

Blue Source's GHG Emission Reductions Report from JB Hunt's Intermodal Transport Project

(September 2011 – January 2013)



Blue Source™

**1935 East Vine St. Suite 300
Murray, UT 84121**

May, 9th 2013

GHG Reports submitted to GHG CleanProjects™ are expected to conform to the six principles of ISO 14064-2¹: relevance, completeness, consistency, accuracy, transparency, and conservativeness. This GHG Report provides a description of how each of the guiding principles has been addressed. The application of principles is fundamental for the interpretation of the ISO 14064-2 standard and helps ensure GHG-related information is a fair representation of the GHG emission reductions or removals from the project.

1.1. Relevance

During the initial registration of this project no intermodal methodologies had previously been developed. Following ISO standards Blue Source created a specific protocol for this intermodal project. GHG Sources are comprised of combustion of diesel fuel in trains & trucks. There are no GHG Sinks or Reservoirs present in the project.

1.2. Completeness

All GHG SSRs are properly quantified and included within the project documentation. The specific methodology has no elements that are not applicable to the project, since the methodology was developed with this specific project in mind.

1.3. Consistency

The methodology created is consistent, accurate and appropriate for the project. Quantification between the baseline and project scenarios demonstrates equivalent level of service provided.

1.4. Accuracy

Blue Source strives for accuracy by reducing bias and uncertainties on estimations as much as practical. Wherever accuracy cannot be achieved, principles of conservativeness govern.

1.5. Transparency

Data supplied by JB Hunt is provided to Blue Source and to a 3rd party verification body for review. Data and calculations are clearly defined, explained and provided in Appendixes A & B.

1.6. Conservativeness

The project uses conservative assumptions and values to ensure that GHG emission reductions and removal enhancements are not overstated. For example, conservative deductions are applied to mileage calculations to account for route variances, including construction detours and food stops, and any biodiesel consumption in the trucking operations is assumed to be present in the baseline scenario, thereby conservatively reducing the emission reduction calculations.

2. PROJECT DESCRIPTION

Transportation sources in the United States account for nearly a third of the nation's greenhouse gas (GHG) emissions, and are rising faster than in any other sector². The vast majority of transportation systems are powered by internal combustion engines fueled by petroleum. For every one hundred gallons of diesel fuel consumed by an internal combustion engine, approximately one tonne of carbon dioxide

¹ ISO 14064 -2:06 Greenhouse gases – Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements.

² Pew Center on Global Climate Change “Reducing Greenhouse Gas Emissions from U.S. Transportation” David L. Greene, Oak Ridge National Laboratory and Andreas Schafer, Massachusetts Institute of Technology

emissions, the principal greenhouse gas produced by the transportation sector, is created. J.B. Hunt Transport Services, Inc. (J.B. Hunt) is one of the largest truck-load transportation and logistics companies in North America. This report discusses J.B. Hunt's intermodal transport expansion and creation of the intermodal business segment (JBI).

In 1989, J.B. Hunt formed a partnership with the former Santa Fe Railroad (now Burlington Northern Santa Fe). J.B. Hunt describes this as "a watershed event in the intermodal industry and the first that linked major rail and truckload carriers in a joint marketing environment". This decision was based on a desire to increase capacity even with insufficient drivers. The next decade was a time of exploration and piloting new intermodal concepts. Through this experience in intermodal transport an emerging understanding of the efficiency opportunities available was gained². This eventually led to the formation of an intermodal business segment.

In January 2000, J.B. Hunt decided to create JBI, a new business segment focused solely on growing and improving the efficiency of its intermodal operations. The new JBI business segment desired to make intermodal transport a viable option for more shippers by increasing speed and reliability. In order to accomplish this, JBI spent approximately 300 million \$US dollars in new equipment over the next few years, purchasing additional containers and chassis, tractors and software to expand their intermodal operations. JBI now has the largest completely high-cube container fleet designed to take advantage of double-stack economics and efficiency. It also owns the largest drayage fleet in North America for pickup and drop-off of containers at their origins and final destinations. Partnerships with all major rail operators are now in place, allowing J.B. Hunt access to all major rail lines across the United States. JB Hunt's fleets services North America, including a majority of the United States lower 48, some Canadian providences and Mexican states.

2.1. Project title

JB Hunt Intermodal Transport Project

2.2. The project's purpose(s) and objective(s) are:

The purpose of the project is to reduce the Company's greenhouse gas emission and overall environmental impact while providing industry leading efficiencies and services to clientele. The Company is achieving this purpose by increasing its use of intermodal transportation.

2.3. Expected lifetime of the project

October 1st, 2006- September 30th 2016

2.4. Type of greenhouse gas emission reduction or removal project

The project type is: Intermodal Transportation and is classified as: a emission reduction
It is considered a reduction because the intermodal aspect increases the efficiency and decreases (reduces) the amount of fossil fuel that is combusted for transportation purposes.

2.5. Legal land description of the project or the unique latitude and longitude

The address, latitude and longitude for JB Hunt's headquarters is:

J.B. Hunt Transport, Inc.	Latitude: 36.245744
615 J.B. Hunt Corporate Drive	Longitude : -94.14745
Lowell, Arkansas 72745	

This is a transportation project and does not have one single location where emission reductions occur. Emission reductions occur all across the United States, where intermodal is used instead of long-over the road trucking.

Hunt's reductions in GHG emissions are "direct reductions" and result from investments made by Hunt in its own tractors, containers, and logistics operations and software which result in reduced emissions of

GHG and NO_x. Blue Source, by way of its purchase contract with Hunt, has good and marketable title to the greenhouse gas emission reductions.

2.6. Conditions prior to project initiation

In 1989, J.B. Hunt formed a unique partnership with the former Santa Fe Railway (now BNSF) that linked major rail and truckload carriers in a joint marketing environment. However, prior to 2000, J.B. Hunt truck and intermodal operations were integrated and operated as a single entity with intermodal loads shipped using both trailers and containers.

In 2000, JBI was formed as an intermodal business segment within J.B. Hunt. JBI spent over 300 million USD in new equipment, including additional containers and chassis, tractors, and software to expand their intermodal operations.

2.7. Description of how the project will achieve GHG emission reductions or removal enhancements

The project will reduce emissions by increasing the amount of freight transported by intermodal instead of long-haul trucking. Intermodal freight transport utilizes the most efficient aspects of truck and rail modes. Freight trains carry cargo over long distance, high volume rail corridors, and trucks move the loads between the rail terminals and the cargo’s origin or destination. Transporting freight via trains is over three times more efficient than trucks on a ton-mile basis (DIIRD, 2007)

The most efficient way to move containers long distances over land is to “double stack” them one on top of another onto railroad well car (rail cars with a “well” for the bottom container), commonly called COFC or “container on flat car”. Trailers must be shipped single stack.

As the pioneer of truck-like intermodal service, J.B. Hunt is the largest domestic intermodal service provider, and continues to gain market share and lead the conversion of highway shipments to a more energy-efficient intermodal transportation service.

2.8. Project technologies, products, services and the expected level of activity

This project uses specific Intermodal transportation software (PC Miler, PC Railer, Rand McNally). This methodology was developed for this specific project so there are no additional deviations.

2.9. Total GHG emission reductions and removal enhancements, stated in tonnes of CO₂ e, likely to occur from the GHG project (GHG Assertion)

CO₂, CH₄ and N₂O compounds are accounted for, and emission reductions and removal enhancements are quantified in metric tonnes of CO₂-equivalent (t CO₂ e).

Month, Year	CO ₂ (t CO ₂ e)	CH ₄ (t CO ₂ e)	N ₂ O (t CO ₂ e)	Total (t CO ₂ e)
Sept.-Dec. 2011	661,794	(627)	(2,360)	658,807
Jan.- Dec. 2012	2,028,751	(1,998)	(7,574)	2,019,179
January 2013	183,818	(201)	(607)	183,011

2.10. Identification of risks

The JB Hunt company faced a variety of risks when it invested \$300 million in new equipment, software and human capital to expand its intermodal operations. While managing this internal risk, the JB Hunt company had to convince its customers to accept slower shipment delivery timeframes while the competition still offered faster shipping options.

2.11. Roles and Responsibilities

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J.B. Hunt Transport, Inc.
615 J.B Hunt Corporate Drive
Lowell, Arkansas 72745

JB Hunt Contact: Gary Whicker, JB Hunt Transport, Inc.
Person writing the GHG Report: Will Overly, Blue Source, LLC.
Person providing the quantification services: Mahesh Gundappa, Blue Source, LLC.
Person reviewing the GHG Report: Kevin Townsend, Blue Source, LLC.
Person acting as the broker or agent: Kevin Townsend, Blue Source, LLC.
Who has signing authority for the company: Kevin Townsend, Blue Source, LLC.

2.12. Any information relevant for the eligibility of the GHG project under a GHG program and quantification of emission reductions

Project and documentation are in accordance with ISO 14064-2. The project and documentation undergoes a 3rd party verification to meet the GHG Clean Project registry requirements.

2.13. Summary environmental impact assessment

Not required

2.14. Relevant outcomes from stakeholder consultations and mechanisms for on-going communication.

Not required

2.15. Detailed chronological plan

Oct 2006- Sept 2008 – Initial Verification Period
Oct 2008- Dec 2009- 2nd Crediting Period
Jan 2010- Jul 2010- 3rd Crediting Period
Aug 2010-Aug 2011- 4th Crediting Period
Sept 2011- Jan 2013- Current (5th) Crediting Period

Frequency of verifications have been approximately on the annual basis. The project's crediting period finishes September 30th, 2016.

3. SELECTION AND JUSTIFICATION OF THE BASELINE SCENARIO

Emissions reductions were being created as part of an intermodal investment made during the early 1990s. In 2000, significant investments were made in containers, chassis, tractors, software, and new facilities to convert highway shipments to rail. Baseline emissions reflect emissions associated with activities that would have occurred in the absence of JB Hunt's investments in the intermodal project. Various scenarios were identified as potentially representative of the baseline and evaluated to determine the most likely scenario in the absence of the project. Potential baseline scenarios include:

1. All freight would have been transported over the road by JB Hunt or other industry carriers
2. All or a majority of long-haul freight would have been transported by intermodal rail by other industry carriers, and
3. A portion (industry average) of the freight would be transported by intermodal rail by other industry carriers according to average industry use of intermodal technologies.

Since freight transportation by truck is JB Hunt's core business, in the absence of the intermodal project, J.B. Hunt would have used its JBT truck fleet to haul the loads. This was the method of transportation

used by Hunt and other carriers and represents a continuation of business as usual with no barriers to its continued implementation. There are no laws requiring the use of intermodal methods for freight transportation in the US.

Significant investments in infrastructure and changes in operation are required to accommodate the transportation of all long-haul freight by rail. This includes investments in containers and chassis, tractors, and software to create and build information and decision support systems required to effectively manage intermodal operations. There are significant financial, logistical, and institutional barriers for implementation of these systems across the industry.

Following Hunt’s pioneering efforts to shift the transportation of over-the-road freight to intermodal, a few carriers have begun adopting this approach and have begun making investments in the infrastructure required to transport freight by intermodal rail. Assuming that the rest of the industry would have made these investments in the absence of Hunt’s leadership, a portion of the over-the road freight can be expected to be transported by intermodal rail.

Of the three scenarios, Scenario 2 is not a plausible baseline scenario as it has significant financial and institutional barriers for its implementation. Both Scenarios 1 and 3 are plausible baseline scenarios, with Scenario 1, which represents the business as usual case, having the far and away the fewest and most easily overcome barriers. Scenario 1 is the most plausible baseline scenario; however, since intermodal transport emissions are lower than over-the-road truck emissions, Scenario 3 has lower baseline emissions and results in lower emission reductions compared to Scenario 1. To be conservative, Scenario 3, where a portion of the freight would have been transported by rail according to average industry usage, is used in the calculations of baseline emissions.

The Barriers Assessment Table compares the options.

Barrier	All Over the Road Scenario 1	All (majority) By Intermodal Scenario 2	Industry-average use of Intermodal Scenario 3
Financial Economic Barrier Discussions	Minimal barriers, business as usual	Significant financial barriers to transport more than minimal amounts of freight by intermodal	Financial barriers decrease as industry average use of intermodal increases
Technology Operation, Maintenance and Disposal Barrier Discussions	No Barriers	Significant investment in human capital required to operate & maintain intermodal operations	Investment in human capital required to operate & maintain intermodal operations will need to increase as industry average use of intermodal increases
Data Reliability and Limitation Barrier	No Barriers	Specific logistics software must be	Specific logistics software must be

Discussions		developed to perform intermodal activities	developed to perform intermodal activities
Present, Future Conditions and Proliferation Barrier Discussions	No Barriers	Railroad infrastructure would have to be expanded to handle industry shift to majority intermodal	Minimal railroad infrastructure barriers to small fractional uses of intermodal exist
Legislative Barrier Discussions	No Barriers	No Barriers	No Barriers
Socio-cultural Barrier Discussions	No Barriers	Intermodal shipping receives substantial resistance from customers due to increased transit times, and internal resistance due to reduced use of trucking.	Customer resistance to delays in shipping times due to intermodal are moderated by limiting the shipping method's use.
Environment Barrier Discussions	No Barriers	No barriers, as intermodal usage is environmentally beneficial	No barriers, as intermodal usage is environmentally beneficial
Geographic Barrier Discussions	No Barriers	Significant barriers to deploy infrastructure to accommodate intermodal activities	Minor barriers to deploy infrastructure to accommodate intermodal activities
Site Specific Barrier Discussions	No Barriers	Some destinations cannot be serviced by intermodal	Some destinations cannot be serviced by intermodal
Temporal Barrier Discussions	No Barriers	Converting to majority intermodal is a significant long-term decision and investment	Converting to intermodal is a significant long-term decision, but leveraging other carrier's investments reduces this barrier.
Prevailing Practice	No Barriers	Majority intermodal is not the prevailing	Majority intermodal is not the prevailing

Discussion

practice. At the time of the project, only 10.3% of the industry utilized intermodal methods. Prevailing practice is evaluated during each verification.

practice. At the time of the project, only 10.3% of the industry utilized intermodal methods. Prevailing practice is evaluated during each verification.

4. INVENTORY OF SOURCES, SINKS AND RESERVOIRS (SSRs) FOR THE PROJECT AND BASELINE

The Source of this project is combustion of diesel fuel in trains & trucks. This is for both the project and baseline scenario. However, in the project the investment in intermodal has increased the efficiency of the per ton/mile resulting in decreased diesel fuel consumption in relationship to the baseline. This difference results in the emissions attributable to the project.

5. QUANTIFICATION AND CALCULATION OF GHG EMISSIONS/REMOVALS

Baseline emissions (BE), project emissions (PE) and emission reductions (ERs) were calculated using validated procedures described in the project protocol. A monthly breakdown is shown in Table 1. Emission reductions totaled 2.86 MMTCO₂e during the September 2011 – January 2013 time-period. Table 2 shows a breakdown of the monthly ERs by State and Table 3 shows State totals by vintage year. A breakdown of monthly emissions and ERs by State are included in Appendix A. Calculation procedures and an example calculation are included in Appendix B.

The data and calculation spreadsheets and relevant supporting information are being provided for verification to an independent third party verification body accredited under the American National Standard Institute's Greenhouse Gas Accreditation Program.

**Table 1 Summary of Baseline Emissions, Project Emissions, and Emission Reductions
for September 2011 – January 2013 time period (tonnes CO₂e)**

Month-Year	BE	PE	ERs
Sep-11	333,207	171,648	161,560
Oct-11	345,291	178,846	166,445
Nov-11	350,641	177,028	173,612
Dec-11	318,303	161,112	157,191
Jan-12	306,755	159,050	147,705
Feb-12	325,698	170,281	155,417
Mar-12	343,394	182,992	160,403
Apr-12	326,083	173,100	152,983
May-12	350,261	185,102	165,160
Jun-12	354,146	186,429	167,717
Jul-12	346,788	179,426	167,361
Aug-12	392,157	201,885	190,272
Sep-12	351,479	181,843	169,636
Oct-12	394,109	201,879	192,230
Nov-12	378,048	191,246	186,802
Dec-12	332,441	168,949	163,492
Jan-13	371,089	188,078	183,011
TOTAL (Sep. 2011-Dec. 2011)	1,347,442	688,634	658,807
TOTAL (Jan. - Dec. 2012)	4,201,360	2,182,182	2,019,179
TOTAL (Jan. 2013)	371,089	188,078	183,011
TOTAL (Sep. 2011- Jan. 2013)	5,919,891	3,058,894	2,860,997

Table 2. Monthly Emission Reductions Breakdown by State (tonnes CO₂e)

STATE	SEPT_11	OCT_11	NOV_11	DEC_11	TOTAL (SEPT-DEC 2011)	JAN_12	FEB_12	MAR_12	APR_12	MAY_12	JUN_12	JUL_12	AUG_12	SEPT_12	OCT_12	NOV_12	DEC_12	JAN-DEC 2012 TOTAL	JAN_13
AL	1,264	1,191	1,410	1,266	5,131	1,152	1,261	1,348	1,234	1,356	1,459	1,517	1,706	1,547	1,611	1,689	1,429	17,310	1,572
AZ	11,263	11,948	13,137	11,447	47,796	10,692	11,748	11,845	11,565	12,175	12,479	12,606	14,096	12,912	14,914	14,758	13,109	152,899	14,331
AR	6,955	6,943	7,227	6,263	27,388	5,902	6,214	6,461	6,315	6,879	7,016	7,046	7,984	7,009	7,918	7,660	6,640	83,042	7,473
CA	7,104	7,437	8,165	7,387	30,094	6,681	7,379	7,191	6,854	7,668	8,054	8,056	9,009	8,057	9,308	9,216	8,321	95,794	8,938
CO	9,410	9,831	9,934	9,090	38,264	8,776	8,951	9,263	8,778	9,544	9,537	9,261	10,398	9,276	10,802	10,427	8,631	113,644	9,864
CT	238	273	296	330	1,138	349	367	334	341	354	366	397	426	369	390	419	376	4,487	398
DE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FL	964	948	1,031	1,010	3,953	868	961	896	720	931	1,008	967	1,026	1,014	1,147	1,054	957	11,550	1,140
GA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ID	3,061	3,068	3,047	2,938	12,115	2,720	2,944	2,995	2,749	2,783	2,855	2,786	3,342	2,881	3,086	2,959	2,705	34,803	2,998
IL	2,408	2,509	2,717	2,416	10,049	2,053	2,136	2,360	2,404	2,643	2,584	2,989	3,237	2,655	3,038	3,061	2,630	31,790	3,031
IN	2,178	2,496	2,562	2,387	9,623	2,226	2,341	2,582	2,323	2,658	2,804	2,843	3,233	2,838	3,445	3,135	2,838	33,265	2,924
IA	8,831	8,913	8,952	8,497	35,193	8,198	8,286	8,720	8,189	8,901	8,949	8,908	10,155	8,676	9,746	9,359	7,971	106,057	9,190
KS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
KY	1,244	1,317	1,358	1,245	5,165	1,257	1,263	1,312	1,187	1,284	1,290	1,264	1,455	1,311	1,435	1,310	1,202	15,570	1,370
LA	1,264	1,329	1,412	1,333	5,338	1,215	1,501	1,494	1,421	1,536	1,671	1,566	1,749	1,672	1,890	1,829	1,603	19,146	1,783
ME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MD	728	773	770	773	3,045	723	737	765	689	724	792	725	875	828	829	826	747	9,260	796
MA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MN	506	670	826	593	2,595	390	354	369	337	326	277	365	275	301	562	610	372	4,539	487
MS	925	1,027	923	815	3,690	789	974	978	896	981	1,118	1,138	1,294	1,100	1,188	1,115	1,028	12,600	1,227
MO	3,377	3,625	4,017	3,390	14,409	3,285	3,400	3,280	3,377	3,418	3,302	3,341	4,330	3,929	4,504	4,482	3,974	44,623	4,281
MT	2,589	2,943	3,360	2,629	11,521	2,088	2,044	2,193	1,860	1,992	1,816	2,017	1,927	1,923	2,721	2,806	1,947	25,333	2,429
NE	15,597	15,695	15,659	14,680	61,631	14,166	14,525	14,957	14,166	15,329	15,331	15,121	17,509	15,083	16,922	16,079	13,895	183,082	15,783
NV	7,254	7,299	7,315	6,752	28,620	6,465	6,484	6,654	6,428	7,219	7,189	7,119	8,091	6,997	7,953	7,525	6,444	84,568	7,506
NH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NM	8,007	8,532	9,583	8,356	34,479	7,802	8,443	8,488	8,486	8,755	8,951	9,348	10,411	9,515	11,029	10,824	9,860	111,910	10,896
NY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NC	741	785	811	810	3,147	798	647	756	732	803	793	759	904	784	803	924	799	9,503	796
ND	782	944	1,165	848	3,740	595	549	599	514	544	427	568	468	495	849	889	563	7,058	745
OH	5,002	5,038	5,106	4,788	19,934	4,843	5,042	5,601	5,043	5,611	5,788	5,629	6,503	5,760	6,600	6,084	5,799	68,305	6,504
OK	10,210	10,703	11,476	9,471	41,860	9,236	9,690	9,955	9,935	10,452	10,325	10,571	12,351	11,255	13,113	12,612	10,870	130,365	11,901
OR	3,386	3,278	3,200	3,318	13,182	3,076	3,363	3,444	3,150	3,196	3,233	3,104	3,853	3,207	3,368	3,194	3,029	39,216	3,337
PA	3,876	3,736	3,593	3,410	14,616	3,399	3,599	3,949	3,540	3,998	4,216	4,253	4,848	4,265	4,601	4,133	4,060	48,862	4,721
RI	3	4	4	7	18	12	14	15	13	17	23	18	17	13	16	15	14	187	21
SC	486	504	557	491	2,038	522	388	493	517	492	491	487	552	512	483	572	517	6,024	528
SD	409	429	441	390	1,669	371	372	375	287	313	373	335	361	359	393	444	312	4,297	361
TN	7,071	7,126	7,211	6,614	28,022	6,131	6,397	6,830	6,697	7,287	7,402	7,153	8,052	7,389	7,951	7,658	6,794	85,741	7,662
TX	9,989	10,502	11,640	10,283	42,414	9,208	10,672	10,773	10,322	11,109	11,613	11,475	12,682	11,761	13,226	13,703	11,722	138,266	12,898
UT	11,013	11,280	11,346	10,482	44,121	10,118	10,359	10,683	10,101	11,000	10,998	10,722	12,238	10,764	12,271	11,724	9,924	130,905	11,355
VT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VA	3,072	2,994	3,009	3,051	12,126	2,709	2,860	3,087	3,000	3,362	3,460	3,265	3,670	3,557	3,502	3,534	3,456	39,462	3,605
WA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WV	707	679	669	610	2,665	635	633	680	613	632	713	723	824	714	749	726	667	8,310	724
WI	372	474	578	328	1,753	76	34	35	66	66	79	96	61	97	281	343	111	1,279	177
WY	9,273	9,202	9,091	8,689	36,254	8,181	8,484	8,644	8,201	8,823	8,937	8,823	10,359	8,812	9,584	9,105	8,176	106,129	9,256
TOTAL	161,560	166,445	173,612	157,191	658,807	147,705	155,417	160,403	152,983	165,160	167,717	167,361	190,272	169,636	192,230	186,802	163,492	2,019,179	183,011

Table 3. Emission Reductions Breakdown by State and Vintage Year (tonnes CO₂e)

STATE	SEP - DEC 2011	JAN-DEC 2012	JAN 2013
AL	5,131	17,310	1,572
AZ	47,796	152,899	14,331
AR	27,388	83,042	7,473
CA	30,094	95,794	8,938
CO	38,264	113,644	9,864
CT	1,138	4,487	398
DE	-	-	-
DC	-	-	-
FL	3,953	11,550	1,140
GA	-	-	-
ID	12,115	34,803	2,998
IL	10,049	31,790	3,031
IN	9,623	33,265	2,924
IA	35,193	106,057	9,190
KS	-	-	-
KY	5,165	15,570	1,370
LA	5,338	19,146	1,783
ME	-	-	-
MD	3,045	9,260	796
MA	-	-	-
MI	-	-	-
MN	2,595	4,539	487
MS	3,690	12,600	1,227
MO	14,409	44,623	4,281
MT	11,521	25,333	2,429
NE	61,631	183,082	15,783
NV	28,620	84,568	7,506
NH	-	-	-
NJ	-	-	-
NM	34,479	111,910	10,896
NY	-	-	-
NC	3,147	9,503	796
ND	3,740	7,058	745
OH	19,934	68,305	6,504
OK	41,860	130,365	11,901
OR	13,182	39,216	3,337
PA	14,616	48,862	4,721
RI	18	187	21
SC	2,038	6,024	528
SD	1,669	4,297	361
TN	28,022	85,741	7,662
TX	42,414	138,266	12,898
UT	44,121	130,905	11,355
VT	-	-	-
VA	12,126	39,462	3,605
WA	12	-	-
WV	2,665	8,310	724
WI	1,753	1,279	177
WY	36,254	106,129	9,256
TOTAL	658,807	2,019,179	183,011

6. MONITORING THE DATA INFORMATION MANAGEMENT SYSTEM AND DATA CONTROLS

A *fuel-based methodology* is used to calculate all CO_{2e} emissions. Thus, the largest data requirements are truck mileage (empty, loaded and deadhead), and fuel economy (which is then converted to fuel consumption). J.B. Hunt engineers provided spreadsheets containing monthly values of empty and deadhead truck miles, load weights, truck fleet fuel economies, and loaded and empty rail miles from September 2011 to January 2013.

The flow of data from start (a customer calling in a new/existing load) to finish (emission reduction calculations comes) is described in the following: Dispatched loads are entered from J.B. Hunt's facilities and entered into the truck's on-board computer. The load is tracked and the data is transferred to J.B. Hunt's mainframe computer database. Output files are queried for daily reports. J.B. Hunt uses error checking software to match each load order with actual truck data – corrections are usually made within 24 hours. Data for the trucks are collected by the J.B. Hunt on-board truck computers, and communicated via a satellite tracking system to an in-house database system. J.B. Hunt checks the truck's odometer readings with the dispatched miles to record any variances. The variances are tracked and recorded each month, and then applied to the dispatched amounts.

This truck mileage as well as data from three main software systems PC-Miler, PC-Railer, and Rand McNally are used to pull baseline truck, rail, and JBI Dray mileage.

J.B. Hunt has integrated Rand McNally mileage into their data management system and can run jobs that calculate mileage and routes for any given ramp pair. The baseline truck miles are calculated using PC-Miler by entering the starting and ending ramp pairs to calculate the route and total number of miles. The project railroad miles are calculated using PC Railer and entering railroad ramp pairs.

Actual rail miles were determined from data obtained from BNSF and Norfolk Southern (NS) railroads for various ramp pairs used for transporting JB Hunt intermodal loads. For the remaining ramp pairs J.B. Hunt used software PC Railer to estimate the rail miles. Using this approach, approximately 99 percent of the total track miles traveled is determined.

Fuel economies for each truck are determined using data from the fuel billing system. The driver must enter the truck identification number, and odometer reading before receiving fuel from the fueling station. Fuel economies are recorded each time a driver fills up a truck with diesel. J.B. Hunt accurately calculates and documents truck fuel economies for both the JBI and JBT fleets separately on a monthly basis. The fueling system has safeguards that monitor the time between fuel-ups, mileage, and the truck's identification number to prevent partial fuel-ups that will affect the MPG tracking. If the truck does not meet all of the criteria, the fuel-up will not be authorized without further investigation from J.B. Hunt.

JB Hunt provides all the necessary data to Blue Source for integration into the emission reduction calculations spreadsheets. To ensure JB Hunt's data is complete and accurate, screen shots are taken to make sure the appropriate queries were processed to generate the specific data necessary. Also all JB Hunt excel workbooks are password protected and need authorization to access them. JB Hunt's handling of data is very systematic to ensure data integrity.

Blue Source incorporates the necessary mileage, variance factors, biodiesel numbers into the calculations to generate the state breakdown and overall emission reduction numbers. The following improvements and updates were made to the data reporting, and calculation procedures that affect the calculation of baseline and project emissions and the emission breakdown by State.

- JB Hunt has initiated the use of bio-diesel in its trucking fleet (JBT) and provided data on biodiesel usage for Sept. – Dec. 2011 and Jan. – Dec 2012. Bio-diesel usage averaged 2.11 percent (100 percent bio-diesel basis) for the 2011 time-period and 6.31 percent for 2012. Baseline truck emissions were reduced proportionately to reflect bio-diesel usage. In the absence of 2013 data, the bio-diesel usage for Jan. 2013 was assumed equal to the 2012 average value.
- JB Hunt tracks variance factors for JBI maintaining a rolling 12-month archive of monthly variance values. In previous assertions the JBT variance factors were being used for JBI as well. Monthly data of JBI variance factors for Mar. 2012 - Jan. 2013 were used for in these calculations. An average of these values was used for the missing months of Sept. 2011-Feb.2012. Since there is little variability in the month-to-month values, the effect of using an average value for the missing months is not expected to be material.
- In an effort to ensure that the JBT variance factors used in the methodology more appropriately reflects the baseline, JB Hunt engineers compared JBT variance factors calculated for the entire JBT fleet operations (long and short hauls) to the JBT variance factors for only long-haul loads during the same period. The variance factors for long haul loads was approximately 2/3rd the variance for JBT fleetwide operations. Since intermodal loads would have been transported as long haul loads in the baseline, it was decided that these long haul variance factors more accurately reflect the baseline condition. As a result the monthly JBT variance factors were reduced by 1/3rd in the calculation of baseline emissions. This is a conservative measure as it reduces baseline truck emissions and hence, the calculated emission reductions. In the future, JB Hunt will provide JBT variance factors for long haul loads for use in the baseline calculations.
- JB Hunt has the capability to calculate the rail ramp-to-ramp miles using PC railer instead of using PC miler (which provides the road miles between the rail ramps). In this assertion, PC railer was used to calculate the breakdown of baseline and project rail emissions. Note: this does not affect the calculation of total emission reductions but improves the state-by-state breakdown of the total emission reductions.
- The industry average intermodal factor was updated based on recent data.³ The data indicates that intermodal transportation's share of U.S. long-haul truck traffic (550 miles or more) is 17.2 percent. This value was used in the baseline for the entire time-period (Sep. 2011 – Jan. 2013).
- Rail fuel efficiencies were updated for the two major carriers BNSF and NS based on 2011 data. For the remaining carriers, an average value of the data for the other carriers was used.
- Emission factors for CO₂, CH₄, and N₂O emissions from diesel combustion during transport by truck and train were updated.⁴
- Consistent with the UNFCCC's Fourth Assessment Report (AR4),⁵ the GWP of CH₄ was changed from 21 to 25 and for N₂O from 310 to 298. The revised values are effective January 2013. In this assertion the revised values were applied for the January 2013 calculations.

7. REPORTING AND VERIFICATION DETAILS

In 2008, a project protocol⁶ was developed in accordance with International Organization for Standardization (ISO) 14064 guidelines (ISO 2006b) documenting the methodology used to determine the greenhouse gas (GHG) emission reductions (ERs) associated with the J.B. Hunt's Intermodal (JBI) project. It included the calculated ERs from the project during the Oct. 2006 – Sep. 2008 time-period. Emission reductions during that period totaled 3.2 million metric tonnes of carbon dioxide equivalent

³ Webinar: State of Freight, March 7, 2013

⁴ The Climate Registry's 2013 Default Emission Factors, January 2013

⁵ http://www.ipcc.ch/publications_and_data/ar4/wg1/en/errataserrata-errata.html#table214

⁶ Blue Source's Greenhouse Gas Emission Reduction Protocol for JB Hunt's Intermodal Transport Project, December 2008

(MMTCO₂e). The ERs were verified by an independent 3rd party verification company consistent with the verification requirements of ISO 14064. The project is registered on the Canadian Standards Association's (CSA's) GHG CleanProjects™ Registry. Project documents are available at the registry website at <http://www.ghgregistries.ca/cleanprojects> .

Subsequent verifications were completed to verify a total of 5.6 MMTCO₂e for the October 2008 through August 2011 time-period. To meet buyer requirements, the January 2010 – August, 2011 ERs included a breakdown of the calculated ERs by State. The procedures used to determine this breakdown were described in a previous GHG assertion⁷ and were validated during the verification of the project's ERs.⁸

This GHG assertion includes the ERs associated with the project for the September 2011 to January 2013 time-period. The ERs and breakdown by State are calculated in accordance with previously validated procedures.

⁷ Blue Source's Assertion of GHG Emission Reductions from JB Hunt's Intermodal Transport Project (January – July 2010), October 2010

⁸ Verification Report for Emission Reductions Relating to J. B. Hunt Trucking Intermodal Project Including Emission Breakdown by State Reporting Period: January 1, 2010 – July, 31 2010, November 9, 2010

APPENDIX A

Table A-1 Breakdown of Emissions and Emission Reductions by State for Sept. 2011

ST	ORIGIN-TO-DESTINATION - TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS			INTERMODAL DRAY EMISSIONS			EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)	
	TTL Miles	Miles (% of total)	BASELINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASELINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)			PROJECT DRAY EMISSIONS (tonnes CO2e)
AL	2,228,029	1.2%	3,627	3,891,310	1.70%	502	2,207	225,763	1.4%	607	1,315	1,264
AZ	13,812,971	7.4%	22,486	24,274,172	10.61%	3,132	13,767	47,824	0.3%	129	11,722	11,263
AR	5,385,078	2.9%	8,766	2,260,812	0.99%	292	1,282	199,847	1.3%	537	7,238	6,955
CA	14,036,747	7.5%	22,850	22,613,953	9.88%	2,917	12,825	2,063,975	13.3%	5,548	7,394	7,104
CO	6,162,102	3.3%	10,031	317,402	0.14%	41	180	36,751	0.2%	99	9,793	9,410
CT	346,101	0.2%	563	-	0.00%	-	-	117,594	0.8%	316	247	238
DE	54,861	0.0%	89	12,883	0.01%	2	7	57,323	0.4%	154	(70)	-
DC	83	0.0%	0	4,672	0.00%	1	3	28	0.0%	0	(2)	-
FL	1,176,161	0.6%	1,915	821,410	0.36%	106	466	205,225	1.3%	552	1,003	964
GA	2,370,924	1.3%	3,860	4,268,591	1.87%	551	2,421	1,465,567	9.4%	3,940	(1,950)	-
ID	2,333,138	1.3%	3,798	1,388,750	0.61%	179	788	1,352	0.0%	4	3,186	3,061
IL	8,274,044	4.4%	13,469	13,795,888	6.03%	1,780	7,824	1,829,775	11.8%	4,919	2,506	2,408
IN	6,041,469	3.2%	9,835	7,868,715	3.44%	1,015	4,463	1,532,812	9.8%	4,121	2,267	2,178
IA	6,576,949	3.5%	10,706	1,301,353	0.57%	168	738	351,926	2.3%	946	9,190	8,831
KS	1,575,340	0.8%	2,564	12,156,423	5.31%	1,568	6,895	184,176	1.2%	495	(3,257)	-
KY	1,524,702	0.8%	2,482	1,831,858	0.80%	236	1,039	143,059	0.9%	385	1,295	1,244
LA	1,174,949	0.6%	1,913	1,146,418	0.50%	148	650	35,225	0.2%	95	1,316	1,264
ME	36,316	0.0%	59	-	0.00%	-	-	36,316	0.2%	98	(39)	-
MD	644,664	0.3%	1,049	200,739	0.09%	26	114	75,683	0.5%	203	758	728
MA	131,780	0.1%	215	301,616	0.13%	39	171	106,730	0.7%	287	(205)	-
MI	365,459	0.2%	595	-	0.00%	-	-	363,582	2.3%	977	(382)	-
MN	1,608,215	0.9%	2,618	3,734,467	1.63%	482	2,118	169,249	1.1%	455	527	506
MS	1,713,833	0.9%	2,790	2,000,288	0.87%	258	1,134	353,671	2.3%	951	963	925
MO	6,291,016	3.4%	10,241	11,726,313	5.12%	1,513	6,651	591,166	3.8%	1,589	3,514	3,377
MT	4,132,188	2.2%	6,727	9,202,875	4.02%	1,187	5,219	-	0.0%	-	2,695	2,589
NE	10,163,675	5.4%	16,545	672,020	0.29%	87	381	7,188	0.0%	19	16,231	15,597
NV	4,667,074	2.5%	7,597	37,590	0.02%	5	21	11,732	0.1%	32	7,549	7,254
NH	20,654	0.0%	34	-	0.00%	-	-	29,809	0.2%	80	(47)	-
NJ	561,581	0.3%	914	583,156	0.25%	75	331	246,039	1.6%	661	(3)	-
NM	12,140,569	6.5%	19,763	26,085,584	11.40%	3,365	14,794	325	0.0%	1	8,333	8,007
NY	1,122,413	0.6%	1,827	2,708,943	1.18%	349	1,536	336,394	2.2%	904	(264)	-
NC	1,278,055	0.7%	2,081	1,042,270	0.46%	134	591	317,263	2.0%	853	771	741
ND	1,912,478	1.0%	3,113	5,248,375	2.29%	677	2,977	-	0.0%	-	814	782
OH	6,408,422	3.4%	10,432	9,971,693	4.36%	1,286	5,655	318,932	2.0%	857	5,206	5,002
OK	9,888,260	5.3%	16,097	10,976,294	4.80%	1,416	6,225	246,312	1.6%	662	10,626	10,210
OR	2,606,399	1.4%	4,243	327,130	0.14%	42	186	214,037	1.4%	575	3,524	3,386
PA	6,523,298	3.5%	10,619	9,881,698	4.32%	1,275	5,604	839,178	5.4%	2,256	4,034	3,876
RI	10,794	0.0%	18	-	0.00%	-	-	5,339	0.0%	14	3	3
SC	756,656	0.4%	1,232	818,274	0.36%	106	464	136,635	0.9%	367	506	486
SD	261,433	0.1%	426	212	0.00%	0	0	-	0.0%	-	425	409
TN	6,052,336	3.2%	9,852	3,407,398	1.49%	440	1,933	372,437	2.4%	1,001	7,358	7,071
TX	13,288,565	7.1%	21,632	18,763,161	8.20%	2,421	10,642	1,121,940	7.2%	3,016	10,395	9,989
UT	7,089,174	3.8%	11,540	98,871	0.04%	13	56	13,338	0.1%	36	11,461	11,013
VT	8,556	0.0%	14	14,282	0.01%	2	8	3,733	0.0%	10	(2)	-
VA	3,006,734	1.6%	4,895	2,817,457	1.23%	363	1,598	172,161	1.1%	463	3,197	3,072
WA	2,094,365	1.1%	3,409	6,554,750	2.86%	846	3,718	331,825	2.1%	892	(355)	-
WV	586,191	0.3%	954	338,647	0.15%	44	192	26,170	0.2%	70	736	707
WI	2,129,646	1.1%	3,467	3,193,367	1.40%	412	1,811	625,056	4.0%	1,680	387	372
WY	5,978,873	3.2%	9,733	179,230	0.08%	23	102	1,372	0.0%	4	9,651	9,273
TOTAL	186,553,313	100%	303,684	228,841,309	100%	29,523	129,787	15,571,830	100%	41,861	161,560	161,560
SEPT_11			303,684			29,523	129,787			41,861	161,560	
										TTL POS ERs	168,135	
										TTL NEG ERs	6,575	
										TTL ERs CHECK	161,560	

Table A-2 Breakdown of Emissions and Emission Reductions by State for Oct. 2011

ST	ORIGIN-TO-DESTINATION - TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS				INTERMODAL DRAY EMISSIONS			EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)
	TTL Miles	Miles (% of total)	BASELINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASELINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	PROJECT DRAY EMISSIONS (tonnes CO2e)		
AL	2,379,215	1.2%	3,850	4,341,122	1.76%	543	2,385	286,524	1.8%	771	1,237	1,191
AZ	14,508,137	7.5%	23,474	25,784,901	10.48%	3,225	14,164	45,109	0.3%	121	12,414	11,948
AR	5,414,929	2.8%	8,761	2,395,284	0.97%	300	1,316	197,606	1.2%	532	7,213	6,943
CA	14,631,167	7.5%	23,673	24,219,151	9.85%	3,029	13,304	2,107,931	13.0%	5,671	7,727	7,437
CO	6,497,650	3.3%	10,513	434,512	0.18%	54	239	42,922	0.3%	115	10,213	9,831
CT	372,863	0.2%	603	-	0.00%	-	-	118,689	0.7%	319	284	273
DE	60,819	0.0%	98	13,354	0.01%	2	7	60,620	0.4%	163	(70)	-
DC	101	0.0%	0	4,842	0.00%	1	3	16	0.0%	0	(2)	-
FL	1,233,707	0.6%	1,996	965,930	0.39%	121	531	223,457	1.4%	601	985	948
GA	2,681,855	1.4%	4,339	4,884,379	1.99%	611	2,683	1,551,237	9.5%	4,174	(1,907)	-
ID	2,349,680	1.2%	3,802	1,438,543	0.58%	180	790	1,444	0.0%	4	3,188	3,068
IL	8,657,356	4.5%	14,007	14,477,927	5.89%	1,811	7,953	1,954,500	12.0%	5,259	2,607	2,509
IN	6,352,097	3.3%	10,278	8,707,872	3.54%	1,089	4,783	1,483,138	9.1%	3,990	2,593	2,496
IA	6,710,355	3.5%	10,857	1,347,586	0.55%	169	740	381,132	2.3%	1,025	9,260	8,913
KS	1,697,116	0.9%	2,746	12,617,559	5.13%	1,578	6,931	178,945	1.1%	481	(3,088)	-
KY	1,639,186	0.8%	2,652	2,064,611	0.84%	258	1,134	151,506	0.9%	408	1,369	1,317
LA	1,250,538	0.6%	2,023	1,224,148	0.50%	153	672	45,896	0.3%	123	1,381	1,329
ME	37,255	0.0%	60	-	0.00%	-	-	37,255	0.2%	100	(40)	-
MD	681,101	0.4%	1,102	236,202	0.10%	30	130	73,944	0.5%	199	803	773
MA	141,390	0.1%	229	354,299	0.14%	44	195	114,427	0.7%	308	(229)	-
MI	349,224	0.2%	565	-	0.00%	-	-	352,616	2.2%	949	(384)	-
MN	1,707,181	0.9%	2,762	3,867,409	1.57%	484	2,124	158,069	1.0%	425	696	670
MS	1,840,063	0.9%	2,977	2,199,586	0.89%	275	1,208	363,339	2.2%	978	1,066	1,027
MO	6,712,164	3.5%	10,860	12,378,871	5.03%	1,548	6,800	684,590	4.2%	1,842	3,767	3,625
MT	4,389,113	2.3%	7,102	9,532,840	3.88%	1,192	5,236	-	0.0%	-	3,057	2,943
NE	10,272,085	5.3%	16,620	688,934	0.28%	86	378	8,095	0.0%	22	16,306	15,695
NV	4,723,291	2.4%	7,642	56,117	0.02%	7	31	13,250	0.1%	36	7,583	7,299
NH	23,372	0.0%	38	-	0.00%	-	-	34,139	0.2%	92	(54)	-
NJ	584,999	0.3%	947	706,549	0.29%	88	388	279,832	1.7%	753	(106)	-
NM	12,734,886	6.6%	20,605	27,667,223	11.25%	3,460	15,198	1,085	0.0%	3	8,864	8,532
NY	1,189,700	0.6%	1,925	3,180,367	1.29%	398	1,747	360,282	2.2%	969	(394)	-
NC	1,369,823	0.7%	2,216	1,222,539	0.50%	153	672	327,829	2.0%	882	816	785
ND	2,031,918	1.0%	3,288	5,436,553	2.21%	680	2,986	-	0.0%	-	981	944
OH	6,710,605	3.5%	10,858	11,083,598	4.51%	1,386	6,088	342,515	2.1%	922	5,234	5,038
OK	10,391,259	5.3%	16,813	11,607,103	4.72%	1,452	6,376	286,016	1.8%	770	11,119	10,703
OR	2,546,881	1.3%	4,121	454,832	0.18%	57	250	194,072	1.2%	522	3,406	3,278
PA	6,772,368	3.5%	10,958	11,151,596	4.53%	1,395	6,126	871,482	5.4%	2,345	3,882	3,736
RI	12,500	0.0%	20	-	0.00%	-	-	6,004	0.0%	16	4	4
SC	830,275	0.4%	1,343	1,006,155	0.41%	126	553	146,133	0.9%	393	523	504
SD	275,391	0.1%	446	193	0.00%	0	0	19	0.0%	0	445	429
TN	6,251,038	3.2%	10,114	3,876,686	1.58%	485	2,129	396,155	2.4%	1,066	7,404	7,126
TX	13,878,207	7.1%	22,455	20,012,948	8.14%	2,503	10,993	1,134,860	7.0%	3,053	10,911	10,502
UT	7,306,316	3.8%	11,822	149,162	0.06%	19	82	14,586	0.1%	39	11,719	11,280
VT	10,228	0.0%	17	19,793	0.01%	2	11	4,152	0.0%	11	(3)	-
VA	3,129,109	1.6%	5,063	3,365,676	1.37%	421	1,849	195,041	1.2%	525	3,110	2,994
WA	2,256,573	1.2%	3,651	6,930,099	2.82%	867	3,807	339,242	2.1%	913	(202)	-
WV	581,329	0.3%	941	374,358	0.15%	47	206	28,449	0.2%	77	705	679
WI	2,258,458	1.2%	3,654	3,304,882	1.34%	413	1,815	653,883	4.0%	1,759	493	474
WY	5,960,926	3.1%	9,645	193,260	0.08%	24	106	1,071	0.0%	3	9,560	9,202
TOTAL	194,395,796	100%	314,529	245,979,548	100%	30,762	135,116	16,253,100	100%	43,730	166,445	166,445
OCT 11			314,529			30,762	135,116			43,730	166,445	
										TTL POS ERs	172,924	
										TTL NEG ERs	6,479	
										TTL ERs CHECK	166,445	

Table A-3 Breakdown of Emissions and Emission Reductions by State for Nov. 2011

ST	ORIGIN-TO-DESTINATION - TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS				INTERMODAL DRAY EMISSIONS			EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)
	TTL Miles	Miles (% of total)	BASELINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASELINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	PROJECT DRAY EMISSIONS (tonnes CO2e)		
AL	2,356,938	1.2%	3,906	4,245,846	1.79%	544	2,369	223,640	1.4%	619	1,462	1,410
AZ	14,855,894	7.7%	24,617	25,269,961	10.63%	3,236	14,100	49,932	0.3%	138	13,615	13,137
AR	5,443,049	2.8%	9,019	2,384,569	1.00%	305	1,331	182,406	1.1%	505	7,490	7,227
CA	14,697,383	7.6%	24,354	23,077,649	9.71%	2,955	12,877	2,158,341	13.5%	5,971	8,462	8,165
CO	6,387,642	3.3%	10,585	407,254	0.17%	52	227	41,522	0.3%	115	10,295	9,934
CT	360,881	0.2%	598	-	0.00%	-	-	105,167	0.7%	291	307	296
DE	61,950	0.0%	103	14,274	0.01%	2	8	59,784	0.4%	165	(69)	-
DC	30	0.0%	0	5,099	0.00%	1	3	4	0.0%	0	(2)	-
FL	1,263,611	0.7%	2,094	919,081	0.39%	118	513	227,997	1.4%	631	1,068	1,031
GA	2,512,535	1.3%	4,163	4,762,962	2.00%	610	2,658	1,554,790	9.7%	4,301	(2,186)	-
ID	2,259,836	1.2%	3,745	1,354,814	0.57%	174	756	1,580	0.0%	4	3,158	3,047
IL	8,440,100	4.4%	13,986	14,005,834	5.89%	1,794	7,815	1,861,125	11.6%	5,149	2,815	2,717
IN	6,174,874	3.2%	10,232	8,557,575	3.60%	1,096	4,775	1,408,917	8.8%	3,898	2,655	2,562
IA	6,559,830	3.4%	10,870	1,407,087	0.59%	180	785	356,931	2.2%	987	9,278	8,952
KS	1,630,518	0.8%	2,702	12,126,191	5.10%	1,553	6,766	192,432	1.2%	532	(3,044)	-
KY	1,610,043	0.8%	2,668	1,955,536	0.82%	250	1,091	151,618	0.9%	419	1,408	1,358
LA	1,276,024	0.7%	2,114	1,185,652	0.50%	152	662	51,102	0.3%	141	1,463	1,412
ME	35,224	0.0%	58	-	0.00%	-	-	35,224	0.2%	97	(39)	-
MD	652,121	0.3%	1,081	206,547	0.09%	26	115	69,885	0.4%	193	798	770
MA	148,490	0.1%	246	336,551	0.14%	43	188	102,030	0.6%	282	(181)	-
MI	315,745	0.2%	523	-	0.00%	-	-	316,717	2.0%	876	(353)	-
MN	1,752,023	0.9%	2,903	3,652,659	1.54%	468	2,038	172,369	1.1%	477	856	826
MS	1,848,605	1.0%	3,063	2,145,151	0.90%	275	1,197	428,073	2.7%	1,184	957	923
MO	6,690,828	3.5%	11,087	11,993,049	5.04%	1,536	6,692	639,087	4.0%	1,768	4,163	4,017
MT	4,430,878	2.3%	7,342	8,977,990	3.78%	1,150	5,010	-	0.0%	-	3,482	3,360
NE	10,015,837	5.2%	16,597	812,584	0.34%	104	453	6,767	0.0%	19	16,229	15,659
NV	4,615,820	2.4%	7,649	57,524	0.02%	7	32	15,493	0.1%	43	7,581	7,315
NH	26,641	0.0%	44	-	0.00%	-	-	38,198	0.2%	106	(62)	-
NJ	551,439	0.3%	914	635,041	0.27%	81	354	256,993	1.6%	711	(70)	-
NM	13,027,658	6.7%	21,588	27,105,691	11.40%	3,471	15,124	1,098	0.0%	3	9,931	9,583
NY	1,192,314	0.6%	1,976	3,122,491	1.31%	400	1,742	338,426	2.1%	936	(303)	-
NC	1,307,529	0.7%	2,167	1,025,109	0.43%	131	572	319,978	2.0%	885	841	811
ND	2,057,218	1.1%	3,409	5,120,124	2.15%	656	2,857	3	0.0%	0	1,208	1,165
OH	6,595,016	3.4%	10,928	11,033,147	4.64%	1,413	6,156	322,731	2.0%	893	5,292	5,106
OK	10,563,601	5.5%	17,505	11,373,904	4.78%	1,457	6,346	260,675	1.6%	721	11,894	11,476
OR	2,363,106	1.2%	3,916	187,257	0.08%	24	104	187,608	1.2%	519	3,316	3,200
PA	6,577,361	3.4%	10,899	10,808,327	4.55%	1,384	6,031	913,872	5.7%	2,528	3,724	3,593
RI	10,092	0.0%	17	-	0.00%	-	-	4,561	0.0%	13	4	4
SC	807,732	0.4%	1,338	879,332	0.37%	113	491	138,603	0.9%	383	577	557
SD	275,966	0.1%	457	331	0.00%	0	0	-	0.0%	-	457	441
TN	6,191,779	3.2%	10,260	3,781,490	1.59%	484	2,110	419,886	2.6%	1,162	7,473	7,211
TX	14,233,612	7.4%	23,586	19,571,955	8.23%	2,507	10,921	1,123,438	7.0%	3,108	12,064	11,640
UT	7,159,828	3.7%	11,864	149,174	0.06%	19	83	14,936	0.1%	41	11,759	11,346
VT	10,012	0.0%	17	18,176	0.01%	2	10	5,006	0.0%	14	(5)	-
VA	2,980,986	1.5%	4,940	2,765,271	1.16%	354	1,543	228,675	1.4%	633	3,118	3,009
WA	2,297,662	1.2%	3,807	6,560,871	2.76%	840	3,661	352,021	2.2%	974	13	12
WV	573,911	0.3%	951	367,415	0.15%	47	205	35,957	0.2%	99	694	669
WI	2,286,773	1.2%	3,789	3,180,952	1.34%	407	1,775	658,783	4.1%	1,823	599	578
WY	5,741,991	3.0%	9,515	211,364	0.09%	27	118	982	0.0%	3	9,421	9,091
TOTAL	193,228,932	100%	320,192	237,758,861	100%	30,449	132,665	16,035,357	100%	44,363	173,612	173,612
NOV_11			320,192			30,449	132,665			44,363	173,612	
										TTL POS ERs	179,926	
										TTL NEG ERs	6,313	
										TTL ERs CHECK	173,612	

Table A-4 Breakdown of Emissions and Emission Reductions by State for Dec. 2011

ST	ORIGIN-TO-DESTINATION - TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS				INTERMODAL DRAY EMISSIONS			EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)
	TTL Miles	Miles (% of total)	BASELINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASELINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	PROJECT DRAY EMISSIONS (tonnes CO2e)		
AL	2,082,153	1.2%	3,513	3,757,674	1.74%	482	2,073	216,386	1.4%	607	1,316	1,266
AZ	12,642,928	7.3%	21,334	21,950,913	10.16%	2,815	12,107	51,538	0.3%	145	11,897	11,447
AR	4,647,164	2.7%	7,842	2,036,763	0.94%	261	1,123	167,872	1.1%	471	6,509	6,263
CA	12,751,188	7.4%	21,516	20,040,629	9.28%	2,570	11,054	1,909,744	12.8%	5,355	7,678	7,387
CO	5,739,174	3.3%	9,684	323,865	0.15%	42	179	35,577	0.2%	100	9,447	9,090
CT	340,052	0.2%	574	-	0.00%	-	-	82,165	0.5%	230	343	330
DE	57,416	0.0%	97	11,577	0.01%	1	6	48,078	0.3%	135	(43)	-
DC	41	0.0%	0	4,145	0.00%	1	2	5	0.0%	0	(2)	-
FL	1,183,229	0.7%	1,997	919,000	0.43%	118	507	198,932	1.3%	558	1,050	1,010
GA	2,268,977	1.3%	3,829	4,495,814	2.08%	577	2,480	1,460,075	9.8%	4,094	(2,169)	-
ID	2,138,000	1.2%	3,608	1,296,234	0.60%	166	715	1,896	0.0%	5	3,054	2,938
IL	7,896,632	4.6%	13,325	13,419,842	6.21%	1,721	7,402	1,830,481	12.2%	5,133	2,511	2,416
IN	5,694,715	3.3%	9,609	8,110,089	3.75%	1,040	4,473	1,317,663	8.8%	3,695	2,481	2,387
IA	6,147,774	3.6%	10,374	1,357,322	0.63%	174	749	345,231	2.3%	968	8,831	8,497
KS	1,574,275	0.9%	2,656	11,237,031	5.20%	1,441	6,198	178,641	1.2%	501	(2,601)	-
KY	1,470,408	0.9%	2,481	1,845,343	0.85%	237	1,018	144,717	1.0%	406	1,294	1,245
LA	1,159,504	0.7%	1,957	1,067,349	0.49%	137	589	42,485	0.3%	119	1,386	1,333
ME	36,689	0.0%	62	-	0.00%	-	-	36,689	0.2%	103	(41)	-
MD	627,528	0.4%	1,059	184,370	0.09%	24	102	63,179	0.4%	177	804	773
MA	135,261	0.1%	228	353,809	0.16%	45	195	116,680	0.8%	327	(249)	-
MI	306,399	0.2%	517	-	0.00%	-	-	308,537	2.1%	865	(348)	-
MN	1,491,245	0.9%	2,516	3,485,322	1.61%	447	1,922	151,449	1.0%	425	616	593
MS	1,672,155	1.0%	2,822	1,906,107	0.88%	244	1,051	416,278	2.8%	1,167	847	815
MO	5,895,177	3.4%	9,948	11,029,157	5.10%	1,415	6,083	625,922	4.2%	1,755	3,524	3,390
MT	3,773,950	2.2%	6,368	8,589,796	3.98%	1,102	4,738	-	0.0%	-	2,732	2,629
NE	9,262,164	5.4%	15,629	821,376	0.38%	105	453	8,604	0.1%	24	15,257	14,680
NV	4,192,557	2.4%	7,075	43,854	0.02%	6	24	13,721	0.1%	38	7,018	6,752
NH	20,843	0.0%	35	-	0.00%	-	-	29,104	0.2%	82	(46)	-
NJ	481,956	0.3%	813	523,944	0.24%	67	289	230,897	1.5%	647	(56)	-
NM	11,057,802	6.4%	18,659	23,556,903	10.90%	3,021	12,993	908	0.0%	3	8,685	8,356
NY	994,777	0.6%	1,679	3,037,045	1.41%	390	1,675	260,453	1.7%	730	(337)	-
NC	1,207,061	0.7%	2,037	1,033,595	0.48%	133	570	270,149	1.8%	758	842	810
ND	1,751,274	1.0%	2,955	4,898,738	2.27%	628	2,702	-	0.0%	-	881	848
OH	6,041,577	3.5%	10,195	10,485,582	4.85%	1,345	5,783	278,069	1.9%	780	4,976	4,788
OK	8,877,767	5.2%	14,980	10,302,951	4.77%	1,321	5,683	276,509	1.8%	775	9,844	9,471
OR	2,398,017	1.4%	4,046	205,857	0.10%	26	114	182,140	1.2%	511	3,449	3,318
PA	6,177,255	3.6%	10,424	10,390,702	4.81%	1,333	5,731	884,642	5.9%	2,481	3,544	3,410
RI	11,595	0.0%	20	-	0.00%	-	-	4,465	0.0%	13	7	7
SC	745,666	0.4%	1,258	818,024	0.38%	105	451	143,152	1.0%	401	511	491
SD	240,475	0.1%	406	129	0.00%	0	0	-	0.0%	-	406	390
TN	5,498,884	3.2%	9,279	3,310,991	1.53%	425	1,826	357,594	2.4%	1,003	6,875	6,614
TX	12,360,815	7.2%	20,858	17,036,855	7.88%	2,185	9,397	1,054,960	7.1%	2,958	10,688	10,283
UT	6,498,347	3.8%	10,965	94,170	0.04%	12	52	11,316	0.1%	32	10,894	10,482
VT	7,679	0.0%	13	19,681	0.01%	3	11	4,138	0.0%	12	(7)	-
VA	2,813,886	1.6%	4,748	2,505,927	1.16%	321	1,382	184,199	1.2%	517	3,171	3,051
WA	1,877,019	1.1%	3,167	6,042,224	2.80%	775	3,333	317,474	2.1%	890	(281)	-
WV	506,152	0.3%	854	327,533	0.15%	42	181	29,073	0.2%	82	634	610
WI	2,054,340	1.2%	3,467	2,995,610	1.39%	384	1,652	662,251	4.4%	1,857	341	328
WY	5,401,654	3.1%	9,115	192,808	0.09%	25	106	1,008	0.0%	3	9,030	8,689
TOTAL	172,211,595	100%	290,592	216,066,650	100%	27,711	119,175	14,955,041	100%	41,937	157,191	157,191
DEC 11			290,592			27,711	119,175			41,937	157,191	
										TTL POS ERs	163,371	
										TTL NEG ERs	6,180	
										TTL ERs CHECK	157,191	

Table A-5 Breakdown of Emissions and Emission Reductions by State for Jan. 2012

ST	ORIGIN-TO-DESTINATION - TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS				INTERMODAL DRAY EMISSIONS			EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS FOR LEAKAGE (tonnes CO2e)
	TTL Miles	Miles (% of total)	BASELINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASELINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	PROJECT DRAY EMISSIONS (tonnes CO2e)		
AL	2,005,793	1.2%	3,299	3,258,344	1.68%	459	1,981	204,916	1.4%	573	1,204	1,152
AZ	12,611,487	7.4%	20,744	20,217,510	10.41%	2,847	12,291	45,627	0.3%	128	11,173	10,692
AR	4,576,021	2.7%	7,527	1,818,497	0.94%	256	1,106	182,337	1.2%	510	6,167	5,902
CA	12,633,561	7.4%	20,780	18,323,454	9.43%	2,580	11,140	1,872,523	12.8%	5,240	6,981	6,681
CO	5,699,750	3.4%	9,375	250,633	0.13%	35	152	31,444	0.2%	88	9,170	8,776
CT	340,834	0.2%	561	-	0.00%	-	-	69,960	0.5%	196	365	349
DE	54,854	0.0%	90	12,369	0.01%	2	8	41,763	0.3%	117	(32)	-
DC	41	0.0%	0	4,408	0.00%	1	3	5	0.0%	0	(2)	-
FL	1,074,058	0.6%	1,767	733,063	0.38%	103	446	184,887	1.3%	517	907	868
GA	2,192,237	1.3%	3,606	3,817,720	1.97%	538	2,321	1,415,972	9.7%	3,963	(2,140)	-
ID	2,057,502	1.2%	3,384	1,151,400	0.59%	162	700	1,323	0.0%	4	2,843	2,720
IL	7,749,653	4.6%	12,747	11,953,927	6.15%	1,683	7,267	1,793,013	12.3%	5,018	2,146	2,053
IN	5,668,400	3.3%	9,324	6,964,289	3.59%	981	4,234	1,338,207	9.1%	3,745	2,326	2,226
IA	6,112,720	3.6%	10,055	1,165,420	0.60%	164	709	337,225	2.3%	944	8,566	8,198
KS	1,417,606	0.8%	2,332	10,533,462	5.42%	1,483	6,404	166,647	1.1%	466	(3,055)	-
KY	1,509,023	0.9%	2,482	1,622,853	0.84%	229	987	146,830	1.0%	411	1,313	1,257
LA	1,068,853	0.6%	1,758	830,618	0.43%	117	505	36,064	0.2%	101	1,269	1,215
ME	30,001	0.0%	49	-	0.00%	-	-	30,001	0.2%	84	(35)	-
MD	617,454	0.4%	1,016	196,649	0.10%	28	120	60,002	0.4%	168	756	723
MA	133,312	0.1%	219	290,287	0.15%	41	176	116,078	0.8%	325	(241)	-
MI	327,152	0.2%	538	-	0.00%	-	-	333,490	2.3%	933	(395)	-
MN	1,382,505	0.8%	2,274	3,111,641	1.60%	438	1,892	147,478	1.0%	413	408	390
MS	1,577,617	0.9%	2,595	1,596,224	0.82%	225	970	366,329	2.5%	1,025	824	789
MO	5,994,115	3.5%	9,859	10,067,473	5.18%	1,418	6,120	616,037	4.2%	1,724	3,433	3,285
MT	3,495,923	2.1%	5,750	7,630,020	3.93%	1,074	4,639	1,403	0.0%	4	2,182	2,088
NE	9,194,037	5.4%	15,123	632,127	0.33%	89	384	8,814	0.1%	25	14,803	14,166
NV	4,132,594	2.4%	6,798	16,541	0.01%	2	10	12,302	0.1%	34	6,755	6,465
NH	18,134	0.0%	30	-	0.00%	-	-	25,818	0.2%	72	(42)	-
NJ	490,611	0.3%	807	464,791	0.24%	65	283	233,097	1.6%	652	(62)	-
NM	11,139,770	6.6%	18,323	21,772,047	11.21%	3,066	13,236	357	0.0%	1	8,152	7,802
NY	1,070,632	0.6%	1,761	2,564,236	1.32%	361	1,559	301,658	2.1%	844	(281)	-
NC	1,204,887	0.7%	1,982	993,719	0.51%	140	604	244,329	1.7%	684	834	798
ND	1,614,630	1.0%	2,656	4,351,380	2.24%	613	2,645	712	0.0%	2	621	595
OH	6,089,971	3.6%	10,017	8,938,475	4.60%	1,259	5,434	279,062	1.9%	781	5,061	4,843
OK	9,012,493	5.3%	14,824	9,386,017	4.83%	1,322	5,706	281,927	1.9%	789	9,651	9,236
OR	2,330,431	1.4%	3,833	177,249	0.09%	25	108	191,561	1.3%	536	3,214	3,076
PA	6,183,783	3.6%	10,171	8,976,270	4.62%	1,264	5,457	867,311	5.9%	2,427	3,551	3,399
RI	14,068	0.0%	23	-	0.00%	-	-	3,826	0.0%	11	12	12
SC	789,062	0.5%	1,298	787,057	0.41%	111	478	137,423	0.9%	385	546	522
SD	235,943	0.1%	388	506	0.00%	0	0	37	0.0%	0	388	371
TN	5,370,438	3.2%	8,834	2,982,771	1.54%	420	1,813	369,505	2.5%	1,034	6,406	6,131
TX	11,958,076	7.0%	19,669	15,438,501	7.95%	2,174	9,386	1,013,438	6.9%	2,836	9,622	9,208
UT	6,457,948	3.8%	10,622	58,199	0.03%	8	35	7,911	0.1%	22	10,573	10,118
VT	8,748	0.0%	14	16,229	0.01%	2	10	6,047	0.0%	17	(10)	-
VA	2,777,254	1.6%	4,568	2,620,637	1.35%	369	1,593	183,390	1.3%	513	2,831	2,709
WA	1,751,606	1.0%	2,881	5,348,586	2.75%	753	3,252	259,452	1.8%	726	(343)	-
WV	542,241	0.3%	892	329,876	0.17%	46	201	26,471	0.2%	74	664	635
WI	1,907,302	1.1%	3,137	2,720,037	1.40%	383	1,654	638,664	4.4%	1,787	79	76
WY	5,237,112	3.1%	8,614	134,875	0.07%	19	82	978	0.0%	3	8,549	8,181
TOTAL	169,862,241	100%	279,399	194,260,387	100%	27,357	118,098	14,633,652	100%	40,952	147,705	147,705
JAN 12			279,399			27,357	118,098			40,952	147,705	
										TTL POS ERs	154,345	
										TTL NEG ERs	6,639	
										TTL ERs CHECK	147,705	

Table A-6 Breakdown of Emissions and Emission Reductions by State for Feb. 2012

ST	ORIGIN-TO-DESTINATION - TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS				INTERMODAL DRAY EMISSIONS			EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)
	TTL Miles	Miles (% of total)	BASILINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASILINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	PROJECT DRAY EMISSIONS (tonnes CO2e)		
AL	2,285,709	1.2%	3,660	3,707,336	1.70%	498	2,164	246,164	1.6%	671	1,323	1,261
AZ	14,117,827	7.6%	22,604	22,550,655	10.33%	3,027	13,162	55,316	0.4%	151	12,318	11,748
AR	5,032,891	2.7%	8,058	2,242,413	1.03%	301	1,309	196,492	1.2%	535	6,515	6,214
CA	13,867,652	7.5%	22,204	19,842,456	9.09%	2,663	11,582	2,036,125	12.9%	5,549	7,737	7,379
CO	6,007,593	3.2%	9,619	287,218	0.13%	39	168	38,354	0.2%	105	9,385	8,951
CT	366,827	0.2%	587	-	0.00%	-	-	74,303	0.5%	202	385	367
DE	56,148	0.0%	90	13,418	0.01%	2	8	55,083	0.3%	150	(66)	-
DC	78	0.0%	0	4,815	0.00%	1	3	12	0.0%	0	(2)	-
FL	1,279,628	0.7%	2,049	933,174	0.43%	125	545	227,996	1.4%	621	1,008	961
GA	2,397,936	1.3%	3,839	4,617,955	2.12%	620	2,695	1,492,457	9.5%	4,067	(2,303)	-
ID	2,299,036	1.2%	3,681	1,316,030	0.60%	177	768	1,174	0.0%	3	3,086	2,944
IL	8,315,848	4.5%	13,315	13,321,992	6.10%	1,788	7,776	1,866,782	11.9%	5,087	2,240	2,136
IN	6,031,682	3.3%	9,657	7,694,275	3.53%	1,033	4,491	1,373,964	8.7%	3,744	2,455	2,341
IA	6,366,969	3.4%	10,194	1,330,272	0.61%	179	776	333,220	2.1%	908	8,688	8,286
KS	1,522,475	0.8%	2,438	11,907,515	5.46%	1,598	6,950	201,313	1.3%	549	(3,463)	-
KY	1,573,437	0.8%	2,519	1,779,656	0.82%	239	1,039	145,117	0.9%	395	1,324	1,263
LA	1,321,940	0.7%	2,117	911,866	0.42%	122	532	48,808	0.3%	133	1,574	1,501
ME	36,022	0.0%	58	-	0.00%	-	-	36,022	0.2%	98	(40)	-
MD	652,879	0.4%	1,045	208,453	0.10%	28	122	65,691	0.4%	179	773	737
MA	152,739	0.1%	245	363,705	0.17%	49	212	125,354	0.8%	342	(261)	-
MI	330,254	0.2%	529	-	0.00%	-	-	330,318	2.1%	900	(371)	-
MN	1,474,418	0.8%	2,361	3,537,430	1.62%	475	2,065	146,726	0.9%	400	371	354
MS	1,805,928	1.0%	2,892	1,772,995	0.81%	238	1,035	393,979	2.5%	1,074	1,021	974
MO	6,574,584	3.6%	10,527	11,583,931	5.31%	1,555	6,761	644,104	4.1%	1,755	3,565	3,400
MT	3,786,385	2.0%	6,062	8,720,979	4.00%	1,171	5,090	-	0.0%	-	2,143	2,044
NE	9,731,130	5.3%	15,581	726,662	0.33%	98	424	8,871	0.1%	24	15,230	14,525
NV	4,275,795	2.3%	6,846	-	0.01%	2	9	14,824	0.1%	40	6,798	6,484
NH	24,226	0.0%	39	-	0.00%	-	-	35,075	0.2%	96	(57)	-
NJ	506,846	0.3%	812	518,886	0.24%	70	303	265,108	1.7%	722	(144)	-
NM	12,392,523	6.7%	19,842	24,448,257	11.20%	3,281	14,270	336	0.0%	1	8,853	8,443
NY	1,149,036	0.6%	1,840	2,981,886	1.37%	400	1,740	300,830	1.9%	820	(320)	-
NC	1,246,172	0.7%	1,995	1,163,565	0.53%	156	679	291,418	1.9%	794	678	647
ND	1,755,474	0.9%	2,811	4,973,551	2.28%	668	2,903	-	0.0%	-	575	549
OH	6,588,175	3.6%	10,549	9,869,947	4.52%	1,325	5,761	303,043	1.9%	826	5,287	5,042
OK	9,962,437	5.4%	15,951	11,198,098	5.13%	1,503	6,536	277,954	1.8%	757	10,161	9,690
OR	2,640,626	1.4%	4,228	211,133	0.10%	28	123	222,555	1.4%	606	3,527	3,363
PA	6,690,354	3.6%	10,712	9,638,348	4.42%	1,294	5,626	956,325	6.1%	2,606	3,774	3,599
RI	13,159	0.0%	21	-	0.00%	-	-	2,275	0.0%	6	15	14
SC	792,068	0.4%	1,268	1,014,630	0.46%	136	592	148,914	0.9%	406	406	388
SD	244,022	0.1%	391	506	0.00%	0	0	56	0.0%	0	390	372
TN	5,728,218	3.1%	9,172	3,169,560	1.45%	425	1,850	381,385	2.4%	1,039	6,708	6,397
TX	13,836,324	7.5%	22,154	17,297,574	7.93%	2,322	10,096	1,170,562	7.4%	3,190	11,189	10,672
UT	6,817,537	3.7%	10,916	61,266	0.03%	8	36	9,658	0.1%	26	10,862	10,359
VT	10,013	0.0%	16	20,559	0.01%	3	12	5,586	0.0%	15	(8)	-
VA	2,976,968	1.6%	4,767	2,766,451	1.27%	371	1,615	192,469	1.2%	524	2,999	2,860
WA	1,895,603	1.0%	3,035	6,058,685	2.78%	813	3,536	299,183	1.9%	815	(503)	-
WV	562,653	0.3%	901	356,857	0.16%	48	208	28,162	0.2%	77	664	633
WI	2,029,213	1.1%	3,249	2,926,883	1.34%	393	1,708	696,417	4.4%	1,898	36	34
WY	5,600,427	3.0%	8,967	148,000	0.07%	20	86	1,766	0.0%	5	8,896	8,484
TOTAL	185,125,879	100%	296,410	218,215,906	100%	29,288	127,367	15,747,640	100%	42,914	155,417	155,417
FEB_12			296,410			29,288	127,367			42,914	155,417	
										TTL POS ERs	162,957	
										TTL NEG ERs	7,540	
										TTL ERs CHECK	155,417	

Table A-7 Breakdown of Emissions and Emission Reductions by State for Mar. 2012

ST	ORIGIN-TO-DESTINATION - TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS				INTERMODAL DRAY EMISSIONS			EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)
	TTL Miles	Miles (% of total)	BASELINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASELINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	PROJECT DRAY EMISSIONS (tonnes CO2e)		
AL	2,419,954	1.2%	3,775	4,007,466	1.66%	523	2,285	224,543	1.3%	597	1,416	1,348
AZ	15,066,377	7.5%	23,502	24,762,633	10.27%	3,231	14,118	64,641	0.4%	172	12,443	11,845
AR	5,416,213	2.7%	8,449	2,482,250	1.03%	324	1,415	214,412	1.3%	570	6,787	6,461
CA	14,732,880	7.4%	22,982	21,560,375	8.94%	2,813	12,292	2,236,300	13.1%	5,949	7,554	7,191
CO	6,422,333	3.2%	10,018	375,828	0.16%	49	214	45,893	0.3%	122	9,731	9,263
CT	400,675	0.2%	625	-	0.00%	-	-	102,905	0.6%	274	351	334
DE	62,586	0.0%	98	15,729	0.01%	2	9	54,827	0.3%	146	(55)	-
DC	89	0.0%	0	5,592	0.00%	1	3	15	0.0%	0	(2)	-
FL	1,242,670	0.6%	1,938	883,104	0.37%	115	503	228,912	1.3%	609	941	896
GA	2,646,326	1.3%	4,128	4,934,763	2.05%	644	2,813	1,658,623	9.7%	4,412	(2,454)	-
ID	2,430,966	1.2%	3,792	1,461,268	0.61%	191	833	1,322	0.0%	4	3,146	2,995
IL	9,174,817	4.6%	14,312	14,961,609	6.20%	1,952	8,530	1,975,434	11.6%	5,255	2,479	2,360
IN	6,753,546	3.4%	10,535	8,378,436	3.47%	1,093	4,777	1,556,012	9.1%	4,139	2,712	2,582
IA	6,884,487	3.4%	10,739	1,602,024	0.66%	209	913	328,772	1.9%	875	9,160	8,720
KS	1,631,287	0.8%	2,545	13,198,005	5.47%	1,722	7,524	226,397	1.3%	602	(3,860)	-
KY	1,717,270	0.9%	2,679	2,027,715	0.84%	265	1,156	153,956	0.9%	410	1,378	1,312
LA	1,364,334	0.7%	2,128	963,362	0.40%	126	549	50,913	0.3%	135	1,569	1,494
ME	35,928	0.0%	56	-	0.00%	-	-	35,928	0.2%	96	(40)	-
MD	711,418	0.4%	1,110	255,349	0.11%	33	146	72,715	0.4%	193	804	765
MA	155,517	0.1%	243	358,631	0.15%	47	204	120,944	0.7%	322	(237)	-
MI	356,085	0.2%	555	-	0.00%	-	-	359,328	2.1%	956	(400)	-
MN	1,648,097	0.8%	2,571	3,919,434	1.62%	511	2,235	172,867	1.0%	460	388	369
MS	1,894,414	0.9%	2,955	1,889,582	0.78%	247	1,077	412,188	2.4%	1,096	1,028	978
MO	7,094,077	3.5%	11,066	13,163,862	5.46%	1,718	7,505	689,267	4.0%	1,834	3,445	3,280
MT	4,206,114	2.1%	6,561	9,683,432	4.01%	1,264	5,521	-	0.0%	-	2,304	2,193
NE	10,362,015	5.2%	16,164	968,306	0.40%	126	552	9,735	0.1%	26	15,712	14,957
NV	4,522,414	2.3%	7,054	28,875	0.01%	4	16	19,509	0.1%	52	6,990	6,654
NH	24,160	0.0%	38	-	0.00%	-	-	35,304	0.2%	94	(56)	-
NJ	591,968	0.3%	923	613,374	0.25%	80	350	301,382	1.8%	802	(148)	-
NM	13,297,298	6.6%	20,742	26,896,938	11.15%	3,510	15,335	364	0.0%	1	8,917	8,488
NY	1,318,358	0.7%	2,056	3,146,777	1.30%	411	1,794	344,990	2.0%	918	(245)	-
NC	1,441,835	0.7%	2,249	1,368,244	0.57%	179	780	320,790	1.9%	853	794	756
ND	1,959,554	1.0%	3,057	5,522,436	2.29%	721	3,148	15	0.0%	0	629	599
OH	7,345,052	3.7%	11,457	10,726,907	4.45%	1,400	6,116	322,325	1.9%	857	5,884	5,601
OK	10,732,104	5.4%	16,741	12,649,373	5.24%	1,651	7,212	271,646	1.6%	723	10,457	9,955
OR	2,760,919	1.4%	4,307	223,510	0.09%	29	127	221,922	1.3%	590	3,618	3,444
PA	7,472,118	3.7%	11,656	10,681,864	4.43%	1,394	6,090	1,056,826	6.2%	2,811	4,148	3,949
RI	14,206	0.0%	22	-	0.00%	-	-	2,500	0.0%	7	16	15
SC	924,295	0.5%	1,442	1,143,365	0.47%	149	652	158,320	0.9%	421	518	493
SD	252,736	0.1%	394	543	0.00%	0	0	-	0.0%	-	394	375
TN	6,274,909	3.1%	9,788	3,486,404	1.45%	455	1,988	406,130	2.4%	1,080	7,175	6,830
TX	14,704,708	7.4%	22,938	18,757,626	7.78%	2,448	10,694	1,268,334	7.4%	3,374	11,317	10,773
UT	7,245,913	3.6%	11,303	101,117	0.04%	13	58	13,377	0.1%	36	11,223	10,683
VT	12,252	0.0%	19	20,539	0.01%	3	12	8,223	0.0%	22	(12)	-
VA	3,383,662	1.7%	5,278	3,385,952	1.40%	442	1,930	205,527	1.2%	547	3,243	3,087
WA	2,092,396	1.0%	3,264	6,808,160	2.82%	888	3,881	324,162	1.9%	862	(592)	-
WV	620,898	0.3%	969	398,389	0.17%	52	227	29,863	0.2%	79	714	680
WI	2,253,446	1.1%	3,515	3,166,541	1.31%	413	1,805	784,404	4.6%	2,087	36	35
WY	5,886,816	2.9%	9,183	220,869	0.09%	29	126	1,959	0.0%	5	9,080	8,644
TOTAL	199,962,490	100%	311,920	241,206,558	100%	31,475	137,517	17,094,721	100%	45,475	160,403	160,403
MAR_12			311,920			31,475	137,517			45,475	160,403	
										TTL POS ERs	168,503	
										TTL NEG ERs	8,100	
										TTL ERs CHECK	160,403	

Table A-8 Breakdown of Emissions and Emission Reductions by State for Apr. 2012

ST	ORIGIN-TO-DESTINATION - TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS				INTERMODAL DRAY EMISSIONS			EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)
	TTL Miles	Miles (% of total)	BASELINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASELINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	PROJECT DRAY EMISSIONS (tonnes CO2e)		
AL	2,340,285	1.2%	3,673	4,032,316	1.77%	527	2,308	226,037	1.4%	596	1,297	1,234
AZ	14,337,589	7.6%	22,503	23,117,423	10.14%	3,020	13,230	53,552	0.3%	141	12,153	11,565
AR	5,219,585	2.8%	8,192	2,323,672	1.02%	304	1,330	201,478	1.2%	531	6,635	6,315
CA	13,962,032	7.4%	21,914	20,633,990	9.05%	2,696	11,809	2,124,953	13.1%	5,599	7,202	6,854
CO	6,037,304	3.2%	9,476	322,069	0.14%	42	184	41,632	0.3%	110	9,224	8,778
CT	373,264	0.2%	586	-	0.00%	-	-	86,364	0.5%	228	358	341
DE	55,489	0.0%	87	15,643	0.01%	2	9	45,119	0.3%	119	(39)	-
DC	107	0.0%	0	5,538	0.00%	1	3	13	0.0%	0	(2)	-
FL	1,042,436	0.6%	1,636	771,328	0.34%	101	441	204,330	1.3%	538	757	720
GA	2,508,916	1.3%	3,938	4,674,678	2.05%	611	2,675	1,571,596	9.7%	4,141	(2,268)	-
ID	2,214,401	1.2%	3,476	1,320,070	0.58%	172	755	1,636	0.0%	4	2,888	2,749
IL	8,631,736	4.6%	13,548	14,032,985	6.16%	1,833	8,031	1,830,730	11.3%	4,824	2,526	2,404
IN	6,435,796	3.4%	10,101	8,461,097	3.71%	1,105	4,842	1,489,079	9.2%	3,924	2,441	2,323
IA	6,384,266	3.4%	10,020	1,439,262	0.63%	188	824	295,992	1.8%	780	8,605	8,189
KS	1,485,888	0.8%	2,332	12,214,399	5.36%	1,596	6,990	219,861	1.4%	579	(3,642)	-
KY	1,592,543	0.8%	2,500	1,906,540	0.84%	249	1,091	155,523	1.0%	410	1,248	1,187
LA	1,327,417	0.7%	2,083	1,002,657	0.44%	131	574	56,030	0.3%	148	1,493	1,421
ME	35,545	0.0%	56	-	0.00%	-	-	35,545	0.2%	94	(38)	-
MD	642,834	0.3%	1,009	239,321	0.11%	31	137	68,187	0.4%	180	724	689
MA	149,755	0.1%	235	400,886	0.18%	52	229	115,174	0.7%	303	(245)	-
MI	332,604	0.2%	522	-	0.00%	-	-	339,190	2.1%	894	(372)	-
MN	1,491,166	0.8%	2,340	3,554,954	1.56%	464	2,034	157,921	1.0%	416	354	337
MS	1,799,408	1.0%	2,824	1,894,530	0.83%	248	1,084	397,055	2.5%	1,046	941	896
MO	6,727,857	3.6%	10,560	12,142,064	5.33%	1,586	6,949	625,736	3.9%	1,649	3,548	3,377
MT	3,706,737	2.0%	5,818	8,747,751	3.84%	1,143	5,006	-	0.0%	-	1,955	1,860
NE	9,736,886	5.2%	15,282	828,275	0.36%	108	474	11,813	0.1%	31	14,886	14,166
NV	4,340,468	2.3%	6,813	12,670	0.01%	2	7	19,882	0.1%	52	6,755	6,428
NH	22,424	0.0%	35	-	0.00%	-	-	31,571	0.2%	83	(48)	-
NJ	563,677	0.3%	885	579,049	0.25%	76	331	270,704	1.7%	713	(84)	-
NM	12,699,466	6.7%	19,932	24,940,064	10.94%	3,258	14,273	502	0.0%	1	8,916	8,486
NY	1,292,551	0.7%	2,029	3,447,566	1.51%	450	1,973	345,038	2.1%	909	(403)	-
NC	1,360,445	0.7%	2,135	1,254,135	0.55%	164	718	308,263	1.9%	812	769	732
ND	1,748,157	0.9%	2,744	4,988,819	2.19%	652	2,855	57	0.0%	0	540	514
OH	7,014,098	3.7%	11,009	11,009,975	4.83%	1,438	6,301	321,705	2.0%	848	5,299	5,043
OK	10,385,730	5.5%	16,301	11,635,577	5.11%	1,520	6,659	274,142	1.7%	722	10,440	9,935
OR	2,482,720	1.3%	3,897	186,870	0.08%	24	107	191,427	1.2%	504	3,310	3,150
PA	7,019,136	3.7%	11,017	10,657,685	4.68%	1,392	6,099	983,038	6.1%	2,590	3,720	3,540
RI	13,379	0.0%	21	-	0.00%	-	-	2,722	0.0%	7	14	13
SC	883,496	0.5%	1,387	1,067,033	0.47%	139	611	141,316	0.9%	372	543	517
SD	192,056	0.1%	301	423	0.00%	0	0	-	0.0%	-	301	287
TN	6,163,824	3.3%	9,674	3,442,795	1.51%	450	1,970	423,913	2.6%	1,117	7,037	6,697
TX	13,958,465	7.4%	21,908	17,647,081	7.74%	2,306	10,999	1,240,223	7.7%	3,268	10,847	10,322
UT	6,802,011	3.6%	10,676	68,300	0.03%	9	39	11,984	0.1%	32	10,614	10,101
VT	7,410	0.0%	12	23,159	0.01%	3	13	5,283	0.0%	14	(13)	-
VA	3,252,064	1.7%	5,104	3,149,253	1.38%	411	1,802	213,021	1.3%	561	3,152	3,000
WA	1,828,190	1.0%	2,869	6,082,898	2.67%	795	3,481	302,938	1.9%	798	(615)	-
WV	570,992	0.3%	896	398,723	0.17%	52	228	28,679	0.2%	76	645	613
WI	2,069,577	1.1%	3,248	3,029,309	1.33%	396	1,734	725,208	4.5%	1,911	(1)	-
WY	5,545,579	2.9%	8,704	184,208	0.08%	24	105	2,003	0.0%	5	8,617	8,201
TOTAL	188,787,758	100%	296,310	227,887,040	100%	29,773	130,417	16,198,160	100%	42,683	152,983	152,983
APR_12			296,310			29,773	130,417			42,683	152,983	
										TTL POS ERs	160,753	
										TTL NEG ERs	7,769	
										TTL ERs CHECK	152,983	

Table A-9 Breakdown of Emissions and Emission Reductions by State for May 2012

ST	ORIGIN-TO-DESTINATION - TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS			INTERMODAL DRAY EMISSIONS			EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)	
	TTL Miles	Miles (% of total)	BASILINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASILINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)			PROJECT DRAY EMISSIONS (tonnes CO2e)
AL	2,486,818	1.2%	3,915	4,237,570	1.77%	563	2,475	220,868	1.3%	581	1,422	1,356
AZ	15,278,886	7.6%	24,054	24,705,596	10.30%	3,280	14,430	53,464	0.3%	141	12,763	12,175
AR	5,668,637	2.8%	8,924	2,550,997	1.06%	339	1,490	213,777	1.2%	562	7,211	6,879
CA	15,227,399	7.5%	23,973	22,167,794	9.24%	2,943	12,948	2,254,951	13.2%	5,930	8,038	7,668
CO	6,541,619	3.2%	10,299	379,515	0.16%	50	222	46,670	0.3%	123	10,005	9,544
CT	404,269	0.2%	636	-	0.00%	-	-	101,108	0.6%	266	371	354
DE	59,683	0.0%	94	18,789	0.01%	2	11	55,264	0.3%	145	(60)	-
DC	53	0.0%	0	6,637	0.00%	1	4	9	0.0%	0	(3)	-
FL	1,190,616	0.6%	1,874	724,179	0.30%	96	423	217,288	1.3%	571	976	931
GA	2,730,483	1.3%	4,299	4,817,862	2.01%	640	2,814	1,667,038	9.7%	4,384	(2,260)	-
ID	2,253,881	1.1%	3,548	1,391,275	0.58%	185	813	1,367	0.0%	4	2,917	2,783
IL	9,261,887	4.6%	14,581	14,443,348	6.02%	1,917	8,436	2,012,437	11.8%	5,292	2,770	2,643
IN	6,878,310	3.4%	10,829	8,514,437	3.55%	1,130	4,973	1,596,772	9.3%	4,199	2,787	2,658
IA	6,935,101	3.4%	10,918	1,540,934	0.64%	205	900	339,296	2.0%	892	9,330	8,901
KS	1,606,259	0.8%	2,529	12,862,231	5.36%	1,707	7,513	215,896	1.3%	568	(3,844)	-
KY	1,631,381	0.8%	2,568	1,900,525	0.79%	252	1,110	138,555	0.8%	364	1,346	1,284
LA	1,414,913	0.7%	2,228	1,037,858	0.43%	138	606	56,499	0.3%	149	1,611	1,536
ME	34,090	0.0%	54	-	0.00%	-	-	34,090	0.2%	90	(36)	-
MD	686,525	0.3%	1,081	275,180	0.11%	37	161	75,101	0.4%	197	759	724
MA	160,269	0.1%	252	380,672	0.16%	51	222	119,320	0.7%	314	(233)	-
MI	357,357	0.2%	563	-	0.00%	-	-	363,640	2.1%	956	(394)	-
MN	1,597,338	0.8%	2,515	3,739,152	1.56%	496	2,184	184,411	1.1%	485	342	326
MS	1,863,820	0.9%	2,934	2,030,653	0.85%	270	1,186	376,254	2.2%	989	1,028	981
MO	7,020,119	3.5%	11,052	12,886,139	5.37%	1,711	7,527	628,429	3.7%	1,653	3,583	3,418
MT	3,969,552	2.0%	6,249	9,219,608	3.84%	1,224	5,385	-	0.0%	-	2,088	1,992
NE	10,484,144	5.2%	16,506	909,799	0.38%	121	531	10,066	0.1%	26	16,068	15,329
NV	4,843,886	2.4%	7,626	27,394	0.01%	4	16	17,643	0.1%	46	7,567	7,219
NH	23,429	0.0%	37	-	0.00%	-	-	33,166	0.2%	87	(50)	-
NJ	622,442	0.3%	980	598,371	0.25%	79	350	302,138	1.8%	795	(85)	-
NM	13,483,654	6.7%	21,228	26,696,782	11.13%	3,544	15,594	282	0.0%	1	9,177	8,755
NY	1,298,449	0.6%	2,044	3,217,796	1.34%	427	1,880	360,094	2.1%	947	(355)	-
NC	1,505,465	0.7%	2,370	1,497,199	0.62%	199	875	324,338	1.9%	853	841	803
ND	1,869,733	0.9%	2,944	5,257,918	2.19%	698	3,071	71	0.0%	0	570	544
OH	7,400,653	3.7%	11,651	10,950,294	4.57%	1,454	6,396	314,296	1.8%	827	5,882	5,611
OK	10,990,098	5.4%	17,302	12,512,727	5.22%	1,661	7,309	265,561	1.6%	698	10,956	10,452
OR	2,536,472	1.3%	3,993	253,413	0.11%	34	148	201,173	1.2%	529	3,350	3,196
PA	7,491,081	3.7%	11,793	10,750,647	4.48%	1,427	6,279	1,045,792	6.1%	2,750	4,191	3,998
RI	19,531	0.0%	31	-	0.00%	-	-	4,922	0.0%	13	18	17
SC	954,528	0.5%	1,503	1,238,944	0.52%	164	724	162,745	1.0%	428	516	492
SD	208,783	0.1%	329	405	0.00%	0	0	37	0.0%	0	328	313
TN	6,576,687	3.3%	10,354	3,349,723	1.40%	445	1,957	457,755	2.7%	1,204	7,638	7,287
TX	15,059,838	7.4%	23,709	19,023,961	7.93%	2,525	11,112	1,322,443	7.7%	3,478	11,645	11,109
UT	7,372,974	3.6%	11,608	106,394	0.04%	14	62	10,885	0.1%	29	11,531	11,000
VT	7,915	0.0%	12	22,037	0.01%	3	13	5,440	0.0%	14	(12)	-
VA	3,572,041	1.8%	5,624	3,437,490	1.43%	456	2,008	208,124	1.2%	547	3,525	3,362
WA	1,961,072	1.0%	3,087	6,415,270	2.67%	852	3,747	315,601	1.8%	830	(638)	-
WV	590,910	0.3%	930	420,774	0.18%	56	246	29,594	0.2%	78	663	632
WI	2,194,773	1.1%	3,455	3,124,196	1.30%	415	1,825	751,482	4.4%	1,976	69	66
WY	5,931,866	2.9%	9,339	189,639	0.08%	25	111	1,808	0.0%	5	9,248	8,823
TOTAL	202,259,685	100%	318,424	239,832,124	100%	31,837	140,085	17,117,958	100%	45,016	165,160	165,160
MAY 12			318,424			31,837	140,085			45,016	165,160	
										TTL POS ERs	173,130	
										TTL NEG ERs	7,970	
										TTL ERs CHECK	165,160	

Table A-10 Breakdown of Emissions and Emission Reductions by State for Jun 2012

ST	ORIGIN-TO-DESTINATION - TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS				INTERMODAL DRAY EMISSIONS			EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)
	TTL Miles	Miles (% of total)	BASELINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASELINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	PROJECT DRAY EMISSIONS (tonnes CO2e)		
AL	2,551,316	1.3%	4,065	4,324,572	1.76%	563	2,468	240,242	1.4%	632	1,528	1,459
AZ	15,339,222	7.6%	24,442	25,459,986	10.34%	3,316	14,530	57,674	0.3%	152	13,076	12,479
AR	5,714,006	2.8%	9,105	2,750,155	1.12%	358	1,570	205,883	1.2%	542	7,352	7,016
CA	15,237,679	7.5%	24,280	22,387,612	9.09%	2,916	12,777	2,272,707	13.0%	5,979	8,440	8,054
CO	6,463,213	3.2%	10,299	404,261	0.16%	53	231	48,268	0.3%	127	9,994	9,537
CT	384,093	0.2%	612	-	0.00%	-	-	86,900	0.5%	229	383	366
DE	65,921	0.0%	105	17,141	0.01%	2	10	49,067	0.3%	129	(32)	-
DC	41	0.0%	0	6,072	0.00%	1	3	5	0.0%	0	(3)	-
FL	1,235,001	0.6%	1,968	741,800	0.30%	97	423	222,490	1.3%	585	1,056	1,008
GA	2,838,217	1.4%	4,523	5,162,254	2.10%	672	2,946	1,753,309	10.0%	4,613	(2,664)	-
ID	2,262,225	1.1%	3,605	1,381,983	0.56%	180	789	1,710	0.0%	4	2,991	2,855
IL	9,246,229	4.6%	14,733	14,633,902	5.94%	1,906	8,352	2,120,931	12.2%	5,580	2,708	2,584
IN	6,877,667	3.4%	10,959	8,596,074	3.49%	1,120	4,906	1,609,548	9.2%	4,235	2,938	2,804
IA	6,915,807	3.4%	11,020	1,599,966	0.65%	208	913	356,611	2.0%	938	9,377	8,949
KS	1,682,046	0.8%	2,680	13,147,963	5.34%	1,712	7,504	219,750	1.3%	578	(3,689)	-
KY	1,708,959	0.8%	2,723	2,075,764	0.84%	270	1,185	173,692	1.0%	457	1,352	1,290
LA	1,504,960	0.7%	2,398	1,133,452	0.46%	148	647	56,303	0.3%	148	1,751	1,671
ME	36,701	0.0%	58	-	0.00%	-	-	36,701	0.2%	97	(38)	-
MD	732,642	0.4%	1,167	303,403	0.12%	40	173	77,408	0.4%	204	830	792
MA	155,755	0.1%	248	396,028	0.16%	52	226	120,972	0.7%	318	(245)	-
MI	373,600	0.2%	595	-	0.00%	-	-	375,875	2.2%	989	(394)	-
MN	1,490,222	0.7%	2,375	3,713,128	1.51%	484	2,119	170,679	1.0%	449	290	277
MS	1,931,253	1.0%	3,077	2,125,262	0.86%	277	1,213	368,524	2.1%	970	1,172	1,118
MO	6,915,797	3.4%	11,020	13,359,442	5.43%	1,740	7,624	636,772	3.6%	1,675	3,460	3,302
MT	3,725,443	1.8%	5,936	9,158,032	3.72%	1,193	5,227	-	0.0%	-	1,903	1,816
NE	10,373,601	5.1%	16,530	970,386	0.39%	126	554	14,240	0.1%	37	16,065	15,331
NV	4,764,568	2.4%	7,592	20,457	0.01%	3	12	18,986	0.1%	50	7,533	7,189
NH	23,344	0.0%	37	-	0.00%	-	-	32,655	0.2%	86	(49)	-
NJ	624,347	0.3%	995	615,368	0.25%	80	351	330,681	1.9%	870	(146)	-
NM	13,543,611	6.7%	21,581	27,697,431	11.25%	3,607	15,807	486	0.0%	1	9,380	8,951
NY	1,210,020	0.6%	1,928	3,213,167	1.31%	418	1,834	337,430	1.9%	888	(375)	-
NC	1,590,375	0.8%	2,534	1,822,287	0.74%	237	1,040	342,144	2.0%	900	831	793
ND	1,724,650	0.9%	2,748	5,222,801	2.12%	680	2,981	18	0.0%	0	448	427
OH	7,288,379	3.6%	11,614	10,837,191	4.40%	1,411	6,185	294,513	1.7%	775	6,065	5,788
OK	10,922,716	5.4%	17,405	13,214,186	5.37%	1,721	7,541	290,660	1.7%	765	10,820	10,325
OR	2,537,253	1.3%	4,043	243,000	0.10%	32	139	208,257	1.2%	548	3,388	3,233
PA	7,458,004	3.7%	11,884	10,771,186	4.38%	1,403	6,147	1,034,623	5.9%	2,722	4,418	4,216
RI	21,385	0.0%	34	-	0.00%	-	-	3,745	0.0%	10	24	23
SC	1,012,723	0.5%	1,614	1,439,814	0.58%	188	822	176,930	1.0%	465	514	491
SD	245,668	0.1%	391	423	0.00%	0	0	54	0.0%	0	391	373
TN	6,588,465	3.3%	10,498	3,373,486	1.37%	439	1,925	477,296	2.7%	1,256	7,757	7,402
TX	15,308,156	7.6%	24,392	19,693,883	8.00%	2,565	11,239	1,349,205	7.7%	3,550	12,168	11,613
UT	7,271,350	3.6%	11,586	84,723	0.03%	11	48	9,172	0.1%	24	11,525	10,998
VT	9,359	0.0%	15	22,902	0.01%	3	13	6,612	0.0%	17	(13)	-
VA	3,705,279	1.8%	5,904	3,954,371	1.61%	515	2,257	204,164	1.2%	537	3,625	3,460
WA	1,893,558	0.9%	3,017	6,441,043	2.62%	839	3,676	328,210	1.9%	864	(683)	-
WV	640,925	0.3%	1,021	450,902	0.18%	59	257	28,803	0.2%	76	747	713
WI	2,055,250	1.0%	3,275	3,053,976	1.24%	398	1,743	702,082	4.0%	1,847	83	79
WY	5,929,004	2.9%	9,447	174,704	0.07%	23	100	2,251	0.0%	6	9,365	8,937
TOTAL	202,130,001	100%	322,080	246,195,939	100%	32,066	140,505	17,455,233	100%	45,924	167,717	167,717
JUN 12			322,080			32,066	140,505			45,924	167,717	
										TTL POS ERs	175,746	
										TTL NEG ERs	8,029	
										TTL ERs CHECK	167,717	

Table A-11 Breakdown of Emissions and Emission Reductions by State for Jul. 2012

ST	ORIGIN-TO-DESTINATION - TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS				INTERMODAL DRAY EMISSIONS				EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)
	TTL Miles	Miles (% of total)	BASELINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASELINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	PROJECT DRAY EMISSIONS (tonnes CO2e)			
AL	2,523,546	1.3%	4,089	4,141,757	1.79%	552	2,425	238,477	1.4%	632	1,585	1,517	
AZ	14,859,209	7.6%	24,079	23,737,368	10.25%	3,163	13,896	68,483	0.4%	181	13,165	12,606	
AR	5,574,507	2.9%	9,033	2,503,172	1.08%	334	1,465	204,949	1.2%	543	7,359	7,046	
CA	14,539,138	7.5%	23,561	20,933,778	9.04%	2,789	12,254	2,144,049	13.0%	5,682	8,414	8,056	
CO	6,162,368	3.2%	9,986	406,278	0.18%	54	238	49,337	0.3%	131	9,672	9,261	
CT	394,492	0.2%	639	-	0.00%	-	-	84,870	0.5%	225	414	397	
DE	56,272	0.0%	91	14,145	0.01%	2	8	39,881	0.2%	106	(21)	-	
DC	41	0.0%	0	5,016	0.00%	1	3	5	0.0%	0	(2)	-	
FL	1,125,238	0.6%	1,823	687,285	0.30%	92	402	189,899	1.1%	503	1,009	967	
GA	2,733,176	1.4%	4,429	4,745,628	2.05%	632	2,778	1,631,695	9.9%	4,324	(2,041)	-	
ID	2,152,181	1.1%	3,488	1,269,166	0.55%	169	743	1,667	0.0%	4	2,909	2,786	
IL	9,011,035	4.6%	14,602	14,205,450	6.13%	1,893	8,316	1,908,635	11.5%	5,058	3,121	2,989	
IN	6,737,059	3.5%	10,917	8,450,459	3.65%	1,126	4,947	1,557,443	9.4%	4,127	2,969	2,843	
IA	6,705,833	3.4%	10,867	1,560,179	0.67%	208	913	323,844	2.0%	858	9,303	8,908	
KS	1,576,575	0.8%	2,555	12,557,400	5.42%	1,673	7,351	191,783	1.2%	508	(3,631)	-	
KY	1,607,956	0.8%	2,606	1,962,425	0.85%	261	1,149	150,139	0.9%	398	1,321	1,264	
LA	1,406,327	0.7%	2,279	1,159,581	0.50%	155	679	44,994	0.3%	119	1,635	1,566	
ME	39,278	0.0%	64	-	0.00%	-	-	39,278	0.2%	104	(40)	-	
MD	657,393	0.3%	1,065	251,849	0.11%	34	147	73,441	0.4%	195	757	725	
MA	160,093	0.1%	259	403,682	0.17%	54	236	118,854	0.7%	315	(238)	-	
MI	358,562	0.2%	581	-	0.00%	-	-	363,905	2.2%	964	(383)	-	
MN	1,467,952	0.8%	2,379	3,415,042	1.47%	455	1,999	170,996	1.0%	453	382	365	
MS	1,875,308	1.0%	3,039	2,045,980	0.88%	273	1,198	349,132	2.1%	925	1,189	1,138	
MO	6,744,409	3.5%	10,929	12,686,875	5.48%	1,690	7,427	642,738	3.9%	1,703	3,490	3,341	
MT	3,648,027	1.9%	5,912	8,410,424	3.63%	1,121	4,923	896	0.0%	2	2,106	2,017	
NE	10,037,910	5.1%	16,266	953,087	0.41%	127	558	16,578	0.1%	44	15,792	15,121	
NV	4,626,964	2.4%	7,498	35,831	0.02%	5	21	17,752	0.1%	47	7,435	7,119	
NH	23,272	0.0%	38	-	0.00%	-	-	31,143	0.2%	83	(45)	-	
NJ	604,291	0.3%	979	584,649	0.25%	78	342	300,701	1.8%	797	(82)	-	
NM	13,227,498	6.8%	21,435	25,812,857	11.14%	3,439	15,111	582	0.0%	2	9,762	9,348	
NY	1,236,146	0.6%	2,003	3,358,150	1.45%	447	1,966	356,521	2.2%	945	(460)	-	
NC	1,414,273	0.7%	2,292	1,428,100	0.62%	190	836	321,879	1.9%	853	793	759	
ND	1,704,268	0.9%	2,762	4,796,442	2.07%	639	2,808	8	0.0%	0	593	568	
OH	7,096,058	3.6%	11,499	10,694,559	4.62%	1,425	6,261	296,156	1.8%	785	5,879	5,629	
OK	10,730,283	5.5%	17,388	12,371,173	5.34%	1,648	7,242	284,983	1.7%	755	11,040	10,571	
OR	2,355,170	1.2%	3,817	171,438	0.07%	23	100	187,701	1.1%	497	3,242	3,104	
PA	7,170,282	3.7%	11,619	10,259,151	4.43%	1,367	6,006	957,984	5.8%	2,539	4,442	4,253	
RI	19,089	0.0%	31	-	0.00%	-	-	4,726	0.0%	13	18	18	
SC	891,637	0.5%	1,445	1,164,710	0.50%	155	682	154,654	0.9%	410	508	487	
SD	215,722	0.1%	350	359	0.00%	0	0	-	0.0%	-	349	335	
TN	6,251,750	3.2%	10,131	3,197,094	1.38%	426	1,872	458,339	2.8%	1,215	7,471	7,153	
TX	14,575,939	7.5%	23,620	18,356,407	7.93%	2,446	10,746	1,259,001	7.6%	3,336	11,984	11,475	
UT	6,953,849	3.6%	11,269	104,401	0.05%	14	61	9,069	0.1%	24	11,197	10,722	
VT	6,897	0.0%	11	23,166	0.01%	3	14	5,096	0.0%	14	(13)	-	
VA	3,439,973	1.8%	5,574	3,417,767	1.48%	455	2,001	233,499	1.4%	619	3,410	3,265	
WA	1,836,616	0.9%	2,976	5,894,010	2.54%	785	3,450	294,013	1.8%	779	(468)	-	
WV	639,639	0.3%	1,037	433,463	0.19%	58	254	32,066	0.2%	85	756	723	
WI	2,048,473	1.1%	3,320	2,850,663	1.23%	380	1,669	728,409	4.4%	1,930	100	96	
WY	5,734,780	2.9%	9,293	161,578	0.07%	22	95	2,033	0.0%	5	9,215	8,823	
TOTAL	194,956,752	100%	315,926	231,621,992	100%	30,861	135,590	16,542,284	100%	43,837	167,361	167,361	
JUL 12			315,926			30,861	135,590			43,837	167,361		
										TTL POS ERs	174,785		
										TTL NEG ERs	7,424		
										TTL ERs CHECK	167,361		

Table A-12 Breakdown of Emissions and Emission Reductions by State for Aug 2012

ST	ORIGIN-TO-DESTINATION - TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS			INTERMODAL DRAY EMISSIONS			EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)	
	TTL Miles	Miles (% of total)	BASELINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASELINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)			PROJECT DRAY EMISSIONS (tonnes CO2e)
AL	2,704,252	1.2%	4,344	4,413,114	1.70%	591	2,609	207,542	1.1%	544	1,782	1,706
AZ	17,078,482	7.7%	27,435	27,368,757	10.55%	3,664	16,181	75,658	0.4%	198	14,720	14,096
AR	6,322,420	2.8%	10,156	2,642,835	1.02%	354	1,562	232,787	1.3%	610	8,337	7,984
CA	16,828,900	7.6%	27,034	24,472,956	9.44%	3,277	14,469	2,453,605	13.3%	6,434	9,408	9,009
CO	6,994,348	3.1%	11,236	484,538	0.19%	65	286	59,356	0.3%	156	10,859	10,398
CT	439,288	0.2%	706	-	0.00%	-	-	99,368	0.5%	261	445	426
DE	65,022	0.0%	104	15,943	0.01%	2	9	63,223	0.3%	166	(69)	-
DC	91	0.0%	0	5,695	0.00%	1	3	16	0.0%	0	(3)	-
FL	1,254,048	0.6%	2,015	776,993	0.30%	104	459	224,057	1.2%	588	1,072	1,026
GA	2,944,700	1.3%	4,730	4,991,725	1.92%	668	2,951	1,721,402	9.3%	4,514	(2,066)	-
ID	2,582,609	1.2%	4,149	1,432,786	0.55%	192	847	1,515	0.0%	4	3,490	3,342
IL	10,157,959	4.6%	16,318	15,968,627	6.16%	2,138	9,441	2,148,690	11.6%	5,635	3,381	3,237
IN	7,606,799	3.4%	12,220	9,183,201	3.54%	1,229	5,429	1,770,853	9.6%	4,644	3,376	3,233
IA	7,737,189	3.5%	12,429	1,803,404	0.70%	241	1,066	381,298	2.1%	1,000	10,605	10,155
KS	1,765,194	0.8%	2,836	14,228,425	5.49%	1,905	8,412	215,396	1.2%	565	(4,236)	-
KY	1,811,007	0.8%	2,909	2,092,444	0.81%	280	1,237	165,034	0.9%	433	1,520	1,455
LA	1,539,228	0.7%	2,473	1,145,841	0.44%	153	677	46,677	0.3%	122	1,826	1,749
ME	53,706	0.0%	86	-	0.00%	-	-	53,706	0.3%	141	(55)	-
MD	782,750	0.4%	1,257	252,237	0.10%	34	149	87,259	0.5%	229	913	875
MA	182,043	0.1%	292	391,535	0.15%	52	231	126,423	0.7%	332	(218)	-
MI	394,937	0.2%	634	-	0.00%	-	-	402,539	2.2%	1,056	(421)	-
MN	1,593,915	0.7%	2,560	3,860,791	1.49%	517	2,283	193,588	1.0%	508	287	275
MS	2,079,198	0.9%	3,340	2,092,548	0.81%	280	1,237	393,407	2.1%	1,032	1,351	1,294
MO	7,919,368	3.6%	12,722	13,993,450	5.40%	1,874	8,273	686,637	3.7%	1,801	4,522	4,330
MT	3,955,588	1.8%	6,354	9,494,690	3.66%	1,271	5,613	-	0.0%	-	2,012	1,927
NE	11,728,903	5.3%	18,841	1,148,021	0.44%	154	679	12,335	0.1%	32	18,284	17,509
NV	5,304,908	2.4%	8,522	40,206	0.02%	5	24	20,460	0.1%	54	8,450	8,091
NH	27,287	0.0%	44	-	0.00%	-	-	35,845	0.2%	94	(50)	-
NJ	666,066	0.3%	1,070	621,857	0.24%	83	368	334,804	1.8%	878	(92)	-
NM	15,200,247	6.8%	24,418	29,616,962	11.42%	3,965	17,510	417	0.0%	1	10,872	10,411
NY	1,328,444	0.6%	2,134	3,441,132	1.33%	461	2,034	377,742	2.0%	991	(430)	-
NC	1,590,107	0.7%	2,554	1,263,777	0.49%	169	747	393,541	2.1%	1,032	944	904
ND	1,845,530	0.8%	2,965	5,414,796	2.09%	725	3,201	8	0.0%	0	488	468
OH	8,159,319	3.7%	13,107	11,782,796	4.54%	1,578	6,966	353,719	1.9%	928	6,791	6,503
OK	12,365,581	5.6%	19,864	13,391,486	5.16%	1,793	7,917	320,883	1.7%	841	12,899	12,351
OR	2,932,408	1.3%	4,711	223,957	0.09%	30	132	223,021	1.2%	585	4,023	3,853
PA	8,146,150	3.7%	13,086	11,241,602	4.33%	1,505	6,646	1,099,028	5.9%	2,882	5,063	4,848
RI	20,097	0.0%	32	-	0.00%	-	-	5,415	0.0%	14	18	17
SC	951,542	0.4%	1,529	1,107,257	0.43%	148	655	169,994	0.9%	446	576	552
SD	235,182	0.1%	378	469	0.00%	0	0	40	0.0%	0	377	361
TN	7,055,108	3.2%	11,333	3,602,574	1.39%	482	2,130	486,915	2.6%	1,277	8,409	8,052
TX	16,605,591	7.5%	26,675	21,202,892	8.18%	2,839	12,535	1,424,334	7.7%	3,735	13,244	12,682
UT	8,008,162	3.6%	12,864	117,917	0.05%	16	70	11,398	0.1%	30	12,781	12,238
VT	8,577	0.0%	14	21,813	0.01%	3	13	6,744	0.0%	18	(14)	-
VA	3,799,965	1.7%	6,104	3,493,768	1.35%	468	2,066	256,995	1.4%	674	3,833	3,670
WA	1,986,299	0.9%	3,191	6,585,456	2.54%	882	3,893	363,645	2.0%	954	(774)	-
WV	727,633	0.3%	1,169	481,494	0.19%	64	285	33,789	0.2%	89	860	824
WI	2,224,847	1.0%	3,574	3,253,511	1.25%	436	1,923	771,283	4.2%	2,023	64	61
WY	6,792,095	3.1%	10,911	190,997	0.07%	26	113	2,125	0.0%	6	10,818	10,359
TOTAL	222,503,088	100%	357,432	259,357,274	100%	34,724	153,334	18,514,516	100%	48,551	190,272	190,272
AUG 12			357,432			34,724	153,334			48,551	190,272	
										TTL POS ERs	198,700	
										TTL NEG ERs	8,429	
										TTL ERs CHECK	190,272	

Table A-13 Breakdown of Emissions and Emission Reductions by State for Sep. 2012

ST	ORIGIN-TO-DESTINATION - TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS			INTERMODAL DRAY EMISSIONS			EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)	
	TTL Miles	Miles (% of total)	BASELINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASELINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)			PROJECT DRAY EMISSIONS (tonnes CO2e)
AL	2,467,583	1.2%	3,937	4,199,724	1.71%	534	2,350	191,757	1.1%	506	1,616	1,547
AZ	15,587,662	7.8%	24,871	25,931,618	10.54%	3,296	14,509	65,189	0.4%	172	13,486	12,912
AR	5,600,843	2.8%	8,936	2,413,507	0.98%	307	1,350	216,915	1.3%	572	7,321	7,009
CA	15,176,990	7.6%	24,216	23,312,715	9.47%	2,963	13,043	2,169,832	13.0%	5,720	8,415	8,057
CO	6,272,862	3.1%	10,009	419,998	0.17%	53	235	52,345	0.3%	138	9,689	9,276
CT	396,235	0.2%	632	-	0.00%	-	-	93,706	0.6%	247	385	369
DE	58,898	0.0%	94	13,525	0.01%	2	8	62,555	0.4%	165	(77)	-
DC	71	0.0%	0	4,826	0.00%	1	3	9	0.0%	0	(2)	-
FL	1,214,045	0.6%	1,937	758,152	0.31%	96	424	208,597	1.2%	550	1,059	1,014
GA	2,748,415	1.4%	4,385	4,713,326	1.92%	599	2,637	1,548,088	9.2%	4,081	(1,734)	-
ID	2,258,928	1.1%	3,604	1,367,742	0.56%	174	765	1,286	0.0%	3	3,009	2,881
IL	9,118,914	4.5%	14,550	15,274,840	6.21%	1,941	8,546	1,961,934	11.7%	5,172	2,773	2,655
IN	6,909,112	3.4%	11,024	8,707,997	3.54%	1,107	4,872	1,628,905	9.7%	4,294	2,964	2,838
IA	6,718,193	3.3%	10,719	1,662,852	0.68%	211	930	356,072	2.1%	939	9,062	8,676
KS	1,606,676	0.8%	2,564	13,673,216	5.56%	1,738	7,650	199,420	1.2%	526	(3,874)	-
KY	1,632,813	0.8%	2,605	1,940,323	0.79%	247	1,086	150,725	0.9%	397	1,369	1,311
LA	1,478,000	0.7%	2,358	1,105,709	0.45%	141	619	50,835	0.3%	134	1,746	1,672
ME	59,210	0.0%	94	-	0.00%	-	-	59,210	0.4%	156	(62)	-
MD	737,322	0.4%	1,176	220,489	0.09%	28	123	82,012	0.5%	216	865	828
MA	167,254	0.1%	267	352,567	0.14%	45	197	112,585	0.7%	297	(182)	-
MI	332,106	0.2%	530	-	0.00%	-	-	341,302	2.0%	900	(370)	-
MN	1,475,419	0.7%	2,354	3,681,195	1.50%	468	2,060	169,865	1.0%	448	315	301
MS	1,814,474	0.9%	2,895	1,963,305	0.80%	250	1,098	340,212	2.0%	897	1,149	1,100
MO	7,188,079	3.6%	11,469	13,276,364	5.39%	1,687	7,428	616,051	3.7%	1,624	4,104	3,929
MT	3,714,826	1.9%	5,927	9,063,661	3.68%	1,152	5,071	-	0.0%	-	2,008	1,923
NE	10,160,197	5.1%	16,211	985,737	0.40%	125	552	11,768	0.1%	31	15,754	15,083
NV	4,608,798	2.3%	7,354	17,065	0.01%	2	10	14,411	0.1%	38	7,308	6,997
NH	25,969	0.0%	41	-	0.00%	-	-	34,799	0.2%	92	(50)	-
NJ	606,527	0.3%	968	617,763	0.25%	79	346	324,867	1.9%	856	(156)	-
NM	13,833,568	6.9%	22,072	28,061,681	11.40%	3,567	15,700	234	0.0%	1	9,938	9,515
NY	1,180,640	0.6%	1,884	3,141,038	1.28%	399	1,757	349,536	2.1%	921	(396)	-
NC	1,429,769	0.7%	2,281	1,200,846	0.49%	153	672	357,706	2.1%	943	819	784
ND	1,724,633	0.9%	2,752	5,168,981	2.10%	657	2,892	5	0.0%	0	517	495
OH	7,348,777	3.7%	11,725	11,296,651	4.59%	1,436	6,320	312,630	1.9%	824	6,017	5,760
OK	11,222,552	5.6%	17,906	12,654,891	5.14%	1,608	7,080	257,206	1.5%	678	11,756	11,255
OR	2,515,560	1.3%	4,014	211,942	0.09%	27	119	217,235	1.3%	573	3,349	3,207
PA	7,399,743	3.7%	11,807	10,781,896	4.38%	1,370	6,032	1,020,381	6.1%	2,690	4,455	4,265
RI	16,837	0.0%	27	-	0.00%	-	-	5,172	0.0%	14	13	13
SC	852,015	0.4%	1,359	1,032,614	0.42%	131	578	143,612	0.9%	379	534	512
SD	235,323	0.1%	375	258	0.00%	0	0	53	0.0%	0	375	359
TN	6,451,506	3.2%	10,294	3,299,521	1.34%	419	1,846	435,976	2.6%	1,149	7,718	7,389
TX	15,268,761	7.6%	24,362	20,204,652	8.21%	2,568	11,304	1,267,489	7.6%	3,341	12,284	11,761
UT	7,080,682	3.5%	11,298	71,889	0.03%	9	40	8,785	0.1%	23	11,243	10,764
VT	10,017	0.0%	16	20,090	0.01%	3	11	6,483	0.0%	17	(10)	-
VA	3,586,256	1.8%	5,722	3,199,256	1.30%	407	1,790	236,514	1.4%	624	3,715	3,557
WA	1,853,552	0.9%	2,957	6,324,871	2.57%	804	3,539	325,025	1.9%	857	(634)	-
WV	651,279	0.3%	1,039	475,959	0.19%	60	266	33,078	0.2%	87	746	714
WI	2,072,889	1.0%	3,307	3,113,243	1.27%	396	1,742	705,495	4.2%	1,860	101	97
WY	5,813,116	2.9%	9,275	148,905	0.06%	19	83	2,616	0.0%	7	9,204	8,812
TOTAL	200,683,892	100%	320,202	246,087,400	100%	31,277	137,684	16,750,480	100%	44,158	169,636	169,636
SEPT_12			320,202			31,277	137,684			44,158	169,636	
										TTL POS ERs	177,183	
										TTL NEG ERs	7,547	
										TTL ERs CHECK	169,636	

Table A-14 Breakdown of Emissions and Emission Reductions by State for Oct. 2012

ST	ORIGIN-TO-DESTINATION - TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS				INTERMODAL DRAY EMISSIONS			EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)
	TTL Miles	Miles (% of total)	BASELINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASELINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	PROJECT DRAY EMISSIONS (tonnes CO2e)		
AL	2,662,120	1.2%	4,288	4,557,570	1.73%	599	2,632	215,329	1.2%	578	1,677	1,611
AZ	17,660,399	7.9%	28,446	28,520,761	10.80%	3,750	16,469	76,047	0.4%	204	15,523	14,914
AR	6,235,357	2.8%	10,044	2,703,340	1.02%	355	1,561	222,287	1.2%	597	8,241	7,918
CA	17,131,721	7.7%	27,595	25,267,454	9.57%	3,322	14,590	2,471,779	13.4%	6,638	9,688	9,308
CO	7,205,495	3.2%	11,606	475,785	0.18%	63	275	55,963	0.3%	150	11,244	10,802
CT	408,583	0.2%	658	-	0.00%	-	-	93,737	0.5%	252	406	390
DE	59,066	0.0%	95	11,749	0.00%	2	7	60,920	0.3%	164	(74)	-
DC	45	0.0%	0	4,213	0.00%	1	2	6	0.0%	0	(2)	-
FL	1,349,201	0.6%	2,173	799,071	0.30%	105	461	231,804	1.3%	623	1,194	1,147
GA	2,997,646	1.3%	4,828	5,102,132	1.93%	671	2,946	1,690,250	9.2%	4,539	(1,986)	-
ID	2,395,599	1.1%	3,859	1,440,462	0.55%	189	832	1,756	0.0%	5	3,212	3,086
IL	10,084,563	4.5%	16,244	15,917,589	6.03%	2,093	9,191	2,227,766	12.1%	5,983	3,162	3,038
IN	7,650,583	3.4%	12,323	9,370,468	3.55%	1,232	5,411	1,697,530	9.2%	4,559	3,585	3,445
IA	7,445,137	3.3%	11,992	1,754,791	0.66%	231	1,013	396,597	2.2%	1,065	10,145	9,746
KS	1,806,357	0.8%	2,910	14,484,193	5.48%	1,905	8,364	221,201	1.2%	594	(4,144)	-
KY	1,775,198	0.8%	2,859	2,071,115	0.78%	272	1,196	164,478	0.9%	442	1,494	1,435
LA	1,577,934	0.7%	2,542	999,279	0.38%	131	577	47,996	0.3%	129	1,967	1,890
ME	68,914	0.0%	111	-	0.00%	-	-	68,914	0.4%	185	(74)	-
MD	750,046	0.3%	1,208	223,754	0.08%	29	129	91,303	0.5%	245	863	829
MA	178,897	0.1%	288	335,062	0.13%	44	193	122,421	0.7%	329	(190)	-
MI	375,341	0.2%	605	-	0.00%	-	-	382,421	2.1%	1,027	(422)	-
MN	1,745,211	0.8%	2,811	3,870,734	1.47%	509	2,235	186,344	1.0%	500	584	562
MS	2,044,151	0.9%	3,293	2,093,618	0.79%	275	1,209	417,874	2.3%	1,122	1,237	1,188
MO	7,983,874	3.6%	12,860	14,173,342	5.37%	1,864	8,184	689,389	3.7%	1,851	4,688	4,504
MT	4,400,824	2.0%	7,089	9,545,557	3.61%	1,255	5,512	-	0.0%	-	2,832	2,721
NE	11,244,707	5.0%	18,112	1,051,503	0.40%	138	607	11,185	0.1%	30	17,613	16,922
NV	5,166,861	2.3%	8,322	25,492	0.01%	3	15	12,230	0.1%	33	8,278	7,953
NH	28,997	0.0%	47	-	0.00%	-	-	39,816	0.2%	107	(60)	-
NJ	603,673	0.3%	972	648,986	0.25%	85	375	320,403	1.7%	860	(178)	-
NM	15,664,723	7.0%	25,232	30,836,891	11.68%	4,055	17,806	191	0.0%	1	11,480	11,029
NY	1,346,367	0.6%	2,169	3,205,936	1.21%	422	1,851	381,719	2.1%	1,025	(286)	-
NC	1,501,976	0.7%	2,419	1,259,400	0.48%	166	727	380,677	2.1%	1,022	835	803
ND	2,055,535	0.9%	3,311	5,443,805	2.06%	716	3,143	22	0.0%	0	883	849
OH	8,185,590	3.7%	13,185	11,980,727	4.54%	1,575	6,918	361,957	2.0%	972	6,870	6,600
OK	12,750,768	5.7%	20,538	13,728,654	5.20%	1,805	7,927	285,667	1.6%	767	13,649	13,113
OR	2,541,450	1.1%	4,094	154,406	0.06%	20	89	193,429	1.1%	519	3,505	3,368
PA	7,932,379	3.6%	12,777	11,416,201	4.32%	1,501	6,592	1,078,509	5.9%	2,897	4,789	4,601
RI	17,653	0.0%	28	-	0.00%	-	-	4,292	0.0%	12	17	16
SC	876,669	0.4%	1,412	1,026,576	0.39%	135	593	168,301	0.9%	452	502	483
SD	254,070	0.1%	409	120	0.00%	0	0	53	0.0%	0	409	393
TN	7,023,312	3.1%	11,313	3,738,229	1.42%	492	2,159	510,150	2.8%	1,370	8,276	7,951
TX	16,879,091	7.6%	27,188	21,728,155	8.23%	2,857	12,547	1,389,489	7.6%	3,732	13,766	13,226
UT	7,977,948	3.6%	12,850	92,298	0.03%	12	53	13,783	0.1%	37	12,772	12,271
VT	11,307	0.0%	18	18,942	0.01%	2	11	6,307	0.0%	17	(7)	-
VA	3,588,649	1.6%	5,780	3,315,506	1.26%	436	1,915	244,607	1.3%	657	3,645	3,502
WA	2,202,070	1.0%	3,547	6,788,497	2.57%	893	3,920	353,080	1.9%	948	(429)	-
WV	671,046	0.3%	1,081	458,758	0.17%	60	265	35,903	0.2%	96	780	749
WI	2,353,627	1.1%	3,791	3,250,562	1.23%	427	1,877	762,877	4.1%	2,049	293	281
WY	6,247,510	2.8%	10,063	185,113	0.07%	24	107	1,747	0.0%	5	9,976	9,584
TOTAL	223,118,239	100%	359,386	264,076,797	100%	34,723	152,488	18,390,506	100%	49,391	192,230	192,230
OCT 12			359,386			34,723	152,488			49,391	192,230	
										TTL POS ERs	200,082	
										TTL NEG ERs	7,852	
										TTL ERs CHECK	192,230	

Table A-15 Breakdown of Emissions and Emission Reductions by State for Nov. 2012

ST	ORIGIN-TO-DESTINATION -TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS				INTERMODAL DRAY EMISSIONS			EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)
	TTL Miles	Miles (% of total)	BASELINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASELINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	PROJECT DRAY EMISSIONS (tonnes CO2e)		
AL	2,561,839	1.2%	4,163	4,292,249	1.70%	559	2,446	195,795	1.1%	523	1,753	1,689
AZ	16,889,156	8.0%	27,445	27,117,777	10.74%	3,533	15,450	78,306	0.4%	209	15,319	14,758
AR	5,965,485	2.8%	9,694	2,656,606	1.05%	346	1,514	215,101	1.2%	575	7,952	7,660
CA	16,227,373	7.6%	26,370	23,888,276	9.46%	3,112	13,610	2,359,099	13.3%	6,305	9,567	9,216
CO	6,891,991	3.2%	11,200	513,077	0.20%	67	292	56,499	0.3%	151	10,823	10,427
CT	411,203	0.2%	668	-	0.00%	-	-	87,455	0.5%	234	434	419
DE	63,353	0.0%	103	15,023	0.01%	2	9	51,908	0.3%	139	(42)	-
DC	71	0.0%	0	5,463	0.00%	1	3	9	0.0%	0	(2)	-
FL	1,274,396	0.6%	2,071	779,890	0.31%	102	444	237,146	1.3%	634	1,094	1,054
GA	2,806,468	1.3%	4,561	4,904,376	1.94%	639	2,794	1,634,472	9.2%	4,369	(1,963)	-
ID	2,253,587	1.1%	3,662	1,333,907	0.53%	174	760	1,645	0.0%	4	3,072	2,959
IL	9,446,114	4.4%	15,350	15,118,801	5.99%	1,970	8,614	2,068,361	11.7%	5,528	3,178	3,061
IN	7,147,775	3.4%	11,615	9,330,236	3.70%	1,216	5,316	1,594,263	9.0%	4,261	3,254	3,135
IA	7,055,848	3.3%	11,466	1,668,522	0.66%	217	951	380,897	2.1%	1,018	9,715	9,359
KS	1,747,471	0.8%	2,840	13,491,347	5.34%	1,758	7,687	222,826	1.3%	596	(3,685)	-
KY	1,639,899	0.8%	2,665	1,932,374	0.77%	252	1,101	170,651	1.0%	456	1,360	1,310
LA	1,529,651	0.7%	2,486	1,030,547	0.41%	134	587	50,215	0.3%	134	1,899	1,829
ME	54,236	0.0%	88	-	0.00%	-	-	54,236	0.3%	145	(57)	-
MD	725,905	0.3%	1,180	218,083	0.09%	28	124	84,883	0.5%	227	857	826
MA	176,624	0.1%	287	404,477	0.16%	53	230	122,822	0.7%	328	(219)	-
MI	329,146	0.2%	535	-	0.00%	-	-	333,439	1.9%	891	(356)	-
MN	1,670,116	0.8%	2,714	3,593,072	1.42%	468	2,047	187,678	1.1%	502	633	610
MS	1,956,355	0.9%	3,179	1,991,590	0.79%	259	1,135	429,060	2.4%	1,147	1,157	1,115
MO	7,635,351	3.6%	12,408	13,434,665	5.32%	1,750	7,654	692,711	3.9%	1,851	4,652	4,482
MT	4,182,643	2.0%	6,797	8,839,445	3.50%	1,152	5,036	-	0.0%	-	2,912	2,806
NE	10,570,631	5.0%	17,178	1,027,742	0.41%	134	586	13,153	0.1%	35	16,691	16,079
NV	4,843,878	2.3%	7,871	33,480	0.01%	4	19	17,003	0.1%	45	7,811	7,525
NH	28,635	0.0%	47	-	0.00%	-	-	40,042	0.2%	107	(60)	-
NJ	582,534	0.3%	947	617,691	0.24%	80	352	292,834	1.7%	783	(107)	-
NM	14,839,437	7.0%	24,115	29,302,278	11.61%	3,818	16,695	775	0.0%	2	11,235	10,824
NY	1,292,417	0.6%	2,100	3,420,497	1.35%	446	1,949	361,326	2.0%	966	(369)	-
NC	1,515,965	0.7%	2,463	1,204,684	0.48%	157	686	364,718	2.1%	975	959	924
ND	1,931,323	0.9%	3,138	5,041,112	2.00%	657	2,872	22	0.0%	0	923	889
OH	7,741,156	3.6%	12,580	12,188,483	4.83%	1,588	6,944	339,487	1.9%	907	6,316	6,084
OK	12,025,523	5.7%	19,542	13,060,034	5.17%	1,702	7,441	266,042	1.5%	711	13,091	12,612
OR	2,391,548	1.1%	3,886	151,385	0.06%	20	86	188,797	1.1%	505	3,315	3,194
PA	7,531,052	3.5%	12,238	11,568,610	4.58%	1,507	6,591	1,071,397	6.0%	2,864	4,291	4,133
RI	18,099	0.0%	29	-	0.00%	-	-	5,259	0.0%	14	15	15
SC	900,884	0.4%	1,464	1,034,561	0.41%	135	589	155,660	0.9%	416	593	572
SD	283,948	0.1%	461	37	0.00%	0	0	67	0.0%	0	461	444
TN	6,703,716	3.2%	10,894	3,388,361	1.34%	441	1,931	544,686	3.1%	1,456	7,949	7,658
TX	16,594,752	7.8%	26,967	20,752,604	8.22%	2,704	11,824	1,355,333	7.6%	3,622	14,225	13,703
UT	7,540,059	3.5%	12,253	106,908	0.04%	14	61	13,461	0.1%	36	12,170	11,724
VT	11,299	0.0%	18	23,074	0.01%	3	13	5,914	0.0%	16	(8)	-
VA	3,512,783	1.7%	5,708	3,085,018	1.22%	402	1,758	255,981	1.4%	684	3,668	3,534
WA	2,110,746	1.0%	3,430	6,225,345	2.47%	811	3,547	348,417	2.0%	931	(237)	-
WV	652,546	0.3%	1,060	479,781	0.19%	63	273	35,809	0.2%	96	754	726
WI	2,264,251	1.1%	3,679	3,021,755	1.20%	394	1,722	746,442	4.2%	1,995	356	343
WY	5,868,659	2.8%	9,537	181,493	0.07%	24	103	1,995	0.0%	5	9,452	9,105
TOTAL	212,397,897	100%	345,154	252,474,730	100%	32,894	143,847	17,734,097	100%	47,399	186,802	186,802
NOV_12			345,154			32,894	143,847			47,399	186,802	
										TTL POS ERs	193,908	
										TTL NEG ERs	7,106	
										TTL ERs CHECK	186,802	

Table A-16 Breakdown of Emissions and Emission Reductions by State for Dec. 2012

ST	ORIGIN-TO-DESTINATION - TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS				INTERMODAL DRAY EMISSIONS			EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)
	TTL Miles	Miles (% of total)	BASELINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASELINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	PROJECT DRAY EMISSIONS (tonnes CO2e)		
AL	2,223,548	1.2%	3,690	3,851,348	1.67%	486	2,112	210,203	1.4%	576	1,488	1,429
AZ	14,393,919	7.9%	23,886	23,903,139	10.37%	3,014	13,105	53,906	0.3%	148	13,647	13,109
AR	5,077,418	2.8%	8,426	2,252,272	0.98%	284	1,235	205,025	1.3%	562	6,913	6,640
CA	13,815,747	7.6%	22,926	20,917,996	9.08%	2,638	11,469	1,981,715	12.8%	5,433	8,663	8,321
CO	5,611,517	3.1%	9,312	434,461	0.19%	55	238	52,212	0.3%	143	8,985	8,631
CT	348,425	0.2%	578	-	0.00%	-	-	68,220	0.4%	187	391	376
DE	54,087	0.0%	90	12,326	0.01%	2	7	35,829	0.2%	98	(14)	-
DC	41	0.0%	0	4,434	0.00%	1	2	5	0.0%	0	(2)	-
FL	1,128,097	0.6%	1,872	777,411	0.34%	98	426	199,799	1.3%	548	996	957
GA	2,464,845	1.3%	4,090	4,462,205	1.94%	563	2,446	1,437,814	9.3%	3,942	(1,735)	-
ID	2,023,201	1.1%	3,357	1,272,095	0.55%	160	697	1,463	0.0%	4	2,816	2,705
IL	8,346,214	4.6%	13,850	14,660,626	6.36%	1,849	8,038	1,795,732	11.6%	4,923	2,738	2,630
IN	6,266,054	3.4%	10,398	8,099,451	3.51%	1,021	4,441	1,468,000	9.4%	4,025	2,954	2,838
IA	5,972,895	3.3%	9,912	1,662,734	0.72%	210	912	332,203	2.1%	911	8,299	7,971
KS	1,520,650	0.8%	2,523	13,139,786	5.70%	1,657	7,204	210,034	1.4%	576	(3,599)	-
KY	1,447,766	0.8%	2,402	1,766,024	0.77%	223	968	147,830	1.0%	405	1,252	1,202
LA	1,322,018	0.7%	2,194	984,938	0.43%	124	540	39,667	0.3%	109	1,669	1,603
ME	45,917	0.0%	76	-	0.00%	-	-	45,917	0.3%	126	(50)	-
MD	644,051	0.4%	1,069	231,277	0.10%	29	127	70,484	0.5%	193	778	747
MA	149,165	0.1%	248	365,651	0.16%	46	200	108,874	0.7%	298	(205)	-
MI	289,794	0.2%	481	-	0.00%	-	-	293,085	1.9%	803	(323)	-
MN	1,339,476	0.7%	2,223	3,427,259	1.49%	432	1,879	141,880	0.9%	389	387	372
MS	1,655,009	0.9%	2,746	1,808,639	0.78%	228	992	332,767	2.1%	912	1,071	1,028
MO	6,783,028	3.7%	11,256	12,780,573	5.55%	1,612	7,007	628,431	4.0%	1,723	4,138	3,974
MT	3,366,317	1.8%	5,586	8,429,834	3.66%	1,063	4,622	-	0.0%	-	2,027	1,947
NE	9,001,851	4.9%	14,938	1,036,704	0.45%	131	568	12,737	0.1%	35	14,465	13,895
NV	4,075,287	2.2%	6,763	27,565	0.01%	3	15	15,321	0.1%	42	6,709	6,444
NH	23,194	0.0%	38	-	0.00%	-	-	32,042	0.2%	88	(49)	-
NJ	538,424	0.3%	893	506,317	0.22%	64	278	258,227	1.7%	708	(28)	-
NM	12,768,613	7.0%	21,189	25,875,165	11.23%	3,263	14,186	241	0.0%	1	10,265	9,860
NY	1,116,664	0.6%	1,853	3,073,140	1.33%	388	1,685	276,948	1.8%	759	(204)	-
NC	1,293,719	0.7%	2,147	1,208,323	0.52%	152	662	293,457	1.9%	805	832	799
ND	1,576,158	0.9%	2,616	4,807,512	2.09%	606	2,636	40	0.0%	0	586	563
OH	6,771,814	3.7%	11,237	10,485,452	4.55%	1,322	5,749	282,060	1.8%	773	6,038	5,799
OK	10,424,783	5.7%	17,299	12,321,489	5.35%	1,554	6,755	284,891	1.8%	781	11,317	10,870
OR	2,250,667	1.2%	3,735	159,682	0.07%	20	88	187,578	1.2%	514	3,153	3,029
PA	6,719,179	3.7%	11,150	10,010,182	4.34%	1,262	5,488	984,029	6.3%	2,698	4,227	4,060
RI	17,919	0.0%	30	-	0.00%	-	-	5,532	0.0%	15	15	14
SC	812,877	0.4%	1,349	1,002,987	0.44%	126	550	141,109	0.9%	387	539	517
SD	196,142	0.1%	325	175	0.00%	0	0	40	0.0%	0	325	312
TN	5,859,285	3.2%	9,723	3,250,041	1.41%	410	1,782	466,312	3.0%	1,278	7,073	6,794
TX	14,079,957	7.7%	23,365	18,643,724	8.09%	2,351	10,222	1,200,493	7.7%	3,291	12,203	11,722
UT	6,269,933	3.4%	10,405	90,181	0.04%	11	49	12,549	0.1%	34	10,332	9,924
VT	7,757	0.0%	13	20,849	0.01%	3	11	3,081	0.0%	8	(4)	-
VA	3,341,014	1.8%	5,544	3,233,101	1.40%	408	1,773	212,165	1.4%	582	3,598	3,456
WA	1,689,026	0.9%	2,803	5,931,813	2.57%	748	3,252	292,933	1.9%	803	(504)	-
WV	589,969	0.3%	979	451,826	0.20%	57	248	34,235	0.2%	94	694	667
WI	1,933,080	1.1%	3,208	2,890,498	1.25%	365	1,585	682,927	4.4%	1,872	115	111
WY	5,175,127	2.8%	8,588	169,272	0.07%	21	93	1,804	0.0%	5	8,511	8,176
TOTAL	182,821,635	100%	303,382	230,440,473	100%	29,059	126,342	15,541,845	100%	42,608	163,492	163,492
DEC 12			303,382			29,059	126,342			42,608	163,492	
										TTL POS ERs	170,210	
										TTL NEG ERs	6,718	
										TTL ERs CHECK	163,492	

Table A-17 Breakdown of Emissions and Emission Reductions by State for Jan. 2013

ST	ORIGIN-TO-DESTINATION -TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS				INTERMODAL DRAY EMISSIONS				EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)
	TTL Miles	Miles (% of total)	BASELINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASELINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	PROJECT DRAY EMISSIONS (tonnes CO2e)			
AL	2,475,029	1.2%	4,048	4,035,352	1.68%	542	2,333	222,028	1.3%	620	1,637	1,572	
AZ	16,052,432	7.8%	26,253	25,065,433	10.41%	3,367	14,493	73,371	0.4%	205	14,921	14,331	
AR	5,810,727	2.8%	9,503	2,506,799	1.04%	337	1,449	218,430	1.2%	610	7,781	7,473	
CA	15,546,703	7.5%	25,426	22,052,448	9.16%	2,962	12,751	2,268,192	13.0%	6,330	9,307	8,938	
CO	6,486,500	3.1%	10,608	427,927	0.18%	57	247	52,864	0.3%	148	10,271	9,864	
CT	409,276	0.2%	669	-	0.00%	-	-	91,203	0.5%	255	415	398	
DE	59,652	0.0%	98	18,211	0.01%	2	11	41,200	0.2%	115	(26)	-	
DC	55	0.0%	0	6,493	0.00%	1	4	19	0.0%	0	(3)	-	
FL	1,362,690	0.7%	2,229	775,984	0.32%	104	449	249,802	1.4%	697	1,187	1,140	
GA	2,691,047	1.3%	4,401	4,779,699	1.98%	642	2,764	1,598,355	9.1%	4,461	(2,181)	-	
ID	2,272,077	1.1%	3,716	1,330,372	0.55%	179	769	1,384	0.0%	4	3,121	2,998	
IL	9,444,952	4.6%	15,447	14,926,725	6.20%	2,005	8,631	2,029,901	11.6%	5,665	3,156	3,031	
IN	7,225,927	3.5%	11,818	8,611,283	3.58%	1,157	4,979	1,773,731	10.1%	4,950	3,045	2,924	
IA	6,957,353	3.4%	11,378	1,636,655	0.68%	220	946	388,144	2.2%	1,083	9,569	9,190	
KS	1,783,435	0.9%	2,917	13,440,718	5.58%	1,805	7,772	245,184	1.4%	684	(3,734)	-	
KY	1,663,903	0.8%	2,721	1,878,181	0.78%	252	1,086	165,209	0.9%	461	1,426	1,370	
LA	1,504,328	0.7%	2,460	1,049,721	0.44%	141	607	49,323	0.3%	138	1,857	1,783	
ME	49,263	0.0%	81	-	0.00%	-	-	49,263	0.3%	137	(57)	-	
MD	709,974	0.3%	1,161	261,130	0.11%	35	151	77,403	0.4%	216	829	796	
MA	170,880	0.1%	279	360,039	0.15%	48	208	119,617	0.7%	334	(214)	-	
MI	374,424	0.2%	612	-	0.00%	-	-	373,527	2.1%	1,042	(430)	-	
MN	1,559,768	0.8%	2,551	3,573,954	1.48%	480	2,067	163,931	0.9%	457	507	487	
MS	1,868,432	0.9%	3,056	1,991,588	0.83%	268	1,152	320,341	1.8%	894	1,278	1,227	
MO	7,485,973	3.6%	12,243	13,395,668	5.56%	1,799	7,746	658,881	3.8%	1,839	4,458	4,281	
MT	3,939,360	1.9%	6,443	8,816,020	3.66%	1,184	5,098	-	0.0%	-	2,529	2,429	
NE	10,341,463	5.0%	16,913	986,517	0.41%	133	570	14,724	0.1%	41	16,434	15,783	
NV	4,822,641	2.3%	7,887	30,919	0.01%	4	18	20,930	0.1%	58	7,815	7,506	
NH	26,096	0.0%	43	-	0.00%	-	-	36,702	0.2%	102	(60)	-	
NJ	608,609	0.3%	995	539,215	0.22%	72	312	300,670	1.7%	839	(83)	-	
NM	14,320,151	6.9%	23,420	27,198,814	11.29%	3,653	15,727	237	0.0%	1	11,345	10,896	
NY	1,340,250	0.6%	2,192	3,509,720	1.46%	471	2,029	355,899	2.0%	993	(359)	-	
NC	1,421,927	0.7%	2,325	1,236,975	0.51%	166	715	339,478	1.9%	947	829	796	
ND	1,839,294	0.9%	3,008	5,027,752	2.09%	675	2,907	93	0.0%	0	776	745	
OH	7,797,690	3.8%	12,753	11,222,191	4.66%	1,507	6,489	358,158	2.0%	1,000	6,772	6,504	
OK	11,658,669	5.6%	19,067	13,070,435	5.43%	1,756	7,558	313,026	1.8%	874	12,391	11,901	
OR	2,503,735	1.2%	4,095	161,517	0.07%	22	93	196,569	1.1%	549	3,474	3,337	
PA	7,585,241	3.7%	12,405	10,338,151	4.29%	1,389	5,978	1,039,268	5.9%	2,900	4,916	4,721	
RI	21,381	0.0%	35	-	0.00%	-	-	4,677	0.0%	13	22	21	
SC	865,464	0.4%	1,415	1,062,053	0.44%	143	614	141,172	0.8%	394	550	528	
SD	229,800	0.1%	376	110	0.00%	0	0	40	0.0%	0	376	361	
TN	6,634,035	3.2%	10,850	3,449,644	1.43%	463	1,995	480,300	2.7%	1,340	7,978	7,662	
TX	15,672,025	7.6%	25,631	19,183,718	7.97%	2,577	11,092	1,320,630	7.5%	3,686	13,429	12,898	
UT	7,269,472	3.5%	11,889	87,636	0.04%	12	51	9,805	0.1%	27	11,822	11,355	
VT	13,432	0.0%	22	19,562	0.01%	3	11	6,833	0.0%	19	(6)	-	
VA	3,545,326	1.7%	5,798	3,077,966	1.28%	413	1,780	242,885	1.4%	678	3,754	3,605	
WA	1,963,555	0.9%	3,211	6,209,535	2.58%	834	3,590	301,857	1.7%	842	(388)	-	
WV	640,510	0.3%	1,048	438,577	0.18%	59	254	35,637	0.2%	99	753	724	
WI	2,168,037	1.0%	3,546	2,920,756	1.21%	392	1,689	739,919	4.2%	2,065	184	177	
WY	5,932,141	2.9%	9,702	133,517	0.06%	18	77	1,663	0.0%	5	9,638	9,256	
TOTAL	207,125,103	100%	338,740	240,845,677	100%	32,349	139,261	17,492,472	100%	48,817	183,011	183,011	
JAN 13			338,740			32,349	139,261			48,817	183,011		
										TTL POS ERs	190,551		
										TTL NEG ERs	7,540		
										TTL ERs CHECK	183,011		

APPENDIX B

Calculation Procedures

This appendix includes the procedures and formulae used to calculate total baseline emissions (BE), project emissions (PE), and emission reductions (ERs) for JB Hunt’s Intermodal (JBI) transport project. The procedures are in two parts:

- Part A describes the procedures for calculation of total BE, PE, and ERs across all states based on JBI’s overall operations in the US.
- Part B describes the procedures used to split the total values calculated in Part A by State based on the miles traveled by JBI freight via train and truck (dray) in each state.

An example calculation for September 2011 is also included.

PART A- Procedures to Calculate Total Emissions and Emission Reductions

Baseline Emissions

The data for intermodal transport in the US indicates that about 17.2 percent of the total loads transported by intermodal rail and truck were transported by rail. Therefore under the project baseline, 17.2 percent of the loads are assumed to be transported by intermodal rail and the remaining 82.8 percent were transported by JB Hunt’s truck fleet (JBT). Emissions from each mode are calculated as shown.

Truck

Total fuel consumed by JBT trucks under the baseline was calculated by dividing the baseline truck miles by the weighted average of JBT and independent contractor (IC) fuel economies. Monthly truck miles were calculated from the Rand McNally loaded JBI miles and the industry intermodal average for truck. To determine the actual miles that would have been driven, the Rand McNally loaded miles for each year were multiplied by monthly loaded mile adjustment and variance factors. Baseline emissions were calculated by multiplying the fuel consumption by the GHG emission factors for the trucks.

$$\text{Baseline Emissions}_{\text{truck}} = \frac{(\text{Loaded JBI Miles} \times (1 - I_{\text{avg}}/100) \times \text{Load Adjustment Factor} \times \text{Variance Factor} / \text{JBT/IC weighted average fuel Economy}) \times \text{Bio-diesel usage factor} \times \text{GHG EFs}}$$

Where:

<i>Loaded JBI Miles</i>	=	<i>Monthly loaded Rand McNally Miles for the JBI fleet</i>
<i>I_{avg}</i>	=	<i>Industry average intermodal factor (%)</i>
<i>JBT/IC Fuel Economy</i>	=	<i>Miles per US gal, monthly weighted average for the JBT and IC fleets</i>
<i>Bio-diesel usage factor</i>	=	<i>Bio-diesel usage (100 % bio-diesel basis, %)</i>
<i>GHG EFs</i>	=	<i>CO₂ Emissions Factor + CH₄ Emissions Factor + N₂O Emissions Factor</i>

Using this equation, baseline truck emissions for September 2011 are calculated as,

$$\text{Baseline Emissions}_{\text{truck}} = (189,105,851 \text{ miles} \times (1 - 17.2/100) \times 1.1491 \times 1.0578) / 6.2701 \text{ miles/US gal.} \times (1 - 2.11/100) \times ((0.01021 \text{ tonne CO}_2/\text{US gal}) + (3.17 \times 10^{-8} \text{ tonne CH}_4/\text{US gal.} \times 21) + (2.99 \times 10^{-8} \text{ tonne N}_2\text{O/US gal} \times 310))$$

$$\text{Baseline Truck Emissions (Sep. 2011)} = 303,684 \text{ tonnes CO}_2\text{e}$$

Intermodal (includes train and truck dray)

In order to calculate the emissions from freight that would have been transported by rail an emission factor based on the project emissions was used. As intermodal mode of transportation uses rail as well as truck drayage transport; emissions from both sources were included. The calculated emission factor, which is expressed in tonnes CO₂e per ton-mile of freight transported, was multiplied by the fraction of intermodal baseline miles and average weight of the freight to get the baseline emissions from intermodal.

The calculation for the emission factor is shown under Project Emissions. The monthly baseline is calculated using the following equation:

$$\text{Baseline Emissions}_{\text{intermodal}} = (\text{Loaded JBI Miles} \times (\text{Iavg}/100) \times \text{Average Weight of Freight (tons)} \\ \times \text{Emission factor based on the total project emissions (tonnes CO}_2\text{e/ton-mile)}).$$

Using this equation, baseline intermodal emissions for August 2010 are calculated as,

$$\text{Baseline Emissions}_{\text{intermodal}} = (189,105,851 \text{ miles} \times 17.2/100) \times 19.2214 \text{ tons} \\ \times 0.00004722 \text{ tonne CO}_2\text{e/ baseline ton-mile}.$$

$$\text{Baseline Intermodal Emissions (Sep. 2011)} = 29,523 \text{ tonnes CO}_2\text{e}$$

Total Baseline Emissions

$$\text{Total Baseline Emissions} = \text{Baseline Truck Emissions} + \text{Baseline Intermodal Emissions}$$

For Sep. 2011, total baseline emissions are calculated as,

$$\begin{aligned} \text{Total Baseline Emissions (tonnes CO}_2\text{e)} &= 303,684 + 29,523 \\ &= 333,207 \text{ tonnes CO}_2\text{e} \end{aligned}$$

Project Emissions

The project emissions are based on the emissions produced from trucks associated with the JBI truck fleet and the train locomotives hauling J.B. Hunt freight. The fuel economies of the trucks are reported as miles per gallon (mpg) and the fuel economies of the trains are derived from the reported energy intensities.

Truck

Total fuel consumption includes fuel consumption of the JBI, IC, and outsourced (OS) truck fleets and was calculated using the following equation:

$$\text{Truck Fuel Consumption} = (\text{JBI Miles} / \text{JBI Truck Fuel Economy}) + (\text{IC Miles} / \text{IC Truck Fuel Economy}) \\ + (\text{OS Truck Miles} / \text{OS Truck Fuel Economy})$$

Where:

$$\begin{aligned} \text{JBI or IC or OS Miles} &= \text{Rand McNally Miles} \times \text{Load Adjustment Factor} \times \text{Variance Factor} \\ \text{JBI, IC, or OS Fuel Economy} &= \text{Monthly average mpg values for each category} \end{aligned}$$

Using this equation, truck fuel consumption for September 2011 is calculated as,

$$\text{JBI Fuel Consumed} = ((12,710,517 \text{ miles} \times 1.4980 \times 1.1086) / 6.2510 \text{ miles/US gal.}) + ((587,936 \text{ miles} \times 1.4536 \times 1.1086) / 6.0440 \text{ miles/US gal.}) + ((2,589,741 \text{ miles} \times 1.0372 \times 1.1086) / 5.2940 \text{ miles/US gal.})$$

$$\text{JBI Fuel Consumed} = 3,376,773 + 156,754 + 562,450 \text{ US gal.}$$

$$\text{JBI Truck Fuel Consumption (Sep. 2011)} = 4,095,977 \text{ US gal.}$$

Train

The train fuel consumption was calculated using the following equation:

$$\text{JBI Train Fuel Consumption US gal} = (\text{Energy Intensity by railway (Btu/ton-mile)} \times \text{fuel intensity adjustment factor} / 138,700 \text{ Btu/US gal.}) \times \text{Average Weight of Freight (tons)} \times \text{Actual rail miles (miles)}$$

Where:

Energy Intensity by railway = Individual railway reported fuel efficiency of Class 1 freight transport
Fuel Intensity Adjustment factor = Increase in fuel intensity of intermodal rail transport compared to Class 1 (average value = 1.22)

Actual rail miles = Rand McNally miles x PC rail and empty mile adjustment factors

Using this equation, train fuel consumption for September 2011 is calculated as,

$$\begin{aligned} \text{Train Fuel Consumption} &= (286.57 \text{ Btu/ton-mile}_{\text{BNSF}} \times 1.22 / 138,700 \text{ Btu/US gal.}) \\ &\times (19.2214 \text{ tons} \times 143,850,539 \times 1.2291 \text{ miles}_{\text{BNSF}}) + \\ &(342.47 \text{ Btu/ton-mile}_{\text{NS}} \times 1.22 / 138,700 \text{ Btu/US gal.}) \\ &\times (19.2214 \text{ tons} \times 35,312,227 \times 1.2291 \text{ miles}_{\text{NS}}) + \\ &(294.48 \text{ Btu/ton-mile}_{\text{Avg, Class1}} \times 1.22 / 138,700 \text{ Btu/US gal.}) \\ &\times (19.2214 \text{ tons} \times 24,711,606 \times 1.2291 \text{ miles}_{\text{Avg Class1}}) \end{aligned}$$

$$\text{Train Fuel Consumption} = 8,566,387 + 2,513,053 + 1,512,208 \text{ US gal.}$$

$$\text{Train Fuel Consumption (Sep. 2011)} = 12,591,649 \text{ US gal.}$$

Total Project Emissions

To calculate total project emissions, the diesel fuel consumption for both the truck and train components were multiplied by their respective GHG emissions factors using the following equation:

$$\text{Project Emissions} = (\text{JBI Fleet Fuel Consumed} + \text{Train Fuel Consumed}) \times (\text{GHG Emissions Factors})$$

Using this equation, total project emissions for September 2011 are calculated as,

$$\begin{aligned} \text{Project Emissions} &= 4,095,977 \text{ US gal.} \times [(0.01021 \text{ tonne CO}_2\text{/US gal.}) + (3.17 \times 10^{-8} \text{ tonne CH}_4\text{/US gal.} \times 21) + (2.99 \times 10^{-8} \text{ tonne N}_2\text{O/US gal.} \times 310)] + \\ &12,591,649 \text{ US gal.} \times [(0.01021 \text{ tonne CO}_2\text{/US gal.}) + (8.00 \times 10^{-7} \text{ tonne CH}_4\text{/US gal.} \times 21) + (2.60 \times 10^{-7} \text{ tonne N}_2\text{O/US gal.} \times 310)] \\ &= 41,861 \text{ tonnes CO}_2\text{e (dray truck)} + 129,787 \text{ tonnes CO}_2\text{e (train)} \end{aligned}$$

$$\text{Project Emissions (Sep. 2011)} = 171,648 \text{ tonnes CO}_2\text{e}$$

Calculation of emission factor for intermodal train transport

The emission factor for baseline emissions from intermodal train transport is calculated by using the following equation:

$$\text{Emission Factor} = \frac{\text{Total monthly project emissions}}{(\text{Average monthly weight of freight in tons} \times \text{monthly loaded JBI miles})}$$

Using this equation, the emission factor for September 2011 is calculated as,

$$\text{Emission factor (September 2011)} = 171,648 \text{ tonnes CO}_2\text{e} / (19.2214 \text{ tons} \times 189,105,851 \text{ miles})$$

$$\text{Emission factor (September 2011)} = 0.00004722 \text{ tonne CO}_2\text{e} / \text{baseline ton-mile.}$$

Emission Reductions

The following equation is used to determine the annual emissions reductions.

$$\text{ERs} = \text{Baseline Emissions} - \text{Project Emissions}$$

$$\text{ERs Sep. 2011} = 333,207 \text{ tonnes CO}_2\text{e} - 171,648 \text{ tonnes CO}_2\text{e}$$

$$\text{ERs Sep. 2011} = 161,560 \text{ tonnes CO}_2\text{e}$$

A summary of the calculated emissions and ERs for September 2011 is shown in Table B-1.

Table B-1 Emissions Summary for September 2011 (tonnes CO₂e)

Baseline (truck)	303,684
Baseline Intermodal (train + dray truck)	29,523
Total Baseline (BE)	333,207
Project Intermodal (train)	129,787
Project Intermodal (dray truck)	41,861
Total Project (PE)	171,648
Emission Reductions (ER = BE - PE)	161,560

PART B - Procedures to Split Total Emissions and ERs by State

Emissions generated by the project in each State are proportional to the miles traveled in that State. Therefore for each emission source shown in Table B-1, calculated monthly emissions were split among the states based on the miles traveled within each State. The following procedures were used to calculate the breakdown of miles traveled in each State. The source of emissions to which each step is applied is also indicated.

Step A: Calculate road miles traveled by state based on load origin and destination cities:

Under the baseline, the majority of JBI loads would have been transported by truck using the most practical route between the origin and destination cities. In this step, the mileage between all pairs of origin and destination cities are aggregated by State and are used to calculate the splits for “Baseline Truck” source of emissions.

Key Assumptions:

- Use PCMIler 24 to estimate highway miles by state.
- Select single month to run.
- The Norfolk Southern Toledo, OH ramp zip code 43602 is not recognized by PCMIler 24. Used zip 43601 as a substitute. Laredo TX ramp zip code 78042 changed to 78041.
- Loads moving to/from Canadian and Mexican customers are included in the monthly spreadsheet data for the Intermodal Project. They are excluded from this process.

Process:

- Use Access database IMMilesByState.BIPS.accdb
- Change output file name in qry 031 Eliminate Canadian Zips ODPairs to tblMMYYYYODPairs for the data month being processed.
- Run macro macReplaceZips ODPairs
 - Captures shipper and consignee zip pairs
 - Replaces zip codes not recognized by PCMIler 24 [do with ReplaceZipProcess()]. This process replaces unrecognized zip codes with recognized zip codes.
 - Saves the data to tblMMYYYYODPairs
- Export tblMMYYYY ODPairs as tab delimited text file with no text qualifiers.
- Run the text file through PCMIler BatchPro.

Batch Process Results:

Column Headers in Results file

Column 1: State

Column 2: Total Miles

Column 3: Toll Miles

Column 4: Freeway Miles

Column 5: Ferry Miles

State	Column 1	Column 2	Column 3	Column 4	Column 5
CT	346101.1	0.0	346101.1	0.0	0.0
DE	54860.7	7571.7	47289.0	0.0	0.0
DC	82.8	0.0	82.8	0.0	0.0
FL	1176160.6	168560.8	1007599.7	0.0	0.0
GA	2370924.3	0.0	2370924.3	0.0	0.0
ID	2333137.7	0.0	2333137.7	0.0	0.0
IL	8274044.3	1077431.2	7196613.1	0.0	0.0
IN	6041468.7	2016748.7	4024720.0	0.0	0.0
IA	6576948.7	0.0	6576948.7	0.0	0.0
KS	1575340.3	140923.0	1434417.3	0.0	0.0
KY	1524701.7	0.0	1524701.7	0.0	0.0
LA	1174948.6	0.0	1174948.6	0.0	0.0
ME	36316.2	20524.1	15792.1	0.0	0.0
MD	644663.9	11637.7	633026.2	0.0	0.0
MA	131779.8	25485.4	106294.4	0.0	0.0
MI	365458.9	0.0	365458.9	0.0	0.0
MN	1608214.5	0.0	1608214.5	0.0	0.0
MS	1713832.9	0.0	1713832.9	0.0	0.0
MO	6291016.1	0.0	6291016.1	0.0	0.0
MT	4132187.9	0.0	4132187.9	0.0	0.0
NE	10163675.0	0.0	10163675.0	0.0	0.0
NV	4667073.8	0.0	4667073.8	0.0	0.0
NH	20653.5	4643.1	16010.4	0.0	0.0
NJ	561580.7	78526.9	483053.7	0.0	0.0
NM	12140569.0	0.0	12140569.0	0.0	0.0
NY	1122412.7	633199.6	489213.1	0.0	0.0
NC	1278055.0	0.0	1278055.0	0.0	0.0
ND	1912477.7	0.0	1912477.7	0.0	0.0
OH	6408421.7	2796819.4	3611602.3	0.0	0.0
OK	9888260.3	2561932.1	7326328.1	0.0	0.0
OR	2606399.0	21.4	2606377.6	0.0	0.0
PA	6523297.8	1465207.6	5058090.2	0.0	0.0
RI	10794.1	0.0	10794.1	0.0	0.0
SC	756655.6	1786.9	754868.8	0.0	0.0
SD	261432.7	0.0	261432.7	0.0	0.0
TN	6052335.5	0.0	6052335.5	0.0	0.0
TX	13288564.9	24746.5	13263818.4	0.0	0.0
UT	7089174.4	6.7	7089167.7	0.0	0.0
VT	8555.7	0.0	8555.7	0.0	0.0
VA	3006733.9	1.8	3006732.1	0.0	0.0
WA	2094364.6	37.8	2094326.8	0.0	0.0
WV	586190.5	115469.0	470721.5	0.0	0.0
WI	2129646.1	0.0	2129646.1	0.0	0.0
WY	5978872.9	0.0	5978872.9	0.0	0.0
Total	186553312.9	11187945.6	175365367.2	0.0	0.0

Figure B-1 Step A Results for September 2011

Step B: Calculate miles traveled by state based on rail ramp-to-ramp pairs

Under the project condition, JBI loads are transported by truck (dray) to a rail ramp nearest to the point of origin and dispatched by rail to the ramp nearest the point of destination. There may be some intermediate ramp-to-ramp transfers. Loads are finally delivered from the destination ramp to the customer via dray truck. In this step, the mileage between all ramp pairs used by JBI are aggregated by state and used to calculate the splits for “Project Intermodal (train)” source of emissions. Project Dray miles are aggregated in Step C.

The results of this step were also used to calculate the splits for the “Baseline Intermodal (train + dray truck)” source of emissions. As indicated in Section 2, a small percentage of the loads about 17.2 percent would have been transported via intermodal under the baseline. Since baseline intermodal emissions are about 18 percent of total ERs, and dray emissions are about 25 percent of total baseline intermodal

emissions, baseline intermodal dray emissions are only about 4.5 percent of the total ERs. Therefore using this Step to split baseline dray emissions (instead of Step C) does not materially affect the ER splits.

Key Assumptions:

- Use PCMiller Rail-BatchPro 19 (aka PCRail)
- Select single month to run
- There are 11 cases where PCRail recognizes input parameters as invalid. A table called PIDCLN1.BLUESOURCE_PC_RAIL_EXCEPTIONS_T has been created to handle these, and may be expanded onto in the future

Process:

- Delete all data from table PIDCLN1.BLUESOURCE_PC_RAIL_INPUT_T
- Insert one month's data into PIDCLN1.BLUESOURCE_PC_RAIL_INPUT_T using query PIDCLN1.PC_RAIL_INPUT_Q
- Export the entire data set to Excel using Toad. QMF has a 50,000 row max fetch limit – Toad does not
- Refer to a previously submitted PCRail input Excel file from an earlier month and copy over the formulae for the first couple rows under the green headers into the new Input file
- Extend the formulas to the rest of the lane file
- Copy and paste the rightmost column into a TextPad file
- Save the file as a .in
- Run PCRail using the new .in file and the default .dir format file located in the BlueSource BatchPro Results directory
- Make sure you have State-by-State summary report checked as one of the required results
- Once PCRail finished processing, open the .stm summary file in Excel
- It will recognize it as a delimited text file. Follow the default prompts.
- Format and clean up the results
- Check the .LOG file to see if there were any errors
- If there were errors, check the .OUT file to see where and why the lanes failed
- Address the error messages and when a solution is determined, add this to the PIDCLN1.BLUESOURCE_PC_RAIL_EXCEPTIONS_T table for future iterations of the process
- Send finalized report to BlueSource for validation

STATE	R2R- From PC Railer
AL	3,891,310
AR	2,260,812
AZ	24,274,172
CA	22,613,953
CO	317,402
CU	89,888
DC	4,672
DE	12,883
EM	15,413
FL	821,410
GA	4,268,591
GJ	33,394
IA	1,301,353
ID	1,388,750
IL	13,795,888
IN	7,868,715
KS	12,156,423
KY	1,831,858
LA	1,146,418
MA	301,616
MD	200,739
MH	11,214
MN	3,734,467
MO	11,726,313
MS	2,000,288
MT	9,202,875
NC	1,042,270
ND	5,248,375
NE	672,020
NJ	583,156
NL	183,307
NM	26,085,584
NV	37,590
NY	2,708,943
OH	9,971,693
OK	10,976,294
OR	327,130
PA	9,881,698
SC	818,274
SD	212
SL	139,111
TM	6,630
TN	3,407,398
TX	18,763,161
UT	98,871
VA	2,817,457
VT	14,282
WA	6,554,750
WI	3,193,367
WV	338,647
WY	179,230
ZT	1,262
TOTAL	229,321,528

Figure B-2 Step B Results for September 2011

Step C: Calculate dray miles traveled by State based on load origin/destination and rail ramps.

Under the project condition, dray miles occur in those states where JBI or contractor trucks pick up and deliver loads between customer locations and rail ramps. In this step the miles traveled by dray trucks in each State are aggregated and are used to calculate the splits for “Project Intermodal (dray truck)” source of emissions.

Key Assumptions:

- Use PCMIler 24 to estimate dray miles by state.
- Select single month to run.
- The Norfolk Southern Toledo, OH ramp zip code 43602 is not recognized by PCMIler 24. Used zip 43601 as a substitute. Laredo TX ramp zip code 78042 changed to 78041.
- Loads moving to/from Canadian and Mexican ramps are included in the monthly spreadsheet data for the Intermodal Project. They are excluded from this process.

Process:

- Use Access database IMMilesByStateBIPS.accdb
- Open qry 031 and change output file name (tblMMYYYYDrayPairs).
- Run macro macReplace Zip Dray Pairs PCMIler 24
 - Captures customer to ramp and ramp to customer dray pairs
 - Replaces zip codes not recognized by PCMIler 24 [do with ReplaceZipProcess()]. This process replaces unrecognized zip codes with recognized zip codes.
 - Saves the data to tblMMYYYYDrayPairs
- Export tblMMYYYYDrayPairs as tab delimited text file with no text qualifiers.
- Run the text file through PCMIler BatchPro

State	Column 1	Column 2	Column 3	Column 4	Column 5
AR	199846.5	0.0	199846.5	0.0	
CA	2063974.5	544.6	2063430.0	0.0	
CO	36750.7	0.0	36750.7	0.0	
CT	117593.5	0.0	117593.5	0.0	
DE	57322.5	12277.7	45044.8	0.0	
DC	27.9	0.0	27.9	0.0	
FL	205224.8	24039.8	181185.0	0.0	
GA	1465567.4	0.0	1465567.4	0.0	
ID	1352.1	0.0	1352.1	0.0	
IL	1829774.9	499861.3	1329913.6	0.0	
IN	1532811.7	180903.9	1351907.8	0.0	
IA	351925.7	0.1	351925.6	0.0	
KS	184176.1	26962.0	157214.1	0.0	
KY	143059.0	0.0	143059.0	0.0	
LA	35225.2	0.0	35225.2	0.0	
ME	36316.2	20524.1	15792.1	0.0	
MD	75682.9	182.2	75500.6	0.0	
MA	106729.7	21771.0	84958.7	0.0	
MI	363582.3	0.0	363582.3	0.0	
MN	169249.0	0.0	169249.0	0.0	
MS	353671.4	0.0	353671.4	0.0	
MO	591166.3	0.0	591166.3	0.0	
NE	7187.5	0.1	7187.5	0.0	
NV	11731.9	0.0	11731.9	0.0	
NH	29808.8	10229.6	19579.1	0.0	
NJ	246038.6	79110.9	166927.7	0.0	
NM	325.1	0.0	325.1	0.0	
NY	336393.9	117848.7	218545.2	0.0	
NC	317263.3	0.0	317263.3	0.0	
OH	318931.9	33257.3	285674.6	0.0	
OK	246311.9	46757.9	199554.0	0.0	
OR	214036.5	0.0	214036.5	0.0	
PA	839177.6	32151.7	807025.9	0.0	
RI	5338.5	0.0	5338.5	0.0	
SC	136635.3	1908.2	134727.1	0.0	
TN	372436.6	0.0	372436.6	0.0	
TX	1121939.8	42222.1	1079717.7	0.0	
UT	13338.0	0.0	13338.0	0.0	
VT	3732.7	0.0	3732.7	0.0	
VA	172160.7	43.0	172117.7	0.0	
WA	331825.2	11.1	331814.1	0.0	
WV	26170.3	55.4	26115.0	0.0	
WI	625056.1	0.0	625056.1	0.0	
WY	1371.8	0.0	1371.8	0.0	
Total	15571829.5	1150663.3	14421166.2	0.0	

Figure B-3 Step C Results for September 2011

Step D. Split total emissions based on miles traveled in each State

Emissions from each source shown in Table B-1 are split by State using the following equation

$$E_{i,j,k} = (SM_{i,j}) / (TM_j) \times ES_{j,k}$$

where,

- $E_{i,j,k}$ = Emissions in State i during month j from source k (tonnes CO₂e)
- $SM_{i,j}$ = Total miles traveled in State i during month j using appropriate STEP A,B, or C
- TM_j = Total miles traveled in all states during month j using same STEP A, B, or C
- $ES_{j,k}$ = Total emissions in month j from source k (tonnes CO₂e)

Example Calculation

As an example, calculations for the State of Alabama during Sept. 2011 are outlined below.

Baseline truck emissions are calculated using mileage splits from Step A (Figure B-1)

$$E_{AL, \text{Sept}2011, \text{baseline truck}} = 2,228,028.7/186,553,312.9 \times 303,684$$

$$= 3,627 \text{ tonnes CO}_2\text{e}$$

Baseline intermodal emissions (train + dray truck) are calculated using data from Step B (Figure B-2)

$$E_{AL, \text{Sept} 2011, \text{baseline intermodal}} = 3,891,310/228,841,309 \times 29,523$$

$$= 502 \text{ tonnes CO}_2\text{e}$$

Project intermodal emissions (train) are calculated using data from Step B (Figure B-2)

$$E_{AL, \text{Sept} 2011, \text{project train}} = 3,891,310/228,841,309 \times 129,787$$

$$= 2,207 \text{ tonnes CO}_2\text{e}$$

Project intermodal emissions (dray truck) are calculated using data from Step C (Figure B-3)

$$E_{AL, \text{Sept} 2011, \text{project dray truck}} = 225,763/15,571,830 \times 41,861$$

$$= 607 \text{ tonnes CO}_2\text{e}$$

Emission reductions are calculated as the difference between baseline and project emissions.

Accordingly,

$$ER_{AL, \text{Sept} 2011} = (3,627 + 502) - (2,207 + 607)$$

$$= 1,315 \text{ tonnes CO}_2\text{e}$$

A similar procedure was used to calculate ERs for the other states.

Table B-2 shows the calculated breakdown of emissions by State for September 2011. Calculated ERs and the ERs corrected for leakage (described below) are also shown in the table.

Leakage Correction

While ERs in Alabama are positive, the transport of JBI loads via intermodal can cause small emission increases in other States when compared to the baseline (leakage). For example in the State of Georgia, the Atlanta ramp is a major hub for intermodal traffic. This results in increased drayage transport emissions within the State from the movement of goods from neighboring states that use this hub. The net effect is an emission increase in Georgia.

Total leakage emissions are small (~1 percent of total ERs). To account for these emission increases, the calculated ERs for each state with an emission increase (i.e. negative ER) was set to zero and the ERs for each of the remaining states were reduced in proportion to its share of the total ERs. The total ERs across all states remained unchanged.

As shown in Table B-2 for September 2011, a total of 168,235 tonnes CO₂e of emission decreases (positive ERs) and a total of 6,575 tonnes CO₂e of emission increases (negative ERs) were generated. The ERs for Alabama were corrected as

$$\text{Corrected } ER_{AL, \text{Sept} 2011} = 1,315 - 1,315 / 161,560 \times 6,575$$

$$= 1,264 \text{ tonnes CO}_2\text{e}$$

Table B-2 Breakdown of Emissions and Emission Reductions by State for Sept. 2011

ST	ORIGIN-TO-DESTINATION -TRUCK EMISSIONS			RAMP-TO-RAMP PAIRS - INTERMODAL EMISSIONS				INTERMODAL DRAY EMISSIONS			EMISSION REDUCTIONS (tonnes CO2e)	EMISSION REDUCTIONS CORRECTED FOR LEAKAGE (tonnes CO2e)
	TTL Miles	Miles (% of total)	BASELINE TRUCK EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	BASELINE INTERMODAL EMISSIONS (tonnes CO2e)	PROJECT INTERMODAL EMISSIONS (tonnes CO2e)	TTL Miles	Miles (% of total)	PROJECT DRAY EMISSIONS (tonnes CO2e)		
AL	2,228,029	1.2%	3,627	3,891,310	1.70%	502	2,207	225,763	1.4%	607	1,315	1,264
AZ	13,812,971	7.4%	22,486	24,274,172	10.61%	3,132	13,767	47,824	0.3%	129	11,722	11,263
AR	5,385,078	2.9%	8,766	2,260,812	0.99%	292	1,282	199,847	1.3%	537	7,238	6,955
CA	14,036,747	7.5%	22,850	22,613,953	9.88%	2,917	12,825	2,063,975	13.3%	5,548	7,394	7,104
CO	6,162,102	3.3%	10,031	317,402	0.14%	41	180	36,751	0.2%	99	9,793	9,410
CT	346,101	0.2%	563	-	0.00%	-	-	117,594	0.8%	316	247	238
DE	54,861	0.0%	89	12,883	0.01%	2	7	57,323	0.4%	154	(70)	-
DC	83	0.0%	0	4,672	0.00%	1	3	28	0.0%	0	(2)	-
FL	1,176,161	0.6%	1,915	821,410	0.36%	106	466	205,225	1.3%	552	1,003	964
GA	2,370,924	1.3%	3,860	4,268,591	1.87%	551	2,421	1,465,567	9.4%	3,940	(1,950)	-
ID	2,333,138	1.3%	3,798	1,388,750	0.61%	179	788	1,352	0.0%	4	3,186	3,061
IL	8,274,044	4.4%	13,469	13,795,888	6.03%	1,780	7,824	1,829,775	11.8%	4,919	2,506	2,408
IN	6,041,469	3.2%	9,835	7,868,715	3.44%	1,015	4,463	1,532,812	9.8%	4,121	2,267	2,178
IA	6,576,949	3.5%	10,706	1,301,353	0.57%	168	738	351,926	2.3%	946	9,190	8,831
KS	1,575,340	0.8%	2,564	12,156,423	5.31%	1,568	6,895	184,176	1.2%	495	(3,257)	-
KY	1,524,702	0.8%	2,482	1,831,858	0.80%	236	1,039	143,059	0.9%	385	1,295	1,244
LA	1,174,949	0.6%	1,913	1,146,418	0.50%	148	650	35,225	0.2%	95	1,316	1,264
ME	36,316	0.0%	59	-	0.00%	-	-	36,316	0.2%	98	(39)	-
MD	644,664	0.3%	1,049	200,739	0.09%	26	114	75,683	0.5%	203	758	728
MA	131,780	0.1%	215	301,616	0.13%	39	171	106,730	0.7%	287	(205)	-
MI	365,459	0.2%	595	-	0.00%	-	-	363,582	2.3%	977	(382)	-
MN	1,608,215	0.9%	2,618	3,734,467	1.63%	482	2,118	169,249	1.1%	455	527	506
MS	1,713,833	0.9%	2,790	2,000,288	0.87%	258	1,134	353,671	2.3%	951	963	925
MO	6,291,016	3.4%	10,241	11,726,313	5.12%	1,513	6,651	591,166	3.8%	1,589	3,514	3,377
MT	4,132,188	2.2%	6,727	9,202,875	4.02%	1,187	5,219	-	0.0%	-	2,695	2,589
NE	10,163,675	5.4%	16,545	672,020	0.29%	87	381	7,188	0.0%	19	16,231	15,597
NV	4,667,074	2.5%	7,597	37,590	0.02%	5	21	11,732	0.1%	32	7,549	7,254
NH	20,654	0.0%	34	-	0.00%	-	-	29,809	0.2%	80	(47)	-
NJ	561,581	0.3%	914	583,156	0.25%	75	331	246,039	1.6%	661	(3)	-
NM	12,140,569	6.5%	19,763	26,085,584	11.40%	3,365	14,794	325	0.0%	1	8,333	8,007
NY	1,122,413	0.6%	1,827	2,708,943	1.18%	349	1,536	336,394	2.2%	904	(264)	-
NC	1,278,055	0.7%	2,081	1,042,270	0.46%	134	591	317,263	2.0%	853	771	741
ND	1,912,478	1.0%	3,113	5,248,375	2.29%	677	2,977	-	0.0%	-	814	782
OH	6,408,422	3.4%	10,432	9,971,693	4.36%	1,286	5,655	318,932	2.0%	857	5,206	5,002
OK	9,888,260	5.3%	16,097	10,976,294	4.80%	1,416	6,225	246,312	1.6%	662	10,626	10,210
OR	2,606,399	1.4%	4,243	327,130	0.14%	42	186	214,037	1.4%	575	3,524	3,386
PA	6,523,298	3.5%	10,619	9,881,698	4.32%	1,275	5,604	839,178	5.4%	2,256	4,034	3,876
RI	10,794	0.0%	18	-	0.00%	-	-	5,339	0.0%	14	3	3
SC	756,656	0.4%	1,232	818,274	0.36%	106	464	136,635	0.9%	367	506	486
SD	261,433	0.1%	426	212	0.00%	0	0	-	0.0%	-	425	409
TN	6,052,336	3.2%	9,852	3,407,398	1.49%	440	1,933	372,437	2.4%	1,001	7,358	7,071
TX	13,288,565	7.1%	21,632	18,763,161	8.20%	2,421	10,642	1,121,940	7.2%	3,016	10,395	9,989
UT	7,089,174	3.8%	11,540	98,871	0.04%	13	56	13,338	0.1%	36	11,461	11,013
VT	8,556	0.0%	14	14,282	0.01%	2	8	3,733	0.0%	10	(2)	-
VA	3,006,734	1.6%	4,895	2,817,457	1.23%	363	1,598	172,161	1.1%	463	3,197	3,072
WA	2,094,365	1.1%	3,409	6,554,750	2.86%	846	3,718	331,825	2.1%	892	(355)	-
WV	586,191	0.3%	954	338,647	0.15%	44	192	26,170	0.2%	70	736	707
WI	2,129,646	1.1%	3,467	3,193,367	1.40%	412	1,811	625,056	4.0%	1,680	387	372
WY	5,978,873	3.2%	9,733	179,230	0.08%	23	102	1,372	0.0%	4	9,651	9,273
TOTAL	186,553,313	100%	303,684	228,841,309	100%	29,523	129,787	15,571,830	100%	41,861	161,560	161,560
SEPT 11			303,684			29,523	129,787			41,861	161,560	
										TTL POS ERs	168,135	
										TTL NEG ERs	6,575	
										TTL ERs CHECK	161,560	