

January 25, 2013

To: Joe Murphy, CH2M Hill Engineering

From: MainLine Management

RE: Opinion on the Feasibility of Unit Train Traffic on the Cherry Point Subdivision

## Introduction:

CH2M Hill Engineering retained MainLine Management (MLM) to review the Cherry Point Subdivision (CPS), also known as the Custer Spur, and issue an opinion on the feasibility of unit trains operating into a new Phillips 66 Crude Unloading facility that is being studied for the line. MLM has reviewed the trackage and operations and believes that unit train operations onto the subdivision would be possible if an unloading facility capable of handling unit trains is constructed.

MLM is a rail consulting firm that specializes in rail operations and line capacity planning and analysis. For many projects, MLM utilizes the Rail Traffic Controller (RTC) model simulation tool, which is the same model simulation program utilized by BNSF. For this analysis model simulation was not utilized as it was deemed unnecessary.

MLM has provided rail analysis services for a variety of clients in the State of Washington, the greater Pacific Northwest and in British Columbia. Examples of MLM analyses in this region include the WPPA/WSDOT Rail Capacity Study updates in 2004, 2009 and 2011 (in conjunction with Cargo Forecast Updates); detailed analysis of the Greater Vancouver BC Rail Network; and, main line and off main line studies for the Ports of Seattle, Tacoma, Longview, Vancouver USA, Portland, Port Metro Vancouver BC and Transport Canada. In addition, MLM is providing professional consulting services to the Washington and Oregon DOT's regarding implementation of High Speed Passenger Rail between Eugene OR and Vancouver BC.

## Discussion:

The Cherry Point Subdivision is an 8.8 mile spur off of BNSF's Bellingham Sub at Custer, WA. Custer is approximately seven miles south of the US-Canadian Border at Blaine, WA. The CPS accesses multiple rail served industries between Custer and Cherry Point, WA.

The CPS is a single track subdivision operated under Track Warrant Control and Yard Limits. The first 1.8 miles of the subdivision have a maximum allowable speed of 10 mph. From milepost 1.8 to milepost 5.1, the subdivision is operated at 25 mph. The last 3.7 miles are again restricted to 10 mph.



There is a wye at Custer to allow movement onto or off of the subdivision for either a northbound or southbound train on the Bellingham Sub. There are three yards on the subdivision; Intalco, Elliott and Cherry Point.

Intalco has two yard tracks that are approximately 4,500 feet in length; both tracks connect to the CPS main track at both ends of the yard. Elliott has six yard tracks that are approximately 1,800 feet in length; four tracks have connections at both ends and two tracks are connected only at the south end of the yard. Cherry Point has three yard tracks that are approximately 1,400 feet in length that all connect to the main track at both ends. The yards are used to store inbound cars for on-line industries, to hold cars that are being assembled into out bound trains and to provide tracks for locomotives to run around cars to assist with switching the local industries.

BNSF currently operates over the Cherry Point Sub at least six days per week. There are currently at least three active industries along the subdivision that receive or generate rail traffic.

It is MLM's understanding that the unit trains that are being considered would have approximately 108 cars and three to four locomotives, which equates to a train length of approximately 7,100 feet. It is anticipated that there would be three trains per week on average, and the trains could come from origins that would approach Custer from either the north or the south. Since there is a wye at Custer as previously described, trains from either direction would be able to operate onto or from the CPS.

MLM believes that if the facility that is being planned has sufficient trackage to accommodate the projected size of the unit trains, operations into or from the facility will not be an issue. Once the train has arrived, Phillips 66 has informed MLM that it will take approximately 18-20 hours to unload. The train would then be released to BNSF as an empty train, reassembled and would depart.

With three trains arriving per week and an 18-20 hour unloading schedule, only one Phillips 66 unit train should be on the CPS at any given time. That train would have to share the subdivision with BNSF trains currently assigned to switch or serve other industries along the line. MLM believes BNSF will develop an operating plan that would allow all trains to safely operate on the subdivision, even if more than one train was operating at the same time. The track warrant control and the yard limit operating rules of the line would insure that the trains would not be allowed to operate on the same portion of the single track simultaneously.

Because rail operations are not perfect, MLM believes there will be occasional times when two unit trains destined to/from the Phillips 66 facility may be in the Cherry Point vicinity at the same time. Given that the facility is only capable of holding a single unit train at a time, MLM believes BNSF then would be responsible for staging the second train at a location short of the Custer wye until the first train leaves the subdivision.

MLM does not believe this will create a problem as BNSF currently has multiple facilities across its system where this type of timing is required, and is consistent with its current operations for staging bulk trains into various facilities in the Pacific Northwest and British Columbia.



Therefore, under the proposed train volumes, MLM strongly believes that the Cherry Point Subdivision could accommodate unit trains that are scheduled to operate three times a week on average into an unloading facility.

## Conclusion:

Based on the information provided for review and its own research, MLM believes that the introduction of three unit trains on the Cherry Point subdivision will not result in any undue conflicts or congestion from a rail perspective. While some "metering" of trains to/from the subdivision may be necessary from time to time, MLM believes that BNSF has considerable capacity external to the CPS to efficiently manage train flows between the Custer wye and Cherry Point.

In addition, though not part of the direct request for this review, MLM reviewed the current main line capacity demand between Everett and Blaine, as developed in the 2011 Rail Capacity Update for WPPA/WSDOT. That review indicates that the addition of 3 loaded unit trains per week (6 total trains with empty movements) would have minimal impact on the current capacity on the Bellingham Subdivision.

If any questions arise as to the content of this report, please contact Dave Hatzenbuhler at (308) 629-1196 or Eric Lyman at (817) 605-9915.

Respectfully,

David

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