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CE410 Freight Transportation and Logistics

The Role of Shortline Railroads in Oregon

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Abstract

After a brief overview of how Oregon's shortline railroads came to exist as they do today, discussion of the types of shortline railroads, and examples of each shall be given. Primarily railroads of the Willamette valley over to the coast such as the Portland and Western, Port of Tillamook Bay Railroad will be examined in addition to the City of Prineville Railway. The overview of these railroads will look at how their operations are run, who their customers are and any investments the railroads have made to further the relationship that exists with their specific customers.

A Brief History of Railroading

To fully understand the role the shortline railroads play in Oregon, one must understand how they came to be. As the railroads of the United States were being built at a breakneck rate in the late 1800's, the railroad industry was extremely competitive. At the time, communities gladly accepted a railroad through their town, or a town may have been born simply due to its proximity to the rails. Despite the competitive nature, once a railroad built a line, a lot of times it was not worth another company's effort to build another for direct competition. The shippers fell to the mercy of the railroads and paid their price, however high it was. That is until 1887 when the government stepped in to regulate the railroads.

Almost 100 year later in 1980, the Staggers Act was passed. A key part of this act is that it allowed class I railroads the ability to abandon some of their less profitable lines. In addition it also allowed some negotiation of rates, which was beneficial in increasing competition.

The Class I Railroads Today

There are now only five Class I railroads operating in the United States and two in Mexico and Canada each. These account for around ninety percent of railroad revenue in the United States. The Class I railroads have reached a point where they are operating at capacity. It has become imperative for them to make the best possible use of the tracks they operate on by efficient



Figure 1: Class I Railroads

management. They are not really interested in the traditional manifest train freight of the past, there is just too much freight that requires less handling already consuming their efforts. A modern Class I railroad is not interested in assembling trains and sorting cars when they can hook and haul entire unit trains of containers or bulk commodities.

The local setting in Oregon

Currently there are 19 non-Class I railroads operating in Oregon. The Association of American Railroads divides these up into three subcategories, Regional, Local and Switching & Terminal Railroads.

Miles of Railroad Operated in Oregon		Oregon Totals			
		Number of Freight Railroads	Miles Operated Excluding Trackage Rights	Including Trackage Rights	
Class I Railroads					
BNSF Railway Company	386				
Union Pacific Railroad Co.	1,065				
	<u>1,451</u>				
Regional Railroads					
Central Oregon & Pacific Railroad	395				
Palouse River & Coulee City Railroad	23				
Portland & Western Railroad, Inc.	380				
	<u>798</u>				
Local Railroads					
Albany & Eastern Railroad Company	67				
City of Prineville Railway	18				
Hampton Railway, Inc.	5				
Idaho Northern & Pacific Railroad Co.	21				
Modoc Northern Railroad Company	14				
Mt. Hood Railroad Co.	21				
Wallowa Union Railroad Authority	63				
Willamette & Pacific Railroad	233				
Willamette Valley Railway Co.	32				
Wyoming & Colorado Railroad Co., Inc.	24				
	<u>498</u>				
		Class I	2	1,095	1,451
		Regional	3	788	798
		Local	10	458	498
		Switching & Terminal	6	145	152
		Total	<u>21</u>	<u>2,486</u>	<u>2,899</u>

Miles of Railroad Operated in Oregon	
Switching & Terminal Railroads	
Lake County Railroad	15
Oregon Pacific Railroad Co.	15
Peninsula Terminal Co.	4
Port of Tillamook Bay Railroad	101
Portland Terminal Railroad Co.	3
WCTU Railway Co.	14
	<u>152</u>

Figure 2: Railroads currently operating in Oregon as per AAR , Dec 31 2005.

As classified by the Association of American Railroads, regional railroads are a non-Class I operating 350 or more miles of road and/or with revenues of at least \$40 million. Local railroads are engaged primarily in line-haul services. And Switching & Terminal Railroads are engaged primarily in switching and terminal services for other railroads.

What Makes a Shortline Railroad Successful?

Under the current operations of Class I railroads, unless a single shipper can produce enough freight to build an entire car or train in many cases, locating on a Class I railroad would be a mistake. This is where the shortline railroads provide a service to their shippers that the Class I railroads cannot. It is also why shortline railroads play an important role in business location and economic development. However, without adequate density, a railroad will not have sufficient traffic to support its fixed assets and allow for adequate frequency of service. (1)

This is a delicate balance to achieve, considering a majority of shortline railroads are formed from the remnants of a once expansive network, not necessarily a carefully planned rail line concisely placed to serve a community or industrial corridor. For this reason, it becomes necessary for shortline railroads to develop a close working relationship with their shippers. In doing this, a mutual commitment is developed. “In addition to reducing the transaction costs between consignor-carrier-consignee, such relationships also encourage the development of programs which reduce costs further and improve service.” (2) Just-in-time services and electronic data interchange are strategies often used in business models today. In order for shippers to and railroads to make the necessary investments in these programs, each party has to be sure that the other will be around in the future. According to Beier and Cross in 1993 when the above quoted article was written, this relationship had not yet been substantially developed. (2) Fourteen years later, has this relationship changed? By looking at a few specific railroads in Oregon, perhaps some trends have developed to suggest so.

A Switching and Terminal Railroad in Oregon:

Port of Tillamook Bay Railroad

The Port of Tillamook Bay Railroad serves Tillamook Bay as well as coastal communities Garibaldi, Rockaway Beach and Wheeler. The majority of the railroads customers are those located at the Port of Tillamook Bay. Currently there are approximately fifty businesses operating at the Port of Tillamook Bay. The number that actually ship on the railroad is not disclosed. Additionally, the port advertises openings in existing buildings and developed land ready to build on. They are actively seeking tenants, which could ideally ship with the railroad.

The east half of the line which runs between Banks and Batterson has it's own crew running separate from that running on the west half. The majority of the freight movement on this half of the line is moving east and empties are hauled back west with each trip. The railroad picks up cars from the P&W in Banks, and switches Banks Lumber Company in Banks before "tying up" for the night. On the coast, the "Switcher" train runs from Tillamook to Batterson, the idea being that the train, with loads from the mills in Tillamook and Garibaldi, will meet the freight at Batterson. After doing some switching in Batterson, the switch crew will trade their power for the freight power and take the loads up to Salmonberry, where the train is tied up for the night. This train then heads back west from Batterson with the empties brought in the previous day, and switches in Tillamook. (3)

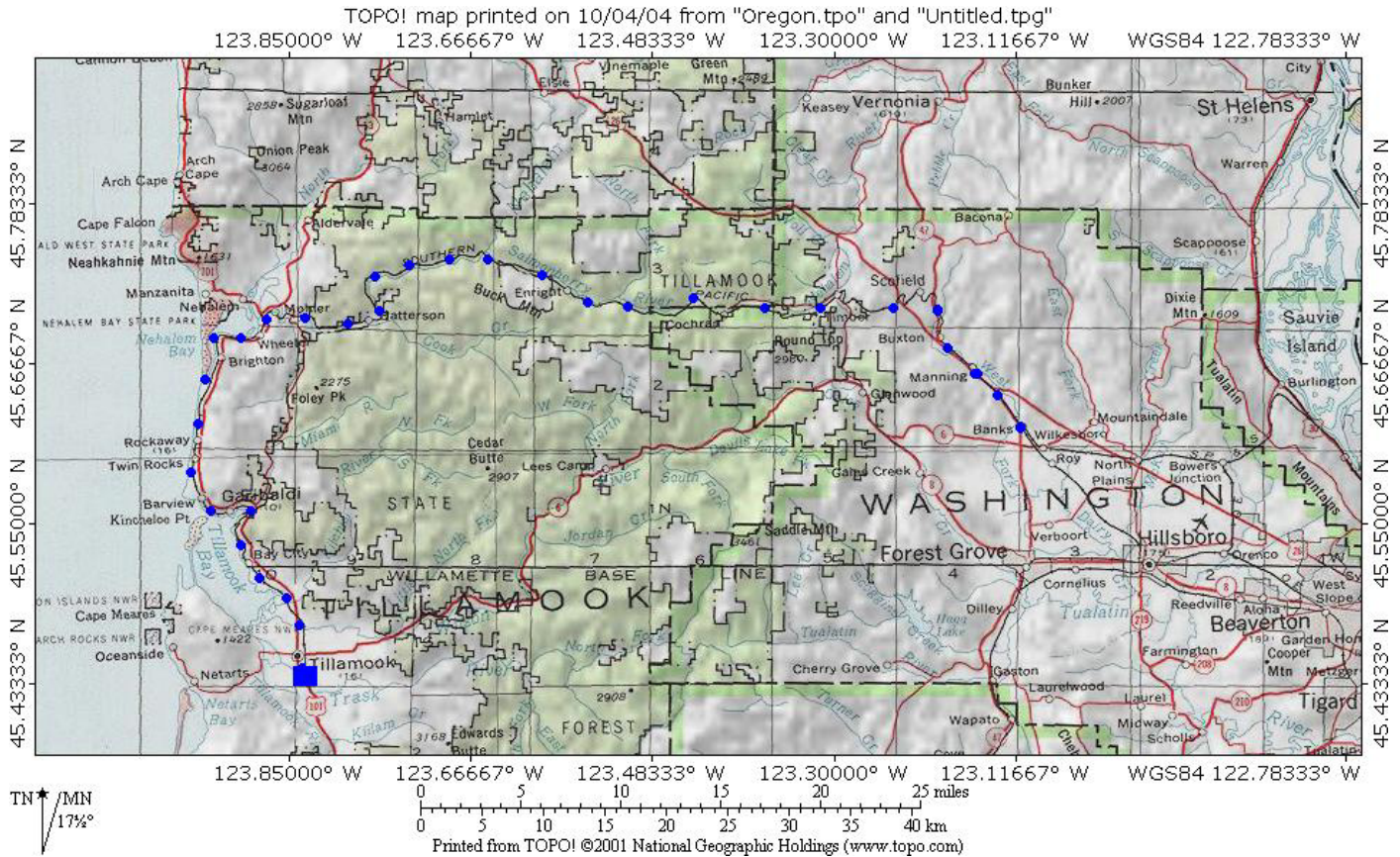


Figure 3: The route of the Port of Tillamook Bay Railroad.

It appears as though lumber is the primary commodity hauled by the POTB Railroad. Based on their customer base at the port itself and the railroads car roster as kept by a railroad “buff” and displayed online which consists mostly of log flat cars. Some noteworthy tenants at the port are Georgia Pacific who has a log yard on sight, American Truss who manufactures plywood and veneers in addition to trusses. Northwest Hardwoods has a location in Garibaldi. At the east end of the line there is a lumber mill in Banks that produces all types of lumber products. Uncut logs and finished products both, as well as other products shipped east on the POTB Railroad will be switched at Banks onto the Portland & Western Railroad. According to POTB’s website, the annual shipments exceed 4,000 carloads, which keeps 20,000 trucks off the highway. This results in 510,000 gallons of diesel fuel being spared and preventing almost a

million dollars a year in highway repairs. Clearly by the POTB Railroads association with the port itself, a customer shipper relationship is likely to exist which would not otherwise be possible.

More Switching Railroads

The other switching railroads in Oregon, The Lake County Railroad, Oregon Pacific, Peninsula Terminal, Portland Terminal and WCTU make up the remaining switching railroads in Oregon. None of these have nearly the length of track as the POTB Railroad, but all perform a similar function. That is to assemble trains from the businesses along their line and move them to a junction with either a regional or Class I railroad to be moved across the state or country. The Oregon Pacific, for example, now only operating its East Portland line is located just of a Union Pacific line in Canby. The UP comes by and picks up and drops off cars to the Oregon Pacific where the cars are then delivered to customers.

A Regional Railroad: The Portland & Western (PNWR)

Owned by Genesee and Wyoming, an Umbrella company that owns 49 shortline railroads in five countries, The Portland & Western Railroad operates mainly in the Willamette Valley, and serves the port of Astoria and Toledo. The P&W Serves more than 135 customers and moves around 90,000 carloads yearly. In addition to the POTB feeding in to the Portland and Western and either terminating or going on to either the Union Pacific or Burlington Northern-Santa Fe, it also ties in to the Central Oregon and Pacific (CORP) in Eugene. Interestingly, an agreement with the Union Pacific prevented direct interchange of traffic between Central Oregon

and Pacific and Portland & Western, until 2004 when a new agreement was hashed out, thus increasing the efficiency of this interchange drastically.

This recent development has allowed for the development of a log-shipping program between the Portland & Western and the Central Oregon & Pacific. Timber from northwestern

Oregon and Washington can now move by rail from Rainier Oregon on the Columbia River to sawmills in southern Oregon. Incidentally, California is one of the top three recipients of Oregon's timber product exports, and these mills are not really off the path these timber products take on their way to their final destination. This operation has managed to help maintain competitiveness of the southern Oregon sawmills in the nationwide scheme of timber processing.

New industry has been attracted the Marion and Polk County area by the access to the short line rail service offered by the Portland & Western. In 2003, roughly 16% of the P&W's carloads originated in this region. The



Figure 4: Operational Area of the Portland & Western Railroad

main commodity segments leaving this area break down as 32% aggregates, 28% forest products, 20% grain products and the remaining is pulp and paper and food products. There is one other Oregon shortline railroad that operates in the Marion and Polk County region, the Willamette Valley Railroad, which is a “local” railroad.

An example of a unique business relationship that the Portland & Western has developed is that with Morse Brothers for the transportation of their aggregate products. “A business model was developed requiring investment in rail car equipment, track and loading facilities at Reed Pit, near Brooks and off-loading capabilities at two distribution centers at Tonquin and Hillsboro. In 2003, a dedicated train set moved more than 5,000 carloads of aggregate which equals half a million tons and displaced 20,000 trucks from Interstate 5, county roads, and city streets.” By doing away with many of their costs with liability and maintenance of a large truck fleet, Morse Brothers has increased their efficiency, allowing these trucks to be put to better use and expanded their customer base around the Portland area.

Portland & Western Usually sees about 20 to 30 trains per day over their network. Their main yard and dispatch is operated from Albany. The primary movements are the “Toledo Hauler”, from Albany to Toledo over the coast range, a similar trip to that of the POTB, the “ Harbor



Figure 5: A P&W train at a roadway crossing.

Turn/ Albany Turn” pair, which runs from Portland to Albany and the “Eugene Hauler” runs from Albany to Eugene where it interchanges onto the UP. The “Westsider” runs from Albany

to McMinnville and is the previously mentioned log train from further north. There is very little information on what sort of commodities are imported and exported through the Port of Astoria, which is served by the Portland & Western, but it is not a significant portion of their overall annual tonnage.

A Local Railroad: The City of Prineville Railway (COPR)

The City of Prineville Railway is an interesting example of a “local” railroad. It runs between Prineville and Prineville junction, a mere 18 miles. But it plays a crucial role in the economy of Prineville and Crook County. Established in 1918, CORP is the oldest continuously operated municipal shortline in the United States.

The history of the City of Prineville Railway is interesting in that Prineville’s early leaders knew from as early as railroad

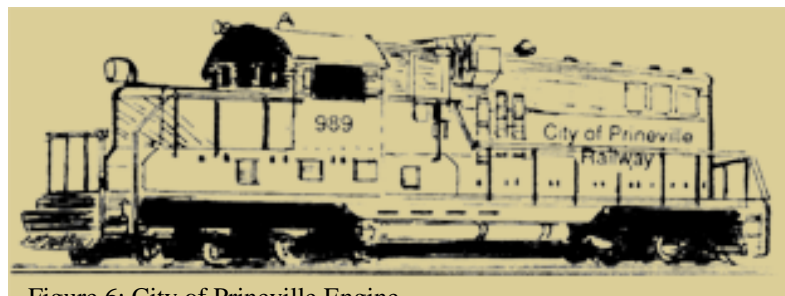


Figure 6: City of Prineville Engine

began to spread across the continent that rail service would be a crucial asset to their growth and success. As rail was laid into Bend, 20 miles to the west of Prineville, and Shaniko, 60 miles north of Prineville, the lines never seem to extend that last stretch into the city.

Determined to have rail service, in 1916 the city council proposed the building of a municipally owned line and the citizens almost unanimously voted to build it. There was one vote against the construction of the railway. Once under operation, the primary export was livestock. But over time, timber products became the staple of the line. The railway went through some hard times during the depression. Had it not been an entity of the government, the railway would have died off, drastically changing the fate of Prineville. (4)

Figure 7: CORP's Operating area in Central Oregon.



The City of Prineville Railway has made the mistake in the past of relying too much on one industry, the timber industry. In 2001 when the remaining two saw mills shut down. The railroad lost \$305,000 in 2002, \$572,000 in 2003 and \$100,000 dollars in 2004. But once

again the city waited out the hard times and things started to turn around in 2003. The railroad opened a new “transloading” facility in an abandoned sawmill complex. Louisiana Pacific quickly moved in with their laminates plant in Hines, Oregon. Next came two more deals in late 2004. First was the contract with Les Schwab tires and second was the purchase of the Crooked River Dinner Train.

The City of Prineville Railway has seen both flourishing and failing times in its long life. At times it cost the city a great deal of money with little benefit, at others it produced a bounty of cash flow by which a new city hall and other projects were funded. Today the railway has started to develop the land surrounding the tracks. This is called Crook County’s Rail-accessible Industrial Development Zone. This enterprise zone offers new businesses that locate in the zone various tax incentives including corporate income tax credits. Additionally Prineville will waive

fees for water hookup and plan review. The City of Prineville Railway is difficult to classify as “successful” or not. But it is still working to serve its customers and build its future.

Conclusion

Today, roughly half of the rail miles operated in Oregon are owned by a shortline railroad. They handle around 175,000 carloads a year, which equates to 660,000 truckloads. These railroads employ 475 Oregonians and earn around \$56 million a year.

When a Type I railroads abandoned a shortlines around the time of the Staggers, it was not because these lines were entirely unprofitable, they simply do not fit the business model of the large Railroads. By selling these shortlines off to smaller companies, the customers on them can be offered more frequent service with a smaller, more flexible carrier. This has resulted in significant carload growth and more competitive transportation options for business across Oregon.

There are a few examples that display the specialized relationships that these small railroads are capable of fulfilling for their customers, such as The Portland & Western and Morse Brothers. However, by becoming too specialized, as the City of Prineville Railway had done with the area’s lumber mills, the railway can make itself extremely vulnerable to economic fluctuations and other conditions they have no control over.

Each of the three classifications of shortline railroads as classified by the American Association of Railroads essentially performs the same role, if only on a different scale. Their task is to get their customers freight to the end of their line and smoothly switched onto a Class I road where it can be moved to its final destination.

Since 1980, railroad fuel efficiency has increased dramatically. And railroad has been gaining market share in the transportation industry. Generally speaking, the amount of freight is only going to increase with time to continue serving the state's population, shortline railroads have the capacity to keep many of the commodities moving economically and off the highways that are currently operating at times beyond their capacity.

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