

**SANTA CRUZ BRANCH LINE**

**INTRA-COUNTY**

**RECREATIONAL RAIL OPTIONS**

**Preliminary Analysis**

**Prepared for:**

**Santa Cruz County Regional Transportation Commission**

**Prepared at the direction of:**

**Hyde, Miller, Owen & Trost**

**March 2003**

## TABLE OF CONTENTS

<b>I.</b>	<b>INTRODUCTION.....</b>	<b>4</b>
<b>A.</b>	<b>Purpose of Study.....</b>	<b>4</b>
<b>B.</b>	<b>Summary of Existing U.S. Recreational Rail Operations.....</b>	<b>5</b>
<b>C.</b>	<b>Potential for Recreational Rail Operations on the Branch Line.....</b>	<b>7</b>
<b>II.</b>	<b>POTENTIAL OPERATING SCENARIOS.....</b>	<b>8</b>
<b>A.</b>	<b>Capitola Village – Aptos Village.....</b>	<b>9</b>
<b>B.</b>	<b>Santa Cruz – Capitola Village.....</b>	<b>9</b>
<b>C.</b>	<b>Santa Cruz – Davenport.....</b>	<b>10</b>
<b>D.</b>	<b>Santa Cruz – Junction of Highway 1 and Highway 9.....</b>	<b>10</b>
<b>III.</b>	<b>ECONOMIC ANALYSIS OF OPERATING SCENARIOS.....</b>	<b>11</b>
<b>A.</b>	<b>Facility Needs and Assumptions.....</b>	<b>11</b>
<b>B.</b>	<b>Preliminary Economic Forecasts.....</b>	<b>11</b>
<b>1.</b>	<b>Capitola Village – Aptos Village.....</b>	<b>12</b>
	<b>Notes to Table 1.....</b>	<b>13</b>
<b>2.</b>	<b>Santa Cruz – Capitola Village.....</b>	<b>14</b>
<b>3.</b>	<b>Santa Cruz – Davenport.....</b>	<b>14</b>
<b>4.</b>	<b>Santa Cruz – Junction of Highway 1 and Highway 9.....</b>	<b>15</b>
<b>IV.</b>	<b>PRELIMINARY CONCLUSIONS.....</b>	<b>16</b>

**LIST OF TABLES**

**TABLE 1. *Economic Forecast – Capitola Village to Aptos Village Service*.....12**

**TABLE 2. *Economic Forecast – Santa Cruz to Capitola Village Service*.....14**

**TABLE 3. *Economic Forecast – Santa Cruz to  
Junction of Highway 1 and Highway 9*.....15**

## I. INTRODUCTION

### A. Purpose of Study

In 2000, the Santa Cruz County Regional Transportation Commission (“Commission”) established itself as the Rail/Trail Authority for the purpose of acquiring and overseeing the future development of, and operations on, the Santa Cruz Branch Line (“Branch Line”). While various passenger rail schemes had been analyzed previously for the Branch Line,<sup>1</sup> the Commission proposed to acquire the Branch Line for bicycle/pedestrian trail and corridor preservation purposes, without a specific plan for passenger rail use.

Since that time, the Commission has been negotiating with Union Pacific Railroad (“UP”) to acquire the Branch Line. While these negotiations have indicated that a purchase may be possible, the only specific allocation for the acquisition is \$10 million in 2000 State Transportation Improvement Program Augmentation funds, an inadequate amount to purchase the Branch Line, which was appraised at \$14.6 million in 1995.

In light of the funding situation, the Commission’s staff and consultants contacted the California Transportation Commission (“CTC”) Chair and Executive Director in 2002 to discuss the Commission’s ability to access the \$11 million in Proposition 116 funding assigned to Santa Cruz County. The CTC’s representatives advised that a very minimal passenger rail plan – potentially including only limited recreational excursion service – may be sufficient to access the Proposition 116 funds.

The purpose of this preliminary analysis is to commence exploring the potential operating scenarios, viability, and economics of a limited recreational excursion service that would enable the Commission to utilize Proposition 116 funds for the Branch Line acquisition. This analysis was based upon information provided by Alta Transportation Consulting, Inc.

---

<sup>1</sup> The previous passenger rail studies on the Branch Line include: *Santa Cruz Fixed Guideway/Rail Corridor Refinement Study* (Parsons Brinckerhoff Quade & Douglas, Inc., 1993), concerning transit service; *Intercity Recreational Rail Study* (Parsons Brinckerhoff Quade & Douglas, Inc., 1996), for service between the Bay Area and Santa Cruz; *Project Study Report: Track and Signal Improvements, Passenger Platforms and Related Improvements to the Santa Cruz Branch Line for Intercity Weekend Rail Service between the San Francisco Bay Area and Santa Cruz County* (Santa Cruz County Regional Transportation Commission, 1997); and *Around the Bay Rail Study* (LS Transit Systems, 1998), studying service between Santa Cruz and Monterey.

**B. Summary of Existing U.S. Recreational Rail Operations**

Recreational rail is a term that generally covers three basic types of service:

1. Excursion passenger service primarily used by rail fans and families who enjoy train rides (often using historic rail equipment);
2. Tourist rail service linked to existing tourist areas and designed as one of numerous visitor attractions; and
3. Seasonal passenger service designed primarily as a means of transportation to, or linking, visitor destinations.

Note that existing recreational rail operations often fit more than one of these categories. For example, the Santa Cruz, Big Trees & Pacific Railway Company (owned by Roaring Camp, Inc.) service between Felton and the Boardwalk in Santa Cruz has elements of all three categories.

There are over 250 recreational rail operations in the United States as of 2002, with over a dozen operating in Northern California. Most recreational rail operations have the following basic characteristics, some of which may indicate elements necessary for success:

- |  |            |
|--|------------|
| 1. Located 100 miles or less from a major metropolitan area: | 46%        |
| 2. Use steam trains:   | 57%        |
| 3. Average trip duration (roundtrip):                        | 2.85 hours |
| 4. Average route length (one way):                           | 15 miles   |
| 5. Located near a major attraction:                          | 46%        |
| 6. Dramatic on-line scenery:                                 | 35%        |
| 7. Seasonal service:   | 73%        |
| 8. Average roundtrip fare:                                   | \$21.93    |
| 9. Average fare per passenger mile:                          | \$.73      |

The recreational rail service most comparable to the likely recreational service on the Branch Line is the Santa Cruz, Big Trees & Pacific Railway Company (SCBT&P) operation. The SCBT&P operates rail service, generally marketed to tourists and rail fans, using a diesel engine and old passenger cars between Felton and the Boardwalk in

Santa Cruz. In addition, SCBT&P's parent company, Roaring Camp, Inc., operates a narrow-gauge steam train – the Roaring Camp & Big Trees Narrow-Gauge Railroad (RC&BT). RC&BT has operated its narrow-gauge service in Felton since 1963, whereas the SCBT&P commenced its service to Santa Cruz in 1986. The service to Santa Cruz operates seasonally (May through December), and carried approximately 30,000 passengers in 2002. The SCBT&P also operates limited freight service on the line. The RC&BT narrow-gauge railroad operates year-round on a six-mile round-trip route through the redwood grove near Felton. Only passenger excursion trains utilize this track.

Other recreational rail operations in Northern California include the California Western Railroad (“Skunk Train”), the Sierra Railroad (excursion and dinner trains), the Napa Valley Wine Train (dinner trains), the Niles Canyon Railroad (historic society), the McCloud Railway Company (dinner trains), and the Yolo Shortline Railroad (excursion trains).

There are currently 70 dinner trains operating in North America (including the United States and Canada), with 8 such operations in California. The California dinner train operations are located in Oakdale, Shasta, Woodland, Fillmore, Napa, Campo, Fish Camp, and Fort Bragg. Since dinner train operations are considerably more expensive than typical excursion train rides, they are much more vulnerable to economic downturns.

The economic viability and success of recreational rail operations varies widely and is often difficult to ascertain since they are owned by privately-held companies that do not readily share financial information. Alta Transportation Consulting's interviews with operators indicate that regional and national economic conditions, and an overall drop in tourism, have resulted in declining ridership and revenues – between 15% and 20% in 2002. By comparison, Roaring Camp, Inc.'s ridership dropped only 7% between 2001 and 2002, mostly as a result of the loss of corporate functions resulting from the economic recession in the Silicon Valley.

Based upon Alta Transportation Consulting's research of recreational rail operations, there are six conditions that appear to be keys to the success of such operations. These conditions include the following:

1. Existing track and structures in adequate condition (FRA Class 1) for low speed service;
2. Accessibility for day-trips from a large metropolitan area;
3. In an existing visitor destination area;
4. Direct connections to visitor destinations;
5. Attractive vistas from rail corridor; and

6. Interested and experienced recreational rail operator.

**C. Potential for Recreational Rail Operations on the Branch Line**

Each of the six conditions identified above appear to exist on various segments of the Branch Line.

While it is not essential for existing tracks and structures to meet FRA Class I standards – SCBT&P’s tracks from Felton to the Santa Cruz Boardwalk apparently do not – it is an important condition for the comfort, enjoyment, and safety of passengers. The Branch Line has FRA Class I track, which permits trains to operate at 10 mph for freight service and 15 mph for passenger service, and it is assumed that any recreational rail service would operate on the existing tracks and structures. In addition, we have learned that Union Pacific is replacing all railroad ties on the Branch Line, which may reduce the capital costs of instituting recreational rail service and increase the service levels on the Branch Line track.

The Branch Line also appears to meet the conditions relating to proximity and/or connections to a metropolitan area and visitor destinations. Santa Cruz is a major regional tourist destination within one hour from the San Francisco Bay Area. The Branch Line itself links directly to many visitor destinations from the Seascapes Resort, Aptos Village, Capitola Village, State parks and beaches, the Santa Cruz Beach and Boardwalk, and the Pacific coastline leading up to Davenport. The Branch Line also connects with SCBT&P’s operations to Roaring Camp and the narrow-gauge railroad.

The Branch Line offers excellent vistas. Indeed, the Branch Line is the only California rail line north of San Luis Obispo directly on the Pacific Coast. While focus is often placed on the spectacular scenery from Santa Cruz to Davenport, portions of this segment are below grade and do not have a view of the coastline. Nevertheless, even those segments traversing the urban areas offer extraordinary views and scenery.

Finally, two experienced recreational rail operators – SCBT&P and the Sierra Railroad Company – have expressed interest in exploring recreational rail service on the Branch Line. And, of course, SCBT&P operations already connect to the Branch Line, which may offer operating economies to make the service more profitable.

The satisfaction of these six conditions offers some optimism for the possible success of recreational rail service on the Branch Line. Nevertheless, unlike intercity or commuter passenger rail service, projecting demand for recreational rail service is difficult since it is not necessarily a transportation alternative that can be surveyed easily. People who ride recreational trains do so primarily for the experience of riding a train, as part of an overall vacation experience, or as tourists between visitor destinations. Consequently, ridership projections for recreational rail service are more related to overall tourist trends than to any quantifiable travel mode estimates. Based on SCBT&P/RC&BT operations and other operations in California, it is estimated that

recreational rail service could attract between 10,000 and 25,000 riders annually. A breakdown of those figures is presented for each operating scenario below.

Because ridership is related to overall tourist trends, there appears to be a symbiotic relationship between the demand for recreational rail service in Santa Cruz and the success of existing tourist destinations in Santa Cruz County such as the Beach and Boardwalk, Capitola Village, and other areas. Demand for the recreational rail service will depend upon the success of those existing destinations because it would benefit from tourist/visitor trips to the area. On the other hand, recreational rail service would also enhance the success of those other area destinations and the overall competitiveness of the Santa Cruz area as a tourist/visitor destination. Santa Cruz competes against other visitor destinations such as Monterey and Carmel. And since visitors are attracted to specific areas for a variety of reasons, including accessibility, number, variety, and quality of attractions, quality of visitor experience, and cost, the existence of recreational rail service would further enhance the competitiveness of the Santa Cruz area.

It should also be noted, however, that this symbiosis depends on the proposed recreational rail service enhancing and/or complementing, not duplicating, the existing operations by SCBT&P and RC&BT. Duplicate service could simply siphon riders using the current service rather than generating new ridership and bringing new visitors to the area.

In short, Santa Cruz County is in an excellent position to sustain and grow as a visitor attraction due to its proximity to the San Francisco Bay Area (which allows for easy day trips), the quality and variety of its attractions, and the availability of economical accommodations. However, constraints to that growth exist, including: (a) peak seasonal traffic congestion; (b) safety concerns about using Highway 17; (c) the lack of connection and cohesion between destinations within the County; and (d) the limited amount of quality lodging and conference facilities.

## **II. POTENTIAL BRANCH LINE OPERATING SCENARIOS**

Based upon the foregoing, the following four operating scenarios appear to meet the key conditions for recreational rail service and which merit further analysis.

1. Capitola Village – Aptos Village
2. Santa Cruz – Capitola Village
3. Santa Cruz – Davenport
4. Santa Cruz – Junction of Highway 1 and Highway 9

Each scenario is discussed below.



### **A. Capitola Village – Aptos Village**

This service would consist of a low speed trolley or rail car connection between Capitola Village and Aptos Village (3.3 miles), with a possible extension to the Seascapes Resort (an additional 2 miles). The service would link two visitor areas and would help expand the range of activities for visitors, while reducing traffic. It is assumed that the service would operate as a two-car train, with a trolley or motorcar (diesel or battery operated) and one trailer. The capacity would be approximately 100 persons. We have made the following additional assumptions regarding the service:

1. Service would be seasonal (120 days/year)
2. Round trip time: 1 hour (includes dwell time in Aptos Village)
3. Peak headways: varies, 11am to 5pm
4. Round trips per year: 360

An advantage of this service would be that it would link two unique visitor destinations, Capitola Village and Aptos Village, which would significantly broaden the activities available to Capitola Village visitors. The service would provide a short excursion to Aptos Village, with access to other recreational activities. An extension to Seascapes Resort, with its high-end lodging opportunities and other recreational activities, would provide a logical low-cost enhancement to this operating scenario and opportunities for public/private partnerships. The service also could be extended in a westward direction, across the Soquel Creek trestle to businesses and parking along Opal Cliffs Drive/Jade Street Park.

Potential disadvantages of this service are the impacts to adjacent residential neighborhoods, and the need to identify or construct facilities along the route to accommodate the service. However, as described below, the proposed plan would be to minimize any such impacts, and cost, by providing simple loading platforms and minimal additional facilities.

### **B. Santa Cruz – Capitola Village**

This service would most likely originate either at the Santa Cruz Boardwalk or at the historic Southern Pacific station in Santa Cruz (soon to be developed as the Depot Park and Multimodal Station), and connect to Capitola Village approximately four (4) miles to the east. The service could also be an extension of the existing service between Felton and the Boardwalk operated by the SCBT&P. It is assumed that this service would be identical to the Capitola Village to Aptos Village service in terms of car configuration, capacity, season and time of service, and trips per year.

The advantages of this service include the number of interesting features, such as the San Lorenzo River, the Yacht Harbor, Schwan Lagoon, and Soquel Creek in Capitola Village. Capitola Village with its shops, restaurants, and beach is a major regional destination that would be of interest to visitors in Santa Cruz, and vice versa. Depending on the type and frequency of service offered, this operating scenario could offer some

local transportation benefit by encouraging visitors to use rail service rather than drive between Santa Cruz and Capitola Village. The rail service would also have an economic benefit to the area by providing access to two different visitor areas, attracting additional visitors, and possibly extending the length of visitors' stays. While this service generally would be targeted to tourists, the service has the potential for use as an alternative to driving between the two destinations, depending on the timing and frequency of service. Incentive fares even could be considered to encourage such alternative transportation.

A potential disadvantage of this service is the impact on adjacent residential neighborhoods. Again, minimal facilities are contemplated to minimize cost and impacts. Adequate parking facilities are, or will be, available at each end of the corridor.

### **C. Santa Cruz – Davenport**

The Santa Cruz – Davenport service would originate either at Depot Park or at the Santa Cruz Boardwalk, and extend northwesterly 10 miles to the hamlet of Davenport. The service could be a scenic daytime ride, a dinner train, or both. We have assumed that this service would be provided with a diesel locomotive and three restored passenger cars, operating as one train. We have made the following additional service assumptions:

1. Service would be seasonal (120 days/year)
2. Round trip time: 3 hours
3. Peak headways: once a day, at 5pm
4. Round trips per year: 120

An advantage of this service is the intermittent views of the ocean and access to destinations such as the Wilder Ranch State Park. The origination of the service would be in a convenient location, and independent destination, for visitors and is the right length to provide a 2-3 hours turnaround schedule.

A potential disadvantage of this service is the fact that, for part of its length, the tracks traverse agricultural fields within a cut, thereby losing some scenic appeal. Additionally, Davenport is not a major visitor destination and it has very limited support services.

### **D. Santa Cruz – Junction of Highway 1 and Highway 9**

The final operating scenario considered would be to help relieve visitor traffic congestion into the Boardwalk area by establishing a new 1.5-mile rail shuttle service between the Boardwalk and an interceptor parking lot near the junction of Highway 1 and Highway 9. A portion of this service would be on the Branch Line and a portion would be on SCBT&P tracks. This segment includes a tunnel, tracks on Chestnut Street, and a grade crossing of Highway 1. It is assumed that the service would operate as a two-car train, with a trolley or motorcar (diesel or battery operated) and one trailer for a 100-person capacity per train. The following service assumptions have been made:

1. Service would be seasonal (120 days/year)
2. Round trip time: 1 hour
3. Peak Headways: hourly, 11am to 5pm
4. Round Trips per year: 720

The advantages of this service are that it would provide a measurable transportation benefit to the community, help alleviate peak seasonal congestion, add to the visitor experience, and offer economic benefits to local businesses.

The potential disadvantages include possible traffic impacts on Chestnut and the Highway 1 crossing, and the need to provide a large interceptor parking lot. One potential location for this parking lot is the City Corporation Yard on River Street, although this location would have its own traffic issues, particularly during the afternoon and evening hours.

### **III. ECONOMIC ANALYSIS OF OPERATING SCENARIOS**

#### **A. Facility Needs and Assumptions**

Recreational rail service will require access and boarding facilities, track, and structures. In general, all of the operating scenarios will require that the track, structures, and crossing equipment be inspected, and possibly upgraded, depending on the type of service and equipment being proposed. The analysis below assumes that the tracks will be upgraded for all operating scenarios.

With the assistance of other local agencies and businesses, storage and maintenance facilities will need to be identified. Were SCBT&P/RC&BT selected to operate the service, it would presumably utilize its own existing facilities.

Siding and boarding facilities will be necessary for all operating scenarios. As can be seen from the SCBT&P/RC&BT operations, these facilities can be quite minimal. Additionally, the development of the Santa Cruz Depot could provide the facilities for service connecting to Santa Cruz.

Parking locations also will need to be identified for each scenario. While parking is available in most cases through arrangements with city and/or private lots, the analysis below assumes capital improvements for boarding platforms/stations and for handicapped and bicycle parking.

#### **B. Preliminary Economic Forecasts**

The following sections include preliminary economic forecasts to illustrate how a recreational service might function for a private operator. The 3.3-mile Capitola Village to Aptos Village service is identified first in greater detail, followed by a summary description of the other operating scenarios. It is important to stress that tourist railroads

typically operate on very small revenues and very low expenses. Additional discussion and assumptions for the economic forecasts is contained in the notes to Table 1.

**1. Capitola Village – Aptos Village**

A preliminary economic forecast for the Capitola Village to Aptos Village operating scenario, presented in Table 1 below, indicates that the operation would experience a loss of \$4,000/year at 10,000 passengers, and a profit of \$26,000/year at 25,000 passengers.

**TABLE 1. Economic Forecast – Capitola Village to Aptos Village Service**

	<u>Capital</u>		-----Annual-----	
<b>Revenues</b>	Low	High	Low	High
Total Annual Passengers			10,000	25,000
Round Trip Fare			\$ 9.00	\$ 9.00
Round Trip (Miles)			7	7
Total Revenues			\$ 90,000	\$ 225,000
<b>Expenses</b>				
Track/structure upgrade	\$ 21,000	\$ 50,000	\$ 2,139	\$ 5,093
Station/parking improvements	\$ 50,000	\$ 150,000	\$ 5,093	\$ 15,278
Equipment purchase/rehab	\$ 100,000	\$ 300,000	\$ 10,185	\$ 30,556
Subtotal/Annualized	\$ 171,000	\$ 500,000	\$ 17,417	\$ 50,926
Maintenance of Way			\$ 7,000	\$ 18,000
Maintenance of Equipment			\$ 10,000	\$ 25,000
Transportation (@ 720 Op. Hrs.)			\$ 40,000	\$ 70,000
G&A (Overhead)			\$ 10,000	\$ 15,000
Marketing			\$ 10,000	\$ 20,000
Subtotal, Operating Expenses			\$ 77,000	\$ 148,000
Total Expenses	\$ 171,000	\$ 500,000	\$ 94,417	\$ 198,926
<b>Net Income/Loss</b>			\$ (4,417)	\$ 26,074

## Notes to Table 1

- (a) The revenues are based on ridership projections between 10,000 and 25,000 per year. This would put the service at or well below the 30,000 patrons the SCBT&P currently attracts on its Felton-Santa Cruz line. The projected round trip fare (\$9.00) is approximately the same per mile as the Santa Cruz-Felton service.
- (b) An annual range is included for all expenses. For some expenses, the actual cost may be related to, and may depend upon, ridership. For other expenses, the cost of which is not necessary related to ridership (e.g., Transportation, G&A, and Marketing), a range is provided based upon the comparative experience of other similar operations.
- (c) The forecast combines capital and annual expenses. It is assumed that capital expenses will be amortized over 20 years at 8%. Thus, total capital expenses of between \$171,000 and \$500,000 result in an annual operating cost of between \$17,417 and \$50,926. Obviously, the elimination of these amortized capital costs would greatly improve the annual profitability of the operation. Several options exist to reduce or eliminate the estimated capital costs, including: (1) public funding, such as the Proposition 116 funds; (2) in-kind public agency contributions, such as parking and facility accommodations; (3) absorption of a portion of the capital costs by the freight operations, which will be benefited by some of the capital improvements; and (4) the operator may already own equipment and facilities adaptable to the service. **These options to reduce capital costs would apply to all four operating scenarios.**
- (d) Because of the ongoing freight operations on the Branch Line, the forecast assumes that the recreational rail operator will not maintain the tracks and structures once they have been upgraded. **This assumption has been made in the forecasts for all four operating scenarios.**
- (e) We believe that an operator would consider itself fortunate to break even on the recreational rail service if it also operated, and was generating revenue, from the freight service as a short line.

## 2. Santa Cruz – Capitola Village

The preliminary economic forecast for the Santa Cruz to Capitola Village service is shown in Table 2. This service would have similar characteristics to the Santa Cruz to Aptos Village service, with slightly higher revenue and maintenance expenses to reflect a longer route, resulting in a profit range of \$2,648 to \$48,055.

**TABLE 2. Economic Forecast – Santa Cruz to Capitola Village Service**

	<u>Capital</u>		-----Annual-----	
	Low	High	Low	High
<b>Revenues</b>				
Total Annual Passengers			10,000	25,000
Round Trip Fare			\$ 10.00	\$ 10.00
Round Trip (Miles)			8	8
Total Revenues			\$ 100,000	\$ 250,000
<b>Expenses</b>				
Track/structure upgrade	\$ 40,000	\$ 60,000	\$ 4,074	\$ 6,111
Station/parking improvements	\$ 50,000	\$ 150,000	\$ 5,093	\$ 15,278
Equipment purchase/rehab	\$ 100,000	\$ 300,000	\$ 10,185	\$ 30,556
Subtotal/Annualized	\$ 190,000	\$ 510,000	\$ 19,352	\$ 51,945
Maintenance of Way			\$ 8,000	\$ 20,000
Maintenance of Equipment			\$ 10,000	\$ 25,000
Transportation (@ 720 Op. Hrs.)			\$ 40,000	\$ 70,000
G&A (Overhead)			\$ 10,000	\$ 15,000
Marketing			\$ 10,000	\$ 20,000
Subtotal, Operating Expenses			\$ 78,000	\$ 150,000
Total Expenses	\$ 190,000	\$ 510,000	\$ 97,352	\$ 201,945
<b>Net Income/Loss</b>			\$ 2,648	\$ 48,055

See Notes to Table 1.

## 3. Santa Cruz – Davenport

The Santa Cruz to Davenport service is identified as a dinner-train service, in which most of the revenues are associated with the meals served as part of the train ride. To date, it has not been possible to develop sufficiently reliable data to estimate revenues.

However, the expenses are projected to be somewhat similar to the other scenarios but with lower station/parking costs and higher maintenance costs given the longer route.

#### 4. Santa Cruz – Junction of Highway 1 and Highway 9

A preliminary economic forecast for the service from Santa Cruz to the Junction of Highway 1 and Highway 9 is presented in Table 3 below. The forecast projects that the operation would experience a profit of \$213/year at 15,000 passengers, and a loss of \$35,324/year at 25,000 passengers. However, if we assume the higher revenue projections and that the capital costs need not be funded by operating revenues, the service could yield over \$50,000 in profit annually.

**TABLE 3. Economic Forecast – Santa Cruz to Junction of Highway 1 and Highway 9**

	<u>Capital</u>		-----Annual-----	
			<u>Operating</u>	
<b>Revenues</b>	Low	High	Low	High
Total Annual Passengers			15,000	25,000
Round Trip Fare			\$ 6.00	\$ 6.00
Round Trip (Miles)			3	3
Total Revenues			\$ 90,000	\$ 150,000
<b>Expenses</b>				
Track/structure upgrade	\$ 15,000	\$ 25,000	\$ 1,528	\$ 2,546
Station/parking improvements	\$ 40,000	\$ 120,000	\$ 4,074	\$ 12,222
Equipment purchase/rehab	\$ 100,000	\$ 300,000	\$ 10,185	\$ 30,556
Subtotal/Annualized	\$ 155,000	\$ 445,000	\$ 15,787	\$ 45,324
Maintenance of Way			\$ 4,000	\$ 10,000
Maintenance of Equipment			\$ 10,000	\$ 25,000
Transportation (@ 720 Op. Hrs.)			\$ 40,000	\$ 70,000
G&A (Overhead)			\$ 10,000	\$ 15,000
Marketing			\$ 10,000	\$ 20,000
Subtotal, Operating Expenses			\$ 74,000	\$ 140,000
Total Expenses	\$ 155,000	\$ 445,000	\$ 89,787	\$ 185,324
<b>Net Income/Loss</b>			\$ 213	\$ (35,324)

See Notes to Table 1.

#### **IV. PRELIMINARY CONCLUSIONS**

The following are some of our preliminary conclusions regarding passenger rail service on the Santa Cruz Branch Line based upon Alta Transportation Consulting's research, interviews, and economic forecasts.

1. While the proposed recreational rail service could either be privately or publicly operated, Alta believes that a private operator would have advantages over a public operator, including: (a) lower costs, (b) easier implementation, and (c) possibly fewer legal requirements. Private operations could be run as either for-profit or not-for-profit.
2. If the recreational rail operator were required to make the necessary capital expenditures to institute service, we believe that the operations would ideally be conducted by a short line railroad also conducting freight operations on the Branch Line. This arrangement would provide a broader stream of revenue to cover maintenance and other expenses. A stand-alone passenger operator may require either a private or public subsidy, either on an annual basis or for the start-up capital costs. Assuming that Proposition 116 funds are used to finance the necessary capital expenditures, we do not believe it is necessary for the recreational rail operator to conduct freight operations on the Branch Line.
3. Although worth considering, and perhaps putting out to bid to measure interest, given the problems the Napa Valley Wine Train is experiencing, the dinner train scenario requires closer examination. In SCBT&P/RC&BT's experience, the vast majority of its patrons are day visitors from out of the Santa Cruz area. It is not clear how many of these day visitors would be willing to extend their day trip and drive back to the Bay Area via Highway 17 at night after a dinner train excursion. The limited amount of high quality lodging in the area could also limit the number of potential users.
4. Regarding the Santa Cruz – Highway 1/9 operating scenario, people destined for the Santa Cruz Boardwalk could conceivably park either at the SCBT&P parking lot in Felton or a new interceptor lot closer to Highway 9/Highway 1, and take a train or trolley service to the Boardwalk. By doing so, they would avoid paying to park close in with its attendant traffic congestion. Considerations for this type of service include the possible loss of parking revenue by the Seaside Company (which allows SCBT&P's trains to stop in front of the Boardwalk), and whether beach and Boardwalk visitors are likely to use such a service. Remote parking operations have proven successful at other destinations, and are currently being used in Monterey. This option also deserves further study, although the economics of this option appears to be marginal.



5. Traffic studies have shown a general west to east circulation of vehicles from Santa Cruz along the coastline to Capitola, returning via Highway 1.<sup>2</sup> There are a variety of reasons for this pattern, including the fact that it offers drivers the best views of the ocean. It is unclear whether there is a market for recreational rail service between the Boardwalk and Capitola Village since they currently serve distinct markets. People whose prime destination is a day at the beach or Boardwalk may not be likely to take a train to Capitola Village, given time limitations for a day excursion, and the inconvenience of having to carry beach gear. Conversely, if there were a larger overnight population at either end, it is conceivable that a significant number of visitors would be interested in visiting restaurants and shops in downtown Santa Cruz or Capitola Village, or the Boardwalk.
6. Capitola Village is a major visitor destination during peak seasonal periods. The range of activities includes shopping, dining, and visiting the beach. It is likely that there is some demand for additional activities, including visits to nearby Aptos Village and other recreational opportunities. A more in-depth analysis of current Capitola Village visitors, and especially their duration of stay, would be needed to determine the extent of demand for service to Aptos Village. Nevertheless, we believe that the potential extension to Seascapes Resort, with its high-end lodging and recreational opportunities, could provide an attractive complement to this service.
7. This Analysis generally considers only the endpoints of the operating scenarios. Additional analysis of intermediate stops, and related attractions and activities such as State parks and beaches, may give further support for the viability of the service. In addition, this Analysis assumes that most tourists to the Santa Cruz area are day visitors and that there is a limited supply of quality lodging and conference facilities. These assumptions require further study. If the assumptions are incorrect, the economic analysis of the operating scenarios generally would be more favorable.
8. The net income/loss conclusions above are based upon a comparison of low-end revenues to low-end expenses and high-end revenues to high-end expenses. However, because some expenses do not correlate directly to ridership (and thus revenues), any final analysis of the operating scenarios should provide a more accurate range of net income/loss by making such correlations and by comparing, where appropriate, low-end revenues to high-end expenses and high-end revenues to low-end expenses.

---

<sup>2</sup> *East Cliff Drive EIR, Traffic Analysis* (TetraTech/Alta Transportation Consulting, Inc., 2002).