6.0 ALTERNATIVES

As required by Section 15126(d) of the *State CEQA Guidelines*, this EIR examines a range of reasonable alternatives to the proposed MBSST Network project that could feasibly achieve similar objectives. Included in this analysis are the CEQA-required "no project" alternative and two alignment alternatives.

The goals of the proposed MBSST Network project are as follows:

- *Define a continuous trail alignment that maximizes opportunities for a multi-use bicycle and pedestrian trail separate from roadway vehicle traffic spanning the length of Santa Cruz County;*
- *Develop public trail access along the Monterey Bay National Marine Sanctuary to enhance appreciation, understanding, and protection of this special resource;*
- *Promote awareness of the trail, trail opportunities, and trail user responsibilities;*
- *Develop a long- and short-term program to achieve the policies set forth in this plan through a combination of public and private funding, regulatory methods, and other strategies; and*
- *Develop the necessary organizational, staffing, and funding mechanisms to ensure that all trail segments, trailheads, and accessory features are safe, well-maintained, and well-managed.*

Based on the potentially significant impacts that could result from implementation of the MBSST Network project, as identified in Section 4.0 of this EIR, the goals identified above, and input from the community, three alternatives were chosen for analysis in this section. These alternatives include the following:

- Alternative 1: No Project
- Alternative 2: On-Road Alignment
- Alternative 3: Reduced Project

As required by CEQA, this section also includes a discussion of the "environmentally superior alternative" among those studied.

6.1 ALTERNATIVE 1: NO PROJECT

6.1.1 Description

The No Project alternative assumes that the proposed MBSST Network is not constructed. However, since regional plans endorse trail construction, this alternative assumes that bicycle/pedestrian trail planning and construction in areas other than the MBSST Network corridor would continue as envisioned under existing plans. Under this alternative, bicyclists would either follow existing bike paths, lanes, routes or other city and county roadways where formal facilities do not exist. Pedestrians would utilize existing sidewalks.

6.1.2 Impact Analysis

With the implementation of the No Project alternative, no new development would occur within the MBSST Network project area, including the Santa Cruz Branch Rail Line right-of-

way. Since new development would not occur, potential impacts related to construction and long-term site disturbances, such as aesthetics; air quality; biological resources; cultural resources; greenhouse gas emissions; hazards and hazardous materials; and noise would not occur. In addition, since no new daily vehicle trips would be added to local roadways by trail users accessing the trail, impacts based on vehicle trip generation would not occur. These issues include air quality; greenhouse gas emissions; noise; and transportation/traffic. It should be noted, however, that the proposed MBSST Network would link the urban areas within the County of Santa Cruz, thereby providing an active mode of travel between these areas that was not previously available. The MBSST Network would therefore be expected to encourage increased use of bicycles and walking for local commuting, thus decreasing overall vehicle miles traveled (VMT). Because this alternative would not provide an alternative transportation link throughout the County, it would not reduce VMT. Some air quality and greenhouse gas impacts may therefore be worse under this alternative. Since no new development would occur in or adjacent to areas currently used for agricultural production, this alternative would not result in impacts to agricultural resources.

Overall, impacts would be less than for the proposed MBSST Network project with the exception of a potential increase in VMT.

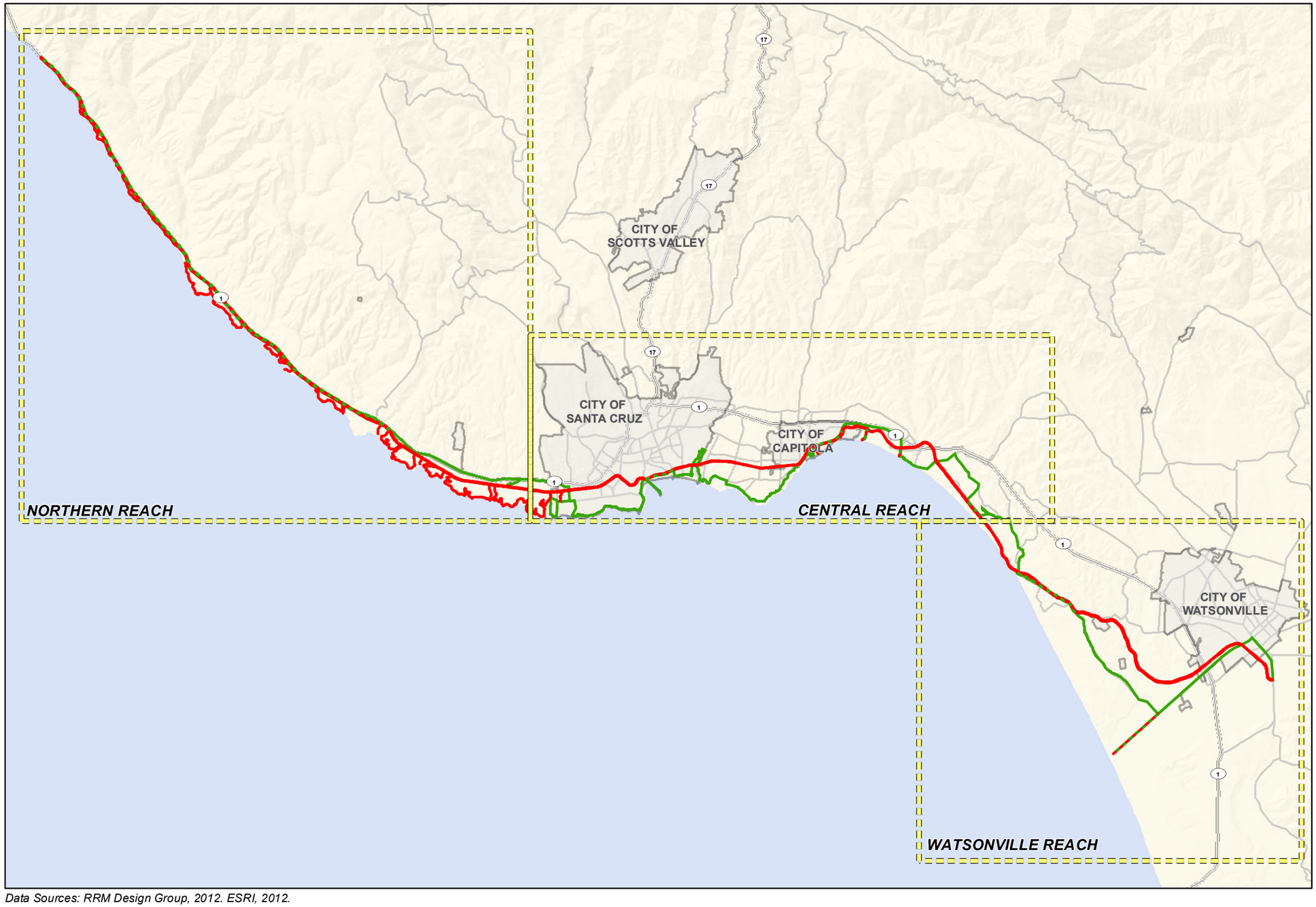
6.2 ALTERNATIVE 2: ON-ROAD ALIGNMENT

6.2.1 Description

This alternative would eliminate the multi-use trail along the rail right-of-way and would instead utilize existing on road facilities, constructing new on-road bicycle improvements where needed. Pedestrians would utilize existing sidewalks or road shoulders. No equestrian facilities would be provided.

The On-Road Alignment alternative is shown in Figure 6-1. In the northern reach, this alternative would align with Highway 1. In the central reach, the alignment would follow the previously defined MBSST core alignment, utilizing existing on-road sidewalks, bicycle lanes (Class II), and separated bike paths (Class I) facilities along the shoreline through Santa Cruz, Capitola, and unincorporated urban areas. Some new on-road bicycle improvements would be constructed, where exiting facilities are absent. In the Watsonville reach, this alternative would utilize Rio Del Mar Boulevard to Clubhouse Drive to Sumner Avenue to Seascape Boulevard to San Andreas Road to West Beach Street to Main Street/Porter Drive in Watsonville. On road facilities would also be constructed along West Beach Street, and a connection would be provided on Thurwacher Road from West Beach Street to connect to the Monterey County reach of the Monterey Bay Sanctuary Scenic Trail at the Pajaro River.

Improvements associated with this alternative would be limited to on-road bicycle facilities where existing facilities are not available. It is assumed that this alternative would only construct Class II designated bicycle lanes or Class III designated bicycle routes (and not a separated Class I bikeway), and would therefore not require roadway widening.



Legend

- Proposed MBSST Network
- On Road Alignment Alternative
- Reaches

N

0 1.25 2.5 Miles

Data Sources: RRM Design Group, 2012. ESRI, 2012.

On Road Alignment Alternative

Figure 6-1

This alternative would utilize the existing street network. As a result it would have substantially more roadway crossings than the proposed project. In addition, because it would not utilize the existing rail corridor, there would be no rail bridge crossings.

Because this alternative would be limited to on-road bicycle lanes or bicycle routes, it would not provide many of the trail amenities associated with the proposed project. This includes: trail staging areas and rest areas containing benches, trash receptacles, bike racks, and picnic and shade shelters; landscaping; trail fencing; or lighting. Because these facilities would not be provided, this alternative would not include rail trail design standards or a Trail Manager.

The overall width and length of this alternative would also be substantially reduced when compared to the proposed project, and would therefore result in less overall disturbance.

6.2.2 Impact Analysis

a. Aesthetics. This alternative eliminates the multi-use trail along the rail right-of-way, and instead utilizes existing on-road facilities and constructs new on road bicycle lane or bicycle route improvements where existing facilities are not available. Trail amenities included in the proposed project (such as staging and rest areas, landscaping, fencing, and lighting) would be eliminated under this alternative. In addition, because improvements would be limited to relatively narrow on road facilities, the extent of disturbance would be substantially reduced (from an average of approximately 25 feet for the proposed project to a maximum of five feet for the On-Road Alignment alternative). Because the extent and scale of improvements would be substantially reduced, overall effects to scenic vistas and visual character would be reduced when compared to the proposed project. Similar to the proposed project, these impacts would be less than significant, and no mitigation would be required. In addition, as no lighting would be added, impacts related to night lighting would be eliminated.

b. Agricultural Resources. Improvements associated with the On-Road Alignment alternative would be limited to within existing street rights-of-way. Therefore, this alternative would not disturb any land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. This impact, which is considered significant but mitigable for the proposed project, would be reduced to less than significant and no mitigation would be required.

As with the proposed project, some segments of this alternative would be adjacent to areas zoned for agriculture and/or adjacent to areas with existing Williamson Act contracts. Because this alternative would be limited to existing road right-of-ways, impacts related to conflicts with existing zoning or Williamson Act contracts would be less than significant, similar to the proposed project.

As with the proposed project, trail users would travel adjacent to ongoing agricultural operations in the northern and Watsonville reaches, and could be exposed to agricultural pesticides and dust generated by farm equipment. However, existing agricultural operations are already subject to pesticide restrictions limiting spraying adjacent to roadways such as Highway 1, San Andreas Road, and West Beach Street. Therefore, risk of pesticide exposure would be slightly lower with this alternative, as compared to the proposed project. Other

conflicts between trail users and agriculture would be slightly reduced, because agriculture would only be located on one side of the trail. Although impacts would be reduced, they would remain significant but mitigable, and mitigation measure AG-3(a) (Notice of Agricultural Activities) would continue to be required. Because this alternative would not include landscaping or a Trail Manager, mitigation measures AG-3(b) and AG-3(c) would not apply.

c. Air Quality. Similar to the proposed project, the On-Road Alignment alternative would not contribute to population growth, and would therefore be consistent with the growth assumptions in the *Air Quality Management Plan* (AQMP). In addition, this alternative would consist of "new and improved bicycle facilities," which is listed as a transportation control measure (TCM) in the AQMP. This alternative would therefore directly implement a TCM, and would result in beneficial impacts related to AQMP consistency, similar to the proposed project. It should be noted, however, that this alternative would not implement the proposed MBSST Network, which is specifically listed as a priority project in the AQMP. Thus, while beneficial, this alternative would be slightly less beneficial than the proposed project.

Improvements associated with this alternative would include on-road bicycle facilities where existing facilities are not available, which would be limited to a maximum of five feet in width (compared to an average of 25 feet for the proposed project). Therefore, construction of this alternative would require less earth-moving activity, resulting in lower criteria pollutant emissions from construction. Construction-related air quality impacts would therefore be reduced when compared to the proposed project, and would be less than significant, similar to the proposed project.

This alternative would include a limited number of new bicycle facilities, and would not construct new pedestrian or equestrian facilities. In addition, this alternative would not include the construction of staging areas, to which new vehicle trips may travel. As a result, this alternative would be expected to generate fewer vehicle trips than the proposed project. Operational air quality impacts would therefore be somewhat reduced when compared to the proposed project, and impacts would be less than significant. It should be noted, however, that the proposed MBSST Network would link the urban areas within the County of Santa Cruz, thereby providing an active mode of travel between these areas that was not previously available. The MBSST Network would therefore be expected to encourage increased use of bicycles and walking for local commuting, thus decreasing overall VMT. This alternative would only provide limited on-road bicycle improvements in some areas, and would not provide new pedestrian facilities. Because this alternative would be expected to generate fewer trail users, it would not reduce VMT to the extent of the proposed project, and would therefore not achieve the same level of beneficial effects as the project.

As with the proposed project, this alternative would not contribute to an exceedance of any level of service (LOS) standard. Impacts related to carbon monoxide hotspots would therefore be less than significant, similar to the proposed project.

d. Biological Resources. The overall width and length of this alternative would be substantially reduced when compared to the proposed project, resulting in less overall disturbance. In addition, improvements would be limited to within existing street rights-of-way. As a result, overall effects to special status plant and animal species would be reduced. As

described in Section 4.4, *Biological Resources,* the northern reach has the largest number of special status plant and animal species, most of which are associated with either coastal scrub habitat or drainages. The On-Road Alignment alternative would utilize the existing Highway 1 right-of-way through the northern reach, and would not widen the roadway into adjacent habitat. The Watsonville reach also contains habitat for special status plant and animal species, most notably within the Gallighan and Watsonville Sloughs, the Santa Cruz Long-toed Salamander Ecological Reserve, the Ellicott Slough National Wildlife Refuge, and the Pajaro River. Within the Watsonville reach, this alternative would utilize existing roadways primarily outside of these sensitive areas. Thus, overall effects to special status plant and animal species would be reduced when compared to the proposed project. However, some impacts could still occur, such that mitigation measures B-1(a) and B-1(b) would still be required. Other species-specific mitigations may also be required, depending on the precise location of improvements, such as B-1(d) for California red-legged frogs that may migrate across roadways, and B-1(i) for pallid bats roosting under bridges.

Because of the reduced level of disturbance and use of existing disturbed rights-of-way, impacts to riparian and other sensitive habitats would also be reduced. Depending on the precise location of alternative improvements, mitigation measures B-2(a) and B-2(b) may be required to identify and mitigate for lost wetland and riparian habitat. Because this alternative would not include landscaping, nor disturb areas outside the road right-of-way, mitigation measures B-2(c) and B-2(d) would no longer be required.

Because this alternative would not include trail amenities like landscaping or fencing, wildlife movement would not be restricted. Impacts would be less than significant, and mitigation measures B-3(a) and B-3(b) would not be required.

e. Cultural Resources. This alternative would utilize existing on-road facilities and would construct a limited number of new bicycle facilities within existing road rights-of-way. Disturbance outside of existing rights-of-way would not be required. Thus, the potential for damaging known prehistoric or archaeological resources would be substantially reduced when compared to the proposed MBSST Network. Similarly, the On-Road Alignment alternative would not use new or retrofitted rail bridges. Therefore, improvements associated with this alternative would not alter existing historical structures. Impacts would be reduced to less than significant and no mitigation would be required.

Because this alternative would result in less overall site disturbance and would not disturb areas outside of the existing roadway, the potential for unearthing previously unidentified prehistoric or historical cultural resources would be substantially reduced when compared to the proposed project. Based on this reduced potential, it is not anticipated that mitigation measure CR-2(a) (Archaeological Resource Construction Monitoring) would be required. However, mitigation measure CR-2(b) (Unearthed Prehistoric or Archaeological Cultural Remains) would still be required to ensure that any identified resources, should they be encountered, are appropriately mitigated.

f. Geology and Soils. As described in Section 4.6, *Geology/Soils,* the San Gregorio Fault lies under segments 1 and 2 of the MBSST Network. The On-Road Alignment alternative would

include some improvements along Highway 1 in this location, similar to the proposed project. Impacts related to fault rupture would therefore be similar and less than significant.

This alternative would utilize existing roadways and would not construct new bridges or a restroom facility. Therefore, seismically induced ground shaking impacts to these structures would be eliminated.

As shown in Figures 4.6-2a through 4.6-2c and Figures 4.6-4a through 4.6-4c in Section 4.6, *Geology/Soils,* areas of high liquefaction potential, expansive soils, landslide potential, and unstable soils occur throughout the MBSST Network reaches. Thus, although this alternative would move the proposed project to existing roadways, the potential for seismic-related ground failure, landslides, soil stability impacts, and expansion would generally be similar to the proposed project. Impacts would be significant but mitigable, and mitigation measures GEO-3, GEO-4, and GEO-7 would continue to be required.

The On-Road Alignment alternative would generally be located slightly closer to the coastline than the proposed project, particularly within the central and Watsonville reaches. Because this alternative would be limited to the construction of on-road bicycle improvements where existing facilities are not available, the extent of construction in these coastal areas would be substantially less than the proposed project. Therefore, coastal erosion hazards would not be expected to increase. In addition, although this alternative would not be subject to the design standards contained in the proposed Master Plan (including erosion control methods identified therein), it would still be required to comply with local regulatory policies. Thus, overall, erosion impacts would be similar to the proposed project and remain less than significant.

g. Greenhouse Gas Emissions. As described under the *Air Quality* discussion above, this alternative would result in lower criteria pollutant emissions from construction and would generate fewer vehicle trips than the proposed project. Therefore, this alternative would result in fewer greenhouse gas (GHG) emissions than the proposed project. Similar to the project, impacts would be less than significant. In addition, this alternative would be consistent with the Climate Action Team GHG reduction strategies, the 2008 Attorney General Greenhouse Gas Reduction Measures, the County of Santa Cruz Climate Action Strategy, and the City of Santa Cruz Climate Action Plan, similar to the proposed MBSST Network project.

It should be noted, however, that the proposed MBSST Network would link the urban areas within the County of Santa Cruz, thereby providing an active mode of travel between these areas that was not previously available. The MBSST Network would therefore be expected to encourage increased use of bicycles and walking for local commuting, thus decreasing overall VMT. This alternative would only provide limited on-road bicycle improvements in some areas, and would not provide new pedestrian facilities. Because this alternative would be expected to generate fewer trail users, it would not reduce VMT to the extent of the proposed project, and would therefore not achieve the same level of beneficial effect as the project.

h. Hazards and Hazardous Materials. The On-Road Alignment alternative would not utilize the rail line right-of-way and would not disturb areas outside of existing roadways. As discussed in Section 4.8, *Hazards and Hazardous Materials,* contamination is present in areas of the rail corridor as a result of historic rail operations and other adjacent activities. Because this

alternative would avoid this contamination by moving out of the rail corridor and require less grading overall, construction activities would have a lower potential to expose construction workers to health hazards by releasing contaminants that could be present in the soil. Impacts would be reduced when compared to the proposed project, and no mitigation would be required.

This alternative would not require retrofitting of any existing railroad bridge/trestle structures nor any new rail crossings. Therefore, impacts related to asbestos and lead-based paint on these facilities, which were less than significant for the proposed project, would be eliminated.

Similar to the proposed project, this alternative would be located adjacent to agricultural, commercial, and industrial activities, which may include the use of pesticides, herbicides, petroleum-based fuels, chlorinated solvents, or other chemicals considered to be a human health threat. However, this alternative would be expected to generate fewer trail users. Therefore, fewer people would be exposed to such hazards. As described in Section 4.8, *Hazards and Hazardous Materials,* the primary concern for trail users is related to potential pesticide exposure. As noted under the *Agricultural Resources* discussion above, existing agricultural operations are already subject to pesticide restrictions limiting spraying adjacent to roadways such as Highway 1, San Andreas Road, and West Beach Street. Therefore, risk of pesticide exposure would be lower with this alternative, as compared to the proposed project. Mitigation for the proposed project includes the creation of a communication system between the Santa Cruz County Agricultural Commissioner's office, RTC, implementing entities, and the Trail Manager to allow for trail closure following application of agricultural chemicals, should it be needed. This project would not require a Trail Manager, nor would trail closure be feasible, given that the alternative would be comprised of on-road facilities. Further, many of the on road facilities utilized by this alternative are already in place. Overall, impacts would be considered less than significant for this alternative, and no mitigation would be required.

Because this alternative would eliminate the multi-use trail along the rail right-of-way, public safety hazards associated with railway accidents involving hazardous materials and the subsequent exposure to contaminants would not occur. However, because this alternative would utilize the existing street network, it would have a higher potential for exposure to roadway accidents that involve hazardous materials. As noted in Section 4.8, *Hazards and Hazardous Materials,* due to the infrequency of train operations and the transient nature of trail use, the probability of an accident occurring when trail users are present would be low. In contrast, the On-Road Alignment would place trail users adjacent to roadways with substantially more activity than the rail line, thus increasing the probability of a roadway accident involving hazardous materials. This impact would be slightly worse for this alternative; however, due to the transient nature of trail use and regulations already in place, impacts would still be considered less than significant, similar to the proposed project.

Underground utility lines may be located beneath existing roadways utilized for this alternative, similar to the proposed project. This impact would be similarly mitigated through implementation of mitigation measure HAZ-5(a) (Utility Line Location and Consultation).

Finally, the On-Road Alignment alternative would construct new bicycle facilities in areas designated as having moderate to high wildland fire hazards, similar to the proposed project.

Although fewer users would be exposed to such potential hazards due to the expected reduction in trail use, given the relative infrequency of wildfires and the transient nature of trail use, as noted in Section 4.8, *Hazards and Hazardous Materials,* the potential for exposing trail users to a significant wildland fire hazard would be low. Therefore, impacts related to wildland fire hazards would be considered similar to the proposed project, and would be less than significant.

i. Hydrology and Water Quality. The overall width and length of this alternative would be substantially reduced when compared to the proposed project, resulting in less overall disturbance. In addition, improvements would be limited to within existing street rights-of-way. As a result, the On-Road Alignment alternative would not increase impervious surfaces and would consequently not increase stormwater runoff. The potential for increased stormwater runoff and related water quality impacts, which would be less than significant for the proposed project, would therefore be eliminated. Similarly, this alternative would not alter existing groundwater recharge. This impact, which would be less than significant for the proposed project, would also be eliminated.

The On-Road Alignment alternative would not construct a new restroom facility. Therefore, impacts associated with the degradation of water quality due to a septic system, which would be less than significant for the proposed project, would be eliminated.

The proposed MBSST Network Master Plan outlines drainage and erosion control methods that will be implemented during construction and operation of the MBSST Network. As described in Section 4.9, *Hydrology and Water Quality,* these methods would ensure that the MBSST Network would not contribute to water quality degradation of impaired water bodies. Because this alternative would consist of a few on-road improvements, it would not be subject to the design standards in the proposed Master Plan. However, the On-Road Alignment alternative would not increase runoff, and construction of the alternative would not be expected to contribute to water quality degradation of impaired water bodies. Therefore, similar to the proposed project, impacts from this alternative would be less than significant.

Portions of the On-Road Alignment alternative would be located within the 100-year floodplain, similar to the proposed project. However, this alternative would not construct any bridges, and therefore would not have the potential to alter flow characteristics or result in greater upstream flooding. Further, because less overall site disturbance would occur and fewer trail users would be exposed to potential flooding hazards, overall flooding-related impacts would be reduced when compared to the proposed project. Impacts would be less than significant, and mitigation outlined in Section 4.9, *Hydrology and Water Quality,* would not be required.

Similar to the proposed project, portions of the On-Road Alignment alternative would be constructed within tsunami inundation and seiche hazard zones. However, this alternative would generate fewer trail users, and therefore would expose fewer people to these potential hazards. This impact would be reduced and would be less than significant, similar to the proposed project.

j. Noise. Improvements associated with this alternative would include on-road bicycle facilities where existing facilities are not available, which would be limited to a maximum of

five feet in width (compared to an average of 25 feet for the proposed project). Therefore, construction of this alternative would require less earth-moving activity, resulting in less overall noise from construction. Construction-related noise impacts would be reduced; however, impacts to sensitive receptors could still occur, and mitigation measures N-1(a) through N-1(c) would be required.

This alternative would include a limited number of new bicycle facilities, and would not construct new pedestrian or equestrian facilities. As a result, this alternative would generate fewer operational noise impacts, such as trail users talking, maintenance workers collecting garbage or maintaining landscapes, or dogs barking. In addition, this alternative would not include the construction of staging areas, to which new vehicle trips may travel. As a result, this alternative would be expected to generate fewer vehicle trips than the proposed project. Operational noise impacts would therefore be reduced when compared to the proposed project, and would be less than significant, similar to the proposed project.

Users of the On-Road Alignment would not be exposed to noise from active rail operations, but would be exposed to greater amounts of noise from vehicles. Because fewer trail users would be generated by this alternative, fewer people would be exposed to noise overall. However, similar to the proposed project, this alternative would not be considered a sensitive use. Impacts would therefore be less than significant, similar to the proposed project.

k. Transportation/Traffic. This alternative would include a limited number of new bicycle facilities, and would not construct new pedestrian or equestrian facilities. In addition, this alternative would not include the construction of staging areas, to which new vehicle trips may travel. As a result, this alternative would generate fewer trail users, and would therefore reduce the overall number of vehicle trips (both locally to trail staging areas, and regionally). Impacts related to the exceedance of a level of service standard, which would be less than significant for the proposed project, would be reduced, and would also be less than significant.

Because this alternative would utilize the existing street network, it would have substantially more roadway crossings than the proposed project. Although fewer trail users would be generated, and thus fewer people exposed to such hazard, the number of additional crossings is such that potential conflicts between trail users and automobile traffic would increase when compared to the proposed project. Similarly, the potential for conflicts between pedestrians and bicyclists at street crossings would also increase. Mitigation measures T-3(a), T-3(b), and T-5 would be required, and would reduce conflicts to a less than significant level.

Because this alternative would not utilize the existing rail corridor, potential conflicts between trail users and railroad operations would be virtually eliminated, occurring only where network roadways cross the rail line. This impact, which would be less than significant for the proposed project, would be reduced for this alternative.

Improvements associated with this alternative would include on-road bicycle facilities where existing facilities are not available, which would be limited to a maximum of five feet in width (compared to an average of 25 feet for the proposed project). Therefore, less construction activity would be required and conflicts between construction vehicles and existing vehicle traffic would be reduced when compared to the proposed project. Mitigation measure T-6

would still be required to address potential safety conflicts, and impacts would be significant but mitigable.

The On-Road Alignment alternative would not include fencing. Impacts related to inhibiting pedestrian access and reducing local connectivity, which was considered significant but mitigable for the proposed project, would therefore be eliminated.

l. **Public Safety and Services.** The On-Road Alignment alternative would not construct a new restroom facility, and would not include any landscaping. Therefore, this alternative would not generate water demand. Impacts related to water supply, which were significant but mitigable for the proposed project, would be eliminated.

Improvements associated with this alternative would include on-road bicycle facilities where existing facilities are not available. Trail users would utilize the existing road network. Emergency access would therefore be readily available, and the alternative improvements would not result in an exceedance of average response times for police, fire, and emergency services. This impact would be reduced when compared to the proposed project, and would remain less than significant.

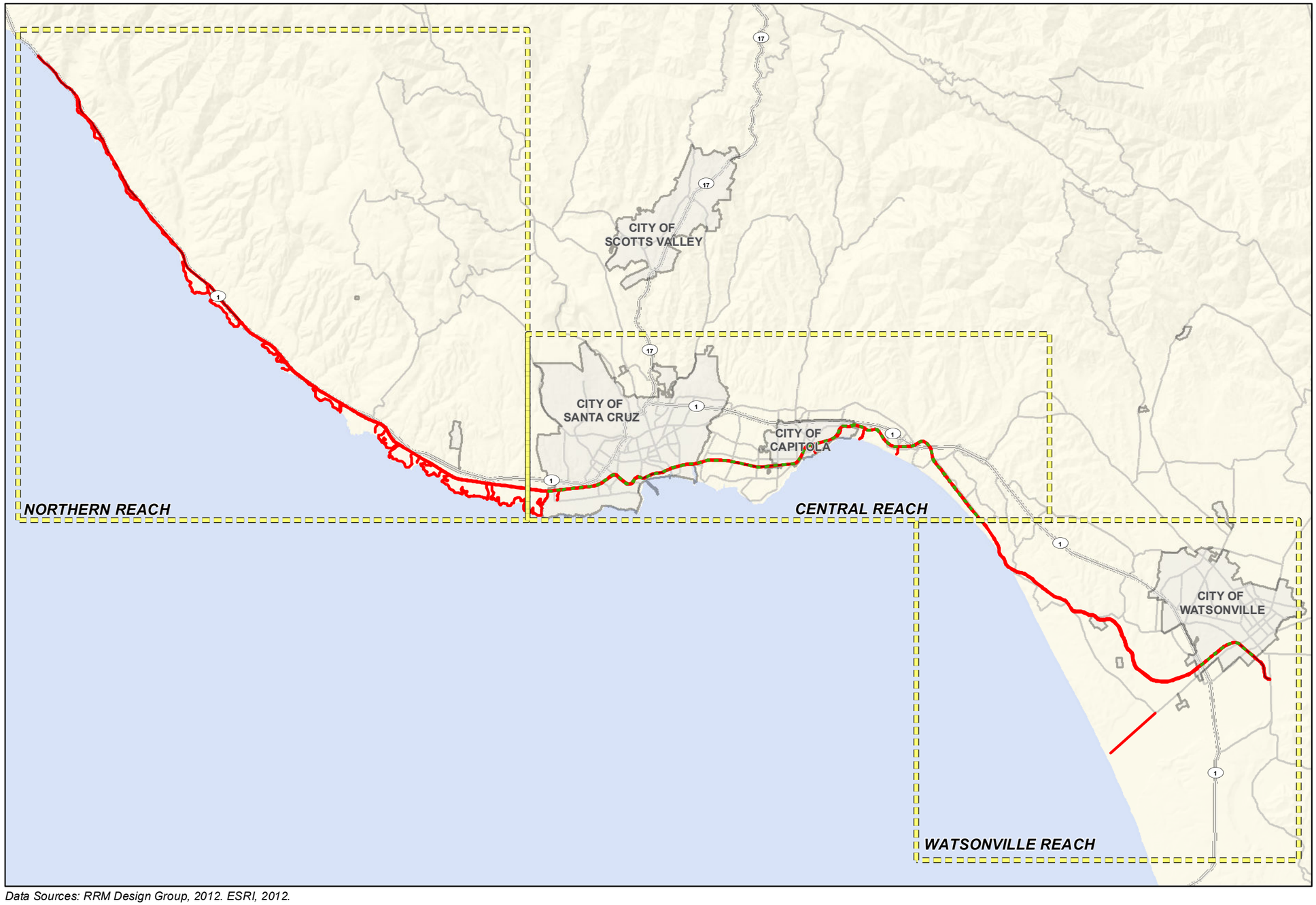
This alternative would not construct new pedestrian or equestrian facilities; only new on road bicycle facilities would be provided where currently absent. Conflicts between different types of trail users could still occur where pedestrians are present. However, this impact would be reduced when compared to the proposed project, and would continue to be less than significant.

6.3 ALTERNATIVE 3: REDUCED PROJECT

6.3.1 Description

This alternative would reduce the length of the project by eliminating ten segments from the proposed MBSST Network. Segments located in the more rural areas of the county would be eliminated (segments 1 through 6, segments 15 through 17, and segment 20). These segments total 31.5 miles, and are located in the northern and Watsonville reaches. The Reduced Project alternative would include construction of segments 7 through 14 (in the central reach) and segments 18 and 19 (in the Watsonville reach), for a total length of 18.1 miles. Along these ten segments, the alignment and design features would be identical to the proposed project. The Reduced Project alternative is shown in Figure 6-2.

The purpose of this alternative is to reduce environmental impacts while providing new bicycle and pedestrian facilities to the higher density areas anticipated to have a greater demand for pedestrian and bicycling facilities. Improvements along the ten urban segments would be identical to the proposed project, and would include: various types of trail fencing; trail furnishings such as benches and seating areas, trash receptacles, bike racks, and picnic and shade shelters; rest areas containing trail furnishings, kiosks with traveler information, and interpretive signage; new pre-engineered and/or retrofitted bridges; roadway and railway crossings; and wayfinding signage. No improvements would be constructed along the eliminated segments.



Data Sources: RRM Design Group, 2012. ESRI, 2012.

Reduced Project Alternative

Figure 6-2

This alternative would be the same width as the proposed project but would reduce the length of the project from 49.6 to 18.1 miles (a 63.5% reduction). Therefore, the overall disturbance area would be reduced. Because this alternative would eliminate improvements in the more rural areas of the Watsonville reach, the new restroom facility included in the proposed MBSST Network project for this location would not be included with this alternative.

6.3.2 Impact Analysis

a. Aesthetics. This alternative would follow the same alignment as the proposed project for approximately 18.1 miles in the more urbanized areas of the County, and would eliminate the remaining 31.5 miles of the trail in the northern and Watsonville reaches. Because this alternative would eliminate any improvements along the northern reach (segments 1 through 6), visual resource impacts along this highly scenic corridor would be eliminated. Similarly, no improvements would occur along rural areas of the Watsonville reach (segments 15 through 17 and 20), which provides expansive rural agricultural vistas. Although improvements would still occur along a portion of the MBSST Network, including areas with scenic coastal vistas and scenic areas, overall effects to scenic vistas and visual character would be reduced when compared to the proposed project. In addition, because fewer segments would be constructed, less overall lighting would be added to the trail corridor.

For the remaining segments, the Reduced Project alternative would continue to comply with design standards outlined in the Master Plan, including the provision of a uniform sign design and logo theme. A Trail ~~Manager~~ Ranger would also continue to be responsible for landscape maintenance, trash clean up and disposal, graffiti removal, possible trail closures, and repairs to trail components in accordance with a trail operations and maintenance plan. The establishment of a formal trail operations and maintenance plan would help ensure adequate maintenance of the Reduced Project alternative and facilities, thereby avoiding unsightly aesthetic conditions. Similar to the proposed project, impacts would be less than significant and no mitigation would be required.

b. Agricultural Resources. This alternative would eliminate ten segments of the proposed MBSST Network, and would only construct improvements within the urban areas of the central reach and the City of Watsonville. As shown in Figures 4.2-1b and 4.2-1c in Section 4.2, *Agricultural Resources,* these areas do not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Impacts related to conversion of these resources, which are considered significant but mitigable for the proposed project, would be eliminated. Similarly, because this alternative would be restricted to existing urbanized areas, it would not be located adjacent to areas zoned for agriculture and/or adjacent to areas with existing Williamson Act contracts. Impacts related to conflicts with these properties, which are considered less than significant for the proposed project, would also be eliminated.

Under the Reduced Project alternative, trail users would not travel adjacent to ongoing agricultural operations, and would thus not be exposed to agricultural pesticides or dust generated by farm equipment. This impact would also be eliminated, and mitigation measures outlined in Section 4.2, *Agricultural Resources,* would not be required.

c. Air Quality. Similar to the proposed project, the Reduced Project alternative would not contribute to population growth, and would therefore be consistent with the growth assumptions in the *Air Quality Management Plan* (AQMP). In addition, this alternative would consist of "new and improved bicycle facilities," which is listed as a transportation control measure (TCM) in the AQMP. This alternative would therefore directly implement a TCM, and would result in beneficial impacts related to AQMP consistency, similar to the proposed project. It should be noted, however, that this alternative would eliminate 63.5% of the project length, and would therefore not fully implement the proposed MBSST Network, which is specifically listed as a priority project in the AQMP. Thus, while beneficial, this alternative would be slightly less beneficial than the proposed project.

This alternative would construct 18.1 miles of trail compared to the proposed project's 49.6 miles. Based on the approximate average trail and shoulder width (disturbance area) of 25 feet wide, the disturbance area for this alternative would be approximately 54.8 acres (compared to 150.3 acres for the proposed project). Construction of this alternative would therefore require approximately 65.5% less earth-moving activity, resulting in lower criteria pollutant emissions from construction. Construction-related air quality impacts would therefore be reduced when compared to the proposed project, and would be less than significant.

Based on the trip generation rate used in Section 4.11, *Transportation/Traffic,* this alternative would generate an estimated 2,740 daily vehicle trips. This is a 63.5% reduction when compared to the proposed project. Because this alternative would generate fewer vehicle trips than the proposed project, operational air quality impacts would be reduced. Impacts would be less than significant. It should be noted, however, that the proposed MBSST Network would link the urban areas within the County of Santa Cruz, thereby providing an active mode of travel between these areas that was not previously available. The MBSST Network would therefore be expected to encourage increased use of bicycles and walking for local commuting, thus decreasing overall VMT. This alternative would only provide alternative transportation facilities within existing urban areas, and would therefore fail to provide a link between the urban area of Santa Cruz/Aptos/Capitola with the City of Watsonville. Because this alternative would be expected to generate fewer trail users, it would not reduce VMT to the extent of the proposed project, and would therefore not achieve the same level of beneficial effect as the project.

As with the proposed project, this alternative would not contribute to an exceedance of any LOS standard. Impacts related to carbon monoxide hotspots would therefore be less than significant, similar to the proposed project.

d. Biological Resources. This alternative would eliminate ten segments of the proposed MBSST Network and would disturb 65.5% less area than the proposed project. Improvements associated with this alternative would only occur in the urban areas of the central reach and City of Watsonville. As described in Section 4.4, *Biological Resources,* these areas contain fewer special status plant and animal species, as well as fewer riparian and other sensitive habitats. Impacts to these resources would therefore be substantially reduced when compared to the proposed project. Some impacts could occur, however, particularly along drainage crossings and riparian habitats within the central reach. Therefore, some species-specific mitigation may still be required.

As described in Section 4.4, *Biological Resources,* wildlife movement is most likely to occur in the northern reach of the proposed MBSST Network, as well as within the more rural areas of the Watsonville reach. The Reduced Project alternative would eliminate trail segments in these areas. Existing wildlife movement in the central reach and the City of Watsonville (where this alternative would be located) is limited by existing urban development and the presence of domestic animals. However, because the Reduced Project alternative would provide trail fencing in these areas, impacts to urban adapted species could still occur. While overall impacts related to wildlife movement would be substantially reduced under this alternative, mitigation measures B-3(a) and B-3(b) would be required to reduce impacts to a less than significant level.

e. Cultural Resources. This alternative would disturb 65.5% less area than the proposed project. Thus, the potential for damaging existing prehistoric or archaeological resources would be reduced when compared to the proposed MBSST Network. However, the Reduced Project alternative would construct the more urban segments of the proposed project, including those in the central reach and within the City of Watsonville. As described in Section 4.5, *Cultural Resources,* portions of the central and Watsonville reaches that have undergone limited previous ground disturbance or have not been subject to a prehistoric and archaeological cultural resources survey could result in potentially significant impacts to known prehistoric and archaeological resources. In addition, these reaches would include a number of railroad bridge/trestle crossings. One of the crossings has been identified through preliminary investigations as being located within a historic district. Other historic resources may also exist. Although overall impacts would be reduced, because this alternative would result in improvements similar to the proposed project within these areas, impacts would remain potentially significant and mitigation measures CR-1(a) through CR-1(c) would be required.

Because this alternative would result in less overall site disturbance, the potential for unearthing previously unidentified prehistoric or historical cultural resources would be reduced when compared to the proposed project. However, mitigation measures CR-2(a) and CR-2(b) would still be required.

f. Geology and Soils. As described in Section 4.6, *Geology/Soils,* the San Gregorio Fault lies under segments 1 and 2 of the MBSST Network. The Reduced Project alternative would eliminate these segments. Impacts related to fault rupture, which were less than significant for the proposed project, would be eliminated.

This alternative would require fewer new bridges than the proposed project, and would not construct a new restroom facility. Therefore, fewer structures would be exposed to seismically induced ground shaking. This impact would be reduced, and would be less than significant, similar to the proposed project.

As shown in Figures 4.6-2b, 4.6-2c, 4.6-4b, and 4.6-4c in Section 4.6, *Geology/Soils,* areas of high liquefaction potential, expansive soils, landslide potential, erosion, and unstable soils occur within the central reach and within the City of Watsonville. Thus, the Reduced Project alternative would be subject to these hazards, similar to the proposed project. However, the Reduced Project alternative would generate fewer trail users, and would therefore expose fewer people to these geologic hazards. Impacts related to seismic-related ground failure, landslides,

soil stability impacts, erosion, and expansion would therefore be reduced when compared to the proposed project, but would remain significant but mitigable. Mitigation measures GEO-3, GEO-4, and GEO-7 would continue to be required.

g. Greenhouse Gas Emissions. As described under the *Air Quality* discussion above, this alternative would result in lower criteria pollutant emissions from construction. In addition, based on the trip generation rate used in Section 4.11, *Transportation/Traffic,* this alternative would generate 63.5% fewer vehicle trips than the proposed project. Therefore, this alternative would result in fewer GHG emissions than the proposed project. Impacts would be reduced, and would be less than significant. In addition, this alternative would be consistent with the Climate Action Team GHG reduction strategies, the 2008 Attorney General Greenhouse Gas Reduction Measures, the County of Santa Cruz Climate Action Strategy, and the City of Santa Cruz Climate Action Plan, similar to the proposed MBSST Network project.

It should be noted, however, that the proposed MBSST Network would link the urban areas within the County of Santa Cruz, thereby providing an active mode of travel between these areas that was not previously available. The MBSST Network would therefore be expected to encourage increased use of bicycles and walking for local commuting, thus decreasing overall VMT. This alternative would only provide alternative transportation facilities within existing urban areas, and would not provide a link between the urban area of Santa Cruz/Aptos/Capitola and the City of Watsonville. Therefore, it would not reduce VMT to the extent of the proposed project, and would therefore not achieve the same level of beneficial effect as the project.

h. Hazards and Hazardous Materials. The Reduced Project alternative would utilize less of the rail line and would result in less ground disturbance overall than the proposed project. As discussed in Section 4.8, *Hazards and Hazardous Materials,* contamination is present in areas of the rail corridor as a result of historic rail operations and other adjacent activities. Because this alternative would require less grading in this corridor, construction activities would have a lower potential to expose construction workers to health hazards by releasing contaminants that could be present in the soil. Impacts would be reduced when compared to the proposed project. However, workers could still be exposed to such hazards along the portions of the trail included in this alternative. Thus, impacts would be potentially significant and mitigation measures HAZ-1(a) through HAZ-1(c) would be required.

This alternative would require retrofitting of fewer existing railroad bridge/trestle structures. Therefore, impacts related to asbestos and lead-based paint on these facilities would be slightly reduced when compared to the proposed project. As with the proposed project, compliance with applicable regulations regarding the removal, handling and disposal of asbestos and lead-based paint would reduce impacts to a less than significant level.

Because this alternative would be restricted to existing urbanized areas, it would not be located adjacent to areas with existing agricultural operations. Therefore, the potential to expose trail users to pesticides, herbicides, or other agricultural chemicals considered to be a human health threat would be eliminated and mitigation measure HAZ-3(a) would not be required. However, this alternative would pass by commercial and industrial activities within existing urban areas, which may include the use of petroleum-based fuels, chlorinated solvents, or other chemicals.

As described in Section 4.8, *Hazards and Hazardous Materials,* compliance with federal, state, and local regulations would reduce hazards from adjacent commercial and industrial operations to a less than significant level. Overall, hazardous materials impacts associated with this alternative would be less than significant.

This alternative would construct 18.1 miles of trail compared to the proposed project's 49.6 miles. Because the trail would be located adjacent to fewer miles of rail line and fewer roadways, public safety hazards associated with railway and roadway accidents would be reduced. Impacts would be less than significant, similar to the proposed project.

Although the trail length would be reduced by 65.5%, underground utility lines may be located beneath the segments of the trail that would be constructed. This impact would be slightly reduced when compared to the proposed project. However, mitigation measure HAZ-5(a) (Utility Line Location and Consultation) would still be required.

As described in Section 4.8, *Hazards and Hazardous Materials,* the potential for exposure of trail users to wildland fire hazards through the majority of the central reach and the City of Watsonville is minimal. Although some portions of the central reach contain moderate and high fire hazard designations, the Reduced Project alternative would generate fewer trail users, thus exposing fewer people to such hazards. Impacts would be reduced, and like the proposed project would be less than significant.

i. Hydrology and Water Quality. This alternative would disturb 65.5% less area than the proposed project. Thus, the Reduced Project alternative would introduce fewer impervious surfaces and would consequently reduce stormwater runoff and associated pollution when compared to the proposed project. Similar to the proposed project, this impact would be less than significant.

The Reduced Project alternative would not construct a new restroom facility. Therefore, impacts associated with the degradation of water quality due to a septic system, which would be less than significant for the proposed project, would be eliminated.

This alternative would require less overall construction, and would therefore reduce the potential for contributing to water quality degradation of impaired water bodies. Drainage and erosion control methods outlined in the proposed Master Plan would continue to be required. Therefore, impacts would be reduced, and would continue to be less than significant with implementation of erosion control and stormwater runoff measures.

This alternative would not alter existing groundwater recharge. This impact would be less than significant, similar to the proposed project.

Portions of the Reduced Project alternative would be located within the 100-year floodplain, similar to the proposed project. However, this alternative would construct fewer bridges, and would therefore reduce the potential for increasing upstream flooding. Further, because less overall site disturbance would occur and fewer trail users would be exposed to potential flooding hazards, overall flooding-related impacts would be reduced when compared to the proposed project. However, because some bridges would be constructed, impacts would still be

considered potentially significant, and mitigation measures H-5(a) and H-5(b) would be required.

Similar to the proposed project, portions of the Reduced Project alternative would be constructed within tsunami inundation and seiche hazard zones. However, this alternative would generate fewer trail users, and therefore would expose fewer people to these potential hazards. This impact would be reduced and would be less than significant, similar to the proposed project.

j. Noise This alternative would construct 18.1 miles of trail compared to the proposed project's 49.6 miles. Based on the approximate average trail and shoulder width (disturbance area) of 25 feet wide, the disturbance area for this alternative would be approximately 54.8 acres (compared to 150.3 acres for the proposed project). Construction of this alternative would therefore require approximately 65.5% less earth-moving activity, resulting in less overall noise from construction. Construction-related noise impacts would be reduced; however, impacts to sensitive receptors could still occur, and mitigation measures N-1(a) through N-1(c) would be required.

This alternative would generate fewer trail users, and would therefore generate fewer operational noise impacts, such as trail users talking, maintenance workers collecting garbage or maintaining landscapes, or dogs barking. Based on the trip generation rate used in Section 4.11, *Transportation/Traffic,* this alternative would generate an estimated 2,740 daily vehicle trips. This is a 63.5% reduction when compared to the proposed project. Operational noise impacts would therefore be reduced when compared to the proposed project, and would be less than significant.

Users of the Reduced Project alternative would be exposed to noise near busy roadways and active rail segments, similar to the proposed project, but would not be exposed to noise from agricultural operations. Because fewer trail users would be generated from this alternative, fewer people would be exposed to noise overall. However, similar to the proposed project, this alternative would not be considered a sensitive use. Impacts would therefore be less than significant, similar to the proposed project.

k. Transportation/Traffic. This alternative would construct 18.1 miles of trail compared to the proposed project's 49.6 miles. Based on the approximate average trail and shoulder width (disturbance area) of 25 feet wide, the disturbance area for this alternative would be approximately 54.8 acres (compared to 150.3 acres for the proposed project). Based on the per-acre trip generation rate used in Section 4.11, *Transportation/Traffic,* this alternative would generate an estimated 2,740 daily vehicle trips. This is a 63.5% reduction when compared to the proposed project. As a result, this alternative would generate fewer trail users, and would therefore reduce the overall number of vehicle trips (both locally to trail staging areas, and regionally). Impacts related to the exceedance of a level of service standard, which would be less than significant for the proposed project, would be reduced, and would remain less than significant.

Because this alternative would eliminate 31.5 miles of trail, it would have fewer roadway crossings than the proposed project. In addition, fewer trail users would be generated, and thus

fewer people exposed to such hazards. Similarly, because there would be fewer roadway crossings, the potential for conflicts between pedestrians and bicyclists at street crossings would also be reduced. Mitigation measure T-3(a) (Trail Crossing Warning Signs) and T-5 (Crosswalk Markings) would still be required, and would similarly reduce conflicts to a less than significant level. Because the Reduced Project alternative would not construct trail segments near agricultural operations, mitigation measure T-3(b) (Agricultural Access Safety) would not be required.

Because this alternative would utilize only 18.1 miles of the existing rail corridor, potential conflicts between trail users and railroad traffic would be reduced. This impact would be less than significant, similar to the proposed project.

The area of disturbance for this alternative would be approximately 54.8 acres, compared to 150.3 acres for the proposed project. Therefore, less construction activity would be required. Conflicts between construction vehicles and materials and existing vehicle traffic would therefore be reduced when compared to the proposed project. Mitigation measure T-6 would still be required to reduce potential safety conflicts, and impacts would be significant but mitigable.

Although the Reduced Project alternative would only construct trail facilities within existing urban areas, it would include the same design features as the proposed project in these areas, including fencing. Impacts related to inhibiting pedestrian access and reducing local connectivity, which would primarily occur within urban areas, would therefore be similar to the proposed project. Mitigation measure T-7 (Trail Access) would be required, and impacts would be significant but mitigable.

l. Public Safety and Services. The Reduced Project alternative would not construct a new restroom facility, but may include landscaping. Because the trail would be reduced from 49.6 to 18.1 miles, less landscaping would be included. Therefore, this alternative would generate less water demand than the proposed project. Because water supply in Santa Cruz County is evolving, some areas of the Reduced Project alternative may not have access to adequate water supply upon implementation. Therefore, impacts would be significant but mitigable, and mitigation measures PS-1(a) (Landscaping Irrigation) and PS-1(b) (Retrofitting Existing Facilities) would still be required. Because this alternative would not construct a new restroom facility, PS-1(c) (New Bathroom in Watsonville Reach) would not be required.

The Reduced Project alternative would only construct trail improvements in existing urban areas of the County, and would eliminate planned trail segments in the more rural areas of the County. As a result, impacts related to emergency access and response times would be reduced when compared to the proposed project, since included facilities would be located closer to existing emergency service providers. Impacts would be less than significant, similar to the proposed project.

The Reduced Project alternative may result in safety hazards due to conflicts between different types of trail users, similar to the proposed project. Because fewer trail users would be generated, fewer people would be exposed to such hazards. In addition, strategies and design requirements contained in the proposed Master Plan would continue to apply. Therefore, this

impact would be reduced when compared to the proposed project, and would remain less than significant.

6.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

This section evaluates the impact conclusions for the proposed MBSST Network project and the three alternatives under consideration. It then identifies the environmentally superior alternative for each issue area. In accordance with the *State CEQA Guidelines*, if the No Project alternative is identified as the environmentally superior alternative, the alternative among the remaining scenarios that is environmentally superior must also be identified.
Table 6-1 shows whether each alternative's environmental impact is greater, lesser, or similar to the proposed project for each issue area.

Table 6-1. Impact Comparison Summary

Issue	Proposed Project	No Project (Alternative 1)	On-Road Alignment (Alternative 2)	Reduced Project (Alternative 3)
Aesthetics	=	+	+	+
Agricultural Resources	=	+	+	+
Air Quality	=	+/-	+/-	+/-
Biological Resources	=	+	+	+
Cultural Resources	=	+	+	+
Geology and Soils	=	+	=/+	+
Greenhouse Gas Emissions	=	+/-	+/-	+/-
Hazards and Hazardous Materials	=	+	=/+	+
Hydrology and Water Quality	=	+	+	+
Noise	=	+	+	+
Transportation/Traffic	=	+	+/-	+
Public Safety and Services	=	+	+	+
Overall	**=**	**+**	**+**	**+**

\+ *Superior to the proposed MBSST Network project*
\- *Inferior to the proposed MBSST network project*
+/- B*oth better and worse than the proposed MBSST Network project*
= *Similar impact to the proposed MBSST network project*

Based on the comparison provided in Table 6-1, the No Project alternative (Alternative 1) and the Reduced Project alternative (Alternative 3) are considered environmentally superior, since each would result in 12 superior effects (+) and just two inferior effects (-), when compared to the proposed MBSST Network Project. Because the No Project Alternative would eliminate (rather than reduce) many of the anticipated environmental effects of the project, it would be considered the most environmentally superior alternative. However, this alternative would not accomplish any of the objectives of the proposed project, including: defining a continuous trail alignment that maximizes opportunities for a multi-use bicycle and pedestrian trail separate from roadway vehicle traffic; developing public trail access along the Monterey Bay National Marine Sanctuary; or promoting awareness of the trail. Further, the proposed MBSST Network project would be expected to encourage increased use of bicycles and walking for local commuting, thus decreasing overall VMT. The No Project alternative would not promote alternative forms of commuting, and therefore would not result in a decrease in VMT or associated air quality and greenhouse gas improvements.

By eliminating ten segments totalling 31.5 miles, the Reduced Project alternative would avoid numerous constraints anticipated in the northern reach and the more rural segments of the Watsonville reach, particularly related to biological resources. Since fewer segments would be constructed, construction-related impacts to air quality, noise, and traffic would also be reduced, as would ground-disturbance related effects (cultural resources, erosion and erosion-related water quality, biological resources). However, this alternative would not meet the goal of a providing a continuous trail alignment through the length of Santa Cruz County. In addition, because this alternative would fail to provide a link between urban areas of the County (through unincorporated and rural areas), it would not reduce VMT to the extent of the proposed project. Thus, this alternative would not achieve the same level of air quality and greenhouse gas emissions benefits as the proposed project.

The On-Road Alignment alternative (Alternative 2) can also be considered environmentally superior to the proposed MBSST Network project. This is primarily because this alternative would substantially reduce the number of improvements required, as well as overall disturbance area (due to the use of existing, disturbed roadway rights-of-way). As a result of the reduced area of disturbance, and the relocation of improvements away from the rail corridor, this alternative would reduce impacts related to: conflicts with rail operations, soil contamination, and ground-disturbance related effects (cultural and biological resources, erosion and erosion-related water quality, biological resources). However, this alternative would not provide safe separation from vehicles or between trail users, and would therefore be in conflict with the project goal of developing a continuous trail alignment that maximizes opportunities for a multi-use bicycle and pedestrian trail separate from roadway vehicle traffic. There would also be substantially more roadway crossings, thus increasing vehicle-related conflicts.

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