

3. Recommendations

The consultant team initially identified candidate projects (termed “Potential Improvement Segments” to reflect the fact that they are not adopted projects at this point) by conducting a “virtual tour” of the Study Area in Google Earth. Specific GIS features were evaluated as noted below, and other data was cross-referenced from geographically-referenced tables. This included input from the public, stakeholders and TAG regarding conditions and needs, as well as empirical data. In addition, the team considered the equitable distribution of the Potential Improvement Segments throughout the study area's segments - South Segment, South Central Segment, North Central Segment, and North Segment.

3.1. Segment Overview Maps and Summaries

Figure 3-1 through Figure 3-4 present overview maps of the project segments and identify Potential Improvement Segments, based on the evaluation.

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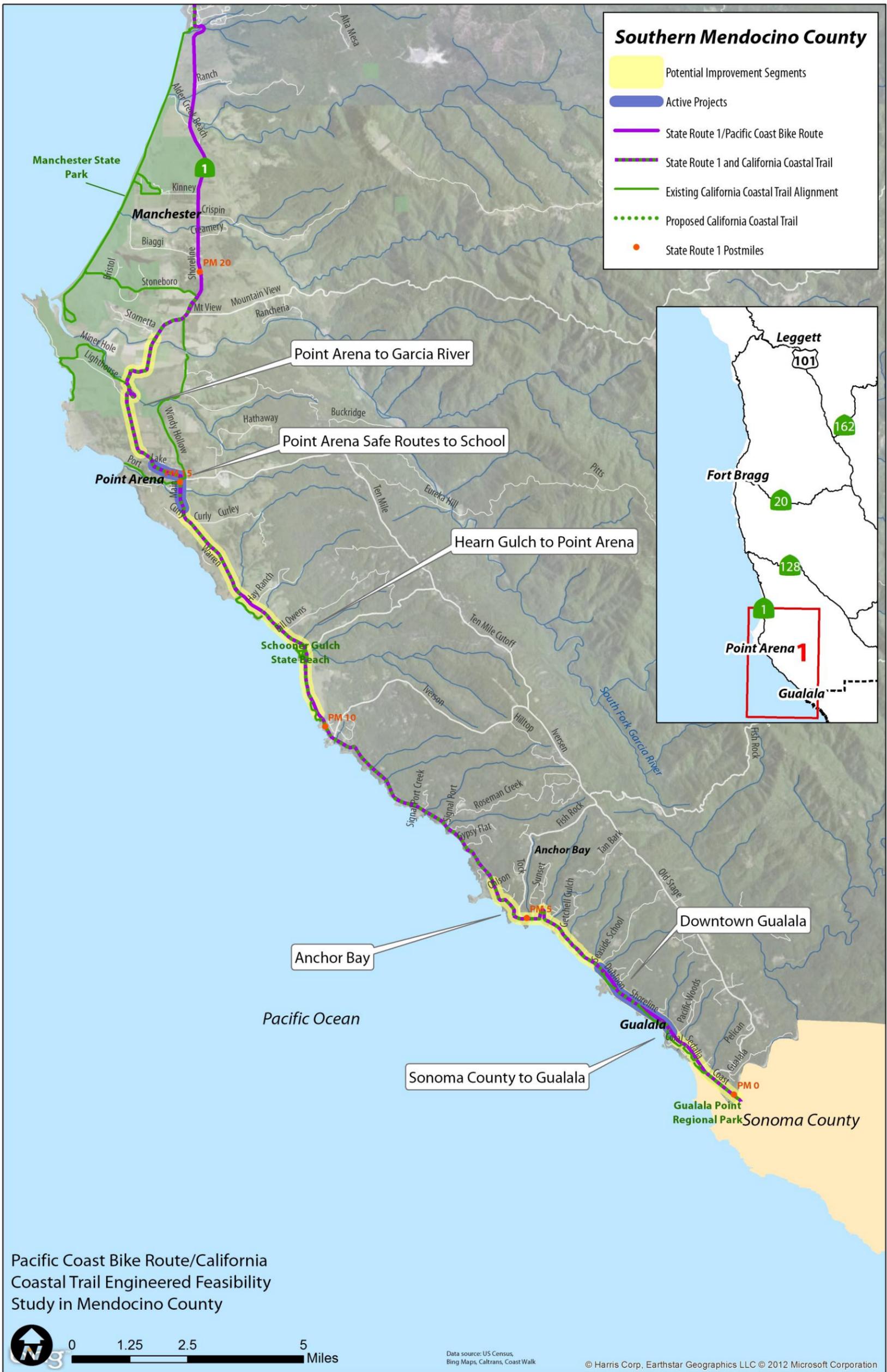


Figure 3-1. South Mendocino County Segment Overview Map

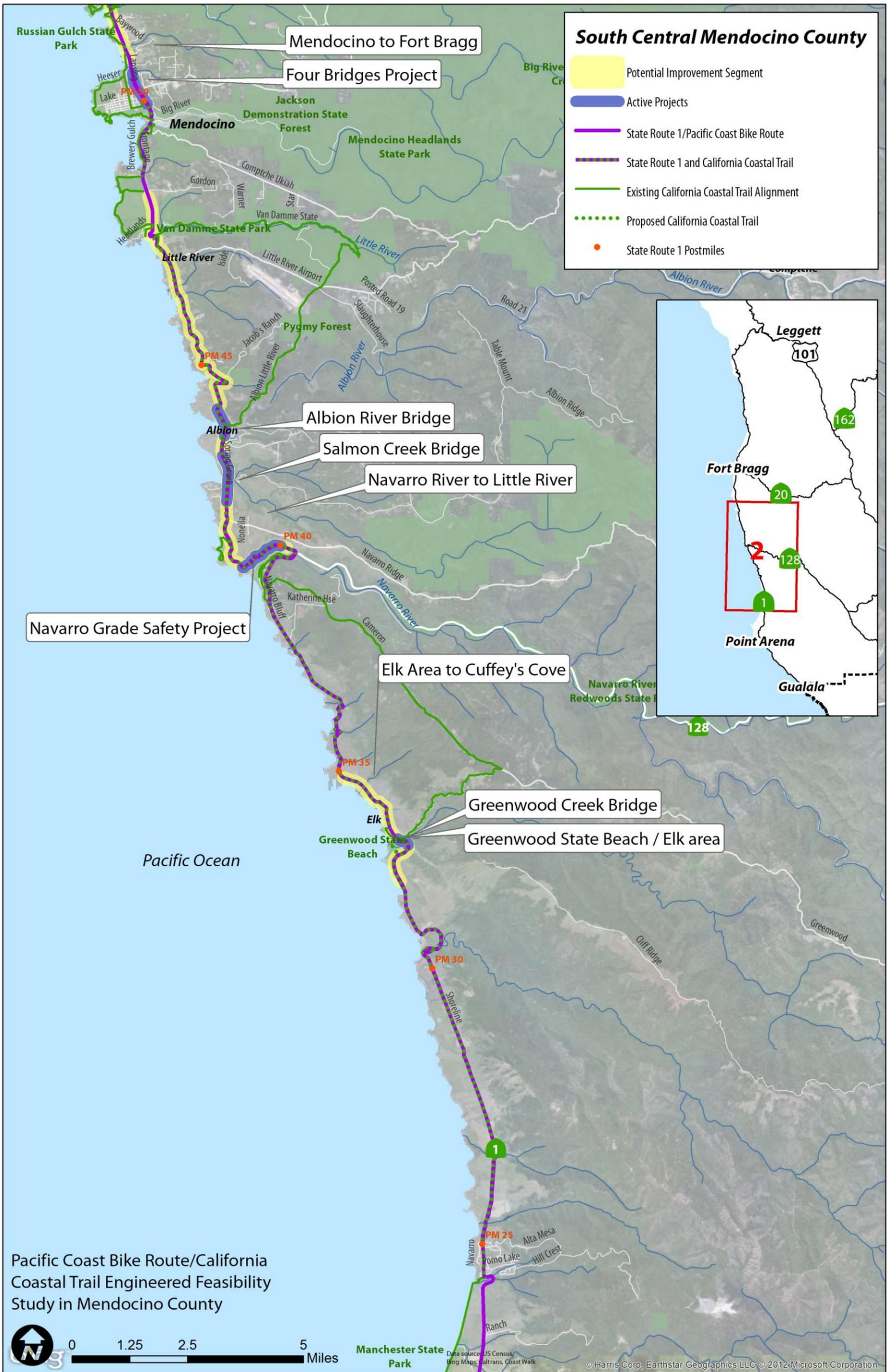


Figure 3-2. South Central Mendocino County Segment Overview Map

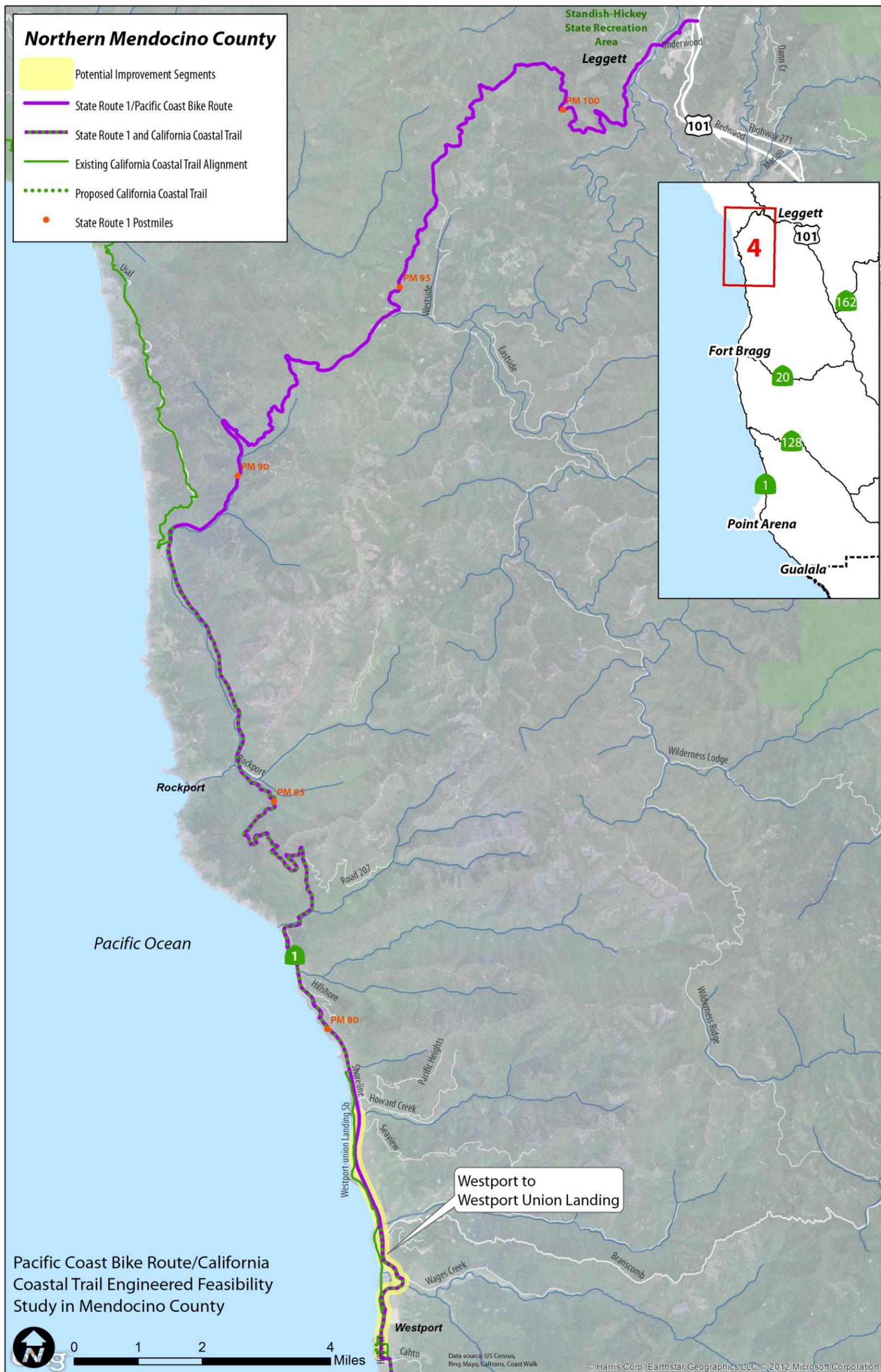


Figure 3-4. North Mendocino County Segment Overview Map

3.2. Potential Improvement Segments

Segments were identified through the review and analysis of the existing conditions data and input from the public and TAG relative to the criteria described in Chapter 2. The segments were further developed through a dialogue with the TAG about how the segments related to the context of the community plans, active projects, trails and open space plans; and the geographic spread of identified segments. The TAG's input also helped refine logical beginning and end points of potential improvement segments in relationship to physical conditions and knowledge of planned projects along the study corridor. During the fall workshop, the public provided additional input on the segments based on their local knowledge and personal experiences as a pedestrian, cyclist, and/or driver along study corridor. The Potential Improvement Segments are summarized in Table 3-1 and shown in the subsequent individual segment maps and summaries. The Study data and the segment descriptions are organized moving from south to north because this is Caltrans' standard for post miles sequencing and is consistent with Caltrans practice on such studies.

Table 3-1. Potential Improvement Segments

	Post Mile	Segment	Description	Planning Level Cost Estimate	Cost Per Mile
1	0.0 - 0.5 1.0 – 1.75	Sonoma County Line to Gualala	Important regional connection. Connects Sea Ranch residents with Gualala retail services.	\$14,100,000	\$11,280,000
2	1.75 – 3.25	Gualala to Glennen Gulch	Relatively mild terrain that includes residential areas and lodging north of Gualala.	\$8,100,000	\$5,400,000
3	3.25 – 6.0	Anchor Bay	Local bike and pedestrian access improvements at small visitor-serving complex.	\$20,900,000	\$7,600,000
4	10.25 – 14.75	Hearn Gulch to Point Arena	Bike and pedestrian access improvement to connect to popular recreation destination; access currently constrained by blind hill.	\$22,800,000	\$5,070,000
5	16.0 – 18.75	Point Arena to Garcia River	Gentle terrain through BLM lands north of Point Arena, connection to Manchester State Beach.	\$13,200,000	\$5,280,000
6	32.25 - 33.75	Greenwood State Beach/ Greenwood Bridge and Elk	Elk is a small visitor-serving complex and popular thru-cyclist destination.	\$14,300,000	\$9,530,000
7	33.75 – 34.75	Elk to Cuffey's Cove	Bike and pedestrian access improvement to connect to popular recreation destination; access currently constrained by blind hill.	\$2,200,000	\$2,200,000
8	39.75 - 48.0	Navarro River to Little River	Relatively undeveloped stretch of coastline with access to the community of Little River and Van Damme State Park	\$51,800,000	\$6,280,000
9	50.5- 57.75	Mendocino to Fort Bragg	Best existing segment for bike access. Project would complete remaining improvements through the entire segment. Densely populated area. Undersized bridges. Poorly defined, overly wide shoulder. Need rumble strips.	\$11,700,000	\$1,610,000

	Post Mile	Segment	Description	Planning Level Cost Estimate	Cost Per Mile
10	69.25 – 73.25	Abalobadiah Gulch to Chadbourne Gulch	Access south of Westport towards Fort Bragg and MacKerricher State Park. Seaside Beach is a popular auto destination, but pedestrian/bike access is unsafe.	\$35,500,000	\$9,470,000
11	75.25 - 78.5	Westport to Westport Union Landing	Locally high interest, regionally lower usage area. Includes community of DeHaven	\$23,100,000	\$7,110,000

3.2.1. Sonoma County Line to Gualala

This important regional connection provides Sea Ranch residents access to Gualala retail services.

The Downtown Gualala Refined Streetscape Design Plan (2012) presents recommendations for bicycle and pedestrian improvements from the vicinity of Pacific Woods Road to Old State Highway.

Figure 3-5 shows potential improvements for the study segment between the Sonoma County Line and Gualala.

Segment: Sonoma County Line to Gualala **PM 0.0 to 0.5, 1.0 to 1.75**

Description:

- Length: 1.75 miles, of which half a mile is an active project
- Northern portion of segment is in Gualala Community Plan Area and Gualala Community Action Plan.
- Slopes: Ranges from flat to severe, but most in the moderate to severe range for proposed widths; retaining walls required in some locations .
- Shoulders: existing shoulders vary from 0 to 4’; proposed shoulders are a consistent 4’ paved + 4’ space for CCT including guardrail and fence.
- Coastal Trail: Planned in ROW from MP 0 to Ocean St. (incl. China Gulch culvert – already wide); Sedalia to Pacific Coral (including culvert at PM 1.75 – needs extension); CCT will be 4’ wide on west due to slope constraints.
- Important regional connection. Connects Sea Ranch residents with Gualala retail services. Redwood Coastal Land Conservancy manages Gualala Bluff Trail west of town of Gualala.

Score	Criterion	Considerations
	Bicycle and Pedestrian Facilities Conditions	Congested area with incomplete sidewalks and access issues.
	Safety Concerns	No collisions; no specific public comments on safety (see Use).
	High Bicycle and Pedestrian Use	Don’t have count data yet; but 2 public comments state high use. 36 bicycles and pedestrians counted over 96 hours at nearby PM 2.5.
	Provides a Regional Connection	High - Connects from Sea Ranch community in Sonoma County to services and destinations in Gualala (the only nearby services).
	Gap Closure Opportunities	Moderate – shoulders vary, but mostly 0 – 2’; Gualala has discontinuous CCT parallel routes.
	California Coastal Trail (CCT) Intersect	Moderate because some segments exist on local Gualala streets.
	Biological and Cultural Resources Impact	Low presence of/impact on sensitive resources w/ widening to 4’ NB, 8’ SB (incl 4’ CCT).
	Constructability/Cost	Moderate constraints/cost factor average score.

Improvement Types by Post Mile: Sonoma County Line to Gualala			
Quarter-mile			
Segment	Northbound	Southbound	Cost
0.25	Type C, 1.5' Existing	CCT Type C, 1.5' Existing	\$8,876,440
0.50	Type C, 6' Existing	CCT Type C, 1.5' Existing	\$4,361,588
1.25	Type A, 1.5' Existing	Type A, 6' Existing	\$180,443
1.50	Type B, 1.5' Existing	Type A, 1.5' Existing	\$253,576
1.75	Type B, 1.5' Existing	CCT Type A, 1.5' Existing	\$409,402
		Total	\$14,081,449
		Rounded Total	\$14,100,000



Figure 3-5. Sonoma County Line to Gualala Potential Improvement Segments

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3.2.2. Gualala to Glennen Gulch

Segment: Gualala to Glennen Gulch **PM 1.75 to 3.25**

Description:

- Length: 1.5 miles
- Northern portion of segment is in Gualala Community Plan Area and Gualala Community Action Plan.
- Slopes: Ranges from flat to severe, but most in the moderate to severe range for proposed widths; retaining walls required in some locations .
- Shoulders: existing shoulders vary from 0 to 4'; proposed shoulders are a consistent 4' paved + 4' space for CCT incl guardrail and fence.
- Coastal Trail: Off-highway Coastal Trail planned for much of the segment. 0.6 miles of highway CCT route.

Score	Criterion	Considerations
	Bicycle and Pedestrian Facilities Conditions	Sporadic shoulder, poor conditions for bicycling and walking, but not as congested as segment through Gualala.
	Safety Concerns	One collision recorded, 2006-2010.
	High Bicycle and Pedestrian Use	36 bicycles and pedestrians counted over 96 hours at PM 2.5. No public comments received on high use at this location.
	Provides a Regional Connection	Moderate - some minor destinations, no major connections to areas beyond southern Mendocino coast.
	Gap Closure Opportunities	Moderate – shoulders vary, but mostly 0 – 2'. Possible alternative route inland and on off-highway CCT segments.
	California Coastal Trail (CCT) Intersect	Some existing CCT routes on ocean side of highway.
	Biological and Cultural Resources Impact	Generally moderate impacts at 4' shoulder widening increase to very high impacts to biological and cultural resources at 8' throughout the corridor. Significant habitat areas in southern part of segment.
	Constructability/Cost	Very challenging construction at southern and northern extremities, moderately challenging construction for most of the segment.

Improvement Types by Post Mile: Gualala to Glennen Gulch

Quarter-mile Segment	Northbound	Southbound	Cost
2.00	Type C, 1.5' Existing	CCT Type C, 1.5' Existing	\$6,935,389
2.25	Type C, 1.5' Existing	Type B, 1.5' Existing	\$241,812
2.50	Type A, 1.5' Existing	CCT Type A, 1.5' Existing	\$214,889
2.75	Type B, 1.5' Existing	CCT Type A, 1.5' Existing	\$373,613
3.00	Type A, 6' Existing	Type B, 1.5' Existing	\$184,980
3.25	Type B, 1.5' Existing	Type B, 1.5' Existing	\$149,210
		Total	\$8,099,893
		Rounded Total	\$8,100,000

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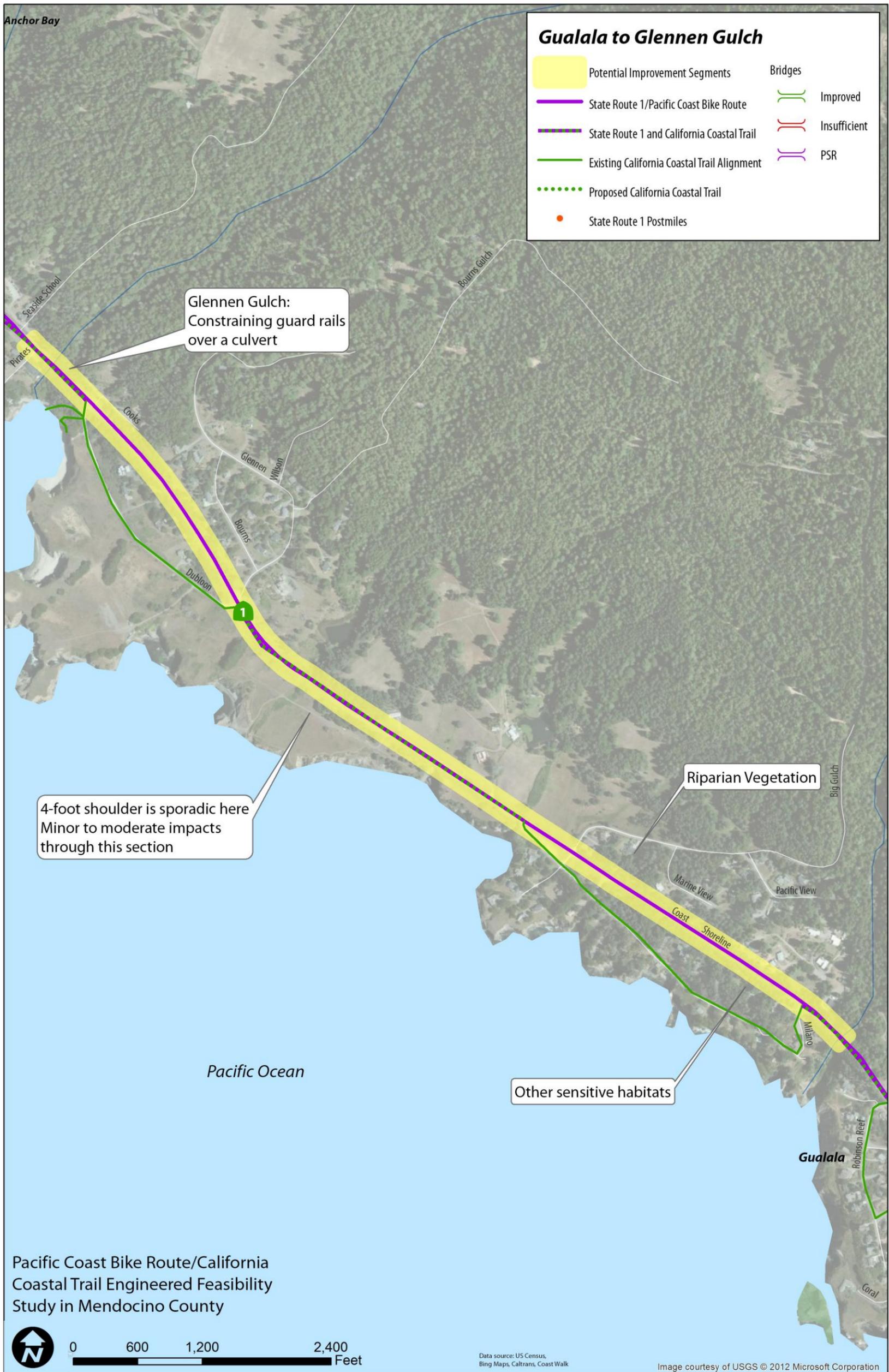


Figure 3-6. Gualala to Glennen Gulch Potential Improvement Segments

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3.2.3. Anchor Bay

This segment has a small visitor-serving complex. The Getchell Gulch Trail is planned southwest of downtown Anchor Bay.

Figure 3-7 shows potential improvements for the study segment in the Anchor Bay Segment.

Segment: Anchor Bay **PM 3.25 – 6.0**

Description:

- Length: 2.75 Miles
- Slopes generally range from Moderate to Severe.
- Shoulders are generally nonexistent. Proposed shoulders are consistently 4’ paved with an additional 4’ space for the CCT including a guard rail and fence.
- Coastal Trail is planned in the ROW for the entire segment
- Anchor Bay is a small community in Southern Mendocino County. Cottages, inns, and campgrounds are available.

Score	Criterion	Considerations
	Bicycle and Pedestrian Facilities Conditions	No pedestrian or bicycle facilities.
	Safety Concerns	One bicyclist injured in a collision at the remote south of the segment.
	High Bicycle and Pedestrian Use	34 bicycles and 2 pedestrians counted at nearby PM 2.5 over 96 hours.
	Provides a Regional Connection	Anchor Bay is in southern Mendocino County and connects south to Sonoma County on State Route 1. Some streets connect inland.
	Gap Closure Opportunities	Major gap in on-roadway accommodations for bicyclists or any pedestrian facilities.
	California Coastal Trail (CCT) Intersect	The Coastal Trail on the entire segment is within the highway ROW. No continuous viable alternative routes exist.
	Biological and Cultural Resources Impact	Environmental constraints are moderate to high within 4’ of the fog line, with constraints becoming more severe further from the pavement.
	Constructability/Cost	Anchor Bay will be an extremely challenging segment to implement. Slopes are severe and presence of creeks and other engineering challenges further increase the cost.

Improvement Types by Post Mile: Anchor Bay			
Quarter-mile			
Segment	Northbound	Southbound	Cost
3.50	Type C, 1.5' Existing	CCT Type B, 1.5' Existing	\$596,642
3.75	Type A, 1.5' Existing	CCT Type A, 1.5' Existing	\$590,226
4.00	Type C, 1.5' Existing	CCT Type A, 1.5' Existing	\$2,655,851
4.25	Type C, 1.5' Existing	CCT Type C, 1.5' Existing	\$6,829,569
4.50	Type B, 1.5' Existing	CCT Type C, 1.5' Existing	\$604,117
4.75	Type C, 1.5' Existing	CCT Type C, 1.5' Existing	\$6,826,072
5.00	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$596,642
5.25	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$608,345
5.50	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$618,374
5.75	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$663,656
6.00	Type B, 1.5' Existing	CCT Type A, 1.5' Existing	\$346,127
		Total	\$20,935,622
		Rounded Total	\$20,900,000

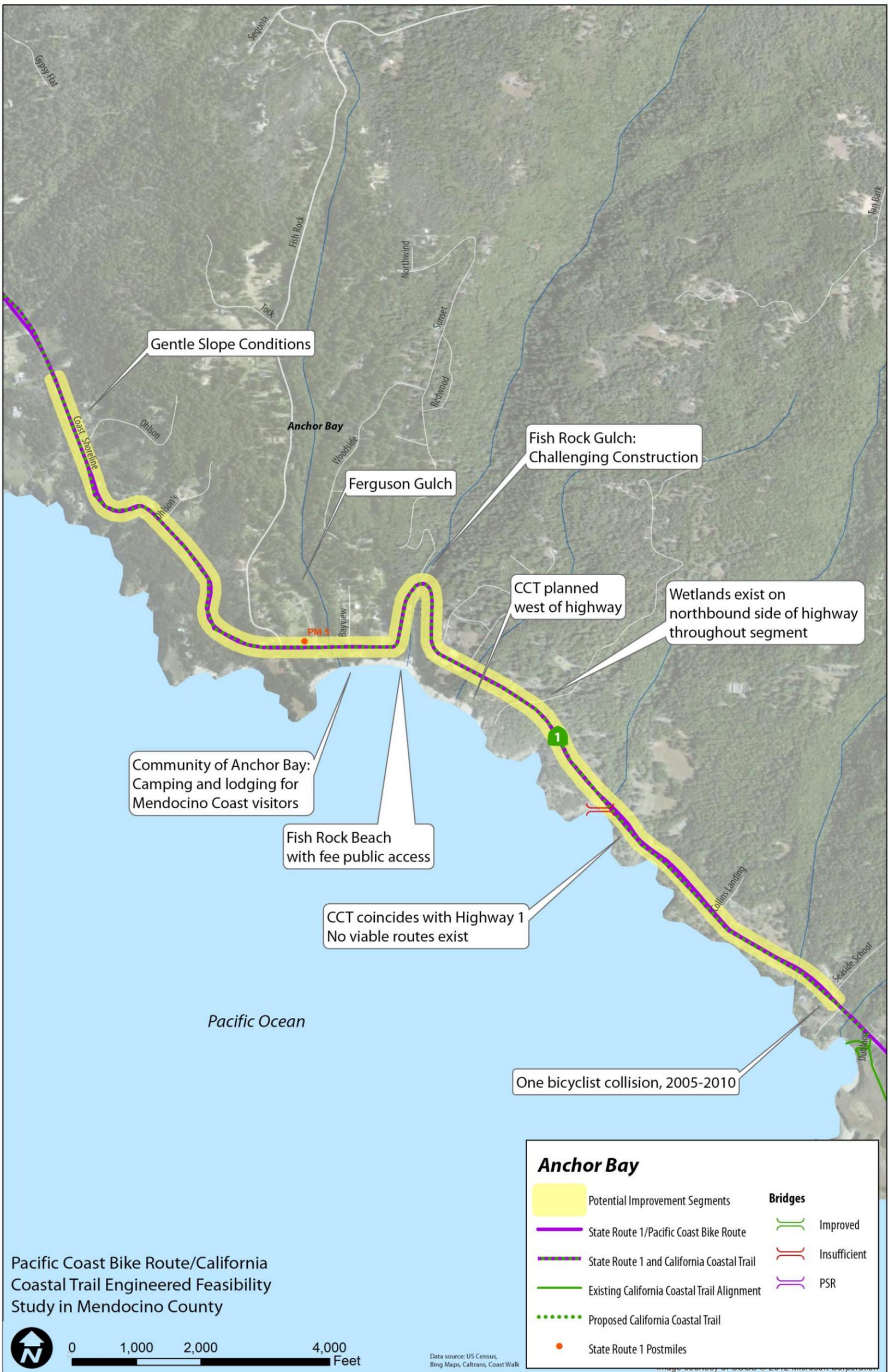


Figure 3-7. Anchor Bay Potential Improvement Segments

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3.2.4. Hearn Gulch to Point Arena

Schooner Gulch State Beach is a popular recreation destination. However, bicycle and pedestrian access is currently constrained by a hill. Planning of the CCT has been completed west of State Route 1 for the section between Moat Creek and Arena Cove. The California Department of Parks and Recreation (DPR), Caltrans, and Redwood Coast Land Conservancy own land in the southern portion of the segment.

The Point Arena Community Action Plan (2010) provides a Downtown Streetscape Plan and guidance for Circulation and Parking in the northern portion of this segment, as discussed in Section 2.2.

Figure 3-8 shows potential improvements for the study segment between Hearn Gulch and Point Arena.

Segment: Hearn Gulch to Point Arena		PM 10.25 to 14.75
Description:		
<ul style="list-style-type: none"> • Length: 4.5 miles • Slopes relatively gentle, but spot locations feature moderate or severe slopes • Potential environmental impacts rate among the highest on the corridor. • Point Arena Community Action Plan continues at PM 14.75. 		
Score	Criterion	Considerations
	Bicycle and Pedestrian Facilities Conditions	Shoulders range from nonexistent to two feet.
	Safety Concerns	No bicycle or pedestrian-related collisions reported, 2006-2010.
	High Bicycle and Pedestrian Use	17 bicyclists counted over 96 hours at PM 15.4.
	Provides a Regional Connection	No major regional destinations or connections to destinations out of the immediate area. Route provides access to Schooner Gulch State Beach.
	Gap Closure Opportunities	8' shoulder exists through parts of Point Arena, but does not continue to Schooner Gulch. Improvements along this segment would increase accessibility.
	California Coastal Trail (CCT) Intersect	Coastal Trail coincides with Highway for this entire segment.
	Biological and Cultural Resources Impact	Several drainage crossings with riparian vegetation, wetlands, and other habitat.
	Constructability/Cost	Drainage crossings and presence of native trees present constructability challenges. Slopes are gentle relative to other locations on the corridor.

Improvement Types by Post Mile: Hearn Gulch to Point Arena			
Quarter-mile			
Segment	Northbound	Southbound	Cost
10.50	Type A, 1.5' Existing	Type A, 6' Existing	\$194,137
10.75	Type A, 1.5' Existing	CCT Type C, 1.5' Existing	\$4,448,708
11.00	Type A, 1.5' Existing	CCT Type A, 1.5' Existing	\$370,973
11.25	Type B, 1.5' Existing	CCT Type C, 1.5' Existing	\$4,234,556
11.50	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$1,869,306
11.75	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$586,854
12.00	Type A, 1.5' Existing	CCT Type A, 1.5' Existing	\$348,881
12.25	Type B, 1.5' Existing	CCT Type A, 1.5' Existing	\$393,934
12.50	Type B, 1.5' Existing	Type B, 1.5' Existing	\$257,845
12.75	Type B, 1.5' Existing	Type B, 1.5' Existing	\$272,076
13.00	Type B, 6' Existing	CCT Type B, 1.5' Existing	\$450,338
13.25	Type A, 1.5' Existing	CCT Type A, 1.5' Existing	\$385,973
13.50	Type A, 1.5' Existing	CCT Type A, 1.5' Existing	\$365,224
13.75	Type A, 1.5' Existing	CCT Type B, 1.5' Existing	\$584,062
14.00	Type A, 1.5' Existing	CCT Type A, 1.5' Existing	\$392,579
14.25	Type A, 1.5' Existing	CCT Type A, 1.5' Existing	\$373,613
14.50	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$592,890
14.75	Type C, 1.5' Existing	CCT Type C, 1.5' Existing	\$6,718,038
		Total	\$22,839,983
		Rounded Total	\$22,800,000

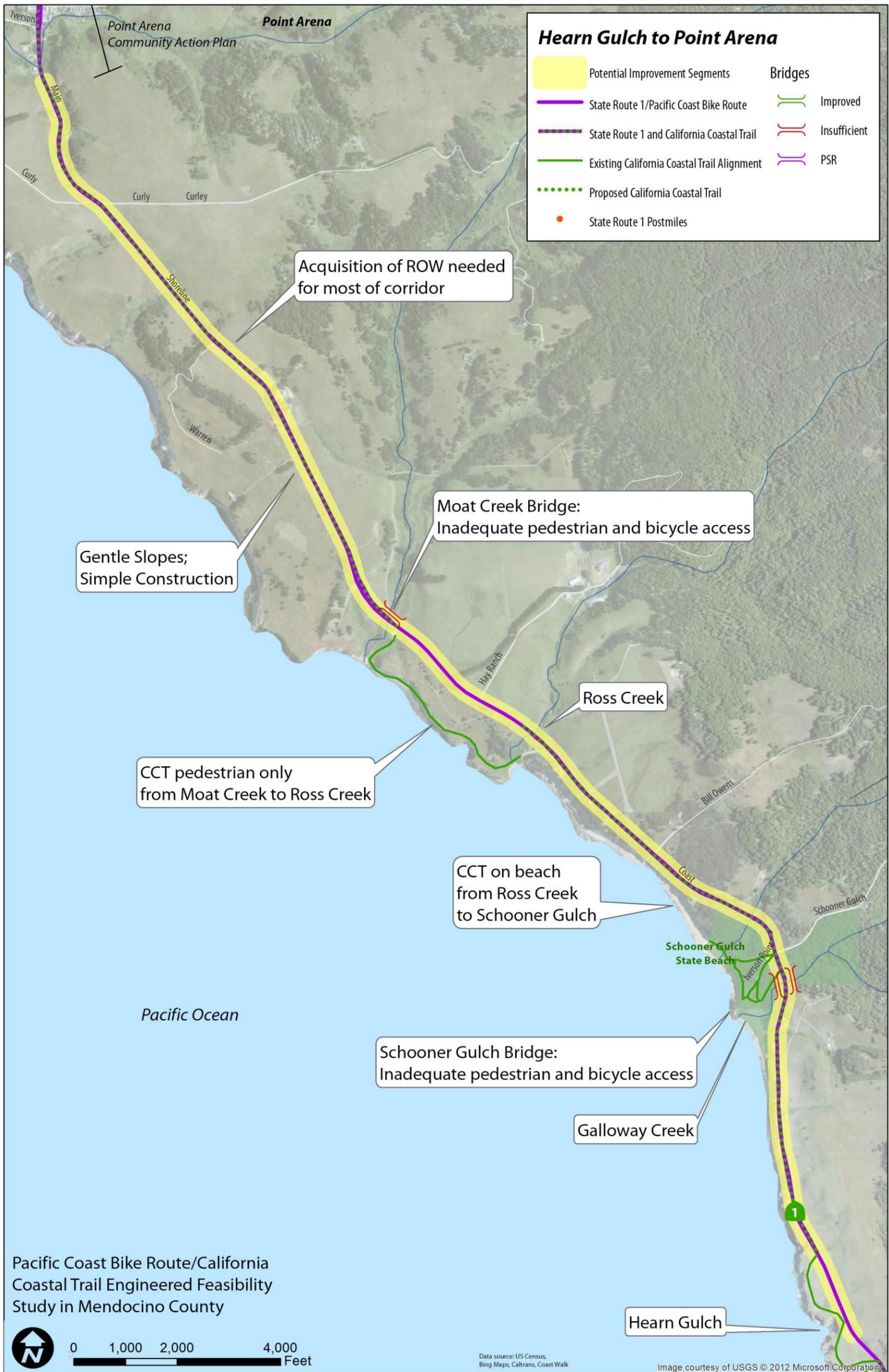


Figure 3-8. Hearn Gulch to Point Arena Potential Improvement Segments

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3.2.5. Point Arena to Garcia River

Segment: Point Arena to Garcia River

PM 16.0 to 18.5

Description:

- Length: 2.5 miles
- Segment continues from the northern extent of the Point Arena Community Action Plan.
- Slopes: Generally gentle slopes, increasing to moderate at northern extent.
- Shoulders: Sporadic 4' shoulders along segment, mostly nonexistent. Proposed shoulders are 8'.
- Coastal Trail: Alternative route developed along Windy Hollow Road.

Score	Criterion	Considerations
	Bicycle and Pedestrian Facilities Conditions	Shoulder mostly 0' – 2'.
	Safety Concerns	No collisions; no specific public comments on safety (see Use).
	High Bicycle and Pedestrian Use	40 bicyclists and pedestrians observed during a 96-hour count period at PM 17.2.
	Provides a Regional Connection	Moderate to high – segment provides access to Stornetta public lands, access inland to Boonville along Mountain View Road.
	Gap Closure Opportunities	Moderate – shoulders mostly 0 – 2'.
	California Coastal Trail (CCT) Intersect	Low because of a developed alternative route inland.
	Biological and Cultural Resources Impact	Moderate presence of habitat and other sensitive resources, especially in southern section of segment.
	Constructability/Cost	Topography is among the least challenging of segments without an existing shoulder. However, ROW acquisition will be necessary.

Improvement Types by Post Mile: Point Arena to Garcia River			
Quarter-mile			
Segment	Northbound	Southbound	Cost
16.25	Type A, 1.5' Existing	CCT Type A, 1.5' Existing	\$370,973
16.50	Type A, 1.5' Existing	CCT Type A, 1.5' Existing	\$419,282
16.75	Type A, 1.5' Existing	CCT Type A, 1.5' Existing	\$132,789
17.00	Type A, 1.5' Existing	CCT Type A, 1.5' Existing	\$419,216
17.25	Type C, 1.5' Existing	CCT Type B, 1.5' Existing	\$2,793,597
17.50	Type C, 1.5' Existing	CCT Type C, 1.5' Existing	\$6,663,356
17.75	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$1,171,226
18.00	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$562,676
18.25	Type A, 6' Existing	CCT Type A, 1.5' Existing	\$311,243
18.50	Type A, 1.5' Existing	CCT Type A, 1.5' Existing	\$365,224
		Total	\$13,209,581
		Rounded Total	\$13,200,000

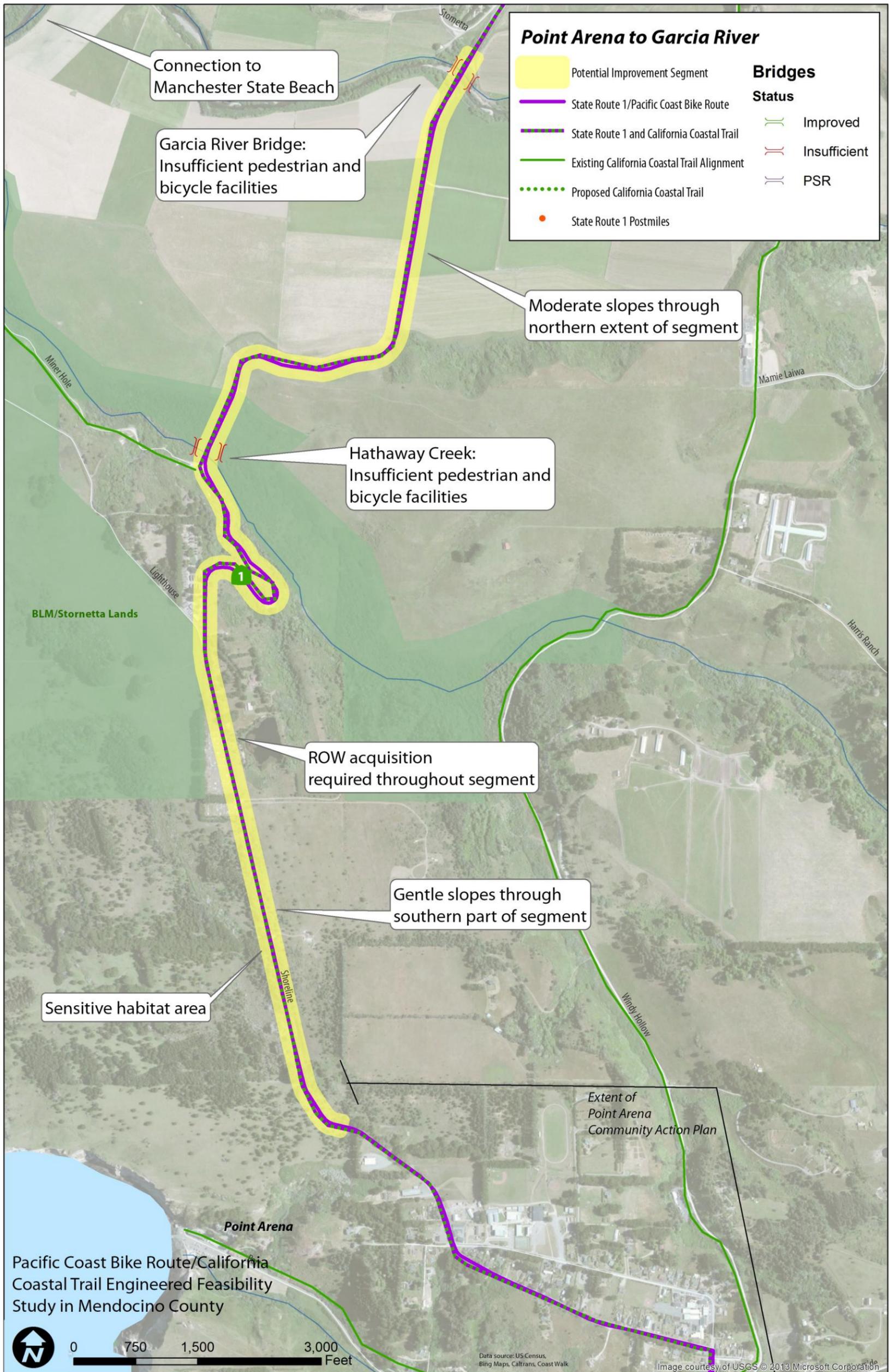


Figure 3-9. Point Arena to Garcia River Potential Improvement Segments

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3.2.6. Elk and Greenwood State Beach

Elk is a small visitor-serving complex and popular through-bicyclist destination. The trail connections north, south, and west of town need improvements.

Figure 3-10 shows potential improvements for the study segment around Greenwood State Beach and Elk.

Segment: Elk/Greenwood State Beach **PM 32.25 – 33.75**

Description:

- Length: 1.5 Miles
- Slopes: Generally moderate, with some severe sections.
- Shoulders: Generally range from 0 - 2 feet. Existing 8' shoulders southbound for a half mile
- Coastal Trail: Unmaintained shoreline trail segment. Proposed trail is in the highway ROW

Score	Criterion	Considerations
	Bicycle and Pedestrian Facilities Conditions	Narrow or non-existent shoulders along segment.
	Safety Concerns	Two collisions involving pedestrian or bicyclists south of Elk along Greenwood State Beach.
	High Bicycle and Pedestrian Use	Elk is a popular stop for touring bicyclists, with few other populated areas along this section of coast. Count data not yet available.
	Provides a Regional Connection	The segment is not located near any major population centers. There are some regional attractions in the Greenwood Cove area. The highway is connected to the inland community of Philo via a quiet rural road.
	Gap Closure Opportunities	Very little of the shoulder is wide enough to accommodate bicyclists along this segment. There is a half mile southbound segment completed. 2' shoulders exist from PM 33.25 to 33.75.
	California Coastal Trail (CCT) Intersect	The Coastal Trail is planned along the entire segment, with the exception of a possible alternative route along Philo Greenwood and Cameron Roads.
	Biological and Cultural Resources Impact	Shoulder widening and CCT improvements are likely to generate major impacts within eight feet of the fog line. Impacts within four feet are moderate.
	Constructability/Cost	Very challenging curve at Mile 33 with a severe slope and other engineering challenges. The slope in the northern part of the segment is gentle.

Improvement Types by Post Mile: Elk/Greenwood State Beach			
Quarter-mile			
Segment	Northbound	Southbound	Cost
32.50	Type A, 1.5' Existing	Type B, 1.5' Existing	\$253,376
32.75	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$542,236
33.00	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$607,099
33.25	Type C, 1.5' Existing	CCT Type C, 1.5' Existing	\$8,490,438
33.50	Type A, 1.5' Existing	CCT Type C, 1.5' Existing	\$4,152,599
33.75	Type A, 6' Existing	CCT Type A, 6' Existing	\$244,984
		Total	\$14,290,732
		Rounded Total	\$14,300,000

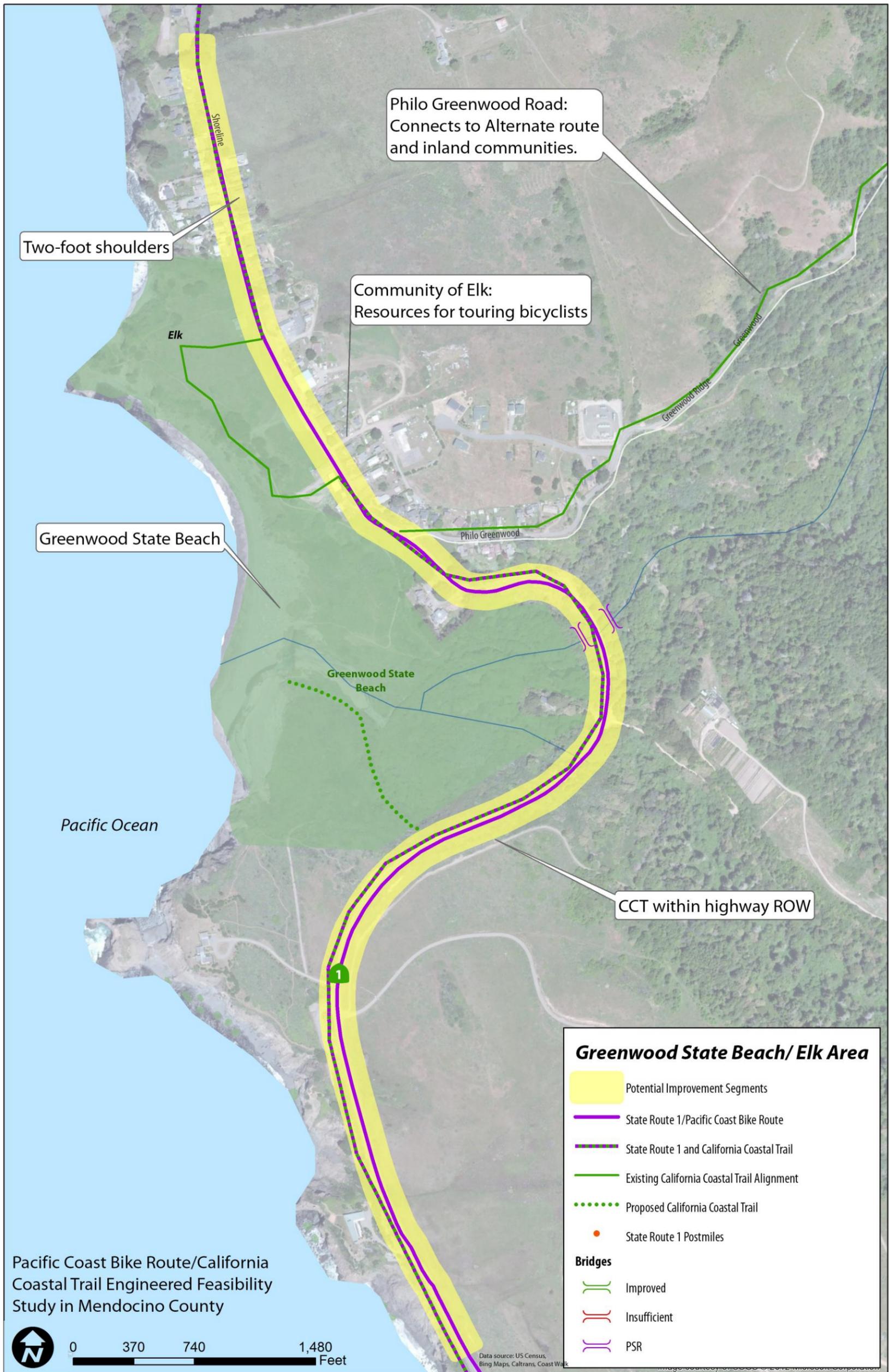


Figure 3-10. Elk and Greenwood State Beach Potential Improvement Segments

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3.2.7. Elk to Cuffey’s Cove

Segment: Elk to Cuffey’s Cove **PM 33.75 to 34.75**

Description:

- Length: 1 mile
- A sparsely populated section of the Pacific Coast Bike Route.
- Slopes: Range from moderate to severe.
- Shoulders: Existing shoulders vary from 0 to 2’ for the entire length of the segment; proposed shoulders are a consistent 4’ paved + 4’ space for CCT including guardrail and fence.
- Coastal Trail: Planned in ROW for entire segment.

Score	Criterion	Considerations
	Bicycle and Pedestrian Facilities Conditions	No existing bicycle or pedestrian facilities, but relatively low demand means fewer access issues.
	Safety Concerns	No collisions; no specific public comments on safety. One collision nearby.
	High Bicycle and Pedestrian Use	No count data available. No comments about high pedestrian or bicycle use.
	Provides a Regional Connection	Low – very few destinations along this segment of the Pacific Coast Bike Route.
	Gap Closure Opportunities	Moderate – shoulders consistently less than 2 feet.
	California Coastal Trail (CCT) Intersect	High – the CCT is within the highway ROW for the entire segment.
	Biological and Cultural Resources Impact	Riparian vegetation and other habitat present, even within 4 feet of the existing fog line.
	Constructability/Cost	Construction will be extremely challenging for the entire length of the segment.

Improvement Types by Post Mile: Elk to Cuffey’s Cove

Quarter-mile			
Segment	Northbound	Southbound	Cost
34.00	Type A, 1.5' Existing	CCT Type A, 1.5' Existing	\$414,359
34.25	Type A, 1.5' Existing	CCT Type C, 1.5' Existing	\$590,373
34.50	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$593,165
34.75	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$598,614
		Total	\$2,196,510
		Rounded Total	\$2,200,000

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Figure 3-11. Elk to Cuffey's Cove Potential Improvement Segments

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3.2.8. Navarro River to Little River

Segment: Navarro River to Little River

PM 39.75 to 48.0

Description:

- Length: 8.25 miles
- This is a very long segment of the Pacific Coast Bike Route, an area that includes both more developed areas in Albion and Little River and sparsely populated areas between them.
- Slopes: A variety of slope conditions is present, encompassing the full range from gentle to severe
- Three bridges along the segment have planned improvements.
- Shoulders: Existing shoulders vary from 0' to 4' throughout the segment, with most areas ranging from 0' to 2'; proposed shoulders may be 4 or 8 feet in some places.
- Coastal Trail: Planned in ROW for most of the segment, but including a narrow and steep option on Albion Little River Road.

Score	Criterion	Considerations
	Bicycle and Pedestrian Facilities Conditions	Shoulder is sporadic throughout the segment. No pedestrian facilities, and many trip generators present.
	Safety Concerns	Three pedestrian- and bicycle-related collisions over this stretch of highway between 2006 and 2010.
	High Bicycle and Pedestrian Use	27 bicyclists counted at PM 40.9 over a 96-hour counting period.
	Provides a Regional Connection	Many regional destinations along this stretch of the Pacific Coast Bike Route, including populated areas of Little River and Albion, the Pygmy Forest, Van Damme State Park, inns and markets.
	Gap Closure Opportunities	High potential for gap closure, as shoulders do exist in some locations along this segment and the Salmon, Albion, and Little River bridges are all slated for improvements.
	California Coastal Trail (CCT) Intersect	High – the CCT is within the highway ROW for the entire segment.
	Biological and Cultural Resources Impact	Wetland areas present in spot locations throughout the segment. Many other habitat types present, including riparian habitat.
	Constructability/Cost	There are a wide range of slope conditions, habitat conditions, and levels of urban development along the corridor. The area surrounding the Navarro River will be extremely challenging. Three bridges have planned expansions.

Improvement Types by Post Mile: Navarro River to Little River			
Quarter-mile			
Segment	Northbound	Southbound	Cost
40.00	Type C, 1.5' Existing	CCT Type B, 1.5' Existing	\$2,806,806
40.25	Type C, 1.5' Existing	CCT Type C, 1.5' Existing	\$2,914,840
40.50	Type C, 1.5' Existing	CCT Type C, 1.5' Existing	\$6,833,810
40.75	Type C, 1.5' Existing	CCT Type C, 1.5' Existing	\$6,718,038
41.00	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$567,875
41.25	Type B, 1.5' Existing	CCT Type A, 1.5' Existing	\$393,934
41.50	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$582,875
41.75	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$596,642
42.00	Type B, 1.5' Existing	CCT Type C, 1.5' Existing	\$568,446
42.25	Type B, 1.5' Existing	CCT Type B, 1.5' Existing	\$581,655
42.50	Bridge	Bridge	\$2,478,388
42.75	Type A, 1.5' Existing	CCT Type B, 1.5' Existing	\$549,467
43.00	Type B, 6' Existing	CCT Type B, 1.5' Existing	\$508,418
43.25	Bridge	Bridge	\$4,147,708
43.50	Type A, 1.5' Existing	Type A, 1.5' Existing	\$261,586
43.75	Type A, 1.5' Existing	Type A, 1.5' Existing	\$227,877
44.00	Type A, 6' Existing	Type B, 1.5' Existing	\$250,387
44.25	Type C, 6' Existing	Type B, 6' Existing	\$52,056
44.50	Type B, 1.5' Existing	Type C, 1.5' Existing	\$3,176,604
44.75	Type B, 1.5' Existing	Type B, 1.5' Existing	\$289,318
45.00	Type C, 1.5' Existing	Type C, 1.5' Existing	\$3,061,918
45.25	Type C, 1.5' Existing	Type C, 1.5' Existing	\$5,469,044
45.50	Type B, 1.5' Existing	Type C, 1.5' Existing	\$3,145,262
45.75	Type B, 1.5' Existing	Type B, 1.5' Existing	\$267,341
46.00	Type A, 1.5' Existing	Type A, 1.5' Existing	\$254,320
46.25	Type B, 1.5' Existing	Type B, 1.5' Existing	\$273,286
46.50	Type B, 1.5' Existing	Type A, 1.5' Existing	\$254,156
46.75	Type A, 1.5' Existing	Type B, 1.5' Existing	\$269,356
47.00	Type B, 1.5' Existing	Type B, 6' Existing	\$261,086
47.25	Type B, 1.5' Existing	Type C, 1.5' Existing	\$381,335
47.50	Type A, 1.5' Existing	Type C, 1.5' Existing	\$3,225,552
47.75	Type A, 6' Existing	Type A, 1.5' Existing	\$218,914
48.00	Type A, 6' Existing	Type B, 1.5' Existing	\$161,838
		Total	\$51,750,135
		Rounded Total	\$51,800,000

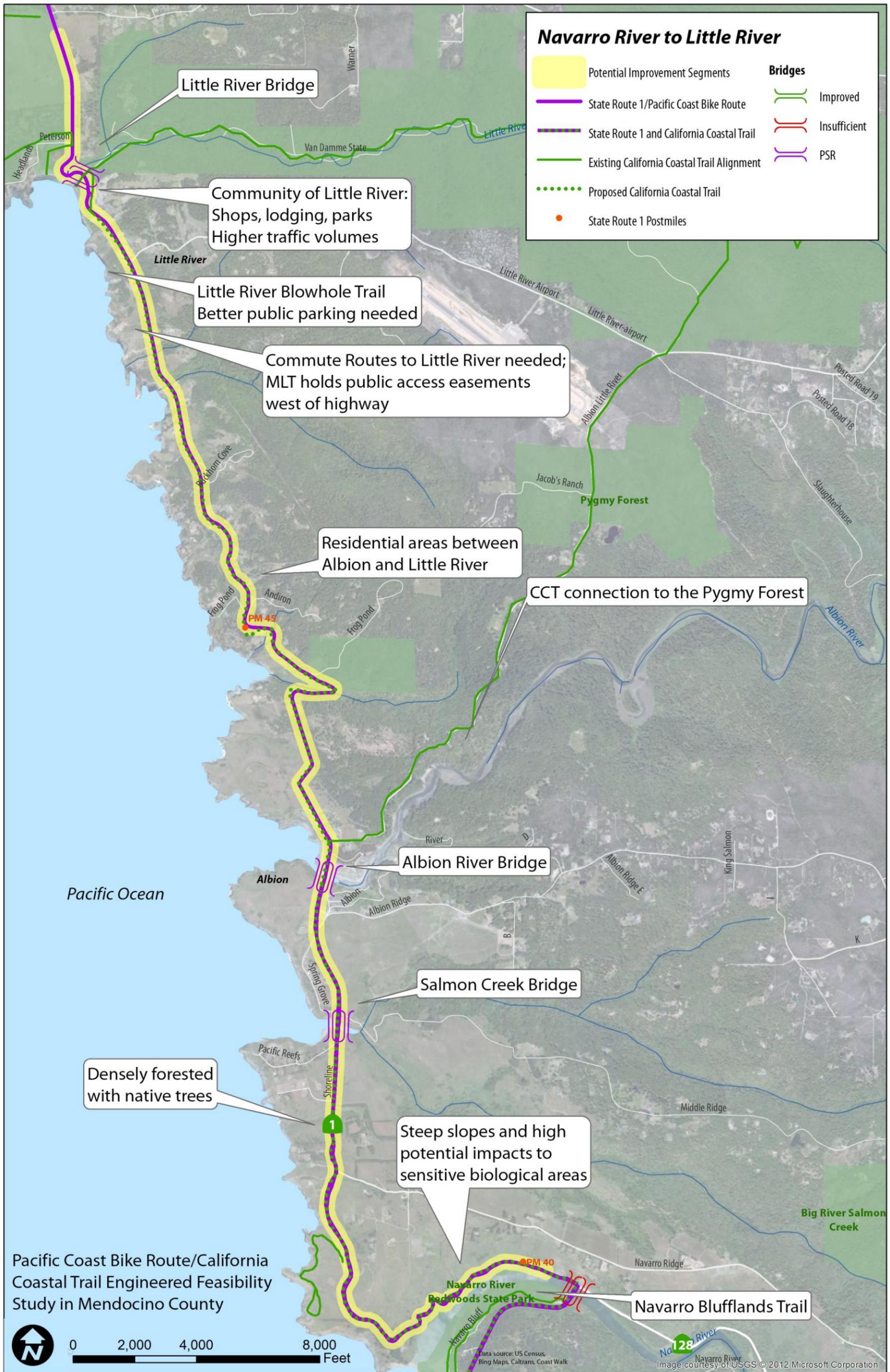


Figure 3-12. Navarro River to Little River Potential Improvement Segments

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3.2.9. Mendocino to Fort Bragg

This segment has the best existing bicycle access. This densely-populated area has undersized bridges, and poorly defined and overly wide shoulders, which would benefit from rumble strips to separate motor vehicle traffic from bicycle traffic. The proposed project would complete the remaining improvements through the entire segment.

Figure 3-13 shows potential improvements for the study segment between Mendocino and Fort Bragg.

Segment: Mendocino to Fort Bragg **PM 50.5 to PM 57.75**

Description:

- Opportunity for a showcase project that improves conditions for large numbers of bicyclists along a segment with relatively fewer physical or environmental constraints.
- Length: 7.25 miles
- Slopes: Gentle to Moderate.
- Shoulders: Generally vary between four and eight or more feet. Proposed shoulders are consistently 8’ with an additional 8’ for CCT.
- Coastal Trail: Many segments already existing or planned on alternative routes.

Score	Criterion	Considerations
○	Bicycle and Pedestrian Facilities Conditions	Wide shoulders and sidewalks in some areas.
●	Safety Concerns	Fifty pedestrian and bicycle collisions between 2005 and 2010. This reflects the high volumes of both bicyclists and motorists on this segment.
●	High Bicycle and Pedestrian Use	The segment between Mendocino and Fort Bragg has the highest volumes of bicyclists of any corridor in Mendocino County. 33 bicyclists and 1 pedestrian counted over 96 hours at PM 53.9. 292 bicyclists counted over three days at intersection of State Route 1 and Highway 20.
●	Provides a Regional Connection	Mendocino and Fort Bragg are the largest population centers and major regional draws for visitors to the Mendocino Coast. There are few connections to regions outside Mendocino County.
○	Gap Closure Opportunities	Much of the Pacific Coast Bike Route is complete in this segment. This project would fill the persistent gaps.
○	California Coastal Trail (CCT) Intersect	Low because there are some alternative routes that might be considered, including Lansing Street, Cabrillo Drive, Caspar Road. Other segments of the CCT are already complete. Highway crossings are one element of concern.
●	Biological and Cultural Resources Impact	Generally very minor, as much of this area is more urbanized than other parts of the corridor and already impacted.
◐	Constructability/Cost	High constructability because much of the segment is already complete. Small gap closures generally occur on gentle slopes. However, three major creek crossings without sufficient pedestrian and bicycle facilities are likely to be expensive.

Improvement Types by Post Mile: Mendocino to Fort Bragg			
Quarter-mile			
Segment	Northbound	Southbound	Cost
50.75	Type A, 1.5' Existing	CCT Type B, 1.5' Existing	\$1,316,288
51.00	Type B, 6' Existing	Type B, 6' Existing	\$58,798
51.25	Type A, 6' Existing	Type B, 1.5' Existing	\$181,015
51.50	Type A, 6' Existing	Type A, 6' Existing	\$2,072,114
51.75	Type A, 6' Existing	Type A, 8' existing	\$70,416
52.00	Type A, 6' Existing	Type A, 6' Existing	\$85,410
52.25	Type A, 6' Existing	Type B, 6' Existing	\$55,416
52.50	Type A, 6' Existing	Type B, 6' Existing	\$73,266
52.75	Type A, 6' Existing	Type A, 6' Existing	\$70,410
53.00	Type A, 6' Existing	Type B, 6' Existing	\$55,416
53.25	Type A, 1.5' Existing	Type A, 6' Existing	\$67,560
53.50	Type A, 6' Existing	CCT Type B, 6' Existing	\$3,372,658
53.75	Type A, 6' Existing	CCT Type A, 6' Existing	\$208,415
54.00	Type A, 6' Existing	Type A, 6' Existing	\$70,410
54.25	Type A, 6' Existing	Type A, 6' Existing	\$52,560
54.50	Type A, 6' Existing	Type A, 6' Existing	\$52,560
54.75	Type A, 6' Existing	Type A, 6' Existing	\$52,560
55.00	Type A, 6' Existing	Type A, 6' Existing	\$1,443,978
55.25	Type A, 6' Existing	Type A, 6' Existing	\$52,560
55.50	Type A, 1.5' Existing	Type A, 6' Existing	\$67,560
55.75	Type A, 1.5' Existing	CCT Type A, 1.5' Existing	\$223,415
56.00	Type B, 6' Existing	CCT Type A, 1.5' Existing	\$331,859
56.25	Type A, 8' existing	CCT Type A, 8' existing	\$0
56.50	Type A, 1.5' Existing	CCT Type A, 6' Existing	\$283,895
56.75	Type A, 6' Existing	Type A, 1.5' Existing	\$146,277
57.00	Type A, 6' Existing	Type A, 1.5' Existing	\$149,982
57.25	Type A, 1.5' Existing	Type A, 6' Existing	\$149,160
57.50	Type A, 6' Existing	Type A, 6' Existing	\$29,810
57.75	Type A, 1.5' Existing	CCT Type A, 6' Existing	\$933,937
		Total	\$11,727,703
		Rounded Total	\$11,700,000

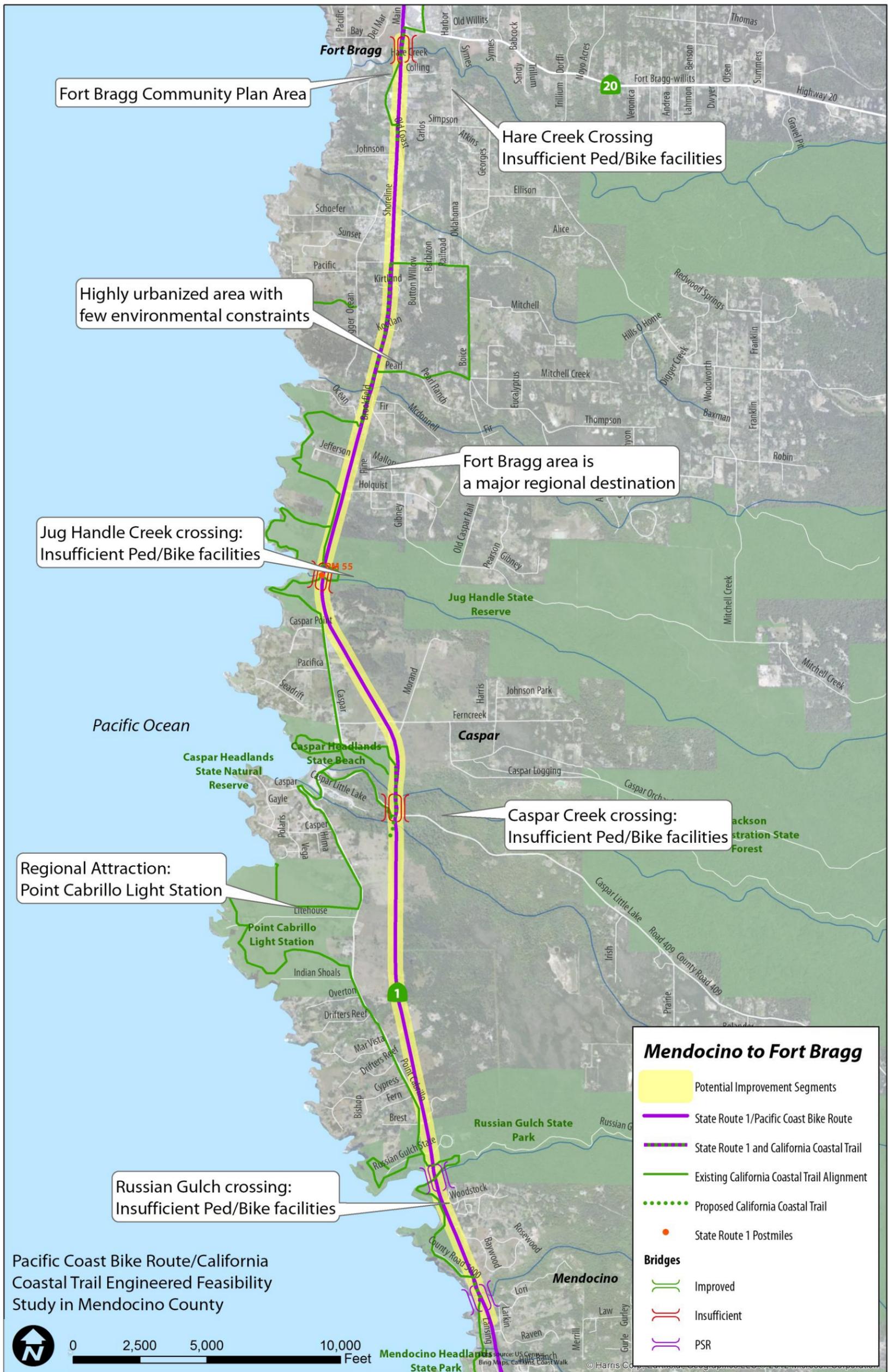


Figure 3-13. Mendocino to Fort Bragg Potential Improvement Segments

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3.2.10. Abalobadiah Gulch to Chadbourne Gulch

This study segment includes the area between the north end of MacKerricher State Park and the community of Westport. Its location near Fort Bragg and adjacent to the largest recreational area on the Mendocino Coast suggests that trail enhancements may provide recreational opportunities to a variety of users. Terrain through this area is relatively gentle, rewarding potential trail users with ocean views.

An existing stretch of Coastal Trail along this segment could be enhanced by regional connections to the south and north. Therefore, members of the Technical Advisory Group identified this segment as being especially important to the Pacific Coast Bike Route.

Figure 3-14 shows potential improvements for the study segment between Abalobadiah Gulch and Chadbourne Gulch.

Segment: Abalobadiah Gulch to Chadbourne Gulch **PM 69.25 to 73.25**

Description:

- Length: 4 Miles
- Slopes: Range from gentle to moderate in southern parts of the segment. The terrain immediately surrounding Chadbourne Gulch is much more severe.
- Shoulders: Existing shoulders generally range from non-existent to four feet. Eight-foot shoulders are proposed for the length of the segment.
- Coastal Trail: Proposed Coastal Trail within highway ROW in southern end of segment. An existing trail to Bruhel Point would become a part of the trail.

Score	Criterion	Considerations
	Bicycle and Pedestrian Facilities Conditions	Existing facilities are minimal.
	Safety Concerns	4 bicycle collisions since 2007.
	High Bicycle and Pedestrian Use	No comments regarding high bicycle volumes in this area. Count data not yet available.
	Provides a Regional Connection	Improvement segment is located near MacKerricher State Park, the City of Fort Bragg, and the community of Westport. No connections inland.
	Gap Closure Opportunities	Improvements would enhance the value of the existing Bruhel Point Trail.
	California Coastal Trail (CCT) Intersect	Medium – southern part of the segment would coincide with the CCT. Existing off-street trail in the northern part of the segment.
	Biological and Cultural Resources Impact	Generally moderate impacts throughout. Sensitive habitats in southern part of the segment. Some wetlands further north.
	Constructability/Cost	Fairly gentle terrain in southern part of the segment, continues to severe slopes near Chadbourne Gulch.

Improvement Types by Post Mile: Abalobadiah Gulch to Chadbourne Gulch			
Quarter-mile			
Segment	Northbound	Southbound	Cost
69.50	Type B, 1.5' Existing	CCT Type C, 1.5' Existing	\$6,762,652
69.75	Type B, 6' Existing	Type C, 1.5' Existing	\$4,262,206
70.00	Type A, 1.5' Existing	Type A, 1.5' Existing	\$367,724
70.25	Type A, 1.5' Existing	Type A, 1.5' Existing	\$412,050
70.50	Type B, 1.5' Existing	Type A, 1.5' Existing	\$436,621
70.75	Type A, 1.5' Existing	Type B, 1.5' Existing	\$545,247
71.00	Type B, 1.5' Existing	Type B, 1.5' Existing	\$568,446
71.25	Type B, 1.5' Existing	Type B, 1.5' Existing	\$570,587
71.50	Type B, 1.5' Existing	Type B, 1.5' Existing	\$627,324
71.75	Type B, 1.5' Existing	Type A, 1.5' Existing	\$238,302
72.00	Type B, 1.5' Existing	Type B, 1.5' Existing	\$315,604
72.25	Type C, 1.5' Existing	Type B, 1.5' Existing	\$2,627,682
72.50	Type C, 1.5' Existing	Type B, 1.5' Existing	\$2,515,408
72.75	Type C, 1.5' Existing	Type C, 1.5' Existing	\$5,346,240
73.00	Type B, 1.5' Existing	Type C, 1.5' Existing	\$4,645,762
73.25	Type C, 1.5' Existing	Type C, 1.5' Existing	\$5,272,640
		Total	\$35,514,495
		Rounded Total	\$35,500,000

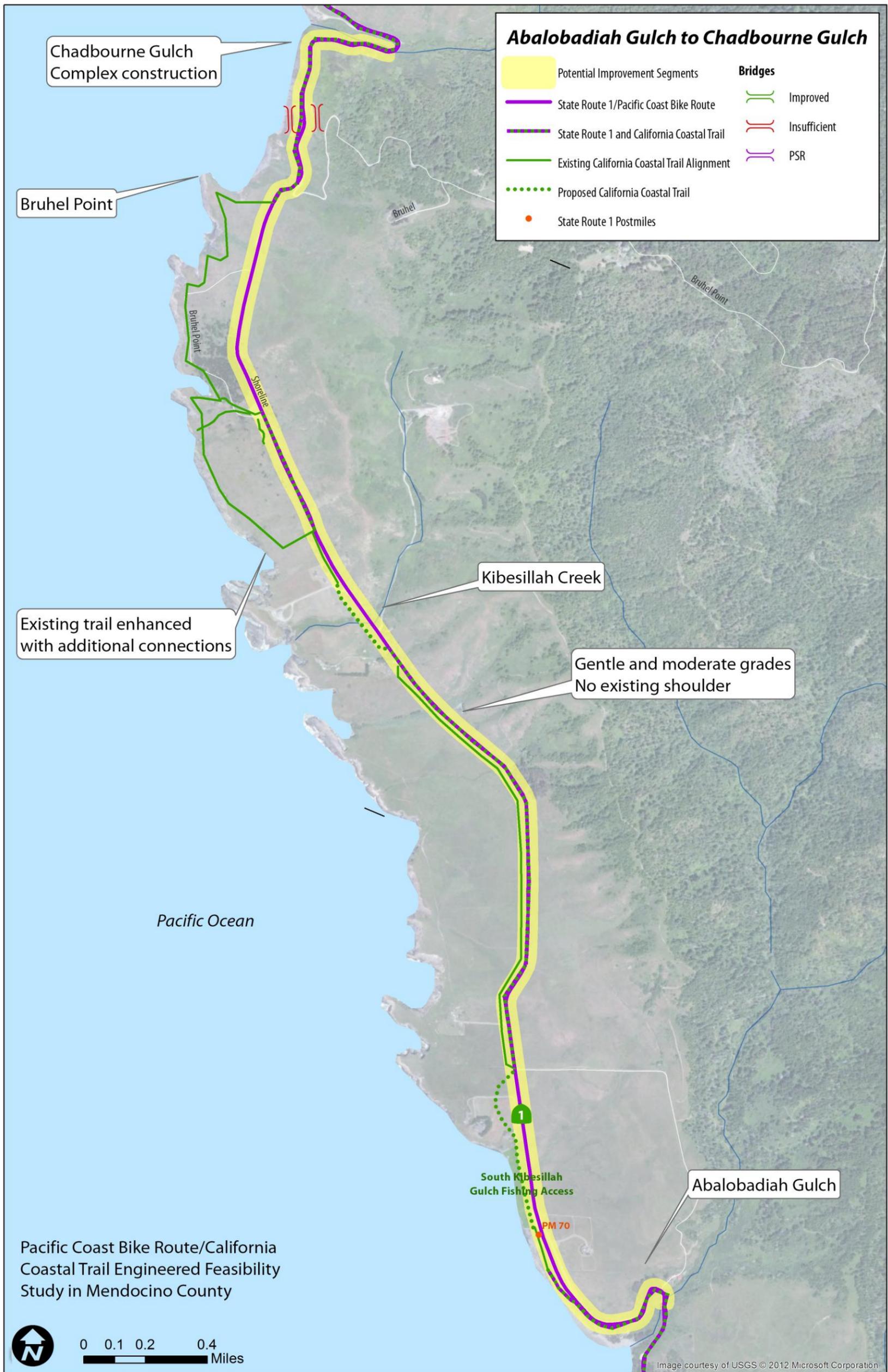


Figure 3-14. Abalobadiah Gulch to Chadbourne Gulch Potential Improvement Segments

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3.2.11. Westport to Westport Union Landing

This study segment has locally high interest, but is regionally a low usage area. The Westport Community Plan identified a segment from the north side of the Westport community to Wages Creek as the highest priority segment.

The Mendocino Land Trust manages the CCT in the Kibesillah Creek area, and opportunities for trail expansion exist both north and south of this area. Westport Headlands is managed by Westport Village Society. California DPR and Caltrans also own land in this area.

A Caltrans non-motorized transportation study was recently completed for this area.

Figure 3-15 shows potential improvements for the study segment between Westport and Westport Union Landing.

Segment: Westport to Westport Union Landing **PM 75.25 to 78.5**

Description:

- Length: 3.25 Miles
- Slopes: Generally moderate to severe, with gentler sections in the northern reach of the segment.
- Shoulders: Existing shoulders are generally 0-2 feet. Four feet proposed throughout, with an additional four feet for coastal trail.
- Coastal Trail: Existing shoreline trail for most of the segment. Proposed within highway ROW for most of segment.

Score	Criterion	Considerations
●	Bicycle and Pedestrian Facilities Conditions	Existing facilities are minimal.
	Safety Concerns	No pedestrian or bicycle collisions from 2005 - 2010.
◐	High Bicycle and Pedestrian Use	No comments regarding high bicycle volumes in this area. Count data not yet available.
●	Provides a Regional Connection	Furthest north improvement segment provides a connection to recreational opportunities on the Lost Coast and further up State Route 1 to Leggett. Branscomb Road connects to Laytonville.
◐	Gap Closure Opportunities	The route is more complete northbound than southbound, which is contrary to typical preferences for a continuous southbound bike route.
◐	California Coastal Trail (CCT) Intersect	Medium – there is an unmaintained shoreline trail through this segment, providing some opportunities for pedestrians.
◐	Biological and Cultural Resources Impact	Generally moderate impacts throughout. Medium in southern part of the segment, high in the center of the segment, and lower impact to the north.
○	Constructability/Cost	Very challenging construction with steep slopes on both sides, even within four feet of the pavement.

Improvement Types by Post Mile: Westport to Westport Union Landing			
Quarter-mile			
Segment	Northbound	Southbound	Cost
75.50	Type A, 1.5' Existing	Type B, 6' Existing	\$134,160
75.75	Type B, 1.5' Existing	CCT Type C, 1.5' Existing	\$4,396,834
76.00	Type A, 1.5' Existing	CCT Type C, 1.5' Existing	\$568,665
76.25	Type C, 1.5' Existing	CCT Type C, 1.5' Existing	\$4,430,711
76.50	Type C, 1.5' Existing	CCT Type B, 1.5' Existing	\$3,147,720
76.75	Type C, 1.5' Existing	CCT Type C, 1.5' Existing	\$2,834,515
77.00	Type A, 1.5' Existing	CCT Type A, 1.5' Existing	\$6,560,207
77.25	Type B, 1.5' Existing	CCT Type A, 1.5' Existing	\$650,409
77.50	Type A, 6' Existing	Type A, 1.5' Existing	\$188,349
77.75	Type A, 6' Existing	Type A, 6' Existing	\$52,560
78.00	Type A, 6' Existing	Type A, 6' Existing	\$52,560
78.25	Type A, 6' Existing	Type A, 6' Existing	\$52,560
78.50	Type A, 6' Existing	Type A, 6' Existing	\$52,560
		Total	\$23,121,810
		Rounded Total	\$23,100,000

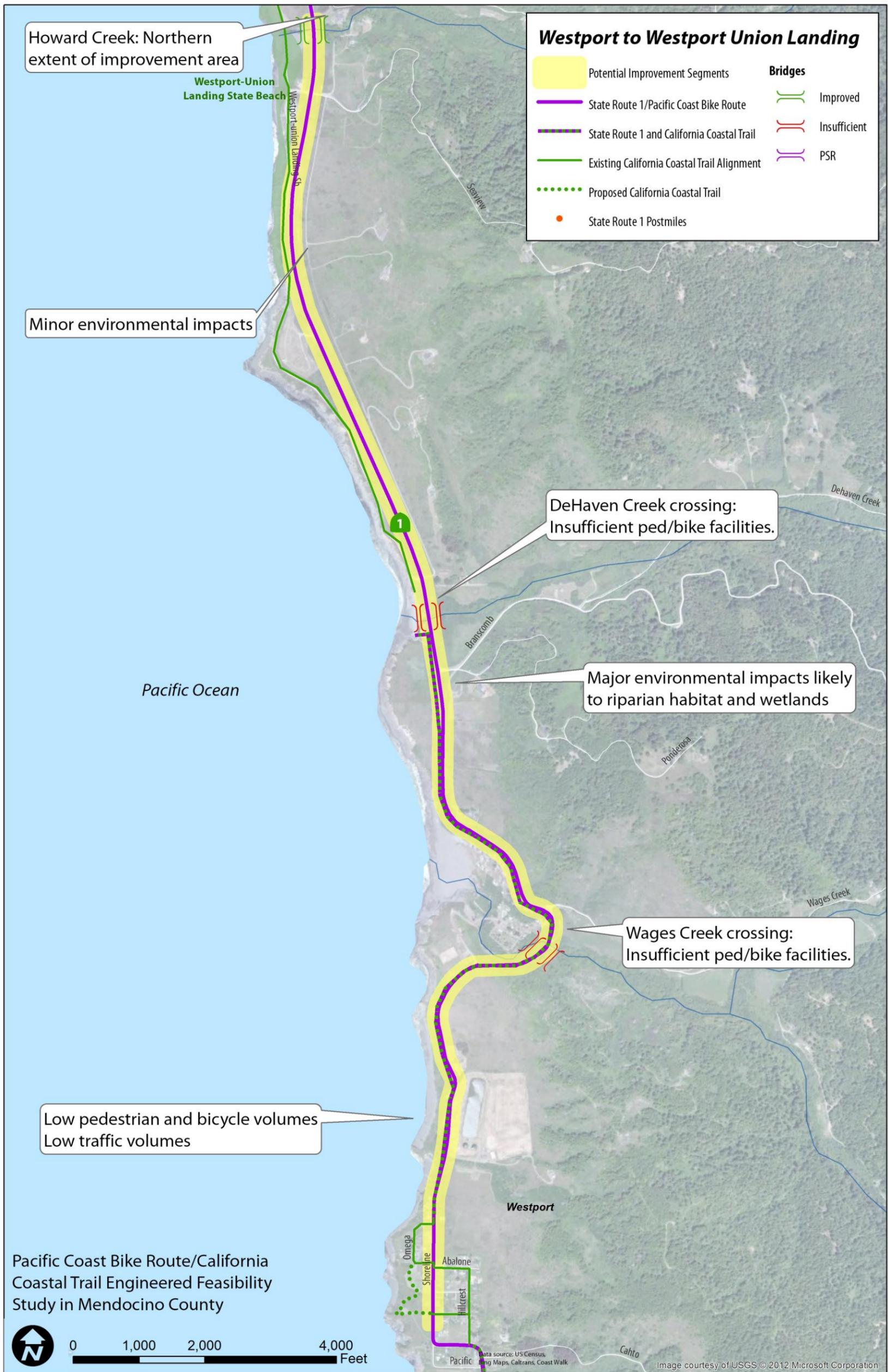


Figure 3-15. Westport to Westport Union Landing Potential Improvement Segments

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3.3. Next Steps

In summary, the PCBR and CCT Engineered Feasibility Study accomplished three major things: The collection of existing conditions base data in Geographic Information System (GIS) format, the identification of Potential Improvement Segments with their associated cost estimates, and the gathering of public and stakeholder weighted priorities for pedestrian and bicycle improvements and their initial feedback on the Potential Improvement Segments.

This planning-level study is just the beginning of further planning and analysis of the Potential Improvement Segments. As a next step in the process, Caltrans will:

- Work to complete the existing program of projects and project studies;
- Work with the County of Mendocino, cities of Fort Bragg and Point Arena, the Coastal Commission, Coastal Conservancy, State Parks and other relevant public agencies and stakeholders to refine the designs and concepts, and to update plans and policies to incorporate the goals and objectives established with this Engineered Feasibility Study;
- Work with MCOG to identify funding sources for implementing the Potential Improvement Segments;
- Utilize the existing conditions GIS data, improvement cross section typologies, and initial planning-level cost estimates to advance the study of the Potential Improvement Segments. During the project definition stage, Caltrans will study the feasibility of improving key portions of the Potential Improvement Segments in greater detail;
- Caltrans will continue to engage the public and stakeholders on the development of the segments and incorporate study concepts throughout the project development process.

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