bike lanes	\$1
MON-GRN018-GR	Walnut Avenue Bike Lanes	Construct Class II bike lane.	\$1
MON-KCY008-CK	Airport Road Bike Lane	Sign Class III bike lane.	\$2
MON-KCY009-CK	Metz Road Bike Lane	Stripe Class II, restripe roadway	\$200
MON-KCY037-CK	Maintenance/Repairs	Repair/rebuild, streets sidewalks (financial info estimated)	\$120
MON-KCY038-CK	Vanderhurst Bike Lanes	Install Class II bike lanes.	\$20
MON-KCY039-CK	1st St Bike Lanes	Install Class II bike lanes	\$20
MON-KCY040-CK	Broadway Bike Lanes	Install Class II bike lanes	\$5
MON-KCY045-CK	Division St Bike Lanes	Install Class II bike lanes	\$50
MON-KCY046-CK	San Antonio Dr Bike Lanes	Install Class II bike lanes: Includes pedestrian improvements (road diet)	\$50
MON-KCY047-CK	N. Third St Bike Lanes	Install Class II bike lanes	\$50
MON-KCY048-CK	Franciscan Way Bike Lanes	Install Class II bike lanes	\$50
MON-MAR026-MA	Citywide Sidewalk Improvement Program	Construct new sidewalk per ADA Transition Plan	\$6,000
MON-MAR039-MA	Downtown Pedestrian Improvements	Sidewalk and crosswalk improvements downtown; Project part of the Downtown Vitalization Plan	\$1,000
MON-MAR070-MA	Reservation Rd Cycle Track	Install Class IV bike lanes	\$3,000
MON-MAR087-MA	Citywide Class II Bike Lanes Project	Install Class II bike lanes	\$300

Appendix G: Alternative Project Lists  
**Alternative 2 – Monterey County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MAR108-MA	Remove and Replace Signs, Class III Bikeway	Remove and replace signs at signalized trail intersections, replace with R9-5 signs	\$30
MON-MAR157-MA	Reservation Rd/Beach Rd Improvements	Widen roadway w/ sidewalk and bike lane improvements	\$6,800
MON-MAR160-MA	ADA Transition Program	City-wide sidewalk, ramp, intersection, and bus-stop improvements	\$1,621
MON-MRY001-MY	Aguajito Road	Construct new Class I Bikeway	\$800
MON-MRY002-MY	Del Monte - Washington Improvements	Traffic signal improvements that include bike/ped safety features	\$3,000
MON-MRY003-MY	Del Monte/Aguajito and Del Monte/El Estero Signal Improvements	Ped and bike improvements at Del Monte and Camino Aguajito and Camino El Estero to include signal work	\$3,400
MON-MRY012-MY	Pacific Street Bike/Ped Improvements	Bike/ped and traffic flow improvements	\$1,500
MON-MRY013-MY	Recreation Trail Improvements	Widening and rehabilitation of recreation trail to include access to Rec Trail and trail crossings	\$8,000
MON-MRY014-MY	Window on the Bay	New bikeway and pedestrian facilities	\$7,000
MON-MRY016-MY	Lower Presidio Pedestrian Connection	New pedestrian connector	\$2,500
MON-MRY020-MY	Monterey City Bikeways Program	Install Class I, Class II, Class III and Class IV bikeways throughout city	\$14,177
MON-MRY035-MY	Citywide intersection ADA upgrades	Install ADA curb ramps and ADA access improvements	\$3,500
MON-MRY037-MY	Citywide Wayfinding Sign Program	Provide a comprehensive vehicular, pedestrian and bicycle wayfinding sign program	\$1,000
MON-MRY038-MY	Traffic System, Pedestrian and Bike Upgrades Citywide	Traffic signal upgrades to include bike and pedestrian improvements, includes detection and APS, operations and safety improvements	\$431
MON-MRY040-MY	Del Monte and Casa Verde/Rec Trail Improvements	Add pedestrian and bike safety improvements and protected lefts at Del Monte/Casa Verde/Rec Trail	\$1,500
MON-MRY041-MY	N Fremont Class I/Class IV Gap Closure	Add Class 1 and/or Class IV connection to N Fremont project to FORTAG	\$1,500
MON-MRY042-MY	Lake El Estero Class I	Add Class 1 facilities on Fremont, Camino Aguajito and Camino El Estero to link Rec Trail to El Estero Park	\$3,000
MON-MRY043-MY	Mark Thomas Class 1	Connect N Fremont project to downtown via Mark Thomas and Fairgrounds Road	\$2,000
MON-MRY044-MY	Garden Road	Pedestrian and bike improvements on Garden Rd to connect future housing to Businesses	\$1,000
MON-MRY048-MY	Citywide Sidewalk Repair	Sidewalk panel repair	\$2,000

Association of Monterey Bay Area Governments

**2045 MTP/SCS and Regional Transportation Plans for Monterey, San Benito, and Santa Cruz Counties**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MYC001-UM	Alisal Road	Install Class III bikeway	\$7
MON-MYC002-UM	San Benancio - Corral de Tierra Rd Loop	Install Class II bikeway	\$530
MON-MYC003-UM	Blackie Road	Install Class II bikeway	\$5,400
MON-MYC026-UM	Elkhorn Road	Install Class II bikeway	\$10,900
MON-MYC029-UM	Florence St. Extension	Install Class II bikeway	\$276
MON-MYC030-UM	Gonzales - River Road	Install Class II bikeway	\$1,127
MON-MYC036-UM	Hall Road - Tarpey Road	Install Class II bikeway	\$1,000
MON-MYC040-MA	Inter-Garrison Road	Install Class II bikeway	\$10,800
MON-MYC042-UM	Jonathan St. Extension	Install Class I bikeway	\$255
MON-MYC045-UM	Las Lomas Dr Bicycle Lane & Pedestrian Project	Install Class II bikeway, new sidewalks, curb & gutter, and a new drainage and water system.	\$2,673
MON-MYC046-UM	Laureles Grade Road	Install Class II bikeway	\$6,497
MON-MYC053-UM	Metz Road	Install Class III bikeway	\$24
MON-MYC056-UM	Monte Road	Install Class II bikeway	\$1,989
MON-MYC059-UM	Nacimiento-Ferguson Rd	Shoulder widening & geometrics	\$18,500
MON-MYC060-UM	Natividad Road	Install Class II bikeway	\$2,453
MON-MYC062-UM	Old Stage Road Shoulder Widening	Shoulder widening and channelization at intersections	\$11,500
MON-MYC063-UM	Old Stage Road/Hebert Road	Install Class III bikeway	\$720
MON-MYC064-UM	Pajaro River Levee Trail	Install Class I bikeway	\$850
MON-MYC068-UM	Porter Drive	Install Class III bikeway	\$67
MON-MYC070-UM	Prunedale South Road	Install Class II bikeway	\$3,127
MON-MYC075-UM	River Road Operational Improvements	Widen shoulders and improve geometrics, and install Class II bike lanes	\$29,300
MON-MYC078-UM	Rogge Road	Install Class II bikeway	\$1,414
MON-MYC085-UM	San Juan Grade Road	Install Class II bikeway	\$6,120
MON-MYC095-UM	South Boundary Road	Install Class II bikeway.	\$1,934
MON-MYC114-UM	Reservation Rd.	Install Class II bikeway	\$6,099
MON-MYC115-UM	Corral de Tierra	Install Class II bikeway	\$8,508

Appendix G: Alternative Project Lists  
**Alternative 2 – Monterey County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MYC118-UM	Williams Rd.	Install Class III bikeway	\$2
MON-MYC121-UM	Tarpy Rd Improvements	LT Channelization and improve shoulders	\$1,000
MON-MYC124-UM	Harris Road Improvements	Lt Channelization, shoulder improvements	\$8,000
MON-MYC126-UM	Abrams Dr	Install Class III bikeway	\$3
MON-MYC127-UM	Alta St/Old US Hwy 01	Install Class III bikeway	\$4
MON-MYC128-UM	Arroyo Seco Rd	Install Class III bikeway	\$24
MON-MYC130-UM	Artichoke Avenue	Install Class III bikeway	\$442
MON-MYC135-UM	Bluff Rd	Install Class III bikeway	\$10
MON-MYC137-UM	Brooklyn Street	Install Class III bikeway	\$600
MON-MYC138-UM	Camphora Gloria Road	Install Class II bikeway	\$5,850
MON-MYC139-UM	Canada de la Segunda	Install Class III bikeway	\$12
MON-MYC140-UM	Carmel River Bridge	Install Class I bikeway	\$540
MON-MYC141-UM	Carmel Valley Class I Bicycle Path Project Phase IV	Install Class I bikeway.	\$1,275
MON-MYC142-UM	Carmel Valley Rd	Install Class II bikeway	\$278
MON-MYC143-UM	Carmel Valley Rd at Boronda Rd Intersection	Intersection improvements	\$1,278
MON-MYC144-UM	Carmel Valley Rd at Country Club Drive	Intersection improvements	\$1,120
MON-MYC145-UM	Castro St	Install Class III bikeway	\$1
MON-MYC146-UM	Castroville Boulevard	Install Class II bikeway.	\$3,602
MON-MYC148-UM	Cattleman Rd	Install Class III bikeway	\$51
MON-MYC149-UM	Central Ave	Install Class III bikeway	\$22
MON-MYC150-UM	Chualar River Rd	Install Class III bikeway	\$8
MON-MYC151-UM	Cooper - Nashua Rd	Install Class III bikeway	\$15
MON-MYC152-UM	Cooper Road	Install Class III bikeway	\$9
MON-MYC160-UM	CVMP - Class II Bike Lanes	Install Class II bike lanes	\$308
MON-MYC168-UM	Davis Road	Install Class II bikeway.	\$3,193
MON-MYC170-UM	Drainage Pond/Miller Property	Install Class II bikeway	\$16
MON-MYC172-UM	Elkhorn Rd	Install Class II bikeway	\$388

Association of Monterey Bay Area Governments  
**2045 MTP/SCS and Regional Transportation Plans for Monterey, San Benito, and Santa Cruz Counties**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MYC173-UM	Elm Ave	Install Class III bikeway	\$14
MON-MYC174-UM	Elm Ave	Install Class III bikeway	\$7
MON-MYC175-UM	Espinosa Rd	Install Class III bikeway	\$8
MON-MYC176-UM	Espinosa Rd	Install Class III bikeway	\$6
MON-MYC177-UM	Foletta Rd	Install Class III bikeway	\$12
MON-MYC178-UM	Fort Romie Rd	Install Class III bikeway	\$12
MON-MYC180-UM	Front Rd Extension	Install Class II bikeway	\$95
MON-MYC185-UM	Geil St	Install Class III bikeway	\$1
MON-MYC186-DR	Gen Jim Moore Path	Install Class I bikeway	\$1,206
MON-MYC187-UM	Gloria Road	Install Class II bikeway	\$2,055
MON-MYC189-UM	Grant St	Install Class III bikeway	\$2
MON-MYC190-UM	Harkins Rd	Install Class II bikeway	\$68
MON-MYC193-UM	Harrison Rd	Install Class II bikeway	\$82
MON-MYC196-UM	Iverson Rd	Install Class II bikeway	\$5,000
MON-MYC197-UM	Iverson Road	Install Class II bikeway	\$2,600
MON-MYC198-UM	Jetty Road/Pajaro River (Zmudowski Beach)	Install Class I bikeway	\$5,729
MON-MYC199-UM	Johnson Canyon Road	Install Class II bikeway	\$1,350
MON-MYC203-UM	Lanini Rd	Install Class II bikeway	\$2,000
MON-MYC204-UM	Main St	Install Class II bikeway	\$6
MON-MYC205-UM	McCoy Road	Install Class II bikeway	\$3,868
MON-MYC206-UM	McCoy Road	Install Class II bikeway	\$87
MON-MYC207-UM	McGowan Rd - MBSST	Install Class III bikeway	\$2
MON-MYC209-UM	Meade St (Extension)	Install Class II bikeway	\$2
MON-MYC210-UM	Meridian Rd	Install Class III bikeway	\$8
MON-MYC211-UM	Meridian Rd Path	Install Class I bikeway	\$95
MON-MYC212-UM	Mesa Verde	Install Class III bikeway	\$8
MON-MYC213-UM	Monte Rd - MBSST	Install Class II bikeway	\$81

Appendix G: Alternative Project Lists  
**Alternative 2 – Monterey County**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MYC214-UM	Monterey Bay Sanctuary Scenic Trail-Moss Landing	Install bikeway and bridge.	\$9,159
MON-MYC215-UM	Moro Rd	Install Class III bikeway	\$6
MON-MYC216-UM	Moss Landing Road Bike Lanes, Storm Drain, and Street Improvements	Install Class II/III bikeway and curb, gutter, and sidewalks.	\$3,228
MON-MYC220-UM	Old Stage - San Juan Grade	Install Class III bikeway	\$13
MON-MYC223-UM	Pajaro Rail Line	Install Class I bikeway	\$448
MON-MYC224-UM	Payson St - Chualar Rd	Install Class III bikeway	\$4
MON-MYC226-UM	Pesante Rd	Install Class III bikeway	\$2
MON-MYC228-UM	Portola Dr	Install Class II bikeway	\$16
MON-MYC229-UM	Prunedale North Rd	Install Class II bikeway	\$46
MON-MYC230-UM	Reese Cir - Country Meadows Rd	Install Class III bikeway	\$3
MON-MYC231-UM	Reservation Rd Pedestrian/Bicycle Access	Install Class I bikeway and improve visibility of pedestrian crossing at Blanco Road.	\$140
MON-MYC236-UM	Russell Road	Install Class II bikeway	\$1,105
MON-MYC237-UM	Salinas Rd - Hall Rd - Tarpey Rd	Install Class II bikeway	\$74
MON-MYC239-UM	Salinas Street	Install Class I/II bikeway	\$360
MON-MYC240-UM	San Benancio Road	Install Class II bikeway.	\$10,364
MON-MYC241-UM	San Juan Grade Rd	Install Class II bikeway	\$88
MON-MYC244-UM	San Juan Rd	Install Class II bikeway	\$5
MON-MYC246-UM	San Juan Road to Pajaro Levee	Install Class II bikeway	\$663
MON-MYC248-UM	Sanctuary Scenic Trail 15A	Install Class I bikeway	\$5,082
MON-MYC249-UM	Sanctuary Scenic Trail Segment 10	Install Class I bikeway	\$2,058
MON-MYC250-UM	Sanctuary Scenic Trail Segment 11	Install Class I bikeway	\$634
MON-MYC251-UM	Sanctuary Scenic Trail Segment 12	Install Class I bikeway	\$5,552
MON-MYC252-UM	Sanctuary Scenic Trail Segment 13	Install Class I bikeway	\$7,404
MON-MYC253-UM	Sanctuary Scenic Trail Segment 14	Install Class I bikeway	\$2,800
MON-MYC254-UM	Sanctuary Scenic Trail Segment 14	Install Class I bikeway	\$258

Association of Monterey Bay Area Governments  
**2045 MTP/SCS and Regional Transportation Plans for Monterey, San Benito, and Santa Cruz Counties**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MYC255-UM	Sanctuary Scenic Trail Segment 14A	Install Class I bikeway	\$835
MON-MYC256-UM	Sanctuary Scenic Trail Segment 17A	Install Class I bikeway	\$699
MON-MYC257-UM	Sanctuary Scenic Trail Segment 17B	Install Class I bikeway	\$1,659
MON-MYC258-UM	Sanctuary Scenic Trail Segment 7	Install Class I bikeway	\$3,411
MON-MYC259-UM	Sanctuary Scenic Trail Segment 9	Install Class I bikeway	\$37
MON-MYC261-UM	Seymour St	Install Class III bikeway	\$2
MON-MYC262-UM	Sill Road	Install Class II bikeway	\$696
MON-MYC265-UM	Strawberry Rd	Install Class III bikeway	\$10
MON-MYC268-UM	Tafton Rd	Install Class III bikeway	\$8
MON-MYC269-UM	Tafton Rd	Install Class III bikeway	\$2
MON-MYC270-UM	Tafton Rd - MBSST	Install Class III bikeway	\$3
MON-MYC271-UM	Tavernetti Rd	Install Class II bikeway	\$94
MON-MYC272-UM	Tavernetti Rd	Install Class III bikeway	\$1
MON-MYC272-UM	Tavernetti Road	Install Class II bikeway	\$553
MON-MYC274-UM	Teague Ave	Install Class III bikeway	\$4
MON-MYC275-UM	Tembladero Slough	Install Class II bikeway	\$221
MON-MYC276-UM	Thorne Rd	Install Class III bikeway	\$11
MON-MYC277-UM	Werner Rd	Install Class II bikeway	\$9
MON-MYC291-UM	Reservation Road Bicycle Lanes	Install Class II bicycle lanes	\$250
MON-MYC296-UM	Castroville Boulevard at Elkhorn Rd - Pedestrian Beacon Project (RMA-PW&F)	Install rectangular rapid-flashing beacons and streetlights; Rio Rd at Via Nona Marie-install rectangular rapid-flashing beacons. (RMA-PW&F)	\$210
MON-MYC317-UM	Laurel Drive Sidewalk Improvement (County element)	Related to Salinas Laurel Drive Improvement project; Small amount of County property fronting Laurel Drive. (RMA-PW&F)	\$204
MON-MYC327-UM	Castroville Sidewalks	Construction of sidewalks, markings and ADA ramps	\$4,000
MON-MYC328-UM	South County Communities Sidewalks	Construction of sidewalks, markings and ADA ramps	\$7,700
MON-MYC329-UM	Esquiline Road Pedestrian Crossing	Pedestrian crossing (Bridge 509)	\$2,000
MON-MYC330-UM	Carmel Valley Road Class II Bikeway	Install Class II Bikeway and shoulder widening on south side of Carmel Valley Road from Carmel Rancho Blvd to Carmel Middle School	\$508

Appendix G: Alternative Project Lists  
**Alternative 2 – Monterey County**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-PGV008-PG	Rec. Trail Improvements	Add landscaping, hardscape, stairs, benches, handrails, crosswalks, and signs	\$2,000
MON-PGV011-PG	Recreational Trail Repairs	Repair failing sections of recreational trail	\$3,000
MON-PGV026-PG	David Ave Bikeway	Install Class II/III bikeway and wayfinding signage along David Ave.	\$400
MON-SCY009-SA	Bike Path Lighting	Install Lighting on existing Class I path.	\$325
MON-SCY010-SA	Class I Bike Path	Complete connection of Monterey Bay Coastal Trail Class I bike path through Sand City	\$400
MON-SCY011-SA	Class I Bike Path Along Railroad	Install Class I bike path along Railroad ROW	\$1,300
MON-SCY012-SA	Class III Bikeways	Install Class III bikeway signage	\$15
MON-SEA029-SE	Lightfighter Drive Pedestrian Improvements	Sidewalk improvements and landscaping upgrades	\$500
MON-SEA033-SE	Bike Upgrades - City-Wide	Install Class II bike lanes city-wide. (See ATP)	\$2,000
MON-SEA036-SE	Fremont Bike Lanes	Install Class II bike lanes on Fremont	\$2,750
MON-SEA037-SE	ADA Transition Plan Upgrades	Roadway & Sidewalk improvements	\$32,000
MON-SNS003-SL	ADA Access Ramp Installations	Install ADA access ramp locations throughout city, annual project	\$16,000
MON-SNS005-SL	Alisal Rd. Bikeway	Install shared bike path East Alisal to City Limits	\$6
MON-SNS007-SL	Alvin Drive Bike Lanes	Install bike lanes along Alvin between McKinnon and Natividad	\$172
MON-SNS014-SL	Bridge Street Bike Lanes	Install bike lanes along entire length of Bridge Street	\$419
MON-SNS019-SL	Davis Road Bike Path	Install .57-mile bike path	\$350
MON-SNS046-SL	Reclamation Ditch Bike System	Construct Class I Bike Path along ditch # 1665	\$3,500
MON-SNS064-SL	Calle Del Adobe/West Laurel Dr Bike Lanes	Install Class II bike lanes	\$156
MON-SNS065-SL	Carr Lake Bikeways	Construct Class I and Class II Bikeways	\$5,000
MON-SNS066-SL	East Alisal St (Future St) and Freedom Parkway (Future St) Bike Lanes	Install Class II bike lanes	\$200
MON-SNS071-SL	John Street Class III Bikeway	Install Class III bikeway signage	\$5
MON-SNS072-SL	Los Palos Drive Class III Bike Lane	Install Class III bikeway signage	\$1
MON-SNS073-SL	Market Street Class II Bikeway	Install Class II bikeway signage	\$1
MON-SNS075-SL	N Maderia/King St Class III Bikeway	Install Class III bikeway signage	\$1
MON-SNS076-SL	N Maderia/Saint Edwards Ave Class III Bikeway	Install Class III bikeway signage	\$5

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-SNS077-SL	N Main/Espinosa Rd Class II Bike Lane	Install Class II bike lane	\$5,000
MON-SNS078-SL	Natividad Creek Bike Path	Install new bike path	\$680
MON-SNS080-SL	Rossi St Extension Class II Bike Lanes	Install Class II bike lanes	\$175
MON-SNS083-SL	Russell Rd Class II Bike Lanes	Install Class II bike lanes	\$155
MON-SNS084-SL	San Juan Grade Class II Bike Lanes	Install Class II bike lanes	\$230
MON-SNS086-SL	Station Place (ITC Bridge)	Install Bike and Ped Bridge over Railroad	\$1,500
MON-SNS087-SL	Trevin Ave Class II Bike Lanes	Install Class II bike lanes	\$25
MON-SNS089-SL	W Laurel/US 101 Overpass/Adams St Class III Bikeway	Install Class III bikeway signage	\$3
MON-SNS129-SL	Street Sidewalk Repair	Annual Sidewalk Repairs (project on-going)	\$1,050
MON-SNS131-SL	Downtown Vibrancy Plan	Circulation/Parking/Pedestrian Improvements in Downtown	\$375
MON-SNS133-SL	Davis Road Bike Path	Install .57-mile bike path	\$200
MON-SNS137-SL	East Alisal Street Vibrancy Plan	Circulation/Parking/Pedestrian Improvements on East Alisal Street	\$2,500
MON-SNS138-SL	Bardin Road Safe Routes to School/ATP	Circulation, SR2S, two roundabouts, road reconstruction on Bardin Rd, Slurry seal on East Alisal Street and crosswalk and ADA enhancements	\$12,000
MON-SNS139-SL	Alvin Drive	Circulation, SR2S, Traffic Signals, Cycle Tracks	\$3,548
MON-SNS140-SL	Linwood Drive	SR2S, bike lanes	\$700
MON-SNS141-SL	East Laurel Drive Pedestrian Improvements	Sidewalk. Lighting, trail lighting and pedestrian push button upgrades on Const/Laurel traffic signal	\$5,800
MON-SNS145-SL	W Alisal Complete Streets	Circulation, Bike Lanes, Ped, Transit	\$8,552
MON-SNS146-SL	Lincoln Ave Complete Streets	Circulation, Bike Lanes, Bus Facilities	\$1,570
MON-SNS161-SL	Natividad/Gabilan Creek Trail	Bike/Ped Trail Repairs	\$1,100
MON-SNS164-SL	Rossi-Rico Bike Trail	Bike Trail repairs along Rossi Rico Park	\$400
MON-SOL006-SO	Bicycle Racks and Lockers	Install Bicycle Racks and Lockers	\$35
MON-SOL043-SO	Pedestrian Lighting	Construct pedestrian lighting along various City streets	\$900
MON-SOL044-SO	Pinnacles Bike Route	Construct a Class I bike path/Class II bike lanes along Metz Rd to encourage bicycle tourism.	\$500
MON-SOL075-SO	Citywide Bike Lanes	Bike Lanes (2007 TIF M2, 2013 TIF M2); construct bike lanes citywide	\$1,440

Appendix G: Alternative Project Lists  
**Alternative 2 – Monterey County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-SOL077-SO	Bryant Canyon Bike Trail	Bryant Canyon Bike Trail; construct bike lanes or trail	\$750
MON-SOL078-SO	San Vicente Bike Trail	San Vicente Bike Trail; construct bike lanes or trail	\$400
MON-TAMC006-TAMC	Monterey County Bicycle and Pedestrian Improvement Projects	Various bicycle and pedestrian improvement projects throughout Monterey County	\$12,741
MON-TAMC010-TAMC	Fort Ord Regional Trail and Greenway (FORTAG)	Approximately 28-mile bike and pedestrian access path through the former Fort Ord. Construction anticipated to take place in phases with Phase 1 as 218 Canyon Del Rey segment (TAMC projects 16, 17 and 18 are segments of this overall project)	\$80,000
MON-TAMC011-TAMC	Safe Routes to Schools	Countywide Safe Routes to Schools program	\$20,000
MON-TAMC016-TAMC	FORTAG Phase 1 - 218 Canyon Del Rey Segment	Construction of the 218 Canyon Del Rey segment of the FORTAG project	\$10,396
MON-TAMC017-TAMC	FORTAG Phase 1B - Del Monte to Fremont	Construction of Del Monte to Fremont Segment	\$8,197
MON-TAMC018-TAMC	FORTAG Phase 2 - CSUMB Segment	Construction of the CSUMB Segment	\$10,070

**Table 2 Highway Improvements**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-CT011-CT	Scenic Route 68 Corridor Improvements	Make intersection and other operational improvements to increase safety and improve traffic flow from Salinas to Monterey.	\$94,143
MON-CT031-CT	US 101 - South of Salinas Improvements	Purpose of this project is to improve safety and relieve future traffic congestion by eliminating multiple highway crossings, constructing a new interchange at Harris Road, and provide necessary frontage roads to allow farmers to access their lands. Frontage roads along US 101 south of Salinas (Abbott Street on/off ramp) and make related intersection improvements (EA 05-OH330). These improvements will enhance bicycle and pedestrian mobility and facilitate transit access.	\$112,000
MON-CT036-CT	SR 156 - Castroville Boulevard Interchange	Construction new interchange for SR 156 and Castroville Boulevard/Blackie Road. (related to CT022 and CT023)	\$55,200
MON-GON015-GO	US 101/Gloria Road Interchange	US 101/Gloria Road Interchange Improvements. (EA 05-OP930) PM 68.4/70.4	\$36,000
MON-GRN008-GR	US 101 - Walnut Avenue Interchange	Relocate and replace existing US 101/Walnut Avenue Interchange and widen to six lanes. (EA 05-OP160) PM 53.4/54.3	\$39,800
MON-KCY006-CK	US 101 - 1st Street Interchange (Lonoak Street I/C)	Extend San Antonio over railroad tracks from Lonoak to US 101/First Street Interchange. (PM R39.77).	\$32,580
MON-MAR136-MA	SR1 & Imjin Bridge	Widen NB off-ramp to two lanes	\$590
MON-MAR137-MA	SR1 & Imjin Bridge	Widen SB on-ramp to two lanes	\$500
MON-SOL002-SO	US 101 - North Interchange	Install new interchange north of US 101 and Front Street.	\$5,200
MON-SOL003-SO	US 101 - South Interchange	Install new interchange south of US 101 and Front Street.	\$21,760
MON-SOL014-SO	SR 146 Bypass (Pinnacles Parkway)	Construct to 4 lanes from SR 146 (Metz Road) to Nestles Road. Install Class II bike facility.	\$15,589

**Table 3 Highway Operational, Maintenance and Rehabilitation**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-CT039-CT	SR 218 - Operational Improvements	Add turn pockets, signal improvements, shoulder widening, etc.	\$10,000
MON-CT040-CT	State Highway Operations and Protection Program (SHOPP)	Unspecified SHOPP projects/3 Categories	\$830,591
MON-MAR134-MA	SR1 & Imjin Bridge	Restripe bridge for two WB lanes and one EB lane	\$26
MON-MAR135-MA	SR1 & Imjin Bridge	Convert SB off-ramp to off-ramp loop	\$2,000
MON-MYC288-UM	SR 1 - Carmel River FREE	Replace a portion of the elevated SR 1 roadway embankment with a causeway. Realign and re-profile the existing Highway between the southern end of the existing Carmel River bridge to the south of the proposed overflow bridge. Construct new bicycle and pedestrian access. Construct new southbound turn lane to serve the Palo Corona Regional Park entrance.	\$14,900
MON-PGV010-PG	SR 68 - Bishop to Sunset	Mobility Improvements including sidewalks, lighting, landscaping, and roadways overlay	\$10,502
MON-SNS123-SL	US 101/Boronda Improvements	Auxiliary Lanes/Ramp Improvements	\$960
MON-SNS126-SL	US 101/Kern Street TS	Traffic Signal or Roundabout at US 101/Kern	\$500
MON-SOL046-SO	Intersection Improvements at Metz Rd and East St	Construct intersection, install roundabout	\$900
MON-TAMC008-TAMC	Holman Highway 68 Safety & Traffic Flow	Make safety and operational improvements to Holman Highway in Pacific Grove and Monterey; includes bicycle, pedestrian and traffic safety and ADA improvements.	\$22,300

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**Table 4 Local Street and Road Improvements**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-KCY016-CK	Bypass (South San Antonio Extension)	Bridge, Road and Ped/Bike Construction.	\$10,000
MON-KCY017-CK	Bypass (Lonoak Connection)	Road and Ped/Bike Construction.	\$15,000
MON-MAR077-MA	Salinas Ave. Improvement Project	Construct new 2 lane arterial. Complete Streets design with the widening. Previous FORA project.	\$1,915
MON-MAR114-MA	Del Monte Boulevard Widening	Widen to 4 lanes and add Class II bike lanes. Triggered by Marina Station Subdivision	\$5,000
MON-MAR150-MA	Del Monte Blvd Extension	Construct new roadway	\$13,000
MON-MAR153-MA	Patton (Abrams) Pkwy Extension	Construct new roadway	\$1,150
MON-MAR154-MA	Imjin Pkwy Widening Project	Measure X and SB1 LPP project to widen Imjin Pkwy to 4 lanes from Reservation Rd to Imjin Rd.	\$41,750
MON-MAR165-MA	Imjin Road Widening Project	Widen from 2 lanes to 4 lanes	\$2,075
MON-MRY005-MY	Del Monte Corridor	Add eastbound lane from El Estero to Sloat Ave.	\$8,000
MON-MYC192-UM	Harris Road Widening	Widen to four lanes on Harris Court to Salinas City Limit.	\$13,300
MON-MYC245-UM	San Juan Road Improvements	Widen to four travel lanes with Class II bike lanes from Pajaro to US 101. Construct traffic signals and intersection improvements at the Aromas Road, Carpinteria Road, Murphy Road and Tarpey Road intersections. Construct intersection improvements at San Miguel Canyon Road.	\$71,900
MON-SCY015-SA	Tioga widening	Widen Tioga Ave. at Del Monte; Install Class II bike lanes and fill sidewalk gaps.	\$600
MON-SNS006-SL	US 101 - Alvin Drive Overpass/Underpass and Bypass	Construct overpass/underpass and 4 lane street structure.	\$12,325
MON-SNS008-SL	Bernal Drive East Improvements	Widen road, construct sidewalk and retaining wall on north side of road, between N. Main and Rosarita Dr.	\$1,647
MON-SNS012-SL	Boronda Road Traffic Congestion Relief	Widen to 4 lanes; install class II bike lanes and fill sidewalk gaps. Roundabouts will be installed throughout the corridor	\$6,671
MON-SNS029-SL	John Street - US 101	Widen to 4 lanes between Work to Wood Streets with grade separated overpass	\$8,513
MON-SNS035-SL	Lincoln Avenue Widening	Widen Lincoln to 4 lanes between West Market and Gavilan	\$1,117
MON-SNS037-SL	Main Street (North) Widening	Widen to 6 lanes from Market to Casentini including bicycle and pedestrian improvements.	\$5,060
MON-SNS044-SL	Natividad Road Widening	Widen from 2 to 4 lanes	\$4,296
MON-SNS048-SL	Romie Lane Widening	Widen from 2 lanes to 4 lanes between S. Main to East of California Street	\$1,218

Appendix G: Alternative Project Lists  
**Alternative 2 – Monterey County**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-SNS050-SL	Russell Rd Widening	Widen Street from US 101 to San Juan Grade Rd.	\$3,078
MON-SNS052-SL	Sanborn Road Widening/Reconstruction	Widen to 6 lanes and reconstruct from John Street to Abbott Street; accommodations for bikes and peds.	\$14,737
MON-SNS059-SL	Williams Road Widening	Widen from 2 to 4 lanes	\$5,500
MON-SNS090-SL	Russell Road Extension	Extend 4 lane arterial	\$17,557
MON-SNS092-SL	San Juan - Natividad Collector	Construct an east - west 2 lane collector roadway	\$3,635
MON-SNS093-SL	Independence Boulevard Extension	Extend as 2 lane collector	\$1,374
MON-SNS094-SL	Hemingway Drive Extension	Construct 4 lane road	\$2,871
MON-SNS095-SL	Constitution Boulevard Extension	Construct 4 lane street	\$9,556
MON-SNS096-SL	Sanborn Road Extension	Construct 4 lane arterial	\$6,895
MON-SNS097-SL	Williams Russell Collector	Construct new north - south connection	\$8,115
MON-SNS098-SL	Alisal Street Extension	Extend as 2 lane collector street with bike lanes	\$5,119
MON-SNS099-SL	Moffett Street Extension	Extend as 4 lane collector	\$3,336
MON-SNS100-SL	Rossi Street Widening	Widen to 4 Lanes, install median and bike lanes	\$300
MON-SNS101-SL	Bernal Drive Extension	Extend as 4 lane arterial	\$6,976
MON-SNS102-SL	Constitution Boulevard Extension	Construct new 2 lane street	\$3,403
MON-SNS103-SL	Williams Road Widening	Widen from 3 to 4 lanes	\$2,975
MON-SNS104-SL	Alisal Street Widening	Widen from two to four lane arterial between Williams Rd and Alisal Rd.	\$2,908
MON-SNS108-SL	Laurel Drive Widening	Widen to 6 lanes and add left turn channelization west of Constitution	\$2,161
MON-SNS121-SL	McKinnon Street Extension	Extend as a two-lane collector from Boronda Rd to Rogge Road	\$3,710
MON-SNS279-SL	Ross Rd Extensions	Extend Rossi St as 4-lane arterial btwn Western Bypass and Davis Rd with bike lanes.	\$2,488
MON-SNS280-SL	Eastern Bypass	Construct four-lane arterial from US 101 to Williams Rd	\$17,837
MON-SNS281-SL	El Dorado Drive Extension	Extend as two-lane collector from Boronda Rd to Rogge Rd	\$2,398
MON-SNS282-SL	Abbott Street Widening	Widen to 4-lanes, add median and left turn channelization & eliminate parking on both sides of street	\$1,266
MON-SOL065-SO	Camphora-Gloria Road (2007 TIF R12)	Camphora-Gloria Road (2007 TIF R12); Construct to 4 lanes	\$18,617

**Table 5 Local Street and Road Operational, Maintenance and Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-CAR005-CM	Rio Road Parking Facility	Construct Rio Road off site parking facility with jitney pick up station.	\$20
MON-CAR007-CM	San Carlos Streetscaping	Install streetscape in 2 or 3 small median islands	\$30
MON-CAR009-CM	San Carlos Rehabilitation	Remove concrete pavement, replace drainage facilities, repair or reconstruct concrete sidewalks, curbs, and gutters, and repave with asphalt along San Carlos Street between Ocean and Sixth Avenues	\$200
MON-CAR010-CM	Mission Street Rehabilitation	Rehabilitate Mission Street including repaving street and curb, gutter and sidewalk improvements.	\$400
MON-CAR012-CM	Road rehabilitation and maintenance	Routine maintenance under the Pavement Management Report	\$1,840
MON-CAR026-CM	Mountain View Avenue Intersection Safety Enhancements	Realign side streets and intersections with Mountain View to reduce potential conflicts at offset skew intersections	\$200
MON-CAR028-CM	Second Avenue Embankment Reconstruction	Reconstruct Second Ave Embankment to eliminate landslide potential and reopen road to traffic	\$750
MON-CAR029-CM	Mission Street Bypass Drainage Improvements	Install bypass pipe along Junipero Street to increase capacity due to bottleneck on Mission St	\$820
MON-CAR031-CM	Junipero Drainage Improvements	Increase drainage capacity to eliminate bottleneck	\$800
MON-CAR032-CM	Monte Verde Street and Second Ave Drainage Improvements	Install new underground drainage system to eliminate surface flow damage	\$830
MON-CAR036-CM	Junipero and Ocean Roundabout	Construct new roundabout at the 5-legged Junipero/Ocean Intersection	\$2,500
MON-DRO002-DR	Carlton Drive Resurfacing	Resurface Carlton Drive	\$99
MON-DRO003-DR	Work Avenue Resurfacing	Resurface street	\$55
MON-GON001-GO	5th Street - Fanoe Road	Install two lane roundabout	\$2,500
MON-GON014-GO	US 101/5th Street Interchange	Install roundabouts at on and off ramps	\$6,000
MON-GRN002-GR	El Camino Real	Construct new roundabout to replace signals and increase capacity of the El Camino Real/Walnut Avenue Intersection (Intersection Improvements to Roundabout)	\$2,300
MON-GRN003B-GR	Oak Road Bridge over US 101	Remove and replace existing Oak Avenue bridge.	\$30,000
MON-GRN003-GR	Oak Road Bridge over US 101	Widen bridge for dual left turn lanes.	\$6,000
MON-GRN006-GR	Thorne Road Roadway Realignment at US 101	Realign Thorn Road and add traffic signal.	\$7,300
MON-GRN007B-GR	Traffic Signal Installations	Install traffic signals.	\$450

Appendix G: Alternative Project Lists  
**Alternative 2 – Monterey County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-GRN019-GR	Oak Avenue Pavement Overlay	Overlay street.	\$200
MON-GRN021-GR	Citywide Street Rehabilitation	Repair, overlay, seal coat all city streets.	\$3,000
MON-GRN022B-GR	Pine Avenue Overcrossing at US-101	Construct new bridge over US 101 to improve E/W traffic flow	\$4,000
MON-KCY043-CK	Roundabout @ US 101/Broadway St/San Antonio Dr	Install Roundabout @ US 101/Broadway St/San Antonio Dr	\$10,000
MON-KCY044-CK	Lonoak RR Crossing Improvements	Railroad crossing improvements	\$600
MON-KCY050-CK	7th Street/Monte Vista Area Repaving	7th Street/Monte Vista Repaving	\$500
MON-KCY051-CK	Broadway Circle Repaving	Broadway Circle Repaving	\$600
MON-KCY052-CK	Broadway Street Repaving	Broadway Street Repaving	\$800
MON-MAR002-MA	Imjin Parkway - 3rd Avenue Signal or Roundabout	Install new traffic signal or roundabout	\$1,200
MON-MAR005-MA	2nd Ave - 3rd St	Install new traffic signal or roundabout	\$250
MON-MAR006-MA	2nd Ave - 8th St	Install new traffic signal or roundabout	\$250
MON-MAR007-MA	2nd Ave - 10th St	Install new traffic signal or roundabout	\$550
MON-MAR009-MA	Abdy Way, Cardoza to Healy	Intersection redesign and construct new sidewalk and pavement	\$200
MON-MAR035-MA	Del Monte Blvd - Marina Green Dr	Install new traffic signal or roundabout (Project triggered by Marina Station Subdivision - Associated with MAR114)	\$2,000
MON-MAR058-MA	Palm Ave @ TAMC RR	Widen/construct new gates. Project likely included in scope of MST's SURF Busway project at Palm/Del Monte and TAMC ROW	\$688
MON-MAR116-MA	California Avenue	Reconstruct roadway (Triggered by Dunes Phase 2 Completion)	\$2,000
MON-MAR118-MA	Del Monte Boulevard	Roadway improvements, sidewalk, utilities (Triggered by Marina Station Subdivision EIR)	\$2,347
MON-MAR138-MA	Imjin Parkway & California Avenue	Lane configuration improvements or roundabout	\$2,500
MON-MAR139-MA	Imjin Pkwy & Marina Heights Dr	Signalize or roundabout (part of MAR154)	\$1,000
MON-MAR141-MA	Imjin Pkwy & Reservation Rd	Lane configuration improvements (Part of MAR154)	\$1,000
MON-MAR145-MA	California Ave & Marina Heights Dr	Signalize or roundabout	\$870
MON-MAR147-MA	Imjin Pkwy & Preston Dr	Signalize or roundabout (part of MAR154)	\$870
MON-MAR148-MA	Melanie Rd & Vista Del Camino Rd	Regrade intersection (part of citywide PMP)	\$200
MON-MAR151-MA	Del Monte Blvd, Sta 42+00 to 48+00	Pavement, sidewalk and drainage improvements (part of MAR114)	\$1,856

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MAR152-MA	8th Street Reconstruction	Reconstruct roadway (associated with MAR025 and MAR031)	\$8,068
MON-MAR158-MA	Sign Retroreflectivity Program	City-wide sign upgrade, required by FHWA	\$91
MON-MAR159-MA	Pavement Management Program	City-wide roadway maintenance	\$17,052
MON-MAR166-MA	2nd Ave Improvements	Restripe to remove Class II bike lanes for 4-lane roadway	\$92
MON-MRY006-MY	Fremont - Aguajito Intersection Improvements	Widen north leg for left turn pocket; modify signal to 8-phase operations; provide median landscaping	\$2,000
MON-MRY008-MY	Lighthouse and Foam Corridor Operational Improvements	Implement operational improvements on Lighthouse and Foam including installing traffic signal adaptive system on Lighthouse and Foam	\$3,000
MON-MRY009-MY	Mar Vista and Soledad Storm Drains	Extend storm drains to Mar Vista and Soledad	\$800
MON-MRY011-MY	Munras - Webster Improvements	Intersection improvements	\$650
MON-MRY017-MY	Munras - Soledad intersection Improvements	Capacity and operational improvements and bike ped safety improvements	\$3,000
MON-MRY018-MY	York Road Improvements	Road rehabilitation, widening, bike lanes and signal installations and modification	\$6,000
MON-MRY019-MY	Sloat - Mark Thomas Intersection Improvements	New left turn lane and intersection improvements; install bike detection for left-turning bicyclists.	\$700
MON-MRY021-MY	Citywide Street Overlay	Street overlay program	\$2,500
MON-MRY022-MY	Citywide Street Reconstruction	Street reconstruction	\$3,000
MON-MRY023-MY	Citywide Street Panel Replacement	Street panel replacement	\$3,500
MON-MRY033-MY	Munras/El Dorado Roundabout	Construct roundabout with bike improvements	\$5,000
MON-MRY034-MY	Citywide Adaptive Signal System	Install adaptive signal control on all arterial streets, install fiber connections to all signals	\$3,000
MON-MRY036-MY	Citywide Traffic Signal Pole Replacement	Citywide traffic signal pole replacement	\$20,000
MON-MRY039-MY	Install Protected Left Turns	Add protected left turns at signalized intersections based on SSARP recommendations	\$4,000
MON-MRY045-MY	Del Monte and Sloat Safety Improvements	Add left turn lane for Del Monte turning southbound onto Sloat	\$2,000
MON-MRY046-MY	Citywide Road Rehabilitation	Reconstruction of various streets	\$2,000
MON-MRY047-MY	Citywide Curb Ramps	Reconstruction of curb ramps	\$3,000
MON-MRY049-MY	Citywide Street Resurfacing	Street resurfacing program	\$2,000
MON-MYC043-UM	Jolon Rd Overlay Safety Improvements	Shoulder widening, & Geometric Improvements, and installation of 39.2 miles of Class II bikeway.	\$58,000

Appendix G: Alternative Project Lists  
**Alternative 2 – Monterey County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MYC136-UM	Bridge Barrier Rail Replacement	Replace and Rehabilitation of various bridges Countywide	\$500
MON-MYC154-UM	Crazy Horse Canyon Road Improvements	Add passing lanes and construct Class II bike lanes from San Juan Grade Rd to US 101.	\$27,900
MON-MYC156-UM	CVMP - Laureles Grade Paved Turnouts and Signs	Paved Turnouts and Signs	\$1,538
MON-MYC157-UM	CVMP - Carmel Valley Road btwn Laureles Grade and Ford Shoulder Widening	Shoulder Widening	\$2,308
MON-MYC159-UM	CVMP - Carmel Valley Road Passing Lanes (Front of September Ranch)	Passing lanes in front of September Ranch	\$8,014
MON-MYC161-UM	CVMP - Grade Separation at Laureles Grade/Carmel Valley Road	Grade separation	\$13,538
MON-MYC162-UM	CVMP - Laureles Grade at Carmel Valley Road Roundabout, Signalization, or Widening	Install signal or widen (prior to grade separation)	\$7,890
MON-MYC163-UM	CVMP - Laureles Grade Climbing Lane	Climbing lanes and Class II bike lanes	\$3,077
MON-MYC164-UM	CVMP - Laureles Grade Shoulder Addition	Shoulder improvements	\$5,105
MON-MYC165-UM	CVMP - Left-Turn Channelization - W of Ford Drive	Left-turn channelization	\$2,000
MON-MYC167-UM	CVMP - Sight Distance Improvements at Dorris	Sight distance improvements	\$2,377
MON-MYC181-UM	G12 San Miguel Canyon Corridor Project	Operational and capacity improvements, including road widening, turning lanes, signalization and intersection improvements, and bicycle and pedestrian facilities. Refer to project area 1 to 6 of the G12 Pajaro to Prunedale Corridor Study (Two Project Areas are listed individually as MYC311 & MYC313)	\$55,000
MON-MYC188-UM	Gonzales River Rd Bridge Replace	Bridge replacement	\$20,000
MON-MYC200-UM	Johnson Cyn Land - Phase I	Overlay existing roadways: Gloria, Iverson, and Johnson Cyn Rds	\$3,000
MON-MYC202-UM	Johnson Road Bridge	Bridge replacement	\$1,520
MON-MYC217-UM	Nacimiento Lake Dr Bridge No. 449	Replace current structure with two-lane approx. 300' long by approx. 28' wide bridge with associated retaining walls, approach road and right-of-way.	\$9,800
MON-MYC227-UM	Pine Canyon Road Improvements	Add turn lanes and Class II bike lanes on Pine Canyon Road from Pine Meadow Drive to Jolon Road (County Road G14). Construct traffic signal and perform intersection improvements on Pine Canyon Road at Jolon Road.	\$11,000
MON-MYC232-UM	Reservation Rd Slip Out	Backfilling slopes (keyed in/stepped), drainage systems, pavement reconstruct, guardrail, and erosion control/planting.	\$620

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MYC238-UM	Salinas Road Improvements	Widen to four lanes between future Hwy 1 and Salinas Rd interchange and existing four lane section. Widen existing three lane section of Salinas Rd from Werner Rd to Elkhorn Rd to four lanes. Add Class II bike lanes on Salinas Rd from SR 1 to Elkhorn Rd. Install roundabout [not traffic signal] and construct Intersection Improvements at Salinas Rd /Werner Rd. Construct traffic signal on Elkhorn Rd at Salinas Rd. Realign Salinas Rd and Werner Rd to intersect Elkhorn Rd at a single location with a traffic signal.	\$15,200
MON-MYC247-UM	San Miguel Cyn Rd at Castroville Blvd	Roundabout [not signalization of the intersection], roadway widening, and striping improvements.	\$2,652
MON-MYC260-UM	Scenic Road Protection	Protect Scenic Rd from erosion due to wind & surf, and Carmel River.	\$92
MON-MYC266-UM	Street Rehabilitation/Overlay	Overlay roadways.	\$473,176
MON-MYC289-UM	RMA- PW&F Countywide Community Street Repair	Extend life of various streets - repair and seal various streets to continue providing transportation mobility (target areas include Chualar, Castroville, Pajaro and Boronda)	\$7,000
MON-MYC290-UM	Countywide Local Bridge Repair and Maintenance	Unspecified countywide local bridge repair and maintenance costs.	\$395,004
MON-MYC294-UM	Bradley Road Bridge Scour Repair	Placement of scour countermeasures to protect two exposed bridge pier footings. Includes placing rock slope protection, sheet pile or other control measures. Will extend 100-ft from each bridge face. (RMA-PW&F)	\$3,779
MON-MYC295-UM	Carmel Valley Road Repair	Project will stabilize the slope by constructing a permanent concrete barrier and/or placing rock slope protection (result of 2019 winter storms) (RMA-PW&F)	\$1,688
MON-MYC297-UM	Alisal Road Rehabilitation	Rehabilitate pavement of Alisal Road using pavement recycling techniques. (RMA-PW&F)	\$2,968
MON-MYC298-UM	Ongoing Seal Coat Program	Place chip seal on various roads consistent with 2015 Pavement Asset Management Plan. (RMA-PW&F)	\$12,000
MON-MYC299-UM	Emergency Repair Funds	Unanticipated emergency and non-emergency repairs to county facilities. (RMA-PW&F)	\$1,000
MON-MYC300-UM	HSIP Guardrail Replacement Project	Replace various metal beam guardrails throughout County. (RMA-PW&F)	\$600
MON-MYC301-UM	Streetsweeping Program under NPDES	Scheduled sweeping efforts, stenciling of drain inlets, monitoring storm drain outfall, code enforcement of private construction, inspections, public educations, detection of illicit discharge, staff training for NPDES stormwater inspection. (RMA PW&F)	\$1,080

Appendix G: Alternative Project Lists  
**Alternative 2 – Monterey County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MYC302-UM	Proactive Drainage Maintenance and Flood Protection	Perform ongoing drainage maintenance at various locations. (RMA-PW&F)	\$2,700
MON-MYC303-UM	Roadway Safety Signage/Striping Audit	Conduct roadway safety/signage audit; based on findings conduct repairs and adjustments. (RMA-PW&F)	\$3,426
MON-MYC304-UM	Countywide Striping Program	Traffic safety maintenance project including painted striping--Contract Year 2 (RMA-PW&F)	\$600
MON-MYC305-UM	Unscheduled Repairs	Various repairs to the countywide facilities on an as needed basis. (RMA-PW&F)	\$903
MON-MYC306-UM	Vegetation Removal	Remove encroachment onto County roads/visibility such as vegetation. (RMA PW&F)	\$900
MON-MYC309-UM	Echo Valley Road Repair	Excavate and repair the road and including unplugging concrete culvert. (RMA-PW&F)	\$432
MON-MYC310-UM	Elkhorn/Werner/Salinas Safety Improvements	Intersection safety improvement project that includes signage and striping enhancements. (RMA-PW&F)	\$344
MON-MYC311-UM	Pajaro to Prunedale Corridor- Project Area 1	Project Area 1 is on San Miguel Canyon Rd, extending between US 101 and Castroville Blvd and includes: addition of a NB lane on San Miguel Canyon Rd between Moro Rd and Castroville Blvd; installation of traffic signal at San Miguel Canyon Rd between Moro Rd and Castroville Blvd; Install traffic signal at San Miguel Canyon Rd and Langley Canyon Rd; Providing signal coordination and adaptive timing between Langley Canyon Rd and US 101; Installing modern roundabout at San Miguel Canyon Rd and Castroville Blvd; Installing Class I bike path SB on San Miguel Canyon between the current bike lane and Prunedale North Rd; and installing sidewalk curb and gutter NB between	\$4,515
MON-MYC312-UM	G12 Pajaro to Prunedale Corridor Study- Project Area 6	Project area 6 project is on north end of G12 corridor in Pajaro and includes: implement road diet on Salinas Rd, reduce lanes from 4 to 2 lanes; Install a buffered bike lane; install a raised median south of railroad crossing/on Salinas Rd; Welcome sign for Pajaro; Class II Bike Lanes; Construct sidewalk at sidewalk gaps; install rectangular rapid flashing beacons at existing mid-block crossings; reconfigure the parking north of Bishop St on West side of G12 to be off-street; adjacent to roadway, construct curb and gutter, sidewalk, and landscaped buffer. Provide diagonal front-end parking; provide a 13' one-way Aisle for parking maneuvers, entry and exit; provide a 5'	\$1,950
MON-MYC313-UM	Gloria, Iverson, and Johnson Canyon Roads Rehabilitation	Reconstruction, grinding, and paving of existing pavement with hot mix asphalt and placement of reinforcing fabrics. (RMA-PW&F)	\$10,529

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MYC314-UM	Hartnell Road- Bridge Replacement (RMA-PW&F)	Replace existing two-lane box culvert/bridge over Alisal Creek. (RMA-PW&F)	\$3,183
MON-MYC315-UM	Las Lomas Drainage Project	Provide underground drainage facility on Los Lomas. (RMA-PW&F)	\$5,243
MON-MYC318-UM	River Road Rehabilitation	Rehabilitate roadway pavement using pavement reconstruction techniques and place hot-mix asphalt. (RMA PW&F)	\$7,712
MON-MYC319-UM	Monterey Dunes Road Repair	Fix collapsed culvert under Monterey Dunes Road; repair project will construct a permanent repair of the roadway including pipe replacement to restore underground water flow. (RMA-PW&F)	\$582
MON-MYC320-UM	Nacimiento Lake Drive Bridge No. 449 Replacement	Replacement of existing Nacimiento Lake Drive Bridge over San Antonio River. (RMA-PW&F)	\$9,826
MON-MYC321-UM	Palo Colorado Road	Repair from severe storm damage along Palo Colorado Road near Big Sur; rebuild the road with suitable fill, installation of soil nail walls, and improve stormwater drainage. MP 4.0 to MP 7.8 Emergency (RMA-PW&F)	\$10,887
MON-MYC322-UM	River Road Overlay	Extend life of River Road from Las Palmas Parkway to SR 68 through rehabilitation of pavement using pavement recycling techniques. (RMA PW&F)	\$5,187
MON-MYC323-UM	Robinson Canyon Road Bridge Scour Replacement	Replacement of scour countermeasures to protect two exposed bridge pier footings. (RMA-PW&F)	\$2,346
MON-MYC324-UM	Rogge Road Intersection Improvements	Construct intersection improvements. (RMA PW&F)	\$1,125
MON-MYC325-UM	San Juan Grade Road Erosion Damage	Stabilize the slope with construction of permanent concrete barrier and/or placing rock slope protection at MP 8.6. (RMA PW&F)	\$625
MON-MYC326-UM	Toro Road - Slope, Road, and Guardrail Repair	Repair roadway to its pre-storm condition including guardrail repair and pavement slope. (RMA PW&F)	\$558
MON-MYC331-UM	Viejo Road Shoulder and Asphalt Repair	Repair roadway to pre-storm conditions. (RMA PW&F)	\$556
MON-PGV001-PG	Congress - Sunset Roundabout	Construct a roundabout at Congress and Sunset including ROW, landscaping, curb, and paving; make accommodations for bicyclists and pedestrians.	\$2,500
MON-PGV005-PG	Lighthouse Ave. Resurfacing	Resurface Street, drainage improvements	\$1,400
MON-PGV012-PG	Ocean View Blvd. Resurfacing	Repair and resurface street	\$7,680
MON-PGV013-PG	Pine Ave. Resurfacing	Repair and resurface street	\$11,800
MON-PGV014-PG	Miscellaneous Street Improvements - Various Streets	Pavement repair, cross gutter, curb and gutter, sidewalks, traffic striping, signs	\$800
MON-PGV015-PG	Miscellaneous Drainage Improvements - Various Streets	Storm drain repair/improvements, catch basins, manholes, cross gutters	\$800

Appendix G: Alternative Project Lists  
**Alternative 2 – Monterey County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-SCY003-SA	California Ave. - Playa Ave. Signal	Install new traffic signal with bike and pedestrian accommodations.	\$225
MON-SCY005-SA	Sand City Rehab in Old Town Area	Install street lighting, reconstruct streets in Old Town area; design shared streets.	\$3,500
MON-SCY013-SA	California Avenue Pavement Overlay	Overlay street; install Class II/Class III markings.	\$156
MON-SCY014-SA	Contra Costa St. Realignment	Realign Contra Costa St. to at Del Monte Ave.	\$500
MON-SEA005-SE	Fremont - Broadway	Roadway improvements, utility relocation, ADA ramps, landscaping and signal upgrade	\$387
MON-SEA028-SE	West Broadway Ave Corridor improvements	Corridor rehabilitation including intersection improvements, bikeways, road rehab	\$4,000
MON-SEA030-SE	Update and Implement Pavement Management System and Maintenance	Roadway improvements to include total reconstruction and overlay	\$58,951
MON-SEA039-SE	Broadway Corridor Improvements	Road diet and roundabouts along Broadway, from Fremont to General Jim Moore. Includes complete streets elements- such as bike lanes on both sides of the road.	\$11,000
MON-SEA040-SE	General Jim Moore Corridor Improvements	Roundabout installation intersection improvements along General Jim at Hilby, San Pablo, McClure, Normandy and Gigling	\$15,000
MON-SEA041-SE	Canyon Del Rey Corridor Improvements	Bike lanes, intersection improvements two roundabouts from Fremont Blvd to Del Monte Boulevard	\$17,500
MON-SNS011-SL	Boronda - Main Improvements	Construct intersection improvements	\$2,161
MON-SNS024-SL	Elvee Drive Extension	Construct 49' span bridge and extend two lanes between Work to Elvee; Widen Elvee Drive from Sanborn Road to elbow of Elvee Drive	\$3,600
MON-SNS033-SL	Laurel Drive Intersection Improvements	Median improvements/median left turn lanes between Adams St and Main St	\$583
MON-SNS041-SL	Maryal Drive Reconstruction	Widen roadway behind Rodeo Grounds (from 36' to 40')	\$1,260
MON-SNS042-SL	Natividad - Laurel Intersection	Install NB/SB lanes, convert EB right turn lane into shared thru	\$1,250
MON-SNS106-SL	Alisal Street Improvements	Add left turn channelizations at major intersections	\$33
MON-SNS107-SL	John Street Improvements	Add left turn channelization and eliminate on street parking	\$766
MON-SNS109-SL	San Juan Grade - Russell Rd Intersection Improvements	Install signal	\$371
MON-SNS112-SL	Boronda Rd -East Constitution Intersection Improvements	Install signal	\$546
MON-SNS113-SL	Boronda Rd - Sanborn Rd Intersection Improvements	Install traffic circle	\$6,535

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-SNS114-SL	Boronda Rd - Williams Rd Intersection Improvements	Install signal	\$5,224
MON-SNS115-SL	Natividad Rd - Russell Rd (Future Extension) Intersection Improvements	Install signal	\$5,142
MON-SNS128-SL	Front Street/Sherwood/Rossi TS Coord	Signal coordination on Front St/Sherwood Drive	\$450
MON-SNS142-SL	North Main Street Intersection Improvements	Traffic signal/intersection control	\$586
MON-SNS144-SL	Boronda Road Roundabouts	Roundabouts at 4 intersections	\$44,000
MON-SNS147-SL	Sherwood Dr/Sherwood Place Intersection	Traffic signal installation	\$400
MON-SNS148-SL	Market Street/Merced	Traffic signal installation	\$400
MON-SNS149-SL	Sanborn Rd-Mayfair Intersection	Traffic signal installation	\$400
MON-SNS150-SL	Alisal Street-Capitol Intersection Improvements	Traffic signal installation	\$400
MON-SNS151-SL	Alvin Drive-Linwood Intersection Improvements	Traffic signal installation	\$400
MON-SNS153-SL	Williams/Garner Intersection Improvements	Traffic signal installation	\$631
MON-SNS154-SL	Boronda/Sanborn Intersection	Roundabout installation	\$400
MON-SNS155-SL	Constitution Blvd/Las Casitas Intersection Improvements	Traffic signal installation	\$760
MON-SNS157-SL	Davis Road/Chevron Station Intersection	Traffic signal installation	\$400
MON-SNS160-SL	Traffic Calming Projects	Traffic calming local	\$2,500
MON-SNS165-SL	Work Street	Overlay	\$500
MON-SNS260-SL	Alisal St and Murphy Street Traffic Signal	Install traffic signal	\$905
MON-SNS261-SL	Old State Road and Williams Rd Traffic Signal	Traffic signal installation	\$4,508
MON-SNS262-SL	Natividad and Rogge Road Traffic Signal	Install traffic signal	\$2,243
MON-SNS263-SL	N Main St and Bernal Dr Signal Modification	Install NBT lane, NBO phase, convert WBT to shared thru left	\$873
MON-SNS264-SL	Sherwood Dr/Natividad Rd & East Bernal Dr/La Posada Way Intersection Improvements	Install EB left turn lane, NB thru lane and SB thru lanes	\$2,062
MON-SNS265-SL	East Front St/Sherwood Dr/Market St Intersection Improvements	Installation of southbound left turn lane	\$6,433
MON-SNS266-SL	Salinas St/North Main/West Market/East Market Intersection Improvements	Install SB left turn lane and EB thru lane	\$1,321

Appendix G: Alternative Project Lists  
**Alternative 2 – Monterey County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-SNS267-SL	South Main St/West Blanco/East Blanco Intersection	Install NB left turn lane	\$489
MON-SNS268-SL	Sun St/Market St Install Traffic Signal	New traffic signal	\$800
MON-SNS269-SL	Airport Blvd/Terven Ave & SB US 101 On/Off Ramp Intersection Improvements	Signal modifications or roundabout	\$1,500
MON-SNS270-SL	Blanco Rd/Sanborn Rd/Abbott St Intersection Improvements	Convert shared through/left turn lanes to through lanes and adding a second left turn lane on the north and south Abbott St approaches	\$96
MON-SNS271-SL	Harkins Rd and Abbott St Intersection Improvements	Add a second westbound left-turn lane on Harkins Rd	\$645
MON-SNS272-SL	Harkins Rd and Hansen St Intersection Improvements	Install NB left, EB thru and EB right	\$221
MON-SNS273-SL	Airport Blvd and Hansen St Intersection Improvements	Install a second northbound right-turn lane on Hansen St	\$85
MON-SNS274-SL	Roy Diaz St and De La Torre St South Intersection Improvements	Install traffic signal	\$800
MON-SNS275-SL	Roy Diaz St and US 101 Northbound Ramps Intersection Improvements	Install traffic signal or roundabout	\$1,370
MON-SNS276-SL	Skyway Blvd and Airport Blvd Intersection Improvements	Install traffic signal or roundabout	\$1,370
MON-SNS277-SL	Constitution Blvd/Medical Center Driveway Intersection Improvements	Install traffic signal	\$800
MON-SNS283-SL	Road Maintenance and Rehabilitation	Road maintenance using the Pavement Management Systems	\$140,000
MON-SOL007-SO	Street Resurfacing & Sidewalk Repair	Apply seal coats and resurface various local streets. Construct missing sidewalk and handicap ramps. Replace broken sidewalk and ramps. Mark bike facilities.	\$2,135
MON-SOL030-SO	Front St and Hector de la Rosa St Intersection Improvements	Install signal	\$854
MON-SOL031-SO	Front St and East St Intersection Improvements	Construct intersection, install signal	\$2,548
MON-SOL032-SO	SR 146/Metz Rd and SR 146 Bypass Intersection Improvements	Construct intersection, install signal	\$1,721
MON-SOL033-SO	Front St/Gabilan Dr Intersection Improvements	Construct intersection, install signal/roundabout	\$2,883

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-SOL034-SO	New Arterial 1 and Camphora Gloria Intersection Improvements	Construct intersection, install signal	\$2,120
MON-SOL035-SO	New Arterial 1/Front St Extension Intersection Improvements	Construct intersection, install signal	\$2,878
MON-SOL036-SO	New Arterial 1/San Vincente Rd Intersection Improvements	Construct intersection, install signal	\$2,503
MON-SOL037-SO	New Arterial 1/West St Intersection Improvements	Construct intersection, install signal	\$2,119
MON-SOL038-SO	West Street Extension/Camphora Gloria Rd Intersection Improvements	Construct intersection, install signal	\$2,262
MON-SOL039-SO	West St Extension/San Vincente Rd Intersection Improvements	Construct intersection, install signal	\$2,879
MON-SOL040-SO	West St Extension/San Vincente Rd Intersection Improvements	Construct intersection, install signal	\$2,584
MON-SOL042-SO	Gabilan Dr/Sn Vincente Rd Intersection Improvements	Construct intersection and install signal	\$324
MON-SOL053-SO	Andalucia Drive and Gabilan Drive Intersection Improvements	Intersection Improvements (2013 TIF M1); install signal	\$467
MON-SOL076-SO	Traffic Signals	Traffic Signals (2007 TIF M1, 2013 TIF M1 remainder); construct traffic signals at 4 locations	\$20,166
MON-SOL079-SO	Pavement Maintenance 2020-2021 -1	Pavement Maintenance 2020-2021 - 1; apply seal coats and resurface	\$2,000
MON-SOL080-SO	Pavement Maintenance 2020-2021 -2	Pavement Maintenance 2020-2021 - 2; apply seal coats and resurface	\$2,000

**Table 6 Other Projects**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MAA002-MAA	Environmental Assessment	EA for Runway and Parallel Taxiway A extension to west, apron expansion west end, acquire land - 11.4 acres for RPZ	\$600
MON-MAA006-MAA	Environmental Assessment	Conduct Environmental assessment for construction improvements including hangar infill projects	\$150
MON-MAA015-MAA	Environmental Assessment	EA for North area of airport including north-side parallel Taxiway B, north perimeter aviation access road and development for approximately 250 acres aviation and mixed use	\$500
MON-MAA021-MAA	Pavement Rehabilitation	Pavement rehabilitation at various areas throughout the airport in accordance with the PMMP	\$600
MON-MAA027-MAA	Airport Utility Upgrades	Replacements, extensions and enhancements to existing water, sanitary sewer, and cable and wire infrastructure	\$7,500
MON-MAA028-MAA	Rehabilitate Existing Airport Buildings	Rehabilitate former military buildings including ADA facilities and upgrades, new roofs, building skin, structural retrofits, glazing and heat systems	\$12,300
MON-MAA029-MAA	Rehabilitate Airport Access and Service Roads	Localized removal and reconstruction of failed areas, asphalt pavement overlay, curb and gutter repair upgrades including ADA, and road widening	\$11,600
MON-MDR001-MDR	Airport Land Use Compatibility Plan Update	Update Airport Land Use Compatibility Plan (ALUCP)	\$154
MON-MDR002-MDR	Taxiway Reconstruction & Rehabilitation (Design)	Design of Taxiway reconstruction and rehabilitation	\$105
MON-MDR003-MDR	Taxiway Reconstruction & Rehabilitation (Construction)	Construction of taxiway rehabilitation and reconstruction	\$1,780
MON-MDR005-MDR	Apron Rehabilitation (Design)	Design of Apron Rehabilitation	\$250
MON-MDR006-MDR	Instrument Approach Feasibility Study & AWOS (Design)	Instrument Approach Feasibility Study & AWOS (Design Only)	\$160
MON-MDR008-MDR	AWOS (Construction)	AWOS (Construction)	\$300
MON-MDR009-MDR	Wildlife Hazardous Environmental Assessment	Wildlife hazardous environmental assessment	\$120
MON-MPA061-MRA	Terminal Complex - Construction (Terminal Building)	Construct Terminal Building	\$64,000

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MPA062-MRA	Terminal Complex - Construction (Roads & Surface Parking)	Construct Roads and Surface Parking	\$28,231
MON-SAP026-SLA	Master Plan Environmental Assessment	Perform NEPA/CEQA environmental process	\$300
MON-SAP039-SLA	Environmental Study RSA Improvements	Environmental Study RSA Improvements	\$500
MON-SAP040-SLA	Enhance RSA, Runway 13-31	Runway Improvements to Meet Standards	\$960
MON-SAP041-SLA	Enhance RSA, Runway 8-26	Runway Improvements to Meet Standards	\$20,790
MON-SAP043-SLA	Master Plan	Perform airport master plan	\$120,000
MON-TAMC009-TAMC	Habitat Preservation/ Advance Mitigation	Countywide Habitat Preservation/Advance Mitigation for projects	\$5,000

**Table 7 Transportation Demand Management**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-TAMC005-TAMC	Monterey County Go831 Traveler Information and Rideshare/Commute Alternatives	Administer Go831 Traveler Information program and rideshare/Commute Alternative programs for Monterey County.	\$5,250

**Table 8 Transit ADA**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MST014-MST	Mobility Management	Mobility Management	\$92,000
MON-MST015-MST	RIDES Bus Replacement	RIDES Bus Replacement	\$16,000
MON-MST017-MST	RIDES Operations	RIDES Operations	\$137,819
MON-TAMC012-TAMC	Senior & Disabled Transportation	Countywide support for Senior & Disabled Transportation	\$15,000

**Table 9 Transit Improvements**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-KCY053-CK	King City Multimodal Transit Station	Build new multimodal transit station; includes new Amtrak connection to Coast Rail Line. Element of Coast Rail Project (TAMC004) Includes Bike/pedestrian connections and parking	\$35,000
MON-MST008-MST	Salinas-Marina Multimodal Corridor	Construct multimodal Bus Rapid Transit Improvements between Salinas and Marina, including a multimodal transit corridor through the former Fort Ord in Marina.	\$60,000
MON-MST011-MST	Salinas Bus Rapid Transit	Construct Bus Rapid Transit improvements along E. Alisal Street.	\$20,000
MON-MST016-MST	Transit Capacity for SR 1/Surf! Busway and BRT	Construct improvements to accommodate regional MST bus service along the TAMC Branch Line during peak travel periods and construct 5th Street Station.	\$52,000
MON-MST019-MST	Highway 68 Corridor Transit Improvements	Highway 68 Corridor Transit Improvements	\$15,000
MON-MST020-MST	Salinas Bus Rapid Transit	Construct Bus Rapid Transit improvements along North Main Street.	\$15,000
MON-TAMC001-TAMC	Monterey Branch Line Light Rail- Phase 1	Provide light rail transit service using the existing 16-mile Monterey Branch Line between Monterey and Castroville adjacent to Highway 1. Phase 1 includes reconstruction of tracks, construction of stations.	\$145,000
MON-TAMC003-TAMC	Rail Extension to Monterey County- Phase 1, Kick Start Project	Extends existing rail service from Gilroy to Salinas and constructs station improvements in Gilroy and Salinas. Kick Start project (phase 1) to be completed by 2022 constructs Gilroy and Salinas station and track improvements.	\$81,500
MON-TAMC014-TAMC	Rail Extension to Monterey County - Phase 2, Pajaro/Watsonville Station	Constructs the Pajaro/Watsonville passenger rail/multimodal station	\$68,500
MON-TAMC015-TAMC	Rail Extension to Monterey County - Phase 3, Castroville Station	Constructs the Castroville passenger rail/multimodal station	\$34,000

**Table 10 Transit Operations**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MST002-MST	Bus Operations	General operations for fixed route and public demand response services (On-call)	\$931,821

**Table 11 Transit Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MST003-MST	Bus Station/Stops	General transit station and stop improvements	\$42,000
MON-MST004-MST	Bus Support Equipment and Facilities/Intelligent Transportation Systems (ITS)	Bus Support Equipment and Facilities/Intelligent Transportation Systems (ITS)	\$20,000
MON-MST005-MST	Communication/Radio Equipment	Communication/Radio Equipment	\$30,000
MON-MST006-MST	Preventative Maintenance	Preventative Maintenance	\$21,000
MON-MST007-MST	Safety and Security	Safety and Security	\$2,000
MON-MST009-MST	Operations & Maintenance Facilities	Maintenance and Operations Facilities including: \$12M Measure X for Salinas Maintenance & Ops Facility & \$10.3M Measure X for S County Maintenance & Ops Facility (under construction, estimated to be completed in late 2021 or early 2022)	\$150,000
MON-MST010-MST	Bus Replacement	Combining MON-MST001-MST and MON-MST010-MST	\$100,000
MON-MST012-MST	Bus Rehab/Renovate	Bus Rehab/Renovate	\$28,400
MON-MST013-MST	Zero Emission Buses and Infrastructure	Electrification and/or fuel cell technology vehicles and infrastructure	\$149,500
MON-MST018-MST	South Monterey County Regional Transit Improvements	Increases the frequency of MST Line 23 service between King City and Salinas and constructs improvements along Abbott Street between US 101 and Romie Way in Salinas. Stops in King City, Greenfield, Soledad, Gonzales, Chualar and Salinas.	\$27,500
MON-SNS120-SL	Salinas ITC Station Improvements	TAMC Lead - Upgrades to passenger terminal and freight buildings	\$2,300

**Table 12 Transportation System Management**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MRY015-MY	Traffic Signal Operational Improvements to Pacific, Franklin and Munras Corridors	Install traffic signal adaptive system and upgrade signal infrastructure	\$382

## Alternative 2 – San Benito County

**Table 1 Active Transportation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COG-A57	Safe Routes to Schools Implementation Program	Infrastructure improvements to achieve safer routes to schools for walking and bicycling at R.O. Hardin & Calaveras Elementary Schools. Lead agency role will vary from the City of Hollister, County and the Hollister School District.	\$1,126
SB-COH-A20	Sunnyslope Road Bike Lane	Construct Class II bike lane from Cerra Vista to Memorial Drive	\$21
SB-COH-A23	Ladd Lane Bike Lane	Traffic calming measures on Ladd Lane and Southside Road to reduce vehicle speeds and improve safety for pedestrians and cyclists.	\$184
SB-COH-A24	South Street/Hillcrest Road Bike Lane	Construct Class II bike lane from McCray St. to proposed Class II on Hillcrest Road	\$14
SB-COH-A25	Central Avenue Traffic Calming Project	Traffic calming enhancements between Bridge Road and East Street.	\$505
SB-COH-A26	Memorial Drive Bike Lane	Construct Class II bike lane from Sunset Dr. to Meridian St.	\$34
SB-COH-A28	Fourth Street Bike Route	Construct Class III bike route from McCray Street to Westside Boulevard.	\$11
SB-COH-A29	Sally Street Bike Route and Traffic Calming Project	Construct Class III bike route from Nash Rd. to 4th St., road rehabilitation, and traffic calming measures.	\$570
SB-COH-A30	Meridian Street Bike Lane	Construct Class II bike lane from Memorial Drive to McCray Street.	\$32
SB-COH-A31	San Felipe Road Bike Lane	Construct Class II bike lane from Santa Ana Road to Northern San Benito County.	\$197
SB-COH-A32	Sunset Drive Bike Route	Construct Class III bike Route from Cerra Vista Road to Airline Highway.	\$11
SB-COH-A33	Hillcrest Road Bike Lane	Construct Class II bike lane from Fairview Road and proposed Class III bike route on Hillcrest Road.	\$53
SB-COH-A36	Monterey Street Bike Route	Construct Class III bike route from Nash Road to 4th Street	\$14
SB-COH-A60	Complete Streets Project for Nash/Tres Pinos/Sunnyslope Roads and McCray Street	Complete street segments include: sidewalks, bike lanes, curb extensions, median islands, narrower travel lanes, roundabouts and more.	\$6,760
SB-COH-A66	McCray Street Bike Lane	Class II, 0.61 miles, Hillcrest to Santa Ana Road.	\$18
SB-COH-A67	Cerra Vista Bike Lane	Class III Bike Route, 0.73 miles, Union Road to Sunnyslope Road.	\$10
SB-COH-A68	Hawkins Street Bike Route	Class III, 0.45 miles, Monterey Street to Prospect Avenue.	\$6
SB-COH-A69	Clearview Drive Bike Route	Class III, 1.15 miles, Sunset Drive to Meridian Street, Tier No. 2.	\$15
SB-COH-A70	Steinbeck Drive Bike Lane	Class III, .10 miles, Line Street to Westside Boulevard, Tier No. 3.	\$1

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SB-COH-A71	Meridian Road Bike Lane	Class III, .47 miles, End of Meridian Road to Memorial Drive.	\$6
SB-COH-A72	Bridgevale Road Bike Lane	Class III, .26 miles, from Fourth Street (Previously San Juan Road) to Central Avenue, Tier No. 3.	\$3
SB-COH-A73	Beverly Drive Bike Lane	Class III, .53 miles, Sunnyslope Road to Hillcrest Road, Tier No. 3.	\$7
SB-COH-A79	Westside Boulevard Bike Lane	Class II, .28 miles, between South Street and Jan Avenue.	\$5
SB-SBC-A22	Airline Highway Bike Lane	Class I bike path from Sunset Drive to existing Class I on Airline Hwy (Tres Pinos Town).	\$42
SB-SBC-A34	Santa Ana Road/Buena Vista Road/North Street Bike Lane	Construct Class II bike lane, 3.97 miles, partially located in the City of Hollister.	\$118
SB-SBC-A60	Highway 156 Bike Lane	Class II, 6.88 miles, The Alameda (San Juan Bautista) to Buena Vista Road (Hollister).	\$205
SB-SBC-A61	Valley View Drive Bike Lane	Class II, 0.52 miles, Sunset Drive to Union Road.	\$9
SB-SBC-A62	The Alameda - Salinas Road Bike Route	Class III, 0.65 miles, 4th Street to Old Stagecoach Road.	\$9
SB-SBC-A63	Union Road Bike Lane	Class III, 3.83 miles, Highway 156 to Cienega Road.	\$51
SB-SBC-A64	Buena Vista Road Bike Route	Class III, 0.74 miles, Proposed Class II on Buena Vista to Highway 156.	\$10
SB-SBC-A65	San Benito River Recreational Trail Phase 1	Construct a portion of recreational bicycle/pedestrian/equestrian trail along the San Benito River.	\$5,627
SB-SBC-A66	San Benito River Recreational Trail Phase 2	Construct a portion of recreational bicycle/pedestrian/equestrian trail along the San Benito River.	\$8,538
SB-SBC-A68	Union Pacific Railroad Multi-Use Path	Class I, 8.81 miles. Construct a multi-use path adjacent to the Union Pacific Railroad right of way.	\$7,800
SB-SBC-A80	Fallon Road Bike Route	Class III, 2.29 miles, Fairview Road to Frontage Road, Tier 3. Located in the City and County.	\$30
SB-SBC-A85	San Juan - Hollister Road Bike Lane	Stripping a bike lane on San Juan - Hollister Road.	\$10
SB-SJB-A06	Pedestrian Crosswalk at Intersection of The Alameda & Hwy 156	Install meters, screens and stripe on east side of The Alameda & Highway 156.	\$75
SB-SJB-A11	Third Street Bike Lane	Striping a bike lane on Third Street.	\$25
SB-SJB-A12	First Street Bike Lane	Striping a bike lane on First Street.	\$25
SB-SJB-A13	Fourth Street Bike Lane	Striping a bike lane on First Street.	\$35
SB-SJB-A17	Franklin Street Bike Lane	Class III, .17 miles, 4th Street to South side of San Juan Bautista Historic Park, S-6 of the Bike Plan.	\$10
SB-SJB-A18	4th Street - San Jose Bike Lane	Class II, 0.16 miles, 4th Street to North side of San Juan Bautista Historic Park.	\$5

Appendix G: Alternative Project Lists  
**Alternative 2 – San Benito County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-SJB-A19	San Jose Street - The Alameda Bike Lane	Class III, .54 miles, 4th Street from San Jose to Monterey Street, S-8 of Bike Plan.	\$10
SB-SJB-A20	Second Street Bike Lane	Class III, 0.14 miles, San Jose Street to Monterey Street.	\$10
SB-SJB-A23	1st Street Bike Lane	Class III, 0.10 miles, Monterey Street to existing Class II on 1st Street.	\$35
SB-SJB-A26	The Alameda - Salinas Road Bike Route	Class III - Stripping a bike lane from Franklin to Old SJ Hollister Rd., S-10 of the Bike Plan.	\$50
SB-SJB-A21	San Juan Bautista Historic Park Bike Lane	Class I, multi-use path, .29 miles, Franklin Street to 1st Street.	\$300
SB-SJB-A22	Monterey Street Bike Route	Class III, 1.04 miles, 4th Street to North side of San Juan Bautista Historic Park.	\$75

**Table 2 Highway Improvements**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-CT-A01	San Benito Route 156 Improvement Project San Juan Bautista to Union Road	Construct a four-lane expressway south of the existing State Route 156 and use the existing SR 156 as the northern frontage road. Partial TIF	\$68,339
SB-CT-A17	Airline Highway Widening/SR 25 Widening: Sunset Drive to Fairview Road	Convert to 4 lane expressway from Sunset Drive to Fairview Road with bicycle lanes. TIF	\$28,214
SB-CT-A44	Route 25 Expressway Conversion Project, Phase 1	Convert to four lane expressway from San Felipe Road to Hudner Lane. Includes Area No. 1. SR - 25/SR156 interchange to Hudner Lane and Area No. 2-south of the SR 25/SR 156 interchange to San Felipe Road. Partial TIF.	\$106,000
SB-CT-A45	Route 25 Expressway Conversion Project, Phase II	Convert to four lane expressway from Hudner Lane to County Line. Includes Area No 3. SR 25/SR 156 interchange to County line and Area No. 4 County line to Bloomfield Road. Partial TIF.	\$135,000

**Table 3 Highway Operational, Maintenance and Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-CT-A02	SR 156/Fairview Road Intersection Improvements	Construct new turn lanes at the intersection. TIF	\$6,824
SB-CT-A43	SHOPP Group Lump Sum Project Listing	Varies, grouped project listing.	\$213,249
SB-CT-A57	SR 156 Bridge/Ramps at US 101 Operational Improvements (Caltrans EA: 05-1N910)	In San Benito County, At US 101/SR 156E interchange. Extend southbound US 101 connector and construct a ramp meter - Minor A	\$1,250

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**Table 4 Local Street and Road Improvements**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COH-A11	Union Road (Formerly Crestview Drive) Construction	Construct new 2-lane road	\$11,000
SB-COH-A16	Memorial Drive South Extension: Meridian Street to Santa Ana Road	Construct 4-lane road extension with bicycle lanes. TIF	\$3,355
SB-COH-A18	Westside Boulevard Extension	Construct 2-lane road. Westside Boulevard Extension: Nash Road to Southside Road/San Benito Street Intersection with bicycle lanes. TIF	\$13,360
SB-COH-A55	Memorial Drive North Extension: Santa Ana Road to Flynn Road/Shelton Intersection	Construct new 4-lane road and extension with bicycle lanes. TIF	\$13,842
SB-SBC-A04	Union Road Widening (East): San Benito Street to Highway 25	Widen to 4-lane arterial with bicycle lanes. TIF	\$5,463
SB-SBC-A05	Union Road Widening (West) San Benito Street to Highway 156	Widen to 4-lane arterial with bicycle lanes. TIF	\$15,448
SB-SBC-A09	Fairview Road Widening: McCloskey to SR 25	Widen to 4-lane arterial; construct new bridge south of Santa Ana Valley Road with bicycle lanes. TIF	\$20,790
SB-SBC-A14	San Benito Regional Park Access Road	Construct new 2-lane roadway from Nash Road to San Benito Street.	\$162
SB-SBC-A50	Hospital Road Bridge	Hospital Road over San Benito River, between South Side Road and Cienega Road. Replace lane low water crossing with 2-lane bridge. Bridge No. 00L0026.	\$15,200
SB-SBC-A67	Shore Road Extension	4-Lane Arterial with Class II bike lanes.	\$20,350
SB-SBC-A79	Enterprise Road Extension	Extend Enterprise Road westerly from Southside Road toward Union Road.	\$3,000
SB-SBC-A81	Meridian Street Extension:185 feet east of Clearview Road to Fairview Road	Construct 4-lane road. Located in the City of Hollister and County with bicycle lanes. TIF	\$9,445
SB-SBC-A82	Flynn Road Extension	San Felipe Road to Memorial Drive north Extension. New roadway construction south of McCloskey Road with bicycle lanes. Located within the City of Hollister and County. TIF	\$7,709
SB-SJB-A07	Third Street Extension	Constructing Third Street to connect to First Street.	\$450
SB-SJB-A09	Lang Street to Lang Street	Construct and connect Lang Street to The Alameda, 2 lanes.	\$800
SB-SJB-A14	Muckelemi Street to Muckelemi Street	Reconstruction of Muckelemi Street to Monterey Street adding planting strip median.	\$650

**Table 5 Local Street and Road Operational, Maintenance and Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COH-A13	West Gateway Improvement Project	Streetscape and intersection improvements.	\$4,237
SB-COH-A58	Westside Boulevard & Nash Road Westside Boulevard Extension (Intersection)	New signalization of 2-lane collector south leg (Westside Extension), existing 4-lane north leg with existing 2-lane local; 4 approaches, turning lanes will be added. TIF	\$575
SB-COH-A59	Westside Boulevard Extension (Intersection)	New signalization of new 2-lane collector (Westside Extension) with 2-lane arterial; 4 approaches, turning lanes will be constructed at Westside Boulevard & San Benito Street. TIF	\$500
SB-COH-A61	City of Hollister Local Street & Roadway Maintenance: 2020-2045	System preservation and maintenance.	\$113,401
SB-COH-A63	South Street & Westside Boulevard Intersection	New signalization of 4-lane collector with 2-lane collector; 4 approaches, retain current lane configuration. TIF	\$550
SB-COH-A64	Fourth Street (San Juan Road) & West Street or Monterey Street Intersection	New signalization of 2-lane collector with 2-lane local; 4 approaches, retain current lane configuration. TIF	\$400
SB-COH-A65	Memorial Drive & Hillcrest Road Intersection	New signalization of 4-lane arterial with 4-lane arterial, 4 approaches. Existing lane configuration to remain with bicycle lanes. TIF	\$700
SB-COH-A74	Flynn Road & San Felipe Road Intersection	New signalization of 4-lane arterial with 4-lane arterial. TIF	\$800
SB-COH-A75	Memorial Drive & Santa Ana Road Memorial Drive South Extension (Intersection)	New signalization of future 4-lane arterial (Memorial) with non-TIMF widening to 4-lane arterial; 4 approaches, turning lanes will be constructed.	\$800
SB-COH-A76	Memorial Drive South Extension: Meridian Street to Memorial Drive (Intersection)	New signalization of future 4-lane arterial (Memorial) with 4-lane arterial; 4 approaches, turning lanes will be constructed. TIF	\$800
SB-COH-A77	Gateway Drive & San Felipe Road Intersection	New signalization of new 2-lane collector with 4-lane arterial; 3 approaches, LTO's exist. TIF	\$525
SB-COH-A78	Rancho Drive & East Nash (Tres Pinos Road) Intersection	New roundabout. TIF	\$700
SB-SBC-A52	Union Road Bridge	Union Road Over San Benito River, East Cienega Road. Replace bridge, no added capacity. Bridge No. 43C0002. HBP	\$24,450
SB-SBC-A53	Panoche Road Bridge (Bridge No. 43C0016)	Panoche Road over Tres Pinos Creek, 6 Mi. E of SH 25. Scour Countermeasure. Bridge No. 43C0016. HBP	\$3,700
SB-SBC-A54	Panoche Road Bridge (Bridge No. 43C0027)	Panoche Road, over Tres Pinos Creek, 12 miles west Little Panoche Road. Replace 1-lane bridge with 2-lane bridge. Bridge No. 43C0027. HBP	\$4,825
SB-SBC-A56	Rosa Morada Bridge	Rosa Morada Rd over Arroyo Dos Picachos, 0.6 Mi E Fairview Road. Replace bridge (no added lane capacity) Bridge No. 43C0041. HBP	\$3,300

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SB-SBC-A57	Limekiln Road Bridge	Limekiln Road over Pescadero Creek, 0.1 Mi S Cienega Road. Replace 1-lane bridge with 2-lane bridge. Bridge No. 43C0054	\$2,800
SB-SBC-A58	Rocks Road Bridge	Rocks Road over Pinacate Rock Creek, East Little Merrill Road. Replace 1-lane bridge with 2-lane bridge. Bridge No. 43C0053. HBP	\$2,540
SB-SBC-A59	Anzar Road Bridge	Anzar Road over San Juan Creek, 0.35 Miles with San Juan Hwy Road. Replace 2-lane with 2-lane bridge (no added capacity) Bridge No. 43C0039. HBP	\$2,870
SB-SBC-A69	Fairview Road & Hillcrest Road Intersection	New signalization of future widening to 4-lane arterial (north & south legs) with future non-TIMF widening to 4-lane arterial (west leg only); 3 approaches. Turning lanes existing on all approaches, SB & NB through lanes will be constructed with Fairview Road widening. TIF	\$600
SB-SBC-A70	Union Road & Fairview Road Intersection	New signalization of future widening to 4-lane arterial (north & south legs) with future new 4-lane arterial (west leg only); 3 approaches. Turning lanes on Fairview Road added with Project No. 8; turning lanes on Union Road. Included as regional component of developer-constructed improvements. TIF	\$655
SB-SBC-A71	Enterprise Road & Airline Highway (SR 25) Intersection	New signalization of future widening to 4-lane arterial (north & south legs) with 2-lane arterial; 4 approaches, EB & WB through lanes will be constructed with Airline Hwy Project No. 5 with bicycle lanes. TIF	\$700
SB-SBC-A73	McCloskey Road & Fairview Road Intersection	New signalization of 4-lane arterial with 2-lane local, 3 approaches. LTO on lanes 3 approaches, RTO on 2 approaches. TIF	\$734
SB-SBC-A74	Meridian Street & Fairview Road Meridian Street Extension (Intersection)	New signalization of 4-lane arterial with 4-lane arterial: 3 approaches, turning lanes exist, through lane on Fairview will be constructed. TIF	\$600
SB-SBC-A75	Fairview Road & Fallon Road Intersection	New signalization of 4-lane arterial with 2-lane collector, 4 approaches. LTO & RTO on all approaches. TIF	\$944
SB-SBC-A77	San Benito County Local Street & Roadway Maintenance: 2020-2045	System preservation and maintenance.	\$131,313
SB-SBC-A83	Fairview Road & Airline Highway/SR 25 Intersection	New signalization of 4-lane arterial (east & west legs) with 4-lane arterial (north leg) & 2-lane (south leg). LTO & RTO existing on all approaches, EB & WB through lanes constructed. County and Caltrans. TIF	\$850
SB-SBC-A84	SR 156 & Buena Vista Road Intersection	New signalization of new 2-lane collector with 4-lane arterial, LTO on 4 approaches. County and Caltrans. TIF	\$765
SB-SBC-A86	John Smith Realignment at Fairview Intersection	This project will realign John Smith Road to intersect Fairview Road at St. Benedict Way and add left and right turn lanes into John Smith Road.	\$2,200

Appendix G: Alternative Project Lists  
**Alternative 2 – San Benito County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-SBC-A88	Carr Avenue Bridge Project	Potential bridge replacement. The bridge is located on Carr Avenue, 0.23 miles east from Carpinteria Road intersection.	\$657
SB-SJB-A02	Roundabout at Muckelemi Street & Monterey Street	Constructing a roundabout.	\$450
SB-SJB-A03	Roundabout at Muckelemi and Fourth Street	Slight widening/re-paving and construction of roundabout.	\$450
SB-SJB-A04	Roundabout at Old San Juan - Hollister Road & San Juan Canyon Road	Constructing a roundabout and repaving.	\$250
SB-SJB-A05	Roundabout at Third Street & Donner Street	Striping a roundabout widening Third Street.	\$250
SB-SJB-A15	City of San Juan Bautista Local Street & Roadway Maintenance: 2020-2030	System preservation and maintenance.	\$9,553
SB-SJB-A25	Roundabout at First Street & Lavagnino Road	Constructing a roundabout.	\$400

**Table 6 Other Projects**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COG-A58	COG Planning and Administration	COG and LTA short- and long-range transportation planning studies. Transportation Development Act (TDA) for COG Administration, transit, bicycle & pedestrian facilities, approx.	\$40,000
SB-COH-A40	Hollister Airport Operations and Maintenance 2020-2045	Continued operations and maintenance of the airport.	\$22,500
SB-COH-A41	Hollister Airport Capital Improvement Program	Capital improvements grouped project list 2020-2026 from the Airport Capital Improvement Program. Project need for years 2027 and beyond are not available.	\$10,574

**Table 7 Transportation Demand Management**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COG-A08	Regional Rideshare Program	Promote the use of alternative modes of transportation.	\$125
SB-COG-A53	Vanpool Program	Provide vehicle lease program, planning and coordination.	\$525

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**Table 8 Transit Improvements**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-LTA-A46	Regional Transit Connection to Salinas	Transit connection from City of Hollister to City of Salinas.	\$3,113
SB-LTA-A47	Regional Transit Connection to Watsonville	Transit connection from City of Hollister to City of Watsonville.	\$3,124
SB-LTA-A53	Passenger Rail to Santa Clara County	Commuter rail from Hollister to Gilroy	\$132,130

**Table 9 Transit Operations**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-LTA-A37	General Transit Service Operations	Ongoing operations of County Express and Specialized Transportation Services, including services outside of San Benito County.	\$54,800
SB-LTA-A42	Regional Transit Planning	Planning transit infrastructure, new service and operational improvements, including transitioning to zero emission fleet.	\$2,500
SB-LTA-A52	Transit Technology and Infrastructure Improvements	Improve transit infrastructure to accommodate operations.	\$840
SB-LTA-A54	Bus Beside Rail to Santa Clara County	Constructing a single-lane bus route beside the existing rail, allowing bypassing traffic congestion.	\$51,510

**Table 10 Transit Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-LTA-A48	Transit Vehicle Replacements	Replace transit vehicles.	\$5,337
SB-LTA-A51	Bus Stop Improvement Program	Provides bus stop improvements, such as benches, shelters, and other amenities.	\$2,751

**Table 11 Transportation System Management**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COG-A44	Emergency Motorist Aid System (SAFE)	Emergency Call Box Program and additional CHP safety patrol are administered by the Service Authority for Freeways and Expressways (SAFE)	\$1,300
SB-COG-A56	Intelligent Transportation Systems Lump Sum Projects	Implement projects identified in the Central Coast Intelligent Transportation Systems Plan.	\$7,355

## Alternative 2 – Santa Cruz County

**Table 1 Active Transportation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
CAP 17SC	Upper Pacific Cove Parking Lot Pedestrian Trail and Depot Park Metro Development	Construct 4-foot-wide pedestrian pathway along City owned Upper Pacific Cove Parking lot, adjacent to rail line (680'). Includes new signal for ped crossing over Monterey Avenue. Includes a new metro shelter located and landscaped setting along the rail corridor/Park Avenue.	\$743
CO 42bSC	Green Valley Rd Pedestrian Safety Project	Build 6-foot-wide sidewalk with some curb and gutter on NW side of Green Valley Road from Airport Boulevard to Amesti Road (1800 ft).	\$390
CO 84 SC	Hwy 152/Holohan - College Intersection	Intersection capacity enhancements and signal modifications, pedestrian and bicycle safety improvements. Add sidewalks and bicycle lanes on Holohan Rd, an additional left-turn lane from Holohan to EB Hwy 152, sidewalk on north side of Hwy 152 from Holohan to Corralitos Creek bridge, adds crosswalks and speed feedback signs.	\$3,650
SC-CAP-P03-CAP	Upper Capitola Avenue Improvements	Installation of bike lanes and sidewalks on Capitola Avenue (Bay Avenue - SR 1) and sidewalks on Hill Street from Bay Avenue to Rosedale Avenue.	\$1,340
SC-CAP-P04b-CAP	Capitola Village Multimodal Enhancements - Phase 2/3	Multimodal enhancements in Capitola Village along Stockton Avenue, Esplanade, San Jose Avenue & Monterey Avenue. Includes sidewalks, bike lanes, bike lockers, landscaping, improve transit facilities, parking, pavement rehab and drainage.	\$3,100
SC-CAP-P12-CAP	Monterey Avenue Multimodal Improvements	Installation of sidewalks and bike lanes in area near school and parks.	\$360
SC-CAP-P16-CAP	Clares Street Pedestrian Crossing	Construct signalized ped crossing 0.20 miles west of 40th Avenue.	\$520
SC-CAP-P42-CAP	Clares Street Bike Lanes/Sharrows	Evaluate and if found necessary, add bike lanes/sharrows to Clares.	\$100
SC-CAP-P43-CAP	Clares Street/41st Avenue Bicycle Intersection Improvement	Bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) at Clares across 41st Avenue.	\$200
SC-CAP-P44-CAP	Gross/41st Avenue Bicycle Intersection Improvement	Bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) from Gross E/B to 41st N/B.	\$200
SC-CAP-P46-CAP	40th Ave (at Deanes Ln) Bike/Ped connection	40th Avenue N/S bike/pedestrian connection at Deanes Lane.	\$10
SC-CAP-P47-CAP	41st Ave (Highway 1 South to City Limits) Crosswalks	Evaluate and if found necessary, increase number of crosswalks on 41st to closer to every 300 ft.	\$100

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-CAP-P48-CAP	Capitola Mall (Capitola Rd to Clares) Bike Path	Separated bicycle facility through Capitola Mall parking lot to connect 38th Avenue bike lanes and 40th Avenue.	\$50
SC-CAP-P51-CAP	Citywide Sidewalk Program	Install sidewalks to fill gaps. Annual Cost \$50k/yr.	\$1,250
SC-CAP-P52-CAP	Citywide Bike Projects	Bike projects based on needs identified through the Bicycle Plan. These projects are in addition to projects listed individually in the RTP.	\$1,050
SC-CO-89-USC	Soquel Dr Buffered Bike Lane and Congestion Mitigation Project	Adaptive traffic signal control/transit signal priority at all 23 intersections between La Fonda Ave and State Park Dr; Protected bike lanes with striping/bollards for approximately 2.4 miles (4.8 miles bidirectional) and buffered bike lanes with striping for approximately 2.65 miles (5.3 miles bidirectional); 46 green bike boxes at 23 intersections for left turn movements; Pedestrian improvements including: 10 rectangular rapid flashing beacons at midblock crossings; 0.46 miles of new curb, gutter, retaining wall and sidewalk construction; 96 crosswalk upgrades, 12 sidewalk curb extensions; 100 ADA ramps; and reconstruction of 17 driveway and side street	\$27,000
SC-CO-P38-USC	Pajaro River Bike Path System	Construction of a Class I bike path along the levees and a Class II bikeway on Thurwatcher Road and Beach Road.	\$9,500
SC-CO-P40-USC	Glen Coolidge Drive/Hwy 9 Bike Path	Class I bike facility from Glen Coolidge Drive to Hwy 9 to provide eastern access to UCSC.	\$2,380
SC-CO-P41-USC	Countywide Sidewalks	Install sidewalks.	\$72,310
SC-CO-P46-USC	San Lorenzo River Valley Trail	15 mile, paved multi-use path for bicyclists and pedestrians from Boulder Creek to Santa Cruz.	\$25,830
SC-CO-P50-USC	East Cliff Drive Pedestrian Pathway (7th - 12th Avenue)	Construct pedestrian pathway on East Cliff.	\$1,760
SC-CO-P68-USC	Thurwachter Road Bike Lanes	Install bicycle lanes.	\$50
SC-CO-P77-USC	East Cliff (26th to Moran Way) Sidewalk Improvement	Install sidewalk from 26th south to link to Moran Way.	\$410
SC-CO-P78-USC	26th to 30th (at Lode/Quartz) Bike/Ped Connection	New bike/ped connection from Lode and Quartz to Moran Trail, which connects to 30th.	\$520
SC-CO-P103-USC	East Cliff Dr Pedestrian Pathway (17th-Palisades Ave)	Construct sidewalks and bike lanes on East Cliff where there are gaps	\$7,000
SC-CT-09-CT	Hwy 9 Felton Pedestrian Safety Improvements	Construct pedestrian path on Route 9 from the San Lorenzo Valley (SLV) High School to the intersection of Graham Hill Rd/Felton-Empire, plus signage and crosswalk improvements between Kirby St and Graham Hill Road.	\$15,800

Appendix G: Alternative Project Lists  
**Alternative 2 – Santa Cruz County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CT-P07a-VAR	Hwy 1 Bike/Ped Bridge (Cabrillo-New Brighton)	Construction of bike/ped bridge connecting New Brighton State Beach and Cabrillo College as part of larger Nisene Marks SP to the Sea trail concept. Lead agency TBD.	\$14,000
SC-CT-P61-CT	Hwy 152 Corralitos Creek ADA	Construct accessible pathway, concrete barrier, retaining wall, curb, gutter and sidewalk to meet Americans with Disabilities Act (ADA) standards.	\$7,452
SC-CT-P69-CT	Pedestrian Signals #2: Hwys 1 and 129	Install Accessible Pedestrian Signal (APS) push buttons, Countdown Pedestrian Signal (CPS) heads, pedestrian barricades, and crosswalk signage to improve pedestrian and bicycle safety. (Project in MON, SCR, SLO and SB counties, PPNO2628).	\$4,580
SC-EA-02-USC	Ecology Action Countywide SRTS Youth Pedestrian and Bicycle Safety Education	EA will serve approximately 120 second grade classrooms with feet on the ground pedestrian safety education and 88 fifth grade classrooms with bike safety education and rodeos serving a total of 44 local schools.	\$7,460
SC-MTD-P23-MTD	Bike Station at Capitola Mall	Establish bike station at Capitola Mall, especially to serve UCSC. Would be joint mall, UCSC, MTD project.	\$1,030
SC-MTD-P49-MTD	Pacific Station Bike Station	Establish bike station at Pacific Station.	\$410
SC-RTC 27a-RTC	Monterey Bay Sanctuary Scenic Trail Network - Design, Environmental Clearance, and Construction	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.)	\$121,000
SC-RTC 27b-RTC	Monterey Bay Sanctuary Scenic Trail Network (Coastal Rail Trail) - Maintenance & Operations	Ongoing maintenance rail trail corridor. Includes clean-up, trash/recycling removal, graffiti abatement, brush clearance, surface repairs (from drainage issues, tree root intrusion) etc. and encroachments (est. \$700k/yr)	\$17,500
SC-RTC 27c-RTC	Monterey Bay Sanctuary Scenic Trail Network (Coastal Rail Trail) - Trail Management Program	Coordinate trail implementation as it traverses multiple jurisdictions to ensure uniformity; serve as Project Manager for construction of some segments; handle environmental clearance; coordinate use in respect to other requirements (closures for ag spraying, etc); solicit ongoing funding and distribute funds to implementing entities through MOUs; coordinate with community initiatives; etc.	\$7,550
SC-RTC-16-RTC	Bike Parking Subsidy Program	Subsidies for bicycle racks and lockers for businesses, schools, government agencies, and non-profit organizations are all eligible. Recipients are responsible for installation and maintenance of the equipment. Avg annual cost: \$25K/yr.	\$630
SC-RTC-P26-VAR	Countywide Pedestrian Signal Upgrades	Grant program to fund installation of accessible pedestrian equipment with locator tones including rapid flashing beacons and count down times etc. to facilitate roadway crossings by visually and mobility impaired persons.	\$1,035
SC-SC-23-SCR	West Cliff Path Minor Widening (David Way Lighthouse to Swanton)	Improve existing path.	\$520

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-SC-P09-SCR	Sidewalk Program	Install and maintain sidewalks and access ramps.	\$20,660
SC-SC-P105-SCR	Market Street Sidewalks and Bike Lanes	Completion of sidewalks and bicycle lanes. Includes retaining walls, right-of-way, tree removals and a bridge modification.	\$1,030
SC-SC-P107-SCR	Arroyo Seco Trail (Medar Street to Grandview Street)	Pave exiting gravel trail and widen and pave connection to Grandview Street.	\$500
SC-SC-P120-SCR	Ocean St and San Lorenzo River Levee Bike/Ped Connections (Felker, Kennan, Blain, Barson Streets)	Improve pedestrian and bicycle facilities on side streets to connect Ocean Street with San Lorenzo River Levee path system.	\$620
SC-SC-P123-SCR	Soquel/Branciforte/Water (San Lorenzo River to Branciforte) Bike Lane Treatments	Consider bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) to address speed inconsistency and parking conflicts between bicyclists and vehicles.	\$410
SC-SC-P124-SCR	Ocean Street/San Lorenzo River Levee Area Wayfinding	Install signage on the bike/ped scale to bike/ped facilities connecting key destinations.	\$150
SC-SC-P125-SCR	Citywide Safe Routes to School Projects - ATP	Projects to improve pedestrian and bicycle safety near schools.	\$8,204
SC-SC-P126-SCR	Almar Avenue Sidewalks	Fill gaps in sidewalks and access ramps to improve pedestrian safety.	\$200
SC-SC-P127-SCR	Pacific Avenue Sidewalk	Construct 200' of new sidewalk on Pacific Avenue between Front Street and 55 Front St, including installation of a new accessible crosswalk at Front and Pacific; 150' bike lane.	\$400
SC-SC-P132-SCR	Swanton Blvd Multi-Use Trail Connector	Install a 10-12-foot-wide multi-use trail along Swanton, Delaware and Natural Bridges, completing a missing link.	\$1,900
SC-SC-P133-SCR	San Lorenzo River Walk Lighting	Install pedestrian scale lighting on the Riverwalk. The San Lorenzo Riverwalk Lighting northern section, is funded in the amount of \$970,000 from an ATP grant. There still a need for another \$1M for the southern reach unconstrained.	\$1,970
SC-SC-P134-SC	Ocean-Plymouth Multi-modal Transportation Improvements	Improve the bike and pedestrian connections through the intersection.	\$2,000
SC-SC-P21-SCR	Brookwood Drive Bike and Pedestrian Path	Provide 2-way bicycle and pedestrian travel.	\$1,030
SC-SC-P22-SCR	Chestnut Street Pathway	Install a Class I bicycle/pedestrian facility to connect the east side of Neary Lagoon Park with the Depot Park path.	\$570
SC-SC-P23-SCR	Delaware Avenue Complete Streets	Fill gaps in bicycle lanes, sidewalks and sidewalk access ramps.	\$150
SC-SC-P29-SCR	Morrissey Boulevard Bike Path over Hwy 1	Install a Class I bicycle and pedestrian facility on freeway overpass.	\$300

Appendix G: Alternative Project Lists  
**Alternative 2 – Santa Cruz County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-SC-P30-SCR	Murray Street to Harbor Path Connection	Install a Class I bicycle/pedestrian facility to connect the Segment 9 Rail Trail project, for the east and west side of the harbor.	\$1,000
SC-SC-P35-SCR	San Lorenzo River Levee Path Connection	Install a Multi-Use bicycle/pedestrian facility connecting the end of the San Lorenzo River Levee path on the eastern side of the river, up East Cliff Drive near Buena Vista Ave.	\$2,070
SC-SC-P47-SCR	Chestnut Street Bike Lanes	Install Class II bike lanes to provide connection from existing bike lanes on Laurel Street and upper Chestnut Street to proposed Class I bike path connections to Bay Street and Pacific Avenue/Beach Street.	\$100
SC-SC-P59-SCR	King Street Bike Facility (entire length)	Install Class II bike lanes on residential collector street which includes some parking and landscape strip removals and some drainage inlet modifications.	\$2,070
SC-SC-P69-SCR	Seabright Avenue Bike Lanes (Pine-Soquel)	Install Class II bike lanes on arterial street to complete the Seabright Avenue bike lane corridor and connect to bike lane corridor on Soquel Avenue and Murray. Includes removal of some parking and some landscape strips.	\$2,070
SC-SC-P75-SCR	Lump Sum Bike Projects	Bike projects based on needs identified through the Active Transportation Plan and Santa Cruz City Schools Complete Streets Master Plan. These are in addition to projects listed individually in the RTP.	\$6,800
SC-SC-P95-SCR	Branciforte Creek Pedestrian Path Connections	Fill gaps in pedestrian and bike paths along and across Branciforte Creek in the Ocean-Lee-Market-May Streets area.	\$3,410
SC-SV-30a-SCV	Mt Hermon Road Sidewalk Connections	Fill gaps in sidewalks on Bluebonnet and Kings Village Rd. to improve access between middle school, library and park.	\$250
SC-SV-32-SCV	Sidewalk Masterplan Implementation	Installation or widening of sidewalks and ramps that are missing, damaged or do not meet current ADA requirements. May include signage for safety.	\$500
SC-SV-P05-SCV	Citywide Sidewalk Program	Install sidewalks to fill gaps. Annual Cost \$50k/yr	\$5,600
SC-SV-P100-SCV	Whispering Pines Dr (Mt Hermon-Lundy Ln) Separated Bikeways	Upgrade bike lanes to buffered bike lane or Class IV separated bikeway. From SRTS Plan	\$75
SC-SV-P21-SCV	Lockwood Lane Pedestrian Signal Near Golf Course	Construct a pedestrian signal at unprotected ped crossing on Lockwood Lane.	\$50
SC-SV-P29-SCV	Glen Canyon Road Bike Lanes	Class II Bike lanes from Flora Lane to Green Hills.	\$1,030
SC-SV-P30A-SCV	Blue Bonnet Lane and Kings Village Rd Sidewalk Infill	Add sidewalks to fill gaps in business district	\$520
SC-SV-P33-SCV	Civic Center Drive Bike Lanes	Add bike lanes to narrow road.	\$410
SC-SV-P34-SCV	N. Navarra Drive-Sucinto Drive Bike Lanes	Add bike lanes to developing area behind commercial.	\$620

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SC-SV-P35-SCV	Bean Creek Road Sidewalks (SVMS to Blue Bonnet)	Fill gaps in sidewalks on Bean Creek Road.	\$410
SC-SV-P36-SCV	El Rancho Drive Bike Lanes	Add bike lanes on El Rancho within city limits.	\$310
SC-SV-P37-SCV	Lockhart Gulch Road Bike Lanes	Add Class II bike lanes to narrow, primarily residential street.	\$720
SC-SV-P41-SCV	Citywide Bike Lanes	Construction of additional bike lanes and paths citywide (including Green Hills).	\$3,360
SC-SV-P45-SCV	Scotts Valley Town Center Bicycle/Pedestrian Facilities	Bicycle and pedestrian facilities and circulation elements within planned development.	\$4,130
SC-SV-P49-SCV	Mt Hermon Road and Scotts Valley Drive - Crosswalks	Increase number of crosswalks on Mt Hermon/Scotts Valley Dr, update crosswalks to block pattern, add pedestrian treatments where necessary at intersections to decrease distance across using refuge islands. Add crosswalks to all sides of intersections (particularly an issue on Scotts Valley Dr). Add HAWK signals to provide a low delay signalized crossing opportunity at select locations. Examples include the Safeway Driveway on Mt. Hermon Rd, at Victor Square/Scotts Valley Dr., and at Tramell Way/Scotts Valley Dr.	\$515
SC-SV-P53-SCV	Mt Hermon Road to El Rancho Drive Bike/Ped Connection	New bike/ped connection between Mt Hermon Road and El Rancho Drive which could include improved bike/ped facilities on existing interchange or new bike/ped crossing.	\$1,030
SC-SV-P56-SCV	Bean Creek Road at SV Middle School driveway crosswalk improvements	Realign crossing and rebuild ADA ramp on west side. Upgrade crosswalk to high visibility. Source SRTS Plan	\$53
SC-SV-P55-SCV	Bean Creek Rd at Bluebonnet Traffic Circle	Install traffic circle to slow traffic and improve visibility of crosswalk. Source ATP Plan	\$300
SC-SV-P57-SCV	Bean Creek Rd Traffic Calming and Sidewalk Upgrades	Install traffic calming measures and upgrade to standard sidewalk on east side of the street. Study options to install Class I facility on east side of the street. Source ATP Plan	\$650
SC-SV-P58-SCV	Bluebonnet Lane Separated Bikeway	Install raised cycletrack or Class IV separated bikeway to narrow travel lanes and decrease pedestrian crossing distance. Source ATP Plan	\$290
SC-SV-P59-SCV	Bluebonnet Lane at Monteville Crosswalk Improvements	Install high-visibility raised crosswalk. Source ATP Plan	\$25
SC-SV-P60-SCV	Carbonera Creek Multi-Use Path	Study options to install multi-use path connecting parks along Carbonera Creek. Source ATP Plan	\$300
SC-SV-P61-SCV	Upgrade Bicycle Sharrows	Upgrade all white sharrows in City limits to green backed sharrows. Source ATP Plan	\$12
SC-SV-P62-SCV	In-Street Pedestrian Crossing Improvements	Install in-street pedestrian crossing signs (R1-6) at uncontrolled crossings near schools, parks, and other areas with high pedestrian traffic. Source ATP Plan	\$5

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**Alternative 2 – Santa Cruz County**

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SC-SV-P63-SCV	Citywide Bicycle Detection at Intersections	Install bicycle detection at intersections: either in-ground detection loops, video detection, or bicycle push-buttons. If in-ground detection loops are used, used bike symbol to show cyclists where to position themselves. Source ATP Plan	\$380
SC-SV-P64-SCV	Citywide Crosswalk Improvements	Upgrade crosswalks near schools to high visibility. Source SRTS Plan	\$70
SC-SV-P65-SCV	Bean Creek Rd/Camp Evers Connection	Pave (asphalt or concrete) existing dirt paths on Bean Creek Rd. Source SRTS Plan	\$21
SC-SV-P66-SCV	El Pueblo Rd Sidewalk Connections	Fill sidewalk gaps and install pedestrian-scale lighting. Source ATP Plan	\$950
SC-SV-P67-SCV	Erba Lane/ MacDorsa Sidewalk Connection	Install pedestrian pathway/sidewalk between Erba Lane and MacDorsa Park. Source Parks Master Plan	\$200
SC-SV-P68-SCV	Erba Lane Sidewalk Connection	Install sidewalk between Scotts Valley Drive and fire station. Source ATP Plan	\$85
SC-SV-P69-SCV	Glen Canyon Rd at Hwy 17 Overpass Pedestrian Bridge	Study options to install pedestrian pathway under freeway bridge. Source ATP Plan	\$100
SC-SV-P70-SCV	Glenwood Dr/Meadow View Dr Intersection Improvements	Install curb extensions to shorten crossing distance. Upgrade crosswalks to high visibility and install LED flashing stop signs. Source SRTS Plan	\$117
SC-SV-P71-SCV	Glendwood Dr Bicycle Improvements	Add buffers and keep bike lanes at 5' by narrowing travel lanes to 11' and/or expanding right of way. Source SRTS Plan	\$103
SC-SV-P72-SCV	Granite Creek Rd Overpass Bike/Ped Modifications	Study options to rebuild overpass to widen sidewalks and install Class IV separated bikeways. Install pedestrian-scale lighting (long term). Source ATP Plan	\$200
SC-SV-P73-SCV	Granite Creek Rd Overpass Bike Improvements	Narrow travel lanes to widen shoulders or add bike lanes. At the intersection of Granite Creek Road and Scotts Valley Drive, install bike lanes in both directions, sharrow in the right turn lane, and a bicycle box to allow access to the left turn lane. At the intersection of Granite Creek Road at Santa's Village Road/Highway 17, install a through bike lane for cyclists traveling to Santa's Village Road and sharrow in the right turn lane. At both intersections, install dashed green lane treatments where bike lane crosses the right turn lane (short term). Source ATP Plan	\$50
SC-SV-P74-SCV	Hacienda Way Intersection Modification and Improvements	Install curb extensions to reduce crossing distance. Reduce Hacienda Way to one lane at intersection. Look into undergrounding utility pole at northern corner of intersection. Source SRTS Plan	\$100
SC-SV-P75-SCV	Kings Village Rd Bike/Ped Connection	Install bike/pedestrian connection between potential new development at 440 Kings Village Road and Town Center property. Source ATP Plan	\$95
SC-SV-P76-SCV	Kings Village Rd Crosswalk Improvements	Upgrade all crosswalks to high visibility. Install curb extensions to shorten crosswalks where feasible. Source ATP Plan	\$370

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SC-SV-P77-SCV	La Madrona Dr Bike/ Ped Improvements	Install pedestrian improvements on La Madrona Drive between project site and Mount Hermon Road, when Gateway South project developed. Restripe bike lanes and continue northbound bike lane to intersection of Mount Hermon Road. Install dashed green lane treatments where bike lane crosses right turn lane. Source ATP Plan	\$200
SC-SV-P78-SCV	Lockewood Lane Multi-Use Path	Install Class I multi-use path between Mount Hermon Road and Whispering Pines Drive. (long term) Source ATP Plan	\$1,300
SC-SV-P79-SCV	Lockewood Lanes Sidewalk & Sharrows	Fill sidewalk gaps on south side of street. Install green backed sharrows. (short term)	\$90
SC-SV-P80-SCV	Citywide Pedestrian Signals	Install pedestrian countdown signal heads at all signalized intersections. Source ATP Plan	\$120
SC-SV-P81-SCV	Lockhart Gulch Road Multi-Use Path	Study options to install multi-use path between Lockhart Gulch or Green Valley Road and Coast Range Road, including an unpaved pathway. Source ATP Plan	\$25
SC-SV-P82-SCV	Mt Hermon Rd Bike & Ped Improvements	Install bike and pedestrian improvements including filling sidewalk gaps, high-visibility crosswalks, green bike lane treatments, and curb radius reduction. Source ATP Plan	\$800
SC-SV-P83-SCV	Mt Hermon Rd Buffered Bike Lanes	Explore installation of buffered bike lanes or Class IV separated bikeways by narrowing lane widths to 11', as recommended in Town Center Plan, or through plan lines study to gain additional ROW as properties redevelop. Source ATP Plan	\$190
SC-SV-P84-SCV	N. Navarra Dr Bike/Ped Access	Reconfigure gate to Sucinto Lane to allow for bike/pedestrian access. Source Parks Master Plan	\$50
SC-SV-P85-SCV	Navarra Dr Sharrows & Wayfinding	Install green backed sharrows on N. Navarra Dr. Install bike wayfinding signage on S. Navarra Dr. to highlight Green Hills Road connection. Source ATP Plan	\$4
SC-SV-P86-SCV	Quien Sabe Rd Sidewalk	Install sidewalk on one side of the street between Scotts Valley Drive and Oak Creek Boulevard. Source ATP Plan	\$100
SC-SV-P87-SCV	Sandraya Heights Rd Crossing Improvements	Install curb extension on northwest corner to shorten crossing. Install high-visibility crosswalk. Source SRTS Plan (long term)	\$53
SC-SV-P88-SCV	Santa's Village Rd Sidewalk Improvements	Widen sidewalk to Class I multi-use path to connect new housing developments with Granite Creek Road. Source ATP Plan	\$400
SC-SV-P89-SCV	Scotts Valley Drive at Bean Creek Road Crossing Improvements	Install high visibility crosswalks, curb extensions and median refuge islands. Install lead pedestrian interval. Study options to eliminate or modify southbound right-turn lane approaching Bean Creek Road to reduce crossing distance. Source SRTS Plan	\$150
SC-SV-P90-SCV	Scotts Valley Drive at Mount Hermon Road Lane Modifications	Study options to redesign or modify right-turn slip lanes to improve pedestrian visibility. Source ATP Plan	\$30

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-SV-P91-SCV	Scotts Valley Dr at Victor Square Crosswalk/Sidewalk Improvements	Add new marked crosswalk at north leg of intersection or relocate crosswalk to north leg to reduce vehicle/pedestrian conflicts. Install pedestrian countdown signal heads. Install sidewalk on Victor Square between Scotts Valley Drive and shopping center entrance. Source ATP Plan	\$40
SC-SV-P92-SCV	Scotts Valley Dr Lane Modifications/Pedestrian Crossing Improvements	Reduce lane widths or reduce to one lane in each direction to reduce pedestrian crossing distance and provide wider sidewalk, landscape strip and/or buffered bike lanes or Class IV separated bikeway. Source ATP Plana and SRTS Plan	\$516
SC-SV-P94-SCV	Highway 17 On/Off Ramp Modernization & Redesign	Begin discussions with Caltrans about modernizing freeway on- and off-ramps. Long term: Study options to redesign intersection. Source ATP Plan	\$100
SC-SV-P95-SCV	Highway 17 On/Off Ramp Bike & Pedestrian Improvements	Short term option to install leading pedestrian interval and curb extension at NE corner of intersection. Upgrade all crosswalks to high visibility. Install green bike conflict markings through intersection. Install bicycle detection at Glenwood/Scotts Valley Drive intersection approaches. Source SRTS Plan.	\$207
SC-SV-P98-SCV	Vine Hill School Rd Sidewalk Improvements	Fill sidewalk gaps on north/ east side of street. Source ATP Plan	\$250
SC-SV-P99-SCV	Vine Hill School Rd (Glenwood Dr-Tabor Dr) Bike Lane Widening	Narrow travel lanes to 11' to widen bike lanes to 6'. Remove signs that indicate bike lanes are dependent on time of day. Source SRTS Plan	\$44
SC-UC-P10-UC	Hagar/McLaughlin Intersection Improvements	Signal, pedestrian safety improvements (including new crosswalk) and roadway improvements.	\$520
SC-UC-P30-UC	McLaughlin Drive Bike Lanes/Pedestrian Enhancements	Install Class II bike lanes and enhance pedestrian circulation on University campus roadway.	\$2,580
SC-UC-P33-UC	UCSC Bicycle Parking Improvements	Install bicycle parking facilities to serve bicycle commuters to the University.	\$520
SC-UC-P34-UC	Spring Street Bikeway	Construct bikeway connecting Spring Street to Hagar Court.	\$310
SC-UC-P36-UC	Porter/Performing Arts Pedestrian Bridge	Construct pedestrian bridge.	\$1,030
SC-UC-P37-UC	College Nine/Crown College Pedestrian Bridge	Construct pedestrian bridge.	\$1,550
SC-UC-P38-UC	Pedestrian Directional Map/Wayfinding System	Develop and install signs throughout campus.	\$520
SC-UC-P39-UC	College Nine/Communications Pedestrian Bridge	Construct pedestrian bridge.	\$1,030
SC-UC-P40-UC	Science Hill/North Academic Core Pedestrian Bridge	Construct pedestrian bridge.	\$1,030

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SC-UC-P50-UC	Sidewalk/Pedestrian Improvements	Widen sidewalks/improve ped access in areas of campus.	\$5,170
SC-UC-P55-UC	UCSC Bicycle Facilities	Add bicycle facilities on campus roadways and paths. Lump sum of projects, including but not limited to UCSC Bicycle Plan that are not listed individually elsewhere in the RTP.	\$1,030
SC-UC-P56-UC	Heller Drive Bicycle Lanes (Empire Grade to Porter College)	Add Class II bicycle lanes in downhill direction as feasible.	\$830
SC-UC-P72-UC	Kerr/Porter Road Pedestrian Bridge ADA Upgrades	Modify bridge to improve access.	\$3,100
SC-VAR-P03-VAR	Bicycle Sharrows	Install sharrows (shared roadway marking) designating areas where bicyclists should ride on streets, especially when bicycle lanes are not available. To be implemented by local jurisdictions.	\$520
SC-VAR-P05-VAR	Bike-Activated Traffic Signal Program	Provide traffic signal equipment to ensure that the traffic signals will detect bicycles just as cars are detected and ensure that the appropriate traffic signal phase is activated by the bicycles.	\$1,030
SC-VAR-P08-VAR	Safe Paths of Travel	Regional program to construct and/or repair pedestrian facilities adjacent to high frequency use origins and destinations, particularly near transit stops.	\$3,100
SC-VAR-P10-VAR	Safe Routes to Schools Studies	Studies to assess pedestrian and bicycle safety near schools.	\$210
SC-VAR-P16-VAR	Bike Share	Establish and maintain an urban centered bike share program allowing county residents to access loaner bikes at key locations such as downtowns, transit centers, shopping districts and tourist destinations.	\$5,170
SC-VAR-P27-VAR	Complete Streets Implementation	Additional projects for complete streets implementation that would fall under the Complete Streets Guidelines.	\$20,000
SC-VAR-P28-VAR	Complete Streets Area Plan	Detailed complete street circulation and design plans, including consideration of multimodal green travelways, for areas identified for intensified development in Sustainable Communities Strategy.	\$2,000
SC-VAR-P29-VAR	Public/Private Partnership Bicycle and Pedestrian Connection Plan	Develop model for assisting local jurisdictions in working with private property owners to allow bicycle and pedestrian access through private property in areas identified for more intensified development in Sustainable Communities Strategy.	\$150
SC-VAR-P31-VAR	Uncontrolled Pedestrian Crossing Improvements	Implement improvements to uncontrolled pedestrian crossing such as painted and/or raised crosswalks, flashing beacons and pedestrian islands.	\$5,170
SC-VAR-P32-VAR	Bicycle Treatments for Intersection Improvements (ADD)	Add painted bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike detection and signals) at major intersections.	\$4,130

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**Alternative 2 – Santa Cruz County**

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SC-VAR-P33-VAR	Neighborhood Greenways	Implement greenways which gives priority to bicycles and pedestrians on low volume, low speed streets including, way finding and pavement markings, bicycle treatments in areas identified for more intensified development in Sustainable Communities Strategy.	\$5,170
SC-VAR-P35-VAR	School Complete Streets Projects	Implement ped/bike programs and facilities near schools.	\$10,330
SC-VAR-P39-VAR	Active Transportation Plan	Prepare Active Transportation Plans that address bicycle, pedestrian, safe routes to schools and complete streets facilities within the jurisdictions of Santa Cruz County as well as the Santa Cruz Harbor Port District.	\$2,380
SC-VAR-P44-VAR	Electric Bicycle Commuter Incentive Program	Financial incentives, promotion and/or education to encourage residents to use electric bikes instead of commuting by car.	\$3,870
SC-WAT-P15-WAT	Citywide Pedestrian Facilities	Construct sidewalks and curb ramps where necessary. This work is usually combined with the annual road rehabilitation and maintenance projects. Avg annual cost: \$100/yr.	\$2,380
SC-WAT-P19-WAT	Lump Sum Bicycle Projects	Update the City Bicycle Plan and construction of additional routes and paths (250k/yr).	\$6,250
SC-WAT-P36-WAT	Alley Improvements	Repair & reconstruct some alleys.	\$60
SC-WAT-P42-WAT	Pajaro Valley High School Connector Trail	Install bicycle/pedestrian trail (this trail connects Pajaro Valley High School to Airport Boulevard).	\$710
SC-WAT-P49-WAT	2nd/Maple Avenue (Lincoln to Walker) Traffic Calming and Greenway	Evaluate and if found necessary, add traffic calming/bicycle traffic priority with wayfinding signage to provide access to MBSST and create low stress grid around downtown.	\$25
SC-WAT-P50-WAT	5th Street (Lincoln to Walker) - Traffic Calming and Greenway	Evaluate and if found necessary, add traffic calming/bicycle traffic priority with wayfinding signage to provide access to MBSST and create low stress grid around downtown.	\$25
SC-WAT-P51-WAT	Rodriguez Street (Main Street to Riverside)- Buffered Bike Lane	Evaluate and if found necessary, improve bike lane striping, add buffered lanes on Rodriguez Street to delineate bike lane from vehicle parking and traffic.	\$12
SC-WAT-P52-WAT	Union/Brennan (Freedom to Riverside) - Sharrows	Evaluate and if found necessary, add sharrows to Union/Brennan.	\$12
SC-WAT-P53-WAT	Kearney/Rodriguez - Ped Crossing	Evaluate and if found necessary, add pedestrian crossing at Kearney and Rodriguez with traffic calming for access to Radcliffe Elementary.	\$35
SC-WAT-P54-WAT	Main Street - 3 HAWK Signals	Evaluate and if found necessary, add Hawk signals in 3 locations on Main Street.	\$890
SC-WAT-P55-WAT	Main/Rodriguez/Union/ Brennan (Freedom to Riverside) - Crosswalks	Evaluate and if found necessary, increase the number of crosswalks on Main Street, Rodriguez, and Union/Brennan to aim for 300 ft distance between crossings. Update pattern of crosswalks to block pattern.	\$115

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SC-WAT-P58-WAT	Main Street (Freedom to Riverside) Ped/Bike Enhancements	Evaluate and if feasible improve ped facilities and bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) and bike boxes and bicycle priority at intersections on Main Street intersections.	\$890
SC-WAT-P60-WAT	Hillside Avenue to Freedom Boulevard Ped/Bike Connection	Evaluate and if feasible, install new bike/ped connection from Carey Avenue to Freedom Boulevard between Roache Road and Green Valley Road to connect neighborhood to goods, services and transit on Freedom Boulevard. Include new crossing from new bicycle/pedestrian facility to east side of Freedom Boulevard.	\$360
SC-WAT-P62-WAT	Freedom Boulevard Pedestrian Crossings (Airport to Lincoln)	Evaluate and if feasible, install new and improve existing uncontrolled pedestrian crossings at Roach Road, Davis Avenue, Clifford Lane, Mariposa Avenue, Alta Vista Street, Crestview Drive, Martinelli Street and Marin Street).	\$600
SC-WAT-P63-WAT	Pajaro Lane to Freedom Boulevard Ped/Bike Connection	Evaluate and if feasible, new bike/ped connection from Pajaro Lane to Freedom Boulevard to connect neighborhood to goods, services and transit on Freedom Boulevard. Include new crossing from new bicycle/pedestrian facility to west side of Freedom Boulevard.	\$360
SC-WAT-P64-WAT	Freedom Boulevard/Green Valley Road Neighborhood Bike/Ped Connections	Evaluate and if feasible, implement greenway, which gives priority to bicycles and pedestrians on low volume, low speed streets including, pedestrian facilities, way finding and pavement markings, bicycle treatments to connect neighborhoods to goods and services on Freedom Boulevard.	\$1,800
SC-WAT-P65-WAT	Upper Struve Slough Trail	Construction of 450 foot long pedestrian/bicycle path along upper Struve Slough from Green Valley Road to Pennsylvania Drive. The trail shall consist of a twelve-foot wide by one-foot-deep aggregate base section with the center eight feet covered with a chip seal. Additional improvements include installing a 130-length of modular concrete block retaining wall, reinforcing a 160-foot length of slough embankment with rock slope protection and installing a 175-foot long by eight-foot-wide boardwalk.	\$530
SC-WAT-P70-WAT	Pennsylvania Drive (Green Valley Road to Clifford Avenue)	Repair, reconstruct and/or upgrade pavement, bike lanes, sidewalks, transit facilities, signage and striping	\$4,600
SC-WAT-P71-WAT	MBSST (Coastal Rail Trail) - Walker Street (Watsonville Slough Trailhead to Walker Street)	Construction of 2400-foot long pathway parallel to the railroad tracks. Path shall be twelve-foot width asphalt (hma). Modify drainage facilities east of Ohlone Parkway. Provide connection with Watsonville Slough Trail. Install at grade crossing at spur near Walker Street. Modify existing parking area and pedestrian facilities at Walker St/West Beach St intersection.	\$2,760
SC-WAT-P73-WAT	Main Street Modifications (East Lake Avenue to Freedom Boulevard)	Provide complete streets improvements including but not limited to pedestrian crossings, bicycle facilities, bus stops, parking, sidewalks and traffic management.	\$1,000

Appendix G: Alternative Project Lists  
**Alternative 2 – Santa Cruz County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-WAT-P75-WAT	Complete Streets - Downtown	Provide complete streets improvements including sidewalk, parking, bike lane, sharrows, curb bulb outs, high visibility crosswalks, striping, signage, street trees, pedestrian lighting, bus shelters, bike parking and benches	\$27,000
SC-WAT-P76-WAT	Complete Streets - Watsonville Schools	Provide complete streets improvements including sidewalk, bike lane, sharrows, curb bulb outs, high visibility crosswalks, striping, signage and pedestrian lighting.	\$20,600
SC-WAT-P81-WAT	Lee Rd Trail	Prepare environmental documents and construction plans, secure permits	\$20,000
SC-WAT-P82-WAT	Lincoln St Safety Improvements	Pedestrian Crossing Enhancements that incorporate bulbouts, landscaping, lighting, decorative pedestrian scale fencing, enhanced crosswalks, improved sidewalks and pedestrian amenities, fencing, artistic enhancements by high school artists and classes in crossings and on lighting. Also includes bicycle racks, pavement sharrows, and signage.	\$600
TRL 05aSC	MBSST - North Coast Rail Trail: Segment 5 Phase 1	Monterey Bay Sanctuary Scenic Trail Network (MBSST) - ph. 1 Wilder Ranch-Coast Dairies (5.4 mi)	\$13,500
TRL 05bSC	MBSST - North Coast Rail Trail: Segment 5 Phase 2	2.1 miles of Class 1, 8 to 12-foot-wide multi-use bicycle/pedestrian paved path with decomposed granite shoulders within the rail line right of way along the north coast of Santa Cruz County from Yellowbank Beach to Davenport. Project also includes Davenport crosswalk at Hwy 1/Ocean St and preliminary engineering and environmental compliance for parking lots at Yellowbank Beach and Davenport Beach and a path from the Bonny Doon parking lot to the rail trail.	\$8,700
TRL 05cSC	Yellowbank/Panther Beach parking lot bicycle/pedestrian overcrossing	Construction of a bicycle and pedestrian crossing of the rail line and Hwy 1 to provide access to the North Coast Rail Trail (NCRT) at formalized Yellowbank/Panther Beach with connections to Cotoni Coast Diaries.	\$2,000
TRL 07bSC	MBSST (Coastal Rail Trail): Segment 7-Phase 2 (Bay/California St to Pacific Ave/wharf)	Bicycle/pedestrian pathway adjacent to railroad tracks. MBSST Segment 7-phase 2	\$11,000
TRL 07cSC	MBSST (Coastal Rail Trail): Segment 7-Phase 3 (Natural Bridges to Shaffer Rd)	Bicycle/pedestrian multiuse path adjacent to railroad tracks from Natural Bridges to Shaffer Rd crossing Antonelli Pond. MBSST Segment 7-phase 3	\$200
TRL 10-11	MBSST Rail Trail: 17th Ave-Jade St Park & Monterey Ave to Aptos Crk Road	Bicycle/pedestrian pathway parallel to railroad tracks through sections of Live Oak, Capitola, and Aptos. Segments 10 & 11 of Monterey Bay Sanctuary Scenic Trail Network (MBSST)/Rail Trail.	\$66,000
TRL 18L	MBSST (Coastal Rail Trail): Lee Road-Ohlone Pkwy	Construction of pathway parallel to the railroad tracks: includes asphalt path, retaining walls, fencing, drainage, at grade RR crossings, and installation of pathway or sidewalk to link to the existing sidewalk at Lee Road.	\$3,260

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
TRL 18W	MBSST Rail Trail: Walker Street to City Slough Trail connection	Construction of 2400 ft pedestrian and bicycle path parallel to the existing railroad tracks and within the rail right-of-way. Also includes public outreach and training to improve bicycle and pedestrian safety.	\$2,000
TRL 8-9a	MBSST (Coastal Rail Trail - Segment 8 and 9)	Rail Trail design, environmental clearance and construction along the rail corridor between Pacific Avenue in the City of Santa Cruz to 17th Avenue in Santa Cruz County.	\$34,500

**Table 2 Highway Improvements**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CT-P48-CT	Hwy 17 Wildlife Crossing	Construct wildlife undercrossing north of Laurel Road (CT#1G260). 60-foot-long single span bridge will extend from the existing Laurel Road Sidehill Viaduct (Br. No. 36-0111) on the west side of Route 17 to the east. The final product will provide a 16-foot-wide natural soil bottom wildlife crossing under Route 17 with side slopes to the abutment faces. The wildlife under-crossing will slope downward to the west. A minimum vertical clearance of 10 feet will be provided.	\$5,155

**Table 3 Highway Operational, Maintenance and Rehabilitation**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-CT-P45-CT	State Highway Preservation (bridge, roadway, roadside)	Various SHOPP projects that address bridge preservation, roadway & roadside preservation and limited mobility improvements. (Constrained=30% of cost to maintain).	\$280,000
SC-CT-P46-CT	Collision Reduction & Emergency Projects	Various SHOPP projects that address collision reduction, mandates (including stormwater mandates) and emergency projects. (Constrained=30% of total cost).	\$285,569
SC-CT-P47-CT	Minors	Various small SHOPP projects (less than \$1 million) that reduce/enhance maintenance efforts by providing minor operational, pavement rehab, drainage, intersection, electrical upgrades, landscape and barrier improvements. (Constrained=30% of total cost).	\$2,000
SC-CT-P57-CT	Countywide Highway Rumble Strips and Restriping	Install both centerline and edge line rumble strips and restripe with thermoplastic stripe routes 9, 1, 17, 25, 129 and 156 in SCZ and SB counties.	\$4,761
SC-CT-P60-CT	Hwy 9 Upper Drainage and Erosion Control Improvements	Replace failed culverts systems and construct energy dissipaters.	\$12,557
SC-CT-P62-CT	Hwy 9 PM 1.0 and 4.0 Viaduct	Construct sidehill viaducts, restore roadway and facilities, provide erosion control.	\$18,231
SC-CT-P68-CT	Hwy 9 Hairpin Tieback at PM 19.97	Construct Soldier Tieback Retaining Wall near Boulder Creek about 1.1 mile south of Junction 236/9.	\$7,630
SC-CT-P70-CT	Hwy 17 Paving	Grind pavement and place Hot Mix Asphalt	\$8,563
SC-CT-P74-CT	Hwy 1 Capital Maintenance (SR 9 to north of Western Drive)	Preserve pavement and replace 87 ADA ramps as needed.	\$10,400
SC-CT-P76-CT	Hwy 9 Capital Maintenance (CapM)	(south of Mt Hermon Road to 0.6 mile north of Glenwood Drive).	\$26,400
SC-CT-P77-CT	Hwy 9 Capital Maintenance North	Preserve pavement, reconstruct guardrail, rehabilitate 6 drainage systems. (Saratoga Toll Rd in Boulder Creek to SR 35/county line)	\$9,200
SC-CT-P78-CT	Hwy 17 Capital Maintenance (SR 1 to Vine Hill School Road area)	Preserve pavement, upgrade median barrier, install 12 TMS	\$17,200
SC-CT-P79-CT	Hwy 129 Capital Maintenance	Preserve pavement, rehabilitate 6 drainage systems. (Salsipuedes Creek to Old Chittenden Road)	\$12,500

**Table 4 Local Street and Road Operational, Maintenance and Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
CAP 11SC	Clares Street Traffic Calming: Phase I and II	Implementation of traffic calming measures: chicanes, center island median, new bus stop, and road edge landscape treatments to slow traffic. Construct new safe, accessible ped crossing at 42nd and 46th Avenue.	\$1,350
CO 64SC	Aptos Village Plan Improvements	Modifications for ped, bike, bus and auto traffic. Add pedestrian facilities and drainage infrastructure on both sides of Soquel Drive; improve bike lanes; new bike parking; new bus pullout and shelter on north side. Trout Gulch: Replace sidewalks with standard sidewalks on east side, ADA upgrades to west side sidewalks. Install traffic signals at Soquel Drive/Aptos Creek Road & Soquel/Trout Gulch. Left turn lanes on Soquel at new street - Parade Street and at Aptos Creek Road. RR crossing modifications - new crossing arms, concrete panels for vehicle and pedestrian crossings. New RR crossing at Parade Street. Phase 1: Trout Gulch Road improvements with traffic signal and upgraded railroad crossing at Soquel Dr. Pavement overlay of Soquel Dr (Spreckels to Trout Gulch) and a portion of Aptos Creek Road.	\$5,200
CO-P28i	Varni Road Improvements (Corralitos Road to Amesti Road)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$340
SC-CAP-19-CAP	Capitola Street Pavement Management	System preservation. Streets identified include 41st Avenue, Clares Street, Bay Avenue, Capitola Road and numerous residential streets including but not limited to 42nd, 47th, 48th, Fanmar, Diamond, and Ruby Court.	\$1,450
SC-CAP-P07-CAP	Bay Avenue/Hill Street Intersection	Intersection improvements to improve traffic flow. Roundabout.	\$210
SC-CAP-P07p-CAP	Stockton Avenue Bridge Rehab	Replace bridge with wider facility that includes standard bike lanes and sidewalks.	\$1,500
SC-CAP-P09-CAP	Park Avenue/Kennedy Drive Improvements	Construct intersection improvements, especially for bikes/peds. May include traffic signal.	\$360
SC-CAP-P27-CAP	Wheelchair Access Ramps	Install wheelchair access/curb cut ramps on sidewalks citywide.	\$200
SC-CAP-P28-CAP	Monterey Avenue at Depot Hill	Improve vehicle ingress and egress to Depot Hill along Escalona Avenue and improve pedestrian facilities.	\$260
SC-CAP-P30-CAP	47th Avenue Traffic Calming and Greenway	Traffic calming and traffic dispersion improvements along 47th Avenue from Capitola Road to Portola Drive and implementation of greenway, which gives priority to bicycles and pedestrians on low volume, low speed streets including, pedestrian facilities, way finding and pavement markings, bicycle treatments to connect to MBSST.	\$100
SC-CAP-P32-CAP	Bay Avenue/Monterey Avenue Intersection Modification	Multimodal improvements to the intersection. Include signalization or roundabout along with pedestrian, bicycle treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) and transit access.	\$310

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CAP-P34-CAP	Capitola Village Enhancements: Capitola Ave	Multimodal enhancements along Capitola Avenue.	\$350
SC-CAP-P37-CAP	41st Avenue/Capitola Road Intersection Improvements	Widen intersection and reconfigure signal phasing.	\$320
SC-CAP-P38-CAP	40th Avenue/Clares Street Intersection Improvements	Widen intersection and signalize.	\$500
SC-CAP-P40-CAP	46th/47th Avenue (Clares to Cliff Drive) Bike Lanes/Traffic Calming	46th/47th Avenue from Clares to Portola/Cliff Drive- Add traffic calming and wayfinding signage to connect to Brommer and MBSST.	\$20
SC-CAP-P41-CAP	Brommer/Jade/Topaz Street Bike Lanes/Traffic Calming (Western City Limit on Brommer to 47th Ave.)	Add buffered bike lanes, traffic calming and wayfinding signage and bike/ped priority crossing at 41st Avenue, connecting the two N/S neighborhood greenways.	\$20
SC-CAP-P55-CA	Porter Street and Highway 1 I/S Improvements	Add additional dedicated right turn lane on Porter Street to northbound on ramp.	\$250
SC-CO-P02-USC	Airport Boulevard Improvements (City limits to Green Valley Road)	Major rehab, addition of bike lanes, transit facilities, merge lanes, intersection improvements, sidewalks, drainage and landscaping.	\$1,240
SC-CO-P03-USC	Amesti Road Multimodal Improvements (Green Valley to Brown Valley Road)	Roadway rehab and reconstruction, left turn pockets at Green Valley Road, Pioneer Road/Varni Road. Add bike lanes, transit turnouts, sidewalks, merge lanes, landscaping and intersection improvements.	\$600
SC-CO-P04-USC	Bear Creek Road Improvements (Hwy 9 to Hwy 35)	Major rehab, add bike lanes, turnouts, merge lanes and intersection improvements. Some landscaping and drainage improvements also.	\$250
SC-CO-P08-USC	Corralitos Road Rehab and Improvements (Freedom Boulevard to Hames Road)	Major rehab, transit, bike and ped facilities. May also include drainage, merge lanes, landscaping and intersection improvements.	\$620
SC-CO-P09-USC	East Cliff Drive Improvements (32nd Avenue to Harbor)	Roadway rehab, add left turn pockets at 26th and 30th Avenue, fill gaps in bikeways and sidewalks, add transit turnouts, intersection improvements. Some landscaping and drainage improvements.	\$1,500
SC-CO-P10-USC	Empire Grade Improvements	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.	\$1,190
SC-CO-P11-USC	Freedom Blvd Multimodal Improvements (Bonita Dr to City of Watsonville)	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.	\$775

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CO-P12-USC	Graham Hill Road Multimodal Improvements (City of SC to Hwy 9)	Bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes, traffic signals. Major rehabilitation and maintenance. Drainage improvements. Signal upgrade at SR 9.	\$1,755
SC-CO-P13-USC	Green Valley Road Improvements	Add two-way left turn lanes from Mesa Verde to Pinto Lake on Green Valley Road. Also includes some road rehab and maintenance, bike lanes, sidewalks, transit facilities, landscaping and merge lanes.	\$1,030
SC-CO-P14-USC	La Madrona Drive Improvements (El Rancho Drive to City of Scotts Valley)	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.	\$905
SC-CO-P17-USC	Sims Road Improvements (Graham Hill Road to La Madrona Drive)	Road rehab and maintenance, drainage, intersection improvements, landscaping. Add bike, ped and transit facilities.	\$440
SC-CO-P18-USC	Soquel Avenue Improvements (City of SC to Gross Road)	Transit turnouts, two-way left turn lanes from Chanticleer to Mattison, merge lanes, signalization and intersection improvements. Signals at Chanticleer and Gross Road. Roadwork: major rehabilitation and maintenance, perhaps drainage improvements. Roadside: sidewalks, landscaping, and new transit facilities.	\$3,310
SC-CO-P20-USC	State Park Drive Improvements Phase 2	Transit turnouts, two-way left turn, merge lanes, intersection improvements, and fill gaps in bike and ped facilities including pedestrian crossing improvements, bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals). Plus, major rehabilitation and maintenance, drainage improvements, landscaping.	\$335
SC-CO-P22-USC	Paul Sweet Road Improvements (Soquel Dr to end)	Major road rehab and maintenance. Also adds bike lanes, sidewalks, landscaping. Drainage improvements, merge lanes and intersection improvements, and new transit facilities may also be needed.	\$310
SC-CO-P24-USC	Lockwood Lane Improvements (Graham Hill Road to SV limits)	Major road rehab, add bicycle lanes, sidewalks, some transit facilities, landscaping and intersection improvements.	\$243
SC-CO-P26a-USC	41st Avenue Improvements Phase 2 (Hwy 1 Interchange to Soquel Drive)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$340
SC-CO-P26b-USC	Beach Road Improvements (City limits to Pajaro Dunes)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$340
SC-CO-P26d-USC	Brown Valley Road Improvements (Corralitos Road to Redwood Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$340
SC-CO-P26e-USC	Buena Vista Road Improvements (San Andreas to Freedom Boulevard)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$825
SC-CO-P26g-USC	Cassery Road Improvements (Hwy 152 to Green Valley Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$208

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CO-P26h-USC	Center Avenue/Seacliff Drive Improvements (Broadway to Aptos Beach Drive)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$340
SC-CO-P26i-USC	Chanticleer Avenue Improvements (Hwy 1 to Soquel Drive)	Roadway and roadside improvements including bike lanes, sidewalks, drainage and intersection improvements.	\$340
SC-CO-P26j-USC	East Zayante Road Improvements (Lompico Road to just before Summit Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$485
SC-CO-P26k-USC	El Rancho Drive Improvements (Mt. Hermon/Hwy 17 to SC City Limits)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$655
SC-CO-P26l-USC	Eureka Canyon Road Improvements (Hames Road to Buzzard Lagoon Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$655
SC-CO-P26m-USC	Glen Canyon Road Improvements (Branciforte Drive to City of Scotts Valley)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$1,640
SC-CO-P26n-USC	Glenwood Drive Improvements (Scotts Valley City Limits to State Hwy 17)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$825
SC-CO-P26p-USC	Mattison Lane Improvements (Chanticleer Avenue to Soquel Avenue)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$400
SC-CO-P26q-USC	Mt. Hermon Road Improvements (Lockhart Gulch to Graham Hill Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$825
SC-CO-P26r-USC	Porter Street Improvements (Soquel Drive to Paper Mill Road)	Roadway and roadside improvements including buffered sidewalks and bicycle treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) to address speed inconsistency between bicyclists and vehicles, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$340
SC-CO-P26s-USC	Seascape Boulevard Improvements (Sumner Avenue to San Andreas Road)	Roadway improvements and pavement rehabilitation.	\$170
SC-CO-P26u-USC	Summit Road Improvements	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$1,530

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-CO-P27a-USC	37th/38th Avenue (Brommer to East Cliff) Multimodal Circulation Improvements and Greenway	Evaluate and if feasible improve vehicle and transit access on 38th Avenue from East Cliff to Brommer and develop greenway on 37th Avenue from East Cliff to Portola. Roadway improvements may include roadway and roadside improvements including sidewalks, bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals), transit turnouts, left turn pockets and intersection improvement.	\$570
SC-CO-P27c-USC	Corcoran Avenue Improvements (Alice Street to Felt Street)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$150
SC-CO-P27e-USC	Main Street Improvements (Porter Street to Cherryvale Avenue)	Roadway and roadside improvements on Major Collector including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$1,760
SC-CO-P27f-USC	Mill Street Improvements (entire length)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$360
SC-CO-P27h-USC	Paulsen Road Improvements (Green Valley Road to Whiting Road)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$240
SC-CO-P27i-USC	Pinehurst Dr Improvements (entire length)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$180
SC-CO-P27k-USC	Spreckels Drive Improvements (Soquel Drive to Aptos Beach Drive)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$340
SC-CO-P27l-USC	Winkle Avenue Improvements (entire length from Soquel Drive)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$655
SC-CO-P28a-USC	Bean Creek Road Improvements (Scotts Valley City Limits to Glenwood Drive)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$485
SC-CO-P28c-USC	Commercial Way Improvements (Mission Drive to Soquel Drive)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$170
SC-CO-P28d-USC	Felton Empire Road Improvements (entire length to State Hwy 9)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$655
SC-CO-P28f-USC	Pine Flat Road Improvements (Bonny Doon Road to Empire Grade Road)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$655
SC-CO-P28g-USC	Soquel-Wharf Road Improvements (Robertson Street to Porter Street)	Roadway and roadside improvements on various Minor Arterials including addition of bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals), transit	\$515

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
		turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	
SC-CO-P28h-USC	Thurber Lane Improvements (entire length)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$485
SC-CO-P29e-USC	Maciel Avenue Improvements (Capitola Road to Mattison Lane)	Improvements of roadways and roadsides on various Minor Collectors including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$400
SC-CO-P29f-USC	Paul Minnie Avenue Improvements (Rodriguez Street to Soquel Avenue)	Improvements of roadways and roadsides on various Minor Collectors including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$340
SC-CO-P30d-USC	Cabrillo College Drive Improvements (Park Avenue to Twin Lakes Church)	Improvements of roadways and roadsides on various Major Arterials 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.	\$240
SC-CO-P30n-USC	Rio Del Mar Boulevard Improvements (Esplanade to Soquel Drive)	Improvements of roadways and roadsides on various Major Arterials including addition of bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road and roadsides.	\$725
SC-CO-P31g-USC	Opal Cliff Drive Improvements (41st Avenue to Captiola City Limits)	Roadway, roadside and intersection improvements including sidewalks, bike treatments (such as buffered and/or painted bike lanes), designed to accommodate the number of users and link to East Cliff Drive.	\$290
SC-CO-P33d-USC	Harper St Improvements (entire length- El Dorado Ave to ECM)	Roadway and roadside improvements on various Minor Collectors including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$310
SC-CO-P36-USC	Soquel-San Jose Road Improvements (Paper Mill Road to Summit Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$580
SC-CO-P37-USC	Countywide ADA Access Ramps	Construction of handicapped access ramps countywide.	\$620
SC-CO-P62-USC	Soquel Dr Road Improvements (Robertson St to Daubenbiss)	Roadway and roadside improvements including curb, gutter, sidewalk, bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals), left turn lanes, intersection improvements and roadway rehabilitation.	\$410
SC-CO-P83-USC	San Lorenzo Way Bridge Replacement Project	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.	\$3,190

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CO-P85-USC	Green Valley Rd Bridge Replacement Project	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.	\$2,110
SC-CO-P88-USC	Either Way Ln Bridge Replacement Project	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.	\$2,180
SC-CO-P90-USC	Fern Dr @ San Lorenzo River Bridge Replacement Project	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.	\$2,830
SC-SC-48-SCR	Ocean Street Pavement Rehabilitation	Pavement rehabilitation using cold-in-place recycling process; includes new curb ramps, restriping of bicycle lanes and crosswalks.	\$1,030
SC-SC-P100-SCR	Seabright/Murray Traffic Signal Modifications	Remove split phasing on Seabright and add right-turn lane northbound.	\$1,030
SC-SC-P101-SCR	Swift/Delaware Intersection Roundabout or Traffic Signal	Install traffic signal or roundabout at Intersection to improve capacity and safety.	\$500
SC-SC-P104-SCR	Measure H Road Projects	Road rehabilitation and reconstruction projects citywide to address backlog of needs using Measure H sales tax revenues. (Some Measure H funds anticipated to fund specific projects listed in the RTP).	\$41,800
SC-SC-P129-SCR	Downtown Intersection Improvements	Modify Front/Soquel, Front/Laurel and Pacific/Front Intersections stemming from additional residential and commercial development in the Downtown.	\$300
SC-SC-P13-SCR	Riverside Avenue/Second Street Intersection Modification.	Modify intersection to reduce congestion and improve pedestrian crossing.	\$175
SC-SC-P77-SCR	Bay Street Corridor Modifications	Intersection modifications on Bay Street Corridor from Mission Street to Escalona Drive, including widening at the Mission Street northeast corner and widening on Bay. Improve bike lanes and add sidewalks to west side of Bay.	\$970
SC-SC-P83-SCR	West Cliff/Bay Street Modifications	Install signal or roundabout to replace the all-way stop to improve safety and capacity.	\$500
SC-SC-P86-SCR	Ocean Street Streetscape and Intersection, Plymouth to Water	Implement this phase of the Ocean Street plan and modify Plymouth Street to provide separate turn lanes and through lanes, widen sidewalks, pedestrian islands/bulbouts, transit improvements, street trees, street lighting and medians landscaping improvements. This includes pedestrian and bicycle crossing improvements and detection and connectivity to the pedestrian and bicycle path on the San Lorenzo River and adjacent neighborhoods. Include Gateway treatment.	\$2,000
SC-SC-P90-SCR	High Street/Moore Street Intersection Modification	Add a protected left turn to existing signalized intersection along High Street at city arterial. Project is located in high pedestrian and bicycle use activity area.	\$100

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-SC-P91-SCR	Shaffer Road Widening and Railroad Crossing	Construction of a new crossing of the Railroad line at Shaffer Road and widening at the southern leg of Shaffer in conjunction with development. Complete sidewalks and bike lanes.	\$1,000
SC-SC-P93-SCR	Beach/Cliff Intersection Signalization	Signalize intersection for pedestrian and train safety.	\$210
SC-SC-P96-SCR	Bay/California Traffic Signals	Install traffic signals and roundabouts for safety and capacity improvements.	\$100
SC-SV-P06-SCV	Citywide Access Ramps	Place handicap ramps at various locations. Avg annual cost: \$8K/yr.	\$210
SC-SV-P28-SCV	Neighborhood Traffic Calming	Citywide traffic calming devices.	\$770
SC-SV-P47-SCV	Mt Hermon/Scotts Valley Drive - Transit Queue Jump	Evaluate and if found to be beneficial, remove right turn islands at Mt Hermon Road/Scotts Valley Drive to add transit queue jump lanes/signals.	\$620
SC-SV-P51-SCV	Mt. Hermon Road/Town Center Entrance Traffic Signal	Install new traffic signal at the intersection of the future Town Center road that will accommodate increased pedestrian travel. Add a right-turn lane on the westbound approach. New signalization of the intersection at the future Town Center's primary access point on Mt. Hermon Road would provide protected pedestrian crossing, ADA accessible curb ramps and detectable surfaces on all intersection corners. Permitted left-turn phasing shall be used for the northbound and southbound approaches, while protected left-turn phasing shall be provided on the eastbound and westbound Mt. Hermon Road approaches.	\$130
SC-SV-P52-SCV	Kings Village Road/Town Center Entrance Traffic Signal	Install new traffic signal at the intersection of Kings Village Road and new Town Center entrance (near transit center) with protected pedestrian crossings and transit signal priority. New Signalization of the intersection on Kings Village Road at the transit center exit and future Plan street connection would provide a location for protected pedestrian crossings, and would allow transit operators to easily exit the transit center and maintain operating schedules.	\$105
SC-UC-P59-UC	UCSC Lump Sum Roadway Maintenance	Repaving and rehabilitation of roadways on UCSC campus to maintain existing network.	\$2,275
SC-VAR-P13-VAR	Lump Sum Emergency Response Local Roads	Lump sum for repair of local roads damaged in emergency. (Based on average ER/FEMA/CalEMA funds, storm damage, fire, etc. Costs of repairs assumed under lump sum maintenance and operations within local jurisdiction listings.)	\$240,000
SC-VAR-P14-VAR	Lump Sum Bridge Preservation	Painting, Barrier Rail Replacement, Low Water Crossing, Rehab, and Replacement bridges for SHOPP and Highway Bridge Program (HBP).	\$100,000
SC-WAT-45-WAT	Freedom Blvd Reconstruction (Alta Vista to Green Valley)	Remove and replace non-ADA compliant driveways and curb ramps, install high visibility crosswalks, provide sharrows and bicycle signage, upgrade existing bus stop shelter, install new traffic signal at Sydney Ave with pedestrian signal heads, pedestrian actuated traffic signals, audible countdown, pedestrian-level lighting and illumination at crosswalks and reconstruct roadway.	\$2,175

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-WAT-46-WAT	Watsonville Road Maintenance (Various Locations)	Place three-layer coating system on road surface	\$2,505
SC-WAT-O1A-WAT	Hwy 1/Harkins Slough Road Interchange: Bicycle/Pedestrian Bridge	Construction of Pedestrian/Bicycle Bridge over Highway 1. Caltrans Project ID 05-1G490	\$15,800
SC-WAT-P13-WAT	Neighborhood Traffic Plan Implementation	Address concerns about traffic complaints through Education, Enforcement, and Engineering solutions. Install traffic calming devices that do not impede bicyclist access (\$20k/yr).	\$470
SC-WAT-P35-WAT	Bridge Maintenance	Maintenance of bridges.	\$115
SC-WAT-P45-WAT	Green Valley Rd Improvement (Freedom Blvd to City Limit)	Reconstruct existing roadway, install a median island to encourage safer turning movements, remove and replace existing driveways and curb ramps that do not comply with existing accessibility standards, restripe roadway to provide striping for bike lanes where none exist.	\$2,000
SC-WAT-P47-WAT	Main Street Modifications (City Limit to Lake Avenue)	Repave roadway and bike lanes; repair, replace and install curb, gutter, sidewalk and curb ramps; replace and upgrade signage and striping. Evaluate and if feasible, provide bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) and buffered sidewalks.	\$1,670
SC-WAT-P72-WAT	Freedom Boulevard (Green Valley Road to Airport Blvd)	Repair and resurface damaged roadway and bike lanes, replace damaged sidewalks, add pedestrian facilities where none exist.	\$2,650
SC-WAT-P77-WAT	Elm St. Improvements Project	Road reconstruction and sidewalk improvements	\$350
SC-WAT-P79-WAT	Harkins Slough Rd Pedestrian & Bicycle Bridge	Install pedestrian & bicycle bridge, pedestrian path, sidewalk, striping and signage	\$90
SC-WAT-P86-WAT	Main Street Traffic Study	Conduct traffic study on Main Street between Freedom Blvd and Riverside Dr to determine the feasibility of a lane reduction/road diet. Determine possible impacts on adjacent streets and any necessary improvements. Study shall be coordinated with 2019 Downtown Watsonville Complete Streets and 2020 Downtown Specific Plan.	\$25
SC-WAT-P87-WAT	Airport Blvd/Holm Road Signal Installation	Install traffic signal	\$460
SC-WAT-P88-WAT	Airport Blvd Pavement Reconstruction	Reconstruct roadway	\$575
SC-WAT-P89-WAT	West Beach St/Ohlone Pkwy Signal	Install traffic signal	\$130

**Table 5 Other Projects**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
CO 36SC	State Park Drive/Seacliff Village Improvements	Construct sidewalks, bike lanes, bus turnouts, central plaza, street lighting, EV charging station, parking, landscaping, drainage and roadway overlay in Seacliff core area- consistent with the Seacliff Village Plan adopted by the BOS in 2003.	\$3,060
RTC 04SC	Planning, Programming & Monitoring (PPM) - SB 45	Development and amendments to state and federally mandated planning and programming documents, monitoring of programmed projects. Avg annual cost: \$250k/yr.	\$5,000
SC-AIR-P01-WAT	Lump Sum Watsonville Airport Capital Projects	Projects from the Watsonville Airport Capital Improvement Program. Includes new hangers, reconstruction of aviation apron, security feature and runway extensions.	\$27,000
SC-AIR-P02-WAT	Watsonville Municipal Airport Operations	Ongoing operations/maintenance. Average \$2M/year.	\$49,925
SC-CAP-P53-CAP	Capitola Road & 45th Avenue I/S Improvements	Signalization or other LOS improvements.	\$400
SC-CAP-P54-CAP	Wharf Road and Stockton Avenue I/S Improvements	Signalization or other LOS improvements.	\$350
SC-CAP-P57-CAP	Stockton Avenue and Capitola Avenue I/S Improvements	Signalization or other LOS improvements.	\$500
SC-CO-P96-USC	Capital improvement projects consistent with the Sustainable Santa Cruz County Plan	Construct associated multi-modal infrastructure improvements associated with the Sustainable Santa Cruz County Plan	\$7,000
SC-CT-P09e-CT	Hwy 9 SLV Corridor Projects	May be implemented by Caltrans or County of SC, in partnership with others. Implementation of priorities identified in the Complete Streets Corridor Plan. Includes improvements to increase safety and discourage speeding, updated and expanded bicycle and pedestrian facilities including shoulder widening, auto turn lanes and other auto circulation improvements, and transit improvements in SLV. SLV Complete Streets PID development efforts underway; some may be integrated into SHOPP projects. Capital Cost Est. TBD - preliminary estimate \$100-150 million. \$10M Measure D. Some bike/ped elements also shown in CO-P46a/b.	\$30,000
SC-CT-P50-CT	Hwy 17 Access Management - Multimodal Improvements	Multimodal improvements including park and ride improvements and facilities serving separated bike/ped crossing or express transit route.	\$5,000
SC-CT-P67-CT	Hwy 236 Hazardous Tree Removal	Remove hazardous trees and fire debris near Boulder Creek, from Forest Drive to 2.2 miles south of Route 9. (EA#1M790)	\$15,625
SC-CT-P75-CT	Hwy 1 Long Toed Salamander Mitigation	Long Toed Salamander mitigation partnering (Main St interchange in Watsonville to north of Larkin Valley Rd interchange)	\$2,800

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-RTC 03a-RTC	Rail Line Repairs and Bridge Rehabilitation	Infrastructure preservation for current uses and future transportation purposes. Includes railroad bridge rehabilitation and 2017 storm damage repairs.	\$5,800
SC-RTC 03b-RTC	Rail Line: Track Infrastructure, Signage, Maintenance and Repairs	Ongoing operating, maintenance, repair, rehabilitation, and oversight of railroad track infrastructure and signage (~\$175k/year)	\$4,375
SC-RTC 03d-RTC	Railroad Bridge Inspections & Analysis	Railroad Bridges are required to be inspected and load rated every 540 days per Federal Railroad Administration (FRA) requirements	\$6,250
SC-RTC-P07-RTC	SCCRTC Administration (TDA)	SCCRTC as Regional Transportation Planning Agency for Santa Cruz County distributes Transportation Development Act Local Transportation Funds and State Assistance Funds for planning, transit, bicycle facilities and programs, pedestrian facilities and programs and specialized transportation in accordance with state law and the unmet transit needs process. Average annual cost: \$650K/yr.	\$16,250
SC-RTC-P08-RTC	SCCRTC Planning	SCCRTC Planning Tasks. Includes public outreach, long and short-range planning, interagency coordination. Avg annual cost: \$625k/yr.	\$15,625
SC-RTC-P25-VAR	Transit Oriented Development Grant Program	Smart growth grant program to fund TODs that encourage land use and transportation system coordination. May include joint childcare/PNR/transit centers.	\$2,570
SC-RTC-P50-RTC	Countywide Bicycle, Pedestrian and Vehicle Occupancy Counts	Conduct counts to assess mode split over time and assess impact of new facilities.	\$330
SC-RTC-P51-RTC	Performance Monitoring	Transportation data collection and compilation to monitor performance of transportation system to advance goals/targets. Includes travel surveys of commuters, Transportation Demand Management plan, a low-stress bicycle network plan and parking standards plan.	\$220
SC-RTC-P59-RTC	Measure D Administration and Implementation	SCCRTC administration, implementation and oversight of Measure D and the revenues generated from the 2016 Santa Cruz County Transportation Sales Tax - Measure D. Costs include annual independent fiscal audits, reports to the public, preparation and implementation of state-mandated reports, oversight committee, preparation of implementation, funding and financing plans, and other responsibilities as may be necessary to administer, implement and oversee the Ordinance and the Expenditure Plan.	\$14,375
SC-VAR-P07-VAR	Transportation System Electrification	Partnership with local gov't agencies, electric vehicle manufactures, businesses, and Ecology Action to establish electric vehicle charging stations for EV's, plug-in hybrids, NEV's, as well as e-bikes and e-scooters. Work with manufacturers on developing advanced electric vehicles and educating the public regarding the ease of use and benefits of electric vehicles.	\$51,650
SC-VAR-P25-VAR	Planning for Transit Oriented Development for Seniors	Evaluate opportunities for Transit Oriented Development serving seniors including access to medical facilities.	\$80

Appendix G: Alternative Project Lists  
**Alternative 2 – Santa Cruz County**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-VAR-P30-VAR	Public/Private Partnership Transit Stops and Pull Outs Plan	Develop model for assisting local jurisdictions in working with businesses to install transit pullouts and shelters on property in areas identified as high-quality transit corridors in Sustainable Communities Strategy.	\$150
SC-VAR-P36-VAR	Safety Plan	Develop a safety plan that addresses traffic related injuries and fatalities for all modes of transportation.	\$310
SC-VAR-P38-VAR	Environmental Mitigation Program	Allocate funds to protect, preserve, and restore native habitat that construction of transportation projects listed in SCCRTC's RTP could potentially impact. EMP funds will be for uses such as, but not limited to, purchasing land prior to project development to bank for future mitigation needs, funding habitat improvements in advance of project development to leverage and enhance investments by partner agencies.	\$5,680
SC-WAT-P04-WAT	Neighborhood Traffic Plan	Plan to identify and address concerns regarding speeding, bicycle and pedestrian access and safety, and other neighborhood traffic issues (\$5k/yr).	\$115
SC-WAT-P80-WAT	Lake Avenue Underground Utilities	Underground existing overhead utilities.	\$2,400
WAT 43SC	Freedom Boulevard Plan Line	Preparation of a plan line for Freedom Boulevard between Green Valley Road and Buena Vista Drive that delineates multimodal modifications supported by the community.	\$160

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**Table 6 Transportation Demand Management**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
RTC 17SC	Ecology Action Transportation Employer Membership Program	Community organization that promotes alternative commute choices. Work with employers, incentives for travelers to get out of SOVs including: emergency ride home, interest-free bike loans, discounted bus passes. Avg cost: \$90K/yr. Coordinates with Bike to Work program.	\$1,125
SC-CO-50-USC	Santa Cruz County Health Service Agency - Traffic Safety Education	Ongoing education program to decrease the risk and severity of collisions. Includes bicycle and pedestrian programs: Community Traffic Safety Coalition, South County coalition and Ride n' Stride Bicycle/Pedestrian Education Program.	\$2,500
SC-EA-03a-USC	Bike Challenge +	Online tracking and encouragement platform to encourage and reward people to bike commute more often. Twice-a-year monthly bike challenge, year-round encouragement tools, bike commuter workshops, marketing, group rides, and data/survey collection.	\$181
SC-RTC-02a-RTC	Cruz511 TDM and Traveler Information	Transportation demand management including centralized traveler information system and ride matching services. Outreach, education and incentives; multimodal traveler information system on traffic conditions, incidents, road and lane closures; ride matching service for carpools, vanpools, and bicyclists; services and information about availability and benefits of all transportation modes, including sharing rides, transit, walking, bicycling, telecommuting, alternative work schedules, alternative fuel vehicles, and park-n-ride lots. Avg annual cost: \$315k.	\$4,334
SC-RTC-15-RTC	Vanpool Incentive Program	Assist in start up and retention of vanpools. Includes financial incentives: new rider subsidies, driver bonuses, and empty seat subsidies. Also may include installation of wifi on vans. Avg Annual Cost: \$25k/yr.	\$100
SC-RTC-26-OTH	Bike To Work/School Program	Countywide education, promotion, and incentive program to actively encourage bicycle commuting and biking to school. Coordinates efforts with local businesses, schools, and community organizations to promote bicycling on a regular basis. Provides referrals to community resources. Avg annual cost: \$140K/yr-includes in-kind donations and staff time.	\$1,870
SC-RTC-33-VAR	Cabrillo College TDM Programs	Provide students and employees at all four Cabrillo College campuses with education, promotion, and incentives that support the use of sustainable transportation modes. Develop information, programs and services customized to meet the transportation needs of the Cabrillo College community. 'Provide Sustainable Transportation education, promotion, and Go Green program enrollment to Cabrillo College students and employees. Partner with Cabrillo staff and students to reduce SOV trips to the Aptos, Watsonville and Scotts Valley campuses. Provided targeted information and services to Cabrillo members.	\$890
SC-RTC-P48-VAR	Climate Action Transportation Programs	Projects that reduce greenhouse gas emissions through reducing vehicle trips and vehicle miles traveled, increasing fuel efficiency and expanding use of alternatively fueled vehicles. Includes comprehensive outreach and education campaigns, a countywide emergency ride home for those using alternatives, and TDM incentive programs: \$100k/year.	\$2,330

Appendix G: Alternative Project Lists  
**Alternative 2 – Santa Cruz County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-RTC-P49-RTC	RTC Bikeway Map	Bikeway Map and update GIS files as needed.	\$320
SC-RTC-P53-VAR	TDM Individualized Employer/Multiunit Housing Program	Implement individualized employer and multiunit housing TDM programs with incentives for existing development.	\$2,325
SC-RTC-P54-RTC	School-Based Mobility/TDM Programs	Student transportation programs aimed at improving health and wellbeing, transportation safety and sustainability and that facilitate mode shift from driving alone in a motor vehicle to active and group transportation.	\$1,150
SC-UC-P61-UC	Traveler Safety Education/Information Programs	Bike/pedestrian safety programs; light and helmet giveaways, safety classes, distracted driver programs, bus etiquette program	\$100
SC-UC-P63-UC	UCSC Vanpool Program	Maintain, operate and expand upon UCSC vanpool program.	\$9,863
SC-UC-P68-UC	Parking Management Technology Improvements	Updating existing parking management technologies to allow for more effective management.	\$410
SC-UC-P69-UC	UCSC Commute Counseling Program	Staffing, program development to individually market to UCSC affiliates on more sustainable means of travel to campus.	\$3,100
SC-UC-P70-UC	UCSC Commuter Incentive Programs	Provide ongoing support and development of new programs to encourage travel to campus via sustainable modes of travel.	\$1,750
SC-UC-P73-UC	UCSC Parking Operations & Maintenance	Operate and administer the parking operations for UCSC including planning, TDM, marketing and debt service.	\$80,000
SC-VAR-02-VAR	Project PASEO - Open Streets, Earn-a-Bike, Pop Up Bike Lanes, Slow Streets	Slow Streets temporary barricades and signage on neighborhood streets aimed at increasing space for walking and biking, reducing speeds and cut through traffic. Open Streets community events temporarily open roadways to bicycle and pedestrian travel only, diverting automobiles to other roadways. Earn-a-bike program provides bikes, tools, safety supplies, as well as bike repair, cycling safety, and nutrition education middle school students. Pop-up bike lanes is a temp demo of a protected bicycle lane. Open Streets: Santa Cruz, Watsonville, +; Earn-a-bike: middle schools; Pop-up Bike Lanes: Live Oak & Watsonville; Slow Streets: Unincorporated	\$50
SC-VAR-P06-VAR	Carsharing Program	Program to assist people in sharing a vehicle for occasional use. Implementing Agency TBD, varies.	\$1,470
SC-VAR-P17-VAR	Eco-Tourism - Sustainable Transportation	Provide sustainable transportation information, incentives and promotions to the estimated one million visitors to Santa Cruz County. Work with the Santa Cruz County Conference and Visitors Council, local lodgings, and tourist attractions.	\$515
SC-VAR-P18-VAR	Mission Street/Hwy 1 Bike/Truck Safety Campaign	Partnership with road safety shareholders including Caltrans, UCSC, City of Santa Cruz, Ecology Action, trucking companies and others to improve bike/truck safety along the Mission Street corridor. Provide safety presentations, videos, brochures, safety equipment, etc.	\$520

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-VAR-P19-VAR	School Safety Programs	Bicycle and walking safety education and encouragement programs targeting K-12 schools in Santa Cruz County including Ecology Action's Safe Routes to School and Bike Smart programs. Provide classroom and on the bike safety training in an age-appropriate method. Provide a variety of bicycle, walking, busing and carpooling encouragement projects ranging from bike to school events, to incentive driven tracking, and educational support activities. Est. annual cost \$150k.	\$1,910
SC-VAR-P20-VAR	Public Transit Marketing	Initiatives that increase public transit ridership including discount passes, free fare days, commuter clubs, and promotional and marketing campaigns.	\$775
SC-VAR-P24-VAR	Countywide Senior Driving Training	Coordinate and enhance current programs that help maturing drivers maintain their driving skills and provides transitional info about driving alternatives. (Current programs are run by AARP and CHP.)	\$90
SC-VAR-P26-VAR	Park and Ride Lot Development	Upgrade and maintain existing park and ride lots for commuters countywide. Secure additional park and ride lot spaces for motorized vehicles and bicycles. Long range plan: identify, purchase land, construct Park & Ride lots.	\$3,100
SC-VAR-P37-VAR	Transportation Demand Management Plan	Collaborate with other organizations to develop a coordinated plan for transportation demand management program implementation for Santa Cruz County.	\$310
SC-VAR-P40-VAR	Santa Cruz County Open Streets	Community events promoting alternatives to driving alone as part of a sustainable, healthy, and active lifestyle. Temporarily opens roadways to bicycle and pedestrian travel only, diverting automobiles to other roadways. (Average cost ~ \$25k/event)	\$250

**Table 7 Transit ADA**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-CTSA-P01-OTH	Countywide Specialized Transportation	Non-ADA mandated paratransit and other specialized transportation service for seniors and people with disabilities. Includes medical service rides, Elderday, out-of-county rides, Sr. Meal Site, Taxi Script, and same day rides etc. Current avg annual need \$2.58M. Constrained=\$2M.	\$45,500
SC-CTSA-P02-OTH	Lift Line Maintenance/Operations Center	Construct a permanent maintenance center/consolidated operations facility for paratransit program (currently Lift Line).	\$15,500
SC-MTD-02-MTD	ADA Paratransit Vehicle Replacements	Replace buses/vans for ADA paratransit fleet (including Accessible Taxi program).	\$5,250
SC-MTD-P10C-MTD	ADA Paratransit Service - Continuation of Existing Service	Operation & maintenance cost of existing Paratransit service. Avg Annual Cost: \$6.5M.	\$162,500
SC-MTD-P19-MTD	Transit Mobility Training Program Expansion	Expand public outreach and training to encourage fixed route, rather than Paratransit, use. Outreach may also involve other partners (ex. DMV, doctors, senior centers, etc). Avg annual cost: \$80K/yr.	\$2,000
SC-MTD-P28-MTD	ParaCruz Operating Facility	Design, Right-of-Way and construction for new ParaCruz Operating Facility.	\$12,400
SC-MTD-P30-MTD	ParaCruz Mobile Data Terminals/Radios	Replace mobile data terminals in vehicles.	\$400
SC-MTD-P51-MTD	ADA Access Improvements	Add or improve ADA accessibility to all bus stops and METRO facilities.	\$350
SC-RTC-P43-OTH	Senior Employment Ride Reimbursement	Reimburse low-income seniors for transit expenses to/from employer sites.	\$1,600
SC-VAR-P48-VAR	On-Demand Wheelchair Accessible Vehicle Program	TNC Access for All Program to implement SB1376 (Hill: 2018) which directed the CPUC to establish a program relating to accessibility of on-demand transportation services for persons with disabilities, including wheelchair users who need a wheelchair accessible vehicle (WAV), to be funded in-part by Transportation Network Companies (e.g., Lyft/Uber) that do not have WAV fleet. [constrained reflects CPUC forecasted funds=\$60k/yr]	\$1,500

**Table 8 Transit Improvements**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CAP-P15-CAP	Capitola Jitney Transit Service	Purchase and operate local transit service.	\$1,030
SC-CAP-P18-CAP	Capitola Intra-City Rail Trolley	Construct & Operate Weekend Rail Trolley Service. Project includes installation of 3 stations.	\$14,460
SC-MTD-P12-MTD	Hwy 17 Express Service Restoration and Expansion	Restore Hwy 17 Express service to FY16 levels, then expand service 2% annually. Restore \$353K/yr operating plus 2% annually plus capital costs (2 buses)	\$12,650
SC-MTD-P14-MTD	Local Transit Service Restoration and Expansion	Restore local service to FY16 levels, then expand service 2% annually. Restore \$7.0M/yr operating plus 2% annually plus capital costs (16 buses)	\$237,800
SC-MTD-P15-MTD	Bus Rapid Transit	Transit signal priority, queue jumps, and enhanced stations to speed up major cross-county trunk routes.	\$36,500
SC-MTD-P24-MTD	Small Bus Fleet	Purchase smaller shuttle buses, possibly autonomous, for first mile/last mile connections. Cost currently unknown.	\$1,700
SC-MTD-P38-MTD	Maintenance Facility Expansion	Property acquisition, design, and construction of maintenance facility expansion.	\$15,850
SC-MTD-P53-MTD	Park and Ride Facilities	Fund purchase and construction or lease of parking areas for commuter bus patrons, either surface lot or parking structure.	\$29,400
SC-RTC-P02-RTC	Public Transit on Watsonville-Santa Cruz Rail Corridor	Design, construction, and operation of public transit between Santa Cruz and Watsonville in the rail corridor. May be a joint project with the SCCRTC, SCMTD, and local jurisdictions. Annual op cost est: \$25M/yr; Capital: \$475M (Total cost reflects 2021 TCAA est. for rail). Pending final outcome of Transit Corridor Alternatives Analysis and environmental review. Cost shown includes 15 years of service during RTP period; Constrained=environmental/prelim. design assessment of possible future public transit system in the rail corridor right-of-way.	\$25,000
SC-RTC-P60-RTC	Regional State Transit Assistance Projects	State Transit Assistance (STA) eligible transit projects	\$33,220
SC-UC-P22-UC	Alternative Fuel/Electric Shuttle Vehicles	Capital acquisition of vehicles/conversion of shuttles to EV.	\$10,330
SC-UC-P23-UC	Transit Vehicles (ongoing)	Ongoing capital acquisition of transit vehicles for on-campus transit and University shuttles.	\$5,875
SC-UC-P46-UC	East Collector Transit Hub	New transit hub at East Collector (East Remote) lot.	\$5,170
SC-UC-P48-UC	UCSC - Metro Station Bus Rapid Transit Improvements	Bus Rapid Transit Improvements between Metro Station, Bay Street Corridor and UCSC roadways.	\$5,170

Appendix G: Alternative Project Lists  
**Alternative 2 – Santa Cruz County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-VAR-P45-VAR	West Side Transit Hub	Transfer node near rail corridor at Natural Bridges Dr - may include transit, rideshare, bicycle, bikeshare, pedestrian to provide regional connections to/from other parts of the county and the university.	\$580
SC-VAR-P46-VAR	Live Oak Transit Hub	Transfer node near rail corridor at 17th Avenue - may include transit, rideshare, bicycle, bikeshare, pedestrian to provide regional connections to/from other parts of the county.	\$530
SC-VAR-P47-VAR	Watsonville Transit Hub	Expand transportation mode options at transfer node near rail corridor and current transit center to increase use of transit, rideshare, bicycle, bikeshare, pedestrian to provide regional connections to/from other parts of the county.	\$585

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**Table 9 Transit Operations**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-MTD-P10B-MTD	Hwy 17 Express Service - Continuation of Baseline Service Levels	Operation & maintenance cost of existing Highway 17 Express bus service. Avg annual cost: \$5.3M.	\$132,500
SC-MTD-P10-MTD	Local Transit - Continuation of Baseline Service Levels 2020-2045	Operation & maintenance cost of existing local fixed route bus service. Avg annual cost: \$42.1M.	\$1,077,500
SC-MTD-P18-MTD	Commuter/Subscription Bus Program	Capital and operating for subscription buses to areas not currently served by express buses (similar to large vanpool).	\$6,500
SC-MTD-P21-MTD	Signal Priority/Pre-Emption for Buses	Enable coach operators to actuate traffic signals to prolong green or change red lights to improve transit running time.	\$2,070
SC-MTD-P54-MTD	South County Operations and Maintenance Facility	Acquisition of property and construction of second operations and maintenance facilities to better serve South County.	\$50,000
SC-MTD-P55-MTD	Customer IT amenities	Upgrade Hwy 17 Wi-Fi and expand to local routes	\$1,010
SC-RTC-P58-RTC	Real-Time Transit Info	Develop and maintain system for disseminating real time transit arrival and departure information to Santa Cruz Metro users. To be developed in coordination with Santa Cruz Metro.	\$220
SC-UC-P74-UC	UCSC Transit Service	Operate the on-campus shuttle service and Night Owl (\$3.01m/year).	\$77,750
SC-UC-P75-UC	Disability Van Service	Operate disability van service (\$240k/yr).	\$6,250
SC-VC-P1-OTH	Volunteer Center Transportation Program	Program providing specialized transportation to seniors and people with disabilities. Constrained = existing TDA allocations.	\$1,640
SC-VAR-P41-VAR	Transportation for Low Income Families	Transportation service for low-income families with children. Includes medical service rides, out-of-county rides, volunteer rides, taxi script, ride to work program, etc. Current avg annual need \$.5M. Constrained=\$0M.	\$11,000
SC-VAR-P42-VAR	Transportation for Caregivers of Seniors/People with Disabilities	Transportation service for caregivers of seniors or people with disabilities. Including, but not limited to programs such as, volunteer rides, taxi script, ride to work program. Current avg annual need \$.5M. Constrained=\$0M.	\$11
SC-WAT-P27-WAT	Watsonville Shuttle	Year-round public transit service.	\$300

**Table 10 Transit Rehabilitation**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MTD 18SC	Account-Based Electronic Fare Collection System	Account-based electronic fare collection system including the ability to use a variety of fare media including smart cards, mobile tickets on smartphones, contactless credit and debit cards, Google Pay and Apple Pay. Replacement of fareboxes at the end of useful life for cash acceptance onboard. Replacement Transit Fareboxes, Ticket Vending Machines or Retail Vendor Network.	\$2,250
SC-MTD-13-MTD	Santa Cruz Metro Center/Pacific Station Renovation	Renovate Pacific Station or construct new transit center in alternate location as part of development partnership with the City of Santa Cruz.	\$25,000
SC-MTD-P04-MTD	Bus Replacements	Replace fleet at the end of normal bus lifetime (approximately every 12 years; \$700 each for local fixed route; \$900k each for Hwy 17 Over the Road coaches). \$1.25M for ZEB	\$131,100
SC-MTD-P20-MTD	Bikes on Buses Expansion	Add additional space for bikes on articulated buses when/if METRO purchases or leases 60-ft articulated buses.	\$60
SC-MTD-P31-MTD	Bus Rebuild and Maintenance	Rebuild engines; Fleet maintenance equipment. Avg. cost is ~\$250k/bus, increases useful life up to 8 years at 40% of the cost of new buses.	\$6,000
SC-MTD-P32-MTD	Non-Revenue Vehicle Replacement	Replace support vehicles.	\$1,000
SC-MTD-P35-MTD	Transit System Technology Improvements	Hardware and software for essential transit operations and administration: computer servers, networking equipment, telephones, personal computers, digital ID processing equipment, office equipment, and software. Periodic replacement at end of useful life.	\$5,000
SC-MTD-P36-MTD	Metro Facilities Repair/Upgrades	Maintain and upgrade facilities.	\$6,270
SC-MTD-P46-MTD	Watsonville Transit Center Improvements	Minor upgrades to Watsonville Transit Center.	\$1,030
SC-MTD-P52-MTD	Bus Stop and Station Improvements	Improve customer access and/or amenities at bus stops; add bus stop pads to preserve pavement.	\$500
SC-MTD-P56-MTD	Replacement of Watsonville Transit Center	Replacement transit center at existing or new location.	\$25,000
SC-RTC-03e-RTC	Rail Line: Pajaro River Railroad Bridge Rehabilitation	Rehabilitate the bridge structure and tracks over Pajaro River.	\$670
SC-RTC-P41-RTC	Rail Line: Freight Service Upgrades	Upgrade rail line to FRA Class 2 to a condition for reasonable ongoing maintenance into the future. Upgrade crossings, replace jointed rail with continuously welded rail, upgrade signals and replace ties.	\$25,000
SC-SV-P46-SCV	Mt Hermon/King's Village Road - Transit Signal priority	Transit signal priority at Kings Village Road/Mt Hermon Road.	\$80

Association of Monterey Bay Area Governments  
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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-UC-P51-UC	Bike Shuttle Vehicle Acquisition	Acquire more alt fueled vehicles for bike shuttle (and possible expansion).	\$520
SC-UC-P62-UC	Bus Tracking and AVL Transit Programs	GPS bus tracking and Automatic Vehicle Locator programs inform travelling population of transit locations so they can make informed mode choices.	\$260
SC-UC-P64-UC	Alternative Fuel Fleet Vehicles	Purchase and upgrade fleet vehicles to alt. fueled vehicles (refuse trucks, street sweepers, fleet cars, etc.)	\$3,100

**Table 11 Transportation System Management**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
RTC 01SC	Freeway Service Patrol (FSP) on Hwy 1 and Hwy 17	Maintain and expand tow truck patrols on Highways 1 and 17. Work with the CHP to quickly clear collisions, remove debris from travel lanes, and provide assistance to motorists during commute hours to keep incident related congestion to a minimum and keep traffic moving. Avg need: \$300k/yr constrained (some from SB1); \$430k/yr total cost.	\$7,500
SC-CAP-P49-CAP	41st Ave (Soquel to Brommer) Signal Synchronization	Update synchronization of signals on 41st. Coordinate synchronization of 41st Ave with Portola, Soquel, Capitola and Hwy 1 ramps with County.	\$350
SC-CAP-P50-CAP	Capitola-Wide HOV priority	Evaluate HOV priority at signals and HOV queue bypass.	\$40
SC-CHP-P01-CHP	Hwy 17 Safety Program	Continuation of Highway 17 Safety Program in Santa Cruz County at \$100/year. Includes public education and awareness, California Highway Patrol (CHP) enhancement, pilot cars, electronic speed signs.	\$3,750
SC-CHP-P04-CHP	Hwy 1 Safety and Bus on Shoulder Enforcement	Additional CHP enforcement and public education campaign when new bus on shoulder facilities operational (anticipate 4 years of enforcement).	\$250
SC-CT-P63-CT	Hwy 129 Paving, Sign Panels, Lighting, TMS Improvement	Rehabilitate pavement and lighting, replace sign panels, and install Transportation Management System (TMS) elements.	\$14,809
SC-CT-P64-CT	Hwy 1 Drainage Improvements	Rehabilitate drainage systems and lighting, install Transportation Management System (TMS) elements, pave areas behind the gore and construct Maintenance Vehicle Pullouts (MVPs) to reduce maintenance and enhance highway worker safety.	\$16,554
SC-CT-P65-CT	Hwy 1 Roadside Safety	Rehabilitate drainage systems, enhance highway worker safety, replace lighting and install Transportation Management System (TMS) elements.	\$24,021
SC-CT-P80-CT	Hwy 236 Drainage and System Upgrades in Boulder Creek	Drainage System and TMS upgrades	\$13,400
SC-MTD-P06-MTD	Transit Technological Improvements	IT software and hardware upgrades for scheduling, customer service and planning systems. Upgrades every 5 years.	\$2,500

Appendix G: Alternative Project Lists  
**Alternative 2 – Santa Cruz County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-MTD-P50-MTD	ITS Equipment: Automatic Passenger Counter System and Real Time Bus Arrival/Departure Displays	Automatic Vehicle Locator (AVL), Automatic Passenger Counters, and automatic vehicle announcing systems on METRO buses. Provide real time bus arrival/departure displays at bus stops. Necessary IT upgrades and data collection for system operations, security, planning and maintenance.	\$1,600
SC-RTC-34-RTC	Hwy 1 Ramp Metering: Northern Sections Between San Andreas Road and Morrissey Blvd	Reconfiguration of ramps and local streets to allow for ramp metering and installation of ramp meters. Could be expensed under a separate standalone project (\$6.7 M)	\$1
SC-RTC-P01-RTC	SAFE: Call Box System Along Hwys	Motorist aid system of telephone call boxes along all highways plus maintenance and upgrades. Call boxes may be used to request assistance or report incidents. Avg annual cost: \$245/yr	\$6,125
SC-SV-P42-SCV	Synchronize Traffic Signals along Mt. Hermon Road	Re-time to coordinate traffic signals along Mt. Hermon Road.	\$100
SC-UC-P58-UC	UCSC Traffic Control	Non-traditional traffic control/crossing guard program at key intersections on UCSC campus to improve pedestrian and vehicle safety, reduce conflicts, improve travel times.	\$2,580
SC-VAR-P34-VAR	Transit Priority	Install transit queues at major intersections.	\$2,585
SC-WAT-P78-WAT	Green Valley Adaptive Signal Project	Update signals to provide dynamic signal timing, optimizing traffic flow and decreasing vehicle emission.	\$393

## Alternative 3 – Monterey County

**Table 1 Active Transportation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-CAR002-CM	Carmel to Pebble Beach Bike/Ped Facility	Construct Class I or Class II bike facility.	\$86
MON-CAR021-CM	SR 1 Carmel Corridor between Carmel River Bridge and Carpenter Street	Provide accommodation for bicyclists along State Route 1 Bike Route.	\$500
MON-CAR024-CM	Rio Road Traffic Calming, Pedestrian Access and Bicycle Lanes	Install traffic calming devices, enhance visibility and safety at the crossing zone, and provide bicycle lanes	\$250
MON-CAR025-CM	Eighth and San Antonio Avenues Class II Bike Improvements	Install signs, pavement markings, intersection modifications, etc. along Eighth and San Antonio Avenues	\$80
MON-CAR027-CM	Pedestrian Pathway behind Larson Field and Rio Park	Construct pedestrian and possible bike route around Larson Field across Rio Park site	\$75
MON-CAR035-CM	Downtown ADA Ramps	Install new and reconstruct non-conforming ADA ramps in Downtown Area (Est. 125 total)	\$1,000
MON-CAR038-CM	Downtown Sidewalk Repairs and Pedestrian Enhancements	Repair damaged sidewalks, add pedestrian enhancements, benches, signs, trash receptacles, etc.	\$250
MON-DRO006-DR	Gen. Jim Moore Bicycle Improvement	Stripe Class II both sides w/in City limits.	\$10
MON-DRO007-DR	Canyon Del Rey Boulevard (Hwy 218) Bicycle Gap	Stripe Class II Bike lanes on East side of Canyon Del Rey Blvd and complete gaps on Westside; Stripe/Restripe bike lanes to the left of right turn lanes	\$500
MON-GRN001-GR	Apple Avenue Bridge over US 101	Construct new bike/pedestrian bridge parallel to existing overpass.	\$3,548
MON-GRN005-GR	Thorne Road Bridge over US 101	Construct new bike/pedestrian bridge parallel to existing overpass.	\$1,548
MON-GRN010-GR	12th Street Bike Lanes	Construct Class II bike lanes.	\$1
MON-GRN011-GR	13th Street Bike Lanes	Construct Class II bike lanes.	\$1
MON-GRN012-GR	2nd Avenue Bike Lanes	Construct Class II bike lanes.	\$1
MON-GRN013-GR	3rd Street Bike Lanes	Construct Class II bike lanes	\$1
MON-GRN014-GR	7th Street Bike Lanes	Construct Class III bike lanes.	\$1
MON-GRN015-GR	El Camino Real Exit Bike Lane	Construct Class II/III bike lane (Class II preferred).	\$1

Appendix G: Alternative Project Lists  
**Alternative 3 – Monterey County**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-GRN016-GR	Elm Avenue Bike Lanes	Construct Class II bike lanes.	\$1
MON-GRN017-GR	Pine Avenue Bike Lanes	Construct Class II bike lanes	\$1
MON-GRN018-GR	Walnut Avenue Bike Lanes	Construct Class II bike lane.	\$1
MON-KCY008-CK	Airport Road Bike Lane	Sign Class III bike lane.	\$2
MON-KCY009-CK	Metz Road Bike Lane	Stripe Class II, restripe roadway	\$200
MON-KCY037-CK	Maintenance/Repairs	Repair/rebuild, streets sidewalks (financial info estimated)	\$120
MON-KCY038-CK	Vanderhurst Bike Lanes	Install Class II bike lanes.	\$20
MON-KCY039-CK	1st St Bike Lanes	Install Class II bike lanes	\$20
MON-KCY040-CK	Broadway Bike Lanes	Install Class II bike lanes	\$5
MON-KCY045-CK	Division St Bike Lanes	Install Class II bike lanes	\$50
MON-KCY046-CK	San Antonio Dr Bike Lanes	Install Class II bike lanes: Includes pedestrian improvements (road diet)	\$50
MON-KCY047-CK	N. Third St Bike Lanes	Install Class II bike lanes	\$50
MON-KCY048-CK	Franciscan Way Bike Lanes	Install Class II bike lanes	\$50
MON-MAR026-MA	Citywide Sidewalk Improvement Program	Construct new sidewalk per ADA Transition Plan	\$6,000
MON-MAR039-MA	Downtown Pedestrian Improvements	Sidewalk and crosswalk improvements downtown; Project part of the Downtown Vitalization Plan	\$1,000
MON-MAR108-MA	Remove and Replace Signs, Class III Bikeway	Remove and replace signs at signalized trail intersections, replace with R9-5 signs	\$30
MON-MAR157-MA	Reservation Rd/Beach Rd Improvements	Widen roadway w/ sidewalk and bike lane improvements	\$6,800
MON-MAR160-MA	ADA Transition Program	City-wide sidewalk, ramp, intersection, and bus-stop improvements	\$1,621
MON-MRY001-MY	Aguajito Road	Construct new Class I Bikeway	\$800
MON-MRY002-MY	Del Monte - Washington Improvements	Traffic signal improvements that include bike/ped safety features	\$3,000
MON-MRY003-MY	Del Monte/Aguajito and Del Monte/El Estero Signal Improvements	Ped and bike improvements at Del Monte and Camino Aguajito and Camino El Estero to include signal work	\$3,400

Association of Monterey Bay Area Governments

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MRY012-MY	Pacific Street Bike/Ped Improvements	Bike/ped and traffic flow improvements	\$1,500
MON-MRY013-MY	Recreation Trail Improvements	Widening and rehabilitation of recreation trail to include access to Rec Trail and trail crossings	\$8,000
MON-MRY014-MY	Window on the Bay	New bikeway and pedestrian facilities	\$7,000
MON-MRY016-MY	Lower Presidio Pedestrian Connection	New pedestrian connector	\$2,500
MON-MRY020-MY	Monterey City Bikeways Program	Install Class I, Class II, Class III and Class IV bikeways throughout city	\$14,177
MON-MRY035-MY	Citywide intersection ADA upgrades	Install ADA curb ramps and ADA access improvements	\$3,500
MON-MRY037-MY	Citywide Wayfinding Sign Program	Provide a comprehensive vehicular, pedestrian and bicycle wayfinding sign program	\$100
MON-MRY038-MY	Traffic System, Pedestrian and Bike Upgrades Citywide	Traffic signal upgrades to include bike and pedestrian improvements, includes detection and APS, operations and safety improvements	\$431
MON-MRY040-MY	Del Monte and Casa Verde/Rec Trail Improvements	Add pedestrian and bike safety improvements and protected lefts at Del Monte/Casa Verde/Rec Trail	\$923
MON-MRY041-MY	N Fremont Class I/Class IV Gap Closure	Add Class I and/or Class IV connection to N Fremont project to FORTAG	\$300
MON-MRY048-MY	Citywide Sidewalk Repair	Sidewalk panel repair	\$2,000
MON-MYC003-UM	Blackie Road	Install Class II bikeway	\$5,400
MON-MYC026-UM	Elkhorn Road	Install Class II bikeway	\$10,900
MON-MYC040-MA	Inter-Garrison Road	Install Class II bikeway	\$10,800
MON-MYC046-UM	Laureles Grade Road	Install Class II bikeway	\$6,497
MON-MYC053-UM	Metz Road	Install Class III bikeway	\$24
MON-MYC062-UM	Old Stage Road Shoulder Widening	Shoulder widening and channelization at intersections	\$11,500
MON-MYC068-UM	Porter Drive	Install Class III bikeway	\$30
MON-MYC075-UM	River Road Operational Improvements	Widen shoulders and improve geometrics, and install Class II bike lanes	\$29,300
MON-MYC085-UM	San Juan Grade Road	Install Class II bikeway	\$6,120
MON-MYC115-UM	Corral de Tierra	Install Class II bikeway	\$8,508
MON-MYC118-UM	Williams Rd.	Install Class III bikeway	\$2
MON-MYC124-UM	Harris Road Improvements	Lt Channelization, shoulder improvements	\$8,000

Appendix G: Alternative Project Lists  
**Alternative 3 – Monterey County**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MYC135-UM	Bluff Rd	Install Class III bikeway	\$5
MON-MYC138-UM	Camphora Gloria Road	Install Class II bikeway	\$5,850
MON-MYC145-UM	Castro St	Install Class III bikeway	\$1
MON-MYC146-UM	Castroville Boulevard	Install Class II bikeway	\$3,602
MON-MYC149-UM	Central Ave	Install Class III bikeway	\$22
MON-MYC150-UM	Chualar River Rd	Install Class III bikeway	\$8
MON-MYC151-UM	Cooper - Nashua Rd	Install Class III bikeway	\$15
MON-MYC152-UM	Cooper Road	Install Class III bikeway	\$9
MON-MYC168-UM	Davis Road	Install Class II bikeway	\$3,193
MON-MYC172-UM	Elkhorn Rd	Install Class II bikeway	\$194
MON-MYC185-UM	Geil St	Install Class III bikeway	\$1
MON-MYC186-DR	Gen Jim Moore Path	Install Class I bikeway	\$1,206
MON-MYC193-UM	Harrison Rd	Install Class II bikeway	\$82
MON-MYC231-UM	Reservation Rd Pedestrian/Bicycle Access	Install Class I bikeway and improve visibility of pedestrian crossing at Blanco Road.	\$140
MON-MYC240-UM	San Benancio Road	Install Class II bikeway.	\$10,364
MON-MYC246-UM	San Juan Road to Pajaro Levee	Install Class II bikeway	\$663
MON-MYC248-UM	Sanctuary Scenic Trail 15A	Install Class I bikeway	\$5,082
MON-MYC251-UM	Sanctuary Scenic Trail Segment 12	Install Class I bikeway	\$5,552
MON-MYC252-UM	Sanctuary Scenic Trail Segment 13	Install Class I bikeway	\$7,404
MON-MYC258-UM	Sanctuary Scenic Trail Segment 7	Install Class I bikeway	\$3,411
MON-MYC291-UM	Reservation Road Bicycle Lanes	Install Class II Bicycle Lanes	\$250
MON-MYC296-UM	Castroville Boulevard at Elkhorn Rd - Pedestrian Beacon Project (RMA-PW&F)	Install rectangular rapid-flashing beacons and streetlights; Rio Rd at Via Nona Marie-install rectangular rapid-flashing beacons. (RMA-PW&F)	\$210
MON-MYC317-UM	Laurel Drive Sidewalk Improvement (County element)	Related to Salinas Laurel Drive Improvement project; Small amount of County property fronting Laurel Drive. (RMA-PW&F)	\$204
MON-MYC327-UM	Castroville Sidewalks	Construction of sidewalks, markings and ADA ramps	\$4,000

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MYC328-UM	South County Communities Sidewalks	Construction of sidewalks, markings and ADA ramps	\$7,700
MON-PGV008-PG	Rec. Trail Improvements	Add landscaping, hardscape, stairs, benches, handrails, crosswalks, and signs	\$2,000
MON-PGV011-PG	Recreational Trail Repairs	Repair failing sections of recreational trail	\$3,000
MON-PGV026-PG	David Ave Bikeway	Install Class II/III bikeway and wayfinding signage along David Ave.	\$400
MON-SCY009-SA	Bike Path Lighting	Install Lighting on existing Class I path.	\$325
MON-SCY010-SA	Class I Bike Path	Complete connection of Monterey Bay Coastal Trail Class I bike path through Sand City	\$400
MON-SCY011-SA	Class I Bike Path along Railroad	Install Class I bike path along Railroad ROW	\$1,300
MON-SCY012-SA	Class III Bikeways	Install Class III bikeway signage	\$15
MON-SEA029-SE	Lightfighter Drive Pedestrian Improvements	Sidewalk improvements and landscaping upgrades	\$500
MON-SEA033-SE	Bike Upgrades - City-Wide	Install Class II bike lanes city wide. (See ATP)	\$2,000
MON-SEA036-SE	Fremont Bike Lanes	Install Class II Bike Lanes on Fremont	\$2,750
MON-SEA037-SE	ADA Transition Plan Upgrades	Roadway & Sidewalk improvements	\$32,000
MON-SNS003-SL	ADA Access Ramp Installations	Install ADA access ramp locations throughout city, annual project	\$16,000
MON-SNS005-SL	Alisal Rd. Bikeway	Install shared bike path East Alisal to City Limits	\$6
MON-SNS007-SL	Alvin Drive Bike Lanes	Install bike lanes along Alvin between McKinnon and Natividad	\$172
MON-SNS014-SL	Bridge Street Bike Lanes	Install bike lanes along entire length of Bridge Street	\$419
MON-SNS019-SL	Davis Road Bike Path	Install .57-mile bike path	\$350
MON-SNS046-SL	Reclamation Ditch Bike System	Construct Class 1 Bike Path along ditch # 1665	\$3,500
MON-SNS064-SL	Calle Del Adobe/West Laurel Dr Bike Lanes	Install Class II bike lanes	\$156
MON-SNS065-SL	Carr Lake Bikeways	Construct Class I and Class II Bikeways	\$5,000
MON-SNS066-SL	East Alisal St (Future St) and Freedom Parkway (Future St) Bike Lanes	Install Class II bike lanes	\$200
MON-SNS071-SL	John Street Class III Bikeway	Install Class III bikeway signage	\$5
MON-SNS072-SL	Los Palos Drive Class III Bike Lane	Install Class III bikeway signage	\$1

Appendix G: Alternative Project Lists  
**Alternative 3 – Monterey County**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-SNS073-SL	Market Street Class II Bikeway	Install Class II bikeway signage	\$1
MON-SNS075-SL	N Maderia/King St Class III Bikeway	Install Class III bikeway signage	\$1
MON-SNS076-SL	N Maderia/Saint Edwards Ave Class III Bikeway	Install Class III bikeway signage	\$5
MON-SNS077-SL	N Main/Espinosa Rd Class II Bike Lane	Install Class II bike lane	\$5,000
MON-SNS078-SL	Natividad Creek Bike Path	Install new bike path	\$680
MON-SNS080-SL	Rossi St Extension Class II Bike Lanes	Install Class II bike lanes	\$175
MON-SNS083-SL	Russell Rd Class II Bike Lanes	Install Class II bike lanes	\$155
MON-SNS084-SL	San Juan Grade Class II Bike Lanes	Install Class II bike lanes	\$230
MON-SNS086-SL	Station Place (ITC Bridge)	Install Bike and Ped Bridge over Railroad	\$1,500
MON-SNS087-SL	Trevin Ave Class II Bike Lanes	Install Class II bike lanes	\$25
MON-SNS089-SL	W Laurel/US 101 Overpass/Adams St Class III Bikeway	Install Class III bikeway signage	\$3
MON-SNS129-SL	Street Sidewalk Repair	Annual Sidewalk Repairs (project on-going)	\$1,050
MON-SNS131-SL	Downtown Vibrancy Plan	Circulation/Parking/Pedestrian Improvements in Downtown	\$375
MON-SNS137-SL	East Alisal Street Vibrancy Plan	Circulation/Parking/Pedestrian Improvements on East Alisal Street	\$2,500
MON-SNS138-SL	Bardin Road Safe Routes to School/ATP	Circulation, SR2S, two roundabouts, road reconstruction on Bardin Rd, Slurry seal on East Alisal Street and crosswalk and ADA enhancements	\$12,000
MON-SNS139-SL	Alvin Drive	Circulation, SR2S, Traffic Signals, Cycle Tracks	\$3,548
MON-SNS140-SL	Linwood Drive	SR2S, Bike Lanes	\$700
MON-SNS141-SL	East Laurel Drive Pedestrian Improvements	Sidewalk. Lighting, trail lighting and pedestrian push button upgrades on Const/Laurel traffic signal	\$5,800
MON-SNS145-SL	W Alisal Complete Streets	Circulation, Bike Lanes, Ped, Transit	\$8,552
MON-SNS146-SL	Lincoln Ave Complete Streets	Circulation, Bike Lanes, Bus Facilities	\$1,570
MON-SNS161-SL	Natividad/Gabilan Creek Trail	Bike/Ped Trail Repairs	\$1,100
MON-SNS164-SL	Rossi-Rico Bike Trail	Bike Trail repairs along Rossi Rico Park	\$400
MON-SOL006-SO	Bicycle Racks and Lockers	Install Bicycle Racks and Lockers	\$35

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-SOL043-SO	Pedestrian Lighting	Construct pedestrian lighting along various City streets	\$900
MON-SOL044-SO	Pinnacles Bike Route	Construct a Class I bike path/class II bike lanes along Metz Rd to encourage bicycle tourism.	\$500
MON-SOL075-SO	Citywide Bike Lanes	Bike Lanes (2007 TIF M2, 2013 TIF M2); construct bike lanes citywide	\$1,440
MON-TAMC006-TAMC	Monterey County Bicycle and Pedestrian Improvement Projects	Various bicycle and pedestrian improvement projects throughout Monterey County	\$12,741
MON-TAMC010-TAMC	Fort Ord Regional Trail and Greenway (FORTAG)	Approximately 28-mile bike and pedestrian access path through the former Fort Ord. Construction anticipated to take place in phases with Phase 1 as 218 Canyon Del Rey segment (TAMC projects 16, 17 and 18 are segments of this overall project)	\$80,000
MON-TAMC011-TAMC	Safe Routes to Schools	Countywide Safe Routes to Schools program	\$20,000
MON-TAMC016-TAMC	FORTAG Phase 1 - 218 Canyon Del Rey Segment	Construction of the 218 Canyon Del Rey segment of the FORTAG project	\$10,396
MON-TAMC017-TAMC	FORTAG Phase 1B - Del Monte to Fremont	Construction of Del Monte to Fremont Segment	\$8,197
MON-TAMC018-TAMCC	FORTAG Phase 2 - CSUMB Segment	Construction of the CSUMB Segment	\$10,070

**Table 2 Highway Operational, Maintenance and Rehabilitation**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-CT039-CT	SR 218 - Operational Improvements	Add turn pockets, signal improvements, shoulder widening, etc.	\$10,000
MON-CT040-CT	State Highway Operations and Protection Program (SHOPP)	Unspecified SHOPP projects/3 Categories	\$830,591
MON-MAR134-MA	SR1 & Imjin Bridge	Restripe bridge for two WB lanes and one EB lane	\$26
MON-MAR135-MA	SR1 & Imjin Bridge	Convert SB off-ramp to off-ramp loop	\$2,000
MON-MYC288-UM	SR 1 - Carmel River FREE	Replace a portion of the elevated SR 1 roadway embankment with a causeway. Realign and re-profile the existing Highway between the southern end of the existing Carmel River bridge to the south of the proposed overflow bridge. Construct new bicycle and pedestrian access. Construct new southbound turn lane to serve the Palo Corona Regional Park entrance.	\$14,900
MON-PGV010-PG	SR 68 - Bishop to Sunset	Mobility Improvements including sidewalks, lighting, landscaping, and roadways overlay	\$10,502
MON-SNS123-SL	US 101/Boronda Improvements	Auxiliary Lanes/Ramp Improvements	\$960
MON-SNS126-SL	US 101/Kern Street TS	Traffic Signal or Roundabout at US 101/Kern	\$500
MON-SOLO46-SO	Intersection Improvements at Metz Rd and East St	Construct intersection, install roundabout	\$900
MON-TAMC008-TAMC	Holman Highway 68 Safety & Traffic Flow	Make safety and operational improvements to Holman Highway in Pacific Grove and Monterey; includes bicycle, pedestrian and traffic safety and ADA improvements.	\$22,300

**Table 3 Local Street and Road Operational, Maintenance and Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-CAR005-CM	Rio Road Parking Facility	Construct Rio Road off site parking facility with jitney pick up station.	\$20
MON-CAR007-CM	San Carlos Streetscaping	Install streetscape in 2 or 3 small median islands	\$30
MON-CAR009-CM	San Carlos Rehabilitation	Remove concrete pavement, replace drainage facilities, repair or reconstruct concrete sidewalks, curbs, and gutters, and repave with asphalt along San Carlos Street between Ocean and Sixth Avenues	\$200
MON-CAR010-CM	Mission Street Rehabilitation	Rehabilitate Mission Street including repaving street and curb, gutter and sidewalk improvements.	\$400
MON-CAR012-CM	Road rehabilitation and maintenance	Routine maintenance under the Pavement Management Report	\$1,840
MON-CAR026-CM	Mountain View Avenue Intersection Safety Enhancements	Realign side streets and intersections with Mountain View to reduce potential conflicts at offset skew intersections	\$200
MON-CAR028-CM	Second Avenue Embankment Reconstruction	Reconstruct Second Ave embankment to eliminate landslide potential and reopen road to traffic	\$750
MON-CAR029-CM	Mission Street Bypass Drainage Improvements	Install bypass pipe along Junipero Street to increase capacity due to bottleneck on Mission St	\$820
MON-CAR031-CM	Junipero Drainage Improvements	Increase drainage capacity to eliminate bottleneck	\$800
MON-CAR032-CM	Monte Verde Street and Second Ave Drainage Improvements	Install new underground drainage system to eliminate surface flow damage	\$830
MON-CAR036-CM	Junipero and Ocean Roundabout	Construct new roundabout at the 5-legged Junipero/Ocean Intersection	\$2,500
MON-DRO002-DR	Carlton Drive Resurfacing	Resurface Carlton Drive	\$99
MON-DRO003-DR	Work Avenue Resurfacing	Resurface street	\$55
MON-GON001-GO	5th Street - Fanoe Road	Install two lane roundabout	\$2,500
MON-GON014-GO	US 101/5th Street Interchange	Install roundabouts at on and off ramps	\$6,000
MON-GRN002-GR	El Camino Real	Construct new roundabout to replace signals and increase capacity of the El Camino Real/Walnut Avenue Intersection (Intersection Improvements to Roundabout)	\$2,300
MON-GRN003B-GR	Oak Road Bridge over US 101	Remove and replace existing Oak Avenue bridge.	\$30,000
MON-GRN003-GR	Oak Road Bridge over US 101	Widen bridge for dual left turn lanes.	\$6,000
MON-GRN006-GR	Thorne Road Roadway Realignment at US 101	Realign Thorn Road and add traffic signal.	\$7,300

Appendix G: Alternative Project Lists  
**Alternative 3 – Monterey County**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-GRN007B-GR	Traffic Signal Installations	Install traffic signals.	\$450
MON-GRN019-GR	Oak Avenue Pavement Overlay	Overlay street.	\$200
MON-GRN021-GR	Citywide Street Rehabilitation	Repair, overlay, seal coat all city streets.	\$3,000
MON-GRN022B-GR	Pine Avenue Overcrossing at US-101	Construct new bridge over US 101 to improve E/W traffic flow	\$4,000
MON-KCY043-CK	Roundabout @ US 101/Broadway St/San Antonio Dr	Install Roundabout @ US 101/Broadway St/San Antonio Dr	\$10,000
MON-KCY044-CK	Lonoak RR Crossing Improvements	Railroad crossing improvements	\$600
MON-KCY050-CK	7th Street/Monte Vista Area Repaving	7th Street/Monte Vista Repaving	\$500
MON-KCY051-CK	Broadway Circle Repaving	Broadway Circle Repaving	\$600
MON-KCY052-CK	Broadway Street Repaving	Broadway Street Repaving	\$800
MON-MAR002-MA	Imjin Parkway - 3rd Avenue Signal or Roundabout	Install new traffic signal or roundabout	\$1,200
MON-MAR005-MA	2nd Ave - 3rd St	Install new traffic signal or roundabout	\$250
MON-MAR006-MA	2nd Ave - 8th St	Install new traffic signal or roundabout	\$250
MON-MAR007-MA	2nd Ave - 10th St	Install new traffic signal or roundabout	\$550
MON-MAR009-MA	Abdy Way, Cardoza to Healy	Intersection redesign and construct new sidewalk and pavement	\$200
MON-MAR035-MA	Del Monte Blvd - Marina Green Dr	Install new traffic signal or roundabout (Project triggered by Marina Station Subdivision - Associated with MAR114)	\$2,000
MON-MAR058-MA	Palm Ave @ TAMC RR	Widen/construct new gates. Project likely included in scope of MST's SURF Busway project at Palm/Del Monte and TAMC ROW	\$688
MON-MAR116-MA	California Avenue	Reconstruct roadway (Triggered by Dunes Phase 2 Completion)	\$2,000
MON-MAR118-MA	Del Monte Boulevard	Roadway improvements, sidewalk, utilities (Triggered by Marina Station Subdivision EIR)	\$2,347
MON-MAR138-MA	Imjin Parkway & California Avenue	Lane configuration improvements or Roundabout	\$2,500
MON-MAR139-MA	Imjin Pkwy & Marina Heights Dr	Signalize or roundabout (part of MAR154)	\$1,000
MON-MAR141-MA	Imjin Pkwy & Reservation Rd	Lane configuration improvements (Part of MAR154)	\$1,000
MON-MAR145-MA	California Ave & Marina Heights Dr	Signalize or roundabout	\$870
MON-MAR147-MA	Imjin Pkwy & Preston Dr	Signalize or roundabout (part of MAR154)	\$870

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MAR148-MA	Melanie Rd & Vista Del Camino Rd	Regrade intersection (part of citywide PMP)	\$200
MON-MAR151-MA	Del Monte Blvd, Sta 42+00 to 48+00	Pavement, sidewalk and drainage improvements (part of MAR114)	\$1,856
MON-MAR152-MA	8th Street Reconstruction	Reconstruct roadway (associated with MAR025 and MAR031)	\$8,068
MON-MAR158-MA	Sign Retroreflectivity Program	City-wide sign upgrade, required by FHWA	\$91
MON-MAR159-MA	Pavement Management Program	City-wide roadway maintenance	\$17,052
MON-MAR166-MA	2nd Ave Improvements	Restripe to remove Class II bike lanes for 4-lane roadway	\$92
MON-MRY006-MY	Fremont - Aguajito Intersection Improvements	Widen north leg for left turn pocket; modify signal to 8-phase operations; provide median landscaping	\$2,000
MON-MRY008-MY	Lighthouse and Foam Corridor Operational Improvements	Implement operational improvements on Lighthouse and Foam including installing traffic signal adaptive system on Lighthouse and Foam	\$3,000
MON-MRY009-MY	Mar Vista and Soledad Storm Drains	Extend storm drains to Mar Vista and Soledad	\$800
MON-MRY011-MY	Munras - Webster Improvements	Intersection improvements	\$650
MON-MRY017-MY	Munras - Soledad intersection Improvements	Capacity and operational improvements and bike ped safety improvements	\$3,000
MON-MRY018-MY	York Road Improvements	Road rehabilitation, widening, bike lanes and signal installations and modification	\$6,000
MON-MRY019-MY	Sloat - Mark Thomas Intersection Improvements	New left turn lane and intersection improvements; install bike detection for left-turning bicyclists.	\$700
MON-MRY021-MY	Citywide Street Overlay	Street overlay program	\$2,500
MON-MRY022-MY	Citywide Street Reconstruction	Street Reconstruction	\$3,000
MON-MRY023-MY	Citywide Street Panel Replacement	Street Panel Replacement	\$3,500
MON-MRY033-MY	Munras/El Dorado Roundabout	Construct Roundabout with bike improvements	\$5,000
MON-MRY034-MY	Citywide Adaptive Signal System	Install adaptive signal control on all arterial streets, install fiber connections to all signals	\$3,000
MON-MRY036-MY	Citywide Traffic Signal Pole Replacement	Citywide Traffic Signal Pole Replacement	\$20,000
MON-MRY039-MY	Install Protected Left Turns	Add protected left turns at signalized intersections based on SSARP recommendations	\$4,000
MON-MRY045-MY	Del Monte and Sloat Safety Improvements	Add left turn lane for Del Monte turning southbound onto Sloat	\$2,000
MON-MRY046-MY	Citywide Road Rehabilitation	Reconstruction of various streets	\$2,000
MON-MRY047-MY	Citywide Curb Ramps	Reconstruction of curb ramps	\$3,000
MON-MRY049-MY	Citywide Street Resurfacing	Street resurfacing program	\$2,000

Appendix G: Alternative Project Lists  
**Alternative 3 – Monterey County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MYC043-UM	Jolon Rd Overlay Safety Improvements	Shoulder widening, & geometric improvements, and installation of 39.2 miles of Class II bikeway.	\$58,000
MON-MYC136-UM	Bridge Barrier Rail Replacement	Replace and rehabilitation of various bridges Countywide	\$500
MON-MYC154-UM	Crazy Horse Canyon Road Improvements	Add passing lanes and construct Class II bike lanes from San Juan Grade Rd to US 101.	\$27,900
MON-MYC156-UM	CVMP - Laureles Grade Paved Turnouts and Signs	Paved turnouts and signs	\$1,538
MON-MYC157-UM	CVMP - Carmel Valley Road btwn Laureles Grade and Ford Shoulder Widening	Shoulder widening	\$2,308
MON-MYC159-UM	CVMP - Carmel Valley Road Passing Lanes (Front of September Ranch)	Passing lanes in front of September Ranch	\$8,014
MON-MYC161-UM	CVMP - Grade Separation at Laurels Grade/Carmel Valley Road	Grade separation	\$13,538
MON-MYC162-UM	CVMP - Laureles Grade at Carmel Valley Road Roundabout, Signalization, or Widening	Install signal or widen (prior to grade separation)	\$7,890
MON-MYC163-UM	CVMP - Laureles Grade Climbing Lane	Climbing lanes and Class II bike lanes	\$3,077
MON-MYC164-UM	CVMP - Laureles Grade Shoulder Addition	Shoulder improvements	\$5,105
MON-MYC165-UM	CVMP - Left-Turn Channelization - W of Ford Drive	Left-turn channelization	\$2,000
MON-MYC167-UM	CVMP - Sight Distance Improvements at Dorris	Sight distance improvements	\$2,377
MON-MYC181-UM	G12 San Miguel Canyon Corridor Project	Operational and capacity improvements, including road widening, turning lanes, signalization and intersection improvements, and bicycle and pedestrian facilities. Refer to project area 1 to 6 of the G12 Pajaro to Prunedale Corridor Study (Two Project Areas are listed individually as MYC311 & MYC313)	\$55,000
MON-MYC188-UM	Gonzales River Rd Bridge Replace	Bridge replacement	\$20,000
MON-MYC200-UM	Johnson Cyn Land - Phase I	Overlay existing roadways: Gloria, Iverson, and Johnson Cyn Rds	\$3,000
MON-MYC202-UM	Johnson Road Bridge	Bridge replacement	\$1,520
MON-MYC217-UM	Nacimiento Lake Dr Bridge No. 449	Replace current structure with two-lane approx. 300' long by approx. 28' wide bridge with associated retaining walls, approach road and right-of-way.	\$9,800

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MYC227-UM	Pine Canyon Road Improvements	Add turn lanes and Class II bike lanes on Pine Canyon Road from Pine Meadow Drive to Jolon Road (County Road G14). Construct traffic signal and perform intersection improvements on Pine Canyon Road at Jolon Road.	\$11,000
MON-MYC232-UM	Reservation Rd Slip Out	Backfilling slopes (keyed in/stepped), drainage systems, pavement reconstruct, guardrail, and erosion control/planting.	\$620
MON-MYC238-UM	Salinas Road Improvements	Widen to four lanes btwn future Hwy 1 and Salinas Rd interchange and existing four lane section. Widen existing three lane section of Salinas Rd from Werner Rd to Elkhorn Rd to four lanes. Add Class II bike lanes on Salinas Rd from SR 1 to Elkhorn Rd. Install roundabout [not traffic signal] and construct Intersection Improvements at Salinas Rd /Werner Rd. Construct traffic signal on Elkhorn Rd at Salinas Rd. Realign Salinas Rd and Werner Rd to intersect Elkhorn Rd at a single location with a traffic signal.	\$15,200
MON-MYC247-UM	San Miguel Cyn Rd at Castroville Blvd	Roundabout [not signalization of the intersection], roadway widening, and striping improvements.	\$2,652
MON-MYC260-UM	Scenic Road Protection	Protect Scenic Rd from erosion due to wind & surf, and Carmel River.	\$92
MON-MYC266-UM	Street Rehabilitation/Overlay	Overlay roadways.	\$473,176
MON-MYC289-UM	RMA- PW&F Countywide Community Street Repair	Extend life of various streets - repair and seal various streets to continue providing transportation mobility (target areas include Chualar, Castroville, Pajaro and Boronda)	\$7,000
MON-MYC290-UM	Countywide Local Bridge Repair and Maintenance	Unspecified countywide local bridge repair and maintenance costs.	\$395,004
MON-MYC294-UM	Bradley Road Bridge Scour Repair	Placement of scour countermeasures to protect two exposed bridge pier footings. Includes placing rock slope protection, sheet pile or other control measures. Will extend 100-ft from each bridge face. (RMA-PW&F)	\$3,779
MON-MYC295-UM	Carmel Valley Road Repair	Project will stabilize the slope by constructing a permanent concrete barrier and/or placing rock slope protection (result of 2019 winter storms) (RMA-PW&F)	\$1,688
MON-MYC297-UM	Alisal Road Rehabilitation	Rehabilitate pavement of Alisal Road using pavement recycling techniques. (RMA-PW&F)	\$2,968
MON-MYC298-UM	Ongoing Seal Coat Program	Place chip seal on various roads consistent with 2015 Pavement Asset Management Plan. (RMA-PW&F)	\$12,000
MON-MYC299-UM	Emergency Repair Funds	Unanticipated emergency and non-emergency repairs to county facilities. (RMA-PW&F)	\$1,000
MON-MYC300-UM	HSIP Guardrail Replacement Project	Replace various metal beam guardrails throughout County. (RMA-PW&F)	\$600

Appendix G: Alternative Project Lists  
**Alternative 3 – Monterey County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MYC301-UM	Streetsweeping Program under NPDES	Scheduled sweeping efforts, stenciling of drain inlets, monitoring storm drain outfall, code enforcement of private construction, inspections, public educations, detection of illicit discharge, staff training for NPDES stormwater inspection. (RMA PW&F)	\$1,080
MON-MYC302-UM	Proactive Drainage Maintenance and Flood Protection	Perform ongoing drainage maintenance at various locations. (RMA-PW&F)	\$2,700
MON-MYC303-UM	Roadway Safety Signage/Striping Audit	Conduct roadway safety/signage audit; based on findings conduct repairs and adjustments. (RMA-PW&F)	\$3,426
MON-MYC304-UM	Countywide Striping Program	Traffic safety maintenance project including painted striping--Contract Year 2 (RMA-PW&F)	\$600
MON-MYC305-UM	Unscheduled Repairs	Various repairs to the countywide facilities on an as needed basis. (RMA-PW&F)	\$903
MON-MYC306-UM	Vegetation Removal	Remove encroachment onto County roads/visibility such as vegetation. (RMA PW&F)	\$900
MON-MYC309-UM	Echo Valley Road Repair	Excavate and repair the road and including unplugging concrete culvert. (RMA-PW&F)	\$432
MON-MYC310-UM	Elkhorn/Werner/Salinas Safety Improvements	Intersection safety improvement project that includes signage and striping enhancements. (RMA-PW&F)	\$344
MON-MYC311-UM	Pajaro to Prunedale Corridor- Project Area 1	Project Area 1 is on San Miguel Canyon Rd, extending between US 101 and Castroville Blvd and includes: addition of a NB lane on San Miguel Canyon Rd between Moro Rd and Castroville Blvd; installation of traffic signal at San Miguel Canyon Rd between Moro Rd and Castroville Blvd; Install traffic signal at San Miguel Canyon Rd and Langley Canyon Rd; Providing signal coordination and adaptive timing btwn Langley Canyon Rd and US 101; Installing modern roundabout at San Miguel Canyon Rd and Castroville Blvd; Installing Class I bike path SB on San Miguel Canyon btwn the current bike lane and Prunedale North Rd; and installing sidewalk curb and gutter NB between	\$4,515
MON-MYC312-UM	G12 Pajaro to Prunedale Corridor Study- Project Area 6	Project area 6 is on north end of G12 corridor in Pajaro and includes: implement road diet on Salinas Rd, reduce lanes from 4 to 2 lanes; Install a buffered bike lane; install a raised median south of railroad crossing/on Salinas Rd; Welcome sign for Pajaro; Class II Bike Lanes; Construct sidewalk at sidewalk gaps; install rectangular rapid flashing beacons at existing mid-block crossings; reconfigure the parking north of Bishop St on West side of G12 to be off-street; adjacent to roadway, construct curb and gutter, sidewalk, and landscaped buffer. Provide diagonal front-end parking; provide a 13' one-way Aisle for parking maneuvers, entry and exit; provide a 5'	\$1,950
MON-MYC313-UM	Gloria, Iverson, and Johnson Canyon Roads Rehabilitation	Reconstruction, grinding, and paving of existing pavement with hot mix asphalt and placement of reinforcing fabrics. (RMA-PW&F)	\$10,529

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MYC314-UM	Hartnell Road- Bridge Replacement (RMA-PW&F)	Replace existing two-lane box culvert/bridge over Alisal Creek. (RMA-PW&F)	\$3,183
MON-MYC315-UM	Las Lomas Drainage Project	Provide underground drainage facility on Los Lomas. (RMA-PW&F)	\$5,243
MON-MYC318-UM	River Road Rehabilitation	Rehabilitate roadway pavement using pavement reconstruction techniques and place hot-mix asphalt. (RMA PW&F)	\$7,712
MON-MYC319-UM	Monterey Dunes Road Repair	Fix collapsed culvert under Monterey Dunes Road; repair project will construct a permanent repair of the roadway including pipe replacement to restore underground water flow. (RMA-PW&F)	\$582
MON-MYC320-UM	Nacimiento Lake Drive Bridge No. 449 Replacement	Replacement of existing Nacimiento Lake Drive Bridge over San Antonio River. (RMA-PW&F)	\$9,826
MON-MYC321-UM	Palo Colorado Road	Repair from severe storm damage along Palo Colorado Road near Big Sur; rebuild the road with suitable fill, installation of soil nail walls, and improve stormwater drainage. MP 4.0 to MP 7.8 Emergency (RMA-PW&F)	\$10,887
MON-MYC322-UM	River Road Overlay	Extend life of River Road from Las Palmas Parkway to SR 68 through rehabilitation of pavement using pavement recycling techniques. (RMA PW&F)	\$5,187
MON-MYC323-UM	Robinson Canyon Road Bridge Scour Replacement	Replacement of scour countermeasures to protect two exposed bridge pier footings. (RMA-PW&F)	\$2,346
MON-MYC324-UM	Rogge Road Intersection Improvements	Construct intersection improvements. (RMA PW&F)	\$1,125
MON-MYC325-UM	San Juan Grade Road Erosion Damage	Stabilize the slope with construction of permanent concrete barrier and/or placing rock slope protection at MP 8.6. (RMA PW&F)	\$625
MON-MYC326-UM	Toro Road - Slope, Road, and Guardrail Repair	Repair roadway to its pre-storm condition including guardrail repair and pavement slope. (RMA PW&F)	\$558
MON-MYC331-UM	Viejo Road Shoulder and Asphalt Repair	Repair roadway to pre-storm conditions. (RMA PW&F)	\$556
MON-PGV001-PG	Congress - Sunset Roundabout	Construct a roundabout at Congress and Sunset including ROW, landscaping, curb, and paving; make accommodations for bicyclists and pedestrians.	\$2,500
MON-PGV005-PG	Lighthouse Ave. Resurfacing	Resurface street, drainage improvements	\$1,400
MON-PGV012-PG	Ocean View Blvd. Resurfacing	Repair and resurface street	\$7,680
MON-PGV013-PG	Pine Ave. Resurfacing	Repair and resurface street	\$11,800
MON-PGV014-PG	Miscellaneous Street Improvements - Various Streets	Pavement repair, cross gutter, curb and gutter, sidewalks, traffic striping, signs	\$800

Appendix G: Alternative Project Lists  
**Alternative 3 – Monterey County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-PGV015-PG	Miscellaneous Drainage Improvements - Various Streets	Storm drain repair/improvements, catch basins, manholes, cross gutters	\$800
MON-SCY003-SA	California Ave. - Playa Ave. Signal	Install new traffic signal with bike and pedestrian accommodations.	\$225
MON-SCY005-SA	Sand City Rehab in Old Town Area	Install street lighting, reconstruct streets in Old Town area; design shared streets.	\$3,500
MON-SCY013-SA	California Avenue Pavement Overlay	Overlay street; install Class II/Class III markings.	\$156
MON-SCY014-SA	Contra Costa St. Realignment	Realign Contra Costa St. to at Del Monte Ave.	\$500
MON-SEA005-SE	Fremont - Broadway	Roadway improvements, utility relocation, ADA ramps, landscaping and signal upgrade	\$387
MON-SEA028-SE	West Broadway Ave Corridor improvements	Corridor rehabilitation including intersection improvements, bikeways, road rehab	\$4,000
MON-SEA030-SE	Update and Implement Pavement Management System and Maintenance	Roadway improvements to include total reconstruction and overlay	\$58,951
MON-SEA039-SE	Broadway Corridor Improvements	Road diet and roundabouts along Broadway, from Fremont to General Jim Moore. Includes complete streets elements- such as bike lanes on both sides of the road.	\$11,000
MON-SEA040-SE	General Jim Moore Corridor Improvements	Roundabout installation intersection improvements along General Jim Moore at Hilby, San Pablo, McClure, Normandy and Gigling	\$15,000
MON-SEA041-SE	Canyon Del Rey Corridor Improvements	Bike lanes, intersection improvements two roundabouts from Fremont Blvd to Del Monte Boulevard	\$17,500
MON-SNS011-SL	Boronda - Main Improvements	Construct intersection improvements	\$2,161
MON-SNS024-SL	Elvee Drive Extension	Construct 49' span bridge and extend two lanes between Work to Elvee; Widen Elvee Drive from Sanborn Road to elbow of Elvee Drive	\$3,600
MON-SNS033-SL	Laurel Drive Intersection Improvements	Median Improvements/median left turn lanes btwn Adams St and Main St	\$583
MON-SNS041-SL	Maryal Drive Reconstruction	Widen roadway behind Rodeo Grounds (from 36' to 40')	\$1,260
MON-SNS042-SL	Natividad - Laurel Intersection	Install NB/SB lanes, convert EB right turn lane into shared thru	\$1,250
MON-SNS106-SL	Alisal Street Improvements	Add left turn channelizations at major intersections	\$33
MON-SNS107-SL	John Street Improvements	Add left turn channelization and eliminate on street parking	\$766
MON-SNS109-SL	San Juan Grade - Russell Rd Intersection Improvements	Install Signal	\$371
MON-SNS112-SL	Boronda Rd -East Constitution Intersection Improvements	Install Signal	\$546

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-SNS113-SL	Boronda Rd - Sanborn Rd Intersection Improvements	Install traffic circle	\$6,535
MON-SNS114-SL	Boronda Rd - Williams Rd Intersection Improvements	Install signal	\$5,224
MON-SNS115-SL	Natividad Rd - Russell Rd (Future Extension) Intersection Improvements	Install signal	\$5,142
MON-SNS128-SL	Front Street/Sherwood/Rossi TS Coord	Signal coordination on Front St/Sherwood Drive	\$450
MON-SNS142-SL	North Main Street Intersection Improvements	Traffic signal/intersection control	\$586
MON-SNS144-SL	Boronda Road Roundabouts	Roundabouts at 4 intersections	\$44,000
MON-SNS147-SL	Sherwood Dr/Sherwood Place Intersection	Traffic signal installation	\$400
MON-SNS148-SL	Market Street/Merced	Traffic signal installation	\$400
MON-SNS149-SL	Sanborn Rd-Mayfair Intersection	Traffic signal installation	\$400
MON-SNS150-SL	Alisal Street-Capitol Intersection Improvements	Traffic signal installation	\$400
MON-SNS151-SL	Alvin Drive-Linwood Intersection Improvements	Traffic signal installation	\$400
MON-SNS153-SL	Williams/Garner Intersecton Improvements	Traffic signal installation	\$631
MON-SNS154-SL	Boronda/Sanborn Intersection	Roundabout installation	\$400
MON-SNS155-SL	Constitution Blvd/Las Casitas Intersection Improvements	Traffic signal installation	\$760
MON-SNS157-SL	Davis Road/Chevron Station Intersection	Traffic signal installation	\$400
MON-SNS160-SL	Traffic Calming Projects	Traffic calming local	\$2,500
MON-SNS165-SL	Work Street	Overlay	\$500
MON-SNS260-SL	Alisal St and Murphy Street Traffic Signal	Install traffic signal	\$905
MON-SNS261-SL	Old State Road and Williams Rd Traffic Signal	Traffic signal installation	\$4,508
MON-SNS262-SL	Natividad and Rogge Road Traffic Signal	Install traffic signal	\$2,243
MON-SNS263-SL	N Main St and Bernal Dr Signal Modification	Install NBT lane, NBO phase, convert WBT to shared thru left	\$873

Appendix G: Alternative Project Lists  
**Alternative 3 – Monterey County**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-SNS264-SL	Sherwood Dr/Natividad Rd & East Bernal Dr/La Posada Way Intersection Improvements	Install EB left turn lane, NB thru lane and SB thru lanes	\$2,062
MON-SNS265-SL	East Front St/Sherwood Dr/Market St Intersection Improvements	Installation of southbound left turn lane	\$6,433
MON-SNS266-SL	Salinas St/North Main/West Market/East Market Intersection Improvements	Install SB left turn lane and EB thru lane	\$1,321
MON-SNS267-SL	South Main St/West Blanco/East Blanco Intersection	Install NB left turn lane	\$489
MON-SNS268-SL	Sun St/Market St Install Traffic Signal	New traffic signal	\$800
MON-SNS269-SL	Airport Blvd/Terven Ave & SB US 101 On/Off Ramp Intersection Improvements	Signal modifications or roundabout	\$1,500
MON-SNS270-SL	Blanco Rd/Sanborn Rd/Abbott St Intersection Improvements	Convert shared through/left turn lanes to through lanes and adding a second left turn lane on the north and south Abbott St approaches	\$96
MON-SNS271-SL	Harkins Rd and Abbott St Intersection Improvements	Add a second westbound left-turn lane on Harkins Rd	\$645
MON-SNS272-SL	Harkins Rd and Hansen St Intersection Improvements	Install NB left, EB thru and EB right	\$221
MON-SNS273-SL	Airport Blvd and Hansen St Intersection Improvements	Install a second northbound right-turn lane on Hansen St	\$85
MON-SNS274-SL	Roy Diaz St and De La Torre St South Intersection Improvements	Install traffic signal	\$800
MON-SNS275-SL	Roy Diaz St and US 101 Northbound Ramps Intersection Improvements	Install traffic signal or roundabout	\$1,370
MON-SNS276-SL	Skyway Blvd and Airport Blvd Intersection Improvements	Install traffic signal or roundabout	\$1,370
MON-SNS277-SL	Constitution Blvd/Medical Center Driveway Intersection Improvements	Install traffic signal	\$800
MON-SNS283-SL	Road Maintenance and Rehabilitation	Road maintenance using the Pavement Management Systems	\$140,000
MON-SOL007-SO	Street Resurfacing & Sidewalk Repair	Apply seal coats and resurface various local streets. Construct missing sidewalk and handicap ramps. Replace broken sidewalk and ramps. Mark bike facilities.	\$2,135

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-SOL030-SO	Front St and Hector de la Rosa St Intersection Improvements	Install signal	\$854
MON-SOL031-SO	Front St and East St Intersection Improvements	Construct intersection, install signal	\$2,548
MON-SOL032-SO	SR 146/Metz Rd and SR 146 Bypass Intersection Improvements	Construct intersection, install signal	\$1,721
MON-SOL033-SO	Front St/Gabilan Dr Intersection Improvements	Construct intersection, install signal/roundabout	\$2,883
MON-SOL034-SO	New Arterial 1 and Camphora Gloria Intersection Improvements	Construct intersection, install signal	\$2,120
MON-SOL035-SO	New Arterial 1/Front St Extension Intersection Improvements	Construct intersection, install signal	\$2,878
MON-SOL036-SO	New Arterial 1/San Vicente Rd Intersection Improvements	Construct intersection, install signal	\$2,503
MON-SOL037-SO	New Arterial 1/West St Intersection Improvements	Construct intersection, install signal	\$2,119
MON-SOL038-SO	West Street Extension/Camphora Gloria Rd Intersection Improvements	Construct intersection, install signal	\$2,262
MON-SOL039-SO	West St Extension/San Vicente Rd Intersection Improvements	Construct intersection, install signal	\$2,879
MON-SOL040-SO	West St Extension/San Vicente Rd Intersection Improvements	Construct intersection, install signal	\$2,584
MON-SOL042-SO	Gabilan Dr/San Vicente Rd Intersection Improvements	Construct intersection and install signal	\$324
MON-SOL053-SO	Andalucia Drive and Gabilan Drive Intersection Improvements	Intersection Improvements (2013 TIF M1); install signal	\$467
MON-SOL076-SO	Traffic Signals	Traffic Signals (2007 TIF M1, 2013 TIF M1 remainder); construct traffic signals at 4 locations	\$20,166
MON-SOL079-SO	Pavement Maintenance 2020-2021 -1	Pavement Maintenance 2020-2021 - 1; apply seal coats and resurface	\$2,000
MON-SOL080-SO	Pavement Maintenance 2020-2021 -2	Pavement Maintenance 2020-2021 - 2; apply seal coats and resurface	\$2,000

**Table 4 Other Projects**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-MAA002-MAA	Environmental Assessment	EA for Runway and Parallel Taxiway A extension to west, apron expansion west end, acquire land - 11.4 acres for RPZ	\$600
MON-MAA006-MAA	Environmental Assessment	Conduct Environmental assessment for construction improvements including hangar infill projects	\$150
MON-MAA015-MAA	Environmental Assessment	EA for North area of airport including north-side parallel Taxiway B, north perimeter aviation access road and development for approximately 250 acres aviation and mixed use	\$500
MON-MAA021-MAA	Pavement Rehabilitation	Pavement rehabilitation at various areas throughout the airport in accordance with the PMMP	\$600
MON-MAA027-MAA	Airport Utility Upgrades	Replacements, extensions and enhancements to existing water, sanitary sewer, and cable and wire infrastructure	\$7,500
MON-MAA028-MAA	Rehabilitate Existing Airport Buildings	Rehabilitate former military buildings including ADA facilities and upgrades, new roofs, building skin, structural retrofits, glazing and heat systems	\$12,300
MON-MAA029-MAA	Rehabilitate Airport Access and Service Roads	Localized removal and reconstruction of failed areas, asphalt pavement overlay, curb and gutter repair upgrades including ADA, and road widening	\$11,600
MON-MDR001-MDR	Airport Land Use Compatibility Plan Update	Update Airport Land Use Compatibility Plan (ALUCP)	\$154
MON-MDR002-MDR	Taxiway Reconstruction & Rehabilitation (Design)	Design of Taxiway reconstruction and rehabilitation	\$105
MON-MDR003-MDR	Taxiway Reconstruction & Rehabilitation (Construction)	Construction of taxiway rehabilitation and reconstruction	\$1,780
MON-MDR005-MDR	Apron Rehabilitation (Design)	Design of Apron Rehabilitation	\$250
MON-MDR006-MDR	Instrument Approach Feasibility Study & AWOS (Design)	Instrument Approach Feasibility Study & AWOS (Design Only)	\$160
MON-MDR008-MDR	AWOS (Construction)	AWOS (Construction)	\$300
MON-MDR009-MDR	Wildlife Hazardous Environmental Assessment	Wildlife hazardous environmental assessment	\$120
MON-MPA061-MRA	Terminal Complex - Construction (Terminal Building)	Construct Terminal Building	\$64,000
MON-MPA062-MRA	Terminal Complex - Construction (Roads & Surface Parking)	Construct Roads and Surface Parking	\$28,231

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-SAP026-SLA	Master Plan Environmental Assessment	Perform NEPA/CEQA environmental process	\$300
MON-SAP039-SLA	Environmental Study RSA Improvements	Environmental Study RSA Improvements	\$500
MON-SAP040-SLA	Enhance RSA, Runway 13-31	Runway Improvements to Meet Standards	\$960
MON-SAP041-SLA	Enhance RSA, Runway 8-26	Runway Improvements to Meet Standards	\$20,790
MON-SAP043-SLA	Master Plan	Perform airport master plan	\$120,000
MON-TAMC009-TAMC	Habitat Preservation/ Advance Mitigation	Countywide Habitat Preservation/Advance Mitigation for projects	\$5,000

**Table 5 Transportation Demand Management**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-TAMC005-TAMC	Monterey County Go831 Traveler Information and Rideshare/Commute Alternatives	Administer Go831 Traveler Information program and rideshare/Commute Alternative programs for Monterey County.	\$5,250

**Table 6 Transit ADA**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MST014-MST	Mobility Management	Mobility Management	\$92,000
MON-MST015-MST	RIDES Bus Replacement	RIDES Bus Replacement	\$16,000
MON-MST017-MST	RIDES Operations	RIDES Operations	\$137,819
MON-TAMC012-TAMC	Senior & Disabled Transportation	Countywide support for Senior & Disabled Transportation	\$15,000

**Table 7 Transit Improvements**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
MON-KCY053-CK	King City Multimodal Transit Station	Build new multimodal transit station; includes new Amtrak connection to Coast Rail Line. Element of Coast Rail Project (TAMC004) Includes Bike/pedestrian connections and parking	\$35,000
MON-MST008-MST	Salinas-Marina Multimodal Corridor	Construct multimodal Bus Rapid Transit Improvements between Salinas and Marina, including a multimodal transit corridor through the former Fort Ord in Marina.	\$60,000
MON-MST011-MST	Salinas Bus Rapid Transit	Construct Bus Rapid Transit improvements along E. Alisal Street.	\$20,000
MON-MST016-MST	Transit Capacity for SR 1/Surf! Busway and BRT	Construct improvements to accommodate regional MST bus service along the TAMC Branch Line during peak travel periods and construct 5th Street Station.	\$52,000
MON-MST019-MST	Highway 68 Corridor Transit Improvements	Highway 68 Corridor Transit Improvements	\$15,000
MON-MST020-MST	Salinas Bus Rapid Transit	Construct Bus Rapid Transit improvements along North Main Street.	\$15,000
MON-TAMC001-TAMC	Monterey Branch Line Light Rail- Phase 1	Provide light rail transit service using the existing 16-mile Monterey Branch Line between Monterey and Castroville adjacent to Highway 1. Phase 1 includes reconstruction of tracks, construction of stations.	\$145,000
MON-TAMC002-TAMC	Monterey Branch Line Light Rail - Salinas River Bridge Replacement - Phase 2	Build new rail bridge on the Monterey Branch Line over the Salinas River and reconstruct tracks to connect to the planned commuter rail station in Castroville.	\$125,000
MON-TAMC003-TAMC	Rail Extension to Monterey County- Phase 1, Kick Start Project	Extends existing rail service from Gilroy to Salinas and constructs station improvements in Gilroy and Salinas. Kick Start project (phase 1) to be completed by 2022 constructs Gilroy and Salinas station and track improvements.	\$81,500
MON-TAMC004-TAMC	Coast Rail Service	Build new train station at Soledad and King City and acquire equipment to run passenger rail service on main line. Includes bi-hourly service on main line. (Related to constrained King City Multimodal Station-KCY052)	\$482,000
MON-TAMC014-TAMC	Rail Extension to Monterey County - Phase 2, Pajaro/Watsonville Station	Constructs the Pajaro/Watsonville passenger rail/multimodal station	\$68,500
MON-TAMC015-TAMC	Rail Extension to Monterey County - Phase 3, Castroville Station	Constructs the Castroville passenger rail/multimodal station	\$34,000
MON-TAMC019-TAMC	Around the Bay Rail	Construct Around the Bay Rail project- Monterey to Santa Cruz. Identified in the Monterey Bay Area Rail Network Integration Study. Includes 4 rail stations. Related rail projects include TAMC001, TAMC002, TAMC014 and TAMC015.	\$400,000

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**Table 8 Transit Operations**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MST002-MST	Bus Operations	General operations for fixed route and public demand response services (On-call)	\$931,821

**Table 9 Transit Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MST003-MST	Bus Station/Stops	General transit station and stop improvements	\$42,000
MON-MST004-MST	Bus Support Equipment and Facilities/Intelligent Transportation Systems (ITS)	Bus Support Equipment and Facilities/Intelligent Transportation Systems (ITS)	\$20,000
MON-MST005-MST	Communication/Radio Equipment	Communication/Radio Equipment	\$30,000
MON-MST006-MST	Preventative Maintenance	Preventative Maintenance	\$21,000
MON-MST007-MST	Safety and Security	Safety and Security	\$2,000
MON-MST009-MST	Operations & Maintenance Facilities	Maintenance and Operations Facilities including: \$12M Measure X for Salinas Maintenance & Ops Facility & \$10.3M Measure X for S County Maintenance & Ops Facility (under construction, estimated to be completed in late 2021 or early 2022)	\$150,000
MON-MST010-MST	Bus Replacement	Combining MON-MST001-MST and MON-MST010-MST	\$100,000
MON-MST012-MST	Bus Rehab/Renovate	Bus Rehab/Renovate	\$28,400
MON-MST018-MST	South Monterey County Regional Transit Improvements	Increases the frequency of MST Line 23 service between King City and Salinas and constructs improvements along Abbott Street between US 101 and Romie Way in Salinas. Stops in King City, Greenfield, Soledad, Gonzales, Chualar and Salinas.	\$27,500
MON-SNS120-SL	Salinas ITC Station Improvements	TAMC Lead - Upgrades to passenger terminal and freight buildings	\$2,300

**Table 10 Transportation System Management**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MON-MRY015-MY	Traffic Signal Operational Improvements to Pacific, Franklin and Munras Corridors	Install traffic signal adaptive system and upgrade signal infrastructure	\$382

## Alternative 3 – San Benito County

**Table 1 Active Transportation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COG-A57	Safe Routes to Schools Implementation Program	Infrastructure improvements to achieve safer routes to schools for walking and bicycling at R.O. Hardin & Calaveras Elementary Schools. Lead agency role will vary from the City of Hollister, County and the Hollister School District.	\$1,126
SB-COH-A20	Sunnyslope Road Bike Lane	Construct Class II bike lane from Cerra Vista to Memorial Drive	\$21
SB-COH-A23	Ladd Lane Bike Lane	Traffic calming measures on Ladd Lane and Southside Road to reduce vehicle speeds and improve safety for pedestrians and cyclists.	\$184
SB-COH-A24	South Street/Hillcrest Road Bike Lane	Construct Class II bike lane from McCray St. to proposed Class II on Hillcrest Road	\$14
SB-COH-A25	Central Avenue Traffic Calming Project	Traffic calming enhancements between Bridge Road and East Street.	\$505
SB-COH-A26	Memorial Drive Bike Lane	Construct Class II bike lane from Sunset Dr. to Meridian St.	\$34
SB-COH-A28	Fourth Street Bike Route	Construct Class III bike route from McCray Street to Westside Boulevard.	\$11
SB-COH-A29	Sally Street Bike Route and Traffic Calming Project	Construct Class III bike route from Nash Rd. to 4th St., road rehabilitation, and traffic calming measures.	\$570
SB-COH-A30	Meridian Street Bike Lane	Construct Class II bike lane from Memorial Drive to McCray Street.	\$32
SB-COH-A31	San Felipe Road Bike Lane	Construct Class II bike lane from Santa Ana Road to Northern San Benito County.	\$197
SB-COH-A32	Sunset Drive Bike Route	Construct Class III bike Route from Cerra Vista Road to Airline Highway.	\$11
SB-COH-A33	Hillcrest Road Bike Lane	Construct Class II bike lane from Fairview Road and proposed Class III bike route on Hillcrest Road.	\$53
SB-COH-A36	Monterey Street Bike Route	Construct Class III bike route from Nash Road to 4th Street	\$14
SB-COH-A60	Complete Streets Project for Nash/Tres Pinos/Sunnyslope Roads and McCray Street	Complete street segments include: sidewalks, bike lanes, curb extensions, median islands, narrower travel lanes, roundabouts and more.	\$6,760
SB-COH-A66	McCray Street Bike Lane	Class II, 0.61 miles, Hillcrest to Santa Ana Road.	\$18
SB-COH-A67	Cerra Vista Bike Lane	Class III Bike Route, 0.73 miles, Union Road to Sunnyslope Road.	\$10
SB-COH-A68	Hawkins Street Bike Route	Class III, 0.45 miles, Monterey Street to Prospect Avenue.	\$6
SB-COH-A69	Clearview Drive Bike Route	Class III, 1.15 miles, Sunset Drive to Meridian Street, Tier No. 2.	\$15
SB-COH-A70	Steinbeck Drive Bike Lane	Class III, .10 miles, Line Street to Westside Boulevard, Tier No. 3.	\$1

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COH-A71	Meridian Road Bike Lane	Class III, .47 miles, End of Meridian Road to Memorial Drive.	\$6
SB-COH-A72	Bridgevale Road Bike Lane	Class III, .26 miles, from Fourth Street (Previously San Juan Road) to Central Avenue, Tier No. 3.	\$3
SB-COH-A73	Beverly Drive Bike Lane	Class III, .53 miles, Sunnyslope Road to Hillcrest Road, Tier No. 3.	\$7
SB-COH-A79	Westside Boulevard Bike Lane	Class II, .28 miles, between South Street and Jan Avenue.	\$5
SB-SBC-A22	Airline Highway Bike Lane	Class I bike path from Sunset Drive to existing Class I on Airline Hwy (Tres Pinos Town).	\$42
SB-SBC-A34	Santa Ana Road/Buena Vista Road/North Street Bike Lane	Construct Class II bike lane, 3.97 miles, partially located in the City of Hollister.	\$118
SB-SBC-A60	Highway 156 Bike Lane	Class II, 6.88 miles, The Alameda (San Juan Bautista) to Buena Vista Road (Hollister).	\$205
SB-SBC-A61	Valley View Drive Bike Lane	Class II, 0.52 miles, Sunset Drive to Union Road.	\$9
SB-SBC-A62	The Alameda - Salinas Road Bike Route	Class III, 0.65 miles, 4th Street to Old Stagecoach Road.	\$9
SB-SBC-A63	Union Road Bike Lane	Class III, 3.83 miles, Highway 156 to Cienega Road.	\$51
SB-SBC-A64	Buena Vista Road Bike Route	Class III, 0.74 miles, Proposed Class II on Buena Vista to Highway 156.	\$10
SB-SBC-A65	San Benito River Recreational Trail Phase 1	Construct a portion of recreational bicycle/pedestrian/equestrian trail along the San Benito River.	\$5,627
SB-SBC-A66	San Benito River Recreational Trail Phase 2	Construct a portion of recreational bicycle/pedestrian/equestrian trail along the San Benito River.	\$8,538
SB-SBC-A68	Union Pacific Railroad Multi-Use Path	Class I, 8.81 miles. Construct a multi-use path adjacent to the Union Pacific Railroad right of way.	\$7,800
SB-SBC-A80	Fallon Road Bike Route	Class III, 2.29 miles, Fairview Road to Frontage Road, Tier 3. Located in the City and County.	\$30
SB-SBC-A85	San Juan - Hollister Road Bike Lane	Striping a bike lane on San Juan - Hollister Road.	\$10
SB-SJB-A06	Pedestrian Crosswalk at Intersection of The Alameda & Hwy 156	Install meters, screens and stripe on east side of The Alameda & Highway 156.	\$75
SB-SJB-A11	Third Street Bike Lane	Striping a bike lane on Third Street.	\$25
SB-SJB-A12	First Street Bike Lane	Striping a bike lane on First Street.	\$25
SB-SJB-A13	Fourth Street Bike Lane	Striping a bike lane on First Street.	\$35
SB-SJB-A17	Franklin Street Bike Lane	Class III, .17 miles, 4th Street to South side of San Juan Bautista Historic Park, S-6 of the Bike Plan.	\$10
SB-SJB-A18	4th Street - San Jose Bike Lane	Class II, 0.16 miles, 4th Street to North side of San Juan Bautista Historic Park.	\$5

Appendix G: Alternative Project Lists  
**Alternative 3 – San Benito County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-SJB-A19	San Jose Street - The Alameda Bike Lane	Class III, .54 miles, 4th Street from San Jose to Monterey Street, S-8 of Bike Plan.	\$10
SB-SJB-A20	Second Street Bike Lane	Class III, 0.14 miles, San Jose Street to Monterey Street.	\$10
SB-SJB-A23	1st Street Bike Lane	Class III, 0.10 miles, Monterey Street to existing Class II on 1st Street.	\$35
SB-SJB-A26	The Alameda - Salinas Road Bike Route	Class III - Stripping a bike lane from Franklin to Old SJ Hollister Rd., S-10 of the Bike Plan.	\$50

**Table 2 Highway Improvements**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-CT-A01	San Benito Route 156 Improvement Project San Juan Bautista to Union Road	Construct a four-lane expressway south of the existing State Route 156 and use the existing SR 156 as the northern frontage road. Partial TIF	\$68,339
SB-CT-A17	Airline Highway Widening/SR 25 Widening: Sunset Drive to Fairview Road	Convert to 4 lane expressway from Sunset Drive to Fairview Road with bicycle lanes. TIF	\$28,214
SB-CT-A44	Route 25 Expressway Conversion Project, Phase 1	Convert to four lane expressway from San Felipe Road to Hudner Lane. Includes Area No. 1. SR - 25/SR156 interchange to Hudner Lane and Area No. 2-south of the SR 25/SR 156 interchange to San Felipe Road. Partial TIF.	\$106,000
SB-CT-A45	Route 25 Expressway Conversion Project, Phase II	Convert to four lane expressway from Hudner Lane to County Line. Includes Area No 3. SR 25/SR 156 interchange to County line and Area No. 4 County line to Bloomfield Road. Partial TIF.	\$135,000

**Table 3 Highway Operational, Maintenance and Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-CT-A02	SR 156/Fairview Road Intersection Improvements	Construct new turn lanes at the intersection. TIF	\$6,824
SB-CT-A43	SHOPP Group Lump Sum Project Listing	Varies, grouped project listing.	\$213,249
SB-CT-A57	SR 156 Bridge/Ramps at US 101 Operational Improvements (Caltrans EA: 05-1N910)	In San Benito County, At US 101/SR 156E interchange. Extend southbound US 101 connector and construct a ramp meter - Minor A	\$1,250

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**Table 4 Local Street and Road Improvements**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COH-A11	Union Road (Formerly Crestview Drive) Construction	Construct new 2-lane road	\$11,000
SB-COH-A16	Memorial Drive South Extension: Meridian Street to Santa Ana Road	Construct 4-lane road extension with bicycle lanes. TIF	\$3,355
SB-COH-A18	Westside Boulevard Extension	Construct 2-lane road. Westside Boulevard Extension: Nash Road to Southside Road/San Benito Street Intersection with bicycle lanes. TIF	\$13,360
SB-COH-A55	Memorial Drive North Extension: Santa Ana Road to Flynn Road/Shelton Intersection	Construct new 4-lane road and extension with bicycle lanes. TIF	\$13,842
SB-SBC-A04	Union Road Widening (East): San Benito Street to Highway 25	Widen to 4-lane arterial with bicycle lanes. TIF	\$5,463
SB-SBC-A05	Union Road Widening (West) San Benito Street to Highway 156	Widen to 4-lane arterial with bicycle lanes. TIF	\$15,448
SB-SBC-A09	Fairview Road Widening: McCloskey to SR 25	Widen to 4-lane arterial; construct new bridge south of Santa Ana Valley Road with bicycle lanes. TIF	\$20,790
SB-SBC-A14	San Benito Regional Park Access Road	Construct new 2-lane roadway from Nash Road to San Benito Street.	\$162
SB-SBC-A50	Hospital Road Bridge	Hospital Road over San Benito River, between South Side Road and Cienega Road. Replace lane low water crossing with 2 lane bridge. Bridge No. 00L0026.	\$15,200
SB-SBC-A67	Shore Road Extension	4-Lane Arterial with Class II bike lanes.	\$20,350
SB-SBC-A79	Enterprise Road Extension	Extend Enterprise Road westerly from Southside Road toward Union Road.	\$3,000
SB-SBC-A81	Meridian Street Extension:185 feet east of Clearview Road to Fairview Road	Construct 4-lane road. Located in the City of Hollister and County with bicycle lanes. TIF	\$9,445
SB-SBC-A82	Flynn Road Extension	San Felipe Road to Memorial Drive north Extension. New roadway construction south of McCloskey Road with bicycle lanes. Located within the City of Hollister and County. TIF	\$7,709
SB-SJB-A07	Third Street Extension	Constructing Third Street to connect to First Street.	\$450
SB-SJB-A09	Lang Street to Lang Street	Construct and connect Lang Street to The Alameda, 2 lanes.	\$800
SB-SJB-A14	Muckelemi Street to Muckelemi Street	Reconstruction of Muckelemi Street to Monterey Street adding planting strip median.	\$650

**Table 5 Local Street and Road Operational, Maintenance and Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COH-A13	West Gateway Improvement Project	Streetscape and intersection improvements.	\$4,237
SB-COH-A58	Westside Boulevard & Nash Road Westside Boulevard Extension (Intersection)	New signalization of 2-lane collector south leg (Westside Extension), existing 4-lane north leg with existing 2-lane local; 4 approaches, turning lanes will be added. TIF	\$575
SB-COH-A59	Westside Boulevard Extension (Intersection)	New signalization of new 2-lane collector (Westside Extension) with 2-lane arterial; 4 approaches, turning lanes will be constructed at Westside Boulevard & San Benito Street. TIF	\$500
SB-COH-A61	City of Hollister Local Street & Roadway Maintenance: 2020-2045	System preservation and maintenance.	\$113,401
SB-COH-A63	South Street & Westside Boulevard Intersection	New signalization of 4-lane collector with 2-lane collector; 4 approaches, retain current lane configuration. TIF	\$550
SB-COH-A64	Fourth Street (San Juan Road) & West Street or Monterey Street Intersection	New signalization of 2-lane collector with 2-lane local; 4 approaches, retain current lane configuration. TIF	\$400
SB-COH-A65	Memorial Drive & Hillcrest Road Intersection	New signalization of 4-lane arterial with 4-lane arterial, 4 approaches. Existing lane configuration to remain with bicycle lanes. TIF	\$700
SB-COH-A74	Flynn Road & San Felipe Road Intersection	New signalization of 4-lane arterial with 4-lane arterial. TIF	\$800
SB-COH-A75	Memorial Drive & Santa Ana Road Memorial Drive South Extension (Intersection)	New signalization of future 4-lane arterial (Memorial) with non-TIMF widening to 4-lane arterial; 4 approaches, turning lanes will be constructed.	\$800
SB-COH-A76	Memorial Drive South Extension: Meridian Street to Memorial Drive (Intersection)	New signalization of future 4-lane arterial (Memorial) with 4-lane arterial; 4 approaches, turning lanes will be constructed. TIF	\$800
SB-COH-A77	Gateway Drive & San Felipe Road Intersection	New signalization of new 2-lane collector with 4-lane arterial; 3 approaches, LTO's exist. TIF	\$525
SB-COH-A78	Rancho Drive & East Nash (Tres Pinos Road) Intersection	New roundabout. TIF	\$700
SB-SBC-A52	Union Road Bridge	Union Road Over San Benito River, East Cienega Road. Replace bridge, no added capacity. Bridge No. 43C0002. HBP	\$24,450
SB-SBC-A53	Panoche Road Bridge (Bridge No. 43C0016)	Panoche Road over Tres Pinos Creek, 6 Mi. E of SH 25. Scour Countermeasure. Bridge No. 43C0016. HBP	\$3,700
SB-SBC-A54	Panoche Road Bridge (Bridge No. 43C0027)	Panoche Road, over Tres Pinos Creek, 12 miles west Little Panoche Road. Replace 1-lane bridge with 2-lane bridge. Bridge No. 43C0027. HBP	\$4,825

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-SBC-A56	Rosa Morada Bridge	Rosa Morada Rd over Arroyo Dos Picachos, 0.6 Mi E Fairview Road. Replace bridge (no added lane capacity) Bridge No. 43C0041. HBP	\$3,300
SB-SBC-A57	Limekiln Road Bridge	Limekiln Road over Pescadero Creek, 0.1 Mi S Cienega Road. Replace 1-lane bridge with 2-lane bridge. Bridge No. 43C0054	\$2,800
SB-SBC-A58	Rocks Road Bridge	Rocks Road over Pinacate Rock Creek, East Little Merrill Road. Replace 1-lane bridge with 2-lane bridge. Bridge No. 43C0053. HBP	\$2,540
SB-SBC-A59	Anzar Road Bridge	Anzar Road over San Juan Creek, 0.35 Miles with San Juan Hwy Road. Replace 2-lane with 2-lane bridge (no added capacity) Bridge No. 43C0039. HBP	\$2,870
SB-SBC-A69	Fairview Road & Hillcrest Road Intersection	New signalization of future widening to 4-lane arterial (north & south legs) with future non-TIMF widening to 4-lane arterial (west leg only); 3 approaches. Turning lanes existing on all approaches, SB & NB through lanes will be constructed with Fairview Road widening. TIF	\$600
SB-SBC-A70	Union Road & Fairview Road Intersection	New signalization of future widening to 4-lane arterial (north & south legs) with future new 4-lane arterial (west leg only); 3 approaches. Turning lanes on Fairview Road added with Project No. 8; turning lanes on Union Road. Included as regional component of developer-constructed improvements. TIF	\$655
SB-SBC-A71	Enterprise Road & Airline Highway (SR 25) Intersection	New signalization of future widening to 4-lane arterial (north & south legs) with 2-lane arterial; 4 approaches, EB & WB through lanes will be constructed with Airline Hwy Project No. 5 with bicycle lanes. TIF	\$700
SB-SBC-A73	McCloskey Road & Fairview Road Intersection	New signalization of 4-lane arterial with 2-lane local, 3 approaches. LTO on lanes 3 approaches, RTO on 2 approaches. TIF	\$734
SB-SBC-A74	Meridian Street & Fairview Road Meridian Street Extension (Intersection)	New signalization of 4-lane arterial with 4-lane arterial: 3 approaches, turning lanes exist, through lane on Fairview will be constructed. TIF	\$600
SB-SBC-A75	Fairview Road & Fallon Road Intersection	New signalization of 4 lane arterial with 2-lane collector, 4 approaches. LTO & RTO on all approaches. TIF	\$944
SB-SBC-A77	San Benito County Local Street & Roadway Maintenance: 2020-2045	System preservation and maintenance.	\$131,313
SB-SBC-A83	Fairview Road & Airline Highway/SR 25 Intersection	New signalization of 4-lane arterial (east & west legs) with 4-lane arterial (north leg) & 2-lane (south leg). LTO & RTO existing on all approaches, EB & WB through lanes constructed. County and Caltrans. TIF	\$850
SB-SBC-A84	SR 156 & Buena Vista Road Intersection	New signalization of new 2-lane collector with 4-lane arterial, LTO on 4 approaches. County and Caltrans. TIF	\$765

Appendix G: Alternative Project Lists  
**Alternative 3 – San Benito County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-SBC-A86	John Smith Realignment at Fairview Intersection	This project will realign John Smith Road to intersect Fairview Road at St. Benedict Way and add left and right turn lanes into John Smith Road.	\$2,200
SB-SBC-A88	Carr Avenue Bridge Project	Potential bridge replacement. The bridge is located on Carr Avenue, 0.23 miles east from Carpenteria Road intersection.	\$657
SB-SJB-A02	Roundabout at Muckelemi Street & Monterey Street	Constructing a roundabout.	\$450
SB-SJB-A03	Roundabout at Muckelemi and Fourth Street	Slight widening/re-paving and construction of roundabout.	\$450
SB-SJB-A04	Roundabout at Old San Juan - Hollister Road & San Juan Canyon Road	Constructing a roundabout and repaving.	\$250
SB-SJB-A05	Roundabout at Third Street & Donner Street	Striping a roundabout widening Third Street.	\$250
SB-SJB-A15	City of San Juan Bautista Local Street & Roadway Maintenance: 2020-2030	System preservation and maintenance.	\$9,553
SB-SJB-A25	Roundabout at First Street & Lavagnino Road	Constructing a roundabout.	\$400

**Table 6 Other Projects**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COG-A58	COG Planning and Administration	COG and LTA short- and long-range transportation planning studies. Transportation Development Act (TDA) for COG Administration, transit, bicycle & pedestrian facilities, approx.	\$40,000
SB-COH-A40	Hollister Airport Operations and Maintenance 2020-2045	Continued operations and maintenance of the airport.	\$22,500
SB-COH-A41	Hollister Airport Capital Improvement Program	Capital improvements grouped project list 2020-2026 from the Airport Capital Improvement Program. Project need for years 2027 and beyond are not available.	\$10,574

**Table 7 Transportation Demand Management**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COG-A08	Regional Rideshare Program	Promote the use of alternative modes of transportation.	\$125
SB-COG-A53	Vanpool Program	Provide vehicle lease program, planning and coordination.	\$525

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**Table 8 Transit Improvements**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-LTA-A46	Regional Transit Connection to Salinas	Transit connection from City of Hollister to City of Salinas.	\$3,113
SB-LTA-A47	Regional Transit Connection to Watsonville	Transit connection from City of Hollister to City of Watsonville.	\$3,124
SB-LTA-A53	Passenger Rail to Santa Clara County	Commuter rail from Hollister to Gilroy	\$132,130

**Table 9 Transit Operations**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-LTA-A37	General Transit Service Operations	Ongoing operations of County Express and Specialized Transportation Services, including services outside of San Benito County.	\$54,800
SB-LTA-A42	Regional Transit Planning	Planning transit infrastructure, new service and operational improvements, including transitioning to zero emission fleet.	\$2,500
SB-LTA-A52	Transit Technology and Infrastructure Improvements	Improve transit infrastructure to accommodate operations.	\$840
SB-LTA-A54	Bus Beside Rail to Santa Clara County	Constructing a single-lane bus route beside the existing rail, allowing bypassing traffic congestion.	\$51,510

**Table 10 Transit Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-LTA-A48	Transit Vehicle Replacements	Replace transit vehicles.	\$5,337
SB-LTA-A51	Bus Stop Improvement Program	Provides bus stop improvements, such as benches, shelters, and other amenities.	\$2,751

**Table 11 Transportation System Management**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SB-COG-A44	Emergency Motorist Aid System (SAFE)	Emergency Call Box Program and additional CHP safety patrol are administered by the Service Authority for Freeways and Expressways (SAFE)	\$1,300
SB-COG-A56	Intelligent Transportation Systems Lump Sum Projects	Implement projects identified in the Central Coast Intelligent Transportation Systems Plan.	\$7,355

## Alternative 3 – Santa Cruz County

**Table 1 Active Transportation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
CAP 17SC	Upper Pacific Cove Parking Lot Pedestrian Trail and Depot Park Metro Development	Construct 4-foot-wide pedestrian pathway along City owned Upper Pacific Cove Parking lot, adjacent to rail line (680'). Includes new signal for ped crossing over Monterey Avenue. Includes a new metro shelter located and landscaped setting along the rail corridor/Park Avenue.	\$743
CO 42bSC	Green Valley Rd Pedestrian Safety Project	Build 6-foot-wide sidewalk with some curb and gutter on NW side of Green Valley Road from Airport Boulevard to Amesti Road (1800 ft).	\$390
CO 84 SC	Hwy 152/Holohan - College Intersection	Intersection capacity enhancements and signal modifications, pedestrian and bicycle safety improvements. Add sidewalks and bicycle lanes on Holohan Rd, an additional left-turn lane from Holohan to EB Hwy 152, sidewalk on north side of Hwy 152 from Holohan to Corralitos Creek bridge, adds crosswalks and speed feedback signs.	\$3,650
SC-CAP-P03-CAP	Upper Capitola Avenue Improvements	Installation of bike lanes and sidewalks on Capitola Avenue (Bay Avenue - SR 1) and sidewalks on Hill Street from Bay Avenue to Rosedale Avenue.	\$500
SC-CAP-P12-CAP	Monterey Avenue Multimodal Improvements	Installation of sidewalks and bike lanes in area near school and parks.	\$360
SC-CAP-P16-CAP	Clares Street Pedestrian Crossing	Construct signalized ped crossing 0.20 miles west of 40th Avenue.	\$250
SC-CAP-P42-CAP	Clares Street Bike Lanes/Sharrows	Evaluate and if found necessary, add bike lanes/sharrows to Clares.	\$100
SC-CAP-P43-CAP	Clares Street/41st Avenue Bicycle Intersection Improvement	Bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) at Clares across 41st Avenue.	\$100
SC-CAP-P44-CAP	Gross/41st Avenue Bicycle Intersection Improvement	Bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) from Gross E/B to 41st N/B.	\$100
SC-CAP-P46-CAP	40th Ave (at Deanes Ln) Bike/Ped connection	40th Avenue N/S bike/pedestrian connection at Deanes Lane.	\$10
SC-CAP-P47-CAP	41st Ave (Highway 1 South to City Limits) Crosswalks	Evaluate and if found necessary, increase number of crosswalks on 41st to closer to every 300 ft.	\$100

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CAP-P48-CAP	Capitola Mall (Capitola Rd to Clares) Bike Path	Separated bicycle facility through Capitola Mall parking lot to connect 38th Avenue bike lanes and 40th Avenue.	\$50
SC-CAP-P51-CAP	Citywide Sidewalk Program	Install sidewalks to fill gaps. Annual Cost \$50k/yr.	\$750
SC-CAP-P52-CAP	Citywide Bike Projects	Bike projects based on needs identified through the Bicycle Plan. These projects are in addition to projects listed individually in the RTP.	\$400
SC-CO-89-USC	Soquel Dr Buffered Bike Lane and Congestion Mitigation Project	Adaptive traffic signal control/transit signal priority at all 23 intersections between La Fonda Ave and State Park Dr; Protected bike lanes with striping/bollards for approximately 2.4 miles (4.8 miles bidirectional) and buffered bike lanes with striping for approximately 2.65 miles (5.3 miles bidirectional); 46 green bike boxes at 23 intersections for left turn movements; Pedestrian improvements including: 10 rectangular rapid flashing beacons at midblock crossings; 0.46 miles of new curb, gutter, retaining wall and sidewalk construction; 96 crosswalk upgrades, 12 sidewalk curb extensions; 100 ADA ramps; and reconstruction of 17 driveway and side street	\$27,000
SC-CO-P38-USC	Pajaro River Bike Path System	Construction of a Class I bike path along the levees and a Class II bikeway on Thurwatcher Road and Beach Road.	\$2,500
SC-CO-P41-USC	Countywide Sidewalks	Install sidewalks.	\$7,000
SC-CO-P46a-USC	San Lorenzo Valley Trail: Hwy 9 - Downtown Felton Bike Lanes & Sidewalks	Install sidewalks and bicycle lanes on Hwy 9 through downtown Felton.	\$3,500
SC-CO-P46b-USC	San Lorenzo Valley Trail: Hwy 9 - North Felton Bike Lanes & Sidewalks	Install sidewalk/pedestrian path on west side, shoulder widening to 5' for bicycle lanes from Felton-Empire/Graham Hill Road to Glen Arbor Road, Ben Lomond, including frontage of SLV elementary, middle and high schools. Includes new and replacement bike/ped bridges.	\$5,000
SC-CO-P50-USC	East Cliff Drive Pedestrian Pathway (7th - 12th Avenue)	Construct pedestrian pathway on East Cliff.	\$1,760
SC-CT-09-CT	Hwy 9 Felton Pedestrian Safety Improvements	Construct pedestrian path on Route 9 from the San Lorenzo Valley (SLV) High School to the intersection of Graham Hill Rd/Felton-Empire, plus signage and crosswalk improvements between Kirby St and Graham Hill Road.	\$15,800
SC-CT-P61-CT	Hwy 152 Corralitos Creek ADA	Construct accessible pathway, concrete barrier, retaining wall, curb, gutter and sidewalk to meet Americans with Disabilities Act (ADA) standards.	\$7,452
SC-CT-P69-CT	Pedestrian Signals #2: Hwys 1 and 129	Install Accessible Pedestrian Signal (APS) push buttons, Countdown Pedestrian Signal (CPS) heads, pedestrian barricades, and crosswalk signage to improve pedestrian and bicycle safety. (Project in MON, SCR, SLO and SB counties, PPNO2628).	\$4,580

Appendix G: Alternative Project Lists  
**Alternative 3 – Santa Cruz County**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-EA-02-USC	Ecology Action Countywide SRTS Youth Pedestrian and Bicycle Safety Education	EA will serve approximately 120 second grade classrooms with feet on the ground pedestrian safety education and 88 fifth grade classrooms with bike safety education and rodeos serving a total of 44 local schools.	\$440
SC-RTC 27a-RTC	Monterey Bay Sanctuary Scenic Trail Network - Design, Environmental Clearance, and Construction	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.)	\$121,000
SC-RTC 27b-RTC	Monterey Bay Sanctuary Scenic Trail Network (Coastal Rail Trail) - Maintenance & Operations	Ongoing maintenance rail trail corridor. Includes clean-up, trash/recycling removal, graffiti abatement, brush clearance, surface repairs (from drainage issues, tree root intrusion) etc. and encroachments (est. \$700k/yr)	\$17,500
SC-RTC 27c-RTC	Monterey Bay Sanctuary Scenic Trail Network (Coastal Rail Trail) - Trail Management Program	Coordinate trail implementation as it traverses multiple jurisdictions to ensure uniformity; serve as Project Manager for construction of some segments; handle environmental clearance; coordinate use in respect to other requirements (closures for ag spraying, etc); solicit ongoing funding and distribute funds to implementing entities through MOUs; coordinate with community initiatives; etc.	\$7,550
SC-RTC-16-RTC	Bike Parking Subsidy Program	Subsidies for bicycle racks and lockers for businesses, schools, government agencies, and non-profit organizations are all eligible. Recipients are responsible for installation and maintenance of the equipment. Avg annual cost: \$25K/yr.	\$240
SC-RTC-P26-VAR	Countywide Pedestrian Signal Upgrades	Grant program to fund installation of accessible pedestrian equipment with locator tones including rapid flashing beacons and count down times etc. to facilitate roadway crossings by visually and mobility impaired persons.	\$1,035
SC-SC-23-SCR	West Cliff Path Minor Widening (David Way Lighthouse to Swanton)	Improve existing path.	\$520
SC-SC-P09-SCR	Sidewalk Program	Install and maintain sidewalks and access ramps.	\$5,500
SC-SC-P105-SCR	Market Street Sidewalks and Bike Lanes	Completion of sidewalks and bicycle lanes. Includes retaining walls, right-of-way, tree removals and a bridge modification.	\$1,030
SC-SC-P123-SCR	Soquel/Branciforte/Water (San Lorenzo River to Branciforte) Bike Lane Treatments	Consider bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) to address speed inconsistency and parking conflicts between bicyclists and vehicles.	\$410
SC-SC-P125-SCR	Citywide Safe Routes to School Projects - ATP	Projects to improve pedestrian and bicycle safety near schools.	\$1,404

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-SC-P126-SCR	Almar Avenue Sidewalks	Fill gaps in sidewalks and access ramps to improve pedestrian safety.	\$200
SC-SC-P127-SCR	Pacific Avenue Sidewalk	Construct 200' of new sidewalk on Pacific Avenue between Front Street and 55 Front St, including installation of a new accessible crosswalk at Front and Pacific; 150' bike lane.	\$400
SC-SC-P133-SCR	San Lorenzo River Walk Lighting	Install pedestrian scale lighting on the Riverwalk. The San Lorenzo Riverwalk Lighting northern section, is funded in the amount of \$970,000 from an ATP grant. There still a need for another \$1M for the southern reach unconstrained.	\$970
SC-SC-P134-SC	Ocean-Plymouth Multi-modal Transportation Improvements	Improve the bike and pedestrian connections through the intersection.	\$200
SC-SC-P23-SCR	Delaware Avenue Complete Streets	Fill gaps in bicycle lanes, sidewalks and sidewalk access ramps.	\$150
SC-SC-P29-SCR	Morrissey Boulevard Bike Path over Hwy 1	Install a Class I bicycle and pedestrian facility on freeway overpass.	\$300
SC-SC-P30-SCR	Murray Street to Harbor Path Connection	Install a Class I bicycle/pedestrian facility to connect the Segment 9 Rail Trail project, for the east and west side of the harbor.	\$210
SC-SC-P35-SCR	San Lorenzo River Levee Path Connection	Install a Multi-Use bicycle/pedestrian facility connecting the end of the San Lorenzo River Levee path on the eastern side of the river, up East Cliff Drive near Buena Vista Ave.	\$2,070
SC-SC-P59-SCR	King Street Bike Facility (entire length)	Install Class II bike lanes on residential collector street which includes some parking and landscape strip removals and some drainage inlet modifications.	\$2,070
SC-SC-P69-SCR	Seabright Avenue Bike Lanes (Pine-Soquel)	Install Class II bike lanes on arterial street to complete the Seabright Avenue bike lane corridor and connect to bike lane corridor on Soquel Avenue and Murray. Includes removal of some parking and some landscape strips.	\$2,070
SC-SV-30a-SCV	Mt Hermon Road Sidewalk Connections	Fill gaps in sidewalks on Bluebonnet and Kings Village Rd. to improve access between middle school, library and park.	\$250
SC-SV-32-SCV	Sidewalk Masterplan Implementation	Installation or widening of sidewalks and ramps that are missing, damaged or do not meet current ADA requirements. May include signage for safety.	\$500
SC-SV-P05-SCV	Citywide Sidewalk Program	Install sidewalks to fill gaps. Annual Cost \$50k/yr	\$4,000
SC-SV-P100-SCV	Whispering Pines Dr (Mt Hermon-Lundy Ln) Separated Bikeways	Upgrade bike lanes to buffered bike lane or Class IV separated bikeway. From SRTS Plan	\$75
SC-SV-P21-SCV	Lockwood Lane Pedestrian Signal Near Golf Course	Construct a pedestrian signal at unprotected ped crossing on Lockwood Lane.	\$50

Appendix G: Alternative Project Lists  
**Alternative 3 – Santa Cruz County**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-SV-P30A-SCV	Blue Bonnet Lane and Kings Village Rd Sidewalk Infill	Add sidewalks to fill gaps in business district	\$520
SC-SV-P35-SCV	Bean Creek Road Sidewalks (SVMS to Blue Bonnet)	Fill gaps in sidewalks on Bean Creek Road.	\$410
SC-SV-P41-SCV	Citywide Bike Lanes	Construction of additional bike lanes and paths citywide (including Green Hills).	\$2,060
SC-SV-P45-SCV	Scotts Valley Town Center Bicycle/Pedestrian Facilities	Bicycle and pedestrian facilities and circulation elements within planned development.	\$4,130
SC-SV-P49-SCV	Mt Hermon Road and Scotts Valley Drive - Crosswalks	Increase number of crosswalks on Mt Hermon/Scotts Valley Dr, update crosswalks to block pattern, add pedestrian treatments where necessary at intersections to decrease distance across using refuge islands. Add crosswalks to all sides of intersections (particularly an issue on Scotts Valley Dr). Add HAWK signals to provide a low delay signalized crossing opportunity at select locations. Examples include the Safeway Driveway on Mt. Hermon Rd, at Victor Square/Scotts Valley Dr., and at Tramell Way/Scotts Valley Dr.	\$515
SC-SV-P53-SCV	Mt Hermon Road to El Rancho Drive Bike/Ped Connection	New bike/ped connection between Mt Hermon Road and El Rancho Drive which could include improved bike/ped facilities on existing interchange or new bike/ped crossing.	\$1,030
SC-SV-P56-SCV	Bean Creek Road at SV Middle School driveway crosswalk improvements	Realign crossing and rebuild ADA ramp on west side. Upgrade crosswalk to high visibility. Source SRTS Plan	\$53
SC-SV-P74-SCV	Hacienda Way Intersection Modification and Improvements	Install curb extensions to reduce crossing distance. Reduce Hacienda Way to one lane at intersection. Look into undergrounding utility pole at northern corner of intersection. Source SRTS Plan	\$100
SC-SV-P79-SCV	Lockwood Lanes Sidewalk & Sharrows	Fill sidewalk gaps on south side of street. Install green backed sharrows. (short term)	\$90
SC-SV-P95-SCV	Highway 17 On/Off Ramp Bike & Pedestrian Improvements	Short term option to install leading pedestrian interval and curb extension at NE corner of intersection. Upgrade all crosswalks to high visibility. Install green bike conflict markings through intersection. Install bicycle detection at Glenwood/Scotts Valley Drive intersection approaches. Source SRTS Plan.	\$207
SC-SV-P99-SCV	Vine Hill School Rd (Glenwood Dr-Tabor Dr) Bike Lane Widening	Narrow travel lanes to 11' to widen bike lanes to 6'. Remove signs that indicate bike lanes are dependent on time of day. Source SRTS Plan	\$44
SC-UC-P33-UC	UCSC Bicycle Parking Improvements	Install bicycle parking facilities to serve bicycle commuters to the University.	\$520

Association of Monterey Bay Area Governments

**2045 MTP/SCS and Regional Transportation Plans for Monterey, San Benito, and Santa Cruz Counties**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-UC-P38-UC	Pedestrian Directional Map/Wayfinding System	Develop and install signs throughout campus.	\$520
SC-VAR-P03-VAR	Bicycle Sharrows	Install sharrows (shared roadway marking) designating areas where bicyclists should ride on streets, especially when bicycle lanes are not available. To be implemented by local jurisdictions.	\$520
SC-VAR-P05-VAR	Bike-Activated Traffic Signal Program	Provide traffic signal equipment to ensure that the traffic signals will detect bicycles just as cars are detected and ensure that the appropriate traffic signal phase is activated by the bicycles.	\$1,030
SC-VAR-P08-VAR	Safe Paths of Travel	Regional program to construct and/or repair pedestrian facilities adjacent to high frequency use origins and destinations, particularly near transit stops.	\$3,100
SC-VAR-P10-VAR	Safe Routes to Schools Studies	Studies to assess pedestrian and bicycle safety near schools.	\$210
SC-VAR-P16-VAR	Bike Share	Establish and maintain an urban centered bike share program allowing county residents to access loaner bikes at key locations such as downtowns, transit centers, shopping districts and tourist destinations.	\$5,170
SC-VAR-P27-VAR	Complete Streets Implementation	Additional projects for complete streets implementation that would fall under the Complete Streets Guidelines.	\$20,000
SC-VAR-P28-VAR	Complete Streets Area Plan	Detailed complete street circulation and design plans, including consideration of multimodal green travelways, for areas identified for intensified development in Sustainable Communities Strategy.	\$400
SC-VAR-P29-VAR	Public/Private Partnership Bicycle and Pedestrian Connection Plan	Develop model for assisting local jurisdictions in working with private property owners to allow bicycle and pedestrian access through private property in areas identified for more intensified development in Sustainable Communities Strategy.	\$150
SC-VAR-P31-VAR	Uncontrolled Pedestrian Crossing Improvements	Implement improvements to uncontrolled pedestrian crossing such as painted and/or raised crosswalks, flashing beacons and pedestrian islands.	\$2,570
SC-VAR-P32-VAR	Bicycle Treatments for Intersection Improvements (ADD)	Add painted bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike detection and signals) at major intersections.	\$4,130
SC-VAR-P35-VAR	School Complete Streets Projects	Implement ped/bike programs and facilities near schools.	\$10,330
SC-VAR-P39-VAR	Active Transportation Plan	Prepare Active Transportation Plans that address bicycle, pedestrian, safe routes to schools and complete streets facilities within the jurisdictions of Santa Cruz County as well as the Santa Cruz Harbor Port District.	\$2,380
SC-VAR-P44-VAR	Electric Bicycle Commuter Incentive Program	Financial incentives, promotion and/or education to encourage residents to use electric bikes instead of commuting by car.	\$1,140

Appendix G: Alternative Project Lists  
**Alternative 3 – Santa Cruz County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-WAT-P19-WAT	Lump Sum Bicycle Projects	Update the City Bicycle Plan and construction of additional routes and paths (250k/yr).	\$3,125
SC-WAT-P36-WAT	Alley Improvements	Repair & reconstruct some alleys.	\$60
SC-WAT-P49-WAT	2nd/Maple Avenue (Lincoln to Walker) Traffic Calming and Greenway	Evaluate and if found necessary, add traffic calming/bicycle traffic priority with wayfinding signage to provide access to MBSST and create low stress grid around downtown.	\$25
SC-WAT-P50-WAT	5th Street (Lincoln to Walker) - Traffic Calming and Greenway	Evaluate and if found necessary, add traffic calming/bicycle traffic priority with wayfinding signage to provide access to MBSST and create low stress grid around downtown.	\$25
SC-WAT-P54-WAT	Main Street - 3 HAWK Signals	Evaluate and if found necessary, add Hawk signals in 3 locations on Main Street.	\$890
SC-WAT-P62-WAT	Freedom Boulevard Pedestrian Crossings (Airport to Lincoln)	Evaluate and if feasible, install new and improve existing uncontrolled pedestrian crossings at Roach Road, Davis Avenue, Clifford Lane, Mariposa Avenue, Alta Vista Street, Crestview Drive, Martinelli Street and Marin Street).	\$600
SC-WAT-P65-WAT	Upper Struve Slough Trail	Construction of 450 foot long pedestrian/bicycle path along upper Struve Slough from Green Valley Road to Pennsylvania Drive. The trail shall consist of a twelve-foot wide by one-foot-deep aggregate base section with the center eight feet covered with a chip seal. Additional improvements include installing a 130-length of modular concrete block retaining wall, reinforcing a 160-foot length of slough embankment with rock slope protection and installing a 175-foot long by eight-foot-wide boardwalk.	\$530
SC-WAT-P75-WAT	Complete Streets - Downtown	Provide complete streets improvements including sidewalk, parking, bike lane, sharrows, curb bulb outs, high visibility crosswalks, striping, signage, street trees, pedestrian lighting, bus shelters, bike parking and benches	\$5,000
SC-WAT-P76-WAT	Complete Streets - Watsonville Schools	Provide complete streets improvements including sidewalk, bike lane, sharrows, curb bulb outs, high visibility crosswalks, striping, signage and pedestrian lighting.	\$4,000
SC-WAT-P81-WAT	Lee Rd Trail	Prepare environmental documents and construction plans, secure permits	\$700
TRL 05aSC	MBSST - North Coast Rail Trail: Segment 5 Phase 1	Monterey Bay Sanctuary Scenic Trail Network (MBSST) - ph. 1 Wilder Ranch-Coast Dairies (5.4 mi)	\$13,500
TRL 05bSC	MBSST - North Coast Rail Trail: Segment 5 Phase 2	2.1 miles of Class 1, 8 to 12-foot-wide multi-use bicycle/pedestrian paved path with decomposed granite shoulders within the rail line right of way along the north coast of Santa Cruz County from Yellowbank Beach to Davenport. Project also includes Davenport crosswalk at Hwy 1/Ocean St and preliminary engineering and environmental compliance for parking lots at Yellowbank Beach and Davenport Beach and a path from the Bonny Doon parking lot to the rail trail.	\$8,700

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
TRL 07bSC	MBSST (Coastal Rail Trail): Segment 7-Phase 2 (Bay/California St to Pacific Ave/wharf)	Bicycle/pedestrian pathway adjacent to railroad tracks. MBSST Segment 7-phase 2	\$11,000
TRL 07cSC	MBSST (Coastal Rail Trail): Segment 7-Phase 3 (Natural Bridges to Shaffer Rd)	Bicycle/pedestrian multiuse path adjacent to railroad tracks from Natural Bridges to Shaffer Rd crossing Antonelli Pond. MBSST Segment 7-phase 3	\$200
TRL 10-11	MBSST Rail Trail: 17th Ave-Jade St Park & Monterey Ave to Aptos Crk Road	Bicycle/pedestrian pathway parallel to railroad tracks through sections of Live Oak, Capitola, and Aptos. Segments 10 & 11 of Monterey Bay Sanctuary Scenic Trail Network (MBSST)/Rail Trail.	\$66,000
TRL 18L	MBSST (Coastal Rail Trail): Lee Road-Ohlone Pkwy	Construction of pathway parallel to the railroad tracks: includes asphalt path, retaining walls, fencing, drainage, at grade RR crossings, and installation of pathway or sidewalk to link to the existing sidewalk at Lee Road.	\$3,260
TRL 18W	MBSST Rail Trail: Walker Street to City Slough Trail connection	Construction of 2400 ft pedestrian and bicycle path parallel to the existing railroad tracks and within the rail right-of-way. Also includes public outreach and training to improve bicycle and pedestrian safety.	\$2,000
TRL 8-9a	MBSST (Coastal Rail Trail - Segment 8 and 9)	Rail Trail design, environmental clearance and construction along the rail corridor between Pacific Avenue in the City of Santa Cruz to 17th Avenue in Santa Cruz County.	\$34,500

**Table 2 Highway Improvements**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CT-P48-CT	Hwy 17 Wildlife Crossing	Construct wildlife undercrossing north of Laurel Road (CT#1G260). 60-foot-long single span bridge will extend from the existing Laurel Road Sidehill Viaduct (Br. No. 36-0111) on the west side of Route 17 to the east. The final product will provide a 16-foot-wide natural soil bottom wildlife crossing under Route 17 with side slopes to the abutment faces. The wildlife under-crossing will slope downward to the west. A minimum vertical clearance of 10 feet will be provided.	\$5,155

**Table 3 Highway Operational, Maintenance and Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CT-P45-CT	State Highway Preservation (bridge, roadway, roadside)	Various SHOPP projects that address bridge preservation, roadway & roadside preservation and limited mobility improvements. (Constrained=30% of cost to maintain).	\$280,000
SC-CT-P46-CT	Collision Reduction & Emergency Projects	Various SHOPP projects that address collision reduction, mandates (including stormwater mandates) and emergency projects. (Constrained=30% of total cost).	\$285,569
SC-CT-P47-CT	Minors	Various small SHOPP projects (less than \$1 million) that reduce/enhance maintenance efforts by providing minor operational, pavement rehab, drainage, intersection, electrical upgrades, landscape and barrier improvements. (Constrained=30% of total cost).	\$2,000
SC-CT-P57-CT	Countywide Highway Rumble Strips and Restriping	Install both centerline and edge line rumble strips and restripe with thermoplastic stripe routes 9, 1, 17, 25, 129 and 156 in SCZ and SB counties.	\$4,761
SC-CT-P60-CT	Hwy 9 Upper Drainage and Erosion Control Improvements	Replace failed culverts systems and construct energy dissipaters.	\$12,557
SC-CT-P62-CT	Hwy 9 PM 1.0 and 4.0 Viaduct	Construct sidehill viaducts, restore roadway and facilities, provide erosion control.	\$18,231
SC-CT-P68-CT	Hwy 9 Hairpin Tieback at PM 19.97	Construct Soldier Tieback Retaining Wall near Boulder Creek about 1.1 mile south of Junction 236/9.	\$7,630
SC-CT-P70-CT	Hwy 17 Paving	Grind pavement and place Hot Mix Asphalt	\$8,563
SC-CT-P74-CT	Hwy 1 Capital Maintenance (SR 9 to north of Western Drive)	Preserve pavement and replace 87 ADA ramps as needed.	\$10,400
SC-CT-P76-CT	Hwy 9 Capital Maintenance (CapM)	(South of Mt Hermon Road to 0.6 mile north of Glenwood Drive).	\$26,400
SC-CT-P77-CT	Hwy 9 Capital Maintenance North	Preserve pavement, reconstruct guardrail, rehabilitate 6 drainage systems. (Saratoga Toll Rd in Boulder Creek to SR 35/county line)	\$9,200
SC-CT-P79-CT	Hwy 129 Capital Maintenance	Preserve pavement, rehabilitate 6 drainage systems. (Salsipuedes Creek to Old Chittenden Road)	\$12,500

**Table 4 Local Street and Road Operational, Maintenance and Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
CAP 11SC	Clares Street Traffic Calming: Phase I and II	Implementation of traffic calming measures: chicanes, center island median, new bus stop, and road edge landscape treatments to slow traffic. Construct new safe, accessible ped crossing at 42nd and 46th Avenue.	\$1,350
CO 64SC	Aptos Village Plan Improvements	Modifications for ped, bike, bus and auto traffic. Add pedestrian facilities and drainage infrastructure on both sides of Soquel Drive; improve bike lanes; new bike parking; new bus pullout and shelter on north side. Trout Gulch: Replace sidewalks with standard sidewalks on east side, ADA upgrades to west side sidewalks. Install traffic signals at Soquel Drive/Aptos Creek Road & Soquel/Trout Gulch. Left turn lanes on Soquel at new street - Parade Street and at Aptos Creek Road. RR crossing modifications - new crossing arms, concrete panels for vehicle and pedestrian crossings. New RR crossing at Parade Street. Phase 1: Trout Gulch Road improvements with traffic signal and upgraded railroad crossing at Soquel Dr. Pavement overlay of Soquel Dr (Spreckels to Trout Gulch) and a portion of Aptos Creek Road.	\$5,200
CO-P28i	Varni Road Improvements (Corralitos Road to Amesti Road)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$340
SC-CAP 19-CAP	Capitola Street Pavement Management	System preservation. Streets identified include 41st Avenue, Clares Street, Bay Avenue, Capitola Road and numerous residential streets including but not limited to 42nd, 47th, 48th, Fanmar, Diamond, and Ruby Court.	\$1,450
SC-CAP-P07-CAP	Bay Avenue/Hill Street Intersection	Intersection improvements to improve traffic flow. Roundabout.	\$210
SC-CAP-P07p-CAP	Stockton Avenue Bridge Rehab	Replace bridge with wider facility that includes standard bike lanes and sidewalks.	\$1,500
SC-CAP-P09-CAP	Park Avenue/Kennedy Drive Improvements	Construct intersection improvements, especially for bikes/peds. May include traffic signal.	\$360
SC-CAP-P27-CAP	Wheelchair Access Ramps	Install wheelchair access/curb cut ramps on sidewalks citywide.	\$200
SC-CAP-P28-CAP	Monterey Avenue at Depot Hill	Improve vehicle ingress and egress to Depot Hill along Escalona Avenue and improve pedestrian facilities.	\$260
SC-CAP-P30-CAP	47th Avenue Traffic Calming and Greenway	Traffic calming and traffic dispersion improvements along 47th Avenue from Capitola Road to Portola Drive and implementation of greenway, which gives priority to bicycles and pedestrians on low volume, low speed streets including, pedestrian facilities, way finding and pavement markings, bicycle treatments to connect to MBSST.	\$100
SC-CAP-P32-CAP	Bay Avenue/Monterey Avenue Intersection Modification	Multimodal improvements to the intersection. Include signalization or roundabout along with pedestrian, bicycle treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) and transit access.	\$310

Appendix G: Alternative Project Lists  
**Alternative 3 – Santa Cruz County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CAP-P34-CAP	Capitola Village Enhancements: Capitola Ave	Multimodal enhancements along Capitola Avenue.	\$350
SC-CAP-P37-CAP	41st Avenue/Capitola Road Intersection Improvements	Widen intersection and reconfigure signal phasing.	\$320
SC-CAP-P38-CAP	40th Avenue/Clares Street Intersection Improvements	Widen intersection and signalize.	\$500
SC-CAP-P40-CAP	46th/47th Avenue (Clares to Cliff Drive) Bike Lanes/Traffic Calming	46th/47th Avenue from Clares to Portola/Cliff Drive- Add traffic calming and wayfinding signage to connect to Brommer and MBSST.	\$20
SC-CAP-P41-CAP	Brommer/Jade/Topaz Street Bike Lanes/Traffic Calming (Western City Limit on Brommer to 47th Ave.)	Add buffered bike lanes, traffic calming and wayfinding signage and bike/ped priority crossing at 41st Avenue, connecting the two N/S neighborhood greenways.	\$20
SC-CAP-P55-CA	Porter Street and Highway 1 I/S Improvements	Add additional dedicated right turn lane on Porter Street to northbound on ramp.	\$250
SC-CO-P02-USC	Airport Boulevard Improvements (City limits to Green Valley Road)	Major rehab, addition of bike lanes, transit facilities, merge lanes, intersection improvements, sidewalks, drainage and landscaping.	\$1,240
SC-CO-P03-USC	Amesti Road Multimodal Improvements (Green Valley to Brown Valley Road)	Roadway rehab and reconstruction, left turn pockets at Green Valley Road, Pioneer Road/Varni Road. Add bike lanes, transit turnouts, sidewalks, merge lanes, landscaping and intersection improvements.	\$600
SC-CO-P04-USC	Bear Creek Road Improvements (Hwy 9 to Hwy 35)	Major rehab, add bike lanes, turnouts, merge lanes and intersection improvements. Some landscaping and drainage improvements also.	\$250
SC-CO-P08-USC	Corralitos Road Rehab and Improvements (Freedom Boulevard to Hames Road)	Major rehab, transit, bike and ped facilities. May also include drainage, merge lanes, landscaping and intersection improvements.	\$620
SC-CO-P09-USC	East Cliff Drive Improvements (32nd Avenue to Harbor)	Roadway rehab, add left turn pockets at 26th and 30th Avenue, fill gaps in bikeways and sidewalks, add transit turnouts, intersection improvements. Some landscaping and drainage improvements.	\$1,500
SC-CO-P10-USC	Empire Grade Improvements	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.	\$1,190
SC-CO-P11-USC	Freedom Blvd Multimodal Improvements (Bonita Dr to City of Watsonville)	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.	\$775

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CO-P12-USC	Graham Hill Road Multimodal Improvements (City of SC to Hwy 9)	Bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes, traffic signals. Major rehabilitation and maintenance. Drainage improvements. Signal upgrade at SR 9.	\$1,755
SC-CO-P13-USC	Green Valley Road Improvements	Add two-way left turn lanes from Mesa Verde to Pinto Lake on Green Valley Road. Also includes some road rehab and maintenance, bike lanes, sidewalks, transit facilities, landscaping and merge lanes.	\$1,030
SC-CO-P14-USC	La Madrona Drive Improvements (El Rancho Drive to City of Scotts Valley)	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.	\$905
SC-CO-P17-USC	Sims Road Improvements (Graham Hill Road to La Madrona Drive)	Road rehab and maintenance, drainage, intersection improvements, landscaping. Add bike, ped and transit facilities.	\$440
SC-CO-P18-USC	Soquel Avenue Improvements (City of SC to Gross Road)	Transit turnouts, two-way left turn lanes from Chanticleer to Mattison, merge lanes, signalization and intersection improvements. Signals at Chanticleer and Gross Road. Roadwork: major rehabilitation and maintenance, perhaps drainage improvements. Roadside: sidewalks, landscaping, and new transit facilities.	\$3,310
SC-CO-P20-USC	State Park Drive Improvements Phase 2	Transit turnouts, two-way left turn, merge lanes, intersection improvements, and fill gaps in bike and ped facilities including pedestrian crossing improvements, bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals). Plus, major rehabilitation and maintenance, drainage improvements, landscaping.	\$335
SC-CO-P22-USC	Paul Sweet Road Improvements (Soquel Dr to end)	Major road rehab and maintenance. Also adds bike lanes, sidewalks, landscaping. Drainage improvements, merge lanes and intersection improvements, and new transit facilities may also be needed.	\$310
SC-CO-P24-USC	Lockwood Lane Improvements (Graham Hill Road to SV limits)	Major road rehab, add bicycle lanes, sidewalks, some transit facilities, landscaping and intersection improvements.	\$243
SC-CO-P26a-USC	41st Avenue Improvements Phase 2 (Hwy 1 Interchange to Soquel Drive)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$340
SC-CO-P26b-USC	Beach Road Improvements (City limits to Pajaro Dunes)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$340
SC-CO-P26d-USC	Brown Valley Road Improvements (Corralitos Road to Redwood Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$340
SC-CO-P26e-USC	Buena Vista Road Improvements (San Andreas to Freedom Boulevard)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$825
SC-CO-P26g-USC	Cassery Road Improvements (Hwy 152 to Green Valley Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$208

Appendix G: Alternative Project Lists  
**Alternative 3 – Santa Cruz County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CO-P26h-USC	Center Avenue/Seacliff Drive Improvements (Broadway to Aptos Beach Drive)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$340
SC-CO-P26i-USC	Chanticleer Avenue Improvements (Hwy 1 to Soquel Drive)	Roadway and roadside improvements including bike lanes, sidewalks, drainage and intersection improvements.	\$340
SC-CO-P26j-USC	East Zayante Road Improvements (Lompico Road to just before Summit Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$485
SC-CO-P26k-USC	El Rancho Drive Improvements (Mt. Hermon/Hwy 17 to SC city limits)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$655
SC-CO-P26l-USC	Eureka Canyon Road Improvements (Hames Road to Buzzard Lagoon Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$655
SC-CO-P26m-USC	Glen Canyon Road Improvements (Branciforte Drive to City of Scotts Valley)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$1,640
SC-CO-P26n-USC	Glenwood Drive Improvements (Scotts Valley city limits to State Hwy 17)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$825
SC-CO-P26p-USC	Mattison Lane Improvements (Chanticleer Avenue to Soquel Avenue)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$400
SC-CO-P26q-USC	Mt. Hermon Road Improvements (Lockhart Gulch to Graham Hill Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$825
SC-CO-P26r-USC	Porter Street Improvements (Soquel Drive to Paper Mill Road)	Roadway and roadside improvements including buffered sidewalks and bicycle treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) to address speed inconsistency between bicyclists and vehicles, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$340
SC-CO-P26s-USC	Seascape Boulevard Improvements (Summer Avenue to San Andreas Road)	Roadway improvements and pavement rehabilitation.	\$170
SC-CO-P26u-USC	Summit Road Improvements	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$1,530

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-CO-P27a-USC	37th/38th Avenue (Brommer to East Cliff) Multimodal Circulation Improvements and Greenway	Evaluate and if feasible improve vehicle and transit access on 38th Avenue from East Cliff to Brommer and develop greenway on 37th Avenue from East Cliff to Portola. Roadway improvements may include roadway and roadside improvements including sidewalks, bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals), transit turnouts, left turn pockets and intersection improvement.	\$570
SC-CO-P27c-USC	Corcoran Avenue Improvements (Alice Street to Felt Street)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$150
SC-CO-P27e-USC	Main Street Improvements (Porter Street to Cherryvale Avenue)	Roadway and roadside improvements on Major Collector including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$1,760
SC-CO-P27f-USC	Mill Street Improvements (entire length)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$360
SC-CO-P27h-USC	Paulsen Road Improvements (Green Valley Road to Whiting Road)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$240
SC-CO-P27i-USC	Pinehurst Dr Improvements (entire length)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$180
SC-CO-P27k-USC	Spreckels Drive Improvements (Soquel Drive to Aptos Beach Drive)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$340
SC-CO-P27l-USC	Winkle Avenue Improvements (entire length from Soquel Drive)	Roadway and roadside improvements on various Major Collectors including bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvement.	\$655
SC-CO-P28a-USC	Bean Creek Road Improvements (Scotts Valley City Limits to Glenwood Drive)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$485
SC-CO-P28c-USC	Commercial Way Improvements (Mission Drive to Soquel Drive)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$170
SC-CO-P28d-USC	Felton Empire Road Improvements (entire length to State Hwy 9)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$655
SC-CO-P28f-USC	Pine Flat Road Improvements (Bonny Doon Road to Empire Grade Road)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$655

Appendix G: Alternative Project Lists  
**Alternative 3 – Santa Cruz County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CO-P28g-USC	Soquel-Wharf Road Improvements (Robertson Street to Porter Street)	Roadway and roadside improvements on various Minor Arterials including addition of bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals), transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$515
SC-CO-P28h-USC	Thurber Lane Improvements (entire length)	Roadway and roadside improvements on various Minor Arterials including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$485
SC-CO-P29e-USC	Maciel Avenue Improvements (Capitola Road to Mattison Lane)	Improvements of roadways and roadsides on various Minor Collectors including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$400
SC-CO-P29f-USC	Paul Minnie Avenue Improvements (Rodriguez Street to Soquel Avenue)	Improvements of roadways and roadsides on various Minor Collectors including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$340
SC-CO-P30d-USC	Cabrillo College Drive Improvements (Park Avenue to Twin Lakes Church)	Improvements of roadways and roadsides on various Major Arterials 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.	\$240
SC-CO-P30n-USC	Rio Del Mar Boulevard Improvements (Esplanade to Soquel Drive)	Improvements of roadways and roadsides on various Major Arterials including addition of bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road and roadsides.	\$725
SC-CO-P31g-USC	Opal Cliff Drive Improvements (41st Avenue to Capitola City Limits)	Roadway, roadside and intersection improvements including sidewalks, bike treatments (such as buffered and/or painted bike lanes), designed to accommodate the number of users and link to East Cliff Drive.	\$290
SC-CO-P33d-USC	Harper St Improvements (entire length- El Dorado Ave to ECM)	Roadway and roadside improvements on various Minor Collectors including addition of bike lanes, transit turnouts, left turn pockets, merge lanes and intersection improvements. Roadwork includes major rehabilitation and maintenance of the road.	\$310
SC-CO-P36-USC	Soquel-San Jose Road Improvements (Paper Mill Road to Summit Road)	Roadway and roadside improvements including bike lanes, sidewalks, transit turnouts, left turn pockets, merge lanes and intersection improvements.	\$580
SC-CO-P37-USC	Countywide ADA Access Ramps	Construction of handicapped access ramps countywide.	\$620
SC-CO-P62-USC	Soquel Dr Road Improvements (Robertson St to Daubenbiss)	Roadway and roadside improvements including curb, gutter, sidewalk, bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals), left turn lanes, intersection improvements and roadway rehabilitation.	\$410

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-CO-P83-USC	San Lorenzo Way Bridge Replacement Project	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.	\$3,190
SC-CO-P85-USC	Green Valley Rd Bridge Replacement Project	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.	\$2,110
SC-CO-P88-USC	Either Way Ln Bridge Replacement Project	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.	\$2,180
SC-CO-P90-USC	Fern Dr @ San Lorenzo River Bridge Replacement Project	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.	\$2,830
SC-SC-48-SCR	Ocean Street Pavement Rehabilitation	Pavement rehabilitation using cold-in-place recycling process; includes new curb ramps, restriping of bicycle lanes and crosswalks.	\$1,030
SC-SC-P100-SCR	Seabright/Murray Traffic Signal Modifications	Remove split phasing on Seabright and add right-turn lane northbound.	\$1,030
SC-SC-P101-SCR	Swift/Delaware Intersection Roundabout or Traffic Signal	Install Traffic Signal or Roundabout at Intersection to improve capacity and safety.	\$500
SC-SC-P104-SCR	Measure H Road Projects	Road rehabilitation and reconstruction projects citywide to address backlog of needs using Measure H sales tax revenues. (Some Measure H funds anticipated to fund specific projects listed in the RTP).	\$41,800
SC-SC-P129-SCR	Downtown Intersection Improvements	Modify Front/Soquel, Front/Laurel and Pacific/Front Intersections stemming from additional residential and commercial development in the Downtown.	\$300
SC-SC-P13-SCR	Riverside Avenue/Second Street Intersection Modification.	Modify intersection to reduce congestion and improve pedestrian crossing.	\$175
SC-SC-P77-SCR	Bay Street Corridor Modifications	Intersection modifications on Bay Street Corridor from Mission Street to Escalona Drive, including widening at the Mission Street northeast corner and widening on Bay. Improve bike lanes and add sidewalks to west side of Bay.	\$970
SC-SC-P83-SCR	West Cliff/Bay Street Modifications	Install signal or roundabout to replace the all-way stop to improve safety and capacity.	\$500
SC-SC-P86-SCR	Ocean Street Streetscape and Intersection, Plymouth to Water	Implement this phase of the Ocean Street plan and modify Plymouth Street to provide separate turn lanes and through lanes, widen sidewalks, pedestrian islands/bulbouts, transit improvements, street trees, street lighting and medians landscaping improvements. This includes pedestrian and bicycle crossing improvements and detection and connectivity to the pedestrian and bicycle path on the San Lorenzo River and adjacent neighborhoods. Include Gateway treatment.	\$2,000

Appendix G: Alternative Project Lists  
**Alternative 3 – Santa Cruz County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-SC-P90-SCR	High Street/Moore Street Intersection Modification	Add a protected left turn to existing signalized intersection along High Street at city arterial. Project is located in high pedestrian and bicycle use activity area.	\$100
SC-SC-P91-SCR	Shaffer Road Widening and Railroad Crossing	Construction of a new crossing of the Railroad line at Shaffer Road and widening at the southern leg of Shaffer in conjunction with development. Complete sidewalks and bike lanes.	\$1,000
SC-SC-P93-SCR	Beach/Cliff Intersection Signalization	Signalize intersection for pedestrian and train safety.	\$210
SC-SC-P96-SCR	Bay/California Traffic Signals	Install traffic signals and roundabouts for safety and capacity improvements.	\$100
SC-SV-P06-SCV	Citywide Access Ramps	Place handicap ramps at various locations. Avg annual cost: \$8K/yr.	\$210
SC-SV-P28-SCV	Neighborhood Traffic Calming	Citywide traffic calming devices.	\$770
SC-SV-P47-SCV	Mt Hermon/Scotts Valley Drive - Transit Queue Jump	Evaluate and if found to be beneficial, remove right turn islands at Mt Hermon Road/Scotts Valley Drive to add transit queue jump lanes/signals.	\$620
SC-SV-P51-SCV	Mt. Hermon Road/Town Center Entrance Traffic Signal	Install new traffic signal at the intersection of the future Town Center road that will accommodate increased pedestrian travel. Add a right-turn lane on the westbound approach. New signalization of the intersection at the future Town Center's primary access point on Mt. Hermon Road would provide protected pedestrian crossing, ADA accessible curb ramps and detectable surfaces on all intersection corners. Permitted left-turn phasing shall be used for the northbound and southbound approaches, while protected left-turn phasing shall be provided on the eastbound and westbound Mt. Hermon Road approaches.	\$130
SC-SV-P52-SCV	Kings Village Road/Town Center Entrance Traffic Signal	Install new traffic signal at the intersection of Kings Village Road and new Town Center entrance (near transit center) with protected pedestrian crossings and transit signal priority. New Signalization of the intersection on Kings Village Road at the transit center exit and future Plan street connection would provide a location for protected pedestrian crossings, and would allow transit operators to easily exit the transit center and maintain operating schedules.	\$105
SC-UC-P59-UC	UCSC Lump Sum Roadway Maintenance	Repaving and rehabilitation of roadways on UCSC campus to maintain existing network.	\$2,275
SC-VAR-P13-VAR	Lump Sum Emergency Response Local Roads	Lump sum for repair of local roads damaged in emergency. (Based on average ER/FEMA/CalEMA funds, storm damage, fire, etc. Costs of repairs assumed under lump sum maintenance and operations within local jurisdiction listings.)	\$240,000
SC-VAR-P14-VAR	Lump Sum Bridge Preservation	Painting, Barrier Rail Replacement, Low Water Crossing, Rehab, and Replacement bridges for SHOPP and Highway Bridge Program (HBP).	\$100,000

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-WAT-45-WAT	Freedom Blvd Reconstruction (Alta Vista to Green Valley)	Remove and replace non-ADA compliant driveways and curb ramps, install high visibility crosswalks, provide sharrows and bicycle signage, upgrade existing bus stop shelter, install new traffic signal at Sydney Ave with pedestrian signal heads, pedestrian actuated traffic signals, audible countdown, pedestrian-level lighting and illumination at crosswalks and reconstruct roadway.	\$2,175
SC-WAT-46-WAT	Watsonville Road Maintenance (Various Locations)	Place three-layer coating system on road surface	\$2,505
SC-WAT-O1A-WAT	Hwy 1/Harkins Slough Road Interchange: Bicycle/Pedestrian Bridge	Construction of Pedestrian/Bicycle Bridge over Highway 1. Caltrans Project ID 05-1G490	\$15,800
SC-WAT-P13-WAT	Neighborhood Traffic Plan Implementation	Address concerns about traffic complaints through Education, Enforcement, and Engineering solutions. Install traffic calming devices that do not impede bicyclist access (\$20k/yr).	\$470
SC-WAT-P35-WAT	Bridge Maintenance	Maintenance of bridges.	\$115
SC-WAT-P45-WAT	Green Valley Rd Improvement (Freedom Blvd to City Limit)	Reconstruct existing roadway, install a median island to encourage safer turning movements, remove and replace existing driveways and curb ramps that do not comply with existing accessibility standards, restripe roadway to provide striping for bike lanes where none exist.	\$2,000
SC-WAT-P47-WAT	Main Street Modifications (City Limit to Lake Avenue)	Repave roadway and bike lanes; repair, replace and install curb, gutter, sidewalk and curb ramps; replace and upgrade signage and striping. Evaluate and if feasible, provide bike treatments (such as buffered and/or painted bike lanes, bike boxes, bike signals) and buffered sidewalks.	\$1,670
SC-WAT-P72-WAT	Freedom Boulevard (Green Valley Road to Airport Blvd)	Repair and resurface damaged roadway and bike lanes, replace damaged sidewalks, add pedestrian facilities where none exist.	\$2,650
SC-WAT-P77-WAT	Elm St. Improvements Project	Road reconstruction and sidewalk improvements	\$350
SC-WAT-P79-WAT	Harkins Slough Rd Pedestrian & Bicycle Bridge	Install pedestrian & bicycle bridge, pedestrian path, sidewalk, striping and signage	\$90
SC-WAT-P86-WAT	Main Street Traffic Study	Conduct traffic study on Main Street between Freedom Blvd and Riverside Dr to determine the feasibility of a lane reduction/road diet. Determine possible impacts on adjacent streets and any necessary improvements. Study shall be coordinated with 2019 Downtown Watsonville Complete Streets and 2020 Downtown Specific Plan.	\$25
SC-WAT-P87-WAT	Airport Blvd/Holm Road Signal Installation	Install traffic signal	\$460
SC-WAT-P88-WAT	Airport Blvd Pavement Reconstruction	Reconstruct roadway	\$575
SC-WAT-P89-WAT	West Beach St/Ohlone Pkwy Signal	Install traffic signal	\$130

**Table 5 Other Projects**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
CO 36SC	State Park Drive/Seacliff Village Improvements	Construct sidewalks, bike lanes, bus turnouts, central plaza, street lighting, EV charging station, parking, landscaping, drainage and roadway overlay in Seacliff core area- consistent with the Seacliff Village Plan adopted by the BOS in 2003.	\$3,060
RTC 04SC	Planning, Programming & Monitoring (PPM) - SB 45	Development and amendments to state and federally mandated planning and programming documents, monitoring of programmed projects. Avg annual cost: \$250k/yr.	\$5,000
SC-AIR-P01-WAT	Lump Sum Watsonville Airport Capital Projects	Projects from the Watsonville Airport Capital Improvement Program. Includes new hangers, reconstruction of aviation apron, security feature and runway extensions.	\$27,000
SC-AIR-P02-WAT	Watsonville Municipal Airport Operations	Ongoing operations/maintenance. Average \$2M/year.	\$49,925
SC-CAP-P53-CAP	Capitola Road & 45th Avenue I/S Improvements	Signalization or other LOS improvements.	\$400
SC-CAP-P54-CAP	Wharf Road and Stockton Avenue I/S Improvements	Signalization or other LOS improvements.	\$350
SC-CAP-P57-CAP	Stockton Avenue and Capitola Avenue I/S Improvements	Signalization or other LOS improvements.	\$500
SC-CO-P96-USC	Capital improvement projects consistent with the Sustainable Santa Cruz County Plan	Construct associated multi-modal infrastructure improvements associated with the Sustainable Santa Cruz County Plan	\$7,000
SC-CT-P09e-CT	Hwy 9 SLV Corridor Projects	May be implemented by Caltrans or County of SC, in partnership with others. Implementation of priorities identified in the Complete Streets Corridor Plan. Includes improvements to increase safety and discourage speeding, updated and expanded bicycle and pedestrian facilities including shoulder widening, auto turn lanes and other auto circulation improvements, and transit improvements in SLV. SLV Complete Streets PID development efforts underway; some may be integrated into SHOPP projects. Capital Cost Est. TBD - preliminary estimate \$100-150 million. \$10M Measure D. Some bike/ped elements also shown in CO-P46a/b.	\$30,000
SC-CT-P50-CT	Hwy 17 Access Management - Multimodal Improvements	Multimodal improvements including park and ride improvements and facilities serving separated bike/ped crossing or express transit route.	\$5,000
SC-CT-P67-CT	Hwy 236 Hazardous Tree Removal	Remove hazardous trees and fire debris near Boulder Creek, from Forest Drive to 2.2 miles south of Route 9. (EA#1M790)	\$15,625
SC-CT-P75-CT	Hwy 1 Long Toed Salamander Mitigation	Long Toed Salamander mitigation partnering (Main St interchange in Watsonville to north of Larkin Valley Rd interchange)	\$2,800

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-RTC 03a-RTC	Rail Line Repairs and Bridge Rehabilitation	Infrastructure preservation for current uses and future transportation purposes. Includes railroad bridge rehabilitation and 2017 storm damage repairs.	\$5,800
SC-RTC 03b-RTC	Rail Line: Track Infrastructure, Signage, Maintenance and Repairs	Ongoing operating, maintenance, repair, rehabilitation, and oversight of railroad track infrastructure and signage (~\$175k/year)	\$4,375
SC-RTC 03d-RTC	Railroad Bridge Inspections & Analysis	Railroad Bridges are required to be inspected and load rated every 540 days per Federal Railroad Administration (FRA) requirements	\$6,250
SC-RTC-P07-RTC	SCCRTC Administration (TDA)	SCCRTC as Regional Transportation Planning Agency for Santa Cruz County distributes Transportation Development Act Local Transportation Funds and State Assistance Funds for planning, transit, bicycle facilities and programs, pedestrian facilities and programs and specialized transportation in accordance with state law and the unmet transit needs process. Average annual cost: \$650K/yr.	\$16,250
SC-RTC-P08-RTC	SCCRTC Planning	SCCRTC Planning Tasks. Includes public outreach, long and short-range planning, interagency coordination. Avg annual cost: \$625k/yr.	\$15,625
SC-RTC-P25-VAR	Transit Oriented Development Grant Program	Smart growth grant program to fund TODs that encourage land use and transportation system coordination. May include joint childcare/PNR/transit centers.	\$2,570
SC-RTC-P50-RTC	Countywide Bicycle, Pedestrian and Vehicle Occupancy Counts	Conduct counts to assess mode split over time and assess impact of new facilities.	\$330
SC-RTC-P51-RTC	Performance Monitoring	Transportation data collection and compilation to monitor performance of transportation system to advance goals/targets. Includes travel surveys of commuters, Transportation Demand Management plan, a low-stress bicycle network plan and parking standards plan.	\$220
SC-RTC-P59-RTC	Measure D Administration and Implementation	SCCRTC administration, implementation and oversight of Measure D and the revenues generated from the 2016 Santa Cruz County Transportation Sales Tax - Measure D. Costs include annual independent fiscal audits, reports to the public, preparation and implementation of state-mandated reports, oversight committee, preparation of implementation, funding and financing plans, and other responsibilities as may be necessary to administer, implement and oversee the Ordinance and the Expenditure Plan.	\$14,375
SC-VAR-P07-VAR	Transportation System Electrification	Partnership with local gov't agencies, electric vehicle manufactures, businesses, and Ecology Action to establish electric vehicle charging stations for EV's, plug-in hybrids, NEV's, as well as e-bikes and e-scooters. Work with manufacturers on developing advanced electric vehicles and educating the public regarding the ease of use and benefits of electric vehicles.	\$51,650
SC-VAR-P25-VAR	Planning for Transit Oriented Development for Seniors	Evaluate opportunities for Transit Oriented Development serving seniors including access to medical facilities.	\$80

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-VAR-P30-VAR	Public/Private Partnership Transit Stops and Pull Outs Plan	Develop model for assisting local jurisdictions in working with businesses to install transit pullouts and shelters on property in areas identified as high-quality transit corridors in Sustainable Communities Strategy.	\$150
SC-VAR-P36-VAR	Safety Plan	Develop a safety plan that addresses traffic related injuries and fatalities for all modes of transportation.	\$310
SC-VAR-P38-VAR	Environmental Mitigation Program	Allocate funds to protect, preserve, and restore native habitat that construction of transportation projects listed in SCCRTC's RTP could potentially impact. EMP funds will be for uses such as, but not limited to, purchasing land prior to project development to bank for future mitigation needs, funding habitat improvements in advance of project development to leverage and enhance investments by partner agencies.	\$5,680
SC-WAT-P04-WAT	Neighborhood Traffic Plan	Plan to identify and address concerns regarding speeding, bicycle and pedestrian access and safety, and other neighborhood traffic issues (\$5k/yr).	\$115
SC-WAT-P80-WAT	Lake Avenue Underground Utilities	Underground existing overhead utilities.	\$2,400
WAT 43SC	Freedom Boulevard Plan Line	Preparation of a plan line for Freedom Boulevard between Green Valley Road and Buena Vista Drive that delineates multimodal modifications supported by the community.	\$160

**Table 6 Transportation Demand Management**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
RTC 17SC	Ecology Action Transportation Employer Membership Program	Community organization that promotes alternative commute choices. Work with employers, incentives for travelers to get out of SOVs including: emergency ride home, interest-free bike loans, discounted bus passes. Avg cost: \$90K/yr. Coordinates with Bike to Work program.	\$1,125
SC-CO 50-USC	Santa Cruz County Health Service Agency - Traffic Safety Education	Ongoing education program to decrease the risk and severity of collisions. Includes bicycle and pedestrian programs: Community Traffic Safety Coalition, South County coalition and Ride n' Stride Bicycle/Pedestrian Education Program.	\$2,500
SC-EA-03a-USC	Bike Challenge +	Online tracking and encouragement platform to encourage and reward people to bike commute more often. Twice-a-year monthly bike challenge, year-round encouragement tools, bike commuter workshops, marketing, group rides, and data/survey collection.	\$181

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AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-RTC 02a-RTC	Cruz511 TDM and Traveler Information	Transportation demand management including centralized traveler information system and ride matching services. Outreach, education and incentives; multimodal traveler information system on traffic conditions, incidents, road and lane closures; ride matching service for carpools, vanpools, and bicyclists; services and information about availability and benefits of all transportation modes, including sharing rides, transit, walking, bicycling, telecommuting, alternative work schedules, alternative fuel vehicles, and park-n-ride lots. Avg annual cost: \$315k.	\$4,334
SC-RTC-15-RTC	Vanpool Incentive Program	Assist in start up and retention of vanpools. Includes financial incentives: new rider subsidies, driver bonuses, and empty seat subsidies. Also may include installation of wifi on vans. Avg Annual Cost: \$25k/yr.	\$100
SC-RTC-26-OTH	Bike To Work/School Program	Countywide education, promotion, and incentive program to actively encourage bicycle commuting and biking to school. Coordinates efforts with local businesses, schools, and community organizations to promote bicycling on a regular basis. Provides referrals to community resources. Avg annual cost: \$140K/yr-includes in-kind donations and staff time.	\$1,870
SC-RTC-33-VAR	Cabrillo College TDM Programs	Provide students and employees at all four Cabrillo College campuses with education, promotion, and incentives that support the use of sustainable transportation modes. Develop information, programs and services customized to meet the transportation needs of the Cabrillo College community. 'Provide Sustainable Transportation education, promotion, and Go Green program enrollment to Cabrillo College students and employees. Partner with Cabrillo staff and students to reduce SOV trips to the Aptos, Watsonville and Scotts Valley campuses. Provided targeted information and services to Cabrillo members.	\$890
SC-RTC-P48-VAR	Climate Action Transportation Programs	Projects that reduce greenhouse gas emissions through reducing vehicle trips and vehicle miles traveled, increasing fuel efficiency and expanding use of alternatively fueled vehicles. Includes comprehensive outreach and education campaigns, a countywide emergency ride home for those using alternatives, and TDM incentive programs: \$100k/year.	\$2,330
SC-RTC-P49-RTC	RTC Bikeway Map	Bikeway Map and update GIS files as needed.	\$320
SC-RTC-P53-VAR	TDM Individualized Employer/Multiunit Housing Program	Implement individualized employer and multiunit housing TDM programs with incentives for existing development.	\$2,325
SC-RTC-P54-RTC	School-Based Mobility/TDM Programs	Student transportation programs aimed at improving health and wellbeing, transportation safety and sustainability and that facilitate mode shift from driving alone in a motor vehicle to active and group transportation.	\$1,150
SC-UC-P61-UC	Traveler Safety Education/Information Programs	Bike/pedestrian safety programs; light and helmet giveaways, safety classes, distracted driver programs, bus etiquette program	\$100
SC-UC-P63-UC	UCSC Vanpool Program	Maintain, operate and expand upon UCSC vanpool program.	\$9,863

Appendix G: Alternative Project Lists  
**Alternative 3 – Santa Cruz County**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-UC-P68-UC	Parking Management Technology Improvements	Updating existing parking management technologies to allow for more effective management.	\$410
SC-UC-P69-UC	UCSC Commute Counseling Program	Staffing, program development to individually market to UCSC affiliates on more sustainable means of travel to campus.	\$3,100
SC-UC-P70-UC	UCSC Commuter Incentive Programs	Provide ongoing support and development of new programs to encourage travel to campus via sustainable modes of travel.	\$1,750
SC-UC-P73-UC	UCSC Parking Operations & Maintenance	Operate and administer the parking operations for UCSC including planning, TDM, marketing and debt service.	\$80,000
SC-VAR-02-VAR	Project PASEO - Open Streets, Earn-a-Bike, Pop Up Bike Lanes, Slow Streets	Slow Streets temporary barricades and signage on neighborhood streets aimed at increasing space for walking and biking, reducing speeds and cut through traffic. Open Streets community events temporarily open roadways to bicycle and pedestrian travel only, diverting automobiles to other roadways. Earn-a-bike program provides bikes, tools, safety supplies, as well as bike repair, cycling safety, and nutrition education middle school students. Pop-up bike lanes is a temp demo of a protected bicycle lane. Open Streets: Santa Cruz, Watsonville, +; Earn-a-bike: middle schools; Pop-up Bike Lanes: Live Oak & Watsonville; Slow Streets: Unincorporated	\$50
SC-VAR-P06-VAR	Carsharing Program	Program to assist people in sharing a vehicle for occasional use. Implementing Agency TBD, varies.	\$1,470
SC-VAR-P17-VAR	Eco-Tourism - Sustainable Transportation	Provide sustainable transportation information, incentives and promotions to the estimated one million visitors to Santa Cruz County. Work with the Santa Cruz County Conference and Visitors Council, local lodgings, and tourist attractions.	\$515
SC-VAR-P18-VAR	Mission Street/Hwy 1 Bike/Truck Safety Campaign	Partnership with road safety shareholders including Caltrans, UCSC, City of Santa Cruz, Ecology Action, trucking companies and others to improve bike/truck safety along the Mission Street corridor. Provide safety presentations, videos, brochures, safety equipment, etc.	\$520
SC-VAR-P19-VAR	School Safety Programs	Bicycle and walking safety education and encouragement programs targeting K-12 schools in Santa Cruz County including Ecology Action's Safe Routes to School and Bike Smart programs. Provide classroom and on the bike safety training in an age-appropriate method. Provide a variety of bicycle, walking, busing and carpooling encouragement projects ranging from bike to school events, to incentive driven tracking, and educational support activities. Est. annual cost \$150k.	\$1,910
SC-VAR-P20-VAR	Public Transit Marketing	Initiatives that increase public transit ridership including discount passes, free fare days, commuter clubs, and promotional and marketing campaigns.	\$775
SC-VAR-P24-VAR	Countywide Senior Driving Training	Coordinate and enhance current programs that help maturing drivers maintain their driving skills and provides transitional info about driving alternatives. (Current programs are run by AARP and CHP.)	\$90

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-VAR-P26-VAR	Park and Ride Lot Development	Upgrade and maintain existing park and ride lots for commuters countywide. Secure additional park and ride lot spaces for motorized vehicles and bicycles. Long range plan: identify, purchase land, construct Park & Ride lots.	\$3,100
SC-VAR-P37-VAR	Transportation Demand Management Plan	Collaborate with other organizations to develop a coordinated plan for transportation demand management program implementation for Santa Cruz County.	\$310
SC-VAR-P40-VAR	Santa Cruz County Open Streets	Community events promoting alternatives to driving alone as part of a sustainable, healthy, and active lifestyle. Temporarily opens roadways to bicycle and pedestrian travel only, diverting automobiles to other roadways. (Average cost ~ \$25k/event)	\$250

**Table 7 Transit ADA**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-CTSA-P01-OTH	Countywide Specialized Transportation	Non-ADA mandated paratransit and other specialized transportation service for seniors and people with disabilities. Includes medical service rides, Elderday, out-of-county rides, Sr. Meal Site, Taxi Script, and same day rides etc. Current avg annual need \$2.58M. Constrained=\$2M.	\$45,500
SC-CTSA-P02-OTH	Lift Line Maintenance/Operations Center	Construct a permanent maintenance center/consolidated operations facility for paratransit program (currently Lift Line).	\$15,500
SC-MTD-02-MTD	ADA Paratransit Vehicle Replacements	Replace buses/vans for ADA paratransit fleet (including Accessible Taxi program).	\$5,250
SC-MTD-P10C-MTD	ADA Paratransit Service - Continuation of Existing Service	Operation & maintenance cost of existing Paratransit service. Avg Annual Cost: \$6.5M.	\$162,500
SC-MTD-P19-MTD	Transit Mobility Training Program Expansion	Expand public outreach and training to encourage fixed route, rather than Paratransit, use. Outreach may also involve other partners (ex. DMV, doctors, senior centers, etc). Avg annual cost: \$80K/yr.	\$2,000
SC-MTD-P28-MTD	ParaCruz Operating Facility	Design, Right-of-Way and construction for new ParaCruz Operating Facility.	\$12,400
SC-MTD-P30-MTD	ParaCruz Mobile Data Terminals/Radios	Replace mobile data terminals in vehicles.	\$400
SC-MTD-P51-MTD	ADA Access Improvements	Add or improve ADA accessibility to all bus stops and METRO facilities.	\$350
SC-RTC-P43-OTH	Senior Employment Ride Reimbursement	Reimburse low income seniors for transit expenses to/from employer sites.	\$1,600
SC-VAR-P48-VAR	On-Demand Wheelchair Accessible Vehicle Program	TNC Access for All Program to implement SB1376 (Hill: 2018) which directed the CPUC to establish a program relating to accessibility of on-demand transportation services for persons with disabilities, including wheelchair users who need a wheelchair accessible vehicle (WAV), to be funded in-part by Transportation Network Companies (e.g., Lyft/Uber) that do not have WAV fleet. [constrained reflects CPUC forecasted funds=\$60k/yr]	\$1,500

**Table 8 Transit Improvements**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
SC-MTD-P12-MTD	Hwy 17 Express Service Restoration and Expansion	Restore Hwy 17 Express service to FY16 levels, then expand service 2% annually. Restore \$353K/yr operating plus 2% annually plus capital costs (2 buses)	\$12,650
SC-MTD-P14-MTD	Local Transit Service Restoration and Expansion	Restore local service to FY16 levels, then expand service 2% annually. Restore \$7.0M/yr operating plus 2% annually plus capital costs (16 buses)	\$98,800
SC-MTD-P15-MTD	Bus Rapid Transit	Transit signal priority, queue jumps, and enhanced stations to speed up major cross-county trunk routes.	\$36,500
SC-RTC-P02-RTC	Public Transit on Watsonville-Santa Cruz Rail Corridor	Design, construction, and operation of public transit between Santa Cruz and Watsonville in the rail corridor. May be a joint project with the SCCRTC, SCMTD, and local jurisdictions. Annual op cost est: \$25M/yr; Capital: \$475M (Total cost reflects 2021 TCAA est. for rail). Pending final outcome of Transit Corridor Alternatives Analysis and environmental review. Cost shown includes 15 years of service during RTP period; Constrained=environmental/prelim. design assessment of possible future public transit system in the rail corridor right-of-way.	\$850,000
SC-RTC-P60-RTC	Regional State Transit Assistance Projects	State Transit Assistance (STA) eligible transit projects	\$33,220
SC-UC-P23-UC	Transit Vehicles (ongoing)	Ongoing capital acquisition of transit vehicles for on-campus transit and University shuttles.	\$5,875
SC-VAR-P45-VAR	West Side Transit Hub	Transfer node near rail corridor at Natural Bridges Dr - may include transit, rideshare, bicycle, bikeshare, pedestrian to provide regional connections to/from other parts of the county and the university.	\$580
SC-VAR-P46-VAR	Live Oak Transit Hub	Transfer node near rail corridor at 17th Avenue - may include transit, rideshare, bicycle, bikeshare, pedestrian to provide regional connections to/from other parts of the county.	\$530
SC-VAR-P47-VAR	Watsonville Transit Hub	Expand transportation mode options at transfer node near rail corridor and current transit center to increase use of transit, rideshare, bicycle, bikeshare, pedestrian to provide regional connections to/from other parts of the county.	\$585

**Table 9 Transit Operations**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-MTD-P10B-MTD	Hwy 17 Express Service - Continuation of Baseline Service Levels	Operation & maintenance cost of existing Highway 17 Express bus service. Avg annual cost: \$5.3M.	\$132,500
SC-MTD-P10-MTD	Local Transit - Continuation of Baseline Service Levels 2020-2045	Operation & maintenance cost of existing local fixed route bus service. Avg annual cost: \$42.1M.	\$1,077,500
SC-RTC-P58-RTC	Real-Time Transit Info	Develop and maintain system for disseminating real time transit arrival and departure information to Santa Cruz Metro users. To be developed in coordination with Santa Cruz Metro.	\$220
SC-UC-P74-UC	UCSC Transit Service	Operate the on campus shuttle service and Night Owl (\$3.01m/year).	\$77,750
SC-UC-P75-UC	Disability Van Service	Operate disability van service (\$240k/yr).	\$6,250
SC-VC-P1-OTH	Volunteer Center Transportation Program	Program providing specialized transportation to seniors and people with disabilities. Constrained = existing TDA allocations.	\$1,640
SC-VAR-P43-VAR	Transit Service to San Jose Airport	Provide transit service to San Jose airport from Santa Cruz. Current average annual need \$0.5 M	\$11,000

**Table 10 Transit Rehabilitation**

AMBAG ID	Project	Project Description	Total Cost (\$ 000s)
MTD 18SC	Account-Based Electronic Fare Collection System	Account-based electronic fare collection system including the ability to use a variety of fare media including smart cards, mobile tickets on smartphones, contactless credit and debit cards, Google Pay and Apple Pay. Replacement of fareboxes at the end of useful life for cash acceptance onboard. Replacement Transit Fareboxes, Ticket Vending Machines or Retail Vendor Network.	\$2,250
SC-MTD-13-MTD	Santa Cruz Metro Center/Pacific Station Renovation	Renovate Pacific Station or construct new transit center in alternate location as part of development partnership with the City of Santa Cruz.	\$10,000
SC-MTD-P04-MTD	Bus Replacements	Replace fleet at the end of normal bus lifetime (approximately every 12 years; \$700 each for local fixed route; \$900k each for Hwy 17 Over the Road coaches). \$1.25M for ZEB	\$67,200
SC-MTD-P27-MTD	Hwy 1 Express Buses	Hwy 1 express bus replacements - 6 Buses. Replace every 12 years.	\$11,700
SC-MTD-P31-MTD	Bus Rebuild and Maintenance	Rebuild engines; Fleet maintenance equipment. Avg. cost is ~\$250k/bus, increases useful life up to 8 years at 40% of the cost of new buses.	\$6,000
SC-MTD-P32-MTD	Non-Revenue Vehicle Replacement	Replace support vehicles.	\$1,000
SC-MTD-P36-MTD	Metro Facilities Repair/Upgrades	Maintain and upgrade facilities.	\$4,300
SC-MTD-P52-MTD	Bus Stop and Station Improvements	Improve customer access and/or amenities at bus stops; add bus stop pads to preserve pavement.	\$500
SC-RTC 03e-RTC	Rail Line: Pajaro River Railroad Bridge Rehabilitation	Rehabilitate the bridge structure and tracks over Pajaro River.	\$670
SC-RTC-P41-RTC	Rail Line: Freight Service Upgrades	Upgrade rail line to FRA Class 2 to a condition for reasonable ongoing maintenance into the future. Upgrade crossings, replace jointed rail with continuously welded rail, upgrade signals and replace ties.	\$25,000
SC-SV-P46-SCV	Mt Hermon/King's Village Road - Transit Signal priority	Transit signal priority at Kings Village Road/Mt Hermon Road.	\$80
SC-UC-P62-UC	Bus Tracking and AVL Transit Programs	GPS bus tracking and Automatic Vehicle Locator programs inform travelling population of transit locations so they can make informed mode choices.	\$260
SC-UC-P64-UC	Alternative Fuel Fleet Vehicles	Purchase and upgrade fleet vehicles to alt. fueled vehicles (refuse trucks, street sweepers, fleet cars, etc.)	\$500

**Table 11 Transportation System Management**

<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
RTC 01SC	Freeway Service Patrol (FSP) on Hwy 1 and Hwy 17	Maintain and expand tow truck patrols on Highways 1 and 17. Work with the CHP to quickly clear collisions, remove debris from travel lanes, and provide assistance to motorists during commute hours to keep incident related congestion to a minimum and keep traffic moving. Avg need: \$300k/yr constrained (some from SB1); \$430k/yr total cost.	\$7,500
SC-CAP-P49-CAP	41st Ave (Soquel to Brommer) Signal Synchronization	Update synchronization of signals on 41st. Coordinate synchronization of 41st Ave with Portola, Soquel, Capitola and Hwy 1 ramps with County.	\$350
SC-CAP-P50-CAP	Capitola-Wide HOV priority	Evaluate HOV priority at signals and HOV queue bypass.	\$40
SC-CHP-P01-CHP	Hwy 17 Safety Program	Continuation of Highway 17 Safety Program in Santa Cruz County at \$100/year. Includes public education and awareness, California Highway Patrol (CHP) enhancement, pilot cars, electronic speed signs.	\$3,750
SC-CHP-P04-CHP	Hwy 1 Safety and Bus on Shoulder Enforcement	Additional CHP enforcement and public education campaign when new bus on shoulder facilities operational (anticipate 4 years of enforcement).	\$250
SC-CT-P63-CT	Hwy 129 Paving, Sign Panels, Lighting, TMS Improvement	Rehabilitate pavement and lighting, replace sign panels, and install Transportation Management System (TMS) elements.	\$14,809
SC-CT-P64-CT	Hwy 1 Drainage Improvements	Rehabilitate drainage systems and lighting, install Transportation Management System (TMS) elements, pave areas behind the gore and construct Maintenance Vehicle Pullouts (MVPs) to reduce maintenance and enhance highway worker safety.	\$16,554
SC-CT-P65-CT	Hwy 1 Roadside Safety	Rehabilitate drainage systems, enhance highway worker safety, replace lighting and install Transportation Management System (TMS) elements.	\$24,021
SC-CT-P80-CT	Hwy 236 Drainage and System Upgrades in Boulder Creek	Drainage System and TMS upgrades	\$13,400
SC-MTD-P06-MTD	Transit Technological Improvements	IT software and hardware upgrades for scheduling, customer service and planning systems. Upgrades every 5 years.	\$2,500
SC-MTD-P50-MTD	ITS Equipment: Automatic Passenger Counter System and Real Time Bus Arrival/Departure Displays	Automatic Vehicle Locator (AVL), Automatic Passenger Counters, and automatic vehicle announcing systems on METRO buses. Provide real time bus arrival/departure displays at bus stops. Necessary IT upgrades and data collection for system operations, security, planning and maintenance.	\$1,600
SC-RTC 34-RTC	Hwy 1 Ramp Metering: Northern Sections Between San Andreas Road and Morrissey Blvd	Reconfiguration of ramps and local streets to allow for ramp metering and installation of ramp meters. Could be expensed under a separate standalone project (\$6.7 M)	\$1

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<b>AMBAG ID</b>	<b>Project</b>	<b>Project Description</b>	<b>Total Cost (\$ 000s)</b>
SC-RTC-P01-RTC	SAFE: Call Box System Along Hwys	Motorist aid system of telephone call boxes along all highways plus maintenance and upgrades. Call boxes may be used to request assistance or report incidents. Avg annual cost: \$245/yr	\$6,125
SC-SV-P42-SCV	Synchronize Traffic Signals along Mt. Hermon Road	Re-time to coordinate traffic signals along Mt. Hermon Road.	\$100
SC-UC-P58-UC	UCSC Traffic Control	Non-traditional traffic control/crossing guard program at key intersections on UCSC campus to improve pedestrian and vehicle safety, reduce conflicts, improve travel times.	\$2,580
SC-VAR-P34-VAR	Transit Priority	Install transit queues at major intersections.	\$2,585
SC-WAT-P78-WAT	Green Valley Adaptive Signal Project	Update signals to provide dynamic signal timing, optimizing traffic flow and decreasing vehicle emission.	\$393