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PUBLIC VERSION
CONFIDENTIAL MATERIAL HAS BEEN REDACTED

BEFORE THE
SURFACE TRANSPORTATION BOARD

WESTERN FUELS ASSOCIATION, INC
and BASIN ELECTRIC POWER
COOPERATIVE, INC

Complainants,

v

BNSF RAILWAY COMPANY

Defendant



THIRD SUPPLEMENTAL OPENING
EVIDENCE OF COMPLAINANTS
WESTERN FUELS ASSOCIATION, INC. AND
BASIN ELECTRIC POWER COOPERATIVE, INC.

NARRATIVE

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and BASIN ELECTRIC POWER
COOPERATIVE, INC.

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ACRONYMS

The following acronyms are used

AAR	Association of American Railroads
AEI	automatic equipment identification scanner
AEO	Annual Energy Outlook (published by EIA)
ATC	Average Total Cost methodology
ATF	across-the-fence
Basin	Basin Electric Power Cooperative, Inc
BNSF	BNSF Railway Company, f/k/a The Burlington Northern and Santa Fe Railway Company
CAPM	Capital Asset Pricing Model
CNW	Chicago and North Western Railway Company
CIC	centralized traffic control system
CWR	continuous welded rail
CY	cubic yards
DCF	discounted cash flow
DP	distributed power (type of locomotive configuration on a train)
DTL	direct-to-locomotive (fueling)
EIA	Energy Information Administration, U.S. Department of Energy
FED	failed equipment detector
FRA	Federal Railroad Administration
G&A	general and administrative
GWR	gross weight on rail
IBES	Institutional Brokers Estimate System
ICC	Interstate Commerce Commission
IT	information technology
JT	jurisdictional threshold
LRR	Laramie River Railroad
LRS	Laramie River Station
LUM	locomotive unit-mile
Means	R S Means (engineering unit-cost reference guide)
MOW	maintenance-of-way
MP	milepost
MMM	Maximum Markup Methodology
MSP	modified straight-mileage prorate
NPR	notice of proposed rulemaking
O/D	origin/destination
PRB	Powder River Basin of Wyoming
R-1	Annual Report Form R-1
RCAF-U	rail cost adjustment factor, unadjusted for changes in productivity
ROW	right-of-way

R/VC	revenue-to-variable cost
RTC	Rail Traffic Controller
SAC	stand-alone cost
SARR	stand-alone railroad
SEC	Securities and Exchange Commission
STB (or Board)	Surface Transportation Board
T&E	train and engine crew
TSO	Third Supplemental Opening Evidence of WFA/Basin
UP	Union Pacific Railroad Company
URCS	Uniform Railroad Costing System
VC	variable cost
WFA	Western Fuels Association, Inc.

CASE GLOSSARY

The following short form case citations are used:

<u>AEP Texas</u>	<u>AEP Tex. N. Co. v BNSF Ry.</u> , STB Docket No 41191 (Sub-No. 1) (STB served Sept. 10, 2007)
<u>Coal Rate Guidelines or Guidelines</u>	<u>Coal Rate Guidelines. Nationwide</u> , 1 I.C.C. 2d 520 (1985), <u>aff'd sub nom Consolidated Rail Corp. v. United States</u> , 812 F.2d 1444 (3 rd Cir 1987)
<u>Duke/NS I</u>	<u>Duke Energy Corp v. Norfolk S. Ry.</u> , STB Docket No 42069 (STB served Nov 6, 2003)
<u>Duke/NS II</u>	<u>Duke Energy Corp v Norfolk S. Ry.</u> , STB Docket Nos 42069, 42070 & 42072 (STB served Oct 20, 2004)
<u>February '08 Decision</u>	<u>Western Fuels Ass'n, Inc. and Basin Elec. Power Coop., Inc. v BNSF Ry.</u> , STB Docket No 42088 (STB served Feb 29, 2008)
<u>FMC</u>	<u>FMC Wyo. Corp v Union Pac. R.R.</u> , 4 S.T.B. 699 (2000)
<u>Major Issues</u>	<u>Major Issues in Rail Rate Cases</u> , STB Ex Parte No 657 (Sub-No 1) (STB served Oct 30, 2006), <u>pets for review pending sub nom BNSF Ry. v STB</u> , No. 06-1372 <u>et al</u> (D.C. Cir. filed Nov 14, 2007)
<u>March '08 Decision</u>	<u>Western Fuels Ass'n, Inc. and Basin Elec. Power Coop., Inc. v BNSF Ry.</u> , STB Docket No 42088 (STB served March 12, 2008)
<u>Non-Coal</u>	<u>Rate Guidelines – Non-Coal Proceedings</u> , STB Ex Parte No 347 (Sub-No 2) (STB served Dec. 11, 2007)
<u>Otter Tail</u>	<u>Otter Tail Power Co v. Burlington N. and Santa Fe Ry.</u> , STB Docket No. 42071 (STB served Jan. 27, 2006)
<u>Railroad Cost of Capital I</u>	<u>Methodology to be Employed in Determining the R.R. Indus Cost of Capital</u> , STB Ex Parte No 664 (STB served Aug. 14, 2007)
<u>Railroad Cost of Capital II</u>	<u>Methodology to be Employed in Determining the R.R. Indus Cost of Capital</u> , STB Ex Parte No 664 (STB served Jan 17, 2008)

<u>Railroad Cost of Capital – 2006</u>	<u>Railroad Cost of Capital – 2006, STB Ex Parte No 558 (Sub-No. 10) (STB served Apr. 15, 2008)</u>
<u>September '07 Decision</u>	<u>Western Fuels Ass'n. Inc. and Basin Elec. Power Coop., Inc. v BNSF Ry., STB Docket No 42088 (STB served Sept 10, 2007)</u>
<u>Simplified Standards</u>	<u>Simplified Standards for Rail Rate Cases, STB Ex Parte No 646 (Sub-No 1) (STB served Sept. 5, 2007), pcts. for review pending sub nom CSX Transp., Inc. v STB No. 07-1369, et al (D C Cir filed Sept 18, 2007)</u>
<u>TMPA</u>	<u>Texas Mun Power Agency v Burlington N and Santa Fe Ry., 6 S T B 573, 594-96 (2003)</u>
<u>WTU</u>	<u>West Tex. Utils Co v Burlington N R R., 1 S.T.B 638 (1996), aff'd sub nom Burlington N. R R v STB, 114 F 3d 206 (D.C. Cir 1997)</u>
<u>WPL</u>	<u>Wisconsin Power and Light Co v Union Pac R R., 5 S.T.B 955 (2001)</u>
<u>Xcel I</u>	<u>Pub. Serv Co of Colo. d/b/a Xcel Energy v Burlington N and Santa Fe Ry., STB Docket No. 42057 (STB served June 8, 2004)</u>
<u>Xcel II</u>	<u>Pub Serv Co of Colo d/b/a Xcel Energy v Burlington N and Santa Fe Ry., STB Docket No. 42057 (STB served Jan 19, 2005)</u>

**WESTERN FUELS ASSOCIATION, INC
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**THIRD SUPPLEMENTAL OPENING
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BASIN ELECTRIC POWER COOPERATIVE, INC.**

I-1

2008 (“February '08 Decision”) and March 12, 2008 (“March '08 Decision”).

In these decisions, the Board offered WFA/Basin the opportunity to submit supplemental evidence to reconfigure their stand-alone railroad (“SARR”), the Laramie River Railroad (“LRR”), to maximize revenues, and minimize costs, using the Board’s new Average Total Cost (“ATC”) methodology to set divisions on cross-over traffic. The Board also directed that the parties submit supplemental evidence addressing the proper procedures for calculating the LRR’s capital costs in light of the Board’s January 17, 2008 decision in Railroad Cost of Capital² adopting the Capital Asset Pricing Model (“CAPM”) to compute the rail industry’s cost of equity. WFA/Basin’s third supplemental evidence addresses both topics.

To address ATC, WFA/Basin have reconfigured the LRR. The reconfigured LRR is designed to carry approximately 65 million tons of coal annually and traverses a route that extends from the northern Wyoming Powder River Basin (“PRB”) south to Moba Junction, WY and east from Wendover, WY to Northport, NE. WFA/Basin present additional evidence, in the manner directed by the Board, that calculates the revised LRR’s revenues and costs. WFA/Basin also present substantial evidence demonstrating that the Board should forecast the LRR’s cost of capital as equaling the simple average industry cost of capital for the 2002 through 2006 time period, with equity costs calculated using the Board’s CAPM procedures.

² Methodology to be Employed in Determining the R.R. Indus. Cost of Capital, STB Ex Parte No. 664 (STB served Aug. 14, 2007) (“Railroad Cost of Capital I”) and (STB served Jan. 17, 2008) (“Railroad Cost of Capital II”) (collectively, “Railroad Cost of Capital”).

WFA/Basin's Third Supplemental Opening Evidence demonstrates that BNSF Railway Company's ("BNSF's") tariff rates on the issue traffic substantially exceed the Stand-Alone Cost ("SAC") for this transportation. The maximum LRR SAC rates, computed in the manner authorized by the Board, equal \$2.82 per ton for the first quarter of 2004.

It is time for this case, now in its fourth year, to come to a just end, with the Board prescribing substantially lower maximum rates in accordance with governing law and ordering BNSF to pay refunds for past overcharges. All such relief will flow through to the rural and municipal customers served by the Laramie River Station ("LRS").

**B. WFA/BASIN HAVE REVISED THE LRR IN THE MANNER
AUTHORIZED BY THE BOARD TO ADDRESS ATC**

1. Background

The Coal Rate Guidelines³ direct shippers to model feasible SARR's that "maximize revenues while minimizing costs." Wisconsin Power and Light Co. v. Union Pac. R.R., 5 S.T.B. 955, 965 n. 20 (2001) ("WPL"); accord FMC Wyo. Corp. v. Union Pac. R.R., 4 S.T.B. 699, 722 n. 52 (2000) ("FMC"), Duke Energy Corp. v. Norfolk S. Ry., STB Docket No. 42069 (STB served Nov. 6, 2003) ("Duke/NS I") at 12 n.11. To achieve this objective, the Guidelines afford a complainant shipper "broad flexibility to develop the least costly" SARR that "maximize[s] the carriage of profitable traffic." Id. 1 I.C.C. 2d at 543.

³ Coal Rate Guidelines, Nationwide, 1 I.C.C.2d. 520 (1985), aff'd sub nom Consolidated Rail Corp. v. United States, 812 F.2d 1444 (3rd Cir. 1987) ("Coal Rate Guidelines" or "Guidelines")

WFA/Basin initially modeled the LRR in the Winter of 2005. The LRR was developed to maximize revenues, and minimize costs, under the Board's SAC standards in effect at that time, including the modified straight-mileage prorate ("MSP") method to set divisions on cross-over traffic. Almost a year after WFA/Basin modeled the LRR, the Board proposed new SAC standards in its notice of proposed rulemaking ("NPR") in Major Issues.⁴ The Board's NPR included a proposal to replace the MSP method with a new procedure to set cross-over traffic divisions – ATC. The Board proceeded to adopt ATC in its final decision in Major Issues, served on October 30, 2006.

In Major Issues, and in subsequent proceedings in this case, WFA/Basin objected to the Board's adoption of the flawed ATC method. WFA/Basin also repeatedly argued that, if the Board did adopt this flawed methodology, it was unfair and unlawful to retroactively apply ATC in this case because WFA/Basin would have designed a substantially different SARR to maximize revenues and minimize costs using ATC.

The Board's September '07 Decision bore out WFA/Basin's repeated objections. Had the Board used MSP divisions, the LRR's revenues would have exceeded the LRR's SAC costs by over \$2 billion, and WFA/Basin would have been entitled to substantial rate relief. However, application of ATC resulted in LRR SAC costs exceeding its revenues. The Board proceeded to provide WFA/Basin the opportunity to submit supplemental evidence to reconfigure the LRR to maximize

⁴ Major Issues in Rail Rate Cases, STB Ex Parte No. 657 (Sub-No. 1) (STB served Oct. 30, 2006) ("Major Issues"), pcts. for review pending sub nom. BNSF Ry. v. STB, No. 06-1372 et al. (D.C. Cir. filed Nov. 13, 2006).

revenues and minimize costs using the ATC methodology:

We believe fairness dictates that WFA have an opportunity to modify its SAC presentation in light of the new revenue allocation methodology. Generally, it is not the Board's practice to permit complainants to redesign their case in light of subsequent Board decisions. In this case, however, the change would affect the basic design of a SAC case. For example, WFA included in its traffic group considerable traffic offering limited revenue contribution, as those movements are to competitively served plants. This may have been a reasonable design choice under the old revenue allocation method. But under the new approach, WFA might not have included all that traffic or might have changed the configuration of the stand-alone railroad (SARR).

Id. at 3. The Board went on to explain that in submitting supplemental evidence, WFA/Basin could "increase or decrease the traffic group, change the configuration of the LRR, and submit evidence on all related issues (such as the revenue from new traffic or construction costs avoided or added due to a new configuration)." Id. at 20. The Board added that "neither party will be allowed to use this reopening of the record to relitigate unrelated issues." Id.

The Board provided additional instructions to the parties concerning the submission of supplemental SAC evidence to address ATC in its February '08 Decision and its March '08 Decision. Specifically, the Board ruled that the parties could utilize information "in the administrative record, including the discovery record" (February '08 Decision at 8) as well as "publicly and commercially available data needed to develop a modified SAC presentation to address the ATC methodology" (March '08 Decision at 4).

2. The Revised LRR Traffic Group and Revised LRR Geographical Configuration Comply with Board Directives

The Board's September '07 Decision expressly permits WFA/Basin to "increase or decrease" the LRR's traffic group and expressly permits WFA/Basin to "change the configuration of the LRR." Id. at 20. WFA/Basin submit a revised LRR that complies with both directives. The revised LRR contains a smaller traffic group than the original LRR and contains a modified geographical configuration.

The original LRR traffic group included 37 utility customers that originated coal in the PRB for delivery to 76 power plants. The revised LRR traffic group is a subset of the original group. It includes 20 utility customers that originate coal in the PRB for delivery to 24 power plants. See Part III-A-1. The original LRR configuration extended from Eagle Butte Junction in the northern PRB south to Guernsey and Moba Junction, WY, a total of 218 route miles, with interchanges to the residual BNSF at five locations in Wyoming (Campbell, Donkey Creek, Orin Jct., Guernsey and Moba Jct.). The revised LRR continues to extend from Eagle Butte Junction south to Moba Junction but now extends eastward through Guernsey, WY to Northport, NE, a total of 301 route miles, with two interchanges to the residual BNSF in Wyoming (Orin Jct. and Moba Jct.) and one in Nebraska (Northport). See Part III-B-1. The LRR also interchanges traffic with the Union Pacific Railroad Company ("UP") at Northport.

WFA/Basin revised the LRR's traffic group and revised the LRR's configuration to maximize the LRR's revenues and minimize its costs under the Board's new ATC method to set SARR cross-over traffic divisions. This result is also expressly

permitted See September '07 Decision at 20 (“the change from MSP to ATC would affect the basic design of a SAC case”); February '08 Decision at 2 (the change in the cross-over traffic “revenue allocation procedure could affect the optimal size and configuration of a SARR”); March '08 Decision at 2 (same).

3. The Revised LRR’s Traffic Volumes and Revenues Comply with Board Directives

WFA/Basin calculated the revised LRR’s traffic volumes and revenues in accordance with the Board’s instructions in the September '07 Decision, the February '08 Decision and the March '08 Decision. As noted above, the revised LRR traffic group is a subset of the initial LRR traffic group. The revised LRR traffic tonnages are identical to the tonnages the Board calculated for this traffic in the electronic workpapers accompanying the September '07 Decision. See Part III-A-2

WFA/Basin calculated the revised LRR revenues in a similar fashion. The revenues for the issue traffic are the same as those set forth in the Board’s September '07 Decision workpapers, as corrected by the Board in its February '08 Decision. WFA/Basin calculated revenues on cross-over traffic by applying the Board’s ATC method to existing record data. See Part III-A-3. Finally, the revised LRR contains one interchange movement. Consistent with longstanding Board precedent, WFA/Basin used BNSF’s actual revenues to calculate the LRR’s division.⁵

⁵ See e.g., Pub. Serv. Co. of Colo. d/b/a Xcel Energy v. Burlington N. and Santa Fe Ry., STB Docket No. 42057 (STB served June 8, 2004) at 23, 55 (“Xcel I”).

4. **The Revised LRR Is Fully Supported by the Detailed Facility and Operating Plans Prepared by WFA/Basin's Team of Experienced Railroad Experts**

In its September '07 Decision, the Board accepted WFA/Basin's detailed facility plan, and their detailed operating plan, for the LRR. See id. at 24, 32. These plans were prepared by a highly experienced team of rail engineering and operating experts, led by Paul Reistrup, one of the nation's most highly regarded rail officials, with over 45 years of experience in rail operations, marketing and executive management. WFA/Basin assembled a similar team of experienced experts, led by Mr. Reistrup, to prepare and document the revised LRR facility and operating plans. Some key features of the revised LRR are

a. **Facilities**

WFA/Basin have reduced and reconfigured the track and related facilities between Eagle Butte and Wendover, WY to reflect the lesser traffic volumes moving over this route. WFA/Basin have also added the track and related facilities necessary to carry traffic east on the revised LRR through Guernsey, WY to Northport, NE. See Part III-B-1. The revised LRR also has a different yard and interchange configuration. The revised LRR has one yard, located in Orin, WY (See Part III-B-3), and interchanges traffic at three locations, Orin Jct., WY (with BNSF), Moba Jct., WY (with BNSF), and Northport (with BNSF and UP) (see Part III-B-1-c).

b. **Internally Rerouted Traffic**

The revised LRR reroutes, in whole or in part, the coal traffic it carries for six of its customers. See Part III-C-3. In each instance, the involved base year traffic

volumes were routed by BNSF via Donkey Creek, WY and Alliance, NE for transportation to Northport, for movement beyond by BNSF, or in one instance, by UP. The LRR re-routes this traffic to move in the loaded direction via Orin and Wendover to Northport for interchange along the real world route of movement for these shipments. WFA/Basin's experienced team of experts carefully took into account the Board's standards governing re-routed traffic and their inclusion of the LRR's internally re-routed traffic fully complies with these standards.

Board precedent identifies two general types of reroutes in SAC cases – internal and external reroutes.⁶ An internal reroute occurs where a SARR moves traffic over a route different than the incumbent, and interchanges the traffic with the residual incumbent, or a third carrier, along the real-world route of movement.⁷ An external reroute occurs where a SARR moves traffic over a route different than the incumbent and interchanges the traffic with the residual incumbent at a point not along the real-world route of movement for the traffic.⁸ The revised LRR contains only internal reroutes. All of the LRR's rerouted traffic is interchanged at Northport, a point along the real-world route of movement for each of the involved moves.

⁶ AEP Tex. N. Co. v. BNSF Ry., STB Docket No. 41191 (Sub-No 1)(STB served Sept. 10, 2007)(“AEP Texas”) at 9-11

⁷ Id. at 10-11

⁸ Id. at 11 n 18

The Board has consistently approved the use of internal SARR reroutes where the on-SARR routing “is reasonable and would meet the shippers’ needs”⁹ Here, the LRR internal reroutes “meet the shippers’ needs” because the LRR can move the rerouted traffic, even in its peak week, at substantially faster transit times than the BNSF (see Part III-C-3-c)¹⁰ and the internal reroutes are “reasonable” because they are an integral part of the LRR’s operating plan to maximize efficient operations using the ATC approach to allocate cross-over traffic revenues¹¹

c. Operating Plan/RTC Modeling

WFA/Basin’s expert team created a revised operating plan for the LRR. This operating plan takes into account the changes in the LRR traffic group and the LRR’s changed physical configuration. In developing the revised operating plan, WFA/Basin’s experts applied the principles and findings set forth in the Board’s September ’07 Decision and February ’08 Decision. See Parts III-C-1, III-C-2. Also, consistent with these decisions and other Board precedent, WFA/Basin’s team of experts used the Rail Traffic Controller (“RTC”) model to test the revised LRR’s operating plan against the revised LRR’s configuration. See Part III-C-2. Application of the RTC

⁹ Id. at 10; accord Texas Mun. Power Agency v. Burlington N. and Santa Fe Ry., 6 S T B 573, 594-96 (2003) (“IMPA”), Xcel I at 20-21.

¹⁰ AEP Texas at 10 (finding that internal reroutes meet shipper needs test because the SARR’s “transit times for this traffic would be comparable to or shorter than BNSF’s actual transit times”); Xcel I at 21 (approving an internal traffic re-route identical to one of the LRR’s traffic internal reroutes)

¹¹ See AEP Texas at 10-11 (use of internal reroutes is reasonable where reroutes “achieve increased efficiencies” and “create densities”)

model confirms that the revised LRR has the facilities necessary to operate all trains during the peak week of its peak year of operation ({

}) See Part III-C-2-j.

**5. WFA/Basin Followed the Board's
Directives in Calculating the Revised
LRR's Operating and Construction Costs**

WFA/Basin's operating and engineering experts utilized the costing procedures and methodologies the Board approved in the September '07 Decision, as corrected in the February '08 Decision, to develop the revised LRR's operating expenses and road property costs. These methodologies, generally speaking, develop unit costs which are then applied to applicable operating and construction units. For example, the LRR's ballast costs are determined by applying the cost per ton of ballast to the number of tons of ballast used to construct the LRR.

In developing the revised LRR's unit costs, WFA/Basin's experts utilized the unit costs the Board approved in its September '07 Decision and in its February '08 Decision, modified as necessary to reflect the changed configuration of the LRR (e.g., WFA/Basin's experts developed new land costs for geographical areas not included in the original LRR routing). WFA/Basin also developed revised LRR service units, using Board-approved procedures, that properly measure the changed unit quantities resulting from the revised LRR's changed traffic volumes, physical configuration and operating plan.

WFA/Basin's development of the revised LRR's operating and investment costs are described in Parts III-D, III-E, and III-F below and are supported by

WFA/Basin's detailed electronic workpapers. WFA/Basin's expert evidence demonstrates that the revised LRR will incur operating costs of \$105.1 million in 2005. WFA/Basin's expert evidence also demonstrates that the revised LRR will incur construction costs of \$869.7 million.

C. THE BOARD SHOULD USE CAPM TO CALCULATE THE LRR'S COST OF EQUITY

1. Background

a. The STB's Adoption of the CAPM Procedure

Following the enactment of the Staggers Rail Act of 1980, the ICC developed standards and procedures for determining, on an annual basis, the railroad industry's cost of capital.¹² The railroad industry's cost of capital consists of debt and equity components. The ICC utilized a single-stage DCF method to calculate the railroad industry's cost of equity. After the ICC was sunset, the Board continued to make annual cost of capital determinations using the procedures initially adopted by the ICC to make these cost determinations.¹³

In August of 2007, the Board issued its Railroad Cost of Capital I notice. In that notice, the Board proposed to stop using the single-stage DCF procedure to calculate the railroad industry's cost of equity and to start using a CAPM procedure to make this calculation. Id. at 1. The Board made this proposal because it had determined that the CAPM procedure was "the superior financial model" when compared to the single-stage

¹² See Railroad Cost of Capital I at 2.

¹³ Id.

DCF procedure, and that application of CAPM produced more “accurat[c]” estimates of the railroad industry’s cost of equity than the single-stage DCF procedure Id. at 6, 4 Included in the Board’s notice was a table calculating the railroad industry’s cost of equity for prior calendar years, including years 2002 through 2005, using CAPM¹⁴ That table showed that application of CAPM in those years produced, in each year, industry equity costs well below those obtained using the Board’s flawed single-stage DCF procedure Id.

The Board proceeded to issue a final decision in the Railroad Cost of Capital proceeding in January of 2008 See Railroad Cost of Capital II In that decision, the Board adopted its proposal to utilize CAPM to make its annual cost of capital determinations Id. at 1. The Board also reaffirmed that the application of the single-stage DCF model had substantially overstated the railroad industry’s cost of equity in recent years. Id. at 2 (“the single stage DCF model estimates a high cost of equity”) The Board also specified some of the detailed inputs into its CAPM procedure, which it further refined in its subsequent decision establishing the 2006 cost of equity.¹⁵

**b. The Board’s Requests for Party
Input Concerning CAPM Issues**

In its September '07 Decision, the Board calculated the LRR’s cost of capital over the 20-year DCF period using a weighted average of the railroad industry’s

¹⁴ Id. at 1

¹⁵ See Railroad Cost of Capital – 2006, STB Ex Parte No. 558 (Sub-No. 10) (STB served Apr 15, 2008)(“Railroad Cost of Capital – 2006”)

cost of capital for calendar years 2002, 2003, 2004, and 2005. These years encompass the time period starting with the year construction began on the LRR (2002) and ending in 2005, the last year in which the Board had made an annual cost of capital determination prior to the issuance of the September '07 Decision. The capital costs in each of these years included the flawed calculation of equity costs using the single-stage DCF model. In their petition to reconsider the September '07 Decision, WFA/Basin asked the Board to correct its cost of capital calculations in this case by substituting equity costs calculated using CAPM for “all periods covered by the DCI’ model.” Id. at 14 (filed Oct. 22, 2007).

The Board addressed WFA/Basin’s cost of capital reconsideration request in its February '08 Decision. In that Decision, the Board decided to defer ruling on WFA/Basin’s request “until the parties have had the opportunity to fully argue and brief the merits of WFA’s request.” Id. at 6. The Board directed that the parties submit cost of capital figures showing capital costs computed using two different approaches – “one showing their cost-of-capital figures developed under the single-stage DCI’ approach and a second showing their cost-of-capital figures under CAPM.” Id. The Board also asked the parties to address which of three tendered options should be used to develop the LRR’s cost of capital: (i) the historic period approach used in the Board’s September '07 Decision; (ii) the historic approach used in the Board’s September '07 Decision with the industry cost of equity restated using the Board’s CAPM method, or (iii) a new hybrid approach where the Board would calculate the LRR’s cost of equity for years 2002 through 2005 using the single-stage DCF approach and for years 2006 and beyond using

the CAPM method.

**2. WFA/Basin Have Properly Restated
the Railroad Industry's Cost of Capital
for Years 2002 through 2005 Using CAPM**

As directed by the Board, WFA/Basin developed rail industry cost of capital calculations for calendar years 2002, 2003, 2004, and 2005 using the Board's CAPM procedures to develop the railroad industry's cost of equity. These calculations are summarized in TSO Table I-1 below.¹⁶ TSO Table I-1 also shows the corresponding capital costs calculated using the Board's single-stage DCF approach.¹⁷

TSO Table I-1 Calculation of Industry Cost-of-Capital Using CAPM and Single Stage DCF (2002-2005)		
Year	Capital Cost CAPM	Capital Cost (Single Stage DCF)
2002	8.3%	9.8%
2003	7.8%	9.4%
2004	8.4%	10.1%
2005	9.0%	12.2%

Also, as directed by the Board, WFA/Basin present one discounted cash flow ("DCF") capital recovery model that calculates the LRR's cost of equity using the single-stage DCF approach applied to years 2002 to 2005 to calculate the LRR's cost of equity, and a second that uses the CAPM approach applied to years 2002 through 2005 to

¹⁶ See Part III-G-1-a

¹⁷ See Railroad Cost of Capital I at 8 (corrected Table 2).

calculate the LRR's cost of equity ¹⁸ See also Part III-G-1-d

3. The LRR's Equity Costs Should Be Calculated Using Restated Rail Industry Equity Costs

In its February '08 Decision, the Board requested that the parties address the issue of whether the Board should calculate the LRR's cost of capital utilizing the rail industry's cost of capital for the 2002 through 2005 time period, with equity costs estimated using the single-stage DCF approach, or whether the Board should calculate the LRR's cost of capital utilizing the rail industry's cost of capital for the 2002 through 2005 time period, with equity costs estimated using CAPM. WFA/Basin submit that the Board must follow the second approach. Several interrelated reasons compel this result.

First, the Board held in Railroad Cost of Capital that it is "important that the cost of capital be measured as accurately and practically as possible." Railroad Cost of Capital II at 6. The Board proceeded to replace its single-stage DCF procedure with its new CAPM procedure, because CAPM is a "the superior financial model" that more "accurately" calculates the railroad industry's cost of equity ¹⁹. The Board should apply CAPM to determine the LRR's cost of capital, not the old single-stage DCF model, for the same reasons – CAPM is the superior financial model and produces more accurate results. Id.

¹⁸ See February '08 Decision at 6. WFA/Basin also present a third DCF model that applies the Board's hybrid approach.

¹⁹ Railroad Cost of Capital I at 6, 4. Railroad Cost of Capital II at 6-7.

Second, the Board found that flaws in the single-stage DCF model could result in the model “overstat[ing] the cost of equity.”²⁰ That is certainly the case for the 2002 to 2005 time period. As shown in WFA/Basin’s evidence, and summarized in TSO Table 1-2 below, application of the Board’s superior CAPM procedure produces substantially lower equity costs during the 2002 to 2005 time period than the flawed single-stage DCF approach:²¹

TSO Table 1-2 Calculation of Industry Cost-of-Equity Using CAPM and Single Stage DCF (2002-2005)		
Year	Equity Cost CAPM	Equity Cost (Single Stage DCF)
2002	10%	12.6%
2003	9.9%	12.7%
2004	10.4%	13.2%
2005	10.6%	15.2%

The LRR’s cost of equity should be set at levels that reflect the more accurate results produced by application of the superior CAPM model, not the inflated results produced by the outdated single-stage DCF model. See Part III-G-1-d

Third, application of the CAPM model to set the LRR’s equity costs is dictated by basic SAC principles long endorsed by the Board. As the Board has consistently recognized, a SARR’s “cost of capital is the rate of return that [a SARR] would have to offer in order to entice investors to supply debt and equity funds.” West

²⁰ Railroad Cost of Capital II at 4.

²¹ See Part III-G-1-a and Part III-G-1-b.

Tex. Utils. Co. v Burlington N R R, 1 S.T.B. 638, 712 (1996), aff'd sub nom. Burlington N R R v STB, 114 F.3d 206 (D C Cir 1997) ("WTU"). The Board's objective in determining a SARR's capital costs, like all other cost components in a SAC analysis, is to determine costs that are "accurate"²² and which are "consistent with the underlying realities of real world railroading."²³ The Board conclusively determined in the Railroad Cost of Capital proceeding that application of CAPM produces far more accurate equity cost estimates than the single-stage DCF method and that these more accurate costs are a far better measure of the costs railroads actually experience in obtaining equity capital

Conversely, continued application of the single stage DCF approach constitutes a prohibited barrier to entry. See September '07 Decision at 8 ("the costs and other limitations associated with entry barriers must be omitted from the SAC analysis") The Board defines entry barriers for SAC purposes as "any costs that a new entrant must incur that were not incurred by the incumbent." WTU, 1 S T.B. at 670 Application of the single-stage DCF approach saddles the SARR with equity costs during the 2002 to 2005 time period that substantially exceed the equity costs that real-world carriers' actually incurred during this time period as determined by the more accurate CAPM procedure. This is a clear barrier to entry. See FMC, 4 S T B at 846 (2000) (impermissible barrier to entry to impose on a SARR higher capital costs than industry

²² Major Issues at 76

²³ September '07 Decision at 15.

average capital costs), WPL, 5 S T B at 982-984 (same).

Fourth, application of CAPM is consistent with Board's prior actions in this case. After the record initially closed in this case, the Board adopted several new rules in Major Issues, which it proceeded to apply in this case. These new rules changed the methods the Board had used for years in SAC cases to determine variable costs, forecast SARR operating expenses, calculate cross-over traffic divisions, and allocate SAC relief. The Board took these actions based upon its findings that these new rules constituted "superior procedures"²⁴ that produced more "accurate" results,²⁵ which the Board found to be particularly important "given the possibility of rate prescriptions of nearly 20 years."²⁶

The Board's adoption of CAPM, like its adoption of its new SAC rules, took place after the record initially closed in this case. And, as was the case with its new SAC rules, the Board has determined that CAPM is a "superior" method that produces more "accurate[]" cost estimates.²⁷ Having made the decision to apply what it deems superior new procedures in this case, the Board must do so in a consistent manner and apply CAPM to calculate the LRR's equity costs.

Fifth, the Board has informed the United States Court of Appeals for the District of Columbia Circuit that the Board would consider applying CAPM in an individual maximum rate case "if applying the new methodology would materially affect

²⁴ September '07 Decision at 3.

²⁵ Id.

²⁶ Major Issues at 76.

²⁷ Railroad Cost of Capital I at 6, 4.

[the shipper's] claim ” See Joint Brief of the Surface Transportation Board and United States of America at 46, Western Coal Traffic League v STB, No 07-1064 (D.C. Cir. Oct 24, 2007). Here, application of CAPM “materially affect[s]” WFA/Basin’s claim as the maximum SAC rates on the issue traffic are lower if CAPM is applied to calculate the LRR’s cost of equity ²⁸

Sixth, the Board’s recent actions in Simplified Standards²⁹ support WFA/Basin’s request. In Simplified Standards, the Board addressed and modified standards it had promulgated in 1996 to set maximum rates in small rate cases. As pertinent here, the Board “revised its methodology”³⁰ for calculating two of the revenue-to-variable cost (“R/VC”) ratio benchmarks the Board uses to adjudicate the reasonableness of rates in small rate cases in order to correct “a flaw” in the existing methodologies.³¹ The Board proceeded to recalculate the average R/VC ratios for the then most recent four year period (2002 through 2005) using the new revised methodology,³² and directed the parties in a pending small rate case to utilize the revised

²⁸ Compare TSO c-workpaper “Exhibit_III-H-1.xls” with TSO c-workpaper “Exhibit_III-II-2.xls”

²⁹ Simplified Standards for Rail Rate Cases, STB Ex Parte No 646 (Sub-No 1) (STB served Sept. 5, 2007), pets for review pending sub nom. CSX Transp., Inc v STB No 07-1369, et al (D.C. Cir. filed Sept 18, 2007) (“Simplified Standards”).

³⁰ Rate Guidelines – Non-Coal Proceedings, STB Ex Parte No 347 (Sub-No 2) (STB served Dec. 11, 2007) at 1 (“Non-Coal”).

³¹ Simplified Standards at 19

³² Non-Coal at 1

calculations³³

Here, as in Simplified Standards, the Board has revised its methodology for computing a key component part in the Board's maximum rate review process. Also, here, as in Simplified Standards, for the revised methodology to work properly in pending cases, the Board must restate prior calculations made using the old methodology. The Board followed the logical course in Simplified Standards and restated the prior calculations using the new methodology. The Board should follow a similar procedure here and utilize WFA/Basin's revised calculations of the industry cost of capital using the CAPM method.

Seventh, the Board's practice of forecasting SARR equity costs using an average of industry costs of equity, starting with the first year of SARR construction and ending in the year of the Board's decision, is a sound approach, provided that the Board utilizes the best available means to calculate the industry's cost of equity during the historic base period. That means using CAPM, not the single-stage DCF procedure. Also, applying CAPM to multiple historic years, as opposed to a single historic year, to forecast the LRR's equity costs in future years provides the best basis to project the LRR's cost of equity. As the Board held in WTU

³³ See E. I. du Pont de Nemours and Co. v. CSX Transp., Inc., STB Docket No. 42099 et al., (STB served Jan. 22, 2008) at 2-3.

Because equity costs fluctuate from year-to-year, we estimate the cost of equity for future time periods using an average of a known historical period. Absent evidence projecting the cost of equity for the future, the cost of equity over several years provides a more reliable estimate of future equity costs. Using data for a single year increases the risk that the single period is aberrational.

Id., 1 S T B at 713

Eighth, the Board has consistently included in its SARR cost of equity calculations its most recently available cost of equity determination. See, e.g., Otter Tail Power Co. v. BNSF Ry., STB Docket No. 42071 (STB served Jan. 27, 2006) at F-2 (the Board updates cost of equity to include most recently available annual calculations) (“Otter Tail”); Duke Energy Corp. v. Norfolk S. Ry., STB Docket Nos. 42069, 42070 & 42072 (STB served Oct. 20, 2004) at 20 (“Duke/NS II”) (same). The Board should follow its established practice here and include the 2006 industry cost of equity in its calculations of the LRR’s equity costs.

4. The LRR’s Correctly Calculated Equity Costs

WFA/Basin submit that the best method to calculate the LRR’s cost of equity is to apply the industry’s restated equity costs, using CAPM, to calculate the LRR’s equity costs for calendar years 2002, 2003, 2004, 2005, and 2006 and to apply a forecast equal to the average cost of equity in the 2002 to 2006 time period to set the LRR’s cost of equity for years after 2006. Application of this procedure results in the LRR’s forecast

cost of equity, after 2006, of 10.41% and an overall cost of capital, after 2006, of 8.14% ³⁴
WFA/Basin utilize these costs in their DCF calculations made with CAPM

5. Comments on the Board's Alternative CAPM Procedure

For the reasons set forth above, the Board cannot forecast LRR capital costs using historical rail industry equity costs calculated using the single-stage DCF procedure. Instead, these historical costs must be restated using CAPM. The Board's February '08 Decision invites the parties to address another procedure to calculate the LRR's equity costs. As WFA/Basin understand this alternative, the Board would calculate the LRR's cost of equity for 2002, 2003, 2004, and 2005 using the single-stage DCF approach and use the Board's 2006 calculation of the cost of rail equity developed with CAPM to set the LRR's equity costs for 2006 and subsequent years. Under this approach the cost of LRR equity after 2006 would equal 11.13% and the LRR's forecast composite cost of capital would equal 8.54% ³⁵

This alternative is superior to the alternative calling for the Board to forecast the LRR's cost of equity using the single-stage DCF procedure because it does factor in the costs of equity for years 2006 and beyond using the "more current and precise CAPM" method.³⁶ On the other hand, this alternative procedure is inferior to WFA/Basin's CAPM procedures because it overstates the LRR's cost of equity during the

³⁴ See Part III-G-1-a-11

³⁵ See Part III-G-1-c

³⁶ See February '08 Decision at 6, Part III-G-1-d.

2002 to 2005 time period and because it relies on a single year's worth of correctly calculated equity costs, not multiple years of correctly calculated equity costs, to forecast the LRR's equity costs after 2006³⁷

If the Board does not accept WFA/Basin's correct approach to calculating the LRR's cost of equity, the Board's alternative procedure incorporating CAPM in part is better than any procedure which fails to include CAPM at all

D. WFA/BASIN ARE ENTITLED TO SUBSTANTIAL RATE RELIEF

WFA/Basin were entitled to substantial rate relief under the governing standards in effect when they filed their initial complaint in 2004. The Board proceeded to change the governing rules after WFA/Basin had submitted their original case. The Board has candidly admitted that this change was not fair to WFA/Basin and to address this unfairness has permitted WFA/Basin to submit this third supplemental evidence. This evidence, prepared in the manner directed by the Board, shows that the LRR's revenues exceed SAC costs in each year of the 20-year DCF period.³⁸

WFA/Basin have allocated this excess to its traffic group members using the Board's Maximum Mark-up Methodology ("MMM"). The maximum SAC rates on the issue traffic, calculated using the supplemental evidentiary procedures authorized by the Board, are shown in TSO Table I-3 below³⁹

³⁷ See Part III-G-1-d.

³⁸ See Part III-H-2.

³⁹ See Part III-H-3.

TSO TABLE I-3 MAXIMUM SAC RATES PER TON	
<u>Time Period</u>	<u>SAC Rate</u>
4Q 2004	\$2 82
2005	\$2 57
2006	\$2 48
2007	\$2 54
2008	\$2 61
2009	\$2 54
2010	\$2 59
2011	\$2 62
2012	\$2 67
2013	\$2 72
2014	\$2 80
2015	\$2 92
2016	\$2 99
2017	\$3 02
2018	\$3 05
2019	\$3 10
2020	\$3 15
2021	\$3 20
2022	\$3 26
2023	\$3 31
1Q-3Q 2024	\$3 34

WFA/Basin request that the Board prescribe the maximum rates shown in TSO Table I-3, subject to any changes necessitated as a result of pending court appeals

These SAC rates exceed the jurisdictional threshold for the period costed in this case.⁴⁰ These rates also provide BNSF with substantial differential pricing returns. At 4Q04 levels, the SAC rates produce R/VC ratios of 200%, substantially in excess of BNSF's system average R/VC ratio of 131% and the system average R/VC ratio BNSF needed to obtain revenue adequacy in 2004 (144%).⁴¹ WFA/Basin's payments also produce annual contributions to BNSF's fixed costs and profits of approximately \$12.1 million annually.⁴²

At the outset of this long case, WFA/Basin stated that they looked to the STB as their last line of defense against BNSF's monopoly pricing abuses. WFA/Basin also stated that they appeared in this case on behalf of the rural consumers served by LRS, as all relief accorded to WFA/Basin would be flowed through to these customers.⁴³ These statements remain true today. The time has come for the Board to act to protect these consumers by prescribing maximum rates under governing legal standards and to award reparations based on those standards.

⁴⁰ See Part III-H-3-a.

⁴¹ See WFA/Basin Reply Narr. at 1-9-10.

⁴² See Part III-H-3-a. Since the jurisdictional threshold floor serves as a potential cap on the LRR rates, WFA/Basin have restated the jurisdictional threshold using CAPM. See Part II-A.

⁴³ See WFA/Basin Op. Narr. at 1-1, 1-5-6.

Respectfully submitted,

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II. A. QUANTITATIVE MARKET DOMINANCE

The Board's prior orders in this proceeding directed WFA/Basin to develop jurisdictional threshold variable costs using the "unadjusted" Uniform Railroad Costing System ("URCS") Phase III costing approach the Board adopted in Major Issues.

WFA/Basin made these calculations in their Second Supplemental Opening Evidence, filed on February 22, 2007. See id. at 9-13. The results are summarized in WFA/Basin's TSO Table II-A-1:

TSO Table II-A-1 BNSF Variable Costs and Jurisdictional Threshold ("JT") on LRS Coal Traffic to Moba, WY 4Q04 Calculated Using the Board's <u>Major Issues</u> Procedures and Single-Stage DCF		
Origin (1)	Var Cost (\$) (2)	JT (\$) (3)
Dry Fork	\$1 61	\$2 90
Eagle Butte	1 63	2 93
Cordero	1 39	2 50
Caballo Rojo	1 43	2 57
Jacobs Ranch	1 29	2 32

Id. at 12. In its Reply Second Supplemental Evidence filed on March 29, 2007, BNSF "accept[ed] WFA/Basin's development of the variable costs and the origin/destination-specific R/VC calculations." Id. at 2.

WFA/Basin's Second Supplemental Opening Evidence variable cost calculations computed BNSF's 2004 cost of capital using the Board's single-stage DCF method. In its February '08 Decision, the Board directed that the parties submit alternative maximum rate calculations that develop cost of capital calculations using the

new CAPM procedures adopted by the Board. Id. at 6.

WFA/Basin have recalculated the variable costs set forth in their Opening Second Supplemental Evidence by substituting BNSF's 2004 capital costs, calculated using the Board's CAPM procedures, for the 2004 BNSF cost of capital figures previously calculated using the single-stage DCF approach. The revised results are summarized in Table II-A-2.¹

TSO Table II-A-2 BNSF Variable Costs and JT on I.RS Coal Traffic to Moba, WY 4Q04 Calculated Using the Board's <u>Major Issues</u> Procedures and CAPM Procedures		
Origin (1)	Var Cost (\$) (2)	JT (\$) (3)
Dry Fork	\$1.53	\$2.75
Eagle Butte	1.54	2.77
Cordero	1.31	2.36
Caballo Rojo	1.35	2.43
Jacobs Ranch	1.22	2.20

WFA/Basin restate the 4Q04 variable costs and the 4Q04 jurisdictional thresholds because the jurisdictional threshold is used to set the maximum rates if the SAC rates are less than the jurisdictional threshold rates. The jurisdictional threshold should be set in this case using the CAPM because, as discussed in detail in Part III-B below, CAPM produces a more accurate estimate of rail industry equity costs than the single-stage DCF method

¹ The variable cost calculations in Table II-A-2 are set forth in TSO e-workpaper "MMM Model Linked to III-H-1 with CAPM VC.xls"

III. A. TRAFFIC GROUP

1. Stand-Alone Railroad Traffic

WFA/Basin have revised the LRR traffic group to include a subset of the prior traffic group. The revised LRR traffic group consists of WFA/Basin and 20 other utility customers. LRR-originated PRB coal is transported for delivery to 24 power plant destinations. TSO Exhibit III-A-1 identifies each LRR customer, and each customer plant, for LRR-originated traffic

2. Volumes (Historical and Projected)

The Board's September '07 Decision, and Board's electronic workpapers accompanying this Decision, calculate the number of tons the LRR will transport for each member of the original LRR traffic group. WFA/Basin utilize these tonnage calculations for each revised LRR traffic group member.¹ The total number of tons the revised LRR will transport is summarized in TSO Table III-A-1 below.

¹ See TSO e-workpaper "STB LRR TRAFFIC and REVENUES_Modified SAC_Opening_1temp.xls"

TSO Table III-A-1 Revised LRR System Tonnage	
Time Period	Tonnage (Millions of Tons)
4Q 2004	15.4
2005	63.1
2006	64.3
2007	64.5
2008	64.7
2009	67.3
2010	67.3
2011	67.4
2012	67.5
2013	67.6
2014	67.4
2015	66.2
2016	66.5
2017	67.3
2018	67.7
2019	67.7
2020	67.9
2021	68.1
2022	68.2
2023	68.3
1Q-3Q 2024	51.4

3. Revenues (Historical and Projected)

a. Single Line

The revised LRR continues to have one single line movement, the issue traffic movement between PRB mine origins and LRS. WFA/Basin calculate the revenue for this movement using the Board's electronic workpaper calculations, as adjusted to

reflect the technical corrections approved by the Board in its February 08 Decision.²

b. Divisions – Existing Interchanges

The revised LRR has one interchange movement – Jeffrey Energy Center (“JEC”) traffic originated by the LRR is interchanged with the UP at the current real world BNSF/UP interchange (Northport, NE). Consistent with prior Board precedent,³ WFA/Basin calculate the on-SARR revenues divisions for this traffic using BNSF’s real-world revenue for its share of the joint-line haul.⁴

c. Divisions – Cross-Over Traffic

WFA/Basin developed divisions for each cross-over traffic movement using the Board’s ATC methodology as applied in the manner set forth in the September 2007 Decision and the Board’s accompanying electronic workpapers.⁵

d. Other – Revenue Results

WFA/Basin’s application of the above-referenced procedures results in revised LRR traffic revenues summarized in TSO Table III-A-2.

² See TSO e-workpaper “STB LRR Traffic and Revenues BNSF 3-26-07 Reply_1.xls.”

³ See Xcel I at 23, 55.

⁴ See TSO e-workpaper “STB LRR Traffic and Revenues BNSF 3-26-07 Reply_1.xls.”

⁵ Id.

TSO Table III-A-2 Revised LRR System Revenues	
Period	Revenues (Millions)
4Q 2004	\$58.2
2005	236.0
2006	249.8
2007	258.8
2008	261.5
2009	273.3
2010	276.2
2011	281.1
2012	287.1
2013	293.8
2014	298.9
2015	298.2
2016	306.4
2017	318.1
2018	329.4
2019	338.4
2020	347.8
2021	358.4
2022	367.1
2023	377.3
1Q-3Q 2024	291.0

III. B. STAND-ALONE RAILROAD SYSTEM

This section of WFA/Basin's Third Supplemental Opening Evidence describes changes in the LRR's configuration and facilities for purposes of the supplemental SAC filing authorized by the Board in its September '07 Decision

1. Route and Mileage

The LRR's original route extended from Eagle Butte Jct., WY on the north to Guernsey, WY on the south, with a branch that served the Black Thunder and Jacobs Ranch Mines and another branch that served LRS and a BNSF interchange at Moba Jct., WY. The only route changes are (1) the portion of the route needed to interchange coal trains with BNSF at Campbell and Donkey Creek, WY has been eliminated, and (2) the LRR has been extended 92.0 miles east from East Guernsey, WY to Northport, NE. The LRR's revised route is shown in TSO Exhibit III-B-1 included with this filing.

The LRR continues to transport only coal. All coal now moves geographically south (east according to railroad timetable direction) to and beyond Orin, WY. The LRR no longer interchanges any traffic with the residual BNSF at Donkey Creek and Campbell, WY, and thus no longer transports any northbound coal traffic from mines served by the Orin and Reno Subdivisions. Nor does the LRR interchange with BNSF at Guernsey; rather, coal moving via Guernsey is now interchanged at Northport. Some "rerouted" coal traffic that BNSF moves via Alliance to Northport is now handled

by the LRR to Northport. Some of this rerouted traffic is interchanged with BNSF and some is interchanged with the Union Pacific Railroad Company ("UP").

a. Main Line

The LRR's main line originally extended from Donkey Creek to Guernsey. Due to the elimination of the interchanges at Campbell and Donkey Creek and the extension to Northport, the former Campbell Branch is now part of the main line, which extends from Eagle Butte Jct. to Northport.

b. Branch Lines/Spurs

The LRR now has two branch lines, the Reno Branch and the Moba Branch. Both of these branches were included in the LRR's original system configuration. The Reno Branch serves two PRB coal mines (Black Thunder and Jacobs Ranch) that are not served by the LRR's main line. The Moba Branch serves LRS and an interchange with BNSF at Moba Jct. In addition to these branch lines, the LRR owns portions of the mine spurs at the PRB coal mines it serves and a portion of the spur serving its only local destination, LRS.

c. Interchange Points

The LRR now interchanges coal traffic with two other railroads: BNSF and UP. It interchanges coal traffic with BNSF at three locations: Orin Jct., Moba Jct., and Northport. It interchanges coal traffic with UP at one location, Northport. The Orin Jct. and Moba Jct. interchanges were part of the LRR's original system. The interchange

trackage at each of these locations remains unchanged, and continues to consist of two interchange tracks

The Northport interchange is new and replaces the interchange at Guernsey that was part of the LRR's original configuration. Some of the coal traffic the LRR interchanges with BNSF at Northport and all of the traffic the LRR interchanges with UP at Northport is "rerouted" traffic that BNSF originates and transports to Northport primarily via Donkey Creek, Edgemont and Alliance rather than via Orin and Guernsey. This is "internally" rerouted traffic; that is, the point of interchange between the LRR and BNSF is a point on the current route of movement for the traffic. As explained further below, the LRR has appropriate trackage at Northport for interchanging trains with BNSF as well as a connection with the UP interchange tracks.

d. Route Mileage

The original LRR had a total of 217.95 route miles. The new route mileage total is 301.45 miles. The configuration changes that affect the LRR's route miles are as follows

- i. The west wye leg at Campbell, the east wye leg at Donkey Creek and the interchange trackage at Campbell and Donkey Creek have been eliminated because the LRR no longer interchanges coal traffic with BNSF at these points.
- ii. The north wye leg at Reno Jct. has been eliminated because the LRR no longer moves any coal traffic northward, i.e., from the mines served by the Orin and Reno Subdivisions to Donkey Creek or Campbell.

- iii The north wye legs for the spurs to the mines served by the Orin Subdivision have been eliminated, again because the LRR no longer moves any northbound coal traffic to Donkey Creek/Campbell
- iv The east wye leg at Wendover has been eliminated because the locomotives on the LRS trains no longer need to be cycled through Guernsey Yard for inspections and maintenance
- v The LRR route has been extended east from East Guernsey to Northport

The revised route mileages for the LRR's principal line segments are set forth in TSO Table III-B-1 below. Details are provided in TSO electronic workpaper file ("TSO e-workpaper") "LRR Route Miles 3rd Supp.xls."

The BNSF track charts for all of the lines being replicated west of Guernsey are reproduced in Vol. 6 of WFA/Basin's Opening Workpapers at pp. 3866-3924. The BNSF track charts for the additional lines east of Guernsey that are now being replicated (the Valley Subdivision and a small portion of the Angora Subdivision at Northport), are reproduced in TSO e-workpaper "Valley Sub Trackcharts.pdf." BNSF's operating timetables for the Third (Angora) and Seventh (Valley) Subdivisions, as well as details on the track layout at Northport, are included in TSO e-workpaper "Team Manual Valley Sub.pdf."

TSO Table III-B-1

LRR LINE SEGMENTS AND ROUTE MILEAGE

<u>Segment</u>	<u>BNSF Subdivision</u>	<u>Mileage</u>
Main Lines		
Eagle Butte Jct to West Donkey Creek	Campbell, Black Hills	9 99
West Donkey Creek to Orin Jct ^{1'}	Orin	127 91
Orin Jct to Wendover	Orin, Canyon	30 93
Wendover to Northport ^{2'}	Canyon, Valley	104 00
Total Main Line miles		272 83
Branch Lines		
Reno	Reno	5 76
Moba	Front Range	20 44
Total Branch Line miles		26 20
LRR portion of mine spurs		2 42
Total Route Miles		301.45
^{1'} Includes 1 75 miles to connect to BNSF at Orin Jct for interchange ^{2'} Includes 1 0 miles to connect to UP and BNSF at Northport for interchange		

All of the 301 45 total route-miles shown in TSO Table III-B-1 continue to represent new construction by the LRR. The LRR does not operate over (or own) any joint facilities.

2. Track Miles and Weight of Track

The LRR's revised track and yard configuration was developed by WFA/Basin's expert operating and engineering witnesses, led by Paul Reistrup, using BNSF's track charts and operating timetables for the lines being replicated as well as

information provided by WFA/Basin witness Thomas Crowley concerning the LRR's revised peak-year traffic group and the trains that will move over the LRR system in the peak week of the peak traffic year. In addition, WFA/Basin's experts used the Rail Traffic Controller ("RTC") Model to simulate the LRR's peak-period operations and develop the mainline and other tracks needed to accommodate the peak-period traffic. A description of the changes to the inputs into the RTC Model for purposes of the revised simulation is set forth in Part III-C-2 below. Schematic track and yard diagrams for the revised LRR system are contained in TSO Exhibit III-B-1

The LRR's track miles have decreased from 446.75 miles for the original configuration to 441.55 miles for the revised configuration. The decrease results from the fact that more miles of second and third main track and yard/interchange tracks have been eliminated than the track miles added by extending the LRR system from East Guernsey to Northport.

Track miles by type of track are shown in TSO Table III-B-2 on the next page. Further details are provided in TSO e-workpaper "Route and Track Miles By Type of Construction 3rd Supp.xls."

TSO Table III-B-2 LRR Track Miles	
Main line track - Single/first main track ¹	296 28
- Other main track ²	108 33
Total main line track	404 61
Mine and destination spurs	2 42
Interchange tracks	2 75
Helper pocket, setout and MOW tracks ³	6 14
Yard tracks	25 63
Total	441 55
¹ Single/first main track miles equal total route miles, excluding mine spurs and interchange tracks	
² Equals total miles for second main tracks/passing sidings	
³ MOW tracks in yards are counted in the yard track quantity	

a. Main Line

As shown in TSO Exhibit III-B-1, the LRR's main line now consists primarily of a single main track with several sections of second main track (essentially CTC-equipped passing sidings. passing sidings are considered second main tracks in CTC territory) The LRR has a total of 108 33 track miles of second main track

All main track consists of new 136-pound continuous welded rail ("CWR") Premium (head-hardened) rail is used on all main tracks between the end of double track at Milepost 17 21 on the Orin Subdivision north of Reno Jct. to Northport, given the traffic density on the main line between these points (a minimum of 51 5 million gross tons or more in the peak year). Standard 136-pound CWR is generally used for main tracks between Eagle Butte Jct. and Milepost 17.21 on the Orin Subdivision as well as on the

LRR's two branch lines, because less than 50 million gross tons move over these segments in the peak year. However, premium rail is used in all main-track curves of 3 degrees or more, where rail wear is heaviest, regardless of location.

All track and structures continue to be designed to accommodate a gross weight on rail ("GWR") of 286,000 pounds per car and maximum train speeds of 60 mph, conditions permitting. However, loaded unit coal trains are limited to a maximum speed (conditions permitting) of 50 mph on the main line south of Donkey Creek and 35 mph on the main line north of Donkey Creek and on the Reno Branch. This is consistent with the maximum train speeds provided for the LRR's original configuration.

b. Branch Lines

The LRR has two branch lines, the Reno Branch and the Moba Branch.¹ The first of these branches is used to serve PRB coal mines that are not served by the main line. The second branch serves LRS and the interchange with BNSF at Moba Jct. The track configurations for these branches are shown on pages 6 and 8 of TSO Exhibit III-B-1. Each branch consists of single track with appropriate passing sidings based on the latest RTC Model simulation.

c. Sidings

The LRR's passing sidings are considered part of its main track in both main and branch lines, and are discussed in Subparts a and b above.

¹ Due to the elimination of the BNSF interchanges at Campbell and Donkey Creek, the former Campbell Branch is now part of the LRR's main line.

d. Other Tracks

Other tracks include the LRR-owned portion of mine spurs, interchange tracks at the LRR's smaller interchange locations, a pocket track for helper locomotives, set-out tracks for bad order cars, and maintenance-of-way equipment (work train) storage tracks. Yard tracks are discussed separately in the next section

Mine and destination spurs The LRR owns portions of the spurs serving the 12 PRB mines from which it originates traffic ² The total mileage for these mine spurs is 2.42 The LRR also owns 0.03 miles of the spur connecting LRS with the Moba Branch at Moba Jct (the remainder of this spur is owned by Basin Electric) ³ The total mine and destination spur mileage is the mileage accepted by the Board at pages 25-26 of its September '07 Decision, reduced by elimination of the north legs of the spurs serving the mines on the Orin Subdivision See TSO c-workpaper "LRR Route Miles-3rd Supp xls" for details

Interchange tracks Interchange tracks are located at Orin, Moba Jct and Northport All interchange tracks have 115-pound relay CWR, except that the interchange tracks at Northport have 136-pound standard CWR. The layout of the interchange tracks at each location is shown in TSO Exhibit III-B-1 The LRR now has a total of 2.75 miles of interchange tracks

With respect to the new interchange at Northport, the interchange trackage consists of two relay tracks, in addition to the main running track. The main runner is

² The LRR serves all BNSF-served Wyoming PRB coal mines except the Fort Union mine on the Campbell Subdivision

³ The track miles for this spur are included in the mainline track miles for the segment between Wendover and Moba

normally used to move trains to and from the UP interchange tracks to the east, although it can also be used for a BNSF interchange train. This facilitates the flow of trains through the interchange. Double-ended set-out tracks are provided at each end of the interchange tracks. In addition, a 1,000-foot double-ended track is provided for storage of work equipment and a 600-foot track is provided for holding locomotive units removed from some empty trains received from BNSF at Northport. As detailed in Part III-C-1-c below, some BNSF cross-over trains use four units south of Denver, the fourth unit is not needed on the LRR and is held at Northport until a loaded train requiring four units on BNSF arrives back at Northport. The LRR fuels these locomotives while they are being held at Northport using DTI. (direct-to-locomotive) fueling.

Consistent with BNSF/UP's present operating procedure, both loaded and empty coal trains moving to and from the Jeffrey Energy Center near Topeka, KS are interchanged between the LRR and UP on the UP interchange tracks located just east of the Northport interchange with BNSF, which connect with BNSF's Angora Subdivision main line. See TSO Exhibit III-B-1, p. 9.

Helper pocket, setout and MOW equipment storage tracks The revised LRR has one double-ended helper pocket (holding) track with power switches located just west of West Donkey Creek (it has been moved slightly east of its former location due to the elimination of the wye at Campbell). The LRR's original configuration also included a helper pocket track near Milepost 15.5 on the Orin Subdivision. This pocket track was used to hold helper locomotives that assisted northbound loaded trains. However, the LRR no longer operates any northbound loaded trains – all loads move toward the south – so the helper pocket track on the Orin Subdivision has been eliminated.

One setout track is placed on each side of each of the LRR's Failed-Equipment Detectors ("FEDs"), as described in Part III-F, with one FED on each track in areas with the equivalent of two main tracks. All of the setout tracks are double-ended tracks, 925 feet in length between switches.⁴ This provides 600 feet of length in the clear to accommodate both the occasional bad-order car and the temporary storage of maintenance-of-way equipment. One double-ended setout track is also located at each of the two non-yard interchange points (Orin Jct. and Moba Jct.)

As described above, the setout tracks at the FED locations can be used for temporary (overnight) storage of maintenance-of-way or work equipment. In addition, 1,000-foot double-ended work equipment storage tracks are provided at four locations: Reno Jct., Orin, Scottsbluff and Northport. These tracks can also be used to set out bad-ordered cars if the occasion arises.

The locations of the helper pocket, setout and MOW equipment storage tracks are shown in TSO Exhibit III-B-1. They consist of 115-pound relay CWR. The LRR now has a total of 6.14 track miles for these tracks (excluding approximately 1,000 feet of MOW track located in Orin Yard).

3. Yards

The LRR now has a single yard, located at Orin. The original Donkey Creek Yard has been eliminated because of the elimination of the high-volume interchange at that point, and the original South Logan Yard has been eliminated because of the LRR's

⁴ This is the length that the Board determined to be appropriate for FED setout tracks at p. 25 of the September '07 Decision.

reduced traffic volume (the additional RTC Model simulation indicates that this yard is no longer needed) The Orin Yard is located between Fisher Jct and Orin Jct

The Orin Yard is used for the same functions that the Guernsey Yard was used for under the LRR's original configuration These functions include the staging of empty coal trains for movement to the mines for loading, locomotive fueling, servicing, inspection and maintenance, the performance of FRA-mandated car inspections, and the removal of bad-order railcars from and the insertion of spare railcars into empty trains destined for the mines. Orin is also a crew-change point, and it is the new location of the LRR's headquarters

The track and facilities layout of the LRR's Orin Yard is shown schematically on p 5 of TSO Exhibit III-B-1 The layout of the Orin Yard is less complicated than the layout of the former Guernsey Yard, as it does not have to be divided into two separate sections for topographical and other reasons It is also smaller than the former Guernsey Yard because the volume of traffic that needs to be serviced at the yard is smaller than the volume that was serviced at Guernsey Yard.

To accommodate the peak-week traffic volume, the Orin Yard has eight relay tracks, four of which are located on each side of the two main tracks All relay tracks are at least 1 6 miles long between switches, providing 1 5 miles in the clear which is sufficient to accommodate the LRR's longest train. Tracks for locomotive fueling/servicing and storage of spare/repaired railcars are also included, as well as tracks for the locomotive and car repair shops, running and lead tracks, and a 1,000-foot storage track for maintenance-of-way (work) equipment.

The LRR's Orin Yard contains a total of 25.63 miles of track. Details are shown in TSO e-workpaper "TRACK_MILES_WORKSHEET_WFA_3rd_SUPP.xls". As shown in TSO Exhibit III-B-1, the yard tracks consist of 115-pound relay CWR. The main running tracks through Orin Yard have 136-pound premium rail.

4. Other

a. Joint Facilities

The LRR continues to have no joint facilities. As noted in Part III-B-4 of WFA/Basin's Opening Evidence in this case, the LRR replicates the BNSF/UP Joint Line serving the PRB mines located south of Gillette, WY, but the LRR's traffic group includes only BNSF coal traffic that moves over this line. Accordingly, WFA/Basin continue to construct the entire Orin Subdivision as part of the LRR rather than attempting to step into BNSF's shoes as co-owner/operator of the Joint Line. The revised configuration of the portion of the LRR's Orin Subdivision that replicates the Joint Line is designed for the LRR's revised traffic group only.

b. Signal/Communications System

All of the LRR's lines (including the branch lines) continue to be equipped with a CTC traffic control system, with power switches that are controlled by centralized dispatchers located at the railroad's headquarters, which have been relocated from Guernsey to Orin. Power switches are also used for the helper pocket tracks, the relay tracks in Orin Yard, the connections between the west end of the interchange tracks at Northport and the main line, and the connection with the spur to the LRS plant at Moba Jct. All other switches (i.e., other interior yard switches and set-out track switches) are

hand-thrown. This is essentially the same plan presented in WFA/Basin's Opening Evidence in this case

Communications continue to be conducted using a microwave system, with microwave towers at the same locations where BNSF presently has them between Campbell and Northport (an average of every 10 miles) All locomotive engineers, dispatchers and supervisory field personnel continue to be equipped with radios connected to the microwave system, with certain employees also equipped with cellular telephones for emergency railroad use only, as a back-up to the radios. The specific changes made to the LRR's original signal and communications system are described in Part III-F-6 below

c. Turnouts, FEDs and AEI Scanners

The LRR's second main track segments continue to be constructed on 25-foot track centers, with No 20 turnouts. This permits trains to operate through the turnouts at speeds of up to 40 miles per hour No. 20 turnouts are also used for the connection to the Reno Branch at Reno, the connections with the mine leads, the switch connection to the LRS plant spur at Moba Jct., the switches between the yard leads and the main running tracks at both ends of Orin Yard, and interchange tracks No 10 turnouts continue to be used between main tracks and all other tracks, including setout tracks, helper pocket tracks and interior yard tracks, where train speeds are slower

FEDs, which include hot-bearing, dragging-equipment, cracked-wheel and wide/shifted load detection systems, continue to be spaced approximately every 25 miles along the LRR's route. Two FEDs are provided at one location that has two main tracks, one for each track. Each FED continues to have two setout tracks, each located within two

train lengths on either side of the FED. Each such track is a 925-foot double-ended track (with 600 feet in the clear) to facilitate the setout of bad-order cars from trains operating in either direction. These tracks are used for temporary storage of bad-order cars caught by the FEDs, and for temporary storage of work equipment

Automatic Equipment Identification ("AEI") scanners are located at or near each of the LRR's three points of interchange with other railroads (Orin, Moba Jct and Northport). A total of four AEI scanners are now provided, which is a reduction of four scanners from the eight originally provided. Their specific locations are shown in TSO Exhibit III-B-1. The AEI scanners have been placed so as to enable them to capture all train movements that occur on the LRR, including both the local and the interline movements.

III. C. OPERATING PLAN

1. General Parameters

The LRR's operating plan for purposes of this Third Supplemental Opening Evidence is based on the operating plan that WFA/Basin originally presented to the Board, including the minor alterations adopted by the Board at pp 15-17 of the September '07 Decision. The operating plan has been revised only to reflect the railroad's revised route, track configuration and traffic group. The efficacy of the revised operating plan has been confirmed by an additional simulation of the LRR's peak-period operations using the Rail Traffic Controller ("RTC") Model.

The principal elements of the original LRR operating plan (as accepted by the Board) that have been changed include the following:

- 1 All loaded coal trains move geographically south from the PRB mine origins to or beyond Orin, WY.¹ There is no longer any northbound coal traffic, and the LRR no longer interchanges any traffic with BNSI at Campbell or Donkey Creek, WY.
- 2 Given the reduction in traffic volume, the LRR will no longer have double track over the entire distance between Donkey Creek and Fisher Jct. Rather, it will have a single main track with alternating sections of second main track. CTC with power switches will continue to be used on all lines including the extension from East Guernsey to Northport.

¹ As used herein, "Orin" generally refers to both the new location of the LRR's principal yard just northeast (geographically) of Orin Jct., and Orin Jct. itself. The LRR interchanges some coal trains with BNSI at Orin Jct., which is located near the southwest end (geographically) of Orin Yard.

- 3 The LRR no longer has yards at Donkey Creek, South Logan or Guernsey. A new yard that is the functional equivalent of the original Guernsey Yard is now located at Orin. Locomotive fueling, servicing, inspections and maintenance and car inspections and bad order/spare car switching are now performed at Orin rather than Guernsey.
4. Guernsey is no longer an interchange point due to the extension of the LRR's route to Northport. New interchange tracks are located at Northport, where the LRR now interchanges coal traffic with BNSF and UP.
- 5 The LRR now has a single helper district to assist southbound loaded trains, which extends between the mines on the Campbell Subdivision and Milepost 9.8 on the Orin Subdivision. The former northbound helper district between E. Caballo Jct. and Donkey Creek has been eliminated.
6. The LRR's crew districts and crew-change points have been modified. The PRB mines are now served entirely by straightaway crews based at Orin. There are no longer any mine turn crews.
- 7 Road locomotives on empty coal trains are fueled at Orin rather than Guernsey. Locomotive fuel tanks on all loaded coal trains interchanged to BNSF at Northport are topped off at Orin Yard. The fourth locomotive unit on loaded trains moving to BNSF points south of Denver is held, and its fuel tank topped off, at Northport rather than Guernsey.

As with the LRR's original operating plan, the revised operating plan is designed to enable the LRR to transport its peak-year traffic volume (and the traffic volume during the peak one-week period of the peak year) efficiently and with transit times equal to or better than BNSF's 2004 actual transit times for the same traffic. The revised operating plan has also been used to develop inputs for a new simulation of the railroad's peak-period operations using the RTC Model. It also continues to provide the basis for many of the LRR's revised annual operating expenses shown in Part III-D below.

a. Traffic Flow and Interchange Points

The LRR's peak traffic year continues to be 2024, which is the final year in the 20-year DCF period being used in this case. In 2024, the LRR will continue to transport 8.25 million net tons of local traffic, all of which moves to LRS. The LRR will also transport 60.2 million tons of interline forwarded traffic, of which 50.6 million tons are interchanged to BNSF at Orin, Moba Jct. and Northport, and 9.6 million tons are interchanged to UP at Northport. These tonnages are broken down by LRR line segment in TSO Table III-C-1 below. All coal traffic moves south over the Orin Subdivision.

TSO TABLE III-C-1 <u>LRR 2024 Traffic Density By Line Segment</u>		
<u>Line segment</u> ^{1/}	<u>Net Tons</u> <u>(Millions)</u>	<u>Gross Tons</u> <u>(Millions)</u>
Eagle Butte Jct - Caballo Jct	{	{
Caballo Jct - Reno	{	{
Reno Branch	{	{
Reno - Orin	{	{
Orin Jct - Wendover	{	{
Wendover - Northport	{	{
Wendover - Moba Jct	{	{
^{1/} Tonnages shown for a line segment are the maximum tonnages moving over any part of the segment, volumes are not uniform for the entire segment in some cases. See TSO Exhibit III-C-1.		

In revising the LRR's configuration and operating plan, WLA/Basin's operating experts (Paul Reistrup and Paul Smith) again considered both the total traffic

volume moving over various line segments in the peak year (2024) and the peak one-week period { } in that year, and the number of loaded and empty coal trains moving over the various parts of the LRR system during the peak week. The peak-week train frequencies were developed using the same procedures described in Part III-C-2-b of WFA/Basin's Opening Evidence Narrative filed on April 19, 2005.

The empty coal trains that the LRR moves during the 2024 peak period used for the RTC simulation are summarized in Table III-C-2 below. See TSO c-workpaper "PEAK_PERIOD_TRAINS_EXHIBIT_033108_Pivot_3IIC2.xls" for details.

TSO TABLE III-C-2 <u>LRR 2024 Peak-Period Train Counts^{1/}</u>			
<u>Line Segment</u>	<u>Total Trains in Study Period</u>	<u>Average Daily Trains in Study Period</u>	<u>Peak-Day Trains^{2/}</u>
Eagle Butte Jct to Caballo Jct	{ }	{ }	{ }
Caballo Jct to Reno Jct	{ }	{ }	{ }
Reno Branch	{ }	{ }	{ }
Reno Jct to Orin	{ }	{ }	{ }
Orin to Wendover	{ }	{ }	{ }
Wendover to Northport	{ }	{ }	{ }
Wendover to Moba Jct	{ }	{ }	{ }
^{1/} Table shows empty coal trains only. A corresponding number of loaded coal trains also moved in each period.			
^{2/} Peak day is { }, 2024. Count excludes empty trains that were stopped for loading at mines at 00:00 hours on { }, when count began.			

As shown in TSO Table III-C-2, the heaviest train volume occurs between Reno Jct and Orin. Train volumes are also relatively high between Orin and Wendover and between Wendover and Northport.

b. Track and Yard Facilities

The LRR's revised track and yard facilities are generally described in Part III-B above. The main line now extends from Eagle Butte Jct to Northport and consists entirely of single track with passing sidings. See TSO Exhibit III-B-1. The revised configuration was developed by WFA/Basin's operating experts with assistance from an additional RTC simulation of the LRR's peak-period operations that reflects the railroad's reduced traffic volume compared with its original traffic group.

All of the LRR's main tracks continue to be constructed to a standard that allows maximum train speeds of 60 mph, conditions permitting. Loaded coal trains are limited to a maximum speed of 50 mph while empties can move at up to 60 mph, except on the Campbell Subdivision and Reno Branch where all trains are limited to a maximum speed of 35 mph. Actual train speeds on all lines are slower than the permissible maximum at some locations due to grades, curvature and other operating restrictions. All tracks continue to be constructed to permit a maximum GWR of 286,000 pounds per car. Twenty-five foot track centers continue to be used between main tracks to facilitate train operations on one track while maintenance is being performed on the other track.

The entire LRR system continues to be equipped with CTC and mainline power switches. This includes the portion of BNSF's Front Range Subdivision replicated by the LRR's Moba Branch, for the reasons explained in WFA/Basin's Op Narr at III-C-7

The Board approved the use of wood cross-ties on all of the LRR's tracks at pp 95-96 of the September '07 Decision. Wood ties continue to be appropriate, particularly since the LRR's traffic density has declined for purposes of this Third Supplemental SAC evidence. The LRR's tie and other track and subgrade specifications (including turnouts, other track material, ballast and side slopes) have not changed from the original specifications.

c. Trains and Equipment

The LRR continues to operate only coal unit trains, and the assumptions concerning the LRR's train sizes described at Op Narr III-C-7-8 continue to apply for purposes of the LRR's revised operating plan. To the extent the movements in the LRR's revised traffic group are different from those used to develop the LRR's original operating plan, the train sizes for the new movements reflect the real-world BNSF train sizes for the same O/D pairs.

i. Locomotives

The LRR requires a total of 75 locomotives to handle its peak-period traffic volume. The railroad continues to use EMD SD70MAC locomotives for road service,

and EMD SD40-2 locomotives for helper and yard switching service. The number of locomotives now required for each kind of service is shown in TSO Table III-C-3 below. The LRR's road locomotive requirements continue to take into account the need to equalize the power used in run-through service for the BNSF and UP interchange coal trains, as well as a spare margin as described below.

TSO TABLE III-C-3 <u>LRR Peak Locomotive Requirements</u>	
<u>Type of Service</u>	<u>Number</u>
Road - SD70MAC	67
Helper/Switch/Work Train - SD40-2	8
Total	75

(a) Road Locomotives

All coal trains now operate on the LRR system with three SD70MAC locomotive units, in a 2/1 distributed power ("DP") configuration with two units on the front of the train and the remotely-controlled DP unit on the rear of the train. This is the same configuration that was used on all but a few trains under the LRR's original operating plan. There were originally a few short trains that operated with only two locomotives, but these trains have been eliminated due to the elimination of the Campbell interchange with BNSF. The locomotives on all of the LRR's interline trains continue to operate in run-through service.

As noted in WFA/Basin's original evidence on the LRR's operating plan, some LRR cross-over coal trains are powered by four road locomotives on the real-world BNSF, in a 2/2 configuration (i.e., two units on the front of the train and two DP units on the rear).² BNSF presently uses four road locomotives on certain of the coal trains that move via Guernsey and Northport to destinations south of Denver to avoid the need to add and remove helpers on the Palmer Lake grade between Denver and Colorado Springs. WFA/Basin's operating experts have assumed for purposes of the new RTC simulation that these empty trains will arrive at Northport with four units. The fourth unit will be removed at Northport and these trains will have three locomotives while on the LRR system. A fourth unit will be added to the corresponding loaded train prior to its departure from Northport on the residual BNSF.³ The peak period trains included in the RTC simulation that move south of Denver with four units are shown in TSO e-workpaper "SouthofDenverTrains_locos 3rd Supp.xls"

² The LRR operates the LRS trains with three locomotive units, rather than the four used by BNSF, for the reasons set forth at Op. Narr III-C-11-12.

³ If an empty BNSF train arrives at Northport with more than four units, the extra units will be returned to BNSF at that location. The procedure for trains with four or more units is similar to that in the original operating plan (see WFA Op. Narr at III-C-31-32) except that the fourth unit (and any additional units) are removed from empty trains and added to the corresponding loaded trains (or returned to BNSF) at Northport instead of Guernsey.

(b) Spare Margin and Peaking Factor

At pp. 33-34 of its September '07 Decision the Board accepted a spare margin of 8.6% for SD70MAC road locomotives. It also determined that a locomotive peaking factor, determined in accordance with the methodology used in the Xcel II decision, should be applied. WFA/Basin's revised operating plan calculates the number of road locomotives required using the same peaking factor methodology and spare margin approved in the September '07 Decision.

Spare road locomotives are stored at Orin and Northport. Locomotive inspections and maintenance are handled in exactly the same manner as described in Op. Narr. at III-C-17, except that inspections and maintenance are performed at Orin Yard instead of Guernsey Yard.

(c) Helpers and Yard Locomotives

The LRR now has one helper district, extending between the Campbell Subdivision mines and Milepost 9.8 on the Orin Subdivision. This helper district for southbound (geographically) loaded trains was also provided for in WFA/Basin's original LRR operating plan. However, a northbound helper district between Caballo Jct. and Donkey Creek under the original operating plan has been eliminated because the LRR now operates no northbound loaded coal trains from mines on the Orin Subdivision and Reno Branch to Donkey Creek/Campbell. SD40-2 locomotives, stationed at Donkey

Creek, continue to be used for helper service on southbound loaded coal trains, in a two-unit consist

The additional RTC Model simulation indicates that a total of 6.2 southbound loaded trains moving from mines on the Campbell Subdivision during the 13-day simulation period require helper assistance. During the peak week a total of 33 such trains require helpers. This relatively small volume can be accommodated by two two-unit helper consists, which are stationed at Donkey Creek. The helpers stay with the train to the end of the helper district at MP 9 8 on the Orin Subdivision, where they are removed and then run light back to Donkey Creek.

The LRR also requires a total of four SD40-2 locomotives for use in switch and work-train service. Three of these locomotives are stationed at Orin and one at Donkey Creek

Two of the SD40-2 locomotives stationed at Orin Yard are used for switching bad-ordered and spare railcars. One additional SD40-2 at Orin is used for work-train service and also serves as a spare for the switch locomotives when they require 92-day inspections or maintenance. The final SD40-2 locomotive is stationed at Donkey Creek and is used for both work train service and as a spare for the helper locomotives based at Donkey Creek. The SD40-2 locomotives stationed at Donkey Creek are ferried to Orin on a coal train, as necessary, for inspections and maintenance. When this occurs

one or more of the SD-40's stationed at Orin are ferried back to Donkey Creek as replacements

The LRR's reduced traffic volume means that it now needs only one 24/7 switch crew assignment at Orin Yard, rather than the two assignments originally provided for at Guernsey Yard⁴ This assignment performs exactly the same functions as the switch crews assigned to Guernsey Yard under the original LRR operating plan See Op Narr. at III-C-20-21

ii. Railcars

Although most of the LRR's coal movements occur in private cars time and mileage-free to the railroad, some still occur in cars provided by BNSF (and thus the LRR)⁵ However, the number of customers for which the LRR provides cars has been reduced The remaining customers, other than WFA/Basin, for which BNSF provides a portion of the railcars are listed in TSO Table III-C-4 below

⁴ The LRR traffic volume moving through Orin Yard is 35% lower than the LRR traffic volume originally moving through Guernsey Yard.

⁵ The LRR continues to supply some of the cars for the LRS movement to achieve the target of 136 cars per train for each of WFA/Basin's three trainsets of railcars The LRR continues to charge WFA/Basin an additional fee (over and above the freight rate) for the use of these cars, just as the real-world BNSF does

TSO TABLE III-C-4 Remaining LRR Utility Destinations Where BNSF Currently Provides Railcars	
<u>Utility</u>	<u>Destination</u>
AEP Texas	Oklahoma, OK
{	{
{	{
{	{
{	{
Texas Municipal Power Agency	Iola, TX

The LRR pays its proportionate share of the cost of the BNSF railcars used for the movements shown in Table III-C-4 while the cars are on the LRR system.

The LRR requires a total of 510 cars (136 hoppers, 156 aluminum gondolas, and 218 steel gondolas) to handle the movements in railroad-supplied cars shown in Table III-C-4 above. These numbers were developed using the same procedures described in WFA/Basin's Opening Evidence, with the modifications prescribed at pp. 38-40 of the September '07 Decision. Details are provided in TSO e-workpaper "STB Annual Statistics 3rd Supp_051308.xls," tab "Summary."

2. Cycle Times and Capacity

The LRR's original mainline and yard/interchange track configuration, and the cycle times of its trains in the peak week of the peak year (2024), were determined by means of a simulation of its operations using the RTC Model. The modeling procedures used were described in detail in Part III-C of WFA/Basin's Opening and Rebuttal

Evidence Narratives and accompanying workpapers. At the Board's direction in its decision served March 17, 2006 ("Compliance Order"), WFA/Basin adjusted several of the original operating inputs to the RTC Model. The adjustments were described (and the results of a supplemental RTC simulation using the adjusted inputs, as directed by the Compliance Order, were presented) in WFA/Basin's Supplemental Opening Evidence filed on May 15, 2007. Both the adjustments and the results of the supplemental RTC simulation were accepted by the Board in its September '07 Decision.

The same procedures and the same kinds of inputs were used for the additional RTC simulation that has been performed in connection with this Third Supplemental SAC filing to verify the capacity of the revised LRR system to accommodate the revised traffic group, and to develop new cycle times for the revised peak week trains. All of the operating inputs that the Board directed the parties to use in the Compliance Order (as discussed at pp. 15-17 of the September '07 Decision) were used in the new RTC simulation, with the modifications described below. All of the other inputs used by WFA/Basin in their Rebuttal and Supplemental Opening Evidence RTC simulations (which the Board accepted) were also used in the additional simulation, with the modifications described below. WFA/Basin used the most recent available version of the RTC Model to conduct the additional simulation: version RTC 2.70 L46R.

a. Revised Peak-Year Coal Traffic Volume

In its Compliance Order, the Board directed the parties to use the LRR traffic group tonnages contained in BNSF's Errata filed August 25, 2005, except that for the period 2006 through 2024, the parties were instructed to "rely upon the most recent Energy Information Administration (EIA) Annual Energy Outlook (AEO) forecasts for Wyoming PRB low-sulfur (sub-bituminous) coal tonnage available as of the date of this order." Id. at 2. In their Opening Supplemental Evidence, WFA/Basin used the February 2006 AEO (the most recent then available) to develop revised LRR tonnages for each year during the DCF Model period beginning with 2006. The Board accepted this approach at p. 27 of the September '07 Decision.

WFA/Basin used exactly the same approach to determine the LRR's revised annual and peak-year coal tonnages, except that they used only the tonnages for the O/D pairs in the revised traffic group.⁶ The revised annual tonnages are shown in TSO Exhibit III-A-1.

b. Revised Peak-Period Train List

WFA/Basin's Witness Crowley used the same procedures described at Op. Narr. III-C-26-29 to develop the LRR's revised peak-period (RTC) train list. In the case of trains carrying cross-over traffic, the train start time for purposes of determining the

⁶ As directed by the Board, WFA/Basin continue to use the February 2006 AEO to forecast traffic growth in the 2006-2024 period.

peak week was the time of arrival of the train at the BNSF interchange point regardless of whether the train was re-routed from its real-world route. In other words, for trains that the LRR receives at Northport that BNSF actually moved via Alliance rather than via Guernsey, the time of the arrival of the train at Northport was used to determine what the peak week was (and what the start time for the train is in the RTC simulation), just as was the case for trains received in interchange at Northport that were not re-routed. A similar 13-day simulation period, which includes a four-day warm-up period and a two-day warm-down period, has also been used. The revised RTC train list is shown in TSO Exhibit III-C-1. Development of the list is explained in more detail in TSO e-workpaper “Rules For Peak Week_032008.pdf”

c. Revised Peak Week and Simulation Period

The changes in the LRR’s traffic group have resulted in a different peak week from the one used in WFA/Basin’s earlier RTC simulations. The new peak week is { , 2024. The revised 13-day RTC simulation period is { , 2024. The simulation period includes a four-day warm-up period and a two-day cool down period.

The methodology used by WFA/Basin Witness Crowley to develop the new peak week (including the start times for empty trains received in interchange at Northport during the base year) is described in TSO e-workpaper “Rules For Peak Week_032008.pdf”

d. Revised Random Outages

In discovery, BNSF provided information concerning random operational and track/signal outages for the lines originally replicated by the LRR during the 2004 base year. Two types of outage data were provided: Daily Performance Reports or “DPR” outages, and Dispatcher Alerts or “trouble ticket” outages. In their original RTC simulation, WFA/Basin included what their operating experts believed to be the appropriate DPR and trouble ticket outages that occurred during the 2004 equivalent of the original peak RTC simulation period (August 29 through September 10)

In its Compliance Order, the Board accepted WFA/Basin’s random outages but added nine more trouble ticket outages that BNSF proposed in its reply evidence. The nine additional outages were included in the supplemental RTC simulation (directed by the Compliance Order) presented in WFA/Basin’s May 15, 2007 Supplemental Opening Evidence. The outages included in that simulation were approved by the Board at p. 17 of the September '07 Decision.

Since the peak traffic week (and RTC simulation period) as well as the LRR’s route have now changed, it is necessary to change the random outages to be included in WFA/Basin’s additional RTC simulation. WFA/Basin’s operating experts have selected the new outages based on the same data provided by BNSF in discovery, which also covered the new peak simulation period { }, with one exception described in the next paragraph. The outages included in the new RTC

simulation, which include three DPR outages and 28 Dispatcher Alert or trouble-ticket outages, are listed in DPO e-workpapers “DPR Service Interruptions for New Pak Modeling Period pdf,” “Dispatcher Alerts for New Peak Modeling Period_Revised.xls,” and “Dispatcher Alerts for New Peak Modeling Period_EstValley.pdf”

BNSF provided DPR outage information for its entire system in discovery. However, BNSF provided Dispatcher Alert (trouble ticket) outage information only for its subdivisions located primarily in Wyoming. BNSF did not provide Dispatcher Alert outages for BNSF’s 91.7-mile Valley Subdivision extending between East Guernsey, WY and Northport, NE. WFA/Basin’s experts developed Dispatcher Alert outages for the Valley Subdivision by applying the same kinds and frequency of these outages that occurred on the Canyon Subdivision during the 2004 equivalent of the peak RTC simulation period to the Valley Subdivision. However, WFA/Basin’s experts increased the number of outages to account for the proportionately greater length of the Valley Subdivision compared with the Canyon Subdivision.

The Canyon Subdivision outage data was used to develop Dispatcher Alert outages for the Valley Subdivision because the Canyon Subdivision is the most comparable BNSF subdivision to the Valley Subdivision of any of the subdivisions included in the LRR’s route. Both subdivisions were constructed at a similar time to similar specifications, and they are adjacent to each other (the Canyon Sub ends and the Valley Sub begins at MP 91.7 at East Guernsey). The Canyon Subdivision has slightly

greater traffic density than the Valley Subdivision, although the density on the two subdivisions is identical between Wendover and Northport.⁷ In this regard, it should be noted that because the LRR carries significantly less coal traffic on the Canyon (and Valley) Subdivision in the peak year than BNSF did in the base year, any application of BNSF base year random outage data to the LRR's operations is very conservative because less tonnage (and fewer trains) means fewer outages.

The methodology used to develop the Dispatcher Alert outages for the Valley Subdivision is described in more detail in TSO e-workpaper "Dispatcher Alerts For New Peak Modeling Period_EstValley pdf"

e. Configuration Changes

The following configuration changes to the LRR system have been input into the RTC Model

- i. The mainline has been extended from East Guernsey to Northport
- ii Double track between Donkey Creek and Fisher Jct has been replaced by single track with several sections of second main track (CTC continues to be used for the entire LRR system)
- iii. The yards at Guernsey, Donkey Creek and South Logan have been removed
- iv The interchange tracks at Campbell and Donkey Creek have been removed, as well as mainline trackage at Campbell/Donkey Creek formerly needed to reach the interchange tracks

⁷ Some traffic (i.e., the LRS and Platte River/Rawhide coal traffic) leaves the Canyon Subdivision at Wendover. The volume involved was { } million tons in 2005.

- v A new yard (replacing the former Guernsey Yard) has been provided at Orin. Dwell times for empty and loaded trains at Orin Yard are the same as for the former Guernsey Yard
- vi New interchange tracks and associated tracks (MOW equipment and locomotive storage tracks) have been provided at Northport. The interchange dwell time at Northport is the same as the interchange dwell time at Donkey Creek under the LRR's original operating plan

f. Changes in Helper Districts

The LRR now has a single helper district to assist southbound loaded trains between the mines on the Campbell Branch and MP 9.8 on the Orin Subdivision. The former northbound helper district between MP 15.4 and MP 7.8 on the Orin Subdivision has been eliminated because the LRR no longer operates any northbound loaded coal trains.

g. Changes in Crew Districts/Crew Assignments

Messrs. Reistrup and Smith's original operating plan for the LRR provided for the following crew-origination/change points: Donkey Creek/Campbell, Orin Jct., Moba Jct. (including the Laramie River power plant) and Guernsey. The revised operating plan eliminates Donkey Creek, Campbell and Guernsey as crew origination/interchange points, and establishes a new crew change point at Northport. The LRR's road crew assignments have also been revised as follows:

- i The LRR has a new straightaway crew district between Eagle Butte Jct. or other origin mines and Orin (maximum distance 145 miles). The home terminal for this district is Orin.
- ii The LRR has a new straightaway crew district between Orin and Northport (137 miles). The home terminal for this district is Orin; the away-from-home terminal is Northport.

- iii The LRR continues to operate a straightaway crew district between Eagle Butte Jct or other origin mines and Moba Jct (maximum distance 198 miles). This district is for all coal trains interchanged with BNSF at Moba Jct. and the LRS trains, which do not need to stop at Orin for locomotive fueling or 1,500-mile car inspections. The home terminal for this district is Orin.
- iv The turn crew assignments based at Donkey Creek/Campbell have been eliminated because the LRR no longer interchanges any coal traffic with BNSF at Donkey Creek or Campbell and thus does not begin any empty-train cycles to the mines from these points.

The additional RTC simulation confirms that the distance for each crew district can be covered by a single crew in 10 hours or less, thus allowing at least two hours for crew preparation/taxi time while still complying with the federal hours of service law which limits the time a train crew can remain continuously on duty to 12 hours.⁸

As was noted in WFA/Basin's Opening Evidence, a loading contractor accompanies all BNSF trains through the loading process at the mines. The LRR also uses loading contractors, which means the LRR crews that operate to and from the mines do not accompany their trains through the loading process. The inbound crew ties up after the empty train arrives at the mine, and the outbound crew goes on duty shortly before the loading process is completed and the loaded train is released.

⁸ As discussed in Part III-D-3 below, a few crews operating between the northerly mines and Moba Jct expired under the hours of service law during the RTC Model run. These crews are replaced by new crews to complete their run. See ISO e-workpaper "S1B Annual Statistics 3rd Supp_051308.xls," tab "crew taxi" for details.

Helper crews. Two 24/7 helper crews (engineer only) are based at Donkey Creek. One of these crews is also available for work-train service as needed. A total of five employees are needed to man the helper assignments on a 24/7 basis, with each crew working a 12-hour shift. See TSO e-workpaper “STB Operating Statistics 3rd Supp_051308.xls,” tab “Peak to Base Summary.”

h. Locomotive Fueling/Servicing Procedures and Dwell Times

The LRR’s locomotives are fueled in the same manner as in the original operating plan, except that fueling of empty coal trains is performed at Orin Yard rather than Guernsey Yard. The locomotive fuel tanks on all loaded trains destined for interchange with BNSF at Northport are topped off at Orin. The fuel tanks on the fourth locomotive unit on certain loaded trains interchanged with BNSF at Northport and destined to points south of Denver are topped off at Northport rather than Orin, these locomotives are removed from the empty trains and added to loaded trains at Northport and thus do not operate through Orin. Direct-to-locomotive (“DTL”) fueling is used for these locomotives since the LRR has permanent fueling facilities only at Orin Yard.

For empty trains, the six hours of dwell time that were allotted at Guernsey Yard in the original operating plan (and accepted by the Board) have been allotted at Orin Yard under the revised operating plan.⁹ The same dwell times for loaded trains allotted at

⁹ The functions performed on empty trains at Orin are the same as those formerly performed at Guernsey, they include the exchange of locomotives, the performance of

(continued)

Guernsey continue to apply at Orin: 45 minutes for trains whose locomotives do not require refueling and one hour for trains whose fuel tanks are topped off

i. Results of the Additional RTC Simulation

WFA/Basin re-ran the RTC Model simulation of the LRR's revised peak-period operations using the revised tonnages, track and yard configuration, peak-period trains, random outages and other operating assumptions described above. The latest available version of the RTC Model, Version 2.70 L46R, was used for this simulation, which ran successfully. The simulation is included in the electronic workpapers accompanying this filing as TSO e-workpaper folder "III-B\RTC."

The additional RTC simulation presented in this filing produced average transit/cycle times for the LRR's peak-period trains that are lower than the average actual BNSF cycle times for the base year for all coal traffic that moved over the LRR route. The comparative BNSF and LRR cycle times are shown in Table III-C-5 below.

The LRR's traffic group includes some internally rerouted coal traffic moving between the PRB mines and Northport. Cycle times for the rerouted traffic are addressed in Part III-C-3 below.

⁹ (...continued)

1,500-mile car inspections, and bad order/spare car switching

TSO Table III-C-5 BNSF and LRR Train Cycle Times (Hours)		
Movement	BNSF Avg.¹ (Base Year)	LRR Peak Avg. (TSO)
1 Northport to Eagle Butte Mine and return	{	35 1
2 Northport to Buckskin Mine and return	{	37 5
3 Northport to Rawhide Mine and return	{	34 3
4 Northport to Caballo Mine and return	{	29 9
5 Northport to Cordero Mine and return	{	31 5
6 Northport to Black Thunder Mine and return	{	30 7
7 Northport to North Antelope/Rochelle Mine and return	{	27 8
8 Moba Jct to Eagle Butte Mine and return	{	52 8
9 Moba Jct to Dry Fork Mine and return	{	46 8
10 Moba Jct to Caballo Rojo Mine and return	{	46 5
11 Moba Jct to Jacobs Ranch Mine and return	{	47 0 ²
12 Moba Jct to Antelope Mine and return	{	16 1
13 Orin Jct to Clovis Point Mine and return	{	19 4
14 Orin Jct to Cordero Mine and return	{	18 1
15 Orin Jct to Jacobs Ranch Mine and return	{	17 1
16 Orin Jct to Antelope Mine and return	{	14 8
¹ BNSF movements are via Orin and Guernsey ² LRR cycle time reflects 19 18 hours of dwell time at LRS, as mandated by the Board's Compliance Order (see also <u>September '07 Decision</u> at 17. However, TSO e-workpaper "BNSF Cycle Times.xls," tab "MOBA_JAC JCT" identifies a BNSF average time of { hours between spot and release at Moba (LRS) for Jacobs Ranch shipments in the base period		

Details on the number of LRR trains moving to each mine during the RLC simulation period and the BNSF trains moving to each mine in the base year are shown in

ISO e-workpapers “Destinations with Times and Nodes_1.xls” and “BNSF Cycle Times.xls”

The results of the RTC simulation of the LRR’s operations during its peak traffic period confirm that the revised LRR configuration and operating plan enable the LRR’s peak-period trains to operate in a manner that meets its customers’ requirements. Specifically, TSO Table III-C-5 shows that the LRR’s peak-period train cycle times are faster than the real-world BNSF cycle times for the comparable trains during the base year. This comparison is very conservative, as it compares the LRR’s operations during the peak volume week of the 20-year SAC analysis period with BNSF’s operations over the entire base year period. This comparison clearly demonstrates that the LRR is able to provide service consistent with its customers’ requirements.

3. Rerouted Traffic

As noted in Part I-C-3-b above, the LRR’s revised traffic group includes some rerouted coal traffic. All of the rerouted traffic is internally-rerouted traffic, that is, (a) the change in routing is entirely internal to the LRR and (b) to the extent the change involves cross-over traffic, the traffic is interchanged to BNSF at a point on its real-world route of movement. Thus, WFA/Basin need only show that the reroute is reasonable and meets the shippers’ transportation needs. ΔEP Texas at 10-11; TMFA, 6 S T B at 594-595 (2003).

The LRR has two categories of rerouted traffic. The first category is coal traffic that originates at Eagle Butte Mine and terminates at Westar Energy's Jeffrey Energy Center ("JEC") near Topeka, KS. JEC is served exclusively by UP, and this is a joint BNSF-UP movement with the interchange occurring at Northport. The second category is cross-over traffic that BNSF originates at various PRB mines and moves to points south of Northport. BNSF currently moves both categories of this rerouted traffic to Northport via Edgemont, SD and Alliance, NE. The LRR moves the traffic to Northport via Orin, Wendover and Guernsey, WY.

a. Rerouted JEC Traffic

The joint movement of PRB coal to JEC totaled { } million tons in 2005. BNSF originates the JEC coal trains and interchanges them with UP at Northport for delivery to the destination. BNSF presently moves most almost all of this traffic east from Donkey Creek via Edgemont and Alliance; the LRR will move all of it south from Donkey Creek via Wendover and Guernsey. The Board assessed exactly the same rerouting of the JEC traffic in the Xcel case, and held that it was reasonable because it "would not have any cost or operational impact on carriers other than the [SARR]" Xcel I at 19-23. The Board also noted that the route via Wendover/Guernsey is only "slightly longer (6.1 miles)" than the route via Edgemont/Alliance. Id. at 19.

As described in Part III-C-2-c below, the additional RTC simulation in this case confirms that LRR cycles the JEC trains between Northport and the mine and return

faster than the real-world BNSF does, notwithstanding the “slightly longer” distance for the LRR route via Wendover/Guernsey than for the BNSF route via Edgemont/Alliance ¹⁰

This confirms that the rerouting of the JEC traffic continues to meet the shipper’s transportation needs.

b. Cross-Over Traffic

The LRR also carries some rerouted cross-over coal traffic to Northport, and interchanges it with BNSF at that point. Like the JEC traffic, BNSF moves this traffic primarily via Alliance whereas the LRR moves it via Guernsey. Northport is on the current route of movement for all of this traffic, so the reroute is entirely internal to the LRR. All of this traffic moves to points south of Northport (i.e., toward Denver).

The specific movements involved (by origin-destination or “O/D” pair and the 2005 rerouted tonnage for each O/D pair) are shown in TSO Table III-C-6 below.

¹⁰ The additional miles from Eagle Butte to Northport via the LRR route compared with the BNSF route via Alliance represents only 2% of the total distance between these points.

TSO TABLE III-C-6
Rerouted Crossover Coal Traffic
(LRR On/Off Junction is Northport)

<u>Shipper</u>	<u>Mine Origin</u>	<u>Destination</u>	<u>2005 Tons</u>
1 PSCo/Xcel	Eagle Butte	Pawnee, CO	{
2 Reliant Energy	Buckskin	Smithers Lake, TX	{
3 Reliant Energy	Jacobs Ranch	Smithers Lake, TX	{
4. Southwestern Public Service	Black Thunder	Mill, TX	{
5 TXU Energy	Eagle Butte	Big Brown, TX	{
6 West Texas Utilities ¹	Buckskin	Oklaunion, TX	{
7 West Texas Utilities ¹	Jacobs Ranch	Oklaunion, TX	{
8 West Texas Utilities ¹	Rawhide	Oklaunion, TX	{
Total			{

¹ Now AEP Texas North

As shown in TSO Table III-C-6, most of the rerouted cross-over traffic originates at mines north of Donkey Creek that are served by the Campbell Subdivision.¹¹

As shown in TSO Table III-C-7 on the next page, the distance from these mines to Northport using the LRR's route via Guernsey is a maximum of seven miles greater than

¹¹ BNSF actually moves some traffic for four of the rerouted movements shown in TSO Table III-C-6 via the LRR's route. In fact, in the case of two movements, the vast majority of the shipper's 2005 tonnage moved via Wendover/Guernsey rather than via Edgemont/Alliance. These were the { } movement from { } Mine to { } and the { } movement from { } Mine to { }. The 2005 tonnages moved via each route for each of the O/D pairs are shown in TSO Exhibit III-C-2 submitted herewith.

the distance to Northport using the BNSF route via Alliance, but for the mines served by the Orin Subdivision and Reno Branch, the LRR route is shorter.

TSO TABLE III-C-7 Rerouted Crossover Coal Traffic LRR Miles vs. BNSF Miles				
<u>Origin Mine</u> (1)	<u>Off-SARR Point</u> (2)	<u>LRR Miles^{1/}</u> (3)	<u>BNSF Miles^{2/}</u> (4)	<u>Difference^{3/}</u> (5)
1 Eagle Butte	Northport	279	272	7
2. Buckskin	Northport	281	274	7
3 Rawhide	Northport	276	269	7
4. Jacobs Ranch	Northport	224	301	(77)
5 Black Thunder	Northport	223	300	(77)
^{1/} Via Orin and Guernsey ^{2/} Via Edgemont and Alliance ^{3/} Col (3) - Col (4) Source PC Miler Rail 10 I				

The BNSF trains carrying the LRR-rerouted coal traffic are serviced by BNSF at its Alliance Yard. This includes locomotive fueling and servicing, car inspections, and switching of bad order cars and spare cars from and to trains. The LRR will perform exactly the same functions for the rerouted trains at Orin Yard – thus saving BNSF the cost of performing these functions at Alliance. As with the LRR's non-rerouted coal traffic that moves to/beyond Northport, the rerouted trains will be interchanged with BNSF at Northport and Northport will be a new crew-change point for these trains.

Northport's feasibility as a crew-change point is confirmed by the fact that Northport is an established BNSF crew-change point for the JEC trains, which BNSF interchanges with UP at that point.

All of the LRR's road property investment costs and operating costs for handling its traffic group, including the rerouted traffic, have been included for purposes of the supplemental SAC calculations included with this filing. As described in Part III-D-9 below, the reroutes will not cause BNSF to incur any additional costs as a result of having to change crews at Northport rather than Alliance for the cross-over traffic that has been rerouted. Rather, BNSF should enjoy a net reduction in operating costs as a result of these reroutes since (for example) it does not have to perform locomotive fueling, car inspections and bad-order car switching for the rerouted trains at Alliance, where these functions are normally performed – the LRR will perform these functions for all trains at Orin. In short, WFA/Basin have fully accounted for all of the ramifications of requiring the residual incumbent (BNSF) to alter its handling of the traffic. See Duke/NS I at 26; AEP Texas at 10.

c. Cycle Times for Rerouted Trains

The additional RTC simulation of the LRR's operations performed by WFA/Basin's experts for this Third Supplemental Opening Evidence has yielded cycle times for the rerouted trains during the peak period of the LRR's peak traffic year. TSO Table III-C-8 below compares the LRR's average peak-period cycle times for the O/D

pairs utilized by the rerouted trains (via Wendover/Guernsey) with BNSF's actual average cycle times for all trains operating between the same O/D pairs in the 2004 base year (via Edgemont/Alliance).

TSO Table III-C-8 Cycle Times for Rerouted Trains, Northport to Mines and Return (Hours)		
O/D Pair	BNSF Avg. (Base Year)	LRR Peak Avg. (TSO)
1 Northport to Eagle Butte ¹	{	35.1
2 Northport to Buckskin ²	{	37.5
3 Northport to Rawhide ³	{	34.3
4 Northport to Caballo ⁴	{	29.9
5 Northport to Black Thunder ⁵	{	30.7
¹ The rerouted traffic in this O/D pair includes movements to { average cycle times for these movements are 35.1 hours for { { , 35.3 hours for { , and 36.3 hours for { . The LRR peak average cycle times for these movements are 35.6 hours for {		
² The rerouted traffic in this O/D pair includes movements to { The LRR peak average cycle times for these movements are 35.2 hours for { and 37.8 hours for {		
³ The rerouted traffic in this O/D pair includes the movement to { . The LRR peak average cycle time for this movement is 34.3 hours.		
⁴ The rerouted traffic in this O/D pair includes the movement to { The LRR peak average cycle time for this movement is 29.9 hours		
⁵ The rerouted traffic in this O/D pair includes the movement to { . The LRR peak average cycle time for this movement is 31.1 hours		

Details on a movement-by-movement basis for rerouted traffic included in the 2005 LRR traffic group are provided in TSO Exhibit III-C-2 submitted herewith.

The cycle times shown in TSO Table III-C-8 were developed in a manner consistent with development of the cycle times for rerouted coal traffic in the AEP Texas case,¹² which the Board accepted (AEP Texas at 10-11). These cycle times confirm that the LRR will move all of its coal traffic, including the rerouted traffic, during the peak week of the entire 20-year DCF period faster than BNSF actually moved this traffic during the 2004 Base Year.¹³ This showing confirms that rerouting the involved traffic via the LRR would be reasonable and would meet the shippers' needs.¹⁴

4. Other

a. Fueling of Locomotives

The LRR's locomotive fueling plan has not changed, except that certain fuelings are performed at Orin and Northport rather than at Guernsey.

The LRR will fuel road locomotives at two locations: Orin Yard and Northport. The locomotives on the LRR coal trains moving to the Dave Johnston and Rawhide generating stations (interchanged with BNSF at Orin Jct. and Moba Jct.,

¹² See AEP Texas' Opening Narr. (Public Version) filed March 1, 2004 at III-C-8-11 and Rebuttal Narr. (Public Version) filed July 27, 2004 at III-C-4-7.

¹³ Moreover, data produced by BNSF in discovery shows that BNSF moved coal trains {

} . See TSO e-workpaper "Cycle_Time_Adjustment_Reroute_Guernsey.xls."

¹⁴ See AEP Texas at 10.

respectively) are fueled at the destination power plant and do not need to be fueled while on the LRR system.¹⁵ The SD40-2 locomotives stationed at Orin are fueled at Orin Yard. The SD40-2 helper/work train locomotives stationed at Donkey Creek are fueled by a contractor using tanker trucks (i.e., DTI fueling).

The fueling procedures for the LRR's road locomotives are the same as those described in WFA/Basin's Opening Evidence, with the following minor changes:

- i. Locomotives on all empty trains moving through Orin are fueled at Orin Yard, except for the trains destined to the Dave Johnston, Rawhide and LRS power plants.
- ii. The fuel tanks on all loaded trains moving to Northport for interchange to BNSF are topped off at Orin.
- iii. The fourth locomotive units on certain cross-over trains moving from and to BNSF points south of Denver are fueled at Northport (using direct-to-locomotive or DTI fueling procedures) rather than at Guernsey.¹⁶

In the LRR's original operating plan, locomotive consists on all empty coal trains that moved through Guernsey (including the rear DP unit(s)) were removed from the train at Guernsey Yard and taken to separate facilities at the yard for fueling and servicing. Freshly fueled and serviced locomotives were placed on the empty train after the car

¹⁵ See Op. Narr. at III-C-66.

¹⁶ The procedure for removing and fueling the 4th unit, when necessary, is described at Op. Narr. III-C-31-32 and Reb. Narr. III-C-52-54. DTI fueling is now used for these locomotives at Northport because the LRR has permanent fueling facilities only at Orin Yard. It would be highly inefficient to move the fourth unit (which is not needed while the trains are on the LRR system) from Northport to Orin and return – a round-trip distance of 274 miles – just to fuel them.

inspection and switching process at Guernsey was completed, and the train then departed to the mine for loading. This same procedure continues to be followed under the LRR's revised operating plan, except that it takes place at Orin Yard rather than Guernsey.

BNSF arranges for fueling of the trains moving to LRS by a contractor at LRS, using DTL fueling. Under the LRR's original operating plan, the LRR followed the same procedure and stepped into BNSF's shoes under BNSF's agreement with the fueling contractor. This was because the LRS trains do not move through Guernsey, where most of the LRR's locomotives were fueled, serviced and inspected.

The LRS trains do move through Orin, however, where the locomotives on most of the LRR's trains are now fueled under the revised operating plan. It would be more efficient to fuel the LRS trains at Orin rather than LRS. However, to minimize changes to the LRR operating plan and avoid controversy, WIA/Basin's operating experts continue to provide for fueling the LRS trains at LRS using DTL service. The locomotives on LRS trains will occasionally be swapped out at Orin Yard for 92-day inspections and maintenance.

b. Car Inspections

The LRR's principal car-inspection location has been moved to Orin Yard with the relocation of the former Guernsey Yard to Orin. The 1,500-mile car inspection procedure remains the same, except that for most LRR trains it is now performed at Orin Yard rather than Guernsey. Trains moving to the Dave Johnston and Rawhide plants

(which the LRR interchanges with BNSF at Orin Jct. and Moba Jct., respectively) continue to be inspected by a contractor at the destination power plants.

As with locomotive fueling, 1,500-mile inspections of the LRS trains and bad-order repairs continue to be performed by a contractor at LRS. These functions could be moved to Orin Yard, but Basin Electric continues to have a car repair shop at the plant and there is no necessity to change the current car inspection and repair procedures.

WFA/Basin continue to allot the same 19.18 hours of average train dwell time at LRS that the Board accepted in the September '07 Decision.

Under the LRR's original operating plan, one 24/7 "roving" inspection crew (consisting of two persons) was stationed at Donkey Creek, where the volume of coal traffic interchanged with BNSF was heavy. See Op. Narr. at III-C-68-69. However, the Donkey Creek/Campbell interchange with BNSF has now been eliminated, no northbound coal traffic moves to Donkey Creek/Campbell, and there is no need to station the roving inspection crew there. Rather, this crew has been moved to Orin which is more centrally located.

c. Train Control and Communications

The LRR's train control and communications systems have not changed from those described in the LRR's original operating plan, except that they have been extended from Guernsey to Northport. The train control system continues to consist of a CTC system with remotely-controlled power switches that covers the entire system including the main

line and the two branch lines, as well as the turnout for the spur to the LRS plant at Moba Jct.¹⁷ The centralized dispatchers are now located at Orin, since the LRR headquarters building has been moved from Guernsey to Orin.

The LRR's microwave communications system, including Failed-Equipment Detectors ("FEDs"), remains unchanged except that it has been extended from Guernsey to Northport.

The LRR continues to have two dispatching districts (see Op. Narr. at III-C-71-72), but the districts have been slightly revised to accommodate the extension of the LRR system to Northport. Each of the two dispatching districts continues to be manned by one dispatcher three shifts per day, seven days per week, although the dispatchers are now stationed at Orin rather than Guernsey. The revised dispatching districts are as follows:

- | | |
|--------|---|
| Desk 1 | Main line between Eagle Butte Jct. and the west end of Orin Yard, and the Reno Branch (139.8 miles) |
| Desk 2 | Main line between Orin Yard and Northport and the Moba Branch (156.9 miles) plus Orin Yard |

These desks provide ample coverage of the LRS system given the reduced peak-year traffic volume (with loaded trains now moving in only one direction) compared with the original LRR traffic group.

¹⁷ See Op. Narr. at III-C-71.

d. Miscellaneous

Other personnel, equipment and maintenance-related aspects of the LRR's revised operating plan are described in Part III-D below.

III. D. OPERATING EXPENSES

In this section of their Third Supplemental Opening Evidence WFA/Basin explain the changes in the LRR's annual operating expenses resulting from the revised traffic group, configuration and operating plan presented in Parts III-A, III-B and III-C above. The methodology used to develop the revised operating expenses is the same as that presented in WFA/Basin's Opening and Rebuttal Evidence, except where otherwise noted. For example, the same 12-month period (October 1, 2003 through September 30, 2004, also referred to as "2004") is used as the base year for calculating operating expenses in the DCF model.

The LRR's revised operating expenses for the 2004 base year are shown in Table III-D-1 on the next page. (The subtotal and total numbers in Table III-D-1 do not equal the sum of the numbers due to rounding.) The total of \$105.1 million represents a 27.8% reduction from the base-year operating expenses of \$145.6 million as determined by the Board (see September '07 Decision at 32).

TSO TABLE III-D-1 LRR 2004 Operating Costs (\$ millions)	
Locomotive Ownership	\$ 7.82
Locomotive Maintenance	\$ 7.54
Locomotive Operations	\$29.82
Railcar	\$ 3.66
Materials & Supply (Operating)	\$ 1.09
Train & Engine personnel	\$17.04
Operating Managers	\$ 8.52
General & Administrative	\$10.95
Loss & Damage	\$ 0.03
Ad Valorem Tax	\$ 1.95
Maintenance-of-Way	\$13.44
Subtotal	\$101.86
Insurance	\$ 3.26
TOTAL	\$105.12

The source of the expenses in Table III-D-1 is WFA/Basin TSO e-workpaper

“STB Operating Expense 3rd Supp_051308.xls.” tab “DCF Transfer.”

1. Locomotives

The LRR’s peak-year locomotive requirements are summarized in Table III-C-4 on page III-C-7 above. The LRR continues to use two types of locomotives: SD70MAC locomotives for road service, and SD40-2 locomotives for helper, yard switching and work-train service. The LRR needs a total of 67 SD70MAC locomotives

to transport its revised 2024 annualized peak-week trains (including spares), and a total of eight SD40-2 locomotives for non-road service. These locomotive counts include the spare margin and peaking factor accepted by the Board at pp. 33-34 of the September '07 Decision.¹

a. Leasing

The LRR continues to lease all of its locomotives. WFA/Basin also continue to use the locomotive lease costs described at page III-D-4 of their Opening Narrative, which were accepted by the Board at p. 35 of the September '07 Decision.

b. Maintenance

The LRR's locomotives are inspected and maintained by the LRR's locomotive maintenance contractor at the LRR's Orin Yard locomotive shop.² WFA/Basin continue to use the same locomotive maintenance cost per locomotive unit mile ("LUM") and road locomotive annual overhaul costs that they used in their Rebuttal Evidence. The Board accepted these costs at pp. 35-36 of the September '07 Decision.

c. and d. Servicing (Fuel, Sand and Lubrication)

Contractors based at the LRR's Orin Yard and at LRS fuel, sand and lubricate locomotives (including DP units). The fueling and other servicing procedures

¹ The peaking factor has been recalculated using the Xcel methodology accepted by the Board at pp. 33-34 of the September '07 Decision. See TSO e-workpaper "SIB Annual Statistics 3rd Supp 051308.xls," tab "Summary."

² The locomotive maintenance facility is shown on p. 5 of Exhibit III-B-1 and in TSO e-workpaper "Orin Yard Layout.pdf." It is described in more detail in Part III-F-7

are the same as those presented in WFA/Basin's Opening Evidence, except that fueling performed at Guernsey Yard under the original LRR operating plan is now performed at Orin Yard and Northport. LRR locomotive servicing costs other than fuel (primarily sand and lubrication) are based on the same LUM-based servicing costs accepted by the Board at page 38 of the September '07 Decision.

With respect to locomotive fuel costs, the Board's September '07 Decision accepted WFA/Basin's fuel consumption rates for the LRR's trains from BNSF's R-1 system average fuel expenses for the types of locomotives involved. Id. at 36-37.

WFA/Basin continue to use the same methodology to develop fuel consumption rates for the locomotives now needed to carry the LRR's revised traffic group.

As for fuel cost per gallon, the Board accepted BNSF's site-specific cost for fuel at its Guernsey Yard, plus additives where direct-to-locomotive (DTL) fueling is used. September '07 Decision at 37-38. WFA/Basin use these same Board-approved fuel costs in developing the LRR's revised locomotive fuel costs. In this regard, WFA/ Basin note that the LRR continues to serve Guernsey, and presumably would obtain fuel there in the same manner that BNSF does. The LRR would move the fuel from Guernsey to Orin (where it now performs most locomotive fueling) in its own equipment.

2. Railcars

a. Leasing

The LRR utilizes a mixture of LRR-provided cars, foreign cars and private cars. For LRR-provided coal cars, WFA/Basin's experts developed lease costs on the basis of full service leases. WFA/Basin use the same full-service lease cost per car for LRR-provided aluminum gondolas, steel gondolas and steel hoppers in the 2004 base year that they used (with Board approval) in their Opening Evidence.³ Their experts applied these lease costs to the number of cars the LRR is required to provide to handle the movements identified in Table III-C-4 above. That number was determined in accordance with the methodology specified by the Board at pp. 38-40 of the September '07 Decision, including the Board-approved railcar spare margin and peaking factor.

b. Maintenance

Railcar maintenance costs were developed in accordance with the methodology specified at p. 40 of the September '07 Decision. This is the same methodology WFA/Basin used in its Rebuttal Evidence.⁴ As before, the LRR pays no private car allowances for the use of shipper-supplied cars which are provided per diem and mileage-free under the terms of the relevant BNSF pricing documents.

³ See Op. Narr. at III-D-14-15.

⁴ See Reb. Narr. at III-D-23-24.

3. Personnel

The LRR's personnel requirements have been revised to reflect the staffing requirements accepted by the Board at pp. 40-46 of the September '07 Decision, as adjusted to reflect the LRR's smaller traffic group and revised system configuration and operating plan. The various categories of personnel are discussed below.

a. Operating

i. Staffing Requirements

(a) Train/Switch Crew Personnel

The LRR now requires a total of 133 T&E crew members to transport its peak-year trains. This number includes helper crews and switch crews based at Orin Yard, and reflects a 35% reduction from the 206 T&E personnel accepted by the Board in its September '07 Decision. Id. at 40-41. WFA/Basin's experts developed the crew counts using the methodology accepted by the Board in its September '07 Decision, including the number of trains moving over the various parts of the LRR system during the peak year, and the crew districts/assignments and Orin switch crew assignments developed by Messrs. Reistrup and Smith as described in Part III-C-2 above.

Of particular note, the revised road crew count reflects the fact that the LRR no longer operates any turnaround crews to the mines. This means that there is no longer any need to match arriving crews on empty trains with loaded trains departing from the

same mine group.⁵ The additional RTC Model simulation conducted in conjunction with this Third Supplemental Opening Evidence confirmed that almost all road crews could complete each tour of duty within 12 hours, as required by federal law. The RTC simulation includes the movement of 407 trains during the peak period. Of the road crews moving these 407 trains, the simulation showed that only 34 crews exceed 10 hours of service. Messrs. Reistrup and Smith reviewed the activities of each of these 34 road crews and determined that five of the 34 crews needed to be relieved by another crew in order for the train to complete its assigned task.

As shown in electronic workpaper "STB Annual Statistics 3rd Supp_051308.xls," tab "crew taxi," relief crews are added to the annual crew requirements for the LRR based on the rate of relief which was required in the RTC simulation and in accordance with the method used by the Board in the September '07 Decision.

(b) Non-Train Operating Personnel

The LRR's revised staffing requirements for non-train operating personnel (excluding maintenance-of-way personnel, which are discussed in Part III-D-4 below) are summarized and compared with the number accepted by the Board (September '07 Decision at 42) in Table III-D-2 below.

⁵ See September '07 Decision at 40-41.

TSO TABLE III-D-2 LRR Non-Train Operating Personnel		
	STB	WFA/Basin
Vice President - Transportation	1	1
Assistant	1	1
Director/Manager Train & Loco Operations	4	3
Asst Manager of Train Operations	11	8
Manager of Yard Operations (Yardmasters)	5	5
Crew Callers	6	4
Dispatchers	9	9
Director/Manager - Operations Control	5	5
Director/Manager - Safety & Training	2	2
Director/Manager - Marketing/Customer Service	12	9
Vice President - Engineering/Mechanical & Admin	1	1
Assistant	1	1
Equipment Inspectors & Welders	62	40
TOTAL	120	89

The reduction in the number of non-train operating personnel from that approved by the Board in the September '07 Decision is a function of the LRR's smaller traffic group and reduced volume. WFA/Basin's operating experts also took into account the changes in the LRR's route, including the elimination of the interchanges with BNSF at Donkey Creek/Campbell and the northbound coal traffic moving to those interchanges, and the extension of the LRR's route from East Guernsey to Northport.

The principal supervisory positions shown in TSO Table III-D-2 above have been relocated from Guernsey to Orin in view of the relocation of the former Guernsey Yard (and the LRR's headquarters) from Guernsey to Orin. A discussion of each category of non-train operating employees where the number of employees is different from that shown in the Board's September '07 Decision is set forth below.

**(i) Directors/Managers/Asst. Managers
of Train & Locomotive Operations**

The LRR's supervisory train and locomotive operations personnel now consist of two Managers of Train Operations and one Manager of Locomotive Operations, all based at Orin. This represents a reduction of one Manager of Locomotive Operations position. The reasons for this reduction are that the number of trains (and locomotives) operated in the peak week have declined considerably from the original number, and the large interchanges with BNSF at Donkey Creek and Campbell, and the associated yard at Donkey Creek, have been eliminated which means there is no longer any need for supervisory personnel at Donkey Creek.

These changes have made the LRR much more straightforward to manage. Coal moves in only one direction, and helpers assist loaded trains in one direction only over fewer miles. In addition, the relocated yard at Orin is much more compact than the former Guernsey Yard with its "hour glass" configuration and more challenging topography. Observation of the RTC Model simulation confirms the smoother operation with fewer re-crews and other problems.

(ii) Crew Callers

The number of crew callers has been reduced from three to two given the significant reduction in the number of trains (and thus crews and crew calling desks) operated by the LRR in the peak week.

(iii) Directors/Managers of Marketing/Customer Service

The marketing personnel continue to consist of one Manager of Marketing & Customer Service and two Marketing Managers, as originally proposed by WFA/Basin and approved by the Board (September '07 Decision at 45-46). However, the number of Customer Service managers has been reduced from 11 to eight. The reason, again, is the substantially reduced peak-year coal traffic now handled by the LRR, compared with the volume for the LRR's original traffic group.

(iv) Equipment Inspectors & Welders

The number of equipment inspectors/welders has been reduced from 62 under the original operating plan to 40, and they have been relocated from Guernsey to Orin. This reduction is warranted by the reduction in the LRR's peak-year coal traffic volume. Specifically, the maximum number of empty trains per day moving through a yard for inspection during the LRR's peak traffic period in 2024 has been reduced from the 18 trains formerly moving through Guernsey Yard to 13 trains now moving through Orin Yard. This means that instead of needing three 4-person inspection crews working

each shift on a 24/7 basis,⁶ the LRR now needs only two such crews. A third roving 2-person inspection crew is also stationed at Orin;⁷ this crew performs inspections and light car repairs as needed at locations other than Orin Yard. The inspection procedures and equipment remain as described in Parts III-C-3-b and III-D-3-a-iii of WFA/Basin's Opening Narrative.

A more complete explanation of how the reduced number of equipment inspectors was arrived at is provided in TSO e-workpaper "Equip. Inspectors.pdf;" see also TSO e-workpaper "STB Operating Expense 3rd Supp_051308.xls."

ii. Compensation

Salaries and total annual compensation for the LRR's train crew members and for the non-train operating employees listed in TSO Table III-D-2 above are shown in TSO Table III-D-3 below. The salary levels for each category of employee are the same as those accepted by the Board at pp. 47-50 of the September '07 Decision.

⁶ See Op. Narr. at III-D-23-24.

⁷ This roving crew was stationed at Donkey Creek under the original LRR operating plan, but has been moved to Orin because it is more centrally located and because of the elimination of the large BNSF interchange at Donkey Creek/Campbell.

TSO TABLE III-D-3 LRR Operating Personnel Salaries (Base Year)			
	No. of Employees	Annual Salary	Total Salaries
T&E and Switch Crew Members	133	\$ 83,219	\$11,068,127
Vice President - Transportation	1	\$255,232	\$ 255,232
Assistant	1	\$ 65,178	\$ 65,178
Director/Manager Train & Loco Operations	3	\$ 91,069	\$ 273,207
Asst. Manager of Train Operations	8	\$ 84,428	\$ 675,427
Manager of Yard Operations (Yardmasters)	5	\$ 91,069	\$ 455,343
Crew Callers	4	\$ 92,575	\$ 370,299
Dispatchers	9	\$ 73,534	\$ 661,804
Director - Operations Control	1	\$109,030	\$ 109,030
Manager - Operations Control	4	\$ 91,069	\$ 364,274
Director/Manager - Safety & Training	2	\$ 91,069	\$ 182,138
Director - Marketing/Customer Service	1	\$109,030	\$ 109,030
Manager - Marketing/Customer Service	8	\$102,150	\$ 817,199
Vice President - Engineering/Mechanical & Admin	1	\$255,232	\$ 255,232
Assistant	1	\$ 65,178	\$ 65,178
Equipment Inspectors & Welders	40	\$ 53,307	\$ 87,219
TOTAL	222	\$ xxx	\$17,858,971

Details concerning the compensation levels set forth in TSO Table III-D-3, and fringe benefits (which, as on Opening, were calculated based on 38.5 percent of wages based on the ratio of fringe benefits to total wages paid to all freight rail employees in Wyoming in 2003, as reported by the AAR), are shown in TSO e-workpaper "LRR Salaries.3rd Supp.xls."

The LRR also incurs taxi and overnight expenses for train crews. The number of taxi trips required is shown in TSO e-workpaper “STB Annual Statistics 3rd Supp_051308.xls,” tab “crew taxi.” The development of crew taxi cost is shown in TSO e-workpaper “STB Taxi Distance 3rd Supp_051308.xls.” The number of overnight stays and the cost per stay are shown in these same two spreadsheets. These numbers were calculated in the same manner accepted by the Board in its September ’07 Decision, except that there are no taxi expenses for turnaround crews because the LRR no longer has any such crews.

iii. Materials, Supplies and Equipment

Base-year costs for materials, supplies and equipment for operating personnel (other than maintenance-of-way personnel) were calculated on the same basis as the materials, supplies and equipment costs accepted by the Board in the September ’07 Decision (at 50-51), adjusted for the revised number of items in each category due to the revisions in the LRR’s traffic group, operating plan and personnel requirements. Detailed development of these expenses is found in TSO e-workpaper “STB Operating Expense 3rd Supp_051308.xls,” tab “Summary.”

b. Non-Operating

The LRR’s personnel continue to be designated either as operating personnel or as General and Administrative (“G&A”) staff. The maintenance-of-way employees, while considered operating personnel, are discussed separately in Part III-D-4

below. Those employees who might be considered non-operating personnel on a Class I railroad are all included in the G&A staff. The G&A personnel requirements for the LRR are discussed in the next section.

c. General and Administrative

The Board discussed the LRR's G&A expenses at pp. 42-46 of the September '07 Decision. The Board essentially accepted the G&A staffing proposed by WFA/Basin, except that it added two employees to the Treasury function. Id. at 43. The total G&A staffing approved by the Board was 39 employees.

The LRR's operating, engineering and information technology ("IT") experts have reviewed the G&A staffing as discussed in the September '07 Decision, and have concluded that it should not be changed. While the LRR's total coal traffic volume has decreased by about 68.7% over 20 years, its route miles have increased by about 38%. These changes roughly balance each other out. The G&A functions themselves have not changed at all as the LRR continues to serve the same kind of traffic group in the same general geographic area. The LRR's headquarters has been moved from Guernsey to Orin, WY, but this does not affect either staffing or compensation levels.

The LRR's investment in IT infrastructure has been modified slightly to reflect the minor changes in the LRR's staffing. See TSO e-workpaper "Third Supp Capital Budget.xls." Annual IT operating expenses, which are driven largely by transactional costs for electronic interline carload settlements, have been reduced due to

the reduction in the volume of traffic the LRR is handling. See TSO e-workpapers “Third Supp Operating Budget.xls” and “Third Supp RMI Price Sheet.xls.”

Since the G&A staffing has not changed, the compensation (salaries and benefits) accepted by the Board also have not changed. Accordingly, WTA/Basin continue to use the same G&A compensation figures accepted by the Board at pp. 49-50 of the September '07 Decision. Details on the compensation numbers are included in TSO e-workpaper “STB Operating Expense 3rd Supp_051308.xls,” tab “Summary.”

G&A material, supplies and equipment costs were developed using the same methodologies approved by the Board at pp. 50-51 of the September '07 Decision. The motor vehicle cost has been adjusted to reflect the elimination of one truck given the elimination of one of the equipment inspection crews at Orin Yard. Given the elimination of one Manager of Locomotive Operations that position no longer needs a vehicle, but the vehicle has been retained for use by Orin headquarters personnel given the need to travel the additional distance to Northport on occasion. See TSO e-workpaper “STB Operating Expense 3rd Supp_051308.xls” for details concerning the LRR’s revised equipment and supplies cost (except for MOW equipment and supplies, which are discussed in Part III-D-4 below).

Revised start-up and training costs were calculated using the same methodologies approved by the Board at pp. 51-54 of the September '07 Decision, although the annual expense reflects the reduced employee count particularly for I&E

employees. In accordance with the September '07 Decision (at 53), the LRR's start-up recruitment and training costs are now treated as an operating expense, rather than being capitalized as WFA originally proposed. Details of the LRR's revised start-up and training costs are provided in TSO e-workpaper "STB Operating Expense 3rd Supp_051308.xls," tab "Training."

4. Maintenance-of-Way

The Board discussed WFA/Basin's original maintenance-of-way and structures ("MOW") plan for the LRR extensively at pp. 55-76 of the September '07 Decision. For purposes of this Third Supplemental Opening Evidence, WFA/Basin's MOW experts (Michael Kenyon and Paul Reistrup) have started with the LRR's MOW plan, including functions, staffing, equipment and other costs, approved by the Board in the September '07 Decision. Thus, for example, they have separated the field signal and communications maintenance functions into separate categories, with separate employees for each category, as required by the September '07 Decision at 61-63. The MOW plan described in the September '07 Decision was then modified to reflect the following.

- i. The LRR's reduced traffic densities (gross tonnage moving over various line segments west/north of Guernsey) in the peak year;
- ii. The extension of the LRR system from East Guernsey to Northport,
- iii. The elimination of most of the second (and third) main track between Donkey Creek and Fisher Jct. and its replacement with a single main track, together with strategically-placed sections of second main track (passing sidings) as dictated by the new RTC Model simulation;

- iv. The relocation of the former Guernsey Yard to Orin and its down-sizing; and
- v. The elimination of the interchange with BNSF at Donkey Creek/Campbell and the associated trackage.

The modifications to the MOW plan adopted by the Board resulting from these changes are described below.

a. Field MOW Organization/Staffing

The LRR's original MOW plan had a field organization headed by two Field Maintenance Supervisors and two Assistant Field Maintenance Supervisors, with five track-maintenance districts designed to spread the work out evenly based on geography, track-miles and gross tonnage. The supervisory staff and track-maintenance districts (and the LRR route miles encompassed by each) were described in WFA/Basin's Opening Narrative at pp. III-D-75-79.

The original Field Maintenance Supervisor/Assistant Supervisor staffing remains appropriate.⁸ However, due to the extension of the LRR system to Northport and the changes in track miles west of Guernsey, WFA/Basin's experts have added a sixth track-maintenance district and revised the geographic coverage of each to equalize the work loads of each taking into consideration gross annual tonnage, route miles and track miles. The six districts are as follows:

⁸ Due to the change in the LRR system and traffic patterns, the Assistant Field Maintenance Supervisor formerly headquartered at South Logan, WY has been relocated to Scottsbluff, NE. The other Assistant continues to be based at Reno, WY.

1. Donkey Creek – Eagle Butte Jct. (north end of the Campbell Branch) to MP 25.00 on the Orin Subdivision, including the LRR-owned portions of mine leads north of Milepost 25.00 (36.73 route miles).
2. Reno – MP 25.00 to MP 76.00 on the Orin Subdivision, plus the Reno Branch and the LRR-owned portions of mine leads between these end points (57.44 route miles).
3. Bill – MP 76.00 to MP 122.50 on the Orin Subdivision (46.5 route miles).
4. Orin – MP 122.50 on the Orin Subdivision to Wendover (MP 103.00 on the Canyon Subdivision), including Orin Yard, the interchange tracks at Orin Jct., and the Moba Branch (57.18 route miles).
5. Guernsey – MP 103.00 on the Canyon Subdivision to MP 54.00 on the Valley Subdivision (49.00 route miles).
6. Scottsbluff – MP 54.00 to Northport (MP 0.00) on the Valley Subdivision, including the Northport interchange tracks, plus the track extending to the UP interchange (54.60 route miles).

i. Track-Maintenance District Staffing

The staffing for each of the LRR's six field track-maintenance districts has not been changed, except to add a foreman and three track workers for the sixth district. The current staffing is shown in TSO Table III-D-7 below. (This table reflects only workers assigned to general track maintenance; specialized field maintenance personnel are described in the next section of this narrative.)

**TSO TABLE III-D-7
LRR FIELD TRACK MAINTENANCE FORCES**

<u>Crew HQ</u>	<u>Territory (Subdivision)</u>	<u>From</u>	<u>To</u>	<u>Route Miles</u>	<u>Track Miles</u>	<u>Total Staff</u>
Donkey Creek	Campbell	Campbell Branch		9 50	15 86	1 +3
		Mine Spurs		0 39	0 39	
	Black Hills Orin	E. Campbell (MP 587 45)	W Donkey Creek (MP 587 17)	0 49	0 79	
		Donkey Creek (MP 0 0)	MP 25 00	25 00	44 88	
		Mine Spurs		1 35	1 35	
				<u>36 73</u>	<u>63 27</u>	
Reno	Orin	MP 25 00	MP 76 00	51 00	67 00	1 +3
	Reno	Reno Branch		5 76	10 76	
	Orin/Reno	Mine Spurs		0 68	0 68	
				<u>57 44</u>	<u>78 44</u>	
Bill	Orin	MP 76 00	MP 122 50	46 50	58 95	1 -3
				<u>46 50</u>	<u>58 95</u>	
Orin	Orin	MP 122 50	Bridger Jet (MP 127 28)	4 78	8 15	1 +3
		Orin Yard			25 63	
	Canyon	Bridger Jet (MP 133 21)	Wendover (MP 103 00)	30 21	43 09	
	Orin Casper	Orin Jet Interchange		1 75	1 75	
	Front Range	Wendover (MP 240 88)	Moba Jet (MP 220 74)	20 11	22 55	
		Moba Jet Int Tracks			3 25	
				<u>57 18</u>	<u>104 42</u>	
Guernsey	Canyon	Wendover (MP 103 00)	E. Guernsey (MP 91 40)	11 60	18 62	1 +3
	Valley	E. Guernsey (MP 91 40)	MP 54 00	37 40	50 65	
				<u>49 00</u>	<u>69 27</u>	
Scottsbluff	Valley	MP 54 00	MP 0 00	54 00	66 60	1 +3
	Valley/Canyon	BNSF/LP Int Tracks		0 60	0 60	
				<u>54 60</u>	<u>67 20</u>	
Total Miles				<u>301.45</u>	<u>441.55</u>	
Total Track Crews						6
Total Track Personnel						24

Each of the LRR's six field track-maintenance crews continues to consist of four persons: a foreman and three track workers, as approved by the Board (September '07 Decision at 58-59).

ii. Other Field Maintenance Personnel

Other specialized field maintenance staff are shown in Table III-D-8 on the next page. These additional field personnel include track inspectors and other specialized track-maintenance workers for various functions such as maintenance of the signal and communications system and bridge and building maintenance. The field personnel shown in table III-D-8, which are not assigned to specific maintenance districts, are consistent with the staffing approved by the Board at pp. 60-64 of the September '07 Decision with appropriate revisions to reflect the changes in the LRR's traffic density and system configuration.

**TSO TABLE III-D-8
OTHER FIELD MAINTENANCE PERSONNEL**

<u>Position</u>	<u>Number of Employees</u>
Track Inspectors	4
B&B Inspector	1
Bridge Crew Foreman/Members	5
Signal/Communications Supervisors	2
Signal Test Inspector	1
Signal Maintainers	17
Comm Maintainers/Technicians	8
Welding Crew Members	6
Ditching Crew Foreman	1
Ditching Crew Member ^{1/}	1
Spot Surfacing Crew Foremen	2
Spot Surfacing Crew Members ²	2
Lubricator Technicians	2
Water Plant & Fueling Sys. Technician	1
Electrical Technician	1
Machine Operators	7
Crane Operator/Truck Driver-Purchasing	1
Mechanics	2
Total	64

^{1/} Gradall operator continues to be included in the Machine Operators total.

² T-amp and regulator operators continue to be included in the Machine Operators total.

The 64 specialized field-maintenance personnel listed above represent an increase of 36% over the 47 such personnel reflected in WFA/Basin's original MOW plan.⁹ The revised field MOW staffing level is consistent with the level approved by the Board, given the LRR's reduced traffic volume, the elimination of the BNSF interchanges and related facilities at Donkey Creek/Campbell, the extension of the system from East Guernsey to Northport, and the countervailing net reduction in the LRR's track miles from 446.75¹⁰ to 441.55, as shown in Part III-B-2 above.

It should be noted that, consistent with the September '07 Decision, WFA/Basin have added one field supervisor for the signals and communications functions, for a total of two. The position title continues to be "Signal/Communications Supervisor." but one of the two supervisors will be primarily responsible for the field signal maintenance function and the other will be primarily responsible for field maintenance of the communications system. The field signals and communications maintenance forces have been separated into two positions – Signal Maintainer and Communications Maintainer/Technician – as mandated by the Board at p. 63 of the September '07 Decision. WFA/Basin have also added other specialized field maintenance personnel consistent with BNSF's (and the Board's) organization of the MOW function as well as the September '07 Decision.

⁹ See Op. Narr. at III-D-84.

¹⁰ September '07 Decision at 26.

As shown in Tables III-D-7 and III-D-8 above, the LRR's field MOW force now consists of a total of 92 employees, of whom six (the four Field and Assistant Field Maintenance Supervisors and the two Signal/Communications Supervisors) are supervisory employees, 24 are general track-maintenance employees, and 62 are employees who perform specialized functions. The 92 field employees equate to one employee for every 3.28 route miles and one employee for every 4.80 track miles.

b. Engineering/MOW Management Personnel

The LRR's MOW function continues to be headed by the Vice President-Chief Engineer & Mechanical, who is the railroad's Chief Engineer and Chief Mechanical Officer. The LRR's other engineering/mechanical staff supervisory positions are summarized in TSO Table III-D-9 below. These positions are unchanged from those described in Part III-D-4 of WFA/Basin's Op. Narr., except that one B&B Inspector has been moved to the field MOW forces as shown in Table III-D-8 above and a clerk has been added to handle the administrative part of the MOW purchasing and materials management function. One purchasing/materials position has also been added to the LRR's field MOW function, as shown in TSO Table III-D-8 above.

TSO TABLE III-D-9 LRR MOW/MECHANICAL SUPERVISORY STAFF (Report to VP-Chief Engineer & Mechanical)	
<u>Position</u>	<u>Number of Employees</u>
Track Engineer	1
Field Production Engineer	2
Manager of Contracts	1
Manager of Administration & Budgets	1
Clerks	3
Clerk - Purchasing	1
Signals & Communications Engineer	1
Assistant Signal Engineer	1
Assistant Communications Engineer	1
Bridge Engineer	1
Manager of Mechanical Operations	1
Safety, Training & Environmental Manager	1
Total	15

c. **Compensation for MOW Employees**

Compensation for the LRR's revised MOW staffing uses the Board-approved salary and benefit levels for the classes of employees involved. Details are provided in TSO e-workpaper "Spot Maint w fa3rdsup.xls," tab "MOW Personnel "

d. MOW Equipment

The LRR's MOW equipment remains the same as that approved by the Board at pp. 67-69 of the September '07 Decision, except as noted below. The same Board-approved unit costs were used for each type of equipment.

The added field track-maintenance district described above in connection with TSO Table III-D-7 requires the same complement of equipment and tools as the other five districts. This equipment includes a hi-rail crew-cab boom truck, air compressor, rail drill, rail saw, hydraulic rail puller, impact wrench, straight grinder, and tamping tool set. In addition, a second pickup truck has been added for the second field Signal/Communications Supervisor, and the added B&B crew foreman and members have been equipped with a hi-rail crew-cab boom truck, air compressor and impact wrench. Details for the added MOW equipment are provided in TSO e-workpaper "Spot Maint wfa3rdsup.xls," tab "Equipment."

e. Contract Maintenance

WFA/Basin have followed the same approach to contract maintenance that the Board approved at pp. 69-76 of the September '07 Decision. WFA/Basin's MOW experts have modified the individual contract costs as necessary to reflect the LRR's revised configuration and tonnage levels. For example, rail grinding quantities were revised to reflect the new peak-year gross tonnages, but the Board-approved unit costs

continue to be used for this item. See TSO e-workpaper “Spot Maint wfa3rdsup.xls.” tab “Contract Work” for details.

f. Summary

The LRR’s total annual MOW budget for the staff and equipment described above that is assigned to operating expense in the first year of operations is \$13.4 million See TSO e-workpaper “Spot Maint wfa3rdsup.xls,” tab “Spot Maintenance Summary.”

5. Leased Facilities

The LRR continues to have no leased track facilities, as it does not share any joint facilities with another railroad. All of the LRR’s facilities continue to be constructed and owned outright.

6. Loss and Damage

WFA/Basin have re-calculated the LRR’s loss and damage costs for the base year using the methodology accepted by the Board at p. 55 of the September ‘07 Decision and applying that methodology to the LRR’s adjusted base-year tonnage. See TSO e-workpaper “STB Operating Expense 3rd Supp_051308.xls,” tab “Summary.”

7. Insurance

WFA/Basin calculated revised LRR insurance expenses for the base year at the same rate approved by the Board at p. 76 of its September ‘07 Decision (3.20% of total operating expenses). Details are provided in TSO e-workpaper “STB Operating Expense 3rd Supp_051308.xls.”

8. Ad Valorem Tax

WFA/Basin used the same methodology agreed to by the parties to calculate the LRR's ad valorem property tax for the State of Wyoming.¹¹ As BNSF provided no information in discovery regarding the ad valorem taxes it paid in Nebraska, ad valorem taxes for the LRR's 54.7 route miles in Nebraska are based on the ad valorem tax rate in Wyoming. The extension of the LRR from East Guernsey to Northport increases the ad valorem tax in the base year from \$1.41 million to \$1.95 million. Details are provided in TSO e-workpaper "STB Operating Expense 3rd Supp_051308.xls," tab "Summary."

9. Other – Expenses Related to Rerouted Traffic

As described in Parts III-A and III-C above, the LRR carries a total of 18.7 million tons of rerouted coal traffic in 2005. All of this traffic is "internally" rerouted, that is, the reroute is entirely local to the LRR and it is interchanged to another carrier at a point (Northport) on its real-world route of movement.

The rerouted traffic includes { } million tons moving from Eagle Butte Mine to Westar Energy's Jeffrey Energy Center ("JEC") in Kansas, which is interchanged to the UP at Northport; and { } million tons moving to BNSF-served points south of Northport, which is interchanged to BNSF at Northport.

¹¹ See September '07 Decision at 55.

With respect to the JEC traffic, the LRR simply steps into BNSF's shoes as the originator of the traffic. The LRR interchanges the JEC traffic with UP at exactly the same point (Northport) where BNSF interchanges the JEC traffic with UP

With respect to the rerouted traffic that the LRR interchanges with BNSF at Northport, this is cross-over traffic and Northport becomes a new interchange point between the LRR and BNSF for this traffic. WFA/Basin's operating experts have considered whether BNSF would be likely to incur any net additional costs as a result of interchanging this traffic at Northport, and have concluded that it would not. In fact, as shown below, these reroutes should result in a net cost saving to BNSF

First, Northport is already a crew-change point for BNSF for the JEC traffic, which BNSF interchanges with UP at Northport. Thus BNSF will not incur any costs for establishing a new crew-change point. The trains carrying the rerouted cross-over traffic presently change crews at Alliance, NE to the north and Sterling, CO to the south. Thus, instead of beginning or ending their tour of duty at Alliance, these crews will do so at Northport which is located 34 miles south of Alliance. This will result in fewer BNSF crews "dying" under the hours of service law, and thus less re-crew expense for BNSF.

Second, BNSF services the trains carrying the rerouted cross-over traffic at Alliance, where it has a large yard and locomotive maintenance facility. This includes swapping out locomotive consists, fueling and servicing locomotives, performing 1500-

mile car inspections, switching bad order cars out of the trains, and switching spare cars into the trains. As a result of the reroute, these trains no longer operate through Alliance and these train servicing functions are instead performed by the LRR at Orin Yard. Thus, BNSI no longer incurs any costs for these functions at Alliance.¹²

Third, BNSF's route via Edgemont and Alliance, which is used to move the rerouted coal trains (including the JEC trains), requires the use of helper locomotives and crews to enable loaded trains to negotiate Crawford Hill. Crawford Hill, the ruling grade for eastbound coal trains operating between Donkey Creek and Alliance via Edgemont, is located on the Black Hills Subdivision between Crawford and Belmont, NE. The reroute via the LRR enables BNSF to avoid the cost of helping the subject trains over Crawford Hill.

¹² In fact, BNSF would enjoy these same kinds of cost reductions with respect to the JEC interchange traffic, as the JEC trains also move through Alliance and are serviced there. The LRR services the JEC trains at Orin.

III. E. NON-ROAD PROPERTY INVESTMENT

1. Locomotives

As previously described, the LRR continues to lease all of its locomotives. The annual locomotive lease cost continues to be included as an operating expense above.

2. Railcars

The LRR also continues to lease all of its railcars. The annual lease cost again continues to be included as an operating expense.

3. Other

Most of the LRR's other equipment, including company vehicles, maintenance-of-way equipment such as hi-rail trucks, radios, and telephones (see Parts III-D-3 and III-D-4 above) continues to be leased. The annual lease cost for this equipment is included as an operating expense.

Some items of equipment continue to be purchased, in particular computers and related hardware. The LRR's computer system needs, and the associated capital investment, are described in TSO c-workpaper "Third Supp Capital Budget.xls" which details the LRR's revised IT requirements.

III. F. ROAD PROPERTY INVESTMENT

In this section of their Third Opening Supplemental Evidence, WFA/Basin have modified the road property investment costs of the LRR, as accepted by the Board in its September 10, 2007 decision ("September '07 Decision") and related technical corrections (decision served Feb. 29, 2008), to reflect the modifications to the SARR system discussed in detail in Part III-B above and the revisions to the operating plan addressed in Parts III-C and III-D-4 above. Unless otherwise noted, in making the necessary changes to the road property investment costs, WFA/Basin's engineering experts have continued to utilize the Board's accepted unit costs, roadbed design, and other relevant parameters. However, due to the extension of the LRR system from East Guernsey to Northport, WFA/Basin's engineers, where necessary, have modified the Board-approved unit costs to reflect the revised weighting of the applicable Means Handbook location factors.¹

¹All of the unit costs from the Means Handbook utilized by the WFA/Basin engineers are adjusted by the Means Handbook location factors. The cost figures in the Means Handbook represent national averages. The Means Handbook city cost indices for site construction are used to develop weighted average factors based on LRR route miles. See TSO e-workpaper "LRR GRADING 3rd Supp.xls," tab "III-F Loc F-factor."

The LRR's revised road property investment costs are summarized in TSO

Table III-F-1 below.

TSO TABLE III-F-1	
<u>LRR ROAD PROPERTY INVESTMENT COSTS</u>	
(millions)	
<u>Item</u>	<u>Investment</u>
1 Land	\$ 11 0
2 Roadbed Preparation	174 3
3 Culverts	15.7
4 Track	309 8
5 Tunnels	28 6
6 Bridges	59 0
7 Signal, Communications & Other Equipment	59 3
8 Buildings & Facilities (including Fueling Facilities)	36 1
9 Public Improvements	7 8
10 Subtotal	\$ 701 8
11 Mobilization	\$ 20 7
12 Engineering	69 1
13 Contingencies	<u>78 1</u>
14 Total Road Property Investment Costs	\$869 7

1. Land

The original route of the LRR was located entirely in the State of Wyoming.

The revised LRR configuration now extends into Nebraska, following the BNSF's route from Guernsey, WY, through Scottsbluff, NE and on to Northport, NE. WFA/Basin have enlisted their previous land valuation expert, Robert J. Brockman, to develop a land acquisition cost for the new elements of the LRR's route, including necessary microwave tower locations. In addition, Mr. Brockman has adjusted his land acquisition costs for the original LRR to reflect the reduction in the LRR's acreage due to the removal of the

Donkey Creek. South Logan and Guernsey Yards, as well as the minor modifications made to the route miles of the original LRR as explained in Part III-B above. Mr. Brockman has also adjusted his land acquisition costs for the original LRR to reflect the addition of the Orin Yard, which is located within the LRR's original configuration.

For the revisions made to the land acquisition costs for the original LRR, Mr. Brockman simply adjusted the appropriate acreage figures in the Board-produced spreadsheet "STB LRR Land Costs.xls." See TSO e-workpaper "STB LRR Land Costs Revised.xls." For the new portion of the LRR extending from East Guernsey to Northport, Mr. Brockman prepared an appraisal report consistent with the methodology he used in preparing the LRR's Opening land acquisition costs – a methodology accepted by the Board with only a minor modification to the assemblage factor applicable to the Orin, Campbell and Reno Subdivisions (an issue not relevant to the portion of the LRR's route between East Guernsey and Northport). Mr. Brockman's new land acquisition appraisal is included as TSO Exhibit III-F-1.²

² There are slight variations in costs and acres between Mr. Brockman's report and his supporting spreadsheets "sarr land 2008.xls" and "sarr-total value of all.xls." These differences reflect minor modifications made after Mr. Brockman prepared his report. In particular, the segment from East Guernsey to Fort Laramie was shortened by 0.30 miles because the new LRR line segment starts at MP 91.40, whereas Mr. Brockman started his valuation at MP 91.70. The segment ending at Northport was extended by 0.60 miles to account for the BNSF South interchange track and the UP interchange track shown in TSO Exhibit III-B-1, p. 9.

ISO Table III-F-2 below summarizes the LRR's real estate acreage and costs.

TSO TABLE III-F-2 <u>LRR LAND COSTS</u>		
<u>Property Type</u>	<u>Acreage</u>	<u>Cost</u>
ROW	3,527	\$10,462,336
Yards	92	\$111,405
Microwave Tower Sites	99	\$412,410
TOTAL	3,718	\$10,986,151

a. Right-of-Way Acreage

The LRR needs 3,527 acres for its right-of-way at a total acquisition cost of \$10.46 million. This cost reflects the route miles and acreage for the LRR segment between East Guernsey and Northport, as well as the Board-approved cost per acre for the original segments of the LRR and the modifications to the total acreage necessitated by the changes in LRR route miles detailed in Part III-B-1 above.

In this Third Supplemental Opening evidence, WFA/Basin have used a 100-foot wide right-of-way ("ROW") for the entire LRR. WFA/Basin recognizes that in its September '07 Decision, the Board generally accepted the 100-foot wide ROW proposed by WFA/Basin, but added additional land acquisition costs to reflect the need for a 105-foot average ROW width between Donkey Creek and Bridger Jct. Id. at 89-90. However, the need for the additional ROW width between Donkey Creek and Bridger Jct. was driven by WFA/Basin's configuration of this segment, which included several sections

where four or five tracks were laid abreast, usually with 25-foot track centers. Due to the reduction in the traffic the LRR is handling over this segment, the track configuration has been modified by reducing the number of main tracks at most locations so that no average section of the ROW will exceed 100 feet in width. Consequently, WFA/Basin have not included the Board's additional ROW costs in their final land acquisition costs for the revised LRR.

b. Yard Acreage

The LRR will acquire property for a yard at Orin, WY. This yard will also accommodate the LRR headquarters, locomotive and car shops, and other facilities which have been relocated from Guernsey, WY. See TSO Exhibit III-B-1, p. 5. A total of 92.55 acres will be acquired for the Orin Yard at a cost of \$111,405.

The Guernsey, South Logan and Donkey Creek Yards have been removed from the revised LRR, and the associated costs have been deleted from the "STB LRR Land Costs Revised.xls" spreadsheet.

c. Other Acreage

The original configuration of the LRR included 69 acres to accommodate 23 microwave towers placed along the LRR. The original microwave tower land costs as modified by the Board are reused here. For the new segment from East Guernsey to Northport, the LRR needs an additional 30 acres to accommodate 10 additional microwave tower locations.

d. Property Values and Methodology

Property values for the new segment from East Guernsey to Northport were determined by evaluating the land along the BNSF ROW being replicated and using the sales comparison approach (across-the-fence) for vacant land. This method was accepted by BNSF, and generally accepted in the September '07 Decision (although it was not specifically addressed by the Board). See generally September '07 Decision at 78-79; see also Xcel I at 88-89 (supporting the sales comparison approach and ATT values). In particular, Mr. Brockman or one of his assistants either drove or flew over all relevant portions of the East Guernsey to Northport segment. Mr. Brockman also assembled comparable sales data for the segment. Consistent with the Board's treatment of properties south of Bridger Jct. (September '07 Decision at 78), no assemblage factor was applied to the new segment. Mr. Brockman valued the new segment as of April 15, 2008. The property values were, therefore, indexed back to October 1, 2004 (the date Mr. Brockman used in his original report submitted as part of WFA/Basin's Opening Evidence).

For the original LRR segments, the same Board-accepted values per acre were used again. Consistent with the methodology used by the parties and approved by the Board (September '07 Decision at 78-79), Mr. Brockman also included the Board-approved 6.65 assemblage factor for land north of Bridger Jct.

Based on the investigation and analysis undertaken by Mr. Brockman, WFA/Basin have determined that the cost of the fee simple estate in the various line segments as of October 1, 2004, subject to all stated assumptions and limiting conditions described in TSO Exhibit III-F-1 and Opening Exhibit III-F-2, is \$10.99 million.

2. Roadbed Preparation

WFA/Basin's expert engineering witnesses, Harvey Stone (now Senior Associate Vice President of TranSystems, Inc.) and Charles Stedman (Vice President of I. E. Peabody & Associates, Inc.) have developed revised roadbed preparation costs consistent with the Board's September '07 Decision. In particular, WFA/Basin's engineers have continued to use the same unit costs as those accepted by the Board in its September '07 Decision. However, the unit costs have been adjusted to account for the change in the weighted-average location factors necessitated by the change in the LRR's route miles. In addition, to the extent required, roadbed preparation quantities have been adjusted to reflect the configuration changes to the original LRR. Roadbed preparation quantities have also been developed for the new segment between East Guernsey and Northport, as well as the new yard at Orin.

A summary of the LRR's total roadbed preparation costs is presented in TSO Table III-F-3 below.

**TSO TABLE III-F-3
LRR ROADBED PREPARATION COSTS¹¹**

		Investment (Millions)
<u>Item</u> (1)	<u>Cost</u> (2)	
1 Clearing and Grubbing	\$ 0 31	
2 Earthwork - Line Segments		
a Common	62 75	
b Loose Rock	5 37	
c Solid Rock	14 13	
d Borrow	61 06	
e Tunnel Daylighting	14 80	
f Land for Waste Excavation	0 16	
3 Earthwork - Yards	3.07	
4 Drainage ²¹		
a Lateral Drainage	0 07	
5 Culverts ³¹	15 73	
6 Retaining Walls	0 22	
7 Rip Rap	1 04	
8 Relocation of Utilities	1 81	
9 Seeding/Topsoil Placement	3 00	
10 Water for Compaction	3 86	
11 Surfacing for Detour Roads	0 48	
12 Environmental Compliance	<u>2 19</u>	
13 Total	\$ 190 05	

¹¹ See TSO e-workpaper "LRR GRADING 3rd Supp.xls" except where noted

²¹ Yard drainage is included in building site development costs

³¹ See TSO e-workpaper "Restated Culvert Quantities and Costs wfa3rdsupp.xls."

a. Clearing and Grubbing

i. Quantities of Clearing and Grubbing

For the original portions of the LRR, WFA/Basin's engineers have used the quantities of clearing and grubbing accepted by the Board in its September '07 Decision. However, those quantities have been modified to reflect the slight change in route miles for the original segments of the LRR (see Part III-B-1 above and TSO Exhibit III-B-1).

For the new LRR segment from East Guernsey to Northport, WFA/Basin's engineers developed clearing and grubbing quantities from the appropriate ICC Engineering Reports. These Reports were obtained from the National Archives and Records Administration. See TSO e-workpaper "Additional ICC Engineering Reports.pdf"

TSO Exhibits III-F-2 and III-F-3 identify the acres per track mile that were cleared for the construction of the line segments the LRR is now replicating. The quantities obtained from all of these documents are assigned to the LRR's line segments in TSO Exhibit III-F-4.

The clearing quantities (acres per track mile) were then increased by the ratio of the current roadbed specifications to the original construction specifications and applied to the track miles (including yards and sidings) of the LRR's line segments as described in WFA/Basin's Opening Narrative at III-F-15-17. Exhibit III-F-4 details the calculation of the LRR acreage requiring clearing. Further details are provided in TSO e-workpaper "LRR GRADING 3rd Supp.xls."

The acres per track mile of grubbing for the original LRR were modified in the same manner as the acres of clearing. Likewise, the quantities of new grubbing were developed in the same manner as the clearing quantities. These figures are also displayed in TSO Exhibits III-F-2 and III-F-3 and applied to the LRR's line segments in TSO Exhibit III-F-4 in the same manner as the acres for clearing.

ii. Clearing & Grubbing Costs

WFA/Basin utilized the Board-approved unit costs, adjusted to reflect the revised location factors discussed above, and included the Board's addition of clearing costs for the Campbell, Orin and Reno Subdivisions. September '07 Decision at 81-82. WFA/Basin's total costs for these items reflect the changes in quantities for the original LRR segments as discussed above and the addition of the East Guernsey to Northport segment.

The revised LRR requires 3,013 acres to be cleared at a cost of \$0.27 million and 14 acres to be grubbed at a cost of \$0.04 million for a total cost of \$0.31 million for clearing and grubbing at 4Q04 levels. See TSO Exhibit III-F-4.

b. Earthwork

WFA/Basin's revised LRR configuration utilizes the same earthwork-related parameters that the Board accepted in its September '07 Decision, including items such as roadbed width, the methodology for developing particular grading quantities for various line segments, and the calculation of special grading items such as the open cutting of former Tunnel No. 2 on the Canyon Subdivision. WFA/Basin's engineers have reused the Board-approved quantities and unit costs (as adjusted for location factor weighting) for the original LRR, except they have modified those quantities to reflect the changes in route and track miles described in Part III-B and TSO Exhibit III-B-1, as well as the changes to yard locations.

For the new segment from East Guernsey to Northport, WFA/Basin's engineers utilized the ICC Engineering Reports to develop the relevant grading quantities, and they adjusted those quantities to reflect a modern roadbed width, in accordance with the procedure implicitly accepted by the Board in its Decision. Id. at 82, 84. Likewise, WFA/Basin's engineers applied the Board-approved unit costs to the various material types (i.e., common earthwork, loose rock, etc.), except that the engineers modified those unit costs, if Means Handbook-based, to reflect the changed location factor weighting.

Details of the LRR's revised earthwork calculations for main line segments are shown in TSO Exhibits III-F-5 through III-F-11

i. LRR Yard

The revised LRR system has one yard, the Orin Yard. The Orin Yard is located just west (although geographically northeast) of Bridger Jct (MP 127) on the Orin Subdivision. The total quantity of earthwork for the Orin Subdivision line segment that runs through the yard area was based on public data from which per-mile quantities for main line and adjacent track were developed. See September '07 Decision at 84; see also WFA/Basin Op. Narr. at III-F-24-25. WFA/Basin's engineers developed the grading quantities for the Orin Yard based on the same per-mile quantities for adjacent track that they used for the mainline segments in this territory. Specifically, WFA/Basin's engineers utilized 55,178 CY per mile (based on 25-foot spacing). See TSO Exhibit III-F-10. This method for calculating earthwork quantities on the Orin Line was accepted by

BNSF and the Board for the original LRR's South Logan Yard, which was also located on the Orin Subdivision (this yard has now been removed). September '07 Decision at 85

ii. Total Earthwork Quantities

Once the total quantities for the revised LRR system's various line segments and yards were determined, WFA/Basin's engineers, consistent with the methodology they used in their earlier submissions and implicitly accepted by the Board (September '07 Decision at 84), separated the earthwork requirements into four types of material – common, loose rock, solid rock and borrow. This was done by distributing the total quantities for the line segments developed in TSO Exhibit III-F-9 based on the distribution percentages obtained from the ICC Engineering Reports and the Orin Line and Campbell Subdivision construction documents. In addition, the Orin Yard quantities were distributed in the same manner as other Orin Line segments.

The distribution of the earthwork quantities by type of material is shown in TSO Exhibit III-F-11 and summarized in TSO Table III-F-4 below.

**TSO TABLE III-F-4
LRR EARTHWORK
QUANTITIES BY TYPE OF MATERIAL MOVED**

	<u>Type of Earth Moved</u>	<u>Cubic Yards</u> <u>(000)</u>
	(1)	(2)
1	Common Excavation	30,330
2	Loose Rock Excavation	618
3	Solid Rock Excavation	1,339
4	Borrow	<u>4,460</u>
5	Total	36,747

Source: TSO Exhibit III-F-11

iii. Earthwork Unit Costs

WFA/Basin's engineers have utilized the same earthwork unit costs approved by the Board in its September '07 Decision at 86-88. They have, however, applied the adjusted location factor to those unit costs when applicable.

iv. Fine Grading

Consistent with the Board's September '07 Decision, WFA/Basin's engineers have not included fine grading costs in their roadbed preparation calculation because the cost of this activity is already included in the common excavation unit cost. Id. at 88.

v. Land for Waste Excavation

WFA/Basin's engineers utilized the procedures approved by the Board in its September '07 Decision (at 91) to determine the quantity of acreage that would be required to place the unused excavation in a suitable location. WFA/Basin's engineers have determined that the revised LRR system will require 400.3 acres of rural land for this purpose at the Board-approved cost of \$400 per acre for a total cost of \$160,102.

vi. Total Earthwork Cost

The earthwork cost for the revised LRR system, including land for waste excavation, is \$145.6 million.

c. Drainage

i. Lateral Drainage

In their earlier evidentiary submissions, the parties agreed on the quantities and costs for lateral drainage, which the Board approved. September '07 Decision at 88. WFA/Basin's engineers have used the same methodology and costs for the revised LRR system, except to the extent that modifications to the Board-approved quantities were necessary to accommodate the LRR's new East Guernsey-Northport segment and other configuration changes to the original LRR. In addition, the unit cost was modified to reflect the revised location factor. Total investment in lateral drainage for the revised LRR is \$69,735. See Exhibit III-F-4 and TSO e-workpaper "LRR GRADING 3rd Supp.xls."

ii. Yard Drainage

For the Orin Yard, WFA/Basin's engineers followed the same drainage methodology utilized for the original LRR yards and accepted by the Board. September '07 Decision at 88. The engineers also utilized the same unit costs accepted by the Board. Id. Detailed calculations of the yard drainage is included in TSO e-workpaper "WFA THIRD SUPP Building and Sites.xls."

d. Culverts

The Board approved WFA/Basin's methodology for the type and size of culverts to be placed on the LRR. September '07 Decision at 88-89. The Board also approved WFA/Basin's unit costs for the different culvert types. Id. There was a slight difference in the total cost between WFA/Basin's rebuttal costs and the Board's final costs. These differences were attributable to the minor configuration changes the Board made to the LRR.

For the revised LRR system, WFA/Basin's engineers have reused the culvert location, sizes and unit costs (adjusted for the revised location factor weighting) that the Board accepted for the original LRR, but they have adjusted the lengths of certain of the culverts (or eliminated them as necessary) to reflect the configuration changes detailed in TSO Exhibit III-B-1. For the new segment of the LRR, WFA/Basin's engineers utilized the Valley Subdivision track charts produced by BNSF in discovery to develop a list of culverts that the LRR will replicate (the BNSF's culvert inventory did

not extend beyond Wyoming). In addition, for the new East Guernsey-Northport segment, WFA/Basin's engineers utilized the same unit costs applied to culverts on the original portions of the LRR. See TSO e-workpaper "Restated Culvert Quantities and Costs wfa3rdsupp.XLS."

c. Other

i. Sideslopes

The LRR continues to use the Board-approved average side slopes of 1.5:1. September '07 Decision at 83.

ii. Ditches

The LRR continues to use the ditch configuration (two feet wide, two feet deep and trapezoidal in section) agreed to by the parties (see BNSF Reply Narr. at III.F-77), but not specifically addressed in the Board's September '07 Decision.

iii. Retaining Walls

For the original LRR, the parties agreed on the quantities and costs for existing retaining walls, which the Board subsequently approved.³ September '07 Decision at 89. WFA/Basin's engineers have reused the quantities and unit costs for the original LRR, but they have adjusted those quantities and resulting costs where appropriate to reflect configuration changes to the original LRR and revisions to the

³ The agreed-upon costs were exclusive of BNSF's proposed additional ROW retaining walls, which the Board summarily rejected. September '07 Decision at 89-90.

applicable location factor weighting. For the new LRR segment between East Guernsey and Northport, WFA/Basin's engineers, consistent with the methodology utilized in earlier submissions, derived any additional retaining wall quantities from the ICC Engineering Reports. WFA/Basin's engineers also applied the same unit costs accepted by the Board, but they adjusted those unit costs to reflect the revised location factor weighting. See TSO Exhibit III-F-4 and TSO e-workpaper "LRR GRADING 3rd Supp.xls" for quantity and unit cost details.

iv. Rip Rap

WFA/Basin and BNSF agreed on the unit cost for rip rap and the quantities required, except to the extent that each party had minor differences in route miles. The Board approved WFA/Basin's cost for rip rap. September '07 Decision at 90.

WFA/Basin have reused the Board-approved methodology and unit cost (adjusted for the revised location factor) for the revised LRR, but they have adjusted the total quantity to reflect the revisions and additions to the LRR's route miles shown in TSO Exhibit III-B-1.

v. Relocating and Protecting Utilities

The Board approved WFA/Basin's rebuttal costs for relocating and protecting utilities on the Orin, Campbell and Reno Subdivisions. September '07 Decision at 90. WFA/Basin's experts continue to use the Board-approved relocation

costs in this Third Supplemental Opening evidence, adjusted to reflect the minor modifications to the LRR's route miles on these segments.

WFA/Basin and BNSF agreed that relocation of utilities was not necessary on the older segments of the LRR (the Canyon, Front Range and Black Hills Subdivisions) because those lines were constructed by BNSF's predecessors in the 19th and early 20th centuries and few, if any, utility lines existed at that time and would have had to be relocated. The new LRR segment between East Guernsey and Northport was constructed in the same time period as these other older segments. Thus, WFA/Basin's engineers have not included any utility relocation costs for the East Guernsey to Northport portion of the revised LRR.

vi. Seeding/Topsoil Placement

The Board accepted WFA/Basin's quantities and unit costs for seeding and topsoil placement -- the BNSF figures differed only to the extent the parties' route miles differed. September '07 Decision at 90. WFA/Basin's engineers continue to use the same unit costs, but they have adjusted their quantities as required by the configuration changes to the original LRR. For the East Guernsey-Northport segment, the embankment protection quantities were obtained from the ICC Engineering Reports and the Board-accepted unit costs were applied. As shown in TSO Exhibit III-F-12, the total LRR investment costs for seeding/placing topsoil are \$3.0 million.

vii. Water for Compaction

The Board accepted WFA/Basin's calculation of the quantity of water required per cubic yard of earthwork and the related unit cost, as did BNSF. September '07 Decision at 91. The resulting differences in costs were attributable to the differences in earthwork quantities between WFA/Basin and BNSF. WFA/Basin's engineers continue to use the Board-approved unit cost, and they have adjusted their total cost for water for compaction to reflect the earthwork quantities of the revised LRR. Total revised costs for water for compaction are \$3.9 million. See TSO Exhibit III-F-12

viii. Surfacing for Detour Roads

The parties agreed on the unit costs and quantities for road surfacing, and the Board accepted those figures. September '07 Decision at 91. Both parties only included this cost item for the newer portions of the lines being replicated by the LRR, namely the Campbell, Orin and Reno Subdivisions.

The new East Guernsey to Northport line segment replicates a BNSF line that was built around the same time as the Canyon, Black Hills and Front Range Subdivisions, for which the parties did not include any cost for detours given their age. Thus, WFA/Basin's engineers have not included any detour costs for the East Guernsey to Northport segment. Accordingly, they continue to use the Board-accepted quantities and unit costs (adjusted to reflect the revised location factor). The revised investment for surfacing for detour roads totals \$478,799. See TSO Exhibit III-F-12.

ix. Environmental Compliance

The parties generally agreed on environmental compliance costs, but they differed slightly due to differences in route miles. The Board accepted WFA/Basin's route miles and related costs for environmental compliance. September '07 Decision at 91.

Like surfacing for road detours, the parties included environmental compliance costs on the newer BNSF lines being replicated (Campbell, Orin and Reno Subdivisions), and the parties excluded such cost on the older segments being replicated (Canyon, Black Hills and Front Range Subdivisions) because such remedial measures were not required when these lines were originally constructed. As the new East Guernsey-Northport segment replicates a BNSF line built at the same time as the other older subdivisions, WFA/Basin's engineers have not included any additional environmental compliance costs. Thus, they continue to use the Board-approved methodology and unit cost, but have adjusted the applicable route miles to reflect the minor modifications to the LRR's configuration described in Part III-B-1 above. The revised environmental compliance costs are \$2.19 million See TSO Exhibit III-F-12.

3. Track Construction

The Board's September '07 Decision and related technical corrections served as the basis for the development of the revised LRR's track construction costs. Id. at 91-107. In other words, WFA/Basin's engineers continue to use the same basic track

construction parameters accepted by the Board, such as ballast and subballast depth, tie type and spacing, and other items, such as spiking patterns. Thus, with certain specific exceptions explained below, WFA/Basin's engineers have simply recalculated the track construction costs to reflect the changes made to the LRR's configuration.

However, the modifications to the LRR's configuration did necessitate several important changes to the LRR's track construction costs. First, the Guernsey construction railhead was eliminated because, with the exception of subballast, there is no way to deliver track materials to this railhead by rail without using a portion of BNSF track now being replicated by the LRR. And even though it might be possible to deliver subballast to Guernsey, it would probably be impractical or impossible to move that subballast elsewhere. As a result, WFA/Basin have discontinued the use of subballast originating in Guernsey. Instead, they have elected to use subballast from the Granite Canyon facility located at Granite, WY. The Granite Canyon facility already supplied part of the original LRR's subballast and all of its ballast.

Second, WFA/Basin's engineers established a railhead at Northport. The costs to transport materials once destined for the Guernsey railhead have been modified to reflect this change.

Third, with the elimination of the Donkey Creek Yard and Campbell interchange facilities, the two railheads at those locations were moved – west in the case of the Donkey Creek railhead and east in the case of the Campbell railhead -- so that the

railheads are on either side of the 0.49 mile segment of the Black Hills Subdivision that the revised LRR system now replicates.

Fourth, WFA/Basin have modified the type of rail used in certain segments to reflect the changes in the LRR's density over certain segments. The changes in rail type are explained in Part III-B-2 above.

The major track construction cost categories for the revised LRR are summarized in TSO Table III-F-5 below.

TABLE III-F-5	
<u>TRACK CONSTRUCTION COSTS</u>	
(\$ millions)	
<u>Item</u>	<u>Cost</u> ^{1/}
Geotextile Fabric	\$ 0.22
Subballast & Ballast	63.2
Ties	51.1
Rail	54.5
Other Track Materials	29.8
Turnouts	15.1
Track Installation/Labor	<u>95.8</u>
TOTAL	\$ 309.8
^{1/} Transportation costs are included in individual cost items	

4. Tunnels

The linear feet of tunnels for the revised LRR are unchanged from its previous configuration. WFA/Basin's engineers have, therefore, utilized the Board-

approved cost of \$28.6 million for the tunnels being replicated. September '07 Decision at 107.

5. Bridges

The Board approved WFA/Basin's methodology for the type and size of bridges to be built on the LRR. September '07 Decision at 108-112. The Board also accepted WFA/Basin's proposed unit costs for the four different bridge types utilized by the LRR. Id. WFA/Basin's engineers have therefore continued to use the Board-approved methodology and unit costs in developing their revised bridge inventory and costs.

a. Bridge Inventory and Bridge Costs

WFA/Basin's engineers have reused the bridge location, lengths and Board-approved unit costs for the original I.R.R. but they have adjusted the quantities of those bridges (i.e., double track to single track) to reflect the configuration changes detailed in TSO Exhibit III-B-1. In addition, WFA/Basin's steel transportation costs have been revised as necessary to reflect the changes in construction railheads detailed in Part III-F-3.

For the new segment between East Guernsey and Northport, WFA/Basin's engineers utilized the Valley Subdivision track charts produced by BNSF in discovery to develop a list of bridges that the LRR will replicate since the BNSF's bridge inventory produced in discovery did not extend beyond Wyoming. WFA/Basin's engineers then

classified the new bridges into one of the four Board-approved bridge types. Finally, they utilized the same unit costs applied to the original LRR, but they adjusted those costs to reflect the revisions to the location factor weighting, as well as differing steel transportation costs.

WFA/Basin's engineers also converted three bridges on the Orin Subdivision (MP 125.39, MP 124.75 and MP 124.43) to large 96-inch culverts (the size already employed elsewhere in the yard) in order to accommodate the construction of the Orin Yard. According to the bridge inventory list produced by BNSF, these bridges all spanned "{ }."

b. Highway Overpasses

In developing highway overpass costs for the revised LRR, WFA/Basin's engineers utilized the Board's count of overpasses, lengths, and unit costs for the original LRR. In particular, the Board approved the construction of 20 overpasses. September '07 Decision at 130. For 16 of the overpasses that were built on the recently constructed BNSF Subdivisions (Campbell, Orin and Reno) the LRR paid 100% of the costs. The LRR also paid 100% of the costs for an overpass at the Guernsey Yard because the overpass spanned some areas of the yard that were recently constructed. The LRR also paid 100% of the cost of the Guernsey State Park bridge, but that cost was included by the parties in the open cutting costs for Tunnel No. 2. Finally, for two overpasses constructed

on older segments of the BNSF lines being replicated, the LRR, consistent with Board precedent, paid for ten (10) percent of the costs. Id.

The revised LRR replicates all of the overpasses noted above, but WFA/Basin's engineers have modified the lengths of the overpasses, where necessary, to reflect the LRR's modified system configuration. WFA/Basin's engineers have otherwise used the Board-approved methodology and unit costs

For the new segment from East Guernsey to Northport, WFA/Basin's engineers determined that there is a single overpass in this replicated territory. The overpass is not, however, for a road. Instead, the overpass is a grade separated crossing between the BNSF and Union Pacific ("UP") railroads at MP 49.4 on the Valley Subdivision. UP's predecessor, the Chicago and North Western ("CNW") built this overpass in 1983 as part of its construction of the "Connector Line" project to connect the PRB Joint Line with UP's existing line at Joyce, NE. Consistent with the Board's approach for the distribution of costs for such facilities to the railroad that is the newer entrant (UP was the new entrant here), WFA/Basin's engineers have assumed that the LRR would not pay for any portion of this overpass. September '07 Decision at 130; Xcel I at 116.

WFA/Basin's revised bridge and overpass costs of \$59.0 million are detailed in ISO e-workpapers "LRR Bridge Costs WFA 3rd Supp.xls" and "LRR Overpasses Costs WFA 3rd Supp.xls."

6. Signals and Communications

WFA/Basin's signals and communications witness, Victor Grappone, has reviewed the configuration changes to the LRR and undertaken the necessary modifications, reductions and additions to the LRR's signals and communications facilities to accommodate the changed configuration shown in TSO Exhibit III-B-1. The LRR's revised signals and communications costs are summarized in TSO Table III-F-6 below.

TSO TABLE III-F-6	
<u>SIGNALS AND COMMUNICATIONS SYSTEM COSTS</u>	
(\$ millions)	
<u>Item</u>	<u>Cost</u>
CIC (including FEDs & AEs)	\$ 47.0
Communications	12.3
Total	\$ 59.3

a. Centralized Traffic Control

Mr. Grappone developed the revised LRR's signal requirements based on TSO Exhibit III-B-1. Consistent with his methodology from Opening, which was accepted by BNSF and the Board, Mr. Grappone revised the quantities of signals and other required equipment. These changes are reflected in the TSO e-workpaper spreadsheet "Third Supp Open Laramie River CS Spreadsheet Final.xls," tab "Locations & Counts." Per the Board's September '07 Decision (at 113), Mr. Grappone also included a count for insulated joints and independently controlled switches. Id.

Mr. Grappone applied the Board-approved unit costs for the various signal-related items to his revised quantities. The changes in costs are detailed in TSO e-workpaper "Third Supp Open Laramie River CS Spreadsheet Final.xls," tab "Components & Tabulation."

In total, the revised CTC system includes some 74 interlocking huts for switches for single and double crossover configurations. In addition, 102 automatic signal huts are included. Consistent with WFA/Basin's previous evidentiary submissions, the CTC system also includes single and double track highway crossing protection huts and the related gates and flashers where needed.

b. Detectors

The revised LRR configuration includes a total of 9 single and 2 double track automatic roll-by failed equipment detectors ("FEDs"). As with the original LRR, the revised LRR's FEDs are located approximately every 25 miles along the main line (one for each main track in double track areas), or generally where they exist now on the BNSF lines being replicated. Mr. Grappone utilized the Board's unit costs for these devices, as shown in TSO e-workpaper "Third Supp Open Laramie River CS Spreadsheet Final.xls," tab "Components & Tabulation."

c. Communications System

WFA/Basin and BNSF generally agreed on the basic infrastructure elements required for the LRR's communications system, including the placement of microwave

towers and the specifications for the land mobile radio (“LMR”) system. The parties did, however, have a number of unit cost-related disputes, which the Board ultimately resolved in its September '07 Decision. Id. at 115-117. Mr. Grappone has used the Board-approved configuration and unit costs of the original LRR’s communications system as the starting point for the revised LRR’s communications needs.

For the original portion of the LRR, Mr. Grappone has continued to use the same microwave tower locations. He has also equipped the towers in the same manner approved by the Board, except that the Guernsey microwave tower will no longer be the eastern end of the communications system, and, therefore, it has been modified to accommodate bi-directional communications.

For the new segment between East Guernsey and Northport, WFA/Basin’s engineers identified 10 additional microwave towers that the LRR needs to construct. These tower sites were identified from publicly available Federal Communications Commission data. See TSO e-workpaper “1_micro.zip.” The data included latitude and longitude information, as well as tower heights. The particular towers and their respective sizes are shown in TSO e-workpaper “Third Supp Open Laramie River CS Spreadsheet 1 inal.xls,” tab “Locations & Counts.”

For LMR communications, WFA/Basin have again equipped the LRR with CTC infrastructure components that are radio-enabled (e.g., ALEs and FEDs), with the

same LMR devices that the parties agreed upon. The Board-approved unit costs have been applied to the revised quantities.

Consistent with his methodology used in WFA/Basin's earlier submissions, Mr. Grappone has included a series of LMR repeating stations along the ROW – approximately one every four miles. These LMR repeaters allow for uninterrupted RF communications along the ROW because the LMR stations on the microwave tower may or may not be accessible at all points.

Investment costs for the revised LRR's communications and radio system is \$12.3 million. See ISO e-workpaper "Third Supp Open Laramie River CS Spreadsheet Final.xls."

7. Buildings and Facilities

In its September '07 Decision, the Board accepted most of WFA/Basin's building designs and costs with only minor modifications. September '07 Decision at 117-129. In this Third Supplemental Opening evidence, WFA/Basin's engineers have continued to use the Board-approved designs and unit costs for the LRR's major facilities. However, due to the LRR's configuration changes, as well as changes to the LRR's operational parameters such as crew districts, WFA/Basin's engineers have adjusted the quantities of certain facilities as needed – while still relying on the Board-approved unit costs.

The LRR's major system facilities have been moved from Guernsey to Orin. These facilities include the LRR's headquarters building, the LRR's primary crew facilities, a locomotive repair shop, fueling facilities, a track maintenance base and MOW equipment storage track, 1,500-mile inspection facilities, and car and locomotive storage. Other facility locations for the revised LRR are addressed in Parts III-B-4, III-C-2 and III-D-4 above. The total building costs for the revised LRR are summarized in TSO Table III-F-7 below.

TSO Table III-F-7 <u>BUILDINGS AND FACILITIES</u> (\$ millions)	
<u>Facility</u>	<u>Cost</u>
Fueling Facility	\$ 12.8
Locomotive Repair Shop	8.2
Headquarters Building	2.7
Crew, MOW/Roadway Buildings	3.9
Waste Water Treatment	1.6
Yard Site Costs (Roads, Lighting, Drainage, etc.)	<u>6.9</u>
TOTAL	\$ 36.1

a. Headquarters Building

The LRR headquarters has been moved from Guernsey to the LRR's Orin Yard. Other than changing its location, WFA/Basin's engineers have not altered the headquarters building in any way because the general and administrative staffing of the LRR has not been modified. Thus, WFA/Basin's engineers continue to use the Board-approved cost of \$2,659,352 for the LRR's headquarters building.

b. Fueling Facilities

WFA/Basin's fueling facilities were located in the Guernsey Yard. Due to the relocation of the Guernsey Yard fueling functions to the Orin Yard, WFA/Basin's engineers have relocated the fueling facilities accordingly (including storage tanks and other appurtenances). The new location of the facilities is shown in the Orin Yard diagram, TSO Exhibit III-B-1, p. 5. The fueling facilities have not been altered (except for location) from those approved by the Board in its September '07 Decision. In particular, WFA/Basin's mainline fueling facility will act as an "express fueling station for eastbound (loaded) coal trains, intended to top off only fuel, lube oil and radiator water." September '07 Decision at 118. WFA/Basin's inside fueling facility – the location where locomotives removed from empty trains will be fully serviced (fueling, sanding, lube, etc.) – retains the same functions it performed at Guernsey. The LRR continues to fuel rear ("DP") locomotive units on loaded coal trains via DTL fueling.

As WFA/Basin's locomotive fueling/servicing facilities have simply been moved,⁴ and not otherwise altered, the facility costs approved by the Board (\$12,842,819) are reused for the revised LRR.

⁴ WFA/Basin's engineers have also located the various fueling-related facilities physically closer together in the Orin Yard than they were in Guernsey Yard, as the Orin Yard does not require the Guernsey Yard's "hour glass" configuration which was driven by topography. As such, no additional piping or connection equipment is required.

c. Locomotive Shop

In its September '07 Decision, the Board accepted the basic design and costs of the LRR's proposed locomotive shop. Id. at 122-126. As with the LRR's other buildings, WFA/Basin have used the Board-approved building as the basis for the LRR's revised locomotive shop. However, in addition to moving this Board-approved structure from Guernsey to Orin, WFA/Basin's engineers made several modifications to this structure to account for the reduction in the LRR's peak-period locomotive count.

In particular, WFA/Basin's operating witnesses have determined, on the basis of the additional RTC Model simulation described in Part III-C-2 above, that the revised LRR requires 38 fewer road locomotives than the original LRR. Accordingly, WFA/Basin engineers have reduced the capacity of the locomotive shop by one track (three locomotive spots and 9,750 SF of building space) to reflect the reduced locomotive maintenance that is needed. In particular, WFA/Basin have removed bay "L" and its associated pit, which is one of the tracks used to perform FRA-mandated 92-day inspections. Details of this revision are shown in TSO e-workpaper "WFA THIRD SUPP Buildings and Sites.xls," tab "Locomotive Shop."

d. Car Repair Shop

The parties agreed, as did the Board (September '07 Decision at 126), that the LRR does not need to build a car maintenance facility. However, consistent with the

approach WFA/Basin used in their earlier evidentiary submissions, the Orin Yard contains the necessary space and tracks for such a facility. See TSO Exhibit III-B-1, p. 5

e. Crew Change Facilities, Roadway Buildings and Yard Offices

In its September '07 Decision, the Board approved, with only minor changes, WFA/ Basin's designs and costs for crew change, roadway buildings and yard offices. As such, WFA/Basin's engineers have simply reused the Board-approved buildings, but have adjusted their quantities to reflect the changes in the LRR's operating plan described in Parts III-C-2-g and III-D-4 above. The revised LRR has two crew change facilities (a large facility at Orin and a smaller facility at Northport), six roadway maintenance buildings and one yard office. The revised costs are shown in TSO e-workpaper "WFA THIRD SUPP Buildings and Sites.xls," tab "Total Building Costs."

f. Wastewater Treatment

In its September '07 Decision, the Board generally adopted BNSF's approach to the large scale wastewater treatment plants that were located at the Guernsey and Donkey Creek Yards. September '07 Decision at 127-128. In particular, the Guernsey Yard included a 30,000 gallon-per-day wastewater treatment plant, which the BNSF redesigned at a higher cost and the Board accepted. Id. The Board's September '07 Decision also adopted BNSF's costs for a 10,000 gallon-per-day plant sited in the Donkey Creek Yard. Id.

The revised LRR will still require a 30,000 gallon-per-day wastewater treatment facility, but WFA/Basin's engineers have moved this plant to the Orin Yard. The Board-approved costs were used for this facility. The Donkey Creek Yard has been eliminated, so the associated 10,000 gallon-per-day facility has been removed from the building construction costs.

The parties also agreed that a 400 gallon-per-day wastewater treatment plant should be placed at each MOW facility. Again, the Board adopted BNSF's costs for such facilities. September '07 Decision at 128. The revised LRR has six MOW bases, including one at Orin which is served by the 30,000 gallon-per-day facility located at the Orin Yard. Thus, WFA/Basin's engineers have included five 400-gallon-per-day wastewater treatment plants, and they have used the Board-approved costs for these facilities.

g. Yard Lighting

The Board accepted WFA/Basin's methodology and unit costs for yard lights. WFA/Basin's engineers have applied the same methodology and unit costs to the revised LRR's Orin Yard. *Details of the lighting plan are included in ISO c-workpaper "WFA THIRD SUPP Building Site Development Costs.xls," tab "Yard Lights Drainage Roads."*

8. Public Improvements

As with other elements of road property investment, WFA/Basin's engineers have utilized the Board-approved public improvements methodology, quantities and unit costs as the basis for the revised LRR's cost. Details of the revised LRR's public improvement costs are described below and summarized in TSO Table III-F-8.

TABLE III-F-8	
<u>PUBLIC IMPROVEMENTS</u>	
(millions)	
<u>Item</u>	<u>Cost</u>
Fencing & Cattle Guards	\$ 7.6
Roadway Signs	0.1
At-Grade Crossings	0.1
Crossing Protection	Included in Signals
Grade Separations	Included in Bridges
TOTAL	\$ 7.8

a. Fences

In the previous evidentiary submissions in this case, the parties agreed that 90% of the Campbell Subdivision and 100% of the remaining subdivisions should be fenced, including the mine spurs. In addition, consistent with past Board precedent, the parties also agreed on an additional three percent additive to the Orin Line fencing quantities to account for snow fences on the Orin Line. The parties also agreed on the unit cost for the fencing and snow fences. The Board approved the parties' approach. September '07 Decision at 130. The fencing quantities for the revised LRR have been

changed to reflect the revisions to the original LRR route miles and the addition of the segment from East Guernsey to Northport. WFA/Basin have used the Board-approved unit costs for this fencing. The snow fencing additive also remains the same, as the LRR continues to replicate the Orin Subdivision.

The Board also approved WFA/Basin's plan to install cattle guards at all at-grade crossings. Id. However, both parties made various errors in their quantities, which the Board adjusted. Id. WFA/Basin's engineers have, therefore, used the Board's cattle guard quantities as the starting point for the revised LRR's cattle guard calculations. Consistent with their approach in other areas, WFA/Basin's engineers have revised the cattle guard quantities to reflect the minor changes to the configuration of the original LRR, and they have added cattle guards as needed on the new segment between East Guernsey and Northport. They continued to use the Board-approved unit costs for cattle guards. Details of the revised costs are included in TSO e-workpaper "WFA 3rd Supp Road Crossing Worksheet Rebuttal.xls," tab "At Grade Crossings."

b. Signs and Road Crossing Devices

WFA/Basin and BNSF agreed on the basic package of signs that the LRR would need, and they agreed on the costs. The Board accepted the parties' methodology, but it made minor corrections as required to reflect the Board-approved configuration of the LRR. September '07 Decision at 130.

WFA/Basin's engineers have included the same Board-approved package of signs for the revised LRR, except that they have revised the quantities to accommodate the changes to the LRR's route and track miles. Details of the LRR's roadway sign costs are included in TSO e-workpaper "III - F TOTAL wfa3rdsupp.xls," tab "Signs."

c. Grade-Separated and At-Grade Crossings

The Board accepted WFA/Basin's quantities and costs for at-grade crossings (grade-separated crossings are addressed with other bridges in Part III-F-5 above). Consistent with the Board's Xcel decision (at 116), the LRR built all at-grade crossings, and it paid 100% of those costs.

For the revised LRR, WFA/Basin's engineers have continued to use the Board-approved quantities and costs for at-grade crossings that the LRR continues to replicate (gates and flashers are included with the signal system costs). For the new segment of the LRR, WFA/Basin's engineers developed a list of at-grade crossings from the Valley Subdivision track charts provided by BNSF in discovery. They then applied the Board-approved unit costs to the revised quantities. The detailed costs are shown in TSO e-workpaper "WFA 3rd Supp Road Crossing Worksheet Rebuttal.xls," tab "At Grade Crossings."

9. Mobilization

In their previous submissions, the parties agreed on the application of a 3.5 percent mobilization additive to the total construction costs, excluding land acquisition

costs and other items where the contractor's bid already included mobilization. The Board approved the 3.5 percent mobilization additive, as well as the exclusions agreed upon by the parties. September '07 Decision at 132. WFA/Basin's engineers, therefore, continue to use the 3.5 percent mobilization additive except for land acquisition costs and those items, such as track labor, where the cost is already incorporated.

10. Engineering

Consistent with the September '07 Decision, WFA/Basin's engineers have utilized a 10 percent additive for engineering, excluding land acquisition and mobilization costs Id. at 132.

11. Contingencies

Consistent with the September '07 Decision, WFA/Basin's engineers have utilized a 10 percent additive for contingencies, excluding land acquisition costs. Id. at 132-133.

12. Other

a. Construction Time Period

The parties agreed on the 30-month construction schedule originally proposed by WFA/Basin's engineers, which the Board approved. September '07 Decision at 107. WFA/Basin's engineers have, therefore, again used a 30-month construction period for the revised LRR. However, WFA/Basin's engineers have adjusted the necessary construction packages to account for the LRR's configuration changes, the

elimination of the Guernsey construction railhead, and the addition of the Northport construction railhead. Details of the revised construction schedule are shown in TSO c-workpaper “WFA THIRD SUPP Construction Schedule 1.xls.”

III. G. DISCOUNTED CASH FLOW ANALYSIS

WFA/Basin's Third Supplemental Opening Evidence starts with the DCF model and procedures adopted in the Board's September '07 Decision, as corrected by the Board's February '08 Decision. As directed by the Board in its September '07 Decision, its February '08 Decision and its March '08 Decision, WFA/Basin make only two changes to the DCF model inputs. First, WFA/Basin input the reconfigured LRR revenues and costs. Second, as requested by the Board, WFA/Basin calculate the LRR's capital costs under the different approaches described in the Board's February '08 Decision and address the comparative merits of each approach.

I. Cost of Capital

The Board's February '08 Decision directs the parties to make two different calculations of the LRR's pre-2006 cost of equity, one using CAPM and a second using the Board's single-stage DCF approach. The Board also asks the parties to comment on the merits of each approach as well as to comment on a third approach to calculate the LRR's capital costs. The Board's February '08 Decision states in pertinent part:

To estimate what it would cost a SARR to raise capital, the longstanding practice in SAC cases is to apply the cost of capital for the rail industry as published annually by the Board, using an average of the figures starting with the year in which construction of a SARR would have begun through the most recently available year. We have recently revised our procedures for calculating the rail industry's cost of capital, replacing the single-stage discounted cash flow

model (DCF) with a capital asset pricing model (CAPM). The CAPM approach will be used to determine the 2006 cost of capital. In anticipation of a change in the procedure for determining the cost of capital, WFA argues that the newly adopted procedure should be used instead of the DCF to develop the cost-of-capital figure used in the SAC analysis here for pre-2006.

We will reserve judgment on whether to restate the rail industry's cost-of-capital figures using CAPM for pre-2006 years in the SAC analysis in this case until the parties have had the opportunity to fully argue and brief the merits of WFA's request. Accordingly, in their supplemental evidence, each party should submit two separate SAC calculations, one showing their cost-of-capital figures developed under the single-stage DCF approach and a second showing their cost-of-capital calculations under CAPM. In addition, each party should address the propriety of using restated figures in this case. We also invite parties to address the following question: if we do not restate the prior cost-of-capital findings, should we forecast the cost of equity in succeeding years by taking an average of past cost-of-equity figures, which has been our practice in prior SAC cases, or simply use the 2006 cost-of-equity figure, which will be based on the more current and precise CAPM.

Id. at 6.

a. Calculations Using CAPM

To develop the LRR's cost of equity using a historical CAPM approach, WFA/Basin restate the rail industry's cost of capital for years 2002 through 2005 using CAPM, and then calculate the LRR's cost of capital using these restated results.

i. Restated Industry Computations

In its annual rail industry cost of capital determinations for years 2002 through 2005, the Board calculated the rail industry's cost of equity using the single-stage DCF approach. WFA/Basin restate these calculations using CAPM.

Following the STB's CAPM approach set forth in Railroad Cost of Capital and refined in Railroad Cost of Capital – 2006, WFA/Basin first developed railroad industry common equity beta estimates for 2002 through 2005. Beta estimates were developed using 260 period ordinary least squares regression models employing publicly available weekly merger-adjusted railroad stock price data and S&P 500 Price Return data obtained from Yahoo Finance, common shares outstanding data from railroad SEC Form 10-K and Form 10-Q reports, and Three-Month T-Bill data obtained from the Federal Reserve.¹

Next, WFA/Basin calculated railroad industry CAPM costs of equity using each year's calculated beta estimate along with the historic market equity risk premium

¹ Adjustments were also made to reflect the closing of the New York Stock Exchange trading activities following the attacks on September 11, 2001.

from 1926 through each study year as developed by Morningstar, Inc.,² and annual average Twenty-Year T-Bond data obtained from the Federal Reserve. TSO Table III-G-1 below displays WFA/Basin's calculation of the railroad industry's CAPM cost of equity.

TSO Table III-G-1 CAPM Railroad Industry Cost of Equity	
<u>Year</u> (1)	<u>CAPM Cost of Equity</u> (2)
1 2002	10.03%
2 2003	9.90%
3 2004	10.40%
4 2005	10.59%
5 2006	11.13%
Source: "2002 CAPM.xls," "2003 CAPM.xls," "2004 CAPM.xls," "2005 CAPM.xls," and 2006 Cost of Capital	

As shown in TSO Table III-G-1 above, the railroad industry CAPM cost of equity ranges from 9.9 percent to 11.13 percent between 2002 and 2006.³

Finally, WFA/Basin used its developed CAPM cost of equity estimates to

² Morningstar, Inc. has developed the market equity risk premium for each period between 1926 and 2007. WFA/Basin used Morningstar, Inc.'s market risk premium on a cumulative basis for each year. For example, for its CAPM calculation of the 2002 railroad cost of equity, WFA/Basin used Morningstar, Inc.'s calculation of the market risk premium from 1926 through 2002. For its 2003 railroad cost of equity calculation, it used the 1926 to 2003 historic market risk premium. In this manner, the cost of equity estimate reflects the historic risk premium applicable for that particular year.

³ The 2006 CAPM cost of equity was developed by the STB in Railroad Cost of Capital – 2006.

restate the railroad cost of capital for the years 2002 to 2005. Railroad industry costs of debt, costs of preferred equity and debt, and preferred equity market capitalization values were obtained from the STB's railroad industry cost of capital decisions for each year between 2002 and 2005, and combined with WFA/Basin's CAPM cost of equity and common equity market capitalization rates to restate railroad industry cost of capital.⁴

TSO Table III-G-2 below shows WFA/Basin's restated railroad costs of capital:

TSO Table III-G-2 Restated Railroad Industry Cost of Capital Using CAPM	
<u>Year</u> (1)	<u>Cost of Capital</u> (2)
1 2002	8.3%
2 2003	7.8%
3 2004	9.4%
4 2005	9.0%
5 2006	9.9%
Source: "2002 CAPM.xls," "2003 CAPM.xls," "2004 CAPM.xls," "2005 CAPM.xls," and 2006 Cost of Capital	

As shown in Table TSO III-G-2 above, railroad CAPM costs of capital ranged from 7.8 percent to 9.9 percent between 2002 and 2006.

ii. Restated LRR Computations

WFA/Basin applied the restated industry capital costs to develop composite

⁴ Equity market caps for the STB's 2002 through 2005 single-stage DCF cost of capital decisions were developed using average monthly equity market caps for the subject railroads. Consistent with the approach used in Railroad Cost of Capital – 2006, equity market caps were recalculated using average weekly market caps for each railroad.

LRR capital costs. These costs equal the rail industry cost of debt in each year debt is incurred during the LRR's construction period (April 1, 2002 to September 30, 2004) and the rail industry cost of equity, calculated using CAPM, for each year 2002 through 2006. For years after 2006, the LRR's cost of equity is forecasted to equal the simple average industry cost of equity for the years 2002 through 2006, using CAPM, and for the years 2005 to 2024 the LRR's cost of debt equals the weighed average cost of the LRR debt incurred during the construction period. The LRR's composite cost of capital is mathematically calculated using these debt and equity inputs along with debt and equity weights based on the timing of investment in the LRR. TSO Table III-G-3 below displays the LRR's composite cost of capital computations using CAPM:

TSO Table III-G-3 Restated LRR Cost of Capital Using CAPM		
<u>Year</u> (1)	<u>Cost of Equity</u> (2)	<u>Cost of Capital</u> (3)
1 2002	10.03%	8.29%
2 2003	9.90%	7.82%
3 2004	10.40%	8.42%
4 2005	10.59%	8.24%
5 2006	11.13%	8.56%
6 2007 to 2024	10.41%	8.14%
Source: "2002 CAPM.xls," "2003 CAPM.xls," "2004 CAPM.xls," "2005 CAPM.xls," and <u>Railroad Cost of Capital-2006</u>		

b. Calculations Using Single-Stage DCF Procedure

WFA/Basin also calculate the LRR's composite cost of capital using the

single-stage DCF procedures applied to years 2002 through 2005. These are the same composite capital costs the Board adopted in the September '07 Decision. The results are shown in TSO Table III-G-4 below:

TSO Table III-G-4 Single-Stage DCF LRR Cost of Equity and Cost of Capital		
<u>Year</u> (1)	<u>Single-Stage DCF Cost of Equity</u> (2)	<u>Single-Stage DCF Cost of Capital</u> (3)
1 2002	12.60%	9.75%
2 2003	12.70%	9.40%
3 2004	13.16%	10.11%
4 2005	15.18%	10.86%
5 2006 to 2024	13.41%	9.85%
Source: SIB Electronic Workpaper "SIB DCF.xls"		

c. Calculations Using the Board's Third Alternative

Finally, WFA/Basin developed the LRR's composite cost of capital using the third alternative methodology set forth in the Board's February '08 Decision.

WFA/Basin interpret this hybrid alternative as calling for the Board to develop the LRR's equity costs for years 2002 through 2005 using the single-stage DCF method and starting in 2006 to utilize the Board's 2006 industry cost of equity calculation to forecast the LRR's equity costs over the remaining DCF years. The composite results are summarized in TSO Table III-G-5 below:

TSO Table III-G-5 Combined Single-Stage DCF & CAPM LRR Cost of Equity and Cost of Capital		
<u>Year</u> (1)	<u>CAPM and Single-Stage DCF Cost of Equity</u> (2)	<u>CAPM and Single-Stage DCF Cost of Capital</u> (3)
1 2002	12 60%	9 75%
2. 2003	12 70%	9 40%
3 2004	13 16%	10 11%
4 2005	15 18%	10 86%
5 2006 to 2024	11 13%	8 54%
Source Exhibit II-H-3		

d. The Correct Approach

Utilizing restated costs of capital based on CAPM costs of equity more accurately reflects the true railroad industry costs of capital for the base SARR years than utilizing the costs of capital developed by the STB using the single-stage DCF approach. As the STB held in Railroad Cost of Capital, the simplicity of the single-stage DCF model relies upon the assumption that a company or industry's short-term growth rate will remain unchanged for perpetuity.⁵ This leads to an overstatement of the cost of equity during periods of high growth and an understatement when short-term growth is suppressed.

⁵ See Railroad Cost of Capital II at 4.

It is widely agreed that the Class I railroads included in the STB's cost of capital calculations are generating record earnings.⁶ Class I railroads are likely to continue to generate even more earnings in the coming years due to market factors. This strong pricing power is reflected in the earnings estimates included in the Institutional Brokers Estimate System ("IBES") data used to estimate the railroads' growth rates. TSO Table III-G-6 below compares the truncated IBES growth rates used in calculating the 2002 to 2005 single-stage DCF railroad costs of equity:

TSO Table III-G-6 I/B/E/S Truncated Growth Rates Used in the STB's Single-Stage DCF Cost of Equity	
<u>Year</u> (1)	<u>Truncated Growth Rate</u> (2)
1. 2002	11.13%
2. 2003	11.00%
3. 2004	11.39%
4. 2005	13.66%
Source: STB Cost of Capital decisions	

TSO Table III-G-6 shows that the annual earnings growth rates used by the STB in its single-stage DCF calculations ranged from 11.00 to 13.66 percent between 2002 to 2005. These growth factors, though, represent the perpetual growth of railroad

⁶ See, e.g., John Gallagher, Uncommon Ground: railroad-shipper relationships are being tested by escalating rates, tight capacity and inadequate service, Traffic World, Mar. 20, 2006, at 8.

dividends or earnings in the single-stage DCF.⁷ It is unrealistic to assume that the railroad industry's earnings will grow at between 11 and 13 percent effectively forever. As stated by Dr. Shannon P. Pratt, a leading expert in the fields of valuation and cost of capital:

It is theoretically impossible for the sustainable perpetual growth rate for a company to significantly exceed the growth rate in the economy. Anything over 6-7% perpetual growth rate should be questioned carefully.⁸

In contrast to the growth rates included in TSO Table III-G-6 above, the EIA traffic and revenue forecasts mandated by the STB in this proceeding possess average growth rates of 2.2 and 2.4 percent per year, respectively between 2004 and 2024.⁹ Additionally, the RCAF-U forecast, which is the basis for many contractual rate adjustment mechanisms, is forecasted to grow by only { } percent per year over the 20-year DCF period.¹⁰ As the STB has found, it is completely unrealistic to assume that

⁷ The IBES forecasts project changes in earnings. Use of these forecasts in the single-stage DCF assume dividends will change at the same rate as projected earnings.

⁸ See S.P. Pratt, Cost of Capital: Estimations and Applications (2d ed. 2002) at 113.

⁹ See TSO e-workpaper "SIB LRR Traffic and Revenues_ModifiedSAC_Opening_1temp.xls," tabs "EIA_AEO2005_Rates," and "EIA_AEO2005_Tons." LRR traffic growth will actually change at a slower pace than indicated in the EIA's PRB coal production forecast due to plant specific capacity constraints included in the LRR's traffic forecast.

¹⁰ See TSO e-workpaper "Exhibit III-G-1 (Updated to 1Q06).xls," tab "RCAF Inputs."

railroad earnings will grow into perpetuity at the rates of growth shown in TSO Table III-G-6 above. It is even more unrealistic to assume that the LRR's earnings will grow at the TSO Table III-G-6 rates given the forecasted rates of change in revenue and traffic mandated by the STB in this case. The obvious solution to the discontinuity in short-term analysts growth forecasts and assumed perpetual growth in single-stage DCF models is to restate 2002 through 2006 costs of capital using CAPM cost of equity estimates.

However, if the STB chooses to not restate prior years' costs of equity using its CAPM approach, the next best alternative is to incorporate the 2006 CAPM cost of equity in the DCF model, and use the 2006 CAPM cost of equity as the basis for future year equity costs. Incorporating the 2006 CAPM cost of equity into the LRR's cost of equity will temper, but not eliminate, the implicit overstatement in the perpetual SARR growth rate from the use of the single-stage DCF cost of equity. This approach will bring the LRR's cost of equity closer to what reasonable analysts would conclude is the proper railroad industry cost of equity.

To see how the use of the 2006 CAPM cost of equity would help mitigate the current overstatement, WFA/Basin determined the implicit perpetual growth included in the 2006 CAPM cost of equity. The STB determined that the 2006 CAPM cost of equity equaled 11.13 percent.¹¹ Additionally, prior to completing the rulemaking proceeding that established CAPM as the appropriate method for developing the railroad

¹¹ See Railroad Cost of Capital – 2006 at 15.

cost of capital, the Association of American Railroads (“AAR”) submitted evidence developing the 2006 cost of equity using the now discredited single-stage DCF approach. AAR Vice President Craig F. Rockey calculated that the 2006 railroad weighted-average dividend yield equaled 1.26 percent.¹² Using these two pieces of data, WFA/Basin were able to determine that the implicit single-stage DCF perpetual growth rate in the 2006 cost of equity equaled approximately 9.8 percent.¹³ While still above what can be considered a reasonable perpetual growth rate, an implicit growth rate of 9.8 percent in the 2006 cost of equity is more sensible than the growth rates used in the previously utilized single-stage DCF model. If the STB were to exclude the 2006 CAPM cost of equity from the DCF model, it would be perpetuating an overstatement that it found improper in its Railroad Cost of Capital decisions.

2. Inflation Indices

WFA/Basin utilize the same inflation indices, and inflation index procedures, that the Board utilized in making its September '07 Decision, as corrected in the Board's February '08 Decision.

¹² See Comments of the American Association of Railroads and Associated Members, Verified Statement of Craig F. Rockey, Railroad Cost of Capital – 2006 (filed June 25, 2007) at 13

¹³ This was determined by solving the single-stage DCF equation for the implicit perpetual growth rate, i.e., solving for “g” in the equation $[1.26 \text{ percent} \times (1 + (g/2))] + g = 11.13 \text{ percent}$.

3. Tax Liability

WFA/Basin calculate the LRR's tax liabilities utilizing the same procedures the Board utilized in making its September '07 Decision.

III. H. RESULTS OF SAC ANALYSIS

1. DCF Analysis

The DCF model used to develop stand-alone costs for the LRR, with the LRR's equity costs determined using CAPM for all time periods, is set forth in TSO e-workpaper "Exhibit_III-H-1.xls." The DCF model used to develop stand-alone costs for the LRR, with the LRR's equity costs determined using the single-stage DCF approach, is set forth in TSO e-workpaper "Exhibit_III-H-2.xls." The DCF model used to develop stand-alone costs for the LRR, with the LRR's equity costs for 2002-2005 determined using the single-stage DCF approach and for 2006 and beyond using the CAPM approach, is set forth in TSO e-workpaper "Exhibit_III-H-3.xls."

2. DCF Results

The results of WFA/Basin's third opening supplemental DCF calculations, using CAPM to determine the LRR's cost of equity in all time periods, are summarized in TSO Table III-H-I:

TSO Table III-H-1 Discounted Cash Flow Analysis (\$millions)					
<u>Period</u>	<u>LRR SAC Cost</u>	<u>LRR Revenues</u>	<u>Overpayments In Revenues</u>	<u>Present Value Difference</u>	<u>Cumulative Difference</u>
4Q04	\$44.6	\$58.3	\$13.7	\$13.7	\$13.7
2005	183.3	236.8	53.4	50.4	64.1
2006	186.8	250.6	63.7	55.2	119.3
2007	190.2	259.7	69.4	56.0	175.3
2008	193.1	262.3	69.2	51.6	226.9
2009	199.8	274.2	74.3	51.3	278.1
2010	202.4	277.0	74.2	47.3	325.4
2011	205.9	281.9	76.0	44.8	370.2
2012	209.9	287.9	78.1	42.6	412.8
2013	214.5	294.7	80.1	40.4	453.2
2014	219.0	299.8	80.8	37.7	490.9
2015	221.9	299.1	77.2	33.3	524.2
2016	227.4	307.4	80.0	31.9	556.0
2017	233.9	319.1	85.1	31.4	587.4
2018	239.9	330.4	90.6	30.9	618.3
2019	245.3	339.4	94.1	29.7	648.0
2020	251.1	348.8	97.8	28.5	676.5
2021	257.0	359.5	102.5	27.6	704.1
2022	262.8	368.2	105.4	26.3	730.4
2023	268.7	378.4	109.7	25.3	755.7
1Q-3Q2024	205.5	291.9	86.4	18.8	774.4

3. **LRR SAC Rates**

WFA/Basin have allocated the total SAC costs to members of the LRS traffic group using the Board's Maximum Markup Methodology ("MMM"). These calculations are set forth in TSO e-workpaper "MMM Model Linked to III-H-1" with

CAPM VC.xls” and summarized in Exhibit III-H-1.¹

4. Maximum Rates

a. 4Q04 Rates

The maximum rates for BNSF service to LRS equal the greater of the stand-alone cost or the jurisdictional threshold. TSO Table III-H-2 compares BNSF’s 4Q04 rate levels (Column 2) to the 4Q04 jurisdictional threshold calculation (Column 4)² and the 4Q04 stand-alone costs (as calculated in this third supplemental opening evidence, using CAPM equity costs in all time periods) (Column 5).

TSO Table III-H-2 Summary of TSO Maximum Rate Calculations for Issue Traffic in 4Q04					
<u>Origin</u> (1)	<u>BNSF Rate With Surcharge Per Ton</u> (2)	<u>BNSF Variable Cost Per Ton</u> (3)	<u>Jurisdictional Threshold Per Ton</u> (4)	<u>Stand-Alone Cost Per Ton</u> (5)	<u>Maximum Rate Per Ton</u> (6)
Dry Fork	\$ 6.71	\$1.53	\$2.75	\$2.82	\$2.82
Eagle Butte	6.72	1.54	2.77	2.82	2.82
Cordero	6.48	1.31	2.36	2.82	2.82
Caballo Rojo	6.53	1.35	2.43	2.82	2.82
Jacobs Ranch	6.25	1.22	2.20	2.82	2.82

WFA/Basin request that the Board prescribe maximum rates at the SAC levels shown on TSO Table III-H-2, subject to any changes necessitated as a result of

¹ The Exhibit III-H-1 MMM results use CAPM to determine the LRR’s cost of equity in all time periods. The MMM results for WFA/Basin’s two other DCI models are shown in WFA/Basin TSO e-workpapers “MMM Model Linked to III-H-2.xls” and “MMM Model Linked to III-H-3 with CAPM Revenues.xls.”

² Variable costs are calculated using CAPM. See Part II-A.

pending court appeals.

The SAC rates WFA/Basin ask the Board to prescribe provide BNSF with substantial differential pricing returns. At the 4Q04 level, the SAC rates produce R/VC ratios that average 199.7% and annualized profit contributions above variable costs of \$12.1 million.³ These R/VC ratios vastly exceed BNSF's system average 2004 R/VC ratios (131%) as well as the 144% system average R/VC ratio BNSF needed to earn in 2004 in order to be deemed revenue adequate under the Board's revenue adequacy standards then in effect.⁴

b. 4Q04 Reparations

WFA/Basin have calculated the reparations they are due for overcharges incurred in the fourth quarter of 2004, using the SAC calculations set forth in WFA/Basin's third supplemental opening evidence (with LRR capital costs determined using CAPM for all time periods). This amount equals the difference between the freight charges BNSF collected and the maximum permitted, plus applicable interest. These amounts are calculated in TSO Exhibit III-II-2 and equal \$7.5 million, exclusive of interest. WFA/Basin request that the Board order BNSF to pay this amount, plus applicable interest, subject to any changes necessitated as a result of the pending court appeals.

³ See TSO e-workpaper "MMM Model Linked to III-II-1 with CAPM VC.xls," tab "4Q 2004."

⁴ See WFA/Basin Reply Narr. at 1-9-10.

c. Post-4Q04 Rates and Reparations

WFA/Basin have developed the maximum SAC rates for periods after 2004 using the calculations set forth in this third supplemental opening evidence for time periods starting in the first quarter of 2005 through the third quarter of 2024. These calculations are shown in TSO Table III-H-3 below:

TSO Table III-H-3	
Maximum SAC Rates	
<u>Period</u>	<u>Maximum Rate</u>
4Q04	\$2.82
2005	2.57
2006	2.48
2007	2.54
2008	2.61
2009	2.54
2010	2.59
2011	2.62
2012	2.67
2013	2.72
2014	2.80
2015	2.92
2016	2.99
2017	3.02
2018	3.05
2019	3.10
2020	3.15
2021	3.20
2022	3.26
2023	3.31
1Q-3Q2024	3.34

WFA/Basin request that the Board (i) prescribe maximum rates equal to those set forth in TSO Table III-H-3, subject to any changes necessitated as a result of pending court appeals; (ii) direct the parties to calculate the jurisdictional threshold for all time periods using the costing procedures adopted in the Board's September '07 Decision (with CAPM), subject to any changes necessitated as a result of the pending court appeals; (iii) order for all time periods that the maximum rates on the issue traffic equal the greater of the jurisdictional threshold or the maximum SAC rate; and (iv) award additional reparations, plus interest, to WFA/Basin for all payments made under rates that exceed the maximums calculated under (i), (ii), and (iii) above

IV. WITNESS QUALIFICATIONS AND VERIFICATION

This Part contains the Verifications of WFA/Basin's witnesses who are verifying the sections referenced in their Verifications, and whose Statements of Qualifications appear in Part V of WFA/Basin's Opening, Reply and Rebuttal Narratives.

VERIFICATION

I, Thomas D. Crowley, verify under penalty of perjury that I am the same Thomas D. Crowley whose Statement of Qualifications appears in Part V of the Narrative portion of WFA/Basin's Opening Evidence filed in this proceeding, that I am responsible for the portions of the foregoing Third Supplemental Opening Evidence of WFA/Basin set forth in Parts II-A, III-A, III-G and III-H, and for the portion of Part III-C relating to the changes in operating inputs and the train file for purposes of the supplemental RTC simulation, inputs and the train file for purposes of the supplemental RTC simulation, running the RTC Model for purposes of the supplemental simulation, and the results of the supplemental RTC Model simulation; that I know the contents thereof; and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.


Thomas D. Crowley

Executed on: May 13, 2008

VERIFICATION

I, Paul H. Reistrup, verify under penalty of perjury that I am the same Paul H. Reistrup whose Statement of Qualifications appears in Part V of the Narrative portion of the Opening Evidence of Complainants WFA/Basin in this proceeding; that I am responsible, along with Paul Smith, for the portion of the foregoing Third Supplemental Opening Evidence of WFA/Basin related to the SARR system configuration and operating plan contained in Parts III-B and III-C and the portion of Part III-D related to SARR locomotive and railcar requirements and the Operating and General & Administrative organization, personnel and expenses; and, along with Michael Kenyon, the SARR maintenance-of-way plan and related expenses contained in Part III-D; that I know the contents thereof; and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.



Paul H. Reistrup

Executed on: May 10, 2008

VERIFICATION

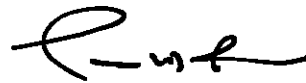
I, Paul E. Smith, verify under penalty of perjury that I am the same Paul E. Smith whose Statement of Qualifications appears in Part V of the Narrative portion of WFA/Basin's Opening Evidence in this proceeding; that I collaborated with Paul Reistrup in preparing, and am co-sponsoring with Mr. Reistrup, the portion of WFA/Basin's Third Supplemental Opening Evidence in this proceeding related to the SARR system configuration and operating plan contained in Parts III-B and III-C and the portion of Part III-D related to SARR locomotive and railcar requirements and the Operating and General & Administrative organization, personnel and expenses; that I know the contents thereof; and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.


Paul E. Smith

Executed on May 7, 2008

VERIFICATION

I, Philip H. Burris, verify under penalty of perjury that I am the same Philip H. Burris whose Statement of Qualifications appears in Part V of the Narrative portion of WFA/Basin's Opening Evidence in this proceeding; that I am responsible for the portion of WFA/Basin's Third Supplemental Opening Evidence in this proceeding related to the development of equipment lease, maintenance and servicing costs (Parts III-D-1 and III-D-2), operating unit costs (Parts III-D-3 and III-D-5 through III-D-9) and compensation levels for all the SARR Transportation and Engineering crews, other operating employees, nonoperating (General and Administrative) personnel, and for training and recruiting costs (Part III-D-3); as well as the application of the SARR operating unit costs to the operating statistics, thus yielding the SARR operating expenses in the base year and evidence related to the development of the land value index for use in the DCF model (Part III-G-2); that I know the contents thereof; and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.



Philip H. Burris

Executed on: May 12, 2008

VERIFICATION

I, Joseph A. Kruzich, verify under penalty of perjury that I am the same Joseph A. Kruzich whose Statement of Qualifications appears in Part V of the Narrative portion of WFA/Basin's Opening Evidence in this proceeding; that I am responsible for the portion of WFA/Basin's Third Supplemental Opening Evidence in this proceeding related to the SARR's information technology capital (hardware) and personnel requirements and related operating expenses for the SARR, contained in Part III-D; that I know the contents thereof; and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.



Joseph A. Kruzich

Executed on: May 10, 2008.

VERIFICATION

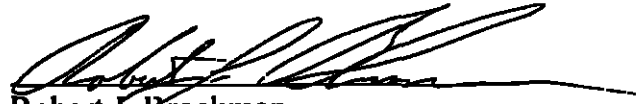
I, Michael D. Kenyon, verify under penalty of perjury that I am the same Michael D. Kenyon whose Statement of Qualifications appears in Part V of the Narrative portion of WFA/Basin's Opening Evidence in this proceeding; that I am responsible, along with Paul Reistrup, for the portion of WFA/Basin's Third Supplemental Opening Evidence in this proceeding related to the SARR maintenance-of-way plan and related expenses contained in Part III-D; that I know the contents thereof; and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.


Michael D. Kenyon

Executed on May 10, 2008

VERIFICATION

I, Robert J. Brockman, verify under penalty of perjury that I am the same Robert J. Brockman whose Statement of Qualifications appears in Part V of the Narrative portion of WFA/Basin's Opening Evidence in this proceeding; that I am responsible for the portion of WFA/Basin's Third Supplemental Opening Evidence in this proceeding related to the appraisal and determination of unit-land prices for the acquisition of the right-of-way for the SARR, contained in Part III-F-1; that I know the contents thereof; and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.



Robert J. Brockman

Executed on: May 9th, 2008

VERIFICATION

I, Harvey H. Stone, verify under penalty of perjury that I am the same Harvey H. Stone whose Statement of Qualifications¹ appears in Part V of the Narrative portion of WFA/Basin's Opening Evidence in this proceeding; that I am responsible for the portion of WFA/Basin's Third Supplemental Opening Evidence in this proceeding related to road property investment contained in Part III-F for the SARR; that I know the contents thereof; and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.

A handwritten signature in black ink, appearing to read 'H. Stone', written over a horizontal line.

Harvey H. Stone

Executed on: May 12, 2008

¹ Mr. Stone was previously employed by Stone Consulting, which has since been acquired by Transsystems. Mr. Stone is now the Senior Assistant Vice President at Transsystems.

VERIFICATION

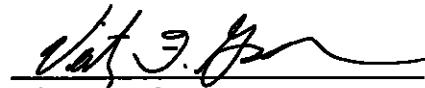
I, Charles A. Stedman, verify under penalty of perjury that I am the same Charles A. Stedman whose Statement of Qualifications appears in Part V of the Narrative portion of WFA/Basin's Opening Evidence in this proceeding; that I am responsible for the portion of WFA/Basin's Third Supplemental Opening Evidence in this proceeding, along with Mr. Stone, related to the roadbed preparation/earthworks components of the road property investment cost of the SARR, exclusive of culverts, roadbed specifications and yard drainage (Part III-F-2); that I know the contents thereof; and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.


Charles A Stedman

Executed on May 12, 2008

VERIFICATION

I, Victor F. Grappone, verify under penalty of perjury that I am the same Victor F. Grappone whose Statement of Qualifications appears in Part V of the Narrative portion of WFA/Basin's Opening Evidence in this proceeding; that I am responsible for the portion of WFA/Basin's Third Supplemental Opening Evidence in this proceeding, along with Mr. Stone, related to signals and communications contained in Part III-F-6; that I know the contents thereof; and that the same are true and correct. Further, I certify that I am qualified and authorized to file this statement.



Victor F. Grappone

Executed on: May 2, 2008

CERTIFICATE OF SERVICE

I hereby certify that this 13th day of May, 2008, I served a copy of the foregoing Third Supplemental Opening Evidence of Complainants Western Fuels Association, Inc. and Basin Electric Power Cooperative, Inc. by hand delivery on designated outside counsel for BNSF, as follows:

Samuel M. Sipe, Jr., Esq.
Anthony J. LaRocca, Esq.
Linda S. Stein, Esq.
Steptoe & Johnson, L.L.P.
1330 Connecticut Avenue, N.W.
Washington, D.C. 20036-1795



Peter A. Pfohl