

Santa Cruz Branch Line

DRAFT GOING CONCERN VALUATION

INTRODUCTION

The purpose of this report to determine a going concern valuation of the Santa Cruz and Davenport branch lines, assuming Santa Cruz County Regional Transportation Commission (SCCRTC) ownership of the lines and the provision of freight service by a short line or small railroad rather than by the present owner, the Union Pacific Railroad (UP). The resulting valuation is in conformance with the valuation procedures and guidelines for railroad rights of way published by the California Public Utilities Commission. Also appearing here are estimates of current UP revenues for line traffic. All references to the Davenport and Santa Cruz Branch Lines henceforth appear collectively as the Santa Cruz branch line.

The Santa Cruz branch is about 32 miles long. It begins as a line running west from the UP's Watsonville Junction yard in Pajaro. The line travels north through Watsonville and Santa Cruz before terminating at Davenport. The line has a connection to the Santa Cruz, Big Trees & Pacific short line in Santa Cruz.

Detail on shipper volumes, rates, operating costs, and lease revenues were requested from UP. However, none of this data was provided by the time of this writing. The analysis obtained commodity volume information directly from the line's shippers. Revenue and rate information came from published rates, from a competing carrier, or was derived as an estimate of the rates from UP financial reports. WSA obtained insights on revenues and operating costs from short line railroad executives. UP did provide a hi-rail trip (a trip by a utility vehicle fitted with steel wheels for travel on railroad track) of the line for the valuation consultants on January 30, from which WSA learned of shippers it had not previously known about. WSA subsequently contacted these shippers, whose comments contributed to the estimate of total rail line volume.

SHIPPERS AND CARLOAD VOLUMES

There are eight shippers on the branch line (west of Salinas Road), generating about 4,700 rail carloads a year in business for the Union Pacific Railroad. The volumes cited below are based on interviews conducted with the shippers during January 2004. The volumes discussed are the shippers' best estimates of their likely volumes. But the shippers pointed out that volumes can change, upward and downward, making precision in the estimates difficult if not impossible to achieve. UP operates on the branch line on Mondays, Wednesdays, and Fridays, delivering and gathering the shippers' rail car traffic. Typically, UP branch trains leave Watsonville Junction in the mid morning, going north toward Davenport and back to Watsonville that evening.

Watsonville Shippers

Most of the line's shippers are located in Watsonville. The majority of Watsonville traffic is perishable commodities, i.e. frozen fruits and vegetables. The shipments move in refrigerated boxcars. Outbound shipments typically have destinations in the Midwest and on the East Coast, and inbound shipments typically have similar origins. One shipper receives carloads of lumber for local distribution. The lumber comes from Western Canada, Oregon, and California. The estimated volumes for the Watsonville shippers, inbound and outbound, appear in the table below. All together, the six Watsonville shippers generate about 850 carloads a year.

Table 1: Santa Cruz Branch Principal Commodities by Shipper					
Shipper	Inbound		Outbound		Total Carloads
	Commodity	Carloads	Commodity	Carloads	
Watsonville					
Birdseye Frozen Foods	Perishables	80	Perishables	80	160
Americold (Riverside Dr, Salinas Rd)	Perishables	50	Perishables	50	100
Cascade Refrigerated	Perishables	100	Perishables	300	400
Cascade Properties	Perishables	10	Perishables	100	110
Del Mar Foods			Perishables	10	10
Big Creek Lumber	Lumber	72			72
Total Watsonville Traffic		312		540	852
Santa Cruz					
San Lorenzo Lumber (yard)	Lumber	165			165
San Lorenzo Lumber (door)	Lumber	200			200
Total Santa Cruz Traffic		365			365
Davenport					
RMC Pacific	Coal	1,100	Cement	1,800	2,900
	Slag	600			600
	Gypsum	50			50
Total Davenport Traffic		1,750		1,800	3,550
Total Carloads		2,427		2,340	4,767

Note: Americold facility on Salinas Road is east of Salinas Road, switched off the portion of the branch that SCCRTC will not purchase. The following analysis assumes that the short line will make the switch for UP.

Santa Cruz Shippers

There is just one shipper in Santa Cruz, San Lorenzo Lumber. However, the company has two different types of shipments. One is lumber for local distribution bound for Felton, California. That traffic, consisting of about 165 carloads a year, is interchanged with the Santa Cruz, Big Trees & Pacific (SCBG) short line railroad at the Santa Cruz yard. The SCBG hauls the carloads the additional seven miles to Felton in the Santa Cruz Mountains. The other is lumber for the company's door plant in Santa Cruz. That traffic consists of about 200 carloads a year, delivered directly by UP. The lumber typically originates in Washington, Oregon, and Western Canada.

RMC Pacific in Davenport

The biggest shipper on the line is RMC Pacific, a cement maker in Davenport at the north end of the branch line. This shipper has been in operation there for over 95 years. Its location there is due to the proximity of a limestone deposit, which it mines for cement making (cement consists of about 80 percent limestone). The company receives coal, slag, and gypsum, and ships cement. Carloads total about 3,600 per year. Coal dominates the inbound shipments and comes from Utah. Cement shipments are bound for job sites in the Bay Area and Sacramento. The company related that the outbound shipments are very sensitive to the differential between rail and truck rates. Rail rate increases have caused diversion of outbound shipments to truck.

UP REVENUES

This analysis estimates that UP today generates about \$8 million in revenue on the line. The figure is based on the commodities shipped, their reported origins and destinations, and carload rates derived from either UP¹ and BNSF² sources or from the consultant's professional opinion. Assuming UP's recent operating ratio (operating costs divided by operating revenue) achieved over the period 2000 to 2002 (82.7 percent), the railroad in the broadest sense could be earning about \$1.4 million of operating income from the Santa Cruz branch line traffic. But this kind of broad analysis overlooks a key point. That is, the revenue earned for a carload from a shipper on a branch line generates less income than the revenue for a carload from a shipper along the main line. The reason is, of course, both the additional car handling and the expenses of maintaining the branch line, in this case a branch line that traverses farmlands and wetlands, climbs hills, follows along sea cliffs, crosses wooden trestles, and runs through city streets – in other words a comparatively high cost branch line. These costs indeed are part of the total system operating costs, but they are a very small part of a very large aggregate cost (in 2002, UP operating costs totaled \$10.2 billion). Thus, branch line specific costs for UP merit some consideration.

The 1997 "Going Concern Value of the Santa Cruz Branch", prepared for SCCRTC by Woodside Consulting Group, estimated these additional branch line costs at about \$2.4 million. This figure includes over \$1 million in "return on value" (non-cash expenses), which were in line with Surface Transportation Board (STB) regulations applied when determining whether or not a railroad could impose a surcharge to branch line shippers. Even if such estimates were omitted from this valuation, total branch line costs would total to about \$1.4 million, which is the same as the operating income estimated above. Even supposing that some branch line costs could be reduced from the 1997 estimate (due to, for example, the relaying of continuously welded rail or "ribbon rail" on long segments of the branch line), it seems that UP is making little if any real income from the Santa Cruz branch.

¹ Rates for UP refrigerated boxcar shipments were available from [Exempt Circular EBFF 7-B applied on Eastbound Frozen Foods](#). UP coal carload rates equal the energy revenue per carload rate report in UP's 2002 annual report. Slag and gypsum carload rates equal the industrial products revenue per carload rate reported in UP's 2002 annual report.

² Lumber carload rates were derived from BNSF lumber carload rates for shipments from the Seattle to the Bay Area, reported on the railroad's Web site. The analysis assumed the UP's rate would be comparable for lumber shipments from the Pacific Northwest.

LIFE EXPECTANCE OF THE BRANCH LINE

The valuation assumes that the Santa Cruz branch line will continue to handle freight volumes more or less as today for the foreseeable future. The largest customer on the line, RMC Pacific, stated that it expects to make cement at Davenport well into the future. Furthermore, there is no obvious reason to believe that either the lumber or perishable shippers along the line will go out of business.

At the same time, it does not appear likely that new rail shippers will locate along the branch line. In terms of perishable shipments, volumes are stable but are down from decades ago when the area's produce moved predominantly by rail. Truck dominates shipments today. The existing lumber distributors, who receive rail shipments, appear capable of handling the demand. Any increased demand, triggered by new residential developments, likely will be constrained by community concerns over residential growth. Lastly, new manufacturing plants are unlikely, as the trend is for manufacturers to move to lower cost areas other than California. The comparatively high cost of land and labor in California generally would seem to mitigate the potential for new industrial shippers locating along the branch.

LINE VALUATION

Going Concern Valuation

Going concern valuation is one of a number of methods used to determine a value for a railroad right of way that is "fair and reasonable"³. The methodology is aimed at determining a value by looking at a railroad line as a business. Revenues, operating costs, capital costs, and the resulting incomes are forecasted for future years, and then the future incomes are discounted to arrive at their present value. This present value is the line's going concern value. If it is clear that the line at a specific point in the future will cease to generate rail traffic, then the net liquidation value of the line's assets needs to be included in the final year's income stream.

Future Earnings

The basic premise of this valuation is that the Santa Cruz County Regional Transportation Commission will own the Santa Cruz branch line, and that the SCCRTC will contract with a short line operator for the provision of freight rail services on the line. A short line is a small railroad, which has crews and locomotives of its own. Its job on the Santa Cruz branch would be to take over the freight services from the UP. It would interchange (deliver and receive) branch line rail traffic with the UP at Watsonville Junction. The short line would be responsible for hauling the rail cars to and from shippers on the line. For this work, the UP will pay the short line a "switch charge" or handling fee for the traffic that would vary with the length of haul of the branch line traffic. The fees will sum to the short line's total revenue.

The short line will also incur expenses. These are for the maintenance of the track and structures (maintenance of way), for the maintenance of equipment, for the train crews, and for general and administrative functions. Part of the expenses will be for the purchase and depreciation of

³ Valuation Procedures and Guidelines for Public Acquisition of Railroad Rights of Way pursuant to Public Utilities Code, Section 7551.3, Caltrans, 1994.

locomotives. There will also be taxes to pay on the income. A *pro forma* calculation of short line revenues, expenses, income and cash flow for 2005 appears in Table 2. The numbers shown have been rounded to the nearest \$1,000.

Table 2: 2005 Short Line Income	
REVENUE	
Switch Charges	\$1,128,000
Demurrage	10,000
Other	2,000
Total Revenue	1,139,000
EXPENSES	
Maintenance of Way	231,000
Maintenance of Equipment	56,000
Transportation	445,000
General and Administrative	258,000
Total expenses	990,000
OPERATING INCOME (LOSS)	
Interest	32,000
Adjusted gross income (loss)	117,000
INCOME TAX	
	57,000
NET INCOME	
	\$61,000
CASH FLOW	
Net Income	\$61,000
Depreciation and amortization	33,000
Principal payments	-20,000
Cash flow	\$74,000

Note: Inconsistencies in the arithmetic above is due to rounding to the nearest \$1,000.

- Revenue.** Revenue is the product of total carloads multiplied by the weighted average switch charge per carload. The assumed switch charges are \$110 for Watsonville and Santa Cruz carloads and \$280 for Davenport carloads. The weighted average switch charge equals the sum of: the switching charges for Watsonville, Santa Cruz, and Davenport multiplied by the proportion of total carloads going to and from each of those cities. Revenue also includes demurrage charged to shippers who keep control of cars longer than a typically allowable period (e.g. 2 days). It might include other miscellaneous income for such things as a nominal payment to the short line for using the line in a television commercial as well as interest earned on cash balances. Not included is any potential lease revenue, as this analysis assumes the lease payments (if any) would be paid directly to the assumed underlying property owner, SCCRTC.
- Maintenance of Way Expense.** This is the cost of maintaining the rail line and supporting structures. UP has installed many new ties and higher weight continuously welded rail over much of the route, so these costs are reduced from the \$10,000 per mile shown the 1997 going

concern valuation to \$7,000 per mile (assuming 33 miles of track, including the Santa Cruz yard). This lower figure is consistent with short line industry experience, as reported by a consultant to RailAmerica, Inc. The largest cost component is \$72,000 for minor bridge repair. There are 37 bridges of various kinds on the route having a total of almost a mile of linear feet.

- ***Maintenance of Equipment Expense.*** This is the cost of maintaining the three locomotives used for hauling the railcars on the branch line. The analysis assumes that the “heavy maintenance”, such as wheel truing and engine overhauls, will be contracted out, and that the train crews will be cross-trained to perform routine maintenance tasks. The estimated cost above is less than half that of the previous going concern valuation. However, the assumption here is that the three locomotives to be maintained will be of good serviceable condition when acquired. Accordingly, a low-side estimate for equipment maintenance is reasonable.
- ***Transportation Expense.*** This is the cost of operating trains on the branch line. The largest components are crew costs (2 crew per train working 8-hour shifts 5 days a week with no overtime⁴), fuel costs (fuel is to be delivered by truck), and car hire (charges that the short line operator accrues for the period of time foreign railroad cars are on its line). Of the three expenses, car hire is by far the largest. This analysis assumes that cars will be on the property for an average of between four and five days, depending on the shipper. Furthermore, the short line will not accrue car charges for cars belonging to RMC Pacific (about ¾ of the cement cars belong to the cement maker)⁵. At \$12 per day per car for car hire, the expense is about \$190,000. However, there is a very important caveat. The railroad-owned cars will mostly belong to UP (the connecting line haul carrier), and UP conceivably could offer “car hire relief” to its captive short line. In other words, the short line might be able to negotiate the \$12 daily car charge downward (and consequently lower its switch charges to UP). Thus, the car hire charge here should be viewed as a high-side, conservative figure that might be reduced. Dropping this charge altogether, the transportation expense would be comparable to that estimated for the previous going concern valuation.
- ***General and Administrative Expense.*** This includes the costs of the General Manager, a clerk/typist, office rent, miscellaneous contracted services for routine administrative functions (i.e. payroll, audit, and accounting), and liability insurance (the annual premium assumed is \$50,000 with a \$25,000 deductible; the insurance does not include coverage for any passenger operations or workers compensation)⁶. The General Manager is cross-trained to provide relief from crew who are either sick or go on vacation. The estimate above is close to the estimate generated by the previous going concern valuation.
- ***Interest Expense.*** This cost has two major components. One is securing adequate working capital for operations. The other is the financing of locomotive purchases. The purchase cost of each locomotive is \$130,000 (assuming used equipment). Additional equipment needs, such as trucks, tools, radios, etc., raise capital investment to \$440,000. Adequate working

⁴ As opposed to how the UP operates the line today, the assumed operating plan for the short line is to make northbound trips on Mondays and Wednesday, and southbound trips on Tuesdays and Thursdays. The only round trip would occur on Friday. The shorter hours worked Monday through Thursday would amount to “comp time” for the train crews working longer on Friday.

⁵ RMC Pacific likely will be assessing the short line and UP line mileage charges for its cars, but these likely will be negligible for the 64-mile short line.

⁶ Per Aon Corporation, a typical premium for a short line railroad handling 4,500 carloads 5 days a week.

capital (cash) requires an additional \$120,000, and organization expenses (corporate, legal, etc.) consume another \$40,000 for a total \$600,000. This total investment is assumed to be 54 percent debt and 46 percent equity. The debt is more than collateralized by the locomotives and assumed to be for 10 years at 10 percent. The key assumption here is that a medium to small size short line railroad will operate the branch. With revolving lines of credit, a large short line holding company like RailAmerica conceivably could borrow the entire \$600,000 of required working capital. However, a smaller short line company will not likely have this financial muscle. A more equal debt/equity ratio would be normal for such a railroad.

- **Income Tax.** This is the cost of both federal and state taxes. A combined rate of 48.3 percent is assumed (federal rate of 39 percent and California rate of 9.3 percent).
- **Cash Flow.** This is the measure of cash inflows against cash outflows. Cash-in includes net income and non-cash expenses such as depreciation, for locomotives and other consumable assets, that is part of the various expense categories above. Cash-out includes payments on the principal of loans for working capital and locomotives.

The table above indicates that a short line operation could be profitable and would generate a positive cash flow. But the net income and cash flow are not large. Rather, the venture's profit is paper thin – less than 1 percent of revenues. That noted, short lines are making a go of it today with similar returns. Furthermore, the risk potential for the short line operator would appear manageable for the following reason. If it had to, the operator could exit the business, retaining an equity interest in the locomotives, which it could realize with comparative ease in the used equipment market. Thus, it is entirely reasonable to think that a short line would be interested in assuming the freight rights on the Santa Cruz branch.

Valuation

In a going concern valuation, the forecasting of future earnings is at the heart of the entire valuation process. Earnings are estimated for each of several years, based on assumptions about traffic handled, rates, cost escalations, and capital needs. For this analysis, the earnings assumed for 2005 (appearing in Table 2) are extrapolated for another 10 years to 2015. Generally speaking, revenues and cost rise per the average of the Consumer Price Index for the past several years. Some items do not increase, such as depreciation charges for locomotives. The analysis simply assumes that earnings stay the same from 2015 on.

The analysis developed three alternative scenarios for the short line operator, which resulted in three different incomes streams. A *pessimistic* earnings forecast assumes that traffic volumes would decrease by 1 percent each year through 2015. A *most likely* earnings forecast assumes traffic volumes would remain where they are in 2005. And an *optimistic* earnings forecast assumes that Davenport outbound cement shipments would increase to 200,000 tons per year, the maximum that RMC reportedly can handle without triggering an expensive reconfiguration of its plant and rail infrastructure. The future earnings estimates of a short line operator for the Santa Cruz branch line appear in Table 3 below, along with their present values depending on various discount rates. The earnings are not rounded, as in Table 2.

Table 3: Present Value of Short Line Earnings				
Pessimistic Earnings Forecast				
	Projected Earnings	Discounted at 8%	Discounted at 10%	Discounted at 12%
2005	60,648	56,154	55,135	54,152
2006	57,885	49,625	47,836	46,146
2007	55,055	43,703	41,363	39,188
2008	52,164	38,341	35,628	33,150
2009	49,220	33,499	30,561	27,928
2010	46,231	29,135	26,098	23,421
2011	43,207	25,212	22,174	19,543
2012	40,160	21,698	18,735	16,221
2013	37,101	18,558	15,735	13,379
2014	34,047	15,771	13,125	10,963
2015+	29,754	172,275	114,701	79,840
Total		503,970	421,090	363,930
Most Likely Earnings Forecast				
	Projected Earnings	Discounted at 8%	Discounted at 10%	Discounted at 12%
2005	60,648	56,154	55,135	54,152
2006	63,859	54,747	52,773	50,909
2007	67,237	53,373	50,515	47,859
2008	70,793	52,033	48,352	44,989
2009	74,543	50,734	46,284	42,296
2010	78,502	49,472	44,314	39,769
2011	82,688	48,248	42,435	37,400
2012	87,119	47,070	40,641	35,187
2013	91,817	45,927	38,940	33,109
2014	96,805	44,840	37,318	31,171
2015+	100,848	583,909	388,768	270,608
Total		1,086,506	845,476	687,450
Optimistic Earnings Forecast				
	Projected Earnings	Discounted at 8%	Discounted at 10%	Discounted at 12%
2005	60,648	56,154	55,135	54,152
2006	70,126	60,119	57,952	55,904
2007	80,078	63,566	60,163	57,000
2008	90,529	66,539	61,831	57,531
2009	101,505	69,084	63,024	57,594
2010	106,127	66,881	59,909	53,764
2011	110,992	64,764	56,961	50,202
2012	116,120	62,740	54,170	46,901
2013	121,532	60,790	51,542	43,824
2014	127,251	58,942	49,055	40,975
2015+	132,042	764,525	509,023	354,314

Total		1,394,105	1,078,765	872,161
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The future earnings are discounted to reflect that a dollar earned next year or 10 years from now is worth less than a dollar earned today. Generally speaking, the discount rate should be the expected rate of return available on alternative investment opportunities with comparable risk. This analysis used a 10 percent discount rate as a median; this rate relates to the historic rate of return (1927-1996) for the Dow Jones Industrial Average, which at various times included rail equities. This means that a dollar earned next year is worth \$0.91 today, and similarly a dollar earned 10 years from now is worth \$0.39 today. Discount rates of 8 and 12 percent reflect the potential high and low variances of an appropriate discount rate.

Table 3 above shows a range in potential present values of future short line incomes from \$364,000 to \$1,394,000. The present value of *most likely* earnings stream discounted at 10 percent, i.e. \$845,000, is a mid-range value and appears a reasonable estimate for the going concern value of the short line.

It is important to state, however, that while this present value of the future earnings sums to a comparatively high number, it is not realistic to expect a short line operator would pay the amount for the line's freight rights. Any of a number of variables could intervene to threaten this income stream – variables that would be impossible to foresee in a *pro forma* income calculation. The larger perspective here is that the line can generate a positive income and cash flow, and thus would be attractive for a short line operator.

A key assumption contributing to the positive income streams, of course, is the continuance of traffic to and from the line's major shipper, RMC Pacific. As stated earlier, the reason for the plant being in Davenport is its proximity to a limestone deposit for its cement making. RMC Pacific related that it intends to continue operations at Davenport well into the future. Accordingly, this analysis assumed that the limestone deposit would not be depleted for a long time to come. If the cement plant were to cease operations, the branch line beyond Watsonville likely would be abandoned. In such a case, a net liquidation value (or residual value) of the line's assets would be included in the future income streams to arrive at a present value of future incomes.

TRACKAGE RIGHTS VALUE

Traditionally, trackage rights have meant rights that a freight or "home" railroad secures with a competing or "foreign" railroad to move freight over the foreign road's trackage. The home road pays per car and mileage fees to the foreign road for trackage rights. The home road uses its own locomotives, crews, fuel etc. The components of the fee include reimbursement for incremental maintenance of way and dispatching costs that the home road's traffic triggers by running on the foreign railroad.

The concept extends today to passenger railroads. For example, the Metrolink commuter rail system in Los Angeles pays trackage rights fees for running its commuter trains over the Union Pacific Railroad and the Burlington Northern and Santa Fe Railway. In the case of the latter, BNSF charges Metrolink about \$7.60 per train mile (a train moving one mile equals on train

mile). By the same token, a freight railroad can pay a public agency a trackage rights fee for delivering freight to shippers on trackage owned by the public agency. This occurs today on track owned by the Peninsula Commute Joint Powers Board (PCJPB), where UP serves freight customers on the San Francisco Peninsula. There UP pays a percentage of total operating costs on the line, based on its share of total car miles. The point is there are various ways to cover the expenses incurred by a one railroad running trains on the track of another.

Since the short line will be paying for the maintenance of the right of way and its own dispatching (the two components of trackage rights), it will not be paying trackage rights to SCCRTC. However, it is reasonable to expect that the short line would pay something in the way of rent or a lease fee to the agency for the right to haul freight on the Santa Cruz branch line (see next section). If, on the other hand, a new passenger service, such as an extension of state-sponsored intercity trains or even Caltrain commuter trains, were to use the line, it should pay trackage rights. The value of those rights would most appropriately be determined at the time they are requested and tailored to cover the incremental costs they would entail.

RENT OR LEASE PAYMENT

This analysis assumes no trackage rights charge *per se* against the short line. Rather, the short line might pay a rental or lease charge for its use of the line. That charge could be anywhere between \$0 and the ability of the short line to pay something more. As it is, under the *most likely* scenario, cash flow is positive but less than \$100,000 per year. It would seem that the ability of the short line to pay more than a small fee (e.g. \$5,000 to 10,000 per year) would be constrained.

However, the potential for car hire relief (from UP to the short line; see Line Valuation Section) could provide more cash to the railroad, and therefore increase the short line's ability to make a larger lease payment. Alternatively, SCCRTC could take a small portion of the short line's pre-tax earnings as a lease payment, which could be waived by hiring the short line to run the agency's proposed trolley between Capitola and Aptos.