Appendix F

SUCCESSFUL GRAIN TRAIN PROGRAM ADDS A THIRD TRAIN

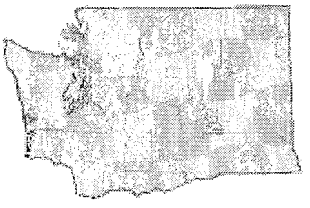
RIDE THE TRAIN More>>

» Amtrak *Cascades*
» Stations
» Sounder Commuter Rail

BACKGROUND INFO

- Station History (pdf)
- Rail Lines Map (pdf)
- Abandoned Lines
- Rail Terms
- Railroads & Contacts
- Freight Commodities
- Rail Homepage

Click the Map for Community Commute and Travel Listings



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RELATED TOPICS

- Transit
- Transportation Demand Managment
- Special Needs Transportation

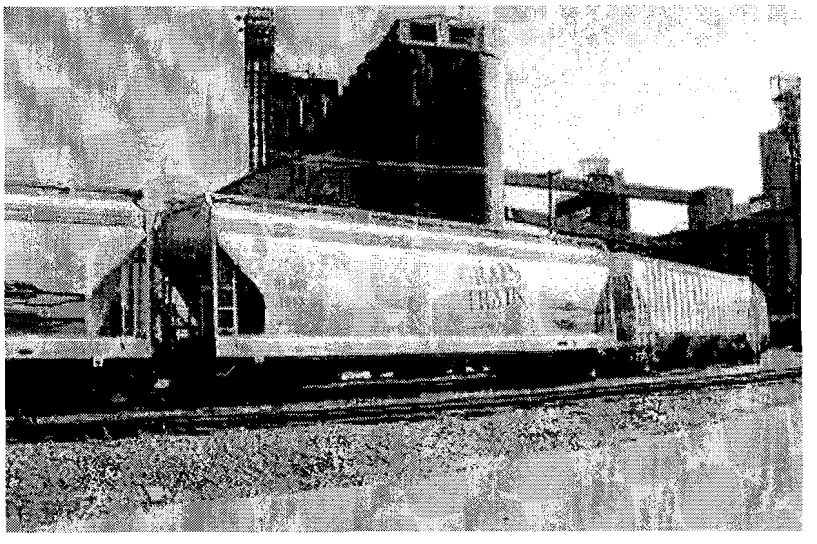
CONTACTS

- WSDOT Rail Office

Successful Grain Train Program Adds a Third Train

A national shortage of rail hopper cars made it difficult and expensive for Washington State farmers to get grain to market. Working with local port districts, the state of Washington and the federal government helped purchase grain hopper cars. These rail cars are now locally-owned and dedicated to moving grain from Washington farm communities to Columbia River and Puget Sound ports. In addition to helping keep Washington goods moving, the grain trains help reduce damage to highways by reducing the number of heavy trucks carrying grain.

At first the program offered service only in the Walla Walla area. In 2000 profits from the operations of the first grain train financed the purchase of a second, which serves Moses Lake area farmers. The same process allowed the purchase of a third grain train operated by the Port of Whitman County in 2003. In all, the grain train program operates 94 railcars.



What is the grain train program?
Started in 1994, the grain train program represents an excellent example of successful public/private partnerships. The grain train program is financially self-sustaining, as it has been since its inception.

In cooperation with local port districts, the program used federal funds for the initial purchase and ongoing profits to purchase additional grain hopper cars. Washington's farmers and shippers then agree to load the grain train cars, which are dedicated solely

to their shipping needs to river and coastal ports. This program has not only alleviated a shortage of rail cars, but also prevents damage to highways and helps keep Washington farmers competitive in world markets.

Where do grain trains operate?
Grain trains serve farmers in the Walla Walla, Moses Lake, and Whitman County areas moving grain to deep-water ports on the Columbia River and Puget Sound. A very successful new concept, informally named the grain shuttle, uses backup cars from the three grain train sets to shuttle grain from elevators to local river ports.

How did the grain train program develop?
The first grain train was a joint effort between the Port of Walla Walla, the Washington State Department of Transportation (WSDOT) Rail Office, the Blue Mountain Railroad, and four Walla Walla area grain co-ops. The Washington State Energy Office provided funding for the initial cars from legal settlements.

The first grain train, operating near Walla Walla, generated enough revenue to pay for another train. The first grain train recaptured 80 percent of the purchase price of the grain cars in its first six years of operation. These cars still have at least 20 years of life remaining. The Moses Lake grain train, unveiled in a ribbon-cutting ceremony in April 2000, established a partnership between the state, the Port of Moses Lake, and over 600 wheat farmers in Grant and Adams Counties. Now the new third train is a partnership with the Port of Whitman County and its shippers.

How many farmers do the grain trains serve?
The grain trains serve more than 2,500 cooperative members/farmers, moving their product to the deep-water ports of the Columbia River and Puget Sound. The cooperatives served are located in the eastern Washington towns and cities of Oakesdale, Plaza, Spangle, Fallon, Thornton, Endicott, Willada, Prescott, McCoy, and Palouse. All three trains also help to preserve rail service in these rural communities.

How many grain train hopper cars are in the fleet?
Ninety-four. Seventy-six are owned by Washington State. The Port of Walla Walla owns 18.

How much did the grain trains cost and where was the money from?
The first grain train was purchased in 1994 with money Washington State received from the Washington State Energy Office. These federal funds came from money awarded the government as a result of successful litigation against oil companies, who had overcharged consumers. The upfront investment in 1995 was $667,510 to purchase 29-previously used rail grain cars. These hoppers, built between 1966 and 1981, were then repaired and repainted. The total average cost per car—including repairs—was $25,079.

The state purchased another 47 hopper cars (18 to match the Port of Walla Walla's 18 for the second train, 29 cars for the third train) using the accrued income the grain train generates from the railroads. These railroads pay the state market rental rate for use of state-owned grain hopper cars. In an effort to preserve rail lines in Walla Walla County, the Port of Walla Walla purchased 18 cars of their own.

The average cost of the initial grain train hopper cars is $25,000. A more highly competitive railcar market lowered the cost of the cars for the third train to under $8,000 each. The average car has 20 years of useful life left. The program has been financially self-sustaining since the initial equipment purchase.

Has the grain train program been financially successful?
An independent economic analysis conducted after the first year of the project concluded that the project had "successfully met all general goals and most original specific goals. Rail car capacity has been increased in a period of continuing car shortage. Rail service has been saved, generating benefits that reach beyond the grain

also to other shippers, the general agricultural and rural community, and even to those entities working on rural roads and economic development. This interconnected relationship is complex, but definite." (p. 19, *An Economic Evaluation of the Performance...*) With so many lines potentially at risk of abandonment, this partnership program provides a tangible benefit by contributing to the economic viability of these lines.

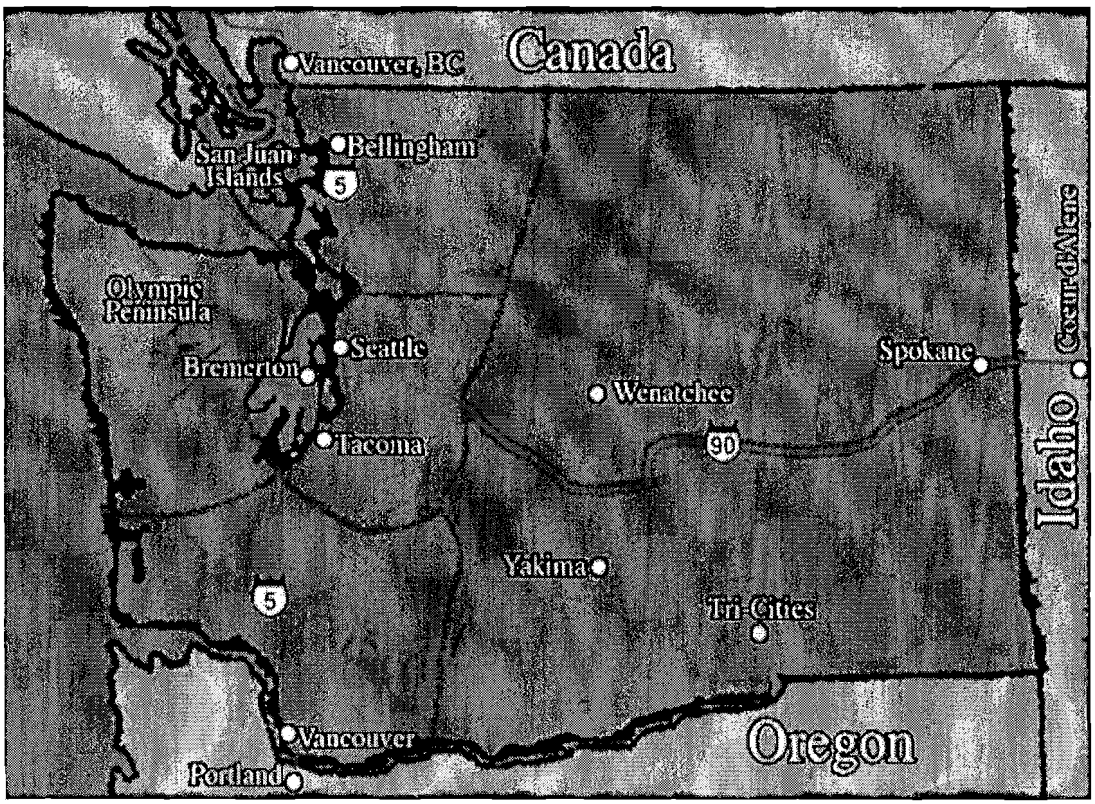
- They serve wheat producers in areas of eastern Washington who have relatively few transportation options. In particular, grain cooperatives located in Oakesdale, Plaza, Spangle, Fallon, Thornton, Endicott, Willada, and Prescott use the grain trains to get their wheat to market in a timely and cost-effective way.
- They reduce transportation costs because shipping by rail is cheaper than shipping by truck. It is estimated that the four original grain cooperatives (Thornton, Endicott, Willada, and Prescott) saved $92,320 in 1995 alone by using rail rather than trucks to get their product to market (*An Economic Evaluation of the Performance...*, p. 25).
- They reduce the number of trucks on our state's highways. If trucks had been used to ship the 156,900 tons of wheat that the first two grain trains have carried to Columbia River and Puget Sound ports, it would have added 4,482 heavy truck loads to Washington State highways.
- They reduce highway repair and maintenance costs. It is estimated that the grain carried in a single grain train would require 540 tractor-trailer combinations if shipped by highway. Tractor-trailers cause significant road damage, requiring expensive repairs and maintenance. In 1995 it was estimated that the road damage avoided by use of the grain trains saved $188,727 in repairs and maintenance to both state and county roads (*An Economic Evaluation of the Performance...*, p. 23). The *Washington State Freight Rail Plan Update*, p. 8, estimates that the continuation of rail service on the branch-line system saves the state $20 million annually in avoided roadway maintenance costs.
- Rail uses significantly less fuel than trucks—estimated fuel savings for 1995, as a result of using rail rather than trucks, were 10,190 gallons.
- These lines are important because they handle local traffic that, if not moved by the railroads, would either move by truck over state and local roads or would cease to move, which could cause businesses to close or relocate.
- Trains typically carry heavier weights using much less fuel than trucks do. This is because the friction involved in moving steel wheel vehicles on steel rails is about a tenth of that involved in moving rubber-tired vehicles on pavement. Consequently, the energy required to move the same weight is much less on rails than on pavement. The end result is that far less energy is consumed in shipping by rail than by truck, which means that shipping by rail generates less pollution, thus preserving air quality.
- Rail serves as an alternative shipping mode. This option could become increasingly important in the future if barge traffic on the Columbia River is affected by draw downs to save endangered salmon runs. It already is important to growers in areas served only by county roads that are closed when there is frost or ice.
- They also help to keep the transportation system healthy by providing shippers competitive alternatives (*Washington State Freight Rail Plan*, pp. 2-15).

Appendix G

EASTERN WASHINGTON GRAIN-HAULING SHORT-LINE RAILROADS

Washington State

Eastern Washington Grain-Hauling Short-Line Railroads



Washington State
Department of Transportation

February 2003

Washington State

Eastern Washington Grain-Hauling Short-Line Railroads

Prepared for
Washington State Department of Transportation

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HDR Engineering, Inc.
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Washington State Department of Transportation

February 2003

Washington State
Department of Transportation

Table of Contents

Executive Summary

What is the objective of the eastern Washington short-line railroad study?

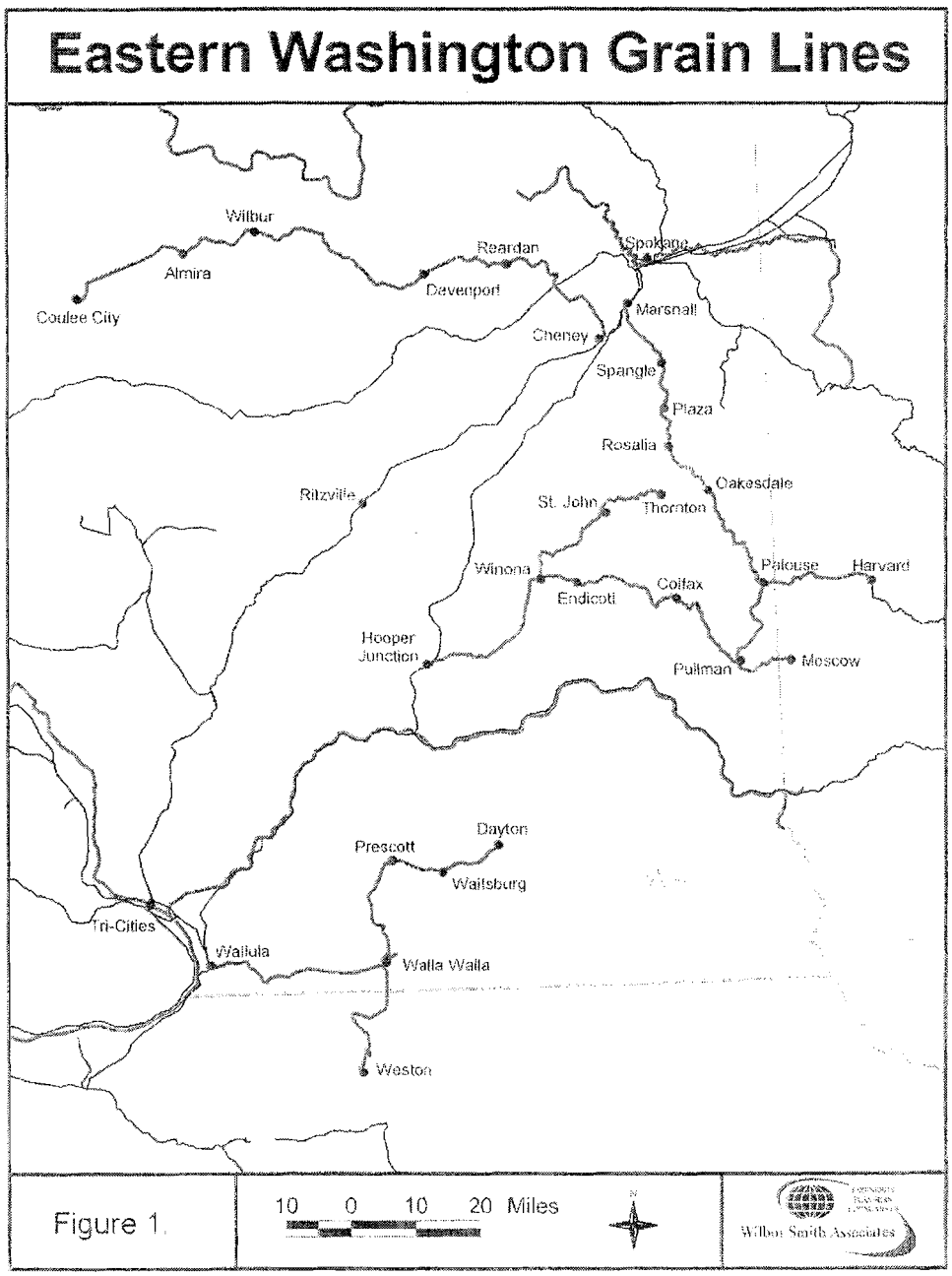
- To analyze the economic viability of the 372-mile grain hauling eastern Washington rail system known as the Palouse River and Coulee City Railroad (PCC). (See Figure 1 for map of PCC's eastern Washington grain lines.) In 2000 these lines generated 10,700 carloads of traffic.
- To value the public benefits of preserving the PCC system.

What are WSDOT's conclusions and recommendations?

The Washington State Department of Transportation's (WSDOT) conclusions and recommendations are:

- In private ownership the 372-mile PCC rail system is not self-sustaining and is highly susceptible to abandonment.
- The lower cost of rail bulk transport allows the PCC to save eastern Washington shippers $2.17 million per year in reduced freight charges.
- Preserving this rail system keeps more than 29,000 heavy truckloads per year off state and county roadways. Looking over a number of years, the PCC creates an annualized net public benefit of $4.16 million per year in avoided highway truck damage.
- Additional data received since the study shows that the immediate loss of wages and benefits in affected rail-dependent industries has an annual cost of $6.4 million. In addition, potential job losses plus planned jobs that would not be realized could cost another $11.1 million per year in lost wages and benefits.
- Local rural economic development efforts to keep existing firms or lure prospective businesses to rural eastern Washington also benefit from continued rail access.
- The PCC system has an acquisition value (net liquidation/scrap value less outstanding public debt) of approximately $7.45 million. This contrasts against annual public benefits ranging from $12.9 to $23.9 million per year. Consequently, the benefits from purchasing and preserving the system will repay the public in the first year with additional benefits every year thereafter.

- WSDOT supports placing this rail system in public ownership to realize these benefits to the communities, businesses, and shippers in Whitman, Grant, Lincoln, Walla Walla, Columbia, and Spokane Counties. A consortium of port districts and county governments ultimately should be responsible to manage and preserve the PCC at the local level.



What is the background of the Palouse River and Coulee City Railroad?

In the summer of 2001, the PCC advised WSDOT that significant sections of its 372-mile eastern Washington rail system would have to be abandoned in the next five years. The PCC's reason was that these rail lines do not and cannot generate enough freight revenues to cover both the costs of rail system ownership and ongoing track maintenance. Ownership costs include PCC's loan payments for the purchase of the branch lines from the Burlington Northern and Santa Fe Railway (BNSF) and Union Pacific Railroad (UP). Maintenance costs include the track rehabilitation expenses needed to cover the decades of deferred track maintenance before their sale. In addition, many of the lines must soon be upgraded to handle the newer and heavier 286,000-pound freight cars that the rail industry is moving towards. More state rail assistance loans would be of no help, because the increased debt burden on the railroad would lead to financial distress.

However, the PCC does believe that enough freight revenue is generated from current rail business to cover the operating expenses of the rail system which includes: normalized track and bridge maintenance, transportation (primarily locomotives and train crew labor), equipment maintenance, and general administrative costs.

The primary purpose of this report is to provide an independent analysis on the viability of the PCC rail system. This evaluation is not predicated upon information provided by the railroad or groups with potential conflicts of interest. The PCC system is analyzed as if it were a hypothetical stand-alone short-line railroad operation providing common carrier rail freight service to branch-line shippers. Independent estimates of track net liquidation values and normalized maintenance costs are derived from detailed field data, track charts, and engineering models.

A second purpose is to provide a firm estimate of how much additional heavy truck roadway damage will result if cargo currently moving over the PCC rail system is diverted to state highways. This would be important to determining the best course of action if WSDOT determined through independent analysis that the PCC system is likely to be abandoned.

Since the eastern Washington short-line railroad study was completed in early fall 2002, WSDOT has undertaken additional analyses and consultations with local ports, county commissions, civic leaders, shippers, and shipper associations. Some of the information reported in this summary reflects that more recent data, especially on wages and benefits that may be lost if the PCC is abandoned.

What are WSDOT's findings?

Is the PCC system viable?

Study results indicate that the PCC needs to generate $4.4 million per year to operate trains, perform normalized track and bridge maintenance, and cover general and administrative expenses. They accomplish this currently through the collection of $4.15 million in annual freight revenues and $0.26 million in annual property lease revenues.

However, there are two significant non-operating costs that the PCC system is unable to cover from existing revenues. One is the debt burden owed by the railroad and the other is the rehabilitation expense of deferred track maintenance from the previous owners (BNSF and UP), along with related 286,000-pound freight car track and bridge upgrades.

The cost of property ownership of the 321-mile[1] PCC is estimated at $1,005,000 per year. This ownership cost does not include any rail line maintenance costs. The annual ownership cost is determined by what the owner of the rail system could net if the property were sold at market value and the proceeds from the sale generated 10.2 percent in interest per year. The 10.2 percent interest is the 2001 American rail industry cost of debt and equity capital according to the United States Department of Transportation. These additional million dollars per year for the cost of ownership of the PCC system trackage is an expense that cannot be covered from existing revenues.

Obviously, if the PCC rail system were in public ownership, the one million dollar private ownership financial burden would be eliminated, significantly improving the probability of the railroad's long-term survival.

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1 While the PCC operates 372 miles of rail lines in Washington State, the PCC only owns 321 miles of track. This accounts for the difference in track miles between track miles owned and miles of track to operate and maintain. The remaining 51 miles are owned by other entities such as the Port of Columbia, which owns the 39-mile Walla Walla to Dayton branch. However, the PCC still has the responsibility to operate trains and maintain the track and bridges on the Walla Walla to Dayton branch.

Does the PCC need to catch-up on deferred maintenance?

The other long-term dilemma that faces the PCC system is up to $40 million in track and bridge upgrades required to create a completely renewed and upgraded infrastructure. This is necessitated by years of deferred track maintenance at the hands of the previous rail line owners and also to upgrade the line's capacity to handle the industry's current standard of 286,000-pound railcars. With today's newer and heavier freight cars operating over ancient lightweight rail, there are increasing numbers of low-speed train derailments. The threat of nuisance derailments forces trains to move at restricted speeds, which causes train crew labor expenses to skyrocket, which leads to the rail line becoming too labor intensive and ultimately too costly to operate.

Not every PCC line needs the full 286,000-pound upgrade, but there is a need for considerable infrastructure investment. Assuming the worst case of $40 million spread over 12 years, the PCC would require annual capital expenditures of approximately $3.33 million per year, which threatens the long-term viability of the PCC system. While the revenues generated from freight and property leases can cover normal railroad operating expenses, the railroad needs help catching up on the capital expenditures.

Upgrading track from 10 mph to 25 mph train speeds could significantly reduce train crew labor costs and locomotive expenses. If the majority of these rail lines could be operated at 25 mph, train crew labor cost savings would provide additional funds that could be reinvested into badly needed track and bridge rehabilitation work.

What savings from avoided highway damage is there for the state of Washington?

If the PCC rail system were lost to abandonment, more than 29,000 heavy truckloads per year would be added to state roadways. It is estimated that the damage to these roads will total $4.76 million per year. However, these trucks would pay an additional $598,000 in government roadway user fees. Consequently, the annualized value of the net additional roadway damage expense to the state is $4.16 million per year.

What are the potential economic impacts?

Increased shipping charges

If the PCC system were lost to abandonment, the lower cost alternative of rail shipment would no longer be available. As a result, the cost of shipping products (primarily Washington State grain) produced in this region to market would increase by an estimated $2.17 million per year.

There is also the possibility that water and motor carriers freed of lower cost rail competition would raise rates even more. And while it is difficult to estimate a monetary impact, the higher transportation charges will make it more difficult for Washington products to compete on world markets.

Job and wage losses

Since the eastern Washington short-line railroad study was completed, a review of potential job and wage impacts has been completed based on information provided by port districts, county commissions, and local economic development agencies. They are listed below, calculated on a conservative basis of wages of $10 per hour and 25 percent benefits over a 2,000-hour work year, unless otherwise noted.

Immediate job losses if the PCC is abandoned

It should be noted that many of these losses might occur well before actual abandonment once the industry in question believes it will occur and begins seeking other business locations, if possible.

- Seneca Green Giant cannery at Dayton, Columbia Co.:
  - 60 full time jobs = 60 x 2,000 x 10 x 125% = $1.5 million
  - 1,100 part time jobs = 1,100 x 200 hrs x $6.90 = $1.5 million
- Feed mill at Reardan, Lincoln Co.:
  - 100 full time jobs = 100 x 2,000 x 10 x 125% = $2.5 million
- PCC railroad workers in all served counties:
  - 35 full time jobs = 35 x 2,000 x 10 x 125% = $0.9 million

Total annual lost wages and benefits are estimated at $6.4 million

Potential job losses if the PCC does not continue operations

- Metal fabrication plant at Airway Heights Industrial Park, Spokane Co.:
  - 250 full time jobs = 250 x 2,000 x 10 x 125% = $6.25 million
- Plant expansions at Airway Heights:
  - 150 full time jobs = 150 x 2,000 x 10 x 125% = $3.75 million
- New feed mill at Creston, Lincoln Co. (which would be the town's largest employer):
  - 45 full time jobs = 45 x 2,000 x 10 x 125% = $1.1 million

Total potential annual lost wages and benefits are estimated at $11.1 million.

Damage to future economic development prospects

The PCC is the main or only local rail service to the counties of Whitman, Walla Walla, Columbia, Lincoln, Spokane, and Grant. Its demise could severely hinder future rural economic development efforts to lure potential plants and industries to this area of high unemployment. Many large employers are rail dependent because they must transport bulky or hazardous (restricted) commodities. The lack of rail service will prevent many rural towns from trying to site such job producers nearby.

What would be the public cost of buying the PCC?

The study reports that the railroad's value is in its net liquidation value. That is, if the railroad were scrapped and all scrap and real estate sold, what would be the amount realized? This so-called net liquidation value (NLV) is reported as $9.8 million in the eastern Washington short-line railroad study. However, since the study was published, the Union Pacific Railroad has clarified that it still owns a portion of the mileage operated by the PCC and that the PCC pays an annual fee for use of the track. Therefore, the net liquidation value has been recalculated as $8.85 million. This includes short segments of track in Idaho and Oregon that generate considerable revenues for the PCC and must therefore be included in any Washington purchase of the line.

The PCC has an outstanding balance of $1.4 million on a Washington State Department of Transportation freight rail assistance loan. Assuming a public purchase of the line to place it in public ownership, the net payment to the owners of the PCC (WATCO of Pittsburg, KS) would then be $7.45 million ($8.85 million less $1.4 million).

Does the price WATCO paid for the PCC enter into the calculation?

No. If WATCO were able to persuade the federal Surface Transportation Board that the line is no longer viable due to declining physical condition and thus be granted the right to abandon it, they could in fact realize the net liquidation value. The only way to avoid the granting of the abandonment would be for some other entity to purchase the line at the net liquidation value.

Would public efforts to preserve the PCC benefit Washington State?

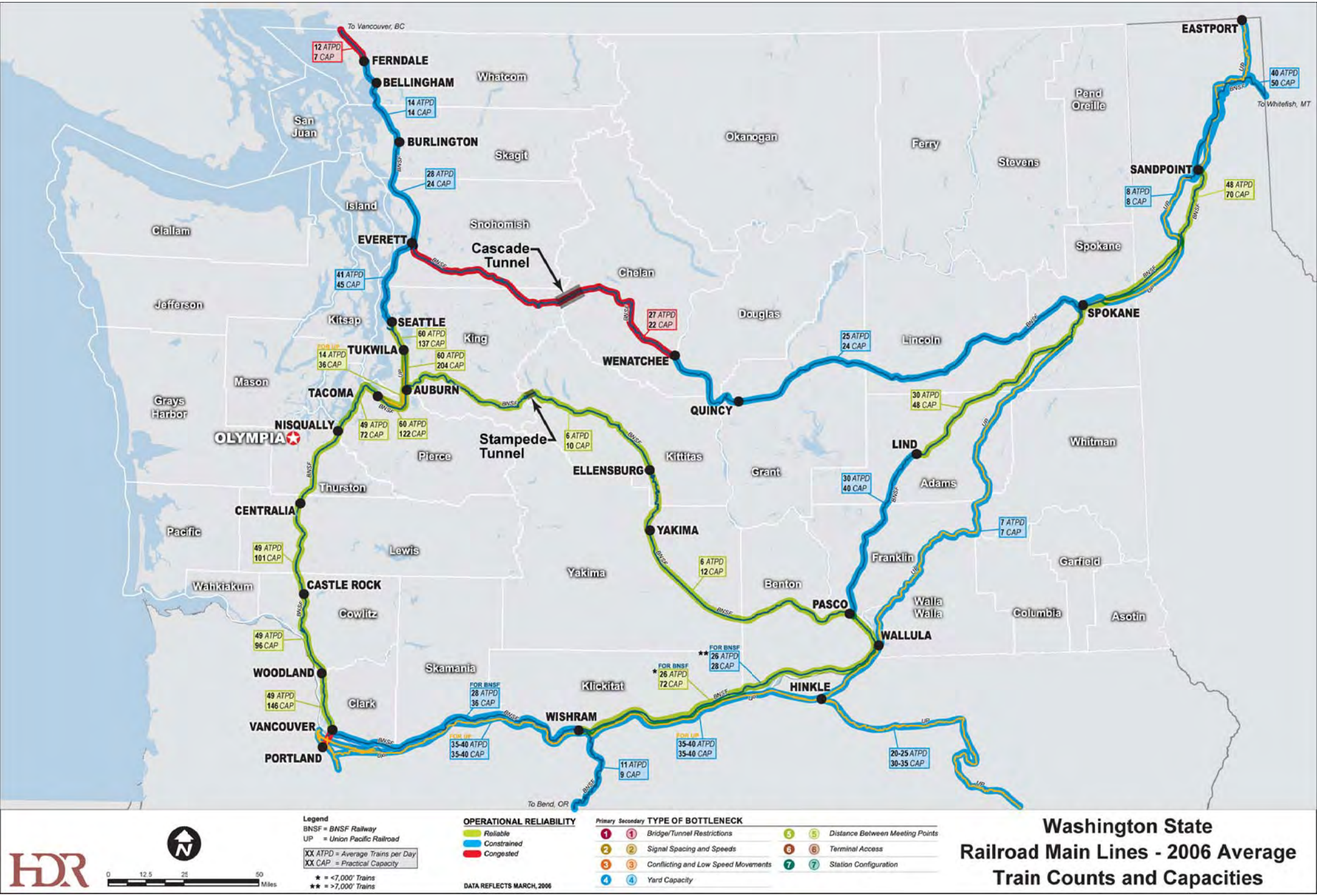
Clearly, yes. Annual public benefits would range from a total of $12.9 million up to $23.9 million if all potential new jobs could be realized. Even the lower figure is more than 50 percent above the $7.45 million it would take to put the PCC into public ownership and prevent its abandonment.

Reduced freight transportation costs	$2.17 million/yr.
Annualized value of net avoided highway damage costs	$4.16 million/yr.
Wages and benefits from direct job losses	$ 6.4 million/yr.
Total Annual Public Benefits ***Incl. direct losses of wages and benefits***	**$12.8 million/yr.**

Wages and benefits from potential job losses	$11.1 million/yr.
Total Annual Public Benefits ***Incl. direct and potential losses of wages and benefits***	**$23.9 million/yr.**

Appendix H

RAILROAD MAINLINE TRAIN COUNTS AND CAPACITIES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FERNDALE
BELLINGHAM
Whatcom
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San Juan
BURLINGTON
Skagit
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Island
Snohomish
Clallam
EVERETT
Cascade Tunnel
41 ATPD
45 CAP
Jefferson
Kitsap
SEATTLE
King
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137 CAP
FOR UP
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36 CAP
TUKWILA
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Wahkiakum
CASTLE ROCK
Cowlitz
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Skamania
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Clark
VANCOUVER
PORTLAND
FOR BNSF
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Klickitat
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9 CAP
To Bend, OR
Chelan
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WENATCHEE
Douglas
QUINCY
Kittitas
ELLENSBURG
YAKIMA
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Benton
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Franklin
Walla Walla
WALLULA
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Columbia
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Ferry
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Stevens
EASTPORT
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To Whitefish, MT
SANDPOINT
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48 ATPD
70 CAP
Spokane
SPOKANE
25 ATPD
24 CAP
Lincoln
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48 CAP
LIND
Whitman
30 ATPD
40 CAP
Adams
7 ATPD
7 CAP
Garfield
Grant
BNSF
UP
Legend
BNSF = BNSF Railway
UP = Union Pacific Railroad
XX ATPD = Average Trains per Day
XX CAP = Practical Capacity
★ = <7,000' Trains
★★ = >7,000' Trains
OPERATIONAL RELIABILITY
Reliable
Constrained
Congested
DATA REFLECTS MARCH, 2006
Primary Secondary TYPE OF BOTTLENECK
1 1 Bridge/Tunnel Restrictions
2 2 Signal Spacing and Speeds
3 3 Conflicting and Low Speed Movements
4 4 Yard Capacity
5 5 Distance Between Meeting Points
6 6 Terminal Access
7 7 Station Configuration
0 12.5 25 50 Miles
HDR
Washington State
Railroad Main Lines - 2006 Average
Train Counts and Capacities