FASTLANE
FY2017 GRANT
APPLICATION

Northern Columbia Basin Railroad Project

December 15, 2016

Prepared for
U.S. Department of Transportation
Office of the Secretary of Transportation
Docket No. DOT-OST-2016-0016
Moses Lake, Washington

Connecting roads, rails, and runways for jobs

This area is ready for new industrial development that will generate local family wage jobs and economic strength for the regional economy.

High School Graduates or higher 83.1%

Median Income: 60% of Washington State Average

Below Poverty Level:
- 15.3% Moses Lake
- 37.0% Moses Lake North

Unemployment: 220% above National average

Job Growth at 0.2%, drastically lags behind state (+3.2%) and national (+1.4%) averages

13K to 19K jobs can be created on the 1200+ greenfield acres ready for development next to the Grant County International Airport (GCIA) with the completion of this rail project.

Hub of Aviation, Manufacturing and Technology
This projects meets all statutory requirements under the FY 2017 FASTLANE. Notice of Funding Opportunities Docket No. DOT-OST-2016-0016.
Executive Summary

The Port of Moses Lake respectfully requests $9.9 million in small (rural) FASTLANE Discretionary Grant funds to finalize the required funding needed to complete construction of the North Columbia Basin Rail Project (NCBRP). The FASTLANE grant represents about 33% of the project’s funding requirements. The NCBRP will restore vital rail service, curtailed in 2009, to Moses Lake and the Grant County International Airport (GCIA). It will also bring rail service to 1,500 acres of industrial lands adjacent to the GCIA and approximately 1,000 acres of industrial lands along the Wheeler Industrial Corridor. *Today, the only option for agricultural producers, aerospace manufacturers, and other industries to move raw material and finished goods is by truck – limiting opportunities for economic growth, and making it difficult to retain existing businesses and attract new industries.*

The Port of Moses Lake, in rural Central Washington (Port) has many features attractive to generating economic growth – its climate, its low power costs, available industrial land adjacent to the GCIA, and quality of life in Central Washington. However, unemployment remains above the state and national average, and employment growth has lagged national and state levels.

The NCBRP will be the catalyst for growth and employment. The lands abutting the GCIA are a unique asset for attracting new industries, expanding aerospace, and generating new jobs for the 21st Century economy. But these lands have one major impediment; the lack of transportation options to ship long distances. Although inefficient rail service had been available in the past, the lack of modern rail service was highlighted when the Port failed in the competition to site Boeing’s 787 assembly plant. In 2003, the first feasibility study was completed to identify viable options to upgrade and modernize the existing infrastructure. In 2006, the Washington Department of Transportation (WSDOT) completed a feasibility study for the project.

The Northern Columbia Basin Railroad Project (NCBRP) emerged as a viable option in that study. In 2009, a NEPA analysis was completed paving the way to implement the NCBRP. However, funding was not available at that time. The situation became critical that same year...
when a trestle was damaged and the only existing rail line was closed from servicing the Port. Since 2013, the Port, and its partners, have completed a Final Environmental Impact Study (FEIS) on options for the development of industrial lands adjacent to the GCIA (called the GCIA Employment Center), which will be served by this project. Additionally, the Port completed a master plan for the GCIA. These studies validate earlier findings emphasizing the benefits and importance of the NCBRP. Data from these recent studies are included in this application.

The 11-mile NCBRP project will:

- Re-route aging rail infrastructure inside Moses Lake to a new, 5-mile line along the Wheeler Industrial Corridor (Segment 1).
- Construct 3 miles of new rail lines to access industrial lands adjacent to the Grant County International Airport (Segment 2).
- Upgrade and modernize 3 miles of existing rail line to current standards (Segment 3).
- Each segment has independent utility.

The State of Washington recognizes the strategic importance and benefits of restoring rail service to the Port of Moses Lake. In the Legislature’s 2015 Transportation Budget, the state committed a net pass through of $19.9 million to the project ($20.9 was authorized with a 5% administration fee to cover WSDOT’s cost).

The NCBRP aligns with the intent of the small project set aside in the FASTLANE grant program because of its size and the GCIA’s strategic location along the I-90 and SR 17 highways. Improving the efficiency, safety and reliability of moving freight in this area will contribute greatly to the efficient movement of freight through the Regional and National Freight Networks.

When completed in early 2021, the NCBRP will modernize, rehabilitate and relocate infrastructure to provide an efficient, “first/last mile”, rail connection for existing businesses, aerospace, agricultural producers and new industries to ship to and from PNW ports and the Midwest. It will also eliminate conflicts with rail — and maximize safety — for the citizens and businesses of Moses Lake. The NCBRP is an innovative solution that takes advantage of currently unused rail lines and available greenfield land to contribute to the expansion of the State and National economy.

The 20 year benefits (undiscounted) are widespread, and include:

- Improves Economic Competitiveness by saving shippers and businesses $67 million in transportation costs - protecting existing industrial, aerospace, and agricultural jobs;
- Brings rail service to 1,500 acres of prime industrial lands adjacent to the GCIA and about 1,000 acres of industrial lands in the Wheeler Industrial Corridor, creating ladders of opportunity for the region’s workforce. The GCIA Employment Center alone is anticipated to create 13,000-19,000 new, family wage jobs when fully developed;
- Over 20 years, the NCBRP improves mobility by diverting 76 million truck miles to rail;
- Saves $6 million in road maintenance costs;
- Improves safety on our roads and highways by removing 1.2 billion vehicle ton miles off
our regional and national road systems;

- Helps protect the environment by reducing greenhouse gas emissions, monetized at savings of $3 million;
- **Saves $39 million** in societal costs by saving lives, reducing injuries by lowering accidents;
- Reduces congestion and improves mobility by eliminating 152,000 trucks off roads and highways;
- Mitigates the movement of freight in the area by eliminating 20 at-grade public and private rail crossings within the City of Moses Lake (Segment 4); builds 8 new at-grade rail crossings (Segments 1 and 2) and improves 2 public at-grade crossings on (Segment 3);
- Enhances the Port’s important role as a key asset for emergency preparedness in the event of transportation disruptions in Washington state, responding to wildfires or other natural disasters;
- Improves the ability, and safety, for military training at GCIA because of the option to move larger pieces of equipment by rail versus truck.
- Gives the City of Moses Lake the option of increasing public access to waterfront lands and development of pedestrian trails in downtown Moses Lake;
- **Provides $2 of public benefit for every $1 invested into the project.**

The benefits will be immediate and tangible. The beneficiaries of these improvements are the National Highway System, the local community, businesses dependent on moving raw material and finished products, the unemployed (and underemployed), and Big Bend Community College (who train the workforce for industries). Many existing businesses located at the Port of Moses Lake have shipments by truck of more than 1,000 miles. The NCBRP will provide them with cost effective, safe options for reliable transportation.

<table>
<thead>
<tr>
<th>ANNUAL DEMAND PROJECTIONS</th>
<th>PROJECT OPENING YEAR</th>
<th>2030</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diverted Trucks</td>
<td>6,948</td>
<td>7,549</td>
<td>8,360</td>
</tr>
<tr>
<td>Diverted Truck Miles</td>
<td>3,105,045</td>
<td>3,578,320</td>
<td>4,217,985</td>
</tr>
<tr>
<td>Diverted Truck Ton-Miles</td>
<td>49,680,727</td>
<td>57,253,122</td>
<td>67,487,764</td>
</tr>
<tr>
<td>Added Carloads</td>
<td>1,829</td>
<td>1,986</td>
<td>2,200</td>
</tr>
<tr>
<td>Added Rail Miles</td>
<td>984,479</td>
<td>1,152,988</td>
<td>1,337,345</td>
</tr>
<tr>
<td>Added Rail Ton-Miles</td>
<td>54,856,297</td>
<td>68,979,665</td>
<td>81,310,559</td>
</tr>
</tbody>
</table>

For this rural part of Washington State, the NCBRP will be the catalyst to achieving what the FEIS for the GCIA Employment Center shows – new industries, including a growing aerospace cluster, generating **13,000 – 19,000 new, family wage jobs** (**13,000 new jobs are equivalent to 44% of current county employment**). It will also facilitate the Port’s plans for achieving its vision of the GCIA becoming the nexus of Road, Rail and Runway by bringing efficient cost-effective rail movements west to Pacific Northwest ports or east to Midwest destinations.
Why invest in Moses Lake?

The Port of Moses Lake is an attractive location for rural economic growth. It has access to Free Trade Zone benefits and electricity rates well below the national average. The GCIA has one of the largest airfields in the United States and can accept the largest aircraft in the world. The airport enjoys 350 days of excellent VFR weather and is favored, and used regularly by military and commercial test flight programs. It has capacity to accommodate much more given its five runways and onsite FAA control tower for commercial, military, and general aviation use. GCIA has 240 acres of ramp space and 1 million sq. ft. of adjacent industrial park. Both commercial and military aviation can find expansive space to accommodate aircraft on the five runways, the longest of which is 13,503’ long x 200’ wide, without the congestion found at other facilities.

The GCIA also serves as a secondary airfield for Military facilities in the Pacific Northwest and is an integral part of the WA Emergency Management continuity plans in the case of a disaster that disrupts the major transportation modes in the Puget Sound region. The NCBRP will improve the Port’s ability to be responsive to natural disasters and/or disruptions in transportation, should they occur. Due to the proximity of major military bases in Washington State, the military uses the GCIA for complex mission training. The NCBRP will improve the efficiency, and safety, of transporting large pieces of equipment needed for these training missions.

The GCIA is an incredible asset, with tremendous opportunities to add new intermodal linkages between air cargo and rail. It is attractive for many growing industries, including aerospace and other high tech companies, because of the unique airport infrastructure. These opportunities; however, are increasingly dependent on the availability of cost-effective transportation options for moving raw materials and finished products to PNW ports and the Midwest. The reliance on trucking hinders the Port’s ability to compete for new economic opportunities.

The NCBRP is an integral piece to the Port becoming the premiere transportation hub in this rural part of Washington State. The state will benefit from improved emergency readiness, and the community will benefit from new ladders of opportunity for residents, reduced truck traffic, increased safety on its roads, reduced emissions to its air, and new opportunities for public access within downtown Moses Lake.

Project Location

The project, located in Moses Lake, Washington, is part of the Washington State Freight Rail System. The NCBRP is situated along SR-17, approximately 8.5 miles north of Interstate 90, (160 miles west of Seattle). It is classified as a regionally significant multimodal project on the National Freight System Network because it will enhance the region’s ability to adapt to national and regional population growth by improving freight mobility, economic vitality, public safety and the environment.

Moses Lake, WA: Coordinates: 47.1394 -119.2700
Project Parties
The State of Washington has committed to being a significant funding partner with the Port on the NCBRP. Our legislature has committed $19.9 million to the project, which will be administered by the Washington State Department of Transportation (WSDOT). The NCBRP enjoys broad support from federal, state and local elected officials, community groups, business organizations, local governments and stakeholders throughout the region.

Grant Funds, Sources and Uses of the Project Funds
The funding from this grant will allow the project to proceed as planned. If the grant funding is not awarded, or not fully funded at $9.9 million, the project will not achieve the benefits outlined in this application. If federal support is not provided, or fully funded, the Port and State of Washington will be required to scale back the project, although a partial federal award would still allow the project to proceed.

Cost Effectiveness
The results of the Benefit Cost Analysis (BCA) and Cost Effectiveness Analysis are compelling. The BCA, at a 7% discount rate, is 2.02, demonstrates that the project will deliver $2 in benefits for each $1 of investment. Investment in the NCBRP will improve mobility on the National Highway Freight Network, lead to improved safety for citizens, reduce emissions, and improve the quality of life in the community of Moses Lake and surrounding areas. A full technical narrative and BCA can be found in Appendices B and C.

<table>
<thead>
<tr>
<th>OUTCOME</th>
<th>DISCOUNTED BENEFITS at 7% ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>State of Good Repair (Economic)</td>
<td>$2.3M</td>
</tr>
<tr>
<td>Economic Competitiveness</td>
<td>$26.6M</td>
</tr>
<tr>
<td>Quality of Life (Mobility)</td>
<td>$3.4M</td>
</tr>
<tr>
<td>Environmental Sustainability</td>
<td>$1.7M</td>
</tr>
<tr>
<td>Safety</td>
<td>$15.0M</td>
</tr>
<tr>
<td>Total Benefits</td>
<td>$49.0M</td>
</tr>
</tbody>
</table>

Benefit Cost Ratio: 2.02

Project Readiness
The Port and its partners have designed a low-risk, high-benefit project that can move to construction upon obligation of the federal funds. Preliminary engineering is
substantially complete for Segment 2. Both Segments 1 and 3 have achieved preliminary engineering to a 30% design. Risk Mitigation Plans are in place to easily meet the federal 18-month obligation requirements.

The NCBRP can move quickly to construction. The Port has signed a contract with the State of Washington committing $20 M for the NCBRP. The contract specifies the project must be completed by June 30, 2021. This requirement reduces the risk that the project will fail to meet federal obligation and completion deadlines. Our cashflow projections, assumes that Federal obligation occurs sometime between receiving the last trench of State money on July 1, 2019 and the required federal obligation date of Sept 30, 2020. We have secured a line of credit to cash-flow the project prior to reimbursement by the state. Our contract with the state allows us to move forward on the project using the $20 M of State funds as collateral to our line of credit and seek reimbursement when the funds become available within the State’s biennium budgets. A detailed Cashflow Summary can be found in the BCA Excel worksheet – Project Cost tab line 28-44).

Changes since the April 2016 FASTLANE submission

- Refined our project scope, schedule and cost allocations between the three segments.
- Reviewed our risk analysis and developed improved mitigation strategies including the identification of a $6 million (20%) contingency built into the project that was previously hidden within each project element.
- We have confirmed with our outside rail counsel that the NEPA analysis is sufficient and that the proposed improvements in this application do not require additional NEPA analysis.
- The earlier application presented two options for Segment 2. We have now finalized the Segment 2 route accessing the GCIA.
- We secured customer demand projections and usage commitments to the project.
- We have incorporated the results of two additional studies – the 2016 FEIS on options for developing the Grant County International Airport Employment Center and the 2014 Master Plan for the Grant County International Airport.
- We have reviewed our commodity and truck load projections to ensure that we are very conservative on the estimated modal shift to rail. It is anticipated that by the end of the 20- year time-period of the BCA there will be approximately 8,400 trucks per year taken off the local roads and highways. This is approximately 23 trucks per day by 2040. The railcars that will be used in place of the trucks will carry large manufactured equipment – Genie lift trucks, chemicals that are used in the manufacturing processes in the GCIA Employment center at manufactures such as Moses Lake Industries, and Takata. Products delivered to the facilities are a mixture of bulk products used in the manufacturing process. The products that leave the facilities will again be a mix of bulk products manufactured at the plants and other parts, such as airbags and carbon fiber fabrics that will be transported to other value-added manufactures for additional
processing. Although, these products are inputs to final high-valued consumer products the final consumer product is not manufactured in Moses Lake. Thus, are good candidates for rail transport.

In this application:

- We have arranged our project information into a new format that mirrors the directions in the FY17 NOFO and included data from the BCA. This will enable the reviewers to easily review the application against the requirements set out in the NOFO.
- We have clarified the amount of Federal money requested to complete the project at $9.9 million. The presentation in the FY16 application was confusing, and may have led reviewers to believe the request was twice the amount (nearly $20 million).
- We have obligated $1 million of the WSDOT $20 M matching funds to continue design and ROW purchases. (Note: It is the port’s intent to secure ROW in a friendly purchase, but the Port does have eminent domain authority to secure the ROW under Washington State law.
- We have secured a line of credit to cash-flow the project prior to reimbursement by the state. Our contract with the state allows us to move forward on the project using the $20 M of State funds as collateral to our line of credit and seek reimbursement when the funds become available within the State’s biennium budgets.
- We refined our cashflow summary to ensure the project can be completed by June 30, 2021 with federal obligation no later than the required obligation date of Sept 30, 2019. The federal money will be the last money spent on the project.
**Contents**

**Executive Summary** .................................................................................................................. ii
  Why invest in Moses Lake? ........................................................................................................ v
  Project Location ......................................................................................................................... v
  Project Parties ............................................................................................................................. vi
  Grant Funds, Sources and Uses of the Project Funds ................................................................. vi
  Cost Effectiveness ...................................................................................................................... vi
  Project Readiness ....................................................................................................................... vi
  Changes since the April 2016 FASTLANE submission ........................................................... vii

**Project Description** .................................................................................................................. 1
  State and Regional Benefits: ...................................................................................................... 3
  Transportation Challenges ......................................................................................................... 4
  How the Project Addresses the Transportation Challenges ................................................... 5
  Customer Demand .................................................................................................................... 6

**Project Location** ...................................................................................................................... 6
  About the Port of Moses Lake ................................................................................................... 6
  Economic Information of Project Location .............................................................................. 8
  Project Parties ............................................................................................................................. 8

**Sources and Uses of all Project Funding** ............................................................................... 9
  Project Costs and Funding Sources .......................................................................................... 9
  Cost Share .................................................................................................................................. 9
  Detailed Budget Breakdown and NSFPH Fund Allocation ....................................................... 10

**Merit Criteria** ............................................................................................................................ 10

**Small Project Requirements** .................................................................................................. 14

**Cost-Effectiveness Analysis** .................................................................................................. 14
  Results of the Benefit-Cost Analysis ....................................................................................... 14

**Project Readiness** ................................................................................................................... 15
  Required Approvals .................................................................................................................. 17
  Reviews by Other Agencies ....................................................................................................... 17
  Assessment of Project Risks and Mitigation Strategies ........................................................... 18

**Conclusion** .............................................................................................................................. 19
List of Appendicies – all can be found on the project webpage at http://portmoses.hd-dev.com/current-projects/ or http://www.portofmoseslake.com/resources-downloads/ ................................................................. 19

(Note: The Ports website is under construction. Thus, we have listed two locations to retrieve the Appendicies.)

The following Appendicies are attached to the application:

Appendix A: Project Map ........................................................................................................ 20
Appendix B: Summary Description of the BCA ................................................................. 21
Appendix C: BCA Technical Narrative and spreadsheet ..................................................... 23
**Project Description**

The Northern Columbia Basin Railroad Project (NCBRP) will re-establish rail service to Moses Lake, the Grant County International Airport (GCIA) and 1,500 acres of industrial property adjacent to the GCIA. Additionally, the rail service will serve over 1,000 acres of industrial lands in the City of Moses Lake along the Wheeler Corridor.

Although inefficient rail service had been available in the past, the need to improve and modernize rail service to efficiently move freight to PNW ports and the Midwest was highlighted when the Port unsuccessfully competed for the siting of the Boeing 787 assembly plant. In 2003, a task force completed a feasibility/cost study, in which the Port and local stakeholders identified several railroad improvements for the Moses Lake area. In 2006, at the request of local legislators, the WSDOT completed a feasibility study for the project. The project, collectively known as the Northern Columbia Basin Railroad Project, was then analyzed under NEPA, with a Final Environmental Assessment completed in 2009. The NEPA analysis provided a “green light” for permitting and construction. Although funding was not available, planning efforts continued.

The situation became critical in 2009 when a trestle was damaged at Parker Horn (an inlet of Moses Lake) and the only existing rail line was closed from servicing the Port. Today, the only option for industries and agricultural producers to move raw material and finished goods to and from the Port is by truck.

In 2015, the Legislature passed a new Transportation funding package, called Connecting Washington. This funding package includes $19.9 million for this project. The Project consists of building, modernizing and restoring an 11-mile rail corridor in three segments. It also includes possible abandonment of a rail line running through downtown Moses Lake.

The four project segments include:

**Segment One** - constructs a new 5-mile rail line along the Wheeler Industrial corridor. This line will allow trains to bypass the circuitous rail line that bisects several neighborhoods in Moses Lake. This segment will access about 1,000 acres of industrial lands.

**Segment Two** - restores rail service to the GCIA and extends the line 3 miles to access industrial lands east of the airport. This new line will connect to the northern end of the existing Columbia Basin Railroad (CBRW) line. It will bring rail and intermodal capabilities to shippers located within the Port of Moses Lake and to 1,500 acres of available industrial lands adjacent to the GCIA.

**Segment Three** - rehabilitates and modernizes to 21st Century standards 3 miles of the existing

---


CBRW line between downtown Moses Lake and the airport. This segment connects segments 1 & 2 to provide a linkage to the Airport and industrial properties in the GCIA Employment Center.

Segment Four - although not part of the NCBRP, this segment consists of the aging 6-mile rail line that runs through several Moses Lake neighborhoods. This line is anticipated to be abandoned upon completion of Segment 1.

Together, segments one through three will provide a cost-effective rail connection to the Burlington Northern Santa Fe mainline rail network for existing businesses, agricultural producers, the growing aerospace cluster and to future industries that move into the vacant industrial lands adjacent to the GCIA.

The NCBRP addresses regionally significant challenges of freight mobility by improving the safety, efficiency and reliability of freight movement between the Port of Moses Lake and points east or west (including PNW ports). The project is along SR-17, and near I-90, both major freight routes. When completed, if the aging rail lines in Segment 4 are abandoned as expected, the City of Moses Lake will have the opportunity to provide new access to waterfront property and develop new pedestrian paths, which will improve quality of life in Moses Lake.

The Port is requesting a $9.9 million FASTLANE FY17 grant to complete the funding necessary to construct the NCBRP as envisioned. This $9.9 million federal investment will be added to the $19.9 million committed to the project by Washington State, and represents about 33% of the total project costs. Additionally, the Port has committed $0.5 million. The local commitment is lower than normal due to the restrictions on expenditures from revenues generate at the GCIA.

The cost effectiveness of this investment is demonstrated by a Benefit Cost ratio of 2.02. In other words, every $1 of investment will yield $2 in benefits. This investment contributes to improving the safety, environmental performance, and efficiencies of our nation’s roads and highways. It will bring new economic vitality to rural, Central Washington.

The funds requested for each individual segment (1-3) of the project have independent utility as the investment refurbishes and extends the current rail line. Reinstating and extending rail service to the Port’s industrial properties will allow the Port to meet the demands of shippers for efficient freight movement. To date, $2.1 million has been spent (previously incurred project costs) with future eligible project costs estimated to be $30.3 million for a total project cost of $33.4 million. Using FASTLANE project size criteria in the FY 17 NOFA, this project is categorized as “small rural” project. The federal investment of $9.9 million will be matched with local and state funds totaling $20.4 million (66% of total project costs).
Although the Port of Moses Lake will own the rail lines in the NCBRP, the Columbia Basin Railway (CBRW) will operate the rail lines. They are experienced and well suited to provide the service. CBRW also provides rail service to other Central Washington towns located between the NHS Interstate 90 and State Route 17 (SR-17) corridor, such as Warden, Bruce, Schrag, and Othello.

State and Regional Benefits:
The project has regional and national significance. Over 20 years of operation:
- It reduces 76 million Vehicle Miles Traveled (VMT), improving the movement of people and freight on our local roads and state & national highways, by diverting cargo that is currently moved by truck to rail.
- It will spark economic growth by accessing 1,250 acres of vacant, available industrial lands adjacent to the GCIA – creating the opportunity to generate 13,000-19,000 new, family wage jobs (Final EIS GCIAEC³). It also accesses over 1,000 acres of vacant industrial lands along the Wheeler Industrial Corridor. The Port, and Moses Lake have an outstanding workforce training partnership with Big Bend Community College which will help prepare the region’s workers for these new jobs.

Table 1: Estimated Employment Growth at GCIA

<table>
<thead>
<tr>
<th>GCIA Employment Center</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative 1- Heavy Manufacturing/ Warehousing</td>
<td>Alternative 2- Light Manufacturing/ Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total of 8.8 million sq. ft. of new building area over 20-year build out period 6.3 million sq. ft. of new heavy manufacturing/ warehousing and 2.5 million sq. ft. of new aviation development/ revenue support building area.</td>
<td>Total of up to 10.1 million sq. ft. of new building areas at full build out 7.2 million sq. ft. of new light manufacturing/technology building area and 2.9 million sq. ft. of new aviation development/revenue support uses.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total capacity for approximately 13,500 new employees</td>
<td>Total capacity for approximately 19,000 new employees</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: GCIA Employment Center FEIS November, 2015

- It opens the opportunity to expand intermodal connection between rail and cargoes arriving or departing on air carriers serving the GCIA.
- It will reduce 1.2 billion vehicle tons of traffic, saving government road departments over $6

³ Ordinance of Board of County Commissioner of Grant County, WA, Establishing a Planned Action for the Grant County International Airport (GCIA) Employment Center, Pursuant to the State Environmental Policy Act (SEPA) March 2016
http://www.grantcountywa.gov/Planning/Current_Events/International_Airport_Employment_Center_Project/Ordinance_No._16-028-CC_GCIA_Employment_Center.pdf
million in road maintenance costs (Measured as a savings under State of Good Repair).

- It will save shippers $67 million in reduced transportation costs, increasing their ability to compete in today’s global economy.
- It will improve the region’s mobility, ease bottlenecks at PNW ports, and improve the region’s quality of life by eliminating 152,000 trucks from roads and highways.
- It will protect the environment by reducing greenhouse gas emissions from trucks, estimated as a societal benefit in Environmental Sustainability of $3 million.
- It will increase safety on our roads and highways, with societal benefits of $39 million over 20 years by eliminating the risk of over 2 fatalities and 60 serious injuries.
- It will improve the state, and region’s emergency preparedness by providing Washington’s Emergency Management assets at the GCIA with reliable rail service to deliver fuel and materials necessary to respond to wildfires, disruptions in transportation, or other catastrophes.
- It will assist the military in efficiently conducting mission training exercises by allowing the shipment of large pieces of equipment by rail versus truck.
- It will give the City of Moses Lake the option to reconnect neighborhoods bisected by the aging rail line, and to open new waterfront land and pedestrian paths to the public if the current rail line in the downtown area is abandoned (as expected with award of this grant).
- It will improve the safety of all citizens by eliminating 20 at grade crossings within Moses Lake, building 8 new at grade crossings in Segment 1 & 2, and improving 2 at grade crossings on Segment 3.
- It will re-instate intermodal rail capabilities to the Port lost in 2009 by linking the Columbia Basin Railroad (CBRW) to the Burlington Northern Santa Fe mainline network in Connell, Washington (45 miles SE of Moses Lake). The link will provide a direct rail connection to ports in the PNW and to the Midwest.

**Transportation Challenges**

Although the CBRW served the area in the past, the service was not up to 21st century standards. As mentioned earlier, the need to improve and modernize rail service was highlighted when the Port unsuccessfully competed for the siting of the Boeing 787 assembly plant. Despite the completion of feasibility plans and environmental review under NEPA, funding has not been available to implement the project.

The situation became critical in 2009 when a trestle was damaged and the only existing rail line was closed from servicing the Port and the lands adjacent to the GCIA. Today, the only option for industries and agricultural producers to move raw material and finished goods to and from the Port, and surrounding area, is by truck.
In 2016, the Port completed a FEIS, under NEPA, analyzing options for developing the industrial lands (about 1,250 acres) adjacent to the Grant County International Airport. The area, called the GCIA Employment Center will be served by the NCBRP. The Port has also completed a Master Plan for the GCIA. All these studies confirm that the primary transportation challenge impeding economic growth, safety and community values is the lack of rail service to this region.

**How the Project Addresses the Transportation Challenges**

The NCBRP addresses the transportation challenges by:

1. restoring rail service to the GCIA and industrial lands adjacent to the GCIA,
2. re-routing aging rail lines in Moses Lake to a new rail line along the Wheeler Corridor,
3. bringing rail service to lands designated and zoned for industrial development in the northern part of Moses Lake.

**Segment 1** is a new 5-mile rail line between the cities of Moses Lake and Wheeler, connecting to the CBRW mainline at Wheeler. It will give shippers in the Port, at the GCIA and along the Wheeler corridor a direct connection to the BNSF interchange at Connell. The upgrades will allow track speeds to increase from less than 10 mph to 25 mph, improving service and reducing wait times at the 8 at-grade crossings along Segment 3.

Segments 2 and 3 provide the linkage between the BNSF mainline at Connell, and the businesses and industrial lands adjacent to the GCIA, and the GCIA Employment Center. By constructing a new, more efficient railroad track alignment between Moses Lake and Wheeler, trains will bypass the circuitous rail line through residential and downtown areas of Moses Lake and other incorporated areas. This will result in safer conditions for the City’s residents and reduced vehicle congestion from grade crossings throughout the City. Upon completion of this project, new and existing businesses at the Port will have more flexibility in supply chains and can reach new global markets. It opens a new efficient intermodal connection between air cargo and rail.

Significantly, the project will reduce 76 million truck miles of usage over 20 years on our roads and highways and take an average of 7,600 trucks off roads and highways each year. These reductions in truck traffic will reduce damage to public roadways, reduce the risk of accidents, improve air quality, and reduce roadway congestion. Roadway routes to and from other ports in the Pacific Northwest will see less truck traffic, easing truck bottlenecks at Snoqualmie Pass (on I-90) and PNW ports.
Customer Demand

Project Location

The Port of Moses Lake (the Port) is in rural, central Washington adjacent to SR 17 and directly off the Interstate 90 corridor. The Port is 100 miles west of Spokane, Washington, and approximately 160 miles east of Seattle. The City of Moses Lake, the Port’s namesake, and Grant County lie in the sunbelt of the state, with a pleasant climate for recreation, agriculture, and industry.

The CBRW, a short line railroad, interchanges with BNSF south of Moses Lake at Connell. Figure 3, shows the general project location and the location of each project segment.

About the Port of Moses Lake

Originally home to the Larson Air Force Base, the Port of Moses Lake now houses the GCIA and industrial areas containing over 4,500 acres of quality infrastructure. The GCIA has one of the largest airfields in the United States and can accept the largest aircraft in the world. The airport enjoys 350 days of excellent VFR weather and is favored, and used, for military and commercial test flight programs. It has the capacity to accommodate much more given its five runways and onsite FAA control tower for commercial, military, and general aviation use. GCIA has 240 acres of ramp space and 1 million sq. ft. in the adjacent GCIA Employment Center.

Boeing has indicated that it needs to be able to move their fuselages cost effectively by rail from Kansas City to the PNW. The completion of this project would increase Moses Lake competitiveness in future site selection evaluations. Surveys show that ninety percent of current customers indicate that rail is an important option in their transportation network.
Both commercial and military aviation can find expansive space to accommodate aircraft on the five runways, the longest of which is 13,503’ long x 200’ wide, without the congestion found at other facilities.

The GCIA serves as a secondary airfield for Military facilities in the Pacific Northwest and is an integral part of the WA Emergency Management continuity plans in the case of a disaster that disrupts the major transportation modes in the Puget Sound region. It also serves as a major staging and support airfield for wildfire and other natural disaster response. Due to the proximity of major military bases in Washington, the GCIA is an important mission training resource. The GCIA is an incredible economic asset, with opportunities to link air cargo with rail.

The Port offers low cost, green power for its tenants. It is served by the Grant County Public Utility District (GCPUD), which operates two hydroelectric dams on the Columbia River. These dams provide low cost, reliable electricity to Grant County businesses and residents. Per the GCPUD, Grant County residents pay an average of 4.2 cents per kilowatt-hour compared to the national average of 11.8 cents. Hydropower is renewable, and emission free, allowing local industries to truly use “green power”.

The Port also operates an industrial wastewater treatment system that serves industries near the GCIA and surrounding industrial park. Wastewater services are large enough to accommodate future growth from both agricultural and manufacturing industries. The Port operates in a Foreign Trade Zone (FTZ #203), and provides its tenants with the financial benefits for both imports and exports that accompany a FTZ. Port tenants and other businesses can take advantage of duty deferrals, exemptions, inverted tariffs, and the many logistical improvements that can be incorporated into a company’s production and distribution process. A United States Customs and Border Protection office is located within GCIA to help oversee activity within the FTZ.

Training for the skilled labor pool necessary for industries located in the region is available at nearby Big Bend Community College. The Port, local businesses and Big Bend Community College partner to ensure that training programs are available to meet the needs of the workforce and industries locating in Moses Lake, and the surrounding area. The college enrolls over 4,000 students per year, over 1,300 of which are receiving professional and technical degrees.

The Port continues to focus on the modernization of its infrastructure in order to attract and retain businesses in this economically disadvantaged region of Washington State. As mentioned earlier, in 2016, the Port examined options for bringing new economic opportunities to the area by analyzing different development scenarios for the vacant industrial lands adjacent to the GCIA (the FEIS for the GCIA Employment Center). The Port has also completed a Master Plan for the GCIA. Both studies confirm the importance of the NCBRP to bringing the Port’s vision for these efforts to reality. The NCBRP will allow the Port, and surrounding region, to leverage its low-cost power, available land and superb training resources with cost effective multimodal transportation services to access PNW ports and the Midwest.

4 www.bigbend.edu
Economic Information of Project Location

The City of Moses Lake, Washington, is the largest city in Grant County. It is considered the agricultural hub of Central Washington State. The 2014 U.S. Census data shows that Grant County has a higher poverty rate (15.8%) than the U.S. average (14.8%). Data from the U.S. Bureau of Labor Statistics shows that Grant County also has a higher unemployment rate (9.4%) than the U.S. average (5.0%) (December 2015). Of key concern is that Grant County job growth is 0.2% per year, well behind national job growth of 1.4% per year, and Washington State at 3.2% per year (2015, Bureau of Labor Statistics). The NCBRP will be the catalyst that enables the Port, and surrounding area to compete for both retention of existing businesses, and recruitment of new industries and business. That, in turn, will provide job seekers with new, and higher paying, opportunities, allowing the area to regain prosperity.

Project Parties

The Port of Moses Lake is the primary sponsor for this application, and will serve as the grant recipient. The Port will be responsible for overall implementation of the project. WSDOT, however, is a key partner and will assist the Port of Moses Lake in managing funds, preliminary engineering, construction, and environmental clearances.

NCBR Coalition: The Northern Columbia Basin Rail Coalition represents the many public, private, civic, and community groups in the central Washington region supporting this project. It includes the Port of Moses Lake, City of Moses Lake, Grant County, Columbia Basin Railroad, Moses Lake Industries, Genie Industries, Moses Lake Trails Coalition, ASPI Group, Zip Truck Lines, Washington State Department of Transportation, Grant County Economic Development Council and many individual businesses, citizens and community leaders. Additional Supporters: Washington Senator Patty Murray, Washington Senator Maria Cantwell, Congressman Dan Newhouse, 13th District State Senator Judy Warnick, 13th District State Representative Matt Manweller, 13th District State Representative Tom Dent, Senator Curtis King, Chair, Senate Transportation Committee, Representative Judy Clibborn, Chair, House Transportation Committee, Senator Steve Hobbs, Minority Leader, Senate Transportation Committee, Representative Ed Orcutt, Minority Leader, House Transportation Committee, Senator Marilyn Chase, Co-Chair, Legislative Rail Caucus, Representative Mia Gregerson, Co-Chair, Legislative Rail Caucus, Washington Military Department, Emergency Management, Brian Boulender, Director Washington Department of Commerce, Big Bend Community College, Moses Lake School District, Port of Ephrata, Port of Quincy, Mitsubishi.

The Northern Columbia Basin Rail Project Coalition formed in the early 2000’s to support and advocate for this project through completion. Since its formation, support has grown to include federal and state elected officials, emergency management organizations, new businesses, school districts, community college, and nearby Ports. Their Letters of Support can be found in Appendix D on the project’s webpage.

---


Sources and Uses of all Project Funding

Project Costs and Funding Sources

The Project has received $19.9 million in funding from the Washington State Legislature. Those funds will be administered by WSDOT. The Port has signed a contract with WSDOT for the project. WSDOT’s State Rail Plan shows that the Project will generate positive impacts in both economic competitiveness and international trade.\(^7\) Washington’s financial contribution represents over 65% of the total funds needed.

Table 2: Committed Funding Sources

<table>
<thead>
<tr>
<th>Type of Funding</th>
<th>Source of Funding</th>
<th>Amount In Millions</th>
<th>Status</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASTLANE</td>
<td>Federal</td>
<td>$9.9</td>
<td>Requested</td>
<td>33%</td>
</tr>
<tr>
<td>Federal Match</td>
<td></td>
<td>$9.9</td>
<td></td>
<td>33%</td>
</tr>
<tr>
<td>Connecting Washington</td>
<td>State</td>
<td>$19.9</td>
<td>All funds Committed</td>
<td>65%</td>
</tr>
<tr>
<td>Port of Moses Lake</td>
<td>Port</td>
<td>$0.5</td>
<td>Obligated</td>
<td>2%</td>
</tr>
<tr>
<td>State &amp; Local</td>
<td></td>
<td>$20.4</td>
<td></td>
<td>67%</td>
</tr>
<tr>
<td>Total Project Funding</td>
<td></td>
<td>$30.3</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 2 above shows the commitment of matching funds and the amount of NSFPH funding necessary to complete the Project. Table 3 summarizes the uses of Project funds by major activities. The Port and its cooperating partners are committed to improving the multimodal network, and restoring railroad connectivity, by contributing $20.4 million toward design, right-of-way purchase, and construction. The NSFPH grant of $9.9 million, when combined with state funds and private investment, provides critical project funding to ensure that all the rail improvements are completed.

Cost Share

The Port of Moses Lake and its partner WSDOT are committed to fund $20.4 million (67%) of the total remaining $30.3 million project cost. These funds are anticipated to be spent over a 5-year period. It is anticipated that $1 million of State funds obligated will be used by June 30, 2017. The Port’s contract with WSDOT specifies that construction must be completed and state funds spent by June 30, 2021. This request of $9.9 million in USDOT FASTLANE funds will result in a $2 match for every federal dollar granted.

\(^7\) WSDOT, Washington State Rail Plan, Appendix, Page 152, http://www.wsdot.wa.gov/NR/rdonlyres/F67D73E5-2F2D-40F2-
Detailed Budget Breakdown and NSFPH Fund Allocation

Table 3 contains a detailed project budget that summarizes the uses of project funds broken down by the Project’s major components.

### Table 3: Cost Breakdown of All Segments - Port of Moses Lake

<table>
<thead>
<tr>
<th></th>
<th>Engineering</th>
<th>Construction</th>
<th>ROW</th>
<th>Environmental Mitigation</th>
<th>Contingency</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment 1</td>
<td>$ 788,619</td>
<td>$12,344,114</td>
<td>$1,185,022</td>
<td>$ 364,680</td>
<td>$3,699,483</td>
<td>$18,381,918</td>
</tr>
<tr>
<td>Segment 2</td>
<td>$ 208,857</td>
<td>$ 4,623,974</td>
<td>$ 2,500,622</td>
<td>$ -</td>
<td>$1,966,566</td>
<td>$ 9,300,019</td>
</tr>
<tr>
<td>Segment 3</td>
<td>$ 149,242</td>
<td>$2,013,152</td>
<td>$ -</td>
<td>$ 96,507</td>
<td>$ 367,766</td>
<td>$ 2,626,667</td>
</tr>
<tr>
<td>Total</td>
<td>$1,146,718</td>
<td>$18,981,239</td>
<td>$3,685,645</td>
<td>$461,187</td>
<td>$6,033,815</td>
<td>$30,308,604</td>
</tr>
</tbody>
</table>

4%  63%  12%  2%  20%  100%

### Table 4 Break-out of Crossing costs vs. Multi-modal cost

<table>
<thead>
<tr>
<th></th>
<th>Federal Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crossing Improvements</td>
<td>$ 2,214,171</td>
</tr>
<tr>
<td>Multimodal</td>
<td>$ 7,685,829</td>
</tr>
<tr>
<td>Total Request</td>
<td>$ 9,900,000</td>
</tr>
</tbody>
</table>

### Table 5 Use of Funds

| NORTHERN COLUMBIA BASIN RAILROAD PROJECT |
|------------------------------------------|-----|
| Funding Sources                          | Amount in Millions |
| Port of Moses lake                       | $ 0.5 |
| State Legislature / Administered by WA Department of Transportation | $ 19.9 |
| FASTLANE Request                         | $ 9.9 |
| Total Project Request                    | $ 30.3 |

<table>
<thead>
<tr>
<th>Status</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Committed</td>
<td>PE/FE</td>
</tr>
<tr>
<td>Committed/ $0.99 M Obligated</td>
<td>FE, Environmental, ROW and Construction</td>
</tr>
<tr>
<td>Requested</td>
<td>Construction</td>
</tr>
</tbody>
</table>

### Merit Criteria

#### Economic Outcomes

The positive economic outcomes accrue by (1) retaining current jobs and investments by providing cost competitive rail connections to PNW ports and the Midwest, (2) eliminating 76 million truck miles from roads and highways, and (3) sparking new growth in the vacant industrial lands in the GCIA and Wheeler Industrial Corridor. The NCBRP economic benefits include:

- It will spark economic growth by accessing 1,250 acres of vacant, available industrial lands adjacent to the GCIA – creating the opportunity to generate 13,000-19,000 new, family
• **wage jobs** (See Table 1 Final EIS GCIAEC)\(^8\). It also accesses 1,000 acres of vacant industrial lands along the Wheeler Industrial Corridor. The Port, and Moses Lake have an outstanding workforce development partnership with Big Bend Community College to help prepare the region’s workers for these jobs. The NCBRP will assist the region in generating new jobs and opportunities, and help the area turn around lagging job growth.

• It will **save shippers $67 million** in reduced transportation costs, assisting current and future industries in their ability to compete in today’s economy.

• It opens the opportunity to expand intermodal connection between rail and cargoes arriving or departing on air carriers serving the GCIA.

• It will re-instate intermodal rail capabilities to the Port lost in 2009 by linking the Columbia Basin Railroad (CBRW) to the Burlington Northern Santa Fe mainline network in Connell, Washington (45 miles SE of Moses Lake). The link will provide a direct connection to ports in the PNW and to the Midwest.

• It will reduce 76 million truck miles of traffic, **saving government road departments over $6 million in road maintenance costs** (Measured as a savings under State of Good Repair).

The NCBRP will be the catalyst to achieving the potential for the GCIA Employment Center and the Wheeler Industrial Corridor. It will provide much needed options for our existing industries, agricultural producers, and importantly, to people seeking meaningful employment. At a national level, the NCBRP improves the competitiveness of the United States by increasing efficiency and safety in the movement of goods. The project will assist the region, and nation, to adapt to increasing population growth by creating new jobs in sectors with global market reach.

The benefits will be immediate, and tangible. For example:

• Moses Lake Industries, a chemical manufacturer supplying the high-technology sector, currently trucks in a chemical daily from West Virginia – a truck trip exceeding 2,400 miles. There is an alternative supplier of the chemical in Florida, however, the Florida supplier only ships by rail. Consequently, Moses Lake Industries must use the West Virginia supplier, and carry the costs for daily trucking from West Virginia, putting Moses Lake Industries at a disadvantage to their competitors. Rail transportation will allow them to

---

\(^8\) Ordinance of Board of County Commissioner of Grant County, WA, Establishing a Planned Action for the Grant County International Airport (GCIA) Employment Center, Pursuant to the State Environmental Policy Act (SEPA) March 2016

use more efficient, and reliable options for supplying their raw material needs.

- Million Air is a jet fuel supplier for the Port and the Wildfire Tanker Base located in Moses Lake. Currently, all jet fuel is trucked from Tacoma, Washington. During peak firefighting season, Million Air searches for suppliers of jet fuel from across the state and region. The region, and the company would benefit from train service to keep their 1-million-gallon tank ready to meet emergency and customers’ demands.

- Mitsubishi Aircraft Corporation of America, Inc. has made Grant County International Airport its U.S. base of operations. The company would like to use low-cost rail transportation to bring in aircraft parts as they continue testing their new regional jet. Rail aligns with their business strategy of being good environmental stewards.

- SGL Automotive Carbon Fiber has no on-site storage for carbon fiber components. This material must stay dry and contained. It is currently trucked in 20-foot containers, however, covered hoppers on rail can carry more of the commodity per trip, and maintain the necessary conditions for the product.

Other existing industries and agricultural producers in the region will take immediate advantage of rail service. The examples above are simply a snapshot of how this project will improve the ability of four current Port tenants to compete.

**Mobility Outcomes**

The benefits in mobility accrue from (1) the diversion of 76 million truck miles off roads and highways to rail, and (2) the improvement and elimination of numerous grade crossings.

- **The NCBRP reduces 76 million Vehicle Miles Traveled (VMT) on our local roads and state / national highways by diverting cargo that is currently moved by truck to rail.** Savings in road maintenance and repair are estimated at $6 million.

- **It will enhance personal and business mobility and quality of life by eliminating 152,000 trucks from roads and highways over 20 years.** Annually, more than 7,600 trucks will no longer be on local roads and highways.

Diverting truck traffic to rail will ease growing congestion on I-90 and SR-17. Both highways are major transportation routes through Central Washington, and increasingly experiencing slowdowns and delays due to congestion. The reduction of truck traffic to PNW ports will ease growing bottlenecks with trucks accessing those Ports, and help resolve growing congestion on I-90 at Snoqualmie Pass. The NCBRP will assist industries in their effort to rely on “just in time” raw material delivery and production schedules.
The reliability and dependability of rail is among the best in the logistics industry. Rail provides the flexibility to transport in bulk and can adapt to meet customer’s growth patterns more readily than trucking.

“Bringing rail to the Port of Moses Lake would provide MLI with the ability to reduce manufacturing costs by purchasing raw materials in bulk. Rail would also strengthen our just-in-time supply chain that is often disrupted by weather during the winter months.”
– Mike Tiffany, VP Operations, Moses Lake Industries

Safety Outcomes
The decrease of 7,600 trucks per year, or 76 million truck miles, from roads and highways is estimated to result in 2 fewer fatalities and 60 fewer serious injuries over 20 years. The societal benefits of these reductions are estimated at $39 million. It will improve the safety of all citizens by eliminating 20 at grade crossings within Moses Lake, improving and building 8 new at grade crossings in Segments 1 and 2, and improving two at grade crossings on Segment 3.

Community and Environmental Outcomes
The 76 million truck miles diverted to rail will reduce emissions of carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NOx), fine particulate matter (PM2.5), Sulfur Dioxide (SOx) and Carbon Dioxide (CO2). The emission cost reductions for these pollutants are monetized at $3 million in the BCA. The NCBRP will improve the state, and region’s emergency preparedness by providing Washington’s Emergency Management assets at the GCIA with reliable rail service to deliver fuel and materials necessary to respond to wildfires, disruptions in transportation, or other catastrophes.

The military will be able to more efficiently, and safely, conduct mission training by moving large equipment by rail instead of truck. When the NCBRP is complete, the existing rail line inside of Moses Lake (Segment 4) is expected to be abandoned. If abandoned, grade crossings and disruptions in traffic flow will be eliminated and the City will have the possibility of providing new public access to waterfront lands, and to develop new pedestrian paths for its citizens and visitors.
Other Review Criteria

**Partnership and Innovation**

In addition to the strategic partnership with WSDOT, the NCBRP enjoys broad support from elected officials, local governments and stakeholders throughout the region. The Northern Columbia Basin Rail Coalition organized early in recognition of the important need for this project. The NCBRP Coalition meets on a regular basis to work together to move the project forward. The NCBRP has applied innovative tools such as WSDOT’s Practical Solutions approach which include Least Cost Planning and Practical Design to develop flexible and sustainable transportation investment decision solutions with early stakeholder engagement. This insures the project meets stakeholder needs and desired outcomes.

**Cost Share**

The Port is requesting $9.9 million in FASTLANE funds. This will represent a 33% share in the project. The State of Washington’s $19.9 million represents a 67% match to this grant.

**Small Project Requirements**

This project meets the FASTLANE Small Project Requirements:

- The project is less than $100 million
- The grant request is more than $5 million
- The $9.9 million requested equals 33% of projects costs, far below the 60% maximum threshold.
- The project is cost effective with a BCA at 7% of 2.02.
- The project improves mobility in the state and region by removing 76 million truck miles off roads and highways over 20 years as discussed in more detail under the Mobility Outcomes section on pg. 12 above. Detailed calculations can be found in the BCA worksheet.

**Cost-Effectiveness Analysis**

**Results of the Benefit-Cost Analysis**

Below table 5 summarizes the monetized benefits of the NCBRP. The benefits are categorized by criteria established in the FASTLANE program. These estimates assume a conservative growth rate in volume of less than 1% per year. The 25-year analysis period includes five years of project development (design and construction) followed by 20 years of operation. Annual costs and benefits are estimated through 2040. Construction of all improvements is expected to be completed no later than early 2021 to meet the WSDOT requirements. Thus, the analysis assumes benefits also start accruing in 2021 and continue for 20-years post-construction. The

---

9 [http://www.wsdot.wa.gov/Projects/PracticalDesign/]
BCA shows an internal rate of return of 15.8 percent. Using a 7 percent discount rate, the project will yield a net present value of nearly $24.7 million and a benefit-cost ratio of 2.02. Using a 3 percent real discount rate, the net present value of the project would increase to $53.1 million, for a benefit-cost ratio of 2.91.

Table 5: Monetized Benefits of the Project

<table>
<thead>
<tr>
<th>MERIT CRITERIA</th>
<th>BENEFIT CATEGORIES</th>
<th>7% DISC. RATE</th>
<th>3% DISC. RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
<td>Shipping Cost Savings</td>
<td>$26.9 M</td>
<td>$44.3 M</td>
</tr>
<tr>
<td>Mobility</td>
<td>Pavement Cost Savings</td>
<td>$2.2 M</td>
<td>$3.9 M</td>
</tr>
<tr>
<td>Safety</td>
<td>Avoided Road Congestion Costs</td>
<td>$3.4 M</td>
<td>$5.7 M</td>
</tr>
<tr>
<td>Community &amp; Environmental</td>
<td>Emissions Cost Reduction</td>
<td>$1.7 M</td>
<td>$1.7 M</td>
</tr>
</tbody>
</table>

Table 6: Benefit-Cost Results - summarizes the results of metrics used as evaluation criteria in the Benefit-Cost Analysis.

<table>
<thead>
<tr>
<th>PROJECT EVALUATION METRIC</th>
<th>7% DISCOUNT RATE</th>
<th>3% DISCOUNT RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Discounted Benefits</td>
<td>$49.0 M</td>
<td>$80.9 M</td>
</tr>
<tr>
<td>Total Discounted Costs</td>
<td>$24.3 M</td>
<td>$27.8 M</td>
</tr>
<tr>
<td>Net Present Value</td>
<td>$24.7 M</td>
<td>$53.1 M</td>
</tr>
<tr>
<td>Benefit/Cost Ratio</td>
<td>2.02</td>
<td>2.91</td>
</tr>
<tr>
<td>Internal Rate of Return</td>
<td>15.8%</td>
<td>2.91</td>
</tr>
<tr>
<td>Payback Period</td>
<td>7.2 years</td>
<td></td>
</tr>
</tbody>
</table>

Project Readiness

The Port’s partner, the WSDOT is experienced in carrying out large capital projects, and will assist the Port in administering and implementing the Project. As previously mentioned, the NCBRP will be designed and built using WSDOT’s Practical Solution approach, including Least Cost Planning and Practical Design tools to develop flexible and sustainable transportation investment decisions solutions. This process includes early stakeholder engagement to insure the project meets stakeholder needs and desired outcomes.

Least Cost Planning is an approach to making planning decisions that considers a variety of conceptual solutions to achieve the desired system performance targets. Central to least cost planning is a process that engages the public, applies methods to evaluate planning options, and how to select options.

Practical Design is an approach to making project decisions that focus on the need for the project and looks for cost-effective solutions. A fully implemented practical design approach applies to all aspects of transportation system development, from system planning through all phases of project development. Previous engineering design activities have proceeded to 30% design for Segments 1 through 3 and awaiting efforts to advance their final engineering. Segment 2 design is 90% complete.
Table 7: Preliminary Engineering Progress to date

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>PROGRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment 1</td>
<td>30%</td>
</tr>
<tr>
<td>Segment 2</td>
<td>90%</td>
</tr>
<tr>
<td>Segment 3</td>
<td>30%</td>
</tr>
</tbody>
</table>

Detailed engineering plans can be found on the project website in Appendix G.

The design and engineering standards for the NCBRP are based on standards developed with WSDOT during the Project’s environmental and preliminary engineering work. The basis for design was developed in coordination with WSDOT and CBRW, using CBRW and the American Railway Engineering and Maintenance-of-Way Association (AREMA) Manual for Railway Engineering. Each individual segment of the Project has its own cost estimate, including a detailed description of engineering and basis for the costs. All the estimates of project segment costs include a 20% contingency. The Port is fine tuning the project costs with the engineer of record. This includes a value engineering effort to ensure we are following WSDOT’s Practical Solutions and Least Cost Planning and Practical Design approach. The detailed cost estimates can be found on the project’s website in Appendix F.

Planning, environmental review updates, and public outreach are under way for the Project. Construction of Segment 3 will begin in the second quarter of 2018. Construction of Segments 1 & 2 can begin in the fourth quarter of 2019 if full funding is available. Construction of the NCBRP should take about 3 years for all segments to be complete. The Port anticipates completing the project in early 2021. The port has a line of credit that will bridge any cashflow timing gap if federal money is obligated earlier than 9/30/2020 the bid and construction phase can start as soon as federal monies is obligated.

Table 8: Project Schedule and Milestones

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Prel. Engineering- Segment 1</td>
<td>3Q</td>
<td>4Q</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prel. Engineering- Segment 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prel. Engineering- Segment 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Mitigation Segment 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Segment 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Mitigation Segment 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Mitigation Segment 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way Segment 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seg. 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way Segment 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way Segment 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Plans &amp; Preconstruction**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seg. 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seg. 1 and 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seg. 1 and 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Federal Obligation on all segments no later than 9/30/2019- schedule based on funding cash-flow allocations

Table 8 above summarizes when each project segment is anticipated to meet major milestones. The schedule shows that construction will commence within 18 months of FASTLANE funds being obligated. It is anticipated that Federal Obligation will occur by September, 2020. WSDOT already contracted for their contribution and has obligated $990,000 for Spring, 2017. A Detailed Schedule can be found on the project’s website in Appendix E.
Required Approvals

NEPA Status of Project
The federal Surface Transportation Board and WSDOT completed a National Environmental Policy Act (NEPA) Final Environmental Assessment (EA) for the NCBRP on May 8, 2009. The analysis covered the project’s roadway and rail project components and met the requirements of the National Environmental Policy Act of 1969, 32 Code of Federal Regulations 652. The Final EA was preceded by the Preliminary Environmental Assessment, issued on November 7, 2008.

In December 2016, the Port had its legal counsel (Thompson Hine) review the project’s status. They state, that no further action of the Surface Transportation Board (“STB”) is necessary, including no further environmental review under the National Environmental Policy Act (“NEPA”), for the Port of Moses Lake to go forward with the rail construction of “Segments 1 and 2” and the rail acquisition of “Segment 3,” as previously authorized by the STB.” “Authorization obtained from the STB to construct, acquire, or operate a rail line is “permissive” only. This means that, once authorization occurs, “it is up to the parties to determine whether to move forward with the underlying transaction.” There is generally no deadline attached to STB authorizations, and there is no overall deadline imposed by the STB for the Port of Moses Lake’s authorization in Docket Nos. 34936 and 34936 (Sub-No. 1). Therefore, the Port of Moses Lake can move forward with the projects authorized in 2009.” Full text of memo is in Appendix H.

Additionally, in 2016, the Port completed a FEIS for the GCIA Employment Center, under NEPA, that examines development options for the area that will be served by the NCBRP.

Reviews by Other Agencies
For their respective project components, WSDOT and the Port have been in regular contact with state, federal and local agencies to ensure environmental permitting and clearance requirements are met to agency requirements. The US Fish and Wildlife has confirmed that the NCBRP is not expected to result in any adverse impacts to federally listed threatened or endangered species or critical habitats.

Discussions with appropriate DOT modal administration field offices
The Port has been in multiple discussions with the USDOT Officials. Port officials met with USDOT officials in Washington, D.C. on December 1, 2016, to provide an update on the work that has been completed since the submission of the FASTLANE FY16 application. The purpose of these conversations has been to ensure USDOT officials are aware of the updates to the project, and that the project is ready to proceed forward if/when federal funds are secured.

Public Outreach
The NCBRP coalition recently met to review updated design plans and the status of funding for the project. Throughout this process, the Port has outreached to the community to determine the community’s preference on the rail line’s alignment and the potential repurposing of the 6-mile, Segment 4 through downtown Moses Lake. On November 30, 2016, the NCBRP Coalition hosted a tour of the project for Senator Curtis King, Chair of the Senate Transportation Committee and other local lawmakers. These outreach meetings started early in our project planning and design process. The Port is committed to continuing to engage the public as the project moves towards final design.
State and Local Planning
The State Freight Mobility Plan, State Transportation Improvement Plan, and State Rail Plan (2013 - 2035) all identify the Project as a priority since it improves rail-highway grade separation, interchanges, and truck bottlenecks. These studies all confirm that the NCBRP will contribute to economic growth, improved mobility on our NHS, increased safety and improved environmental outcomes.

Assessment of Project Risks and Mitigation Strategies
Table 9 assesses potential risks for each project element. This shows risks that could impact the ability to the NCBRP’s objectives and schedule. It also outlines mitigation actions.

Table 9: Risk and Mitigation Strategies

<table>
<thead>
<tr>
<th>Potential Risk Area</th>
<th>Risk Type</th>
<th>Status/ Proposed Mitigation</th>
<th>Risk Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Feasibility</td>
<td>Feasibility</td>
<td>Preliminary designed developed with input from railroad (CBRW) and WSDOT</td>
<td>Low</td>
</tr>
<tr>
<td>Design Standards Conformance</td>
<td>Feasibility</td>
<td>Preliminary designed developed with input from railroad (CBRW) and WSDOT</td>
<td>Low</td>
</tr>
<tr>
<td>Partner Approvals</td>
<td>Schedule</td>
<td>Preliminary designed developed with input from railroad (CBRW) and WSDOT</td>
<td>Low</td>
</tr>
<tr>
<td>Local Jurisdiction Approvals</td>
<td>Schedule</td>
<td>History of multi-agency cooperation and collaboration will continue</td>
<td>Low</td>
</tr>
<tr>
<td>Environmental Approvals/ ROW purchases</td>
<td>Cost, schedule</td>
<td>Segment 1- is on property that the port is purchasing. Most owners are willing to sell, for those that aren’t Eminent Domain may be used by the Port to secure the ROW. If FRA determines a CE or EA is required for this segment – there is adequate time within the schedule to complete the activity and still complete the project on schedule.</td>
<td>Moderate</td>
</tr>
<tr>
<td>Construction</td>
<td>Cost, schedule</td>
<td>Segment 3- this section has been recently hi-railed and initial refurbishment to get the line operational appears to be minimal, funds have been included for further upgrade once the line is operational.</td>
<td>Low</td>
</tr>
<tr>
<td>Environmental Approvals/ ROW purchases</td>
<td>Cost, schedule</td>
<td>Segment 2- rail line extension will occur on Port property and adjoining properties whose owners are willing to work with the Port to complete this project- there are no known environmental issues on this segment.</td>
<td>Low / Moderate</td>
</tr>
<tr>
<td>Environmental Approvals</td>
<td>Cost, schedule</td>
<td>Segment 3- rail improvements will be made within the current rail ROW</td>
<td>Low</td>
</tr>
<tr>
<td>Public and Stakeholder Support</td>
<td>Cost, schedule</td>
<td>We have been actively engaging our community on this project since its inception in the early 2000’s</td>
<td>Low</td>
</tr>
<tr>
<td>Construction</td>
<td>Cost, schedule</td>
<td>Segment 1-is at 30% design. A 20% contingency is in place to cover unforeseen costs.</td>
<td>Moderate</td>
</tr>
</tbody>
</table>
Table 9: Risk and Mitigation Strategies - continued

| Construction | Cost, schedule | Segment 2- is at 90% design. A 20% contingency is in place to cover unforeseen costs. | Low |
| Grant Administration | Financial | The Port is very experienced with Federal contracting rules and regulations as it has successfully administrated a multitude of FAA grants for the GCIA. | Low |
| Financial Management | Financial | The Port has negotiated a line of credit to ensure working capital during the project before reimbursement is received from funding agencies. | Low |

**Conclusion**

In conclusion, the Port is positioned to implement this project as soon as federal funding can be obligated. This project meets the FASTLANE criteria as a small rural project where each segment has independent utility, is cost effective and can be obligated within the USDOT deadline and then move to construction within the 18-month window.

**List of Appendices – all can be found on the project webpage at** [http://portmoses.hd-dev.com/current-projects/](http://portmoses.hd-dev.com/current-projects/) or [http://www.portofmoseslake.com/resources-downloads/](http://www.portofmoseslake.com/resources-downloads/)

*(Note: The Ports website is under construction thus, we have listed two locations to retrieve the “Appendix” listed below.)*

Appendix A: Project Map - (attached to Narrative)
Appendix B: BCA Narrative Summary and Detailed Narrative – also (attached to Narrative)
Appendix C: BCA Technical write up and excel spreadsheet including Detailed costs – (attached to Narrative)
Appendix D: List of Support Letters
Appendix E: Detailed Project Schedule
Appendix F: Detailed Project Costs
Appendix G: Engineering Design Document
Appendix H: Links to Past Studies
Appendix I: Current Customer Profiles
Appendix J: Legal Memo on STP NETA Authorization
Appendix H: Reference to Washington Law regarding Eminent Domain powers
Appendix B: Summary Description of the BCA

See attachments for the Technical Appendix and Excel spreadsheet version of the BCA.

A narrative summary of the BCA is provided as follows:

For the FY 2017 FASTLANE funding opportunity, the Port is applying for a grant to partially fund the construction phase of the Northern Columbia Basin Railroad Project. To demonstrate that the Project will deliver anticipated benefits at reasonable costs, a Cost-Effectiveness Analysis was conducted in the form of a Benefit-Cost Analysis (BCA).

This procedure compares the costs associated with the proposed investment to the benefits of the project. To the extent possible, benefits have been monetized. Where not possible to assign a dollar value to a benefit, efforts have been made to quantify it. A qualitative discussion is also provided when a benefit is anticipated to be generated, but cannot be easily monetized or quantified.

The specific methodology developed for this application was developed using BCA principles consistent with the FASTLANE guidelines, and involved:

Establishing existing and future conditions under the build and no-build scenarios
- Assessing benefits with respect to each of the four merit criteria identified in the FASTLANE BCA guidance;
- Measuring benefits in dollar terms, whenever possible, and expressing benefits and costs in a common unit of measurement;
- Using DOT guidance for the valuation of travel time savings, safety benefits and reductions in air emissions, while relying on industry best practice for the valuation of other effects;
- Discounting future benefits and costs with the real discount rates recommended by the DOT (7 percent and 3 percent for sensitivity analysis);
- Conducting a sensitivity analysis to assess the impacts of changes in key estimating assumptions;

The main beneficiaries of the Northern Columbia Basin Railroad Project are the businesses located within the Port of Moses Lake which will see reduced costs of shipping, improved supply chain reliability, greater flexibility within their transportation network, and more reliable transportation infrastructure. Other beneficiaries include U.S. motorists and residents, with benefits including:
- Reduction in traffic congestion through truck diversion.
- Operational savings from modal conversion from truck to rail.
- Reduction in traffic fatalities and serious injuries through safer highway infrastructure and at-crossing reduction.
- Lowered pavement maintenance costs through truck diversion.
- Greater environmental sustainability, thus from reduced air pollutants.
## Benefit Cost Analysis Summary

<table>
<thead>
<tr>
<th>Long-term Outcomes</th>
<th>Social Benefit</th>
<th>Inputs</th>
<th>Value</th>
<th>Discount Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Life / Mobility Benefits</td>
<td>Reduction in highway congestion costs</td>
<td>Savings in Costs of Congestion due to modal switch to rail</td>
<td>1.2 billion vehicle ton miles reduced off the highways</td>
<td>7%</td>
</tr>
<tr>
<td>Economic Competitiveness</td>
<td>Operational cost savings</td>
<td>Savings of rail transport vs. truck transport</td>
<td>@$0.07 savings per mile (rail vs. truck)</td>
<td>$26,571,056</td>
</tr>
<tr>
<td>State of Good Repair / Mobility Benefits</td>
<td>Reduction of maintenance on US Roads &amp; Hwys, Consistent with State and Regional Plans</td>
<td>Maintenance, preservation and upgrade savings of Highways</td>
<td>76 million truck miles taken off the highways</td>
<td>$2,266,502</td>
</tr>
<tr>
<td>Environmental Sustainability</td>
<td>Environmental Benefits from Reduced Emissions by modal change to rail</td>
<td>CO₂ cost savings</td>
<td>59,000 metric tons of CO₂ saved</td>
<td>$1,717,873</td>
</tr>
<tr>
<td>Safety</td>
<td>Prevention of fatalities and injuries from reduction of VMT</td>
<td>Fatality cost savings of 2.4 fatalities + savings for the reduction of 60 injuries</td>
<td>$39.5 million saved</td>
<td>$15,044,361</td>
</tr>
</tbody>
</table>

| Total Cost                        | $24,309,733                                      |
| Total Benefits                    | $49,019,010                                      |
| Net Present Value                 | $24,709,277                                      |
| Benefit to Cost Ratio             | 2.02                                             |
Appendix C: BCA Technical Narrative and spreadsheet

C-1 Cost-Effectiveness Analysis Supplementary Documentation
C-2 BCA excel spreadsheet