

STB

FD

33388

12-12-97

K

28629V5A 7/11

Attachment E-4

Appendix E: Air Quality

Emissions Changes for Rail Line Segments Included in Detailed County Netting Analyses

State	County	RR	Segment Name	Total Miles	Miles Within County	Change in Trains/Day	Change in MGT	Fuel Eff. Factor GTW/gal	NOX @ 566.4 lb/Kgal (ton/yr)	CO @ 62.9 lb/Kgal (ton/yr)
PA	Fayette							TOTALS	313.71	
PA	Franklin	CR/NS	Harrisburg, PA to Riverton Jct, VA	133.0	25.9	8.5	15.2	702.9	158.61	
PA	Franklin	CSX	Hanover, PA to Hagerstown, MD	57.0	2.4	0.0	0.0	726.8	0.00	
PA	Franklin	CSX	Hagerstown, MD to Lurgan, PA	34.0	30.2	0.2	-2.0	726.8	-23.52	
PA	Franklin							TOTALS	135.10	
PA	Lawrence	CSX	Rankin Jct, PA to New Castle, PA	51.0	8.3	9.4	31.0	726.8	100.26	
PA	Lawrence	CSX	New Castle, PA to Youngstown, OH	18.3	9.5	7.0	22.0	726.8	81.09	
PA	Lawrence	CSX	Willow Grove, PA to New Castle, PA	56.0	9.5	0.0	0.0	726.8	0.00	
PA	Lawrence	CR/NS	Rochester, PA to Youngstown, OH	39.0	18.3	5.1	5.3	702.9	39.08	
PA	Lawrence	CR/NS	Rochester, PA to Alliance, OH	57.0	4.1	-11.4	-23.8	702.9	-39.70	
PA	Lawrence							TOTALS	180.73	
PA	Philadelphia	CSX	RG, PA to Wilsmere, DE	26.0	3.3	3.5	9.0	726.8	11.40	
PA	Philadelphia	CSX	Park Jct, PA to RG, PA	3.0	3.0	-9.4	-21.0	726.8	-24.55	
PA	Philadelphia	CR/CSX	RG, PA to Field, PA	0.6	0.6	16.0	17.0	726.8	3.97	
PA	Philadelphia	CR/CSX	Field, PA to Belmont, PA	4.3	4.3	7.6	9.0	726.8	15.04	
PA	Philadelphia	CR/CSX	Park Jct, PA to Belmont, PA	1.5	1.5	1.3	1.0	726.8	0.58	
PA	Philadelphia	CR/CSX	Belmont, PA to West Falls, PA	1.3	1.3	2.6	6.0	726.8	3.04	
PA	Philadelphia	CR/CSX	Newtown Jct, PA to Quakertown, PA	35.8	1.8	0.0	0.0	726.8	0.00	
PA	Philadelphia	CR/CSX	Jenkintown, PA to Nerhaminy Falls, PA	10.3	1.2	0.0	0.0	726.8	0.00	
PA	Philadelphia	CR/CSX	West Falls, PA to CP Newtown Jct, PA	3.7	3.7	0.3	3.0	726.8	4.33	
PA	Philadelphia	CR/CSX	CP Newtown Jct, PA to CP Wood, PA	20.7	10.4	-0.6	1.0	726.8	4.05	
PA	Philadelphia	CR/CSX	South Philadelphia, PA to Field, PA	5.0	5.0	12.9	19.0	726.8	37.02	
PA	Philadelphia	CR/NS	Arsenal, PA to Greenwich, PA	3.0	3.0	1.5	-0.6	702.9	-1.73	
PA	Philadelphia	SA/NEC	Arsenal, PA to Davis, DE	25.0	4.1	8.2	18.0	check RR	#VALUE!	
PA	Philadelphia	SA	Phil Frankford, PA to Camden, NJ	4.1	2.4	2.9	4.0	719.2	3.73	
PA	Philadelphia	SA	Park Jct, PA to Phil Frankford, PA	6.5	6.5	2.9	3.0	719.2	7.88	
PA	Philadelphia	SA/NEC	Morrisville, PA to Zoo, PA	28.5	13.4	3.7	8.0	check RR	#VALUE!	
PA	Philadelphia	SA	Eastwick, PA to Lester, PA	6.1	4.6	0.0	0.0	719.2	0.00	
PA	Philadelphia							TOTALS	#VALUE!	
PA	Somerset	CSX	Cumberland, MD to Sinns, PA	133.0	49.8	5.1	13.0	726.8	252.26	
PA	Somerset	CSX	Rockwood, PA to Johnstown, PA	45.0	34.3	0.0	0.0	726.8	0.00	
PA	Somerset							TOTALS	252.26	
PA	Westmoreland	CSX	Cumberland, MD to Sinns, PA	133.0	16.9	5.1	13.0	726.8	85.81	
PA	Westmoreland	CSX	Sinns, PA to Brownsville, PA	38.0	8.3	9.3	21.0	726.8	67.92	
PA	Westmoreland	CR/NS	Conpitt Jct, PA to Avonmore Coal, PA	28.0	0.6	1.5	0.0	702.9	0.00	
PA	Westmoreland	CR/NS	Avonmore Coal, PA to Etna, PA	44.0	18.1	1.1	0.2	702.9	1.46	
PA	Westmoreland	CR/NS	Narysville, PA to Pitcairn, PA	227.0	50.9	0.3	-13.1	702.9	-268.65	
PA	Westmoreland							TOTALS	-113.67	
TN	Davidson	CSX	Evansville, IN to Amqui, TN	137.0	11.3	9.3	26.0	726.8	114.48	
TN	Davidson	CSX	Amqui, TN to Nashville, TN	16.0	8.5	7.6	24.0	726.8	79.49	
TN	Davidson	CSX	Nashville, TN to Decatur, AL	118.0	9.7	1.7	19.0	726.8	71.59	
TN	Davidson	CSX	Louisville, KY to Amqui, TN	173.0	2.7	-1.4	-3.0	726.8	-3.16	
TN	Davidson	CSX	Nashville, TN to McKenzie, TN	117.0	17.2	2.3	4.0	726.8	26.84	

Attachment E-4
Emissions Changes for Rail Line Segments Included in Detailed County Netting Analyses

State	County	RR	Segment Name	Total Miles	Miles Within County	Change In Trains/Day	Change In MGT	Fuel Eff. Factor GTM/gal	NOX @ 566.4 lb/Kgal (ton/yr)	CO @ 62.9 lb/Kgal (ton/yr)
TN	Davidson	CSX	Nashville, TN to Stevenson, AL	113.0	14.9	0.5	2.0	726.8	11.64	
TN	Davidson							TOTALS	300.89	
TN	Robertson	CSX	Evansville, IN to Amqui, TN	137.0	24.5	9.3	26.0	726.8	248.21	
TN	Robertson							TOTALS	248.21	
VA	Augusta	NS	Riverton Jct, VA to Roanoke, VA	181.0	36.1	8.2	20.1	702.9	292.35	
VA	Augusta	CSX	Charlottesville, VA to Clifton Forge, VA	103.0	39.1	0.0	0.0	726.8	0.00	
VA	Augusta							TOTALS	292.35	
VA	Botetourt	NS	Riverton Jct, VA to Roanoke, VA	181.0	27.8	8.2	20.1	702.9	225.46	
VA	Botetourt	NS	Pamplin, VA to Roanoke, VA	85.0	6.1	0.6	3.8	702.9	9.34	
VA	Botetourt	CSX	Rivanna Jct, VA to Clifton Forge, VA	229.0	43.2	-0.1	-1.0	726.8	-16.84	
VA	Botetourt							TOTALS	217.96	
VA	Clarke	CSX	Harpers Ferry, WV to Strasburg Jct, VA	51.0	3.0	0.0	0.0	726.8	0.00	
VA	Clarke	CR/NS	Harrisburg, PA to Riverton Jct, VA	133.0	16.3	8.5	15.2	702.9	99.82	
VA	Clarke							TOTALS	99.82	
VA	Fairfax	CSX	Fredericksburg, VA to Pctomac Yd, VA	49.0	11.3	7.1	12.0	726.8	52.84	
VA	Fairfax	NS	Alexandria, VA to Manassas, VA	20.0	3.1	1.8	2.5	702.9	16.22	
VA	Fairfax							TOTALS	69.06	
VA	Page	NS	Riverton Jct, VA to Roanoke, VA		31.9	8.2	20.1	702.9	258.66	
VA	Page							TOTALS	258.66	
VA	Rockbridge	NS	Riverton Jct, VA to Roanoke, VA	181.0	35.1	8.2	20.1	702.9	283.85	
VA	Rockbridge	CSX	Charlottesville, VA to Clifton Forge, VA	103.0	8.4	0.0	0.0	726.8	0.00	
VA	Rockbridge	CSX	Rivanna Jct, VA to Clifton Forge, VA	229.0	9.5	-0.1	-1.0	726.8	-3.70	
VA	Rockbridge							TOTALS	280.14	
VA	Rockingham	NS	Riverton Jct, VA to Roanoke, VA	181.0	21.8	8.2	20.1	702.9	176.79	
VA	Rockingham	NS	Elkton, VA to Harrisonburg, VA	20.1	20.1	1.0	0.2	702.9	1.62	
VA	Rockingham							TOTALS	178.41	
VA	Stafford	CSX	Fredericksburg, VA to Potomac Yd, VA	49.0	18.0	7.1	12.0	726.8	84.17	
VA	Stafford							TOTALS	84.17	
VA	Warren	NS	Riverton Jct, VA to Roanoke, VA	181.0	15.9	8.2	20.1	702.9	128.76	
VA	Warren	NS	Riverton Jct, VA to Manassas, VA	51.0	8.0	-2.5	-3.1	702.9	-9.99	
VA	Warren	CR/NS	Harrisburg, PA to Riverton Jct, VA	133.0	7.0	8.5	15.2	702.9	42.81	
VA	Warren							TOTALS	161.58	
WV	Jefferson	CSX	Pt of Rocks, MD to Harpers Ferry, WV	13.0	0.2	1.3	18.0	726.8	1.19	
WV	Jefferson	CSX	Harpers Ferry, WV to Cherry Run, WV	32.0	12.0	7.3	17.0	726.8	79.49	
WV	Jefferson	CSX	Harpers Ferry, WV to Strasburg Jct, VA	51.0	19.5	0.0	0.0	726.8	0.00	
WV	Jefferson	CR/NS	Harrisburg, PA to Riverton Jct, VA	133.0	18.3	8.5	15.2	702.9	112.07	
WV	Jefferson							TOTALS	192.75	

Attachment E-5

Emissions Changes for Rail Yards

Attachment E-5
Emissions Changes for Rail Yards

Appendix E Air Quality

State	County	City	Yard Name	Post Transaction Operator	Activity Change (railcars/yr)	Estimated Change in Emissions (tons/yr)					
						CO @	NOx @	HC @	PM @	SOx @	Pb @
						100.7 lb/Kgal	830.7 lb/Kgal	46.2 lb/Kgal	17.2 lb/Kgal	36.7 lb/Kgal	0.0012 lb/Kgal
AL	Colbert	Sheffield		NS	2135.8	0.03	0.28	0.02	0.01	0.01	3.99E-07
AL	Dallas	Selma		NS	2280.6	0.04	0.28	0.02	0.01	0.01	4.26E-07
AL	Escambia	Flomaton	Flomaton	CSX	4235.4	0.08	0.66	0.04	0.01	0.03	9.49E-07
AL	Etowah	Attalla		NS	1194.6	0.02	0.15	0.01	0.00	0.01	2.23E-07
AL	Etowah	Gadsden	Gadsden	CSX	-5068.0	-0.10	-0.79	-0.04	-0.02	-0.03	-1.14E-06
AL	Houston	Dothan	Dothan	CSX	19548.0	0.37	3.03	0.17	0.06	0.13	4.38E-06
AL	Jefferson	Birmingham	Boyles	CSX	70988.2	1.33	11.01	0.61	0.23	0.49	1.59E-05
AL	Jefferson	Norris Yd	Norris Yd	NS	46842.8	0.73	6.05	0.34	0.13	0.27	8.74E-06
AL	Madison	Huntsville		NS	5828.2	0.09	0.75	0.04	0.02	0.03	1.09E-06
AL	Mobile	Mobile	Mobile	CSX	45141.4	0.85	7.00	0.39	0.14	0.31	1.01E-05
AL	Mobile	Mobile		NS	2859.8	0.04	0.37	0.02	0.01	0.02	5.34E-07
AL	Montgomery	Montgomery	Montgomery	CSX	-64436.0	-1.21	-9.99	-0.56	-0.21	-0.44	-1.44E-05
AL	Morgan	Decatur	Decatur	CSX	-2715.0	-0.05	-0.42	-0.02	-0.01	-0.02	-6.08E-07
AL	Morgan	Decatur		NS	-2353.0	-0.04	-0.30	-0.02	-0.01	-0.01	-4.39E-07
AL	Walker	Parrish		NS	5864.4	0.09	0.76	0.04	0.02	0.03	1.09E-06
DC	Washington	Washington	Benning	CSX	-29466.8	-0.55	-4.57	-0.25	-0.09	-0.20	-6.60E-06
DE	New Castle	Edgemoor		NS	-1484.2	-0.02	-0.19	-0.01	-0.004	-0.01	-2.77E-07
DE	New Castle	Newark		NS	-1194.6	-0.02	-0.15	-0.01	0.00	-0.01	-2.23E-07
DE	New Castle	Wilmington	Wilmere	CSX	-28742.8	-0.54	-4.46	-0.25	-0.09	-0.20	-6.44E-06
FL	Dade	Miami	Miami	CSX	14624.8	0.27	2.27	0.13	0.05	0.10	3.28E-06
FL	Duval	Baldwin	Baldwin	CSX	74282.4	1.40	11.52	0.64	0.24	0.51	1.66E-05
FL	Duval	Busch	Busch	CSX	24036.8	0.45	3.73	0.21	0.08	0.16	5.38E-06
FL	Duval	Jacksonville	Jacksonville	CSX	-199389.6	-3.75	-30.92	-1.72	-0.64	-1.37	-4.47E-05
FL	Escambia	Pensacola	Goulding	CSX	-55711.8	-1.05	-8.64	-0.48	-0.18	-0.38	-1.25E-05
FL	Hillsborough	Tampa	Yeoman	CSX	35874.2	0.67	5.56	0.31	0.12	0.25	8.04E-06
FL	Orange	Orlando	Orlando	CSX	5973.0	0.11	0.93	0.05	0.02	0.04	1.34E-06
FL	Orange	Taft	Taft	CSX	-25883.0	-0.49	-4.01	-0.22	-0.08	-0.18	-5.80E-06
FL	Polk	Lakeland	Lakeland	CSX	32037.0	0.60	4.97	0.28	0.10	0.22	7.18E-06
FL	Polk	Mulberry	Mulberry	CSX	11403.0	0.21	1.77	0.10	0.04	0.08	2.55E-06
FL	Polk	Winston	Winston	CSX	14118.0	0.25	2.19	0.12	0.05	0.10	3.16E-06
FL	Sumter	Wildwood	Wildwood	CSX	-2063.4	-0.04	-0.32	-0.02	-0.01	-0.01	-4.62E-07
FL	Tallapoosa	Simpson	Simpson Yd	NS	-2932.2	-0.05	-0.38	-0.02	-0.01	-0.02	-5.47E-07
GA	Bartow	Cartersville	Cartersville	CSX	3402.8	0.06	0.53	0.03	0.01	0.02	7.62E-07
GA	Bibb	Macon	Brosnan Yd	NS	-35765.6	-0.56	-4.62	-0.26	-0.10	-0.20	-6.68E-06
GA	Chatham	Savannah	Southover	CSX	-22299.2	-0.42	-3.46	-0.19	-0.07	-0.15	-4.99E-06
GA	Chatham	Savannah		NS	-25702.0	-0.40	-3.32	-0.18	-0.07	-0.15	-4.80E-06
GA	Cook	Adel		NS	3294.2	0.05	0.43	0.02	0.01	0.02	6.15E-07
GA	Dekalb	Doraville		NS	17412.2	0.27	2.25	0.13	0.05	0.10	3.25E-06
GA	Dougherty	Albany		NS	3439.0	0.05	0.44	0.02	0.01	0.02	6.42E-07
GA	Fayette	Inman Yd		NS	68852.4	1.08	8.90	0.49	0.18	0.39	1.29E-05
GA	Floyd	Rome	Forrestville	NS	-35801.8	-0.56	-4.63	-0.26	-0.10	-0.20	-6.68E-06
GA	Fulton	Atlanta	Tilford	CSX	27946.4	0.53	4.33	0.24	0.09	0.19	6.26E-06
GA	Fulton	Atlanta	Industry Yd	NS	-32652.4	-0.51	-4.22	-0.23	-0.09	-0.19	-6.10E-06
GA	Hall	Gainesville		NS	-8289.8	-0.13	-1.07	-0.06	-0.02	-0.05	-1.55E-06

Attachment E-5 Emissions Changes for Rail Yards

State	County	City	Yard Name	Post Transition Operator	Activity Change (railcars/yr)	Estimated Change in Emissions (tons/yr)					
						CO @	NOx @	HC @	PM @	SOx @	Pb @
						100 7 lb/Kgal	830 7 lb/Kgal	46 2 lb/Kgal	17 2 lb/Kgal	36 7 lb/Kgal	0 0012 lb/Kgal
GA	Jenkins	Millen		NS	-19729 0	-0 31	-2 55	-0 14	-0 05	-0 11	-3 68E-06
GA	Lee	Smithville		NS	0 0	0 00	0 00	0 00	0 00	0 00	0 00E+00
GA	Lowndes	Valdosta	Langdale Yd	NS	-53612 2	-0 84	-6 93	-0 39	-0 14	-0 31	-1 00E-05
GA	Meriwether	Manchester	Manchester	CSX	-11113 4	-0 21	-1 72	-0 10	-0 04	-0 08	-2 49E-06
GA	Muscogee	Columbus		NS	5140 4	0 08	0 66	0 04	0 01	0 03	9 60E-07
GA	Peach	Ft Valley		NS	72 4	0 001	0 01	0 001	0 0002	0 0004	1 35E-08
GA	Richmond	Augusta	Augusta	CSX	19692 8	0 37	3 05	0 17	0 06	0 13	4 41E-06
GA	Richmond	Augusta		NS	4742 2	0 07	0 61	0 03	0 01	0 03	8 85E-07
GA	Richmond	Nixon		NS	12199 4	0 19	1 58	0 09	0 03	0 07	2 28E-06
GA	Spalding	Griffin		NS	3973 4	0 06	0 50	0 03	0 01	0 02	7 23E-07
GA	Thomas	Thomasville	Thomasville	CSX	-13326 2	-0 31	-2 53	-0 14	-0 05	-0 11	-3 66E-06
GA	Ware	Waycross	Rice	CSX	104980 0	1 97	16 28	0 91	0 34	0 72	2 35E-05
GA	Washington	Tennille		NS	3402 8	0 05	0 44	0 02	0 01	0 02	6 35E-07
GA	Wilkinson	Gordon		NS	29213 4	0 46	3 77	0 21	0 08	0 17	5 45E-06
IL	Cook	Chicago	Ashland Ave	NS	-113342 2	-1 78	-14 65	-0 81	-0 30	-0 65	-2 12E-05
IL	Cook	Calumet		NS	-146646 2	-2 30	-18 95	-1 05	-0 39	-0 84	-2 74E-05
IL	Cook	Chicago	Clearing	CSX	-1108118 2	-20 83	-171 83	-9 56	-3 56	-7 59	-2 48E-04
IL	Cook	Chicago	Barr Yard	CSX	0 0	0 00	0 00	0 00	0 00	0 00	0 00E+00
IL	Cook	Chicago	Bedford Park	CSX	-171950 0	-3 23	-26 66	-1 48	-0 55	-1 18	-3 85E-05
IL	Cook	Chicago	Blue Island	CSX	-87676 4	-1 65	-13 60	-0 76	-0 28	-0 60	-1 96E-05
IL	Cook	Chicago	Colehour	NS	7240 0	0 11	0 94	0 05	0 02	0 04	1 35E-06
IL	Cook	Chicago	Landers	NS	9846 4	0 15	1 27	0 07	0 03	0 06	1 84E-06
IL	Cook	Chicago		CSX	6371 2	0 12	0 99	0 05	0 02	0 04	1 43E-06
IL	Macon	Decatur	Decatur	CSX	4126 8	0 06	0 53	0 03	0 01	0 02	7 70E-07
IL	Macon	Decatur		NS	-20959 8	-0 33	-2 71	-0 15	-0 06	-0 12	-3 91E-06
IL	Madison	Granite City		NS	-2027 2	-0 03	-0 26	-0 01	-0 01	-0 01	-3 78E-07
IL	Marion	Centralia		NS	-3909 6	-0 06	-0 51	-0 03	-0 01	-0 02	-7 30E-07
IL	Piatt	Bement		NS	6516 0	0 10	0 84	0 05	0 02	0 04	1 22E-06
IL	Sangamon	Springfield		NS	-39458 0	-0 74	-6 12	-0 34	-0 13	-0 27	-8 84E-06
IL	St Clair	East St Louis	Rose Lake Yd	CSX	-4344 0	-0 08	-0 67	-0 04	-0 01	-0 03	-9 73E-07
IL	Vermilion	Danville	Hillery	CSX	28598 0	0 54	4 43	0 25	0 09	0 20	6 41E-06
IL	Vermilion	Danville	Brewer	CSX	-3258 0	-0 05	-0 42	-0 02	-0 01	-0 02	-6 08E-07
IL	Vermilion	Tilton		NS	-8579 4	-0 16	-1 33	-0 07	-0 03	-0 06	-1 92E-06
IN	Allen	Fort Wayne	Piqua	CSX	-48073 6	-0 75	-6 21	-0 35	-0 13	-0 27	-8 97E-06
IN	Allen	Fort Wayne Piqua		NS	108744 8	1 70	14 05	0 78	0 29	0 62	2 03E-05
IN	Allen	Ft Wayne		NS	16796 8	0 26	2 17	0 12	0 04	0 10	3 14E-06
IN	Clinton	Frankfort		NS	12995 5	0 24	2 02	0 11	0 04	0 09	2 91E-06
IN	De Kalb	Garrett	Garrett	CSX	27222 4	0 43	3 52	0 20	0 07	0 16	5 08E-06
IN	Delaware	Muncie		NS	434 4	0 01	0 06	0 003	0 001	0 002	8 11E-08
IN	Dubois	Huntingburg		NS	-97088 4	-1 52	-12 55	-0 70	-0 26	-0 55	-1 81E-05
IN	Elkhart	Elkhart		NS	-289 6	0 00	-0 04	-0 002	-0 001	-0 002	-5 41E-08
IN	Gibson	Princeton		NS	-73124 0	-1 37	-11 34	-0 63	-0 23	-0 50	-1 64E-05
IN	Lake	Gary	Gibson	CSX	12742 4	0 24	1 98	0 11	0 04	0 09	2 85E-06
IN	Lake	Curtis	Curtis	CSX	615 4	0 01	0 10	0 01	0 002	0 004	1 38E-07
IN	Madison	Anderson	S Anderson	CSX							

Attachment E-5 Emissions Changes for Rail Yards

State	County	City	Yard Name	Post Transaction Operator	Activity Change (railcars/yr)	Estimated Change in Emissions (tons/yr)					
						CO @	NOx @	HC @	PM @	SOx @	Pb @
						100.7 lb/Kgal	830.7 lb/Kgal	46.2 lb/Kgal	17.2 lb/Kgal	36.7 lb/Kgal	0.0012 lb/Kgal
IN	Marion	Indianapolis	Avon Yard	CSX	-5538.6	-0.10	-0.86	-0.05	-0.02	-0.04	-1.24E-06
IN	Marion	Indianapolis	Hawthorne	CSX	-2135.8	-0.04	-0.33	-0.02	-0.01	-0.01	-4.78E-07
IN	Marion	Indianapolis	State Street	CSX	-36200.0	-0.68	-5.61	-0.31	-0.12	-0.25	-8.11E-06
IN	Tippcanoe	Lafayette	Lafayette	CSX	-15747.0	-0.30	-2.44	-0.14	-0.05	-0.11	-3.53E-06
IN	Tippcanoe	Lafayette		NS	-2027.2	-0.03	-0.26	-0.01	-0.01	-0.01	-3.78E-07
IN	Vanderburgh	Evansville	Howell	CSX	16217.6	0.30	2.51	0.14	0.05	0.11	3.63E-06
IN	Vigo	Terre Haute	Terre Haute	CSX	977.4	0.02	0.15	0.01	0.003	0.01	2.19E-07
IN	Vigo	Terre Haute	Terre Haute	CSX	5719.6	0.11	0.89	0.05	0.02	0.04	1.28E-06
IN	Vigo	Terre Haute		NS	-19149.8	-0.30	-2.47	-0.14	-0.05	-0.11	-3.57E-06
IN	Vigo	Terre Haute		NS	23421.4	0.37	3.03	0.17	0.06	0.13	4.37E-06
KY	Boyle	Danville		NS	-6117.8	-0.11	-0.95	-0.05	-0.02	-0.04	-1.37E-06
KY	Fayette	Lexington	Lexington	CSX	-17738.0	-0.28	-2.29	-0.13	-0.05	-0.10	-3.31E-06
KY	Fayette	Lexington		NS	-17738.0	-0.28	-2.29	-0.13	-0.05	-0.10	-3.31E-06
KY	Greenup	Russell	Russell	CSX	-71857.0	-1.35	-11.14	-0.62	-0.23	-0.49	-1.61E-05
KY	Jefferson	Buechel		NS	-796.4	-0.01	-0.10	-0.01	-0.002	-0.005	-1.49E-07
KY	Jefferson	Louisville	Osborn Yard	CSX	-279427.8	-5.25	-43.33	-2.41	-0.90	-1.91	-6.26E-05
KY	Jefferson	Louisville		NS	-29394.4	-0.46	-3.80	-0.21	-0.08	-0.17	-5.49E-06
KY	Jefferson	Louisville		NS	-2389.2	-0.04	-0.37	-0.02	-0.01	-0.02	-5.35E-07
KY	Lincoln	Shelby	Shelby	CSX	2642.6	0.04	0.34	0.02	0.01	0.02	4.93E-07
KY	Pulaski	Sorrierset		NS	2642.6	0.04	0.34	0.02	0.01	0.02	4.93E-07
KY	Whitley	Corbin	Corbin	CSX	-90174.2	-1.70	-13.98	-0.78	-0.29	-0.62	-2.02E-05
KY	Whitley	Corbin	Corbin	CSX	-125903.6	-2.37	-19.52	-1.09	-0.40	-0.86	-2.82E-05
LA	Orleans	New Orleans	New Orleans	CSX	-11692.6	-0.18	-1.51	-0.08	-0.03	-0.07	-2.18E-06
LA	Orleans	New Orleans	Oliver Yd	NS	-11692.6	-0.18	-1.51	-0.08	-0.03	-0.07	-2.18E-06
MA	Hampden	Springfield	Springfield	CSX	-51947.0	-0.98	-8.06	-0.45	-0.17	-0.36	-1.16E-05
MA	Suffolk	Boston	Beacon Park	CSX	-56978.8	-1.07	-8.84	-0.49	-0.18	-0.39	-1.28E-05
MA	Worcester	Worcester	Worcester	CSX	-27077.6	-0.51	-4.20	-0.23	-0.09	-0.19	-6.07E-06
MD	Allegany	Cumberland	Cumberland	CSX	71820.8	1.35	11.14	0.62	0.23	0.49	1.61E-05
MD	Baltimore	Baltimore	Bay View	CSX	-3040.8	-0.06	-0.47	-0.03	-0.01	-0.02	-6.81E-07
MD	Baltimore	Baltimore	Curtis Bay	CSX	-104654.2	-1.97	-16.23	-0.90	-0.34	-0.72	-2.34E-05
MD	Baltimore	Baltimore	Greys	CSX	-21720.0	-0.41	-3.37	-0.19	-0.07	-0.15	-4.87E-06
MD	Baltimore	Baltimore	Locust Point	CSX	20416.8	0.38	3.17	0.18	0.07	0.14	4.57E-06
MD	Baltimore	Baltimore	Penn Mary	CSX	-37213.6	-0.70	-5.77	-0.32	-0.12	-0.25	-8.34E-06
MD	Baltimore	Baltimore		NS	8841.8	0.11	0.88	0.05	0.02	0.04	1.28E-06
MD	Cecil	Bay View		NS	8841.8	0.11	0.88	0.05	0.02	0.04	1.28E-06
MD	Fredrick	Brunswick	Brunswick	CSX	16253.8	0.31	2.52	0.14	0.05	0.11	3.64E-06
MD	Washington	Hagerstown	Hagerstown	CSX	-868.8	-0.02	-0.13	-0.01	-0.003	-0.01	-1.95E-07
MD	Washington	Hagerstown		NS	33412.6	0.52	4.32	0.24	0.09	0.19	6.24E-06
MD	Washington	Hagerstown		NS	724.0	0.01	0.09	0.01	0.002	0.004	1.35E-07
MI	Calhoun	Battle Creek		NS	724.0	0.01	0.09	0.01	0.002	0.004	1.35E-07
MI	Genesee	Flint	Flint	CSX	3040.8	0.06	0.47	0.03	0.01	0.02	6.81E-07
MI	Ingham	Lansing	Lansing	CSX	1773.8	0.03	0.26	0.02	0.01	0.01	3.97E-07
MI	Jackson	Jackson		NS	-398.2	-0.01	-0.05	-0.003	-0.001	-0.002	-7.43E-08
MI	Jackson	Jackson		NS	-4418.4	-0.07	-0.57	-0.03	-0.01	-0.03	-8.24E-07
MI	Kalamazoo	Kalamazoo		NS	-4418.4	-0.07	-0.57	-0.03	-0.01	-0.03	-8.24E-07
MI	Kent	Grand Rapids	Grand Rapids	CSX	-29792.6	-0.56	-4.62	-0.26	-0.10	-0.20	-6.67E-06
MI	Kent	Grand Rapids	Grand Rapids	CSX	-29792.6	-0.56	-4.62	-0.26	-0.10	-0.20	-6.67E-06
MI	Lenawee	Adrian		NS	-1339.4	-0.02	-0.17	-0.01	-0.004	-0.01	-2.50E-07
MI	Lenawee	Adrian		NS	72.4	0.001	0.01	0.001	0.0002	0.0004	1.35E-08
MI	Monroe	Milan		NS	-36.2	-0.001	-0.005	-0.0003	-0.0001	-0.0002	-6.76E-09
MI	Oakland	Oakwood		NS	-36.2	-0.001	-0.005	-0.0003	-0.0001	-0.0002	-6.76E-09
MI	Wayne	Detroit	Lincoln Park	CSX	-1375.6	-0.03	-0.21	-0.01	-0.004	-0.01	-3.08E-07

Attachment E-5 Emissions Changes for Rail Yards

State	County	City	Yard Name	Post Transaction Operator	Activity Change (railcars/yr)	Estimated Change in Emissions (tons/yr)					
						CO @	NOx @	HC @	PM @	SOx @	Pb @
						100.7 lb/Kgal	830.7 lb/Kgal	46.2 lb/Kgal	17.2 lb/Kgal	36.7 lb/Kgal	0.0012 lb/Kgal
MI	Wayne	Detroit	Livernois	CSX	-30154.6	-0.57	-4.68	-0.26	-0.10	-0.21	-6.75E-06
MI	Wayne	Detroit	Mound Road	CSX	72.4	0.001	0.01	0.001	0.0002	0.0005	1.62E-08
MI	Wayne	Detroit	North Yard	CSX	-33159.2	-0.62	-5.14	-0.29	-0.11	-0.23	-7.43E-06
MI	Wayne	Detroit	River Rouge	CSX	-59476.6	-1.12	-9.22	-0.51	-0.19	-0.41	-1.33E-05
MI	Wayne	Detroit	Warren/Steril	CSX	7783.0	0.15	1.21	0.07	0.02	0.05	1.74E-06
MI	Wayne	Detroit	Middlebelt	CSX	-18100.0	-0.34	-2.81	-0.16	-0.06	-0.12	-4.05E-06
MI	Wayne	Detroit	Plymouth	CSX	6660.8	0.13	1.03	0.06	0.02	0.05	1.49E-06
MI	Wayne	Detroit	Rougemere	CSX	90500.0	1.70	14.03	0.78	0.29	0.62	2.03E-05
MI	Wayne	Detroit	Wayne	CSX	14009.4	0.26	2.17	0.12	0.04	0.10	3.14E-06
MI	Wayne	Detroit	Livernois	NS	-21394.2	-0.34	-2.76	-0.15	-0.06	-0.12	-3.99E-06
MI	Wayne	Detroit	North Yard	NS	-19656.6	-0.31	-2.54	-0.14	-0.05	-0.11	-3.67E-06
MI	Wayne	Detroit	River Rouge	NS	-47458.2	-0.74	-6.13	-0.34	-0.13	-0.27	-8.86E-06
MO	Clay	N Kansas City		NS	-42173.0	-0.66	-5.45	-0.30	-0.11	-0.24	-7.87E-06
MO	Marion	Hannibal	Outer Depot	NS	-3728.6	-0.06	-0.48	-0.03	-0.01	-0.02	-6.96E-07
MO	Randolph	Moberly		NS	-8289.8	-0.13	-1.07	-0.06	-0.02	-0.05	-1.55E-06
MO	St. Louis	Luther		NS	31964.6	0.50	4.13	0.23	0.09	0.18	5.97E-06
MS	Forrest	Hattiesburg		NS	796.4	0.01	0.10	0.01	0.002	0.005	1.49E-07
MS	Jones	Laurel		NS	0.0	0.00	0.00	0.00	0.00	0.00	0.00E+00
MS	Lauderdale	Meridian		NS	-144.8	-0.002	-0.02	-0.001	-0.0004	-0.001	-2.70E-08
MS	Pearl River	Nicholson		NS	0.0	0.00	0.00	0.00	0.00	0.00	0.00E+00
NC	Beaufort	Chocowinity		NS	-16543.4	-0.26	-2.14	-0.12	-0.04	-0.09	-3.09E-06
NC	Buncombe	Asheville	Asheville	NS	18606.8	0.29	2.40	0.13	0.05	0.11	3.47E-06
NC	Catawba	Hickory	Oyama Yd	NS	-760.2	-0.01	-0.10	-0.01	-0.002	-0.004	-1.42E-07
NC	Cumberland	Fayetteville	Fayetteville	CSX	-5466.2	-0.10	-0.85	-0.05	-0.02	-0.04	-1.22E-06
NC	Davidson	Linwood		NS	-30371.8	-0.48	-3.92	-0.22	-0.08	-0.17	-5.67E-06
NC	Forsyth	Winston Salem		NS	2353.0	0.04	0.30	0.02	0.01	0.01	4.39E-07
NC	Guilford	High Point		NS	181.0	0.003	0.02	0.001	0.0005	0.001	3.38E-08
NC	Guilford	Pomona Yd	Pomona Yd	NS	26462.2	0.41	3.42	0.19	0.07	0.15	4.94E-06
NC	Halifax	Weldon	Weldon	CSX	7638.2	0.14	1.18	0.07	0.02	0.05	1.71E-06
NC	Mechlenburg	Charlotte	Charlotte	CSX	45539.6	0.86	7.06	0.39	0.15	0.31	1.02E-05
NC	Mechlenburg	Charlotte		NS	-15167.8	-0.24	-1.96	-0.11	-0.04	-0.09	-2.83E-06
NC	Nash	Rocky Mount	Rocky Mount	CSX	79278.0	1.49	12.29	0.68	0.25	0.54	1.78E-05
NC	New Hanover	Wilmington	Wilmington	CSX	2172.0	0.04	0.34	0.02	0.01	0.01	4.87E-07
NC	Richmond	Hamlet	Hamlet	CSX	76273.4	1.43	11.83	0.66	0.24	0.52	1.71E-05
NC	Rutherford	Bostic	Bostic	CSX	-13864.6	-0.26	-2.15	-0.12	-0.04	-0.09	-3.11E-06
NC	Wake	Raleigh Yd		NS	9593.0	0.15	1.24	0.07	0.03	0.05	1.79E-06
NC	Wayne	Goldsboro		NS	-22371.6	-0.35	-2.89	-0.16	-0.06	-0.13	-4.18E-06
NJ	Camden	Camden	Pavonia	CSX	-16760.6	-0.32	-2.60	-0.14	-0.05	-0.11	-3.75E-06
NJ	Camden	Camden	Pavonia	NS	-34715.8	-0.54	-4.49	-0.25	-0.09	-0.20	-6.48E-06
NJ	Essex	Newark	Oak Island	CSX	46951.4	0.88	7.28	0.40	0.15	0.32	1.05E-05
NJ	Essex	Newark	Oak Island	NS	-49919.8	-0.78	-6.45	-0.36	-0.13	-0.28	-9.32E-06
NJ	Hudson	Bayonne	Bayonne	CSX	-5140.4	-0.10	-0.80	-0.04	-0.02	-0.04	-1.15E-06
NJ	Hudson	Croxtton		NS	-3258.0	-0.05	-0.42	-0.02	-0.01	-0.02	-6.08E-07
NJ	Hudson	Kearny	Meadows	CSX	-138103.0	-2.60	-21.41	-1.19	-0.44	-0.95	-3.09E-05

Attachment E-5 Emissions Changes for Rail Yards

State	County	City	Yard Name	Post Transaction Operator	Activity Change (railcars/yr)	Estimated Change in Emissions (tons/yr)					
						CO @ 100.7 lb/Kgal	NOx @ 830.7 lb/Kgal	HC @ 48.2 lb/Kgal	PM @ 17.2 lb/Kgal	SOx @ 36.7 lb/Kgal	Pb @ 0.0012 lb/Kgal
NJ	Hudson	South Kearny		NS	-3728.6	-0.06	-0.48	-0.03	-0.01	-0.02	-6.96E-07
NJ	Middlesex	Port Reading	Pt Reading	CSX	-23530.0	-0.44	-3.65	-0.20	-0.08	-0.16	-5.27E-06
NJ	Middlesex	S Amboy	Browns	CSX	-3040.8	-0.06	-0.47	-0.03	-0.01	-0.02	-6.81E-07
NJ	Union	Bayway	Bayway	CSX	1882.4	0.04	0.29	0.02	0.01	0.01	4.22E-07
NJ	Union	Linden	Linden	CSX	-398.2	-0.01	-0.06	-0.003	-0.001	-0.003	-8.92E-08
NJ	Union	Metuchen	Metuchen	CSX	-2642.6	-0.05	-0.41	-0.02	-0.01	-0.02	-5.92E-07
NJ	Union	Manville	Manville	CSX	-4163.0	-0.08	-0.65	-0.04	-0.01	-0.03	-9.33E-07
NJ	Union	S Plainfield	Manville	CSX	-4163.0	-0.08	-0.65	-0.04	-0.01	-0.03	-9.33E-07
NY	Albany	Albany	Selkirk Yd	CSX	-61829.6	-1.16	-9.59	-0.53	-0.20	-0.42	-1.38E-05
NY	Erie	Buffalo	Frontier Yd	CSX	-84780.4	-1.59	-13.15	-0.73	-0.27	-0.58	-1.90E-05
NY	Erie	Buffalo	Seneca	CSX	-88038.4	-1.65	-13.65	-0.76	-0.28	-0.60	-1.97E-05
NY	Erie	Buffalo Jct		NS	102590.8	1.61	13.26	0.74	0.27	0.59	1.92E-05
NY	Monroe	Rochester	Rochester	CSX	16290.0	0.31	2.53	0.14	0.05	0.11	3.65E-06
NY	New York	New York City	Oak Point	CSX	434.4	0.01	0.07	0.004	0.001	0.003	9.73E-08
NY	Niagara	Niagara	Niagara	CSX	-53033.0	-1.00	-8.22	-0.46	-0.17	-0.36	-1.19E-05
NY	Onondaga	Syracuse	De Witt	CSX	-85033.8	-1.60	-13.19	-0.73	-0.27	-0.58	-1.90E-05
NY	St Lawrence	Massena	Massena	CSX	-17846.6	-0.34	-2.77	-0.15	-0.06	-0.12	-4.00E-06
NY	Steuben	Corning		NS	19475.6	0.31	2.52	0.14	0.05	0.11	3.64E-06
OH	Allen	Lima	Lima	CSX	2715.0	0.05	0.42	0.02	0.01	0.02	6.08E-07
OH	Allen	Lima	Robb Avenue	CSX	23566.2	0.44	3.65	0.20	0.08	0.16	5.28E-06
OH	Ashtabula	Ashtabula	Ashtabula	CSX	-91477.4	-1.72	-14.18	-0.79	-0.29	-0.63	-2.05E-05
OH	Ashtabula	Ashtabula		NS	-6588.4	-0.10	-0.85	-0.05	-0.02	-0.04	-1.23E-06
OH	Butler	Hamilton	Hamilton	CSX	-65377.2	-1.23	-10.14	-0.56	-0.21	-0.45	-1.46E-05
OH	Butler	Middletown	Exello	CSX	1810.0	0.03	0.28	0.02	0.01	0.01	4.05E-07
OH	Cuyahoga	Cleveland	Collinwood	CSX	-39458.0	-0.74	-6.12	-0.34	-0.13	-0.27	-8.84E-06
OH	Cuyahoga	Cleveland	Brook Park	CSX	36.2	0.001	0.01	0.0003	0.0001	0.0002	8.11E-09
OH	Cuyahoga	Cleveland	Parma	CSX	9086.2	0.17	1.41	0.08	0.03	0.06	2.04E-06
OH	Cuyahoga	Cleveland	Clark Avenue	CSX	-9303.4	-0.17	-1.44	-0.08	-0.03	-0.06	-2.08E-06
OH	Cuyahoga	Cleveland		NS	144.8	0.00	0.02	0.001	0.0004	0.001	2.70E-08
OH	Cuyahoga	Cleveland	Rockport	NS	25050.4	0.39	3.24	0.18	0.07	0.14	4.68E-06
OH	Cuyahoga	South Lorain		NS	-4706.0	-0.07	-0.61	-0.03	-0.01	-0.03	-8.78E-07
OH	Erie	Bellevue		NS	-133976.2	-2.10	-17.31	-0.96	-0.36	-0.76	-2.50E-05
OH	Franklin	Columbus	Parsons	CSX	44308.8	0.83	6.87	0.38	0.14	0.30	9.93E-06
OH	Franklin	Columbus		NS	-50137.0	-0.79	-6.48	-0.36	-0.13	-0.29	-9.36E-06
OH	Franklin	Conneaut		NS	15783.2	0.25	2.04	0.11	0.04	0.09	2.95E-06
OH	Hamilton	Cincinnati	Decoursey	CSX	-32580.0	-0.61	-5.05	-0.28	-0.10	-0.22	-7.30E-06
OH	Hamilton	Cincinnati	Ivorydale	CSX	-30046.0	-0.56	-4.66	-0.26	-0.10	-0.21	-6.73E-06
OH	Hamilton	Cincinnati	Queensgate Yd	CSX	-100274.0	-1.88	-15.55	-0.86	-0.32	-0.69	-2.25E-05
OH	Hamilton	Cincinnati	Springdale	CSX	-19149.8	-0.36	-2.97	-0.17	-0.08	-0.13	-4.29E-06
OH	Hamilton	Cincinnati		NS	11113.4	0.17	1.44	0.08	0.03	0.06	2.07E-06
OH	Hamilton	Sharonville		NS	-760.2	-0.01	-0.10	-0.01	-0.002	-0.004	-1.42E-07
OH	Hardin	Kenton	Kenton	CSX	2787.4	0.05	0.43	0.02	0.01	0.02	6.24E-07
OH	Huron	Willard	Willard	CSX	-157978.8	-2.97	-24.50	-1.36	-0.51	-1.08	-3.54E-05
OH	Lucas	Airline		NS	188167.6	2.95	24.31	1.35	0.50	1.07	3.51E-05
OH	Lucas	Homestead		NS	51802.2	0.81	6.69	0.37	0.14	0.30	9.67E-06

Attachment E-5 Emissions Changes for Rail Yards

State	County	City	Yard Name	Post Transaction Operator	Activity Change (railcars/yr)	Estimated Change in Emissions (tons/yr)					
						CO @	NOx @	HC @	PM @	SOx @	Pb @
						100.7 lb/Kgal	830.7 lb/Kgal	46.2 lb/Kgal	17.2 lb/Kgal	36.7 lb/Kgal	0.0012 lb/Kgal
OH	Lucas	Maumee		NS	0.0	0.00	0.00	0.00	0.00	0.00	0.00E+00
OH	Lucas	Toledo	Stanley	CSX	146863.4	2.76	22.77	1.27	0.47	1.01	3.29E-05
OH	Lucas	Toledo	Walbridge	CSX	-292025.4	-5.49	-45.28	-2.52	-0.94	-2.00	-6.54E-05
OH	Maioning	Haselton		NS	1088.0	0.02	0.14	0.01	0.003	0.01	2.03E-07
OH	Marion	Marion	Marion	CSX	-5068.0	-0.10	-0.79	-0.04	-0.02	-0.03	-1.14E-06
OH	Marion	Marion	Marion	CSX	-2172.0	-0.04	-0.34	-0.02	-0.01	-0.01	-4.87E-07
OH	Marion	Marion	Marion	CSX	3040.8	0.06	0.47	0.03	0.01	0.02	6.81E-07
OH	Montgomery	Dayton	Needmore	CSX	3040.8	0.06	0.47	0.03	0.01	0.02	-1.33E-06
OH	Montgomery	Moraine		NS	-7131.4	-0.11	-0.92	-0.05	-0.02	-0.04	-1.32E-06
OH	Montgomery	Moraine		NS	-7059.0	-0.11	-0.91	-0.05	-0.02	-0.04	-1.32E-06
OH	Scioto	Portsmouth		NS	-7059.0	-0.11	-0.91	-0.05	-0.02	-0.04	-1.32E-06
OH	Summit	Akron	Akron	CSX	1049.8	0.02	0.16	0.01	0.003	0.01	2.35E-07
OH	Summit	Akron	Akron	CSX	1049.8	0.02	0.16	0.01	0.003	0.01	-1.87E-06
OH	Trumbull	Lordstown	Lordstown	CSX	-8362.2	-0.16	-1.30	-0.07	-0.03	-0.06	-1.61E-06
OH	Trumbull	Lordstown	Lordstown	CSX	-8362.2	-0.16	-1.30	-0.07	-0.03	-0.06	-1.61E-06
OH	Union	Marysville	Marysville	CSX	-7167.6	-0.13	-1.11	-0.06	-0.02	-0.05	-2.64E-07
OH	Union	Marysville	Marysville	CSX	-7167.6	-0.13	-1.11	-0.06	-0.02	-0.05	-2.64E-07
OH	Williams	Montpelier		NS	-1411.8	-0.02	-0.18	-0.01	-0.004	-0.01	-2.64E-07
OH	Williams	Montpelier		NS	-1411.8	-0.02	-0.18	-0.01	-0.004	-0.01	-2.64E-07
ON	Elgin	Talbotville		NS	796.4	0.01	0.10	0.01	0.002	0.005	1.49E-07
ON	Elgin	Talbotville		NS	796.4	0.01	0.10	0.01	0.002	0.005	1.49E-07
ON	Lambton	Sarnia	Sarnia	CSX	17701.8	0.33	2.74	0.15	0.06	0.12	3.97E-06
ON	Lambton	Sarnia	Sarnia	CSX	17701.8	0.33	2.74	0.15	0.06	0.12	3.97E-06
PA	Allegheny	Pittsburgh	Demmler	CSX	-43331.4	-0.81	-6.72	-0.37	-0.14	-0.30	-9.71E-06
PA	Allegheny	Pittsburgh	Glenwood	CSX	-26389.8	-0.50	-4.09	-0.23	-0.08	-0.18	-5.91E-06
PA	Allegheny	Pittsburgh	Glenwood	CSX	-26389.8	-0.50	-4.09	-0.23	-0.08	-0.18	-5.91E-06
PA	Beaver	Conway East		NS	-174085.8	-2.73	-22.50	-1.25	-0.47	-0.99	-3.25E-05
PA	Beaver	Conway East		NS	-174085.8	-2.73	-22.50	-1.25	-0.47	-0.99	-3.25E-05
PA	Beaver	Conway West		NS	-107695.0	-1.69	-13.92	-0.77	-0.29	-0.61	-2.01E-05
PA	Beaver	Conway West		NS	-107695.0	-1.69	-13.92	-0.77	-0.29	-0.61	-2.01E-05
PA	Berk	Reading		NS	-796.4	-0.01	-0.10	-0.01	-0.002	-0.005	-1.49E-07
PA	Berk	Reading		NS	-796.4	-0.01	-0.10	-0.01	-0.002	-0.005	-1.49E-07
PA	Bucks	Morrisville	Morrisville	CSX	-224765.8	-4.22	-34.85	-1.94	-0.72	-1.54	-5.03E-05
PA	Bucks	Morrisville	Morrisville	CSX	-224765.8	-4.22	-34.85	-1.94	-0.72	-1.54	-5.03E-05
PA	Bucks	Morrisville	Morrisville	NS	-10425.6	-0.16	-1.35	-0.07	-0.03	-0.06	-1.95E-06
PA	Bucks	Morrisville	Morrisville	NS	-10425.6	-0.16	-1.35	-0.07	-0.03	-0.06	-1.95E-06
PA	Cambria	Greenwich		NS	-15204.0	-0.24	-1.96	-0.11	-0.04	-0.09	-2.84E-06
PA	Cambria	Greenwich		NS	-15204.0	-0.24	-1.96	-0.11	-0.04	-0.09	-2.84E-06
PA	Dauphin	Enola		NS	-8362.2	-0.13	-1.08	-0.06	-0.02	-0.05	-1.56E-06
PA	Dauphin	Enola		NS	-8362.2	-0.13	-1.08	-0.06	-0.02	-0.05	-1.56E-06
PA	Dauphin	Harrisburg		NS	46698.0	0.73	6.03	0.34	0.12	0.27	8.72E-06
PA	Dauphin	Harrisburg		NS	46698.0	0.73	6.03	0.34	0.12	0.27	8.72E-06
PA	Erie	Erie	Erie	CSX	-10988.6	-0.21	-1.70	-0.09	-0.04	-0.08	-2.46E-06
PA	Erie	Erie	Erie	CSX	-10988.6	-0.21	-1.70	-0.09	-0.04	-0.08	-2.46E-06
PA	Erie	Erie	Erie	NS	-9665.4	-0.15	-1.25	-0.07	-0.03	-0.06	-1.80E-06
PA	Erie	Erie	Erie	NS	-9665.4	-0.15	-1.25	-0.07	-0.03	-0.06	-1.80E-06
PA	Lancaster	Lancaster		NS	-73232.6	-1.38	-11.36	-0.63	-0.24	-0.50	-1.64E-05
PA	Lancaster	Lancaster		NS	-73232.6	-1.38	-11.36	-0.63	-0.24	-0.50	-1.64E-05
PA	Lawrence	New Castle	New Castle	CSX	-73232.6	-1.38	-11.36	-0.63	-0.24	-0.50	-1.64E-05
PA	Lawrence	New Castle	New Castle	CSX	-73232.6	-1.38	-11.36	-0.63	-0.24	-0.50	-1.64E-05
PA	Luzerne	Midvale	Midvale	CSX	0.0	0.00	0.00	0.00	0.00	0.00	0.00E+00
PA	Luzerne	Midvale	Midvale	CSX	0.0	0.00	0.00	0.00	0.00	0.00	0.00E+00
PA	Lyoming	Newberry		NS	3511.4	0.06	0.45	0.03	0.01	0.02	6.55E-07
PA	Lyoming	Newberry		NS	3511.4	0.06	0.45	0.03	0.01	0.02	6.55E-07
PA	Montgomery	Abrahms		NS	-6262.6	-0.10	-0.81	-0.05	-0.02	-0.04	-1.17E-06
PA	Montgomery	Abrahms		NS	-6262.6	-0.10	-0.81	-0.05	-0.02	-0.04	-1.17E-06
PA	Montgomery	Frankford Jct		NS	-4199.2	-0.07	-0.54	-0.03	-0.01	-0.02	-7.84E-07
PA	Montgomery	Frankford Jct		NS	-4199.2	-0.07	-0.54	-0.03	-0.01	-0.02	-7.84E-07
PA	Philadelphia	Philadelphia	Greenwich Yd	CSX	85323.4	1.60	13.23	0.74	0.27	0.58	1.91E-05
PA	Philadelphia	Philadelphia	Greenwich Yd	CSX	85323.4	1.60	13.23	0.74	0.27	0.58	1.91E-05
PA	Philadelphia	Philadelphia	Frankfort	CSX	-1665.2	-0.03	-0.26	-0.01	-0.01	-0.01	-3.73E-07
PA	Philadelphia	Philadelphia	Frankfort	CSX	-1665.2	-0.03	-0.26	-0.01	-0.01	-0.01	-3.73E-07
PA	Philadelphia	Philadelphia	West Falls	CSX	-2172.0	-0.04	-0.34	-0.02	-0.01	-0.01	-4.87E-07
PA	Philadelphia	Philadelphia	West Falls	CSX	-2172.0	-0.04	-0.34	-0.02	-0.01	-0.01	-4.87E-07
PA	Philadelphia	Philadelphia	East Side	CSX	-79603.8	-1.50	-12.34	-0.69	-0.26	-0.55	-1.78E-05
PA	Philadelphia	Philadelphia	East Side	CSX	-79603.8	-1.50	-12.34	-0.69	-0.26	-0.55	-1.78E-05
PA	Philadelphia	Philadelphia	East Side	CSX	-79603.8	-1.50	-12.34	-0.69	-0.26	-0.55	-1.78E-05
PA	Philadelphia	Philadelphia	East Side	CSX	-79603.8	-1.50	-12.34	-0.69	-0.26	-0.55	-1.78E-05
PA	York	Hanover	Hanover	CSX	1303.2	0.02	0.20	0.01	0.004	0.01	2.92E-07
PA	York	Hanover	Hanover	CSX	1303.2	0.02	0.20	0.01	0.004	0.01	2.92E-07
SC	Charleston	Charleston	Bennett	CSX	-24833.2	-0.47	-3.85	-0.21	-0.08	-0.17	-5.56E-06
SC	Charleston	Charleston	Bennett	CSX	-24833.2	-0.47	-3.85	-0.21	-0.08	-0.17	-5.56E-06
SC	Florence	Florence	Florence	CSX	-30154.6	-0.57	-4.68	-0.26	-0.10	-0.21	-6.75E-06
SC	Florence	Florence	Florence	CSX	-30154.6	-0.57	-4.68	-0.26	-0.10	-0.21	-6.75E-06
SC	Georgetown	Andrews	Andrews	CSX	-18715.4	-0.35	-2.90	-0.16	-0.06	-0.13	-4.19E-06
SC	Georgetown	Andrews	Andrews	CSX	-18715.4	-0.35	-2.90	-0.16	-0.06	-0.13	-4.19E-06
SC	Georgetown	Andrews Yd		NS	1339.4	0.02	0.17	0.01	0.004	0.01	2.50E-07
SC	Georgetown	Andrews Yd		NS	1339.4	0.02	0.17	0.01	0.004	0.01	2.50E-07
SC	Greenville	Greenville		NS	-4452.6	-0.07	-0.58	-0.03	-0.01	-0.03	-8.31E-07
SC	Greenville	Greenville		NS	-4452.6	-0.07	-0.58	-0.03	-0.01	-0.03	-8.31E-07
SC	Greenwood	Greenwood	Greenwood	CSX	-18281.0	-0.34	-2.83	-0.16	-0.06	-0.13	-4.09E-06
SC	Greenwood	Greenwood	Greenwood	CSX	-18281.0	-0.34	-2.83	-0.16	-0.06	-0.13	-4.09E-06
SC	Oconee	Seneca		NS	-23711.0	-0.37	-3.06	-0.17	-0.06	-0.14	-4.43E-06
SC	Oconee	Seneca		NS	-23711.0	-0.37	-3.06	-0.17	-0.06	-0.14	-4.43E-06

Attachment E-5
Emissions Changes for Rail Yards

Appendix E: Air Quality

State	County	City	Yard Name	Post Transation Operator	Activity Change (railcars/yr)	Estimated Change in Emissions (tons/yr)					
						CO @ 100 7 lb/Kgal	NOx @ 830 7 lb/Kgal	HC @ 46 2 lb/Kgal	PM @ 17 2 lb/Kgal	SOx @ 36 7 lb/Kgal	Pb @ 0.0012 lb/Kgal
SC	Richland	Columbia	Cayce	CSX	56870.2	1.07	8.82	0.49	0.18	0.39	1.27E-05
SC	Spartanburg	Spartanburg	Hayne Yd	NS	21611.4	0.34	2.79	0.16	0.06	0.12	4.03E-06
SC	Spartanburg	Spartanburg	Spartanburg	CSX	-4669.8	-0.09	-0.72	-0.04	-0.01	-0.03	-1.05E-06
TN	Davidson	Nashville	Radnor Yd	CSX	126700.0	2.38	19.65	1.09	0.41	0.87	2.84E-05
TN	Hamblen	Bulls Gap		NS	0.0	0.00	0.00	0.00	0.00	0.00	0.00E+00
TN	Hamilton	Chattanooga	Chattanooga	CSX	3149.4	0.06	0.49	0.03	0.01	0.02	7.05E-07
TN	Hamilton	Chattanooga		NS	-98464.0	-1.54	-12.72	-0.71	-0.26	-0.56	-1.84E-05
TN	Knox	Knoxville	Knoxville	CSX	-5574.8	-0.10	-0.86	-0.05	-0.02	-0.04	-1.25E-06
TN	Knox	Knoxville	Sevier Yd	NS	-43078.0	-0.67	-5.57	-0.31	-0.12	-0.25	-8.04E-06
TN	Madison	Jackson		NS	3258.0	0.05	0.42	0.02	0.01	0.02	6.08E-07
TN	Mcminn	Calhoun		NS	-36.2	0.00	0.00	0.00	0.00	0.00	-6.76E-09
TN	Mcminn	Etowah	Etowah	CSX	-31964.8	-0.60	-4.96	-0.28	-0.10	-0.22	-7.16E-06
TN	Scott	Oneida		NS	-1339.4	-0.02	-0.17	-0.01	-0.004	-0.01	-2.50E-07
TN	Shelby	Memphis	Leewood	CSX	12054.6	0.23	1.87	0.10	0.04	0.08	2.70E-06
TN	Shelby	Memphis		NS	-16434.8	-0.26	-2.12	-0.12	-0.04	-0.09	-3.07E-06
TN	Sullivan	Bristol	Frisco	NS	2642.6	0.04	0.34	0.02	0.01	0.02	4.93E-07
TN	Sullivan	Kingsport	Kingsport	CSX	13792.2	0.26	2.14	0.12	0.04	0.09	3.09E-06
TN	Unicoi	Erwin	Erwin	CSX	-115948.6	-2.18	-17.98	-1.00	-0.37	-0.79	-2.60E-05
VA	Albemarle	Waynesboro		NS	72.4	0.001	0.01	0.001	0.0002	0.0004	1.35E-08
VA	Alleghany	Clifton Forge	Clifton Forge	CSX	1267.0	0.02	0.20	0.01	0.004	0.01	2.84E-07
VA	Alleghany	Covington	Covington	CSX	16833.0	0.32	2.6	0.15	0.05	0.12	3.77E-06
VA	Buchanan	Weller		NS	-51259.2	-0.80	-6.62	-0.37	-0.14	-0.29	-9.57E-06
VA	Fairfax	Alexandria		NS	-17122.6	-0.27	-2.21	-0.12	-0.05	-0.10	-3.20E-06
VA	Henrico	Richmond	Fulton	CSX	-434.4	-0.01	-0.07	-0.004	-0.001	-0.003	-9.73E-08
VA	Lynchburg	Lynchburg	Montview	NS	-3402.8	-0.05	-0.44	-0.02	-0.01	-0.02	-6.35E-07
VA	Nottoway	Crewe		NS	-5430.0	-0.09	-0.70	-0.04	-0.01	-0.03	-1.01E-06
VA	Page	Shenandoah		NS	3764.8	0.06	0.49	0.03	0.01	0.02	7.03E-07
VA	Pittsylvania	Danville		NS	-217.2	-0.003	-0.03	-0.002	-0.001	-0.001	-4.05E-08
VA	Prince William	Manassas		NS	-615.4	-0.01	-0.08	-0.004	-0.002	-0.004	-1.15E-07
VA	Pulaski	Radford		NS	1267.0	0.02	0.16	0.01	0.003	0.01	2.37E-07
VA	Richmond	Richmond	ACCA	CSX	35946.6	0.68	5.57	0.31	0.12	0.25	8.05E-06
VA	Richmond	Richmond	Richmond	NS	-8217.4	-0.13	-1.06	-0.06	-0.02	-0.05	-1.53E-06
VA	Roanoke	Roanoke	Schafers Crossg	NS	125288.2	1.96	16.19	0.90	0.34	0.72	2.34E-05
VA	Russell	Carbo		NS	-7710.6	-0.12	-1.00	-0.06	-0.02	-0.04	-1.44E-06
VA	Washington	Bristol		NS	11909.8	0.19	1.54	0.09	0.03	0.07	2.22E-06
VA	Wise	Andover		NS	-7927.8	-0.12	-1.02	-0.06	-0.02	-0.05	-1.48E-06
VA	Wise	Norton		NS	10172.2	0.16	1.31	0.07	0.03	0.06	1.90E-06
VA	York	Newport News	Newport News	CSX	-293075.2	-5.51	-45.45	-2.53	-0.94	-2.01	-6.56E-05
WV	Cabell	Huntington	Huntington	CSX	-37322.2	-0.70	-5.79	-0.32	-0.12	-0.26	-8.36E-06
WV	Kanawha	S Charleston	S Charleston	CSX	-14878.2	-0.28	-2.31	-0.13	-0.05	-0.10	-3.33E-06
WV	Marshall	Benwood	Benwood	CSX	-19837.6	-0.37	-3.08	-0.17	-0.06	-0.14	-4.44E-06
WV	McDowell	Big Sandy Jct	Shelby	CSX	-65160.0	-1.22	-10.10	-0.56	-0.21	-0.45	-1.46E-05
WV	Mercer	Bluefield		NS	-51331.6	-0.80	-6.63	-0.37	-0.14	-0.29	-9.58E-06
WV	Mingo	Gilbert		NS	-8217.4	-0.13	-1.06	-0.06	-0.02	-0.05	-1.53E-06

**Attachment E-5
Emissions Changes for Rail Yards**

Appendix E Air Quality

State	County	City	Yard Name	Post Transaction Operator	Activity Change (railcars/yr)	Estimated Change in Emissions (tons/yr)					
						CO @	NOx @	HC @	PM @	SOx @	Pb @
						100.7 lb/Kgal	830.7 lb/Kgal	46.2 lb/Kgal	17.2 lb/Kgal	38.7 lb/Kgal	0.0012 lb/Kgal
WV	Mingo	Williamson		NS	-13502.6	-0.21	-1.74	-0.10	-0.04	-0.08	-2.52E-06
WV	Summers	Brooklyn Jct	Brooklyn Jct	CSX	-20670.2	-0.39	-3.21	-0.18	-0.07	-0.14	-4.63E-06
WV	Summers	Hinton	Hinton	CSX	2099.6	0.04	0.33	0.02	0.01	0.01	4.70E-07
WV	Taylor	Grafton	Grafton	CSX	6081.6	0.11	0.94	0.05	0.02	0.04	1.36E-06
WV	Wayne	Dickinson		NS	-144.8	-0.002	-0.02	-0.001	-0.0004	-0.001	-2.70E-08
WV	Wood	Parkersburg	Parkersburg	CSX	-30987.2	-0.58	-4.80	-0.27	-0.10	-0.21	-6.94E-06
WV	Wyne	Kenova		NS	10244.6	0.16	1.32	0.07	0.03	0.06	1.91E-06
WV	Wyoming	Elmore		NS	-36163.8	-0.57	-4.67	-0.26	-0.10	-0.21	-6.75E-06

Attachment E-6

Emissions Changes for Intermodal Facilities

Attachment E-6
Emissions Changes for Intermodal Facilities

Appendix E Air Quality

State	County	City	Facility Name	Post Transaction Operator	Activity Change lifts/yr	Estimated Change in Emissions (tons/yr)					
						CO*	NOx*	HC*	PM*	SOx*	Pb*
AL	Jefferson	Birmingham	Birmingham	NS	7,600	1.35	2.28	0.30	0.25	0.16	1.02E-05
AL	Madison	Huntsville	Huntsville	NS	6,495	1.15	1.95	0.26	0.21	0.14	8.75E-06
AL	Mobile	Mobile		CSX	2,167	0.48	0.75	0.10	0.08	0.05	3.30E-06
FL	Dade	Miami	Miami	NS	12,423	2.21	3.72	0.50	0.41	0.27	1.67E-05
FL	Duval	Jacksonville	Duval	CSX	17,577	3.70	5.96	0.81	0.67	0.43	2.48E-05
FL	Duval	Jacksonville	Jacksonville	NS	19,388	3.44	5.81	0.77	0.64	0.42	2.61E-05
FL	Duval	Jacksonville	Jacksonville	NS	2,931	0.52	0.88	0.12	0.10	0.06	3.95E-06
FL	Hillsborough	Tampa		CSX	15,729	3.38	5.37	0.73	0.60	0.38	2.29E-05
FL	Orange	Orlando		CSX	6,447	1.35	2.18	0.30	0.24	0.16	9.07E-06
GA	Chatham	Savannah		CSX	1,772	0.38	0.60	0.08	0.07	0.04	2.55E-06
GA	Chatham	Savannah	Savannah	NS	3,817	0.68	1.14	0.15	0.13	0.08	5.14E-06
GA	Fulton	Atlanta		CSX	50,042	10.34	16.85	2.28	1.89	1.22	6.85E-05
GA	Fulton	Atlanta	Inman	NS	77,791	13.82	23.30	3.10	2.56	1.68	1.05E-04
GA	Fulton	Atlanta	East Point	NS	11,584	2.06	3.47	0.46	0.38	0.25	1.56E-05
GA	Whitfield	Dalton	Dalton	NS	1,648	0.29	0.49	0.07	0.05	0.04	2.22E-06
IL	Cook	Chicago	59th St	CSX	455,897	97.82	155.52	21.27	17.35	11.14	6.62E-04
IL	Cook	Chicago	63rd St	CSX	-247,515	-54.43	-85.18	-11.72	-9.46	-6.07	-3.74E-04
IL	Cook	Chicago	Bedford Park	CSX	-188,544	-37.77	-62.81	-8.44	-7.09	-4.57	-2.46E-04
IL	Cook	Chicago	Forest Hill	CSX	1,304	0.31	0.46	0.07	0.05	0.03	2.25E-06
IL	Cook	Chicago	47th Street	NS	111,000	19.72	33.25	4.43	3.65	2.40	1.50E-04
IL	Cook	Chicago	63rd Street	NS	-287,963	-51.15	-86.25	-11.48	-9.47	-6.23	-3.88E-04
IL	Cook	Chicago	Landers	NS	51,432	9.14	15.40	2.05	1.69	1.11	6.93E-05
IL	Cook	Chicago	Calumet	NS	16,507	2.93	4.94	0.66	0.54	0.36	2.22E-05
IL	Peoria	Peoria	Peoria	NS	1,616	0.29	0.48	0.06	0.05	0.03	2.18E-06
IL	St. Clair	E. St. Louis		CSX	-58,915	-12.91	-20.25	-2.78	-2.25	-1.44	-8.85E-05
IN	Allen	Ft. Wayne	Piqua	NS	4,061	0.72	1.22	0.16	0.13	0.09	5.47E-06
IN	Marion	Indianapolis		CSX	-5,512	-1.20	-1.89	-0.26	-0.21	-0.13	-8.16E-06
IN	Vanderburgh	Evansville		CSX	461	0.10	0.16	0.02	0.02	0.01	6.58E-07
KY	Jefferson	Louisville	Buechel	NS	25,258	4.49	7.56	1.01	0.83	0.55	3.40E-05
KY	Scott	Georgetown	Georgetown	NS	18,453	3.28	5.53	0.74	0.61	0.40	2.49E-05
LA	Orleans	New Orleans		CSX	7,381	1.58	2.52	0.34	0.28	0.18	1.17E-05
LA	Orleans	New Orleans	New Orleans	NS	29,472	5.23	8.83	1.18	0.97	0.64	3.97E-05
MA	Hampden	Springfield		CSX	17,050	3.68	5.83	0.80	0.65	0.42	2.50E-05
MA	Suffolk	Boston	Beacon Park	CSX	21,289	4.68	7.33	1.01	0.81	0.52	3.21E-05
MA	Worcester	Worcester		CSX	2,340	0.49	0.79	0.11	0.09	0.06	3.32E-06
MD	Baltimore	Baltimore	Seagirt	CSX	17,348	3.71	5.91	0.81	0.66	0.42	2.51E-05
MD	Baltimore	Baltimore	Baltimore	NS	36,081	6.41	10.81	1.44	1.19	0.78	4.86E-05
MD	Baltimore	Baltimore	New Facility	NS	10,178	1.81	3.05	0.41	0.33	0.22	1.37E-05
MI	Wayne	Detroit	Livernois	CSX	15,001	3.19	5.10	0.70	0.57	0.37	2.15E-05
MI	Wayne	Detroit	Livernois	NS	-8,163	-1.45	-2.44	-0.33	-0.27	-0.18	-1.10E-05
MI	Wayne	Detroit	Delray	NS	21,878	3.89	6.55	0.87	0.72	0.47	2.95E-05
MI	Wayne	Detroit	Oakwood/Melvindale	NS	19,492	3.46	5.84	0.78	0.64	0.42	2.63E-05
MI	Wayne	Detroit	Melvindale	NS	6,041	1.07	1.81	0.24	0.20	0.13	8.14E-06
MO	Clay	Kansas City	Voltz	NS	16,439	2.92	4.92	0.66	0.54	0.36	2.21E-05

Attachment E-6
Emissions Changes for Intermodal Facilities

Appendix E Air Quality

State	County	City	Facility Name	Post Transaction Operator	Activity Change lifts/yr	Estimated Change in Emissions (tons/yr)					
						CO*	NOx*	HC*	PM*	SOx*	Pb*
MO	Clay	Kansas City	Voltz	NS	34,961	6.21	10.47	1.39	1.15	0.76	4.71E-05
MO	St Louis	St Louis	Luther	NS	91,466	16.25	27.39	3.65	3.01	1.98	1.23E-04
MO	St Louis	St Louis	Luther	NS	9,625	1.71	2.88	0.38	0.32	0.21	1.30E-05
NC	Guilford	Greensboro	Greensboro	NS	1,479	0.26	0.44	0.06	0.05	0.03	1.99E-06
NC	Mecklenburg	Charlotte		CSX	16,693	3.81	5.82	0.81	0.64	0.41	2.66E-05
NC	Mecklenburg	Charlotte	Charlotte	NS	16,644	2.96	4.98	0.66	0.55	0.36	2.24E-05
NC	Mecklenburg	Charlotte	New Facility	NS	7,867	1.40	2.36	0.31	0.26	0.17	1.06E-05
NJ	Bergen	Little Ferry		CSX	76,961	17.47	26.79	3.72	2.96	1.89	1.22E-04
NJ	Hudson	North Jersey	Croton - NJIT	NS	50,000	8.88	14.98	1.99	1.64	1.08	6.74E-05
NJ	Hudson	North Jersey	E-Rail	NS	181,991	32.33	54.51	7.26	5.99	3.94	2.45E-04
NJ	Hudson	North Jersey	South Kearny - APL	NS	-39,224	-6.97	-11.75	-1.56	-1.29	-0.85	-5.28E-05
NJ	Hudson	South Kearny		CSX	41,833	8.97	14.27	1.95	1.59	1.02	6.07E-05
NJ	Hudson	South Kearny	Kearny API	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
NJ	Ocean	North Bergen		CSX	-401	-0.09	-0.14	-0.02	-0.02	-0.01	-6.27E-07
NJ	Union	Elizabeth	Portside	NS	19,506	3.46	5.84	0.78	0.64	0.42	2.63E-05
NY	Erie	Buffalo		CSX	15,607	3.35	5.32	0.73	0.59	0.38	2.27E-05
NY	Erie	Buffalo	Bison	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
NY	Erie	Buffalo	New Facility	NS	9,374	1.67	2.81	0.37	0.31	0.20	1.26E-05
NY	Monroe	Rochester		NS	-7,136	-1.27	-2.14	-0.28	-0.23	-0.15	-9.61E-06
NY	Onondaga	Syracuse		CSX	821	0.18	0.28	0.04	0.03	0.02	1.19E-06
OH	Crawford	Crestline	Crestline	NS	-21,287	-3.78	-6.38	-0.85	-0.70	-0.46	-2.87E-05
OH	Cuyahoga	Cleveland	Collinwood	CSX	28,112	5.94	9.54	1.30	1.07	0.69	3.99E-05
OH	Cuyahoga	Cleveland	9th at Orange	NS	8,446	1.50	2.53	0.34	0.28	0.18	1.14E-05
OH	Erie	Bellevue	Bellevue - New Facility	NS	25,267	4.49	7.57	1.01	0.83	0.55	3.40E-05
OH	Franklin	Columbus		CSX	-28,547	-6.20	-9.78	-1.34	-1.09	-0.70	-4.23E-05
OH	Franklin	Columbus	Discovery Park	NS	28,693	5.10	8.59	1.14	0.94	0.62	3.87E-05
OH	Hamilton	Cincinnati		CSX	6,074	1.28	2.06	0.28	0.23	0.15	8.59E-06
OH	Hamilton	Cincinnati	Gest Street	NS	18,449	3.28	5.53	0.74	0.61	0.40	2.49E-05
OH	Lucas	Toledo	Toledo	NS	14,354	2.55	4.30	0.57	0.47	0.31	1.93E-05
PA	Allegheny	Pittsburgh	Pitcairn	NS	61,950	11.00	18.55	2.47	2.04	1.34	8.35E-05
PA	Bucks	Philadelphia	Morrisville	NS	71,743	12.74	21.49	2.86	2.36	1.55	9.67E-05
PA	Dauphin	Harrisburg	Industrial Road	NS	17,236	3.06	5.16	0.69	0.57	0.37	2.32E-05
PA	Dauphin	Harrisburg	Rutherford	NS	656	0.12	0.20	0.03	0.02	0.01	8.84E-07
PA	Northampton	Allentown	Allentown	NS	46,009	8.17	13.78	1.83	1.51	1.00	6.20E-05
PA	Philadelphia	Philadelphia	Greenwich	CSX	152,000	32.61	51.85	7.09	5.78	3.72	2.21E-04
PA	Philadelphia	Philadelphia	Snyder	CSX	-141,403	-30.32	-48.23	-6.59	-5.38	-3.46	-2.05E-04
PA	Philadelphia	Philadelphia	Ameriport	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
PA	Philadelphia	Philadelphia	New Facility	NS	19,938	3.54	5.97	0.80	0.66	0.43	2.69E-05
SC	Charleston	Charleston	Charleston	NS	2,915	0.52	0.87	0.12	0.10	0.06	3.93E-06
SC	Greenville	Greenville	Greenville	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
TN	Davidson	Nashville		CSX	22,968	4.82	7.77	1.06	0.87	0.56	3.22E-05
TN	Knox	Knoxville	Knoxville	NS	12,678	2.25	3.80	0.51	0.42	0.27	1.71E-05
TN	Shelby	Memphis		CSX	26,353	5.59	8.95	1.22	1.00	0.64	3.76E-05
TN	Shelby	Memphis	Memphis	NS	41,319	7.34	12.38	1.65	1.36	0.89	5.57E-05

Attachment E-6
Emissions Changes for Intermodal Facilities

Appendix E: Air Quality

State	County	City	Facility Name	Post Transition Operator	Activity Change lifts/yr	Estimated Change in Emissions (tons/yr)					
						CO*	NOx*	HC*	PM*	SOx*	Pb*
TN	Sullivan	Kingsport		CSX	621	0.13	0.21	0.03	0.02	0.02	8.81E-07
VA	Norfolk	Chesapeake	Portlock	NS	626	0.11	0.19	0.02	0.02	0.01	8.43E-07
VA	Suffolk	Portsmouth		CSX	644	0.14	0.22	0.03	0.02	0.02	9.70E-07
WV	Kanawha	Charleston		CSX	3,197	0.71	1.11	0.15	0.12	0.08	4.92E-06

Intermodal Facility Emission Factors						
	CO	NOx	HC	PM	SOx	Pb
Over-The-Road Trucks (g/veh-hr)	94.6	53	12.65	2.81	1.29	0.001
Railroad Yard Trucks (g/gal)	229.38	186	39.27	31.72	14.53	5.65E-04
Railroad Lift Equipment (g/veh-hr)	451.5	1,107	139	154.8	100	3.89E-03
Railroad Switch Locomotives (lb/Kgal)	100.7	831	46.2	17.2	36.7	0.0012

Attachment E-7

**Emissions Decreases from Truck-to-Rail Diversions
in Counties Analyzed**

Attachment E-7

Appendix E: Air Quality

Emissions Decreases from Truck-to-Rail Diversions in Counties Analyzed

State	County	Diverted From	County VMT Miles	Estimated Change in Emissions (tons/yr)					
				CO @ 8.63 g/veh-mi	NOx @ 19.68 g/veh-mi	HC @ 1.71 g/veh-mi	PM @ 1.125 g/veh-mi	SOx @ 0.514 g/veh-mi	Pb @ 1.0E-4 g/veh-mi
DE	New Castle	CSX	1,260,687	-11.99	-27.35	-2.38	-1.56	-0.71	-1.39E-04
DE	New Castle	NS	1,006,528	-9.57	-21.83	-1.90	-1.25	-0.57	-1.11E-04
GA	Fulton	CSX	440,108	-4.19	-9.55	-0.83	-0.55	-0.25	-4.85E-05
GA	Fulton	NS	603,605	-5.74	-13.09	-1.14	-0.75	-0.34	-6.65E-05
GA	Henry	CSX	70,240	-0.67	-1.52	-0.13	-0.09	-0.04	-7.74E-06
GA	Henry	NS	28,218	-0.27	-0.61	-0.05	-0.03	-0.02	-3.11E-06
IL	Champaign	CSX	20,199	-0.19	-0.44	-0.04	-0.03	-0.01	-2.23E-06
IL	Champaign	NS	316,562	-3.01	-6.87	-0.60	-0.39	-0.18	-3.49E-05
IL	Cook	CSX	1,430,618	-13.61	-31.03	-2.70	-1.77	-0.81	-1.58E-04
IL	Cook	NS	1,021,023	-9.71	-22.15	-1.92	-1.27	-0.58	-1.13E-04
IL	Platt	CSX	9,638	-0.09	-0.21	-0.02	-0.01	-0.01	-1.06E-06
IL	Platt	NS	85,771	-0.82	-1.86	-0.16	-0.11	-0.05	-9.45E-06
IL	Vermilion	CSX	17,261	-0.16	-0.37	-0.03	-0.02	-0.01	-1.90E-06
IL	Vermilion	NS	276,568	-2.63	-6.00	-0.52	-0.34	-0.16	-3.05E-05
IN	Allen	CSX	2,872	-0.03	-0.06	-0.01	0.00	0.00	-3.17E-07
IN	Allen	NS	362,768	-3.45	-7.87	-0.68	-0.45	-0.21	-4.00E-05
IN	De Kalb	CSX	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
IN	De Kalb	NS	1,810	-0.02	-0.04	0.00	0.00	0.00	-2.00E-07
IN	Gibson	CSX	8,861	-0.08	-0.19	-0.02	-0.01	-0.01	-9.77E-07
IN	Gibson	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
IN	Huntington	CSX	1,062	-0.01	-0.02	0.00	0.00	0.00	-1.17E-07
IN	Huntington	NS	27,657	-0.26	-0.60	-0.05	-0.03	-0.02	-3.05E-06
IN	Knox	CSX	11,851	-0.11	-0.26	-0.02	-0.01	-0.01	-1.31E-06
IN	Knox	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
IN	La Porte	CSX	1,094,211	-10.41	-23.74	-2.06	-1.36	-0.62	-1.21E-04
IN	La Porte	NS	1,528,019	-14.54	-33.15	-2.88	-1.89	-0.87	-1.68E-04
IN	Lake	CSX	1,405,219	-13.37	-30.48	-2.65	-1.74	-0.80	-1.55E-04
IN	Lake	NS	1,342,407	-12.77	-29.12	-2.53	-1.66	-0.76	-1.48E-04
IN	Porter	CSX	801,799	-7.63	-17.39	-1.51	-0.99	-0.45	-8.84E-05
IN	Porter	NS	999,204	-9.51	-21.68	-1.88	-1.24	-0.57	-1.10E-04
IN	Tippecanoe	CSX	153,513	-1.46	-3.33	-0.29	-0.19	-0.09	-1.69E-05
IN	Tippecanoe	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
IN	Vanderburgh	CSX	39,898	-0.38	-0.87	-0.08	-0.05	-0.02	-4.40E-06
IN	Vanderburgh	NS	2,497	-0.02	-0.05	0.00	0.00	0.00	-2.75E-07
IN	Warren	CSX	12,674	-0.12	-0.27	-0.02	-0.02	-0.01	-1.40E-06
IN	Warren	NS	43,044	-0.41	-0.93	-0.08	-0.05	-0.02	-4.74E-06
KY	Hopkins	CSX	8,723	-0.08	-0.19	-0.02	-0.01	0.00	-9.61E-07
KY	Hopkins	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
MD	Anne Arundel	CSX	3,141	-0.03	-0.07	-0.01	0.00	0.00	-3.46E-07
MD	Anne Arundel	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
MD	Baltimore	CSX	1,229,687	-11.70	-26.68	-2.32	-1.52	-0.70	-1.36E-04
MD	Baltimore	NS	1,445,263	-13.75	-31.35	-2.72	-1.79	-0.82	-1.59E-04
MD	Baltimore City	CSX	711,297	-6.77	-15.43	-1.34	-0.88	-0.40	-7.84E-05
MD	Baltimore City	NS	818,224	-7.78	-17.75	-1.54	-1.01	-0.46	-9.02E-05
MD	Cecil	CSX	1,009,167	-9.60	-21.89	-1.90	-1.25	-0.57	-1.11E-04
MD	Cecil	NS	901,505	-8.58	-19.56	-1.70	-1.12	-0.51	-9.94E-05
MD	Fredenck	CSX	192,815	-1.83	-4.18	-0.36	-0.24	-0.11	-2.13E-05
MD	Fredenck	NS	647,345	-6.16	-14.04	-1.22	-0.80	-0.37	-7.14E-05
MD	Howard	CSX	873,948	-8.31	-18.96	-1.65	-1.08	-0.50	-9.63E-05
MD	Howard	NS	1,299,969	-12.37	-28.20	-2.45	-1.61	-0.74	-1.43E-04
MD	Montgomery	CSX	822,778	-7.83	-17.85	-1.55	-1.02	-0.47	-9.07E-05
MD	Montgomery	NS	1,016,302	-9.67	-22.05	-1.92	-1.26	-0.58	-1.12E-04
MD	Prince George	CSX	414,190	-3.94	-8.99	-0.78	-0.51	-0.23	-4.57E-05
MD	Prince George	NS	493,000	-4.69	-10.69	-0.93	-0.61	-0.28	-5.43E-05
MD	Washington	CSX	1,351,608	-12.86	-29.32	-2.55	-1.68	-0.77	-1.49E-04
MD	Washington	NS	2,371,631	-22.56	-51.45	-4.47	-2.94	-1.34	-2.61E-04
MI	Monroe	CSX	1,160,821	-11.04	-25.18	-2.19	-1.44	-0.66	-1.28E-04
MI	Monroe	NS	1,176,242	-11.19	-25.52	-2.22	-1.46	-0.67	-1.30E-04
MI	Wayne	CSX	1,211,572	-11.53	-26.28	-2.28	-1.50	-0.69	-1.34E-04
MI	Wayne	NS	1,265,522	-12.04	-27.45	-2.39	-1.57	-0.72	-1.39E-04
NJ	Bergen	CSX	420,349	-4.00	-9.12	-0.79	-0.52	-0.24	-4.63E-05
NJ	Bergen	NS	17,656	-0.17	-0.38	-0.03	-0.02	-0.01	-1.95E-06
NJ	Essex	CSX	879,375	-8.37	-19.09	-1.66	-1.09	-0.50	-9.69E-05
NJ	Essex	NS	2,150,478	-20.46	-46.65	-4.05	-2.67	-1.22	-2.37E-04
NJ	Hudson	CSX	200,754	-1.91	-4.35	-0.38	-0.25	-0.11	-2.21E-05
NJ	Hudson	NS	1,338,867	-12.74	-29.04	-2.52	-1.66	-0.76	-1.48E-04

Attachment E-7
Emissions Decreases from Truck-to-Rail Diversions in Counties Analyzed

Appendix E: Air Quality

State	County	Diverted From	County VMT Miles	Estimated Change in Emissions (tons/yr)					
				CO @	NOx @	HC @	PM @	SOx @	Pb @
				8.63 g/veh-mi	19.68 g/veh-mi	1.71g/veh-mi	1.125 g/veh-mi	0.514 g/veh-mi	1.0E-4 g/veh-mi
NJ	Mercer	CSX	657,566	-6.26	-14.26	-1.24	-0.82	-0.37	-7.25E-05
NJ	Mercer	NS	104,674	-1.00	-2.27	-0.20	-0.13	-0.06	-1.15E-05
NJ	Middlesex	CSX	1,519,962	-14.46	-32.97	-2.87	-1.88	-0.86	-1.68E-04
NJ	Middlesex	NS	228,483	-2.17	-4.96	-0.43	-0.28	-0.13	-2.52E-05
NJ	Union	CSX	934,762	-8.89	-20.28	-1.76	-1.16	-0.53	-1.03E-04
NJ	Union	NS	1,102,174	-10.48	-23.91	-2.08	-1.37	-0.62	-1.21E-04
NY	Chautauqua	CSX	545,048	-5.18	-11.82	-1.03	-0.68	-0.31	-6.01E-05
NY	Chautauqua	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
NY	Ene	CSX	938,159	-8.92	-20.35	-1.77	-1.16	-0.53	-1.03E-04
NY	Ene	NS	25,158	-0.24	-0.55	-0.05	-0.03	-0.01	-2.77E-06
NY	Montgomery	CSX	394,451	-3.75	-8.56	-0.74	-0.49	-0.22	-4.35E-05
NY	Montgomery	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
NY	Orange	CSX	2,727,121	-25.94	-59.16	-5.14	-3.38	-1.55	-3.01E-04
NY	Orange	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
OH	Allen	CSX	585,187	-5.57	-12.69	-1.10	-0.73	-0.33	-6.45E-05
OH	Allen	NS	482,630	-4.59	-10.47	-0.91	-0.60	-0.27	-5.32E-05
OH	Ashtabula	CSX	285,198	-2.71	-6.19	-0.54	-0.35	-0.16	-3.14E-05
OH	Ashtabula	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
OH	Crawford	CSX	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
OH	Crawford	NS	181,795	-1.73	-3.94	-0.34	-0.23	-0.10	-2.00E-05
OH	Cuyahoga	CSX	1,920,692	-18.27	-41.67	-3.62	-2.38	-1.09	-2.12E-04
OH	Cuyahoga	NS	2,449,737	-23.30	-53.14	-4.62	-3.04	-1.39	-2.70E-04
OH	Defiance	CSX	336	0.00	-0.01	0.00	0.00	0.00	-3.70E-08
OH	Defiance	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
OH	Delaware	CSX	1,326,033	-12.61	-28.77	-2.50	-1.64	-0.75	-1.46E-04
OH	Delaware	NS	186,773	-1.78	-4.05	-0.35	-0.23	-0.11	-2.06E-05
OH	Ene	CSX	1,508,741	-14.35	-32.73	-2.84	-1.87	-0.85	-1.66E-04
OH	Ene	NS	3,410,618	-32.44	-73.99	-6.43	-4.23	-1.93	-3.76E-04
OH	Franklin	CSX	2,548,458	-24.24	-55.28	-4.80	-3.16	-1.44	-2.81E-04
OH	Franklin	NS	2,383,532	-22.67	-51.71	-4.49	-2.96	-1.35	-2.63E-04
OH	Hamilton	CSX	1,438,013	-13.68	-31.20	-2.71	-1.78	-0.81	-1.59E-04
OH	Hamilton	NS	1,006,612	-9.58	-21.84	-1.90	-1.25	-0.57	-1.11E-04
OH	Hardin	CSX	336	0.00	-0.01	0.00	0.00	0.00	-3.70E-08
OH	Hardin	NS	51,991	-0.49	-1.13	-0.10	-0.06	-0.03	-5.73E-06
OH	Henry	CSX	2,084	-0.02	-0.05	0.00	0.00	0.00	-2.30E-07
OH	Henry	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
OH	Lake	CSX	250,508	-2.38	-5.43	-0.47	-0.31	-0.14	-2.76E-05
OH	Lake	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
OH	Lorain	CSX	1,215,250	-11.56	-26.36	-2.29	-1.51	-0.69	-1.34E-04
OH	Lorain	NS	2,746,046	-26.12	-59.57	-5.18	-3.41	-1.56	-3.03E-04
OH	Lucas	CSX	1,027,108	-9.77	-22.28	-1.94	-1.27	-0.58	-1.13E-04
OH	Lucas	NS	1,431,736	-13.62	-31.06	-2.70	-1.78	-0.81	-1.58E-04
OH	Richland	CSX	1,065,908	-10.14	-23.12	-2.01	-1.32	-0.60	-1.17E-04
OH	Richland	NS	327,832	-3.12	-7.11	-0.62	-0.41	-0.19	-3.61E-05
OH	Sandusky	CSX	1,371,777	-13.05	-29.76	-2.59	-1.70	-0.78	-1.51E-04
OH	Sandusky	NS	3,062,119	-29.13	-66.43	-5.77	-3.80	-1.73	-3.38E-04
OH	Trumbull	CSX	1,688,614	-16.06	-36.63	-3.18	-2.09	-0.96	-1.86E-04
OH	Trumbull	NS	2,976,985	-28.32	-64.58	-5.61	-3.69	-1.69	-3.28E-04
OH	Van Wert	CSX	2,071	-0.02	-0.04	0.00	0.00	0.00	-2.28E-07
OH	Van Wert	NS	523,904	-4.98	-11.37	-0.99	-0.65	-0.30	-5.77E-05
OH	Wood	CSX	1,698,626	-16.16	-36.85	-3.20	-2.11	-0.96	-1.87E-04
OH	Wood	NS	1,779,737	-16.93	-38.61	-3.35	-2.21	-1.01	-1.96E-04
OH	Wyandot	CSX	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
OH	Wyandot	NS	149,557	-1.42	-3.24	-0.28	-0.19	-0.08	-1.65E-05
PA	Allegheny	CSX	260,130	-2.47	-5.64	-0.49	-0.32	-0.15	-2.87E-05
PA	Allegheny	NS	1,066,228	-10.14	-23.13	-2.01	-1.32	-0.60	-1.18E-04
PA	Beaver	CSX	40,240	-0.38	-0.87	-0.08	-0.05	-0.02	-4.44E-06
PA	Beaver	NS	206,934	-1.97	-4.49	-0.39	-0.26	-0.12	-2.28E-05
PA	Bucks	CSX	959,586	-9.13	-20.82	-1.81	-1.19	-0.54	-1.06E-04
PA	Bucks	NS	318,304	-3.03	-6.91	-0.60	-0.39	-0.18	-3.51E-05
PA	Butler	CSX	151,428	-1.44	-3.28	-0.29	-0.19	-0.09	-1.67E-05
PA	Butler	NS	462	0.00	-0.01	0.00	0.00	0.00	-5.09E-08
PA	Cumberland	CSX	4,710,586	-44.81	-102.19	-8.88	-5.84	-2.67	-5.19E-04
PA	Cumberland	NS	7,777,198	-73.98	-168.71	-14.66	-9.64	-4.41	-8.57E-04
PA	Dauphin	CSX	1,811,118	-17.23	-39.29	-3.41	-2.25	-1.03	-2.00E-04
PA	Dauphin	NS	2,565,384	-24.40	-55.65	-4.84	-3.18	-1.45	-2.83E-04

Attachment E-7
Emissions Decreases from Truck-to-Rail Diversions in Counties Analyzed

Appendix E: Air Quality

State	County	Diverted From	County VMT Miles	Estimated Change in Emissions (tons/yr)					
				CO @ 8.63 g/veh-mi	NOx @ 19.68 g/veh-mi	HC @ 1.71g/veh-mi	PM @ 1.125 g/veh-mi	SOx @ 0.514 g/veh-mi	Pb @ 1.0E-4 g/veh-mi
PA	Delaware	CSX	689,197	-6.56	-14.95	-1.30	-0.85	-0.39	-7.60E-05
PA	Delaware	NS	518,272	-4.93	-11.24	-0.98	-0.64	-0.29	-5.71E-05
PA	Ene	CSX	644,940	-6.14	-13.99	-1.22	-0.80	-0.37	-7.11E-05
PA	Ene	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
PA	Fayette	CSX	51,614	-0.49	-1.12	-0.10	-0.06	-0.03	-5.69E-06
PA	Fayette	NS	262,965	-2.50	-5.70	-0.50	-0.33	-0.15	-2.90E-05
PA	Franklin	CSX	2,295,444	-21.84	-49.80	-4.33	-2.85	-1.30	-2.53E-04
PA	Franklin	NS	3,638,538	-34.61	-78.93	-6.86	-4.51	-2.06	-4.01E-04
PA	Lawrence	CSX	52,545	-0.50	-1.14	-0.10	-0.07	-0.03	-5.79E-06
PA	Lawrence	NS	102,918	-0.98	-2.23	-0.19	-0.13	-0.06	-1.13E-05
PA	Philadelphia	CSX	1,508,627	-14.35	-32.73	-2.84	-1.87	-0.85	-1.66E-04
PA	Philadelphia	NS	1,209,093	-11.50	-26.23	-2.28	-1.50	-0.69	-1.33E-04
PA	Somerset	CSX	924,823	-8.80	-20.06	-1.74	-1.15	-0.52	-1.02E-04
PA	Somerset	NS	2,338,359	-22.24	-50.73	-4.41	-2.90	-1.32	-2.58E-04
PA	Westmoreland	CSX	1,522,693	-10.97	-25.01	-2.17	-1.43	-0.65	-1.27E-04
PA	Westmoreland	NS	2,791,457	-26.55	-60.56	-5.26	-3.46	-1.58	-3.08E-04
TN	Davidson	CSX	2,338,406	-22.24	-50.73	-4.41	-2.90	-1.32	-2.58E-04
TN	Davidson	NS	1,555,462	-14.80	-33.74	-2.93	-1.93	-0.88	-1.71E-04
TN	Robertson	CSX	729,814	-6.94	-15.83	-1.38	-0.91	-0.41	-8.04E-05
TN	Robertson	NS	332,377	-3.16	-7.21	-0.63	-0.41	-0.19	-3.66E-05
VA	Augusta	CSX	3,670,383	-34.92	-79.62	-6.92	-4.55	-2.08	-4.05E-04
VA	Augusta	NS	5,797,297	-55.15	-125.76	-10.93	-7.19	-3.28	-6.39E-04
VA	Botetourt	CSX	2,449,319	-23.30	-53.13	-4.62	-3.04	-1.39	-2.70E-04
VA	Botetourt	NS	3,896,760	-37.07	-84.53	-7.35	-4.83	-2.21	-4.30E-04
VA	Clarke	CSX	7,143	-0.07	-0.15	-0.01	-0.01	0.00	-7.87E-07
VA	Clarke	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00
VA	Fairfax	CSX	1,206,207	-11.47	-26.17	-2.27	-1.50	-0.68	-1.33E-04
VA	Fairfax	NS	1,525,207	-14.51	-33.09	-2.87	-1.89	-0.86	-1.68E-04
VA	Rockbridge	CSX	4,282,355	-40.74	-92.90	-8.07	-5.31	-2.43	-4.72E-04
VA	Rockbridge	NS	6,779,435	-64.49	-147.07	-12.78	-8.41	-3.84	-7.47E-04
VA	Rockingham	CSX	2,816,782	-26.80	-61.10	-5.31	-3.49	-1.60	-3.10E-04
VA	Rockingham	NS	4,446,470	-42.30	-96.46	-8.38	-5.51	-2.52	-4.90E-04
VA	Stafford	CSX	417,494	-3.97	-9.06	-0.79	-0.52	-0.24	-4.60E-05
VA	Stafford	NS	301,905	-2.87	-6.55	-0.57	-0.37	-0.17	-3.33E-05
VA	Warren	CSX	415,805	-3.96	-9.02	-0.78	-0.52	-0.24	-4.58E-05
VA	Warren	NS	724,559	-6.89	-15.72	-1.37	-0.90	-0.41	-7.99E-05
WV	Jefferson	CSX	12,451	-0.12	-0.27	-0.02	-0.02	-0.01	-1.37E-06
WV	Jefferson	NS	0	0.00	0.00	0.00	0.00	0.00	0.00E+00

Attachment E-8

**Emissions Increases for Rail-to-Truck Diversions
In Counties Analyzed**

Attachment E-8
Emissions Increases for Rail-to-Truck Diversions in Counties Analyzed

State	County	Rail Line Segment to be Abandoned	Estimated Emissions Increase (tons/yr) *					
			NO _x	CO	VOC	SO ₂	PM ₁₀	Pb
IN	LaPorte	Dillon Jct, IN to Michigan City, IN	0.13	0.057	0.011	0.0034	0.0075	6.6 x 10 ⁻⁷
OH	Lucas	Toledo, OH to Maumee, OH	0.059	0.026	0.0051	0.0015	0.0034	3.0 x 10 ⁻⁷

* Emissions increases were estimated based on the projected number of rail car loads diverted annually (21 for Dillon Jct to Michigan City, and 90 for Toledo to Maumee), assuming that one rail car diverted would mean four truck loads of replacement freight. Estimated truck trip distances were 71.7 miles and 7.5 miles, respectively for Dillon Jct to Michigan City and Toledo to Maumee.

Attachment E-9

**Emissions Increases for At-Grade Roadway Crossings
>5,000 Vehicles/Day System-Wide**

Attachment E-9
Emissions Increases for At-Grade Roadway Crossings >5,000 Vehicles/Day System-Wide

State	County	Railroad Segment	Crossing ID	FRA ID	Street Name	Vehicle Delay Change*	Estimated Change in Emissions (tons/yr)				
							CO @ 427.2 g/hr	NOx @ 10.2 g/hr	HC @ 50.1 g/hr	PM @ 0.188 g/hr	SOx @ 0.285 g/hr
AL	Etowah	N-001	NXAL-002	725283E		5.77	0.99	0.02	0.12	0.0004	0.0007
AL	Jefferson	N-001	NXAL-001	725376Y		1.57	0.27	0.01	0.03	0.0001	0.0002
GA	Bufts	N-023	NXGA-101	718450J	3RD ST. SR16	2.01	0.35	0.01	0.04	0.0002	0.0002
GA	Fulton	N-022	NXGA-007	718058V	MCDANIEL ST	6.20	1.07	0.03	0.13	0.0005	0.0007
GA	Fulton	N-023	NXGA-001	718062K	SR54 HENDERSON	6.11	1.05	0.03	0.12	0.0005	0.0007
GA	Fulton	N-023	NXGA-002	718065F	SAWTELL AVE	9.18	1.58	0.04	0.18	0.0007	0.0011
IL	Cook	C-010	CXIL-001	163415H	DIXIE HWY	29.38	5.05	0.12	0.59	0.0022	0.0034
IL	Cook	C-010	CXIL-002	163416P	BROADWAY-135TH ST	13.66	2.35	0.06	0.28	0.0010	0.0016
IL	Cook	C-011	CXIL-003	163446G	71ST STREET	5.59	0.96	0.02	0.11	0.0004	0.0006
IL	Cook	C-011	CXIL-004	163539B	MADISON FAU1419	6.76	1.16	0.03	0.14	0.0005	0.0008
IL	Cook	C-011		163423A	115TH ST	17.92	3.08	0.07	0.36	0.0014	0.0021
IL	Cook	C-011		163425N	111TH ST	14.08	2.42	0.06	0.28	0.0011	0.0016
IL	Cook	C-011		163437H	87TH ST	28.45	4.89	0.12	0.57	0.0022	0.0033
IL	Cook	C-011		163433F	95TH ST	34.00	5.84	0.14	0.69	0.0026	0.0039
IL	Cook	N-034	NXIL-101	522456E	BRAINARDFAU3592	1.05	0.18	0.004	0.02	0.0001	0.0001
IL	Cook	N-034	NXIL-102	523006L	100TH ST	4.38	0.75	0.02	0.09	0.0003	0.0005
IL	Cook	N-034	NXIL-103	523011H	106TH ST FAU 1576	3.99	0.69	0.02	0.08	0.0003	0.0005
IL	Madison	N-032	NXIL-104	480328C	PONTOON ROAD	1.40	0.24	0.01	0.03	0.0001	0.0002
IL	Madison	N-032	NXIL-105	480327V	20TH ST	1.92	0.33	0.01	0.04	0.0001	0.0002
IL	Montgomery	N-032	NXIL-007	480056S	UNION	3.28	0.56	0.01	0.07	0.0002	0.0004
IL	Piatt	N-033	NXIL-002	479967Y	MACON	3.94	0.68	0.02	0.08	0.0003	0.0005
IL	Vermilion	N-033	NXIL-001	479870C	STATE	4.02	0.69	0.02	0.08	0.0003	0.0005
IL	Vermilion	N-045	NXIL-003	479854T	VOORHEES	8.86	1.52	0.04	0.18	0.0007	0.0010
IL	Vermilion	N-045	NXIL-004	479856G	BOWMAN	6.57	1.13	0.03	0.13	0.0005	0.0008
IL	Vermilion	N-045	NXIL-005	479862K	MAIN	24.39	4.19	0.10	0.49	0.0018	0.0028
IL	Vermilion	N-045	NXIL-006	479863S	S ST.	7.70	1.32	0.03	0.16	0.0006	0.0009
IN	Allen	C-022	CXIN-028	532855T	THOMAS ROAD	0.95	0.16	0.004	0.02	0.0001	0.0001
IN	Allen	N-041	NXIN-009	478196U	MAYSVILLE RD	2.53	0.44	0.01	0.05	0.0002	0.0003
IN	Allen	N-041	NXIN-008	478226J	ANTHONY BLVD	20.46	3.52	0.08	0.41	0.0015	0.0023
IN	Allen	N-043	NXIN-011	478013Y	ANTHONY BLVD.	3.90	0.67	0.02	0.08	0.0003	0.0004
IN	Allen	N-044	NXIN-013	478240E	ENGLE ROAD	16.18	2.78	0.07	0.33	0.0012	0.0019
IN	Allen	N-044	NXIN-014	478241L	ARMORE AVE	14.82	2.55	0.06	0.30	0.0011	0.0017
IN	Allen	N-044	NXIN-201	478210M	LANDIN	7.79	1.34	0.03	0.16	0.0006	0.0009
IN	Carroll	N-046	NXIN-020	484265N	MAIN ST	7.81	1.34	0.03	0.16	0.0006	0.0009
IN	De Kalb	C-066	CXIN-001	155320E	SOUTH WAYNE	7.99	1.37	0.03	0.16	0.0006	0.0009
IN	De Kalb	C-066	CXIN-003	155330K	RANDOLPH	29.16	5.01	0.12	0.59	0.0022	0.0033
IN	De Kalb	C-066	CXIN-002	533177P	SEVENTH ST	143.34	24.64	0.59	2.89	0.0108	0.0164
IN	Delaware	N-040	NXIN-001	474550K	KILGORE	16.51	2.84	0.07	0.33	0.0012	0.0019
IN	Delaware	N-040	NXIN-002	474552Y	WHITERIVER BLVD.	4.65	0.79	0.02	0.09	0.0003	0.0005
IN	Delaware	N-040	NXIN-003	474553F	NICKOLS	4.90	0.84	0.02	0.10	0.0004	0.0006
IN	Delaware	N-040	NXIN-004	474565A	TILLOTSON	14.95	2.57	0.06	0.30	0.0011	0.0017
IN	Delaware	N-040	NXIN-005	474566G	JACKSON ST.	3.48	0.60	0.01	0.07	0.0003	0.0004
IN	Gibson	C-025	CXIN-027	342475L	BROADWAY	13.39	2.30	0.05	0.27	0.0010	0.0015
IN	Huntington	N-044	NXIN-015	478266G	BROADWAY	4.65	0.80	0.02	0.09	0.0004	0.0005

Attachment E-9

Appendix E Air Quality

Emissions Increases for At-Grade Roadway Crossings >5,000 Vehicles/Day System-Wide

State	County	Railroad Segment	Crossing ID	FRA ID	Street Name	Vehicle Delay Change*	Estimated Change in Emissions (tons/yr)				
							CO @ 427.2 g/hr	NOx @ 10.2 g/hr	HC @ 50.1 g/hr	PM @ 0.188 g/hr	SOx @ 0.285 g/hr
IN	Huntington	N-044	NXIN-012	478270W	BRIANT ST	3.23	0.55	0.01	0.07	0.0002	0.0004
IN	Huntington	N-044	NXIN-016	478273S	JEFFERSON ST	14.58	2.51	0.06	0.29	0.0011	0.0017
IN	Huntington	N-044	NXIN-017	478274Y	LAFONTAIN ST	5.48	0.94	0.02	0.11	0.0004	0.0006
IN	Lake	C-023	CXIN-022	163620N	SHEFFIELD AVENUE	9.66	1.66	0.04	0.19	0.0007	0.0011
IN	Lake	C-023	CXIN-021	163621V	HOHMAN AVENUE	12.28	2.11	0.05	0.25	0.0009	0.0014
IN	Lake	C-023	CXIN-020	163627L	CALUMET AVE	21.63	3.72	0.09	0.44	0.0016	0.0025
IN	Lake	C-023	CXIN-019	163632H	COLUMBIA AVE	17.78	3.06	0.07	0.36	0.0013	0.0020
IN	Lake	C-023	CXIN-018	163635D	INDIANAPOLIS & SR20	15.89	2.73	0.07	0.32	0.0012	0.0018
IN	Lake	C-023	CXIN-017	163637S	RAILROAD AVE	8.07	1.39	0.03	0.16	0.0006	0.0009
IN	Lake	C-023	CXIN-016	163638Y	KENNEDY	7.87	1.35	0.03	0.16	0.0006	0.0009
IN	Lake	C-023	CXIN-015	163639F	EUCLID AVENUE	8.07	1.39	0.03	0.16	0.0006	0.0009
IN	Lake	C-023	CXIN-014	163643V	STATE ROUTE 12	17.53	3.01	0.07	0.35	0.0013	0.0020
IN	Lake	C-024	CXIN-033	522912C	5TH AVE	51.17	8.80	0.21	1.03	0.0039	0.0059
IN	Lake	C-024	CXIN-034	522915X	CLARKE RD	1.46	0.25	0.01	0.03	0.0001	0.0002
IN	Lake	C-026	CXIN-031	522883U	ILLINOIS ST	2.84	0.49	0.01	0.06	0.0002	0.0003
IN	Lake	C-026	CXIN-032	522897C	BROADWAY	59.92	10.30	0.25	1.21	0.0045	0.0069
IN	Lake	C-027	CXIN-012	155532M	COUNTYLINE RD.	4.22	0.72	0.02	0.08	0.0003	0.0005
IN	Lake	C-027	CXIN-013	155645N	CLARK RD.	4.05	0.70	0.02	0.08	0.0003	0.0005
IN	Lake	N-042	NXIN-010	522929F	CALUMET AVE	2.96	0.51	0.01	0.06	0.0002	0.0003
IN	Madison	N-040	NXIN-006	474600L	S. R. 9	29.97	5.15	0.12	0.60	0.0023	0.0034
IN	Madison	N-040	NXIN-007	474601T	HARRISON ST.	9.62	1.65	0.04	0.19	0.0007	0.0011
IN	Porter	C-026	CXIN-029	522867K	WASHINGTON ST	5.86	1.01	0.02	0.12	0.0004	0.0007
IN	Porter	C-026	CXIN-030	522869Y	NAPOLÉON ST	1.78	0.31	0.01	0.04	0.0001	0.0002
IN	Porter	C-066	CXIN-009	155623N	CROCKER	5.85	1.01	0.02	0.12	0.0004	0.0007
IN	Porter	C-066	CXIN-010	155628X	WILLOW CREEK RD	22.71	3.90	0.09	0.46	0.0017	0.0026
IN	St. Joseph	C-066	CXIN-008	155478S	LIBERTY-MICHIGAN	5.00	0.86	0.02	0.10	0.0004	0.0006
IN	Tippecanoe	N-045	NXIN-030	484295F	FERRY ST	11.63	2.00	0.05	0.23	0.0009	0.0013
IN	Tippecanoe	N-045	NXIN-026	484296M	MAIN ST	15.14	2.60	0.06	0.31	0.0011	0.0017
IN	Tippecanoe	N-045	NXIN-027	484298B	COLUMBIA ST	17.33	2.98	0.07	0.35	0.0013	0.0020
IN	Tippecanoe	N-045	NXIN-028	484300A	SOUTH ST & S.R. 26	15.71	2.70	0.06	0.32	0.0012	0.0018
IN	Tippecanoe	N-045	NXIN-029	484301G	9TH ST	16.09	2.77	0.07	0.32	0.0012	0.0018
IN	Tippecanoe	N-045	NXIN-025	484309L	4TH ST U.S. 231	27.11	4.66	0.11	0.55	0.0021	0.0031
IN	Tippecanoe	N-046	NXIN-321	484290W	UNDERWOOD ST	12.76	2.19	0.05	0.26	0.0010	0.0015
IN	Tippecanoe	N-046	NXIN-022	484292K	18TH	12.43	2.14	0.05	0.25	0.0009	0.0014
IN	Tippecanoe	N-046	NXIN-023	484293S	17TH & SALEM ST.	13.68	2.35	0.06	0.28	0.0010	0.0016
IN	Tippecanoe	N-046	NXIN-024	484294Y	UNION ST	25.78	4.43	0.11	0.52	0.0020	0.0030
IN	Vanderburgh	C-025	CXIN-023	342846U	W. MARYLAND ST	8.12	1.40	0.03	0.16	0.0006	0.0009
IN	Vanderburgh	C-025	CXIN-024	342848H	W. FRANKLIN ST	22.11	3.94	0.09	0.46	0.0017	0.0026
IN	Vanderburgh	C-025	CXIN-025	342850J	OHIO ST	12.40	2.13	0.05	0.25	0.0009	0.0014
IN	Wabash	N-044	NXIN-018	478292W	DAVIS ST	3.27	0.56	0.01	0.07	0.0002	0.0004
IN	Wabash	N-044	NXIN-019	478305V	WABASH ST	10.99	1.89	0.05	0.22	0.0008	0.0013
KY	Christian	C-021	CXKY-001	345254U	SKYLINE DRIVE	5.14	0.88	0.02	0.10	0.0014	0.0006
KY	Christian	C-021	CXKY-003	345267V	E 9TH STREET	49.67	8.54	0.20	1.00	0.0038	0.0057
KY	Henderson	C-021	CXKY-007	345400X	WASHINGTON ST	4.86	0.83	0.02	0.10	0.0004	0.0006

Attachment E-9

Appendix E: Air Quality

Emissions Increases for At-Grade Roadway Crossings >5,000 Vehicles/Day System-Wide

State	County	Railroad Segment	Crossing ID	FRA ID	Street Name	Vehicle Delay Change*	Estimated Change in Emissions (tons/yr)				
							CO @ 427.2 g/hr	NOx @ 10.2 g/hr	HC @ 50.1 g/hr	PM @ 0.188 g/hr	SOx @ 0.285 g/hr
KY	Hopkins	C-021	CXKY-004	345320E	W. MAIN STREET	8.99	1.55	0.04	0.18	0.0007	0.0010
KY	Hopkins	C-021	CXKY-005	345331S	W. NOEL AVE	23.52	4.04	0.10	0.47	0.0018	0.0027
MD	Baltimore	C-032	CXMD-010	140239X	HOLLINS FERRY RD	29.68	5.10	0.12	0.60	0.0022	0.0034
MD	Baltimore City	C-032	CXMD-009	140867D	BUSH STREET	2.45	0.42	0.01	0.05	0.0002	0.0003
MD	Montgomery	C-003	CXMD-001	140488D	FOREST GLEN RD	6.17	1.06	0.03	0.12	0.0005	0.0007
MD	Montgomery	C-003	CXMD-002	140507F	S SUMMIT AVE	2.92	0.50	0.01	0.06	0.0002	0.0003
MD	Montgomery	C-003	CXMD-003	140509U	CHESTNUT ST.	4.08	0.70	0.02	0.08	0.0003	0.0005
MD	Montgomery	C-003	CXMD-201	140494G	Randolph	31.44	5.40	0.13	0.63	0.0024	0.0036
MD	Prince George's	C-030	CXMD-004	140253T	DECATUR ST	8.22	1.41	0.03	0.17	0.0006	0.0009
MD	Prince George's	C-030	CXMD-005	140254A	BALTIMORE AVE	27.70	4.76	0.11	0.56	0.0021	0.0032
MD	Prince George's	C-030	CXMD-006	140257V	UPSHUR ST	5.73	0.99	0.02	0.12	0.0004	0.0007
MD	Prince George's	C-030	CXMD-007	140258C	ANNAPOLIS RD	33.45	5.75	0.14	0.67	0.0025	0.0038
MD	Prince George's	C-030	CXMD-008	140263Y	52ND AVE	10.87	1.87	0.04	0.22	0.0008	0.0012
MD	Prince George's	C-034	CXMD-011	140899J	SUNNYSIDE AVE	0.96	0.17	0.004	0.02	0.0001	0.0001
MD	Prince George's	C-034	CXMD-012	140905K	QUEENSBURY RD	1.17	0.20	0.005	0.02	0.0001	0.0001
MI	Calhoun	N-120	NXMI-101	545389C	MICHIGAN AVE	5.59	0.96	0.02	0.11	0.0004	0.0006
MI	Calhoun	N-120	NXMI-103	545405J	20TH ST.	5.09	0.88	0.02	0.10	0.0004	0.0006
MI	Calhoun	N-120	NXMI-107	545407X	HELMER ROAD	2.59	0.44	0.01	0.05	0.0002	0.0003
MI	Jackson	N-120	NXMI-104	545284N	MILWAUKEE ST	5.92	1.02	0.02	0.12	0.0004	0.0007
MI	Jackson	N-120	NXMI-105	545285V	MICHIGAN AVE	8.95	1.54	0.04	0.18	0.0007	0.0010
MI	Jackson	N-120	NXMI-106	545286C	COOPER ST (M-106)	2.26	0.39	0.01	0.05	0.0002	0.0003
MI	Jackson	N-120	NXMI-107	545289X	BLACKSTONE ST	2.34	0.40	0.01	0.05	0.0002	0.0003
MI	Jackson	N-120	NXMI-108	545290S	STEWART AVE	1.77	0.30	0.01	0.04	0.0001	0.0002
MI	Jackson	N-120	NXMI-109	545292F	N. WISNER ST	4.40	0.76	0.02	0.09	0.0003	0.0005
MI	Jackson	N-120	NXMI-110	545293M	WILDWOOD ST	1.79	0.31	0.01	0.04	0.0001	0.0002
MI	Jackson	N-120	NXMI-111	545294U	ROBINSON RD	2.43	0.42	0.01	0.05	0.0002	0.0003
MI	Jackson	N-121	NXMI-112	545281T	S. ELM AVE	3.77	0.65	0.02	0.08	0.0003	0.0004
MI	Jackson	N-121	NXMI-113	545276W	FIFTH ST.	1.82	0.31	0.01	0.04	0.0001	0.0002
MI	Kalamazo	N-120	NXMI-201	545426C	BURGES	1.24	0.21	0.01	0.03	0.0001	0.0001
MI	Kalamazo	N-120	NXMI-202	545472D	OLIVER ST	2.33	0.40	0.01	0.05	0.0002	0.0003
MI	Kalamazo	N-120	NXMI-203	545470P	MICHIGAN	8.09	1.39	0.03	0.16	0.0006	0.0009
MI	Kalamazo	N-120	NXMI-204	545462X	PARK ST	9.17	1.58	0.04	0.18	0.0007	0.0011
MI	Kalamazoo	N-120	NXMI-114	545418K	M-96/DICKMAN RD	1.08	0.19	0.004	0.02	0.0001	0.0001
MI	Kalamazoo	N-120	NXMI-115	545450D	MICHIGAN AVE	0.91	0.16	0.004	0.02	0.0001	0.0001
MI	Kalamazoo	N-120	NXMI-116	545454F	HARRISON ST	2.53	0.43	0.01	0.05	0.0002	0.0003
MI	Monroe	C-040	CXMI-001	232148X	STEWART RD	10.41	1.79	0.04	0.21	0.0008	0.0012
MI	Monroe	C-040	CXMI-002	232147R	ELM	8.98	1.54	0.04	0.18	0.0007	0.0010
MI	Monroe	C-040	CXMI-003	232146J	FRONT ST	33.88	5.82	0.14	0.68	0.0026	0.0039
MI	Monroe	C-040	CXMI-004	232140T	DUNBAR RD.	7.66	1.32	0.03	0.15	0.0006	0.0009
MI	Monroe	C-040	CXMI-005	232129T	LAKWOOD-LUNAPIER	7.94	1.36	0.03	0.16	0.0006	0.0009
MI	Washtenaw	N-121	NXMI-117	545212K	DIXBORO RD	2.50	0.43	0.01	0.05	0.0002	0.0003
MI	Washtenaw	N-121	NXMI-118	545215F	GEDDES RD	4.10	0.71	0.02	0.08	0.0003	0.0005
MI	Washtenaw	N-121	NXMI-119	545241V	M-52	7.36	1.27	0.03	0.15	0.0006	0.0008
MI	Washtenaw	N-121	NXMI-120	545209C	LEFORGE ST	4.76	0.82	0.02	0.10	0.0004	0.0005

Attachment E-9

Appendix E Air Quality

Emissions Increases for At-Grade Roadway Crossings >5,000 Vehicles/Day System-Wide

State	County	Railroad Segment	Crossing ID	FRA ID	Street Name	Vehicle Delay Change*	Estimated Change in Emissions (tons/yr)				
							CO @ 427.2 g/hr	NOx @ 10.2 g/hr	HC @ 50.1 g/hr	PM @ 0.188 g/hr	SOx @ 0.285 g/hr
MI	Washtenaw	N-121	NXMI-121	545207N	FORREST ST	4.17	0.72	0.02	0.08	0.0003	0.0005
MI	Washtenaw	N-121	NXMI-122	545206G	CROSS ST	3.36	0.58	0.01	0.07	0.0003	0.0004
MI	Wayne	N-121	NXMI-123	545176S	GULLEY RD	2.36	0.41	0.01	0.05	0.0002	0.0003
MI	Wayne	N-121	NXMI-124	545169G	MONROE ST	1.19	0.20	0.005	0.02	0.0001	0.0001
MI	Wayne	N-121	NXMI-125	511945J	CENTRAL	23.56	4.05	0.10	0.47	0.0018	0.0027
MI	Wayne	N-121	NXMI-126	512363H	LONYO	23.73	4.08	0.10	0.48	0.0018	0.0027
MI	Wayne	N-121	NXMI-127	545178F	JOHN DALY RD	2.49	0.43	0.01	0.05	0.0002	0.0003
MI	Wayne	N-121	NXMI-128	545182V	HENRY RUFF RD	2.73	0.47	0.01	0.06	0.0002	0.0003
MI	Wayne	N-121	NXMI-129	545184J	MERRIMAN RD	3.80	0.65	0.02	0.08	0.0003	0.0004
MI	Wayne	N-121	NXMI-130	545186X	VENOY AVE	1.69	0.29	0.01	0.03	0.0001	0.0002
MI	Wayne	N-121	NXMI-131	545187E	HOWE AVE	1.55	0.27	0.01	0.03	0.0001	0.0002
MI	Wayne	N-121	NXMI-132	545193H	HAGGERTY RD	1.42	0.24	0.01	0.03	0.0001	0.0002
MI	Wayne	N-121	NXMI-133	545191U	HANNAN RD.	1.54	0.23	0.01	0.03	0.0001	0.0002
NY	Albany	C-054	CXNY-002	508705Y	COOKS CROSSING	6.42	1.10	0.03	0.13	0.0005	0.0007
NY	Chautauqua	N-070	NXNY-001	471755T	NEWELL ROAD	7.66	1.32	0.03	0.15	0.0006	0.0009
NY	Chautauqua	N-070	NXNY-002	471766F	LAMPHERE STREET	7.74	1.33	0.03	0.16	0.0006	0.0009
NY	Chautauqua	N-070		471755T	NEWELL ROAD	8.97	1.54	0.04	0.18	0.0007	0.0010
NY	Chautauqua	N-070		519965X	LAMPHERE ROAD	61.66	10.60	0.25	1.24	0.0047	0.0071
NY	Erie	C-051	CXNY-001	520067S	SHELDON AVE	1.86	0.32	0.01	0.04	0.0001	0.0002
NY	Erie	N-070	NXNY-003	471711T	LAKE AVENUE	3.47	0.60	0.01	0.07	0.0003	0.0004
NY	Wyoming	N-065		264619Y	MAIN STREET	0.33	0.06	0.001	0.01	0.0000	0.0000
OH	Allen	C-062	CXOH-019	532707Y	N. JACKSON ST	4.69	0.81	0.02	0.09	0.0004	0.0005
OH	Allen	C-062	CXOH-020	532710G	MAIN ST.	5.67	0.97	0.02	0.11	0.0004	0.0006
OH	Allen	C-062	CXOH-021	532714J	N. METCALF ST.	4.48	0.77	0.02	0.09	0.0003	0.0005
OH	Allen	C-062	CXOH-022	532719T	COLE ST	8.02	1.38	0.03	0.16	0.0006	0.0009
OH	Allen	C-062	CXOH-023	532720M	CABLE ROAD	11.61	1.99	0.05	0.23	0.0009	0.0013
OH	Allen	C-062	CXOH-024	532722B	EASTTOWN ROAD	1.68	0.29	0.01	0.03	0.0001	0.0002
OH	Ashtabula	C-060	CXOH-001	523885L	BROADWAY AVE	2.28	0.39	0.01	0.05	0.0002	0.0003
OH	Ashtabula	N-070	NXOH-001	471972T	LAKE STREET	2.45	0.42	0.01	0.05	0.0002	0.0003
OH	Ashtabula	N-070	NXOH-002	471982Y	MAIN AVENUE	3.75	0.64	0.02	0.08	0.0003	0.0004
OH	Ashtabula	N-075	NXOH-003	471989W	WEST AVENUE	9.22	1.59	0.04	0.19	0.0007	0.0011
OH	Ashtabula	N-075	NXOH-004	472008G	BROADWAY AVENUE	4.91	0.84	0.02	0.10	0.0004	0.0006
OH	Butler	C-063	CXOH-039	152382S	MUHLHAUSER	2.17	0.37	0.01	0.04	0.0002	0.0002
OH	Butler	C-063	CXOH-040	152389P	SYMMES RD	1.88	0.32	0.01	0.04	0.0001	0.0002
OH	Butler	C-063	CXOH-041	152392X	LAUREL ST	2.63	0.45	0.01	0.05	0.0002	0.0003
OH	Butler	C-063	CXOH-042	152394L	CENTRAL	2.20	0.38	0.01	0.04	0.0002	0.0003
OH	Butler	C-063	CXOH-201	152407K	VINE STREET	7.15	1.23	0.03	0.14	0.0005	0.0008
OH	Butler	N-078	NXOH-017	524698G	TYLERSVILLE RD	3.37	0.58	0.01	0.07	0.0003	0.0004
OH	Butler	N-078	NXOH-018	524677N	CENTRAL	4.63	0.80	0.02	0.09	0.0004	0.0005
OH	Butler	N-078	NXOH-019	524678V	FIRST ST	3.80	0.65	0.02	0.08	0.0003	0.0004
OH	Crawford	C-062	CXOH-016	532583H	N SANDUSKY AVE	8.06	1.39	0.03	0.16	0.0006	0.0009
OH	Crawford	C-062	CXOH-017	532588S	MANSFIELD ST	6.80	1.17	0.03	0.14	0.0005	0.0008
OH	Crawford	C-067	CXOH-048	518443W	MAIN ST	18.46	3.17	0.08	0.37	0.0014	0.0021
OH	Crawford	N-073	NXOH-033	481561P	HOPLEY	3.19	0.55	0.01	0.06	0.0002	0.0004

Attachment E-9

Appendix E: Air Quality

Emissions Increases for At-Grade Roadway Crossings >5,000 Vehicles/Day System-Wide

State	County	Railroad Segment	Crossing ID	FRA ID	Street Name	Vehicle Delay Change*	Estimated Change in Emissions (tons/yr)				
							CO @ 427.2 g/hr	NOx @ 10.2 g/hr	HC @ 50.1 g/hr	PM @ 0.188 g/hr	SOx @ 0.285 g/hr
OH	Cuyahoga	C-061	CXOH-010	524363S	BAGLEY RD	16.86	2.90	0.07	0.34	0.0013	0.0019
OH	Cuyahoga	C-061	CXOH-011	524367U	COLUMBIA RD	11.67	2.01	0.05	0.24	0.0009	0.0013
OH	Cuyahoga	C-074	CXOH-051	523971H	HUMMEL ROAD	21.46	3.69	0.09	0.43	0.0016	0.0025
OH	Cuyahoga	C-074	CXOH-052	523973W	ENGLE ROAD	61.42	10.56	0.25	1.24	0.0046	0.0070
OH	Cuyahoga	N-075	NXOH-005	472098H	LONDON ROAD	5.70	0.98	0.02	0.11	0.0004	0.0007
OH	Cuyahoga	N-075	NXOH-006	472093Y	DILLE ROAD	13.24	2.28	0.05	0.27	0.0010	0.0015
OH	Cuyahoga	N-080	NXOH-042	472187A	WEST 110 STREET	7.61	1.31	0.03	0.15	0.0006	0.0009
OH	Cuyahoga	N-080	NXOH-043	472192W	WEST 117 STREET	20.89	3.59	0.09	0.42	0.0016	0.0024
OH	Cuyahoga	N-080	NXOH-044	472201T	BUNTS RD	6.64	1.14	0.03	0.13	0.0005	0.0008
OH	Cuyahoga	N-080	NXOH-045	472245T	COLUMBIA ROAD	9.93	1.71	0.04	0.20	0.0008	0.0011
OH	Cuyahoga	N-080	NXOH-046	472248N	DOVER CENTER ROAD	6.02	1.03	0.02	0.12	0.0005	0.0007
OH	Cuyahoga	N-080	NXOH-047	472252D	BRADLEY ROAD	4.25	0.73	0.02	0.09	0.0003	0.0005
OH	Defiance	C-066	CXOH-027	142356A	OTTAWA AVE	15.10	2.59	0.06	0.30	0.0011	0.0017
OH	Defiance	C-066	CXOH-028	142375E		4.97	0.85	0.02	0.10	0.0004	0.0006
OH	Erie	N-072	NXOH-053	472308G	WATER STREET	2.70	0.46	0.01	0.05	0.0002	0.0003
OH	Erie	N-072	NXOH-054	472308V	STATE STREET	3.06	0.53	0.01	0.06	0.0002	0.0004
OH	Erie	N-085	NXOH-101	481668S	SR 101 TIFFIN	15.15	2.60	0.06	0.31	0.0011	0.0017
OH	Franklin	N-073	NXOH-036	481472X	LINCOLN	5.00	0.86	0.02	0.10	0.0004	0.0006
OH	Franklin	N-073	NXOH-037	481467B	WEBER	7.79	1.34	0.03	0.16	0.0006	0.0009
OH	Franklin	N-073	NXOH-201	481470J	COOK	6.10	1.05	0.03	0.12	0.0005	0.0007
OH	Hamilton	C-063	CXOH-029	152346W	WINTON ROAD	89.07	15.31	0.37	1.80	0.0067	0.0102
OH	Hamilton	C-063	CXOH-030	152347D	MITCHELL AVE	69.25	11.90	0.28	1.40	0.0052	0.0079
OH	Hamilton	C-063	CXOH-031	152355V	TOWNSHIP AVE	10.03	1.72	0.04	0.20	0.0008	0.0011
OH	Hamilton	C-063	CXOH-032	152356C	SEYMOUR	2.50	0.43	0.01	0.05	0.0002	0.0003
OH	Hamilton	C-063	CXOH-033	152357J	NORTHBEND	2.41	0.41	0.01	0.05	0.0002	0.0003
OH	Hamilton	C-063	CXOH-034	152368W	WYOMING AVE	2.79	0.48	0.01	0.06	0.0002	0.0003
OH	Hamilton	C-063	CXOH-035	152370X	MARION RD	2.36	0.41	0.01	0.05	0.0002	0.0003
OH	Hamilton	C-063	CXOH-036	152376N	SHARON RD	5.77	0.99	0.02	0.12	0.0004	0.0007
OH	Hamilton	C-063	CXOH-037	152380D	PRINCETON PIKE	11.69	2.01	0.05	0.24	0.0009	0.0013
OH	Hamilton	C-063	CXOH-038	152381K	CRESENTVILLE RD	3.14	0.54	0.01	0.06	0.0002	0.0004
OH	Hamilton	N-076	NXOH-055	524743Y	VINE ST	-0.89	-0.15	-0.004	-0.02	-0.0001	-0.0001
OH	Hamilton	N-076	NXOH-056	524746U	BEECH ST	-1.39	-0.24	-0.01	-0.03	-0.0001	-0.0002
OH	Hamilton	N-078	NXOH-020	524719X	SMALLEY RD	3.20	0.55	0.01	0.06	0.0002	0.0004
OH	Hamilton	N-078	NXOH-021	524707D	HAUCK ROAD	1.86	0.32	0.01	0.04	0.0001	0.0002
OH	Hamilton	N-078	NXOH-022	524712A	KEMPER RD	1.79	0.31	0.01	0.04	0.0001	0.0002
OH	Hamilton	N-078	NXOH-023	524713G	READING RD	3.53	0.61	0.01	0.07	0.0003	0.0004
OH	Hamilton	N-078	NXOH-102	524740D	TOWNSHIP AVE	2.34	0.40	0.01	0.05	0.0002	0.0003
OH	Hamilton	N-078	NXOH-103	524722F	WYOMING ST	3.03	0.52	0.01	0.06	0.0002	0.0003
OH	Hamilton	N-078	NXOH-104	524742S	MURRAY ST	1.65	0.28	0.01	0.03	0.0001	0.0002
OH	Hardin	C-062	CXOH-018	532679X	MAIN ST	3.86	0.66	0.02	0.08	0.0003	0.0004
OH	Huron	C-067	CXOH-107	518481F	MAIN ST	5.87	1.01	0.02	0.12	0.0004	0.0007
OH	Lake	C-060	CXOH-002	523829E	LAKE ST SR 528	3.52	0.61	0.01	0.07	0.0003	0.0004
OH	Lake	C-060	CXOH-003	523803C	HOPKINS RD	3.54	0.61	0.01	0.07	0.0003	0.0004
OH	Lake	C-060	CXOH-004	523801N	REYNOLDS RD	9.21	1.58	0.04	0.19	0.0007	0.0011

Attachment E-9
Emissions Increases for At-Grade Roadway Crossings >5,000 Vehicles/Day System-Wide

State	County	Railroad Segment	Crossing ID	FRA ID	Street Name	Vehicle Delay Change*	Estimated Change in Emissions (tons/yr)				
							CO @ 427.2 g/hr	NOx @ 10.2 g/hr	HC @ 50.1 g/hr	PM @ 0.188 g/hr	SOx @ 0.285 g/hr
OH	Lake	C-060	CXOH-005	523800G	PELTON RD	2.08	0.36	0.01	0.04	0.0002	0.0002
OH	Lake	C-060	CXOH-006	523793Y	ERIE ST	3.27	0.56	0.01	0.07	0.0002	0.0004
OH	Lake	C-060	CXOH-007	523791K	BEIDLER RD-E361ST	1.99	0.34	0.01	0.04	0.0002	0.0002
OH	Lake	C-060	CXOH-008	523789J	E. 305TH ST	4.78	0.82	0.02	0.10	0.0004	0.0005
OH	Lake	C-060	CXOH-009	523787V	LLOYD RD	2.85	0.49	0.01	0.06	0.0002	0.0003
OH	Lake	N-075	NXOH-007	472017F	LAKE STREET	6.15	1.06	0.03	0.12	0.0005	0.0007
OH	Lake	N-075	NXOH-008	472039F	LIBERTY ST	8.64	1.49	0.04	0.17	0.0007	0.0010
OH	Lake	N-075	NXOH-009	472040A	CHESTNUT STREET	6.53	1.12	0.03	0.13	0.0005	0.0007
OH	Lake	N-075	NXOH-010	472044C	MENTOR AVENUE	13.77	2.37	0.06	0.28	0.0010	0.0016
OH	Lake	N-075	NXOH-011	472045J	JACKSON STREET	3.32	0.57	0.01	0.07	0.0003	0.0004
OH	Lake	N-075	NXOH-012	472046R	HEISLEY ROAD	4.16	0.71	0.02	0.08	0.0003	0.0005
OH	Lake	N-075	NXOH-013	472048E	HOPKINS ROAD	3.49	0.60	0.01	0.07	0.0003	0.0004
OH	Lake	N-075	NXOH-014	472056W	ERIE STREET	5.95	1.02	0.02	0.12	0.0004	0.0007
OH	Lake	N-075	NXOH-015	472064N	RUSH ROAD	3.71	0.64	0.02	0.07	0.0003	0.0004
OH	Lake	N-075	NXOH-016	472068R	LLOYD ROAD	8.39	1.44	0.03	0.17	0.0006	0.0010
OH	Lorain	C-061	CXOH-012	518535J	TWNSBRG-ELYRIA RD	9.40	1.62	0.04	0.19	0.0007	0.0011
OH	Lorain	C-061	CXOH-013	518530A	MAIN ST	16.34	2.81	0.07	0.33	0.0012	0.0019
OH	Lorain	C-061	CXOH-014	518510N	NO. MAIN ST	13.41	2.31	0.06	0.27	0.0010	0.0015
OH	Lorain	C-061	CXOH-015	518509U	HERRICK AVE.	12.91	2.22	0.05	0.26	0.0010	0.0015
OH	Lorain	N-080	NXOH-048	472258U	AVON CENTER ROAD	5.16	0.89	0.02	0.10	0.0004	0.0006
OH	Lorain	N-080	NXOH-049	472269G	MILLER ROAD	3.77	0.65	0.02	0.08	0.0003	0.0004
OH	Lorain	N-080	NXOH-050	472286X	COLORADO AVENUE	8.05	1.38	0.03	0.16	0.0006	0.0009
OH	Lorain	N-080	NXOH-051	472292B	OBERLIN AVENUE	16.24	2.79	0.07	0.33	0.0012	0.0019
OH	Lorain	N-080	NXOH-052	472293H	LEAVITT ROAD	8.07	1.39	0.03	0.16	0.0006	0.0009
OH	Lucas	C-040	CXOH-026	232121N	DIXIE (DETROIT)	4.09	0.70	0.02	0.08	0.0003	0.0005
OH	Lucas	N-077	NXOH-063	509436M	OAKDALE AVE	0.96	0.16	0.00	0.02	0.0001	0.0001
OH	Mahoning	C-081	CXOH-050	141681T	BRIDGE ST	4.03	0.69	0.02	0.08	0.0003	0.0005
OH	Mahoning	N-082	NXOH-057	544716G	HUBBARD RD	12.15	2.09	0.05	0.24	0.0009	0.0014
OH	Marion	C-071	CXOH-049	518415T	CENTER ST	8.20	1.41	0.03	0.17	0.0006	0.0009
OH	Marion	N-073	NXOH-034	481538V	SILVER	4.63	0.80	0.02	0.09	0.0004	0.0005
OH	Marion	N-073	NXOH-035	481541D	N. MAIN SR 4	3.13	0.54	0.01	0.06	0.0002	0.0004
OH	Marion	N-073	NXOH-038	481530R	BARKS	4.13	0.71	0.02	0.08	0.0003	0.0005
OH	Marion	N-073	NXOH-039	481531X	PROSPECT	5.40	0.93	0.02	0.11	0.0004	0.0006
OH	Marion	N-073	NXOH-040	481532E	BELLEFONTAINE	9.91	1.70	0.04	0.20	0.0007	0.0011
OH	Marion	N-073	NXOH-041	481536G	CENTER	5.68	0.98	0.02	0.11	0.0004	0.0007
OH	Montgomery	N-078	NXOH-024	524622B	WASHINGTON ST	1.91	0.33	0.01	0.04	0.0001	0.0002
OH	Montgomery	N-078	NXOH-025	524628S	W STEWARD AVE	1.87	0.32	0.01	0.04	0.0001	0.0002
OH	Montgomery	N-078	NXOH-026	524638X	SELLARS	2.81	0.48	0.01	0.06	0.0002	0.0003
OH	Montgomery	N-078	NXOH-027	524641F	ALEX BELL RD	2.94	0.51	0.01	0.06	0.0002	0.0003
OH	Montgomery	N-078	NXOH-028	524644B	ALEX RD	2.89	0.50	0.01	0.06	0.0002	0.0003
OH	Montgomery	N-078	NXOH-029	524645H	ELM ST	1.28	0.22	0.01	0.03	0.0001	0.0001
OH	Montgomery	N-078	NXOH-030	524654G	CENTRAL	3.30	0.57	0.01	0.07	0.0002	0.0004
OH	Montgomery	N-078	NXOH-031	524657C	LINDEN AVE	1.33	0.23	0.01	0.03	0.0001	0.0002
OH	Ottawa	N-079	NXOH-058	473754T	WATER ST	9.37	1.61	0.04	0.19	0.0007	0.0011

Attachment E-9
Emissions Increases for At-Grade Roadway Crossings >5,000 Vehicles/Day System-Wide

State	County	Railroad Segment	Crossing ID	FRA ID	Street Name	Vehicle Delay Change*	Estimated Change in Emissions (tons/yr)				
							CO @ 427.2 g/hr	NOx @ 10.2 g/hr	HC @ 50.1 g/hr	PM @ 0.188 g/hr	SOx @ 0.285 g/hr
OH	Richland	C-067	CXOH-045	518458L	NO. GAMBLE	5.59	0.96	0.02	0.11	0.0004	0.0006
OH	Richland	C-067	CXOH-047	518456X	MAIN ST	6.56	1.13	0.03	0.13	0.0005	0.0008
OH	Sandusky	N-079	NXOH-05J	473668W	KILBOURNE	30.27	5.20	0.12	0.61	0.0023	0.0035
OH	Sandusky	N-079	NXOH-060	473687B	MAIN ST.	8.93	1.53	0.04	0.18	0.0007	0.0010
OH	Sandusky	N-079	NXOH-061	473711A	STATE	43.73	7.52	0.18	0.88	0.0033	0.0050
OH	Stark	N-084	NXOH-105	503008V	PATTERSON	-0.42	-0.07	-0.002	-0.01	-0.00003	-0.00005
OH	Summit	N-084	NXOH-106	503541T	STOW RD	-0.20	-0.04	-0.001	0.00	-0.00002	-0.00002
OH	Van Wert	C-062	CXOH-025	532779C	WASHINGTON	6.14	1.06	0.03	0.12	0.0005	0.0007
OH	Warren	N-078	NXOH-032	524665U	CARLISLE	1.35	0.23	0.01	0.03	0.0001	0.0002
OH	Wood	C-065	CXOH-043	155821J	BOUNDARY (WEST)	26.15	4.49	0.11	0.53	0.0020	0.0030
OH	Wood	C-065	CXOH-044	155823X	INDIANA ST.	11.09	1.91	0.05	0.22	0.0008	0.0013
OH	Wood	C-065	CXOH-045	155829N	LOUISIANA	13.55	2.33	0.06	0.27	0.0010	0.0016
OH	Wood	N-077	NXOH-062	509855K	DROUILLARD	0.91	0.16	0.00	0.02	0.0001	0.0001
OH	Wyandot	C-070	CXOH-053	228752H	LINCOLNWAY WEST	3.98	0.68	0.02	0.08	0.0003	0.0005
PA	Allegheny	C-082	CXPA-011	145707G	BRIDGE ST	6.23	1.07	0.03	0.13	0.0005	0.0007
PA	Allegheny	C-082	CXPA-012	145708N	BUTLER ST	62.47	10.74	0.26	1.26	0.0047	0.0072
PA	Allegheny	C-082	CXPA-014	145722J	SAMPLES RD	4.60	0.79	0.02	0.09	0.0003	0.0005
PA	Berks	N-094	NXPA-101	592237G	COLUMBIA AVENUE	-0.20	-0.03	-0.001	-0.004	-0.00002	-0.00002
PA	Cumberland	N-091	NXPA-001	592204U	SLATE HILL	2.82	0.48	0.01	0.06	0.0002	0.0003
PA	Cumberland	N-091	NXPA-002	592199A	TENTH ST	3.10	0.53	0.01	0.06	0.0002	0.0004
PA	Cumberland	N-091	NXPA-201	592200S	18TH ST	4.21	0.72	0.02	0.08	0.0003	0.0005
PA	Dauphin	N-094	NXPA-102	592369S	DERRY ROAD	-0.15	-0.03	-0.001	-0.003	-0.00001	-0.00002
PA	Delaware	C-084	CXPA-002	140641S	MAIN STREET	2.22	0.38	0.01	0.04	0.0002	0.0003
PA	Delaware	C-084	CXPA-003	140646B	OAK LANE	5.91	1.02	0.02	0.12	0.0004	0.0007
PA	Delaware	C-084	CXPA-004	140647H	ASHLAND AVE	1.84	0.32	0.01	0.04	0.0001	0.0002
PA	Delaware	C-084	CXPA-005	140649W	SOUTH AVE	6.21	1.07	0.03	0.13	0.0005	0.0007
PA	Delaware	C-084	CXPA-006	140650R	AMOSLAND AVE	4.22	0.73	0.02	0.09	0.0003	0.0005
PA	Delaware	C-084	CXPA-007	140652E	SWARTHMORE AVE	13.64	2.34	0.06	0.27	0.0010	0.0016
PA	Delaware	C-084	CXPA-008	140654T	FAIRVIEW ROAD	3.40	0.58	0.01	0.07	0.0003	0.0004
PA	Delaware	C-084	CXPA-009	140670C	MEETINGHOUSE ROAD	2.62	0.45	0.01	0.05	0.0002	0.0003
PA	Delaware	C-084	CXPA-010	140672R	NAAMANS ROAD	2.16	0.37	0.01	0.04	0.0002	0.0002
PA	Erie	N-070	NXPA-003	471893G	ASH STREET	3.98	0.68	0.02	0.08	0.0003	0.0005
PA	Erie	N-070	NXPA-004	471894N	PARADE STREET	11.98	2.06	0.05	0.24	0.0009	0.0014
PA	Erie	N-070	NXPA-005	471901W	PEACH STREET	34.57	5.94	0.14	0.70	0.0026	0.0040
PA	Erie	N-070	NXPA-006	471902D	SASSAFRAS STREET	40.34	6.93	0.17	0.81	0.0031	0.0046
PA	Erie	N-070	NXPA-007	471906F	CHERRY STREET	31.68	5.45	0.13	0.64	0.0024	0.0036
PA	Erie	N-070	NXPA-008	471908U	LIBERTY STREET	62.68	10.77	0.26	1.26	0.0047	0.0072
PA	Erie	N-070	NXPA-009	471911C	RASPBERRY STREET	16.74	2.88	0.07	0.34	0.0013	0.0019
PA	Erie	N-070	NXPA-010	471913R	GREEN GARDEN ROAD	3.80	0.65	0.02	0.08	0.0003	0.0004
PA	Erie	N-070	NXPA-011	471915E	PITTSBURG ROAD	3.26	0.56	0.01	0.07	0.0002	0.0004
PA	Lawrence	N-082	NXPA-103	503738U	MONTGOMERY	3.85	0.66	0.02	0.08	0.0003	0.0004
PA	Lebanon	N-094	NXPA-104	592338T	FRONT ST-LINCOLN	-0.85	-0.15	0.00	-0.02	-0.0001	-0.0001
PA	Lebanon	N-094	NXPA-105	592341B	SEVENTH STREET	-0.60	-0.14	0.00	-0.02	-0.0001	-0.0001
PA	Lebanon	N-094	NXPA-106	592365P	RAILROAD STREET	-0.21	-0.04	0.00	0.00	0.0000	0.0000

Attachment E-9

Appendix E Air Quality

Emissions Increases for At-Grade Roadway Crossings >5,000 Vehicles/Day System-Wide

State	County	Railroad Segment	Crossing ID	FRA ID	Street Name	Vehicle Delay Change*	Estimated Change in Emissions (tons/yr)				
							CO @ 427.2 g/hr	NOx @ 10.2 g/hr	HC @ 50.1 g/hr	PM @ 0.188 g/hr	SOx @ 0.285 g/hr
PA	Westmoreland	C-033	CXPA-001	145480R	MAIN ST.	7.14	1.23	0.03	0.14	0.0005	0.0008
TN	Davidson	C-090	CXTN-002	350207W	CRAIGHEAD	5.28	0.91	0.02	0.11	0.0004	0.0006
TN	Davidson	C-090	CXTN-003	350208D	BERRY RD	4.03	0.69	0.02	0.08	0.0003	0.0005
TN	Davidson	C-090		348016L	SEVENTEENTH AVE N	30.33	5.21	0.12	0.61	0.0023	0.0035
TN	Davidson	C-090		348019G	CLIFTON	30.33	5.21	0.12	0.61	0.0023	0.0035
TN	Davidson	C-090		348027Y	DAVIDSON RD	4.73	0.81	0.02	0.10	0.0004	0.0005
TN	Davidson	C-090		349218M	THOMPSON LANE	11.46	1.97	0.05	0.23	0.0009	0.0013
TN	Davidson	C-090		349226E	UNA-ANTIOCH	3.92	0.67	0.02	0.03	0.0003	0.0004
TN	Robertson	C-021	CXTN-005	348124H	MAIN ST	4.12	0.71	0.02	0.08	0.0003	0.0005
TN	Sumner	C-021		343794H	WEST EASTLAND AVE	6.01	1.03	0.02	0.12	0.0005	0.0007
TN	Sumner	C-021		343795P	RED RIVER RD	17.29	2.97	0.07	0.35	0.0013	0.0020
TN	Sumner	C-021		343796W		2.48	0.43	0.01	0.05	0.0002	0.0003
TN	Sumner	C-021		343809V	OLD SHACKLE IS RD	10.04	1.73	0.04	0.20	0.0008	0.0012
VA	Augusta	N-100	NXVA-002	468135B		2.23	0.38	0.01	0.04	0.0002	0.0003
VA	Chesterfield	C-103	CXVA-007	623681B	CENTRALIA RD	0.84	0.14	0.003	0.02	0.0001	0.0001
VA	Chesterfield	C-103	CXVA-201	623687S	WALTHALL RD	1.04	0.18	0.004	0.02	0.0001	0.0001
VA	Clarke	N-091	NXVA-003	468599F	NA	2.85	0.45	0.01	0.06	0.0002	0.0003
VA	Emporia City	C-103	CXVA-008	623755R	E ATLANTIC STREET	1.95	0.34	0.01	0.04	0.0001	0.0002
VA	Hanover	C-102	CXVA-003	860459F	ENGLAND STREET	2.38	0.41	0.01	0.05	0.0002	0.0003
VA	Henrico	C-102	CXVA-002	860437F	HUNGARY ROAD	1.72	0.30	0.01	0.03	0.0001	0.0002
VA	Page	N-100	NXVA-001	468699K	EAST MAIN ST.	3.21	0.55	0.01	0.06	0.0002	0.0004
VA	Richmond City	C-103	CXVA-004	623663D	JAHNKE RD	1.94	0.33	0.01	0.04	0.0001	0.0002
VA	Richmond City	C-103	CXVA-005	623668M	BROAD ROCK RD	2.82	0.48	0.01	0.06	0.0002	0.0003
VA	Richmond City	C-103	CXVA-006	623672C	WALMSLEY BLVD	2.47	0.42	0.01	0.05	0.0002	0.0003
VA	Richmond City	C-103	CXVA	623635A	HOPKINS RD	10.34	1.78	0.04	0.21	0.0008	0.0012
WV	Fayette	N-110	NXWV-003	517268E	US 60 & US 21	1.41	0.24	0.01	0.03	0.0001	0.0002
WV	Jefferson	C-110		140587B	FLOWING SPRING RD	1.49	0.26	0.01	0.03	0.0001	0.0002
WV	Jefferson	C-110		140590J	FIFTH AVE.	12.98	2.23	0.05	0.26	0.0010	0.0015
WV	Jefferson	C-110		140594L	GEORGE ST	15.63	2.69	0.06	0.32	0.0012	0.0018
WV	Jefferson	N-091	NXWV-001	469361D	NA	4.18	0.72	0.02	0.08	0.0003	0.0005
WV	Jefferson	N-091	NXWV-002	469363S	MILDRED ST.	43.87	7.53	0.18	0.88	0.0033	0.0050

Attachment E-10

**Emissions for All Affected At-Grade Roadway Crossings
in Cuyahoga County, Ohio**

Attachment E-10

Emissions for All Affected At-Grade Roadway Crossings in Cuyahoga County, Ohio

ADT >= 5000 and Number of Trains >= 3														
Railroad Segment	Crossing ID	FRA ID	City Name	Street Name	Railroad Operator	Average Daily Traffic	Number of Trains	Total Vehicle Delay	CO	NOx	HC	PM	SOx	Pb
N-080	NXOH-47	472252D	BAY VILLAGE	BRADLEY ROAD	NS	5,670	20.6	3.56	0.01	0.01	0.07	0.0003	0.0004	0
N-080	NXOH-46	472248N	BAY VILLAGE	DOVER CENTER ROAD	NS	7,630	20.6	4.79	0.02	0.02	0.10	0.0004	0.0005	0
N-080	NXOH-45	472245T	BAY VILLAGE	COLUMBIA ROAD	NS	11,320	20.6	7.11	0.03	0.03	0.14	0.0005	0.0008	0
N-080	NXOH-44	472201T	LAKEWOOD	BUNTS RD	NS	5,300	20.6	6.52	0.03	0.03	0.13	0.0005	0.0007	0
N-080	NXOH-43	472192W	CLEVELAND	WEST 117 STREET	NS	15,610	20.6	19.21	0.08	0.08	0.39	0.0015	0.0022	0
N-080	NXOH-42	472187A	CLEVELAND	WEST 110 STREET	NS	5,970	20.6	7.35	0.03	0.03	0.15	0.0006	0.0008	0
C-074	CXOH-52	523973W	CLEVELAND	ENGLE ROAD	CSX	15,100	33.9	41.90	0.17	0.17	0.84	0.0032	0.0048	0
C-074	CXOH-51	523971H	BROOK PARK	HUMMEL ROAD	CSX	5,560	33.9	12.29	0.05	0.05	0.25	0.0009	0.0014	0
C-061	CXOH-11	524367U	OLMSTED FALLS	CC COLUMBIA RD	CSX	7,240	39.7	11.47	0.05	0.05	0.23	0.0009	0.0013	0
C-061	CXOH-10	524363S	BEREA	BAGLEY RD.	CSX	10,950	39.7	17.35	0.07	0.07	0.35	0.0013	0.0020	0
N-074		523948N	CLEVELAND	CANAL ROAD	NS	6,290	17.2	18.90	0.08	0.08	0.38	0.0014	0.0022	0
								TOTAL	25.86	0.62	3.03	0.0114	0.0173	0
Nonthreshold														
Railroad Segment	Crossing ID	FRA ID	City Name	Street Name	Railroad Operator	Average Daily Traffic	Number of Trains	Total Vehicle Delay	CO	NOx	HC	PM	SOx	Pb
N-074		141949N	CLEVELAND	W 14TH ST	NS	12,160	0.5	0.36	0.06	0.00	0.01	0.0000	0.0000	0
N-081		262404T	CLEVELAND	E 37TH STREET	NS	1,040	-40.5	-1.68	-0.29	-0.01	-0.03	-0.0001	-0.0002	0
N-081		262413S	CLEVELAND	E 65TH STREET	NS	960	20.6	1.18	0.20	0.00	0.02	0.0001	0.0001	0
N-292		262416M	CLEVELAND	AETNA ROAD	NS	960	20.6	1.18	0.20	0.00	0.02	0.0001	0.0001	0
N-292		262417U	CLEVELAND	E 91ST STREET	NS	900	20.6	1.11	0.19	0.00	0.02	0.0001	0.0001	0
N-292		262418B	CLEVELAND	E 93RD STREET	NS	770	20.6	0.95	0.16	0.00	0.02	0.0001	0.0001	0
N-292		262420C	CLEVELAND	E 116TH STREET	NS	520	-40.5	-0.84	-0.14	0.00	-0.02	-0.0001	-0.0001	0
N-292		262421J	CLEVELAND	E 123RD STREET	NS	750	20.6	0.92	0.16	0.00	0.02	0.0001	0.0001	0
N-292		262422R	CLEVELAND	E 131ST STREET	NS	705	2.2	0.27	0.05	0.00	0.01	0.0000	0.0000	0
N-292		262423X	CLEVELAND	MILES ROAD	NS	720	20.6	0.89	0.15	0.00	0.02	0.0001	0.0001	0
N-292		262424E	CLEVELAND	E 146TH STREET	NS	8,480	0.5	1.48	0.25	0.01	0.03	0.0001	0.0002	0
N-292		262425L	CLEVELAND	E 156TH STREET	NS	700	20.6	0.86	0.15	0.00	0.02	0.0001	0.0001	0
N-292		262427A	CLEVELAND	LEE ROAD	NS	670	20.6	0.82	0.14	0.00	0.02	0.0001	0.0001	0
N-292		262436Y	OLON	HARPER ROAD	NS	630	2.2	0.24	0.04	0.00	0.00	0.0000	0.0000	0
N-292		262437F	OLON	OLON ROAD	NS	500	2.2	0.38	0.07	0.00	0.01	0.0000	0.0000	0
N-292		262439U	OLON	LIBERTY ROAD	NS	600	2.2	0.23	0.04	0.00	0.00	0.0000	0.0000	0
N-080		472188G	CLEVELAND	WEST 111 STREET	NS	3,580	0.5	0.11	0.02	0.00	0.00	0.0000	0.0000	0
N-080		472189N	CLEVELAND	WEST 112 ST	NS	3,500	17.2	6.61	0.14	0.03	0.13	0.0005	0.0008	0
N-080		472190H	CLEVELAND	WEST 114 STREET	NS	3,490	2.2	1.34	0.23	0.01	0.03	0.0001	0.0002	0
N-080		472191P	CLEVELAND	WEST 116 STREET	NS	3,110	20.6	1.95	0.34	0.01	0.04	0.0001	0.0002	0
N-080		472194K	LAKEWOOD	H'RD AVE	NS	3,060	20.6	22.02	0.39	0.09	0.44	0.0017	0.0025	0
N-080		472195S	LAKEWOOD	FRY	NS	1,120	20.6	1.38	0.24	0.01	0.03	0.0001	0.0002	0
N-080		472196Y	LAKEWOOD	BEACH AVENUE	NS	3,000	20.6	3.69	0.63	0.02	0.07	0.0003	0.0004	0
N-080		472197F	LAKEWOOD	COVE AVENUE	NS	2,920	20.6	3.59	0.62	0.01	0.07	0.0003	0.0004	0

Attachment E-10
Emissions for All Affected At-Grade Roadway Crossings in Cuyahoga County, Ohio

Appendix E Air Quality

Railroad Segment	Crossing ID	FRA ID	City Name	Street Name	Railroad Operator	Average	Number of Trains	Total Vehicle Delay	Post-Merger Annual Emissions Changes in tons/yr					
						Daily Traffic			CO	NOx	HC	PM	SOx	Pb
N-080		472198M	LAKEWOOD	THOREAU AVENUE	NS	2,840	0.5	0.50	0.09	0.00	0.01	0.0000	0.0001	0
N-080		472199U	LAKEWOOD	NICHOLSON AVENUE	NS	2,680	17.2	2.22	0.38	0.01	0.04	0.0002	0.0003	0
N-080		472200L	LAKEWOOD	GIEL AVENUE	NS	2,570	20.6	3.16	0.54	0.01	0.06	0.0002	0.0004	0
N-080		472202A	LAKEWOOD	MANOR PARK	NS	2,560	17.2	2.12	0.36	0.01	0.04	0.0002	0.0002	0
N-080		472203G	LAKEWOOD	MARLOWE AVENUE	NS	2,560	0.5	0.45	0.08	0.00	0.01	0.0000	0.0001	0
N-080		472204N	LAKEWOOD	BELLE AVENUE	NS	2,440	20.6	3.00	0.52	0.01	0.06	0.0002	0.0003	0
N-080		472205V	LAKEWOOD	ST CHARLES AVENUE	NS	2,420	2.2	0.32	0.05	0.00	0.01	0.0000	0.0000	0
N-080		472206C	LAKEWOOD	WARREN ROAD	NS	2,350	20.6	2.89	0.50	0.01	0.06	0.0002	0.0003	0
N-080		472207J	LAKEWOOD	COOK AVENUE	NS	2,340	20.6	2.32	0.40	0.01	0.05	0.0002	0.0003	0
N-080		472208R	LAKEWOOD	GLADYS AVENUE	NS	2,180	20.6	2.68	0.46	0.01	0.05	0.0002	0.0003	0
N-080		472209X	LAKEWOOD	ANDREWS AVENUE	NS	2,090	20.6	2.57	0.44	0.01	0.05	0.0002	0.0003	0
N-080		472210S	LAKEWOOD	LAKELAND AVENUE	NS	1,990	20.6	2.45	0.42	0.01	0.05	0.0002	0.0003	0
N-080		472212F	LAKEWOOD	BROCKLEY AVENUE	NS	1,930	20.6	2.37	0.41	0.01	0.05	0.0002	0.0003	0
N-080		472213M	LAKEWOOD	CRANFORD AVENUE	NS	1,880	20.6	2.31	0.40	0.01	0.05	0.0002	0.0003	0
N-080		472214U	LAKEWOOD	WESTLAKE AVE	NS	1,880	2.2	0.72	0.12	0.00	0.01	0.0001	0.0001	0
N-080		472215B	LAKEWOOD	HALL AVENUE	NS	1,810	-40.5	-2.93	-0.50	-0.01	-0.06	-0.0002	-0.0003	0
N-080		472216H	LAKEWOOD	ETHEL AVENUE	NS	1,790	-40.5	-2.89	-0.50	-0.01	-0.06	-0.0002	-0.0003	0
N-080		472217P	LAKEWOOD	EDWARDS AVENUE	NS	4,080	20.6	5.02	0.86	0.02	0.10	0.0004	0.0006	0
N-080		472218W	LAKEWOOD	BONNIEVIEW AVENUE	NS	1,740	0.5	0.30	0.05	0.00	0.01	0.0000	0.0000	0
N-080		472219D	LAKEWOOD	GRANGER AVENUE	NS	1,700	0.5	0.30	0.05	0.00	0.01	0.0000	0.0000	0
N-080		472230D	LAKEWOOD	WEBB ROAD	NS	1,520	20.6	1.87	0.32	0.01	0.04	0.0001	0.0002	0
N-080		472237B	ROCKY RIVER	LINDA STREET	NS	1,460	20.6	1.80	0.31	0.01	0.04	0.0001	0.0002	0
N-080		472239P	ROCKY RIVER	MORRWOOD STREET	NS	1,380	20.6	1.70	0.29	0.01	0.03	0.0001	0.0002	0
N-080		472240J	ROCKY RIVER	WAGER ROAD	NS	4,030	20.6	4.96	0.85	0.02	0.10	0.0004	0.0006	0
N-080		472241R	ROCKY RIVER	ELMWOOD ROAD	NS	1,330	20.6	1.64	0.28	0.01	0.03	0.0001	0.0002	0
N-080		472249V	BAY VILLAGE	CAHOON ROAD	NS	1,200	17.2	3.60	0.62	0.01	0.07	0.0003	0.0004	0
N-080		472250P	BAY VILLAGE	BASSETT ROAD	NS	1,150	20.6	1.41	0.24	0.01	0.03	0.0001	0.0002	0
N-074		482674Y	CLEVELAND	MAHONING	NS	4,930	33.9	10.90	1.87	0.04	0.22	0.0008	0.0012	0
N-074		482684E	CLEVELAND	W. 56TH ST	NS	4,930	-15.5	-3.08	-0.53	-0.01	-0.06	-0.0002	-0.0004	0
N-074		482686T	CLEVELAND	W. 58TH ST	NS	4,740	2.2	1.82	0.31	0.01	0.04	0.0001	0.0002	0
N-074		482691P	CLEVELAND	RIDGE RD W 73RDST	NS	4,520	20.6	5.56	0.96	0.02	0.11	0.0004	0.0006	0
C-691		523745J	CLEVES	MARQUETTE	CSX	15,900	0.5	2.78	0.48	0.01	0.06	0.0002	0.0003	0
C-691		523746R	CLEVES	E. 49TH	CSX	14,900	2.2	5.73	0.98	0.02	0.12	0.0004	0.0007	0
C-691		523747X	CLEVELAND	EAST 40TH	CSX	12,370	-15.5	-9.24	-1.59	-0.04	-0.19	-0.0007	-0.0011	0
C-691		523748E	CLEVELAND	EAST 38TH	CSX	12,270	0.5	0.37	0.06	0.00	0.01	0.0000	0.0000	0
N-074		523759S	CLEVELAND	FRONT ST	NS	11,090	0.5	1.94	0.33	0.01	0.04	0.0001	0.0002	0
N-080		523766C	CLEVELAND	WEST 110TH	NS	4,340	33.9	9.59	1.65	0.04	0.19	0.0007	0.0011	0
N-293		523836P	OLMSTED F. LLS	COLUMBIA RD	NS	30	2.2	0.01	0.00	0.00	0.00	0.0000	0.0000	0
N-293		523936U	BROOK PARK	FIVE POINTS RD	NS	490	2.2	0.19	0.03	0.00	0.00	0.0000	0.0000	0
N-293		523937B	BROOK PARK	EASTLAND ROAD	NS	480	20.6	0.59	0.10	0.00	0.01	0.0000	0.0001	0
N-293		523940J	BEREA	SHELDON RD	NS	370	20.6	0.46	0.08	0.00	0.01	0.0000	0.0001	0
N-293		523941R	BEREA	FRONT ST.	NS	240	20.6	0.15	0.03	0.00	0.00	0.0000	0.0000	0
N-074		523945T	CLEVELAND	MAIN AVE.	NS	10,700	-15.5	-5.06	-0.87	-0.02	-0.10	-0.0004	-0.0006	0
N-074		523946A	CLEVELAND	ST. CLAIR AVE.	NS	8,190	0.5	0.24	0.04	0.00	0.00	0.0000	0.0000	0
N-074		523947G	CLEVELAND	SUPERIOR AVE	NS	7,690	-15.5	-7.12	-1.22	-0.03	-0.14	-0.0005	-0.0008	0
N-074		523955Y	CLEVELAND	WILLEY AVE.	NS	5,063	-15.5	-4.68	-0.81	-0.02	-0.09	-0.0004	-0.0005	0
C-074		523975K	CLEVELAND	HOLLAND ROAD	CSX	16,200	0.5	2.83	0.49	0.01	0.06	0.0002	0.0003	0

Attachment E-10
Emissions for All Affected At-Grade Roadway Crossings in Cuyahoga County, Ohio

Appendix E: Air Quality

Railroad Segment	Crossing ID	FRA ID	City Name	Street Name	Railroad Operator	Average	Number of Trains	Total	Post-Merger Annual Emissions Changes in tons/yr					
						Daily Traffic		Vehicle Delay	CO	NOx	HC	PM	SOx	Pb
C-074		523977Y	CLEVELAND	FRONT ST	CSX	17,720	0.5	1.55	0.27	0.01	0.03	0.0001	0.0002	0
N-081		524190E	CLEVELAND	EAST 26TH ST	NS	1,090	20.6	1.34	0.23	0.01	0.03	0.0001	0.0002	0
N-081		524223P	CLEVELAND	BESSEMER	NS	1,040	20.6	1.03	0.18	0.00	0.02	0.0001	0.0001	0
N-081		524226K	CLEVELAND	AETNA	NS	1,070	20.6	1.32	0.23	0.01	0.03	0.0001	0.0002	0
C-061	CXOH-10	524364Y	OLMSTED FALLS	WEST RD	CSX	1,480	39.7	2.35	0.40	0.01	0.05	0.0002	0.0003	0
C-061	CXOH-10	524368B	OLMSTED FALLS	SPRAGUE	CSX	996	39.7	1.58	0.27	0.01	0.03	0.0001	0.0002	0
								TOTAL	20.46	0.49	2.40	0.0090	0.0137	0

APPENDIX F

Noise

APPENDIX F NOISE

In June 1997, CSX Corporation (CSX) and Norfolk Southern Corporation (NS), together with Conrail Inc., filed a joint application with the Surface Transportation Board (Board) seeking authority for CSX and NS to acquire control of Conrail. As part of this Acquisition, CSX and NS would divide Conrail's assets between the two companies. The proposed Acquisition involves over 44,000 miles of rail lines and related facilities extending over a large portion of the eastern United States. CSX and NS have stated that the transaction would increase service capabilities, improve operating efficiency, and promote competition.

The proposed Acquisition would result in a rerouting of train traffic that would generate increases and decreases in traffic along some rail line segments and in some rail yards. The proposed diversion of highway truck shipments to the expanded CSX and NS systems could result in increased local truck traffic in and around intermodal facilities and a corresponding decrease in long-haul truck traffic. In addition, the rerouting and consolidation activities associated with the proposed Acquisition would involve some rail line abandonment and construction projects and expansion of some rail yards and intermodal facilities.

The Board's Section of Environmental Analysis (SEA) has prepared an Environmental Impact Statement (EIS) to evaluate potential impacts that may result from the proposed Acquisition. As part of the EIS preparation process, a multi-disciplinary team conducted a comprehensive analysis of impacts to safety, traffic and transportation, energy, air quality, noise, cultural resources, hazardous materials, natural resources, land use/socioeconomics, and environmental justice. This Appendix focuses on SEA's approach to the noise analysis. Specifically, SEA analyzed the changes in the noise environment resulting from proposed operational changes along rail line segments, rail yards, and intermodal facilities.

F.1 OVERVIEW

The following sections discuss the process by which SEA identified and evaluated potential noise effects. This includes a discussion of applicable Federal and state regulations for impact analysis, the screening process, the types of data collected, and the assumptions and criteria applied to the data to determine noise effects resulting from the proposed Acquisition.

F.2 REGULATIONS AND GUIDANCE FOR IMPACT ANALYSIS

The Board's regulations specify that noise analyses be conducted for all rail line segments where traffic will increase by at least 100 percent as measured by annual gross ton miles, 8 trains per day or more, or at least 100 percent increase in car load activity at rail yards. Increases in truck traffic of 50 trucks per day or 10 percent of the average daily traffic (ADT) require analysis at intermodal facilities. The regulations specify two thresholds for conducting noise analyses:

1. Activities which cause an incremental increase in noise levels of 3 decibels (dBA) L_{dn} or more.
2. Activities which cause an increase to a noise level of 65 dBA L_{dn} or greater. For areas where such an increase is expected to occur, the number of potentially affected sensitive receptors (e.g., schools, libraries, hospitals, residences, retirement communities, and nursing homes) are estimated.

F.3 SCREENING PROCESS

In practice, counting sensitive receptors within the 65 dBA L_{dn} noise contours for the pre- and post-Acquisition conditions is sufficient to satisfy the requirements of both noise thresholds (items 1 and 2). Accurate identification of noise effects associated with an increase of 3 decibels for areas exposed to less than 65 dBA L_{dn} is not practical. In theory, the area that would experience a 3 dB increase in noise level due to an increase in the number of trains would extend infinitely from the tracks. However, in reality, the ambient (the cumulative effect of all non-train sound sources) noise environment would limit the extent of this area at a distance from the tracks where the ambient noise level roughly matches the train noise level. For example, high ambient noise levels due to automobile traffic in an urban area could sufficiently mask train noise such that this distance would be relatively close to the tracks. In a quiet rural area, the distance from the tracks to a position where a 3 dB increase might still be measurable could be quite large. However, noise effects in areas where the L_{dn} is less than 65 decibels are generally not considered adverse by the scientific community and agencies such as the Federal Aviation Administration (FAA), United States Department of Housing and Urban Development (HUD), Environmental Protection Agency (EPA), and the American National Standards Institute (ANSI). Therefore, SEA decided that counting the number of noise sensitive receptors within the pre- and post-Acquisition 65 dBA L_{dn} noise contours is sufficient to satisfy the requirements of the noise thresholds.

SEA's approach was to analyze those areas where the projected increase in train volume or change in train mix would be expected to cause: (1) more than a marginal change in noise exposure, and (2) cause a significant increase in the number of noise sensitive receptors within the 65 L_{dn} contour. SEA did not perform a detailed analysis of areas with an increase in L_{dn} less than 2 dBA. SEA selected a 2 dBA threshold because:

1. SEA believes a plus or minus 2 dBA variation in L_{dn} near railroad facilities is common because of the normal variation in factors such as: operating condition; operating procedures; weather; time of day; and equipment maintenance.
2. SEA has found that in most urban areas, a 2 dBA increase in noise exposure would cause only a small change (approximately 10 percent) in the number of residences within the dBA L_{dn} 65 contour. This is because noise impacts from train operations tend to be localized to the receptors closest to the tracks. The acoustic shielding provided by the first row or two

of receptors is usually sufficient to keep noise exposure below L_{dn} 65 at residences that are farther away.

3. SEA selected a conservative screening level and considered a 2 dBA increase in noise exposure an insignificant change. SEA has used this threshold for previous studies.

F.4 DATA SOURCES AND TYPES

SEA conducted the noise impact assessment based on baseline train volumes provided by the railroads, projected post-Acquisition activity levels from the CSX and NS Operating Plans, noise models available in the literature, and noise measurements at existing Conrail, CSX, and NS facilities. SEA also used train noise measurement data provided by the Applicants in the Environmental Report (ER).

SEA obtained digital United States Geological Survey (USGS) maps, aerial photographs (to identify sensitive receptors), and other Geographic Information Systems (GIS) data from various sources. SEA used this mapping data to develop a computer-based GIS noise model as a tool for counting noise sensitive receptors within the 65 dBA noise contour.

F.5 ASSUMPTIONS, EVALUATION CRITERIA AND ANALYSIS

SEA's general analytic approach for the noise analysis was to identify noise sensitive land uses adjacent to rail lines, yard and intermodal facilities where the projected change in operations could result in noise exposure increases that meet or exceed Board thresholds. The basic evaluation criteria SEA used for this study was the number of noise-sensitive receptors (for example, schools, libraries, hospitals, residences, retirement communities, and nursing homes) within the 65 dBA L_{dn} noise contours of rail lines or facilities where activity exceeds Board threshold for analysis.

The Day-Night Average Noise Level (L_{dn})

The Day-Night Average Noise Level, abbreviated L_{dn} , represents an energy average of the A-weighted noise levels occurring during a complete 24-hour period. Experience has shown that an increase in L_{dn} of 3 dBA could result from a 100 percent increase in train traffic, a substantial change in operating conditions, changed equipment, or a shift of daytime operations to the nighttime hours. Nighttime noise often dominates the L_{dn} because of a weighting factor added to nighttime noise to reflect the fact that most people are more sensitive to nighttime noise. In calculating the L_{dn} , the nighttime adjustment makes one event, such as a freight train passby occurring between 10:00 p.m. and 7:00 a.m., equivalent to 10 of the same event during the daytime hours.

SEA previously found that six or more trains per day are typically required to cause an L_{dn} of 65 dBA at a typical separation distance of 150 feet from the rail line to residences. SEA also found that the L_{dn} can exceed 65 dBA at distances greater than 300 feet from the tracks when near an

STB

FD

33388

12-12-97

K

28629V5A

8/11

highway/rail at-grade crossing where horns are sounded at full volume six trains per day, without considering any shielding.

F.5.1 Overview of the Applicants' Noise Analysis Methods¹

The Applicants evaluated operational changes on rail line segments and at rail yards and intermodal facilities for corresponding noise effects as summarized in the following sections. The Applicants' noise analysis documented in the Environmental Report included the following steps: 1) development of noise models; 2) projection of existing and future noise exposure; and 3) counts of noise sensitive receptors. The details of these steps and the Applicants' conclusions are provided in the Environmental Report Noise Methodology pages B-1 through B-39.

Applicants' Baseline Noise Data Collection for Rail Line Segments

The Applicants first collected noise measurements of existing Conrail, CSX, and NS equipment, which provided the basis for noise predictions. The Applicants measured train noise from line-haul rail lines, and noise near highway/rail at-grade crossings to document noise levels due to a sounding train horn as the train approaches an at-grade crossing.

CSX measured noise from Conrail and CSX equipment in communities in Ohio. CSX primarily used automatic noise monitors to collect noise data; however, CSX also made recordings and videotapes which provided data used for detailed laboratory analysis of train passby noise. CSX analyzed data collected from train passbys over a four-day period, both day and night, at 13 different sites along five different rail lines. Daytime data included: sound level time history; audio and video recordings; measurement of train speed; and number of locomotives and cars. CSX gathered nighttime data using automatic noise monitors programmed to obtain data on all significant noise events. The analysis showed there was no real correlation between train type and noise levels due to many factors such as rail car and track age and maintenance, variation in wheel conditions, and variations in the locomotive throttle settings. Train noise at highway/rail at-grade crossings is dominated by horn noise, which typically drops off about 5-7 dBA at 1,200 feet from the crossing. The data collected by the Applicants for CSX and Conrail equipment are provided in Tables N-2, N-3, N-4, and N-5, and Figure N-1 of the Environmental Report Noise Methodology.

NS measured NS train noise in China Grove, NC over a four-day period. NS measured noise levels at different distances from the centerline of the track to determine the wavefront spreading rate, or rate of noise reduction versus distance. The details of the data gathered for NS equipment and NS's conclusions are provided in Tables N-6, N-7, N-8, and N-9 of the Environmental Report.

¹ The Applicants' noise analysis method may be found in "Environmental Report Part I—*Railroad Control Application Overview and Description of the Proposed Action*," CSX, Norfolk Southern, Conrail, Volume 6A, June 1997.

Applicants' Noise Evaluation of Rail Line Segments

The Applicants' noise project on models quantified train noise using mathematical formulas for train noise as a function of numerous factors including: distance from the tracks; train speed; number of daytime and nighttime trains; and the noise emissions of the locomotives, rail cars, and train horns. The formulas represent common acoustic models used to characterize freight train noise. The Applicants derived noise emissions from the measurement data described in the ER table references listed above and summarized in Table N-10 of the Environmental Report Noise Methodology.

The Applicants developed railroad-specific noise projections because of the differences in measured noise levels, typical train speed, and typical train length for Conrail, CSX, and NS. The Applicants based these noise projections on reference Sound Exposure Level (SEL) values. The SEL values can be used to calculate the L_{dn} and represent all of the sound energy of a noise event as if the event occurred in exactly one second. Table F-1 presents these SEL values.

Table F-1
Reference Sound Exposure Level Values (dBA)

Railroad	Wayside Noise ^a	Locomotive Horn Noise
Conrail	102	111
CSX	102	111
NS	98.4	108

^a Wayside noise refers to wheel/rail and locomotive noise. SEL values are referenced at 100 feet from the tracks and are adjusted to compensate for train speed and length. NS train speed is 35 mph; train length is 5,000 feet. Conrail and CSX train speed is 40 mph; train length is 6,200 feet.

Applicants' Noise Evaluation of Rail Lines

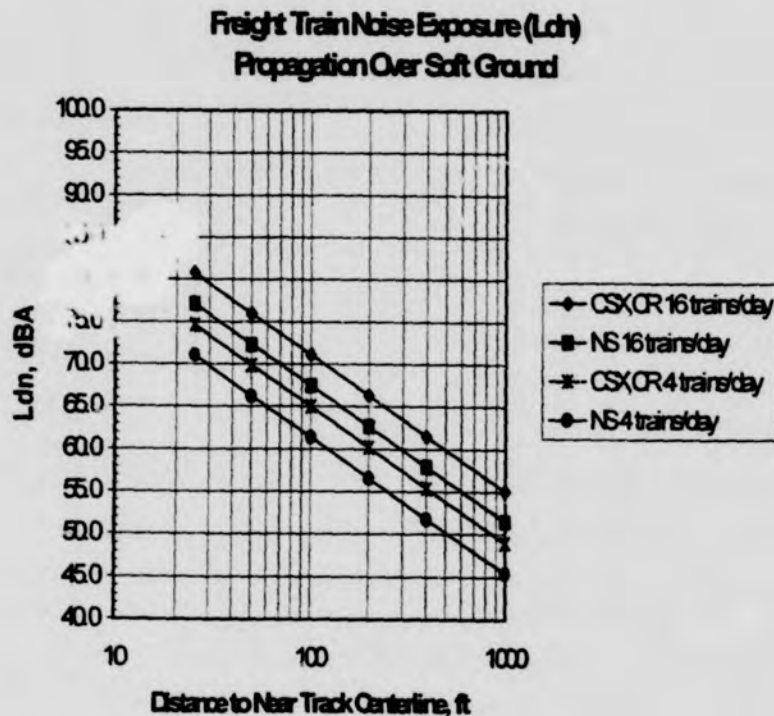
To conduct the noise propagation modeling, the Applicants assumed that there are two primary wayside noise sources for through trains: the first source is the steel wheels rolling on the steel rails, referred to as wheel/rail noise, which is dependent on train speed; locomotive noise, the other major source of train noise, is dependent on throttle setting. Wayside train noise refers collectively to non-horn train noise heard adjacent to the right-of-way. It typically consists of the sound of wheels on the rails, and the exhaust and engine noise from the locomotives.

Wayside noise levels primarily depend on train speed. Engine exhaust noise dominates at low speeds or when the train idles, but at moderate to higher speeds wheel-rail noise becomes the dominant noise source. Wind noise from a moving train is a significant factor only at speeds that are much faster than freight trains typically travel. The speeds at which a particular noise source

becomes predominant is determined by several factors, including equipment type, train size and "consist" (numbers of locomotives and cars), and wheel and rail type and condition.

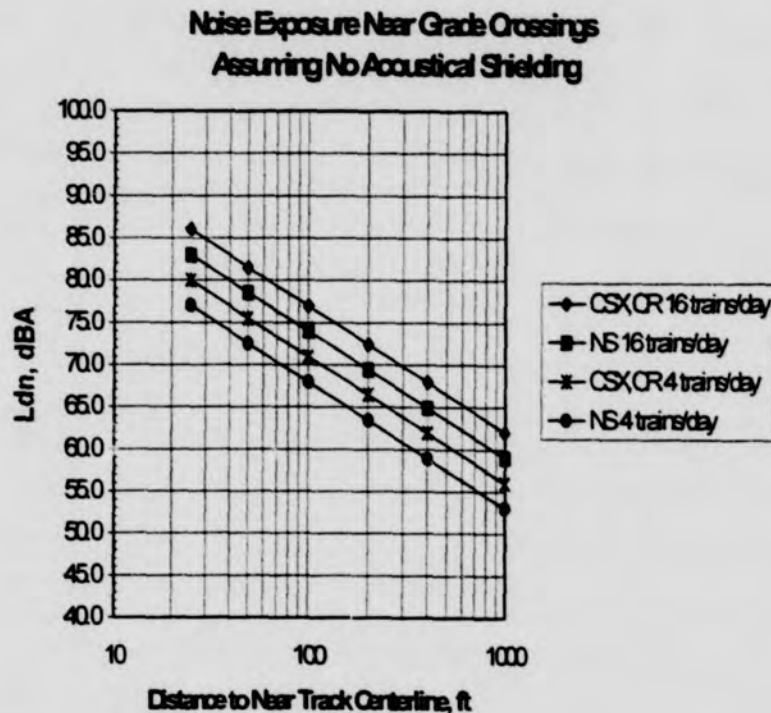
The Applicants used the basic equations in the Federal Transit Administration Manual, *Transit Noise and Vibration Impact Assessment*² and other references on train noise as the standard approach to predicting freight train noise levels. The Applicants used the ground attenuation model in the FTA manual for propagation of train noise over hard ground (paved urban areas). The assumptions and formulas used by the Applicants to project L_{dn} along rail line segments can be found on pages B-22 through B-24 of the ER. The Applicants determined that noise exposure at highway/rail at-grade crossings would likely be dominated by horn noise, and that this area is where the greatest noise impacts would likely occur. Figure F-1 compares wayside noise (locomotive and wheel/rail noise) and distance from the tracks, and Figure F-2 compares locomotive horn noise and distance from the tracks. The data represented in the graphs show that train noise decreases in direct relation to distance from the track.

Figure F-1
Wayside Noise Versus Distance from Track



² U.S. Department of Transportation, Federal Transit Administration, Report DOT-T-95-16, April 1995.

Figure F-2
Horn Noise Versus Distance from Track
Applicants' Noise Evaluation of Rail Yards and Intermodal Facilities



Potential sources of noise associated with rail yards and intermodal facilities include locomotives, freight handling equipment, rail cars, and trucks. The Applicants used a noise analysis approach similar to that used in evaluating rail line segments. The Applicants first determined whether the projected change in activity was likely to cause a 2 dBA or greater change in L_{dn} . If this 2 dBA L_{dn} threshold was not met, the Applicants did not perform additional noise analysis. The Applicants then determined if there were any noise sensitive receptors in the vicinity of the installation by reviewing maps and aerial photographs, and conducting site visits.

When feasible, the Applicants performed noise measurements to estimate the contributions from various yard noise sources to develop noise modeling information and to estimate ambient noise from non-rail sources such as highways and industrial facilities. The Applicants then estimated the number of sensitive receptors within the 65 dBA L_{dn} contour for pre- and post-Acquisition conditions. The Applicants developed sensitive receptor counts by using USGS maps, aerial photographs, and information from site visits.

The noise models used by the Applicants for rail yards and intermodal facilities are found in scientific literature and have been used in previous evaluations of rail yard and intermodal facility noise. Each model estimates noise from a specific source, such as switch engines and retarders, based on a reference noise level derived from previous measurements or from data available in EPA and DOT/FRA literature. Projections of rail yard noise included the following noise sources:

- Inbound and outbound road-haul and local train operations.
- Switch engine operations.
- Retarders.
- Car impacts.
- Idling locomotives and refrigeration cars.
- Locomotive engine load tests.
- Intermodal yard equipment.
- Trucks operating within intermodal facilities.

The equations used by the Applicants to calculate L_{dn} at a given location are provided on pages B-33 through B-39 of the Environmental Report, along with the modeling assumptions used for rail yard noise projections.

F.5.2 SEA Analysis Methods for Noise Effects

SEA performed noise analyses to verify the Applicants' noise analysis and to provide additional mitigation-related information. SEA verified the Applicants' noise models and measurements by comparing them with data from other recent similar studies. For example, SEA recently developed a substantial database of reference noise emission data for train horn soundings as part of the Union Pacific/Southern Pacific Merger (UPSP). SEA determined that the UPSP data is in reasonable agreement with noise measurement data collected by the Applicants for the proposed Conrail Acquisition.

SEA performed independent modeling using the Applicants' noise models and determined the number of noise sensitive receptors within the pre- and post-Acquisition 65 dBA L_{dn} noise contours for rail facilities that meet or exceed Board thresholds for noise analysis. Where SEA's receptor counts varied substantially from the Applicants' counts, SEA consulted with the Applicants to determine the cause of the difference. SEA found the causes of such differences in receptor counts include differences in base mapping and rail line segment end-points used by the Applicants and SEA. Once SEA determined the causes of differences, SEA updated the

noise analysis results to include new receptor counts. SEA verified and/or updated approximately 30 percent of the combined rail systems and facilities for which aerial photographs were available.

To enable verification and updating of the EIS analysis, SEA developed a Geographic Information System (GIS)-based noise model. In the GIS analysis, SEA included:

- All information geo-referenced (that is, with real-world coordinates).
- Digital aerial photographs for identification of sensitive receptors.
- Location of rail lines and highway/rail at-grade crossings.
- Automatic generation of noise contours in the vicinity of rail lines and highway/rail at-grade crossings.
- Automatic counts of receptors within noise contours.
- Identification of mitigation strategies.

F.5.3 Noise Mitigation Criteria

SEA considered mitigation for noise sensitive receptors exposed to at least 70 dBA L_{dn} and an increase of at least 5 dBA L_{dn} due to increased rail activity. For areas exposed to substantial noise levels not attributable to horns, SEA considered mitigation where reasonable and feasible.

F.6 NOISE MITIGATION

SEA considered potential strategies to mitigate noise from increased operations on rail lines and at rail yards and intermodal facilities as a result of the proposed Acquisition. Noise generated along rail line segments is primarily wheel/rail noise and locomotive horn noise near highway/rail at-grade crossings.

SEA considered the following mitigation strategies for locomotive horn noise and wayside noise (wheel/rail and diesel locomotive noise). Wayside noise mitigation, such as noise barriers, will be considered for areas exposed to substantial noise impacts which are not attributable to locomotive horns.

F.6.1 Highway/Rail At-Grade Crossing Noise

A variety of approaches are available for reducing noise near highway/rail at-grade crossings due to locomotive horns. However, SEA does not consider it feasible to implement these measures due to pending rules addressing use of locomotive horns near highway/rail at-grade crossings.

Existing regulations require that locomotive horns be used to warn motorists and pedestrians of approaching trains. It has been the Board's policy that safety considerations necessitating sounding of locomotive horns take precedence over the nuisance effects of such noise.

After seven counties and 12 cities in Florida issued ordinances prohibiting the sounding of train whistles at 511 crossings during nighttime hours, there was a dramatic increase in the number of crossing accidents.³ Recent Federal regulations require train horns to be sounded at all highway/rail at-grade crossings, thus placing a moratorium on so-called "train whistle bans" (Federal Railroad Administration Emergency Order No. 15).

Partially in response to these whistle ban issues, the Swift Rail Development Act of 1994 (Public Law 103-440, November 2, 1994) mandates the FRA to develop "Whistle Ban" regulations. If implemented, these will partially establish a list of acceptable supplemental safety measures permitting the railroads to use methods other than sounding the locomotive horn. Any supplementary safety measures which compensate for the absence of the locomotive horn would require concurrence of the responsible legal authority with regard to roadway safety at the highway/rail at-grade crossing in question, according to these regulations. This stipulation would essentially give the local municipality veto power over the safety measure to be used within its jurisdiction. Examples of such supplementary safety features include four-quadrant gates or median barriers that preclude motorists from entering the highway/rail at-grade crossing while the crossing arm is activated.

Many of the mitigation methods discussed in this section are being considered as part of the proposed FRA regulations. The Notice of Proposed Rule-Making is expected to be published during the first half of 1998.

Grade Separations. "Grade separation" refers to the roadway positioned over or under the railroad; that is, an overpass or underpass separating the roadway and railroad intersection to eliminate any highway/rail at-grade crossing.

Train horn and gate-crossing bell noise could be eliminated at highway/rail at-grade crossings where a grade separation is constructed. There may be some rumbling noise from bridge structures (depending on structure type), but it would typically be far less intrusive than the horn noise. The cost of constructing a grade separation is substantial (in the range of several million dollars). The exact cost depends on the type of structure required, topography, size of the span, and any necessary property acquisitions. Typical bridge inspection and maintenance costs would be required over the typical service life, which should exceed 50 years.

A grade separation would also eliminate safety concerns associated with highway/rail at-grade crossings. Despite cost, improved safety can be a compelling reason to consider this option, especially at high volume highway/rail at-grade crossings. In addition to reducing noise and

³ *National Wide Study of Train Whistle Bans*, Federal Railroad Administration, Office of Safety, April 1995.

accidents, grade separations also reduce vehicular traffic congestion at busy crossings, thereby minimizing vehicle delays, improving emergency vehicle response times, and minimizing air emissions caused by delayed vehicles.

Construction of a grade separation would be substantially more expensive than other noise mitigation options. Nevertheless, it would have noise reduction benefits. SEA does not consider grade separations to be cost-effective solely for noise mitigation. However, construction to alleviate traffic impacts and improve safety as well as mitigate noise impacts may be considered on a case-by-case basis. Grade separations must be a joint endeavor between the railroad and the governmental body which has jurisdiction over the intersecting roadway.

Local Grade Crossing Warning Devices. The FRA and the Union Pacific Railroad (UP) are assessing the viability of alternative local highway/rail at-grade crossing warning devices such as locating a horn or loudspeaker at the at-grade crossing. The benefit of such a device is a reduction of the area of noise impact within a community. Currently, train horns are sounded one-quarter mile from an at-grade crossing, exposing a larger area to noise impacts. Because the sole purpose of the horn is to warn motorists and others at the crossing, a device that restricts noise to only the immediate crossing area to be preferable.

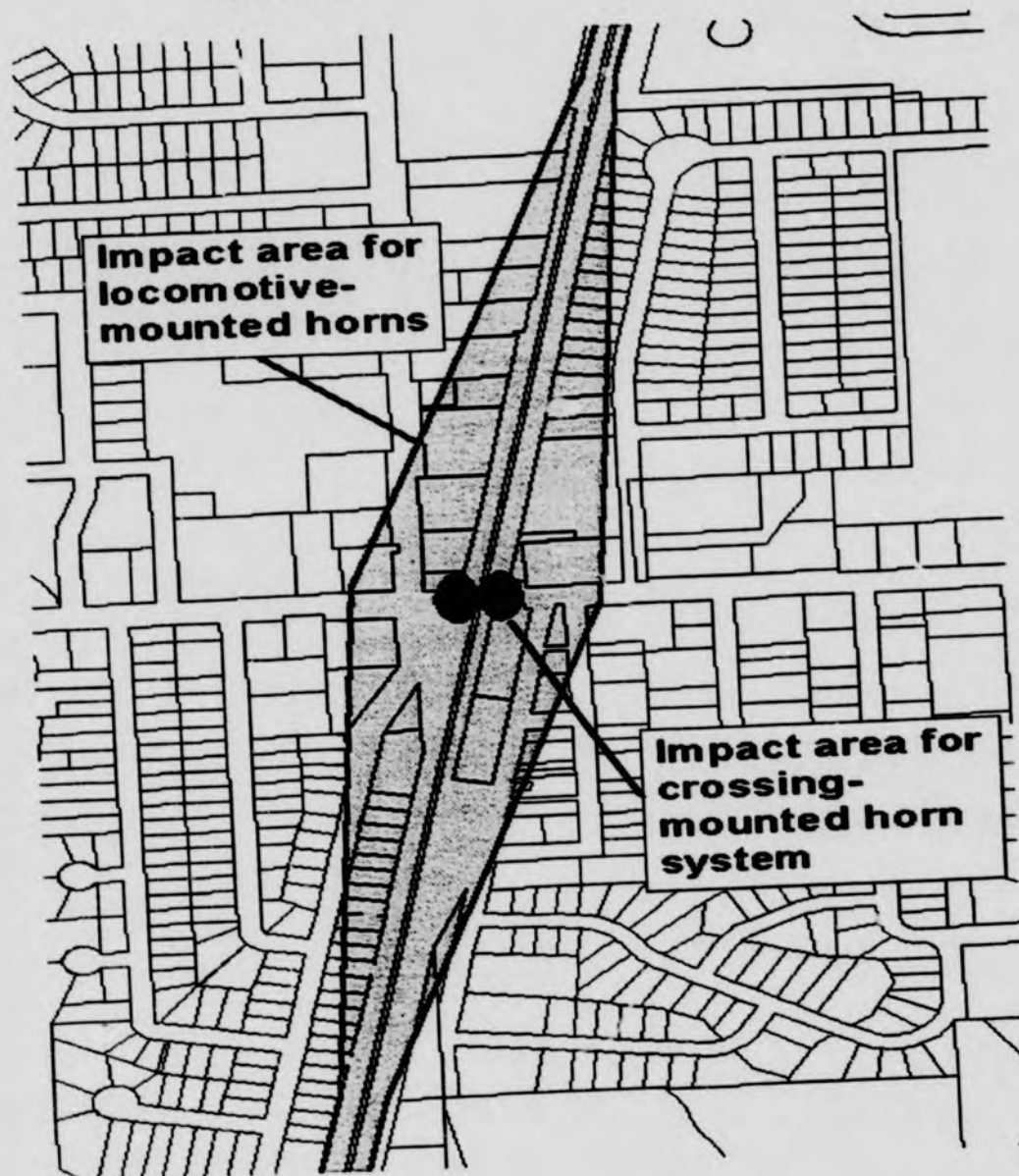
The FRA is testing a prototype of an Automated Horn System (AHS), which is a local highway/rail at-grade crossing warning device. The AHS was designed to increase warning effectiveness at highway/rail at-grade crossings, while minimizing noise impacts on communities. This particular system consists of a single electronic horn, placed directly at a highway/rail at-grade crossing. The horn is directed along approaching roadways, and sounded automatically at the approach of a train.

In the case of the AHS, because the horn is located near the at-grade crossing, the extended community exposure to horn noise from moving trains is eliminated. The system design results in sound levels that are higher directly in front of the horn and lower to the rear and sides. Consequently, not only is the area of community impact reduced, but the horn is more audible and thus, more effectively warns motorists.

Figure F-3 compares the noise impact (areas exposed to an average noise level of 65 dB, L_{dn}) from an AHS at a typical highway/rail at-grade crossing to conventional locomotive-mounted horns. According to these data, the AHS obviously provides a substantial reduction of the affected area.⁴

⁴ Union Pacific/Southern Pacific Railroad Merger Mitigation Study—Noise Analysis, Acentech Incorporated, Draft 1, July 1997.

Figure F-3
Comparison of Impact Areas for Train Mounted Horn and
Highway/Rail At-Grade Crossing-Mounted Horn Systems



An AHS installation near a highway/rail at-grade crossing typically costs \$12,000-\$15,000, depending on whether or not the roadway is two lanes or a divided highway. The type of road affects the complexity of the installation. This cost assumes that existing circuitry is appropriate

for AHS installation.⁵ The service life and maintenance requirements for this option are likely to be similar to those of a standard two-gate crossing system.

Although the test is not yet complete, an installation of an AHS at Garing, NE has been well received by the local community. It has provided an effective and reasonable level of warning, while reducing noise impacts on the community.⁶

As previously stated, the FRA is currently studying the effectiveness of the AHS, and other local highway/rail at-grade crossing warning devices, in comparison with conventional train horns. At the time SEA conducted their analysis, study results were not yet conclusive. Uncertainties remain regarding whether motorists might ignore the stationary horn because it is not mounted on the locomotive. In addition, it is also questioned whether a stationary horn may fail to adequately warn a motorist of two trains approaching a highway/rail at-grade crossing from opposite directions.⁷

FRA rule-making criteria for imposing whistle bans may restrict wayside horn systems because of the safety concerns mentioned above. In a recent development of a new commuter rail line by the Massachusetts Bay Transportation Authority, the FRA disallowed the use of local highway/rail at-grade crossing warning devices as an alternative to horn soundings at highway/rail at-grade crossings.⁸

Given the relatively low implementation cost per crossing, and the potential for significant reduction of noise impacts at highway/rail at-grade crossings with sensitive locations within one-quarter mile, SEA considers this option could be a reasonable noise mitigation alternative.

Modified Highway/Rail At-Grade Crossing Barrier Systems. The FRA is considering various alternative highway/rail at-grade crossing barrier systems to eliminate required horn soundings. These include:

- Permanent closure of the highway/rail at-grade crossing.
- Nighttime closure of the highway/rail at-grade crossing.
- Four-quadrant gate system (four gates block the crossing preventing motorists from driving around activated gates).

⁵ Teleconference with Andy Anderson, Railroad Consulting Services, Re: Mitigation Costs, July 8, 1997.

⁶ Teleconference with Cliff Shoemaker, Union Pacific Railroad, Re: Mitigation Costs, August 13, 1997.

⁷ Teleconference with Gerald Thomas, FRA, Re: Wayside Horn Research, August 6, 1997.

⁸ Teleconference with Andrew Brennen, MBTA, Re: Mitigation Costs, August 6, 1997.

- Gates with median barriers (a solid barrier in the road's center preventing motorists from driving around activated gates)
- One-way pairing of adjacent streets (for two at-grade crossings on adjacent streets, one crossing would be eastbound, the other westbound, each with a gate extending the width of the road; motorists are unable to drive around).

Similar to grade separations, each of these mitigation measures is designed to eliminate horn soundings at specific highway/rail at-grade crossings, thereby eliminating all train horn noise.

The cost of installing a new four-quadrant gate crossing ranges from \$200,000 to \$300,000 (or \$50,000 to \$100,000 to upgrade an existing two-gate crossing system). This system would include a delayed exit gate (the second gate descends several seconds after the first gate) to avoid trapping slow moving vehicles. Four-quadrant gate systems typically have more sensor and warning devices than standard two-gate crossing systems. The added complexity would likely affect service life and maintenance requirements. Median barriers and other listed options would have little or no maintenance requirements.

The installation cost of median barriers varies considerably, depending on site requirements and construction type. Cost may range from \$100 per linear foot for a simple raised asphalt median curb, to more than \$1,000 per linear foot for a complex concrete raised median with a center barrier and crash barriers. The FRA has not specified the actual requirement in terms of the complexity of the system. The required length is related to the average automobile queue length. For example, a 200-foot length would cost from \$20,000 to \$200,000.⁹

Costs associated with implementing permanent closures or one-way street pairings would stem from new signage and barrier systems. Depending on location, these costs would vary considerably, but generally would be lower than installing new gates.

The improved highway/rail at-grade crossing barrier systems discussed in this section, (including four-quadrant crossing gates and median barriers,) act as physical barriers to motorists who might otherwise drive around lowered gates. Although studies are underway to determine the effectiveness of these systems, no published results are available at this time. It may be assumed that they provide better drive-around protection than standard two-gate systems. However, in some cases, four-gate systems may create new safety concerns. For example, four-quadrant gate systems would require additional features to prevent automobiles from becoming trapped between lowered gates (due to slow or stalled traffic). Some would include the delayed exit gate described above. Others might employ a sensor or warning system that detects obstructions between the gates and warns the train crew to halt the train. Median barriers would create new abutments and could affect safety when placed on narrow roadways.

⁹ Teleconference with Cliff Shoemaker, Union Pacific Railroad, Re: Mitigation Costs, August 13, 1997.

None of the proposed modified barrier systems alleviate vehicular traffic congestion. In the cases of permanent closures, nighttime closings, and one-way street pairings, modified barrier systems might increase traffic congestion considerably. Installation of median barriers is sometimes restricted, such as when roadways extend parallel to rail lines and barriers cannot be built without crossing the parallel roads.

Both four-quadrant crossing gates and median barriers would allow significant noise reduction because trains could pass crossings without sounding horns (contingent upon upcoming FRA rule-making). The reasonableness of these options for noise mitigation depends on the cost of constructing new highway/rail at-grade crossing systems or upgrading existing ones in relation to the number of homes protected, and on the finalization of FRA rules. Depending on actual design requirements, median barriers may be expensive to install at some locations. A four-quadrant gate system would generally be more expensive than a median barrier. The final determination of cost effectiveness will depend on whether or not a substantial number of homes would be "protected" by the elimination of horn soundings and if there would be other benefits, such as safety improvements to reduce the potential occurrence of a train-vehicle accident.

Building Sound Insulation. Buildings can be acoustically insulated to some degree from outdoor noise. Sound insulation treatments usually involve improving windows because windows are the most significant path of incoming noise, or "weak links." Sound insulation of buildings near airports is commonly used to reduce intrusive aircraft noise. It is also used in highway and rail system noise mitigation programs. Insulation of buildings usually includes acoustically upgraded doors and windows and the installation of (sleeve-type or central) air-conditioning so that windows do not need to be opened. Additional insulation measures include sealing or relocating vents, and acoustically improving walls and ceilings. Sound insulation of a building typically reduces the noise level inside by about 10 decibels. Noise levels outside of the structure are not affected.

Nominal sound insulation treatment costs are approximately \$10,000 to \$20,000 per dwelling unit, depending on air conditioning installation costs. Most residential sound insulation improvements become a permanent part of the building, with a service life equal to that of the structure. Air-conditioners, however, typically have a service life of approximately 20 years. Residential sound insulation frequently requires the installation of air-conditioning units that allow windows to remain shut. This results in higher energy consumption and higher utility bills for affected residents. However, higher summer cooling costs may be offset by lower winter heating costs due to better thermal insulation of doors and windows.

This mitigation measure has been a cost-efficient alternative for various transportation projects throughout the United States for many years. It is particularly useful for isolated homes where the cost of other mitigation options cannot be distributed through several protected dwellings, and where the value of the dwelling is substantially higher than the cost of the sound insulation treatment.

F.6.2 Wheel/Rail and Locomotive Noise

Replacement of Jointed Rail with Continuous Welded Rail. This mitigation alternative refers to replacing existing jointed rail with continuously welded rail (CWR) to eliminate the familiar "clickity-clack" noise generated by wheel-rail impacts at rail discontinuities (where the two jointed rail pieces come together). Replacement of jointed rail with welded rail would generally decrease wheel-rail noise by approximately 5 decibels.¹⁰ However, preliminary studies for this project have shown that most noise impacts are in the vicinity of highway/rail at-grade crossings. Further study would be required to quantify the number of noise-sensitive receptors which might benefit from this option.

The wholesale upgrade of jointed rail to CWR, strictly for the purpose of noise control, would be expensive (approximately \$700 per joint or \$150,000 to \$200,000 per mile to weld joints on existing jointed rail).¹¹ However, such a replacement as part of rail line reconstruction pays an extra dividend with lower wheel-rail noise levels in addition to reduced track degradation and maintenance. By eliminating the impacts between wheels and rail joints, the use of CWR may increase wheel service life and reduce maintenance requirements. As rail lines undergo periodic rehabilitation to extend track life and reduce maintenance, the noise reduction benefits are significant when older jointed rail is upgraded to CWR.

Wheel/Rail Maintenance. At moderate to high operating speeds, the major source of wayside noise is wheel-rail noise. Defects in the wheel surface, such as flats (caused by the wheel skidding during braking), spalls (loss of part of the wheel surface due to thermal fatigue), and shells (loss of parts of the rail surface due to mechanical fatigue), along with various surface defects in the rail surface, are major sources of wheel-rail noise. The amount of noise is dependant on vehicle speed, as well as wheel-rail condition. The overall noise reduction achieved by wheel-rail maintenance programs depends on the volume and speed of rail traffic in a particular area, and the relative change in wheel-rail conditions before and after maintenance (the severity of the defects removed). An extreme example is one transit agency's report of a 10 decibel reduction in wayside train noise, after grinding some badly corrugated sections of rail.¹²

The equipment required to conduct wheel-rail maintenance costs several million dollars, although most major heavy rail freight systems already perform rail grinding, and at least some wheel truing, as a part of regular maintenance. Annual cost for wheel truing ranges from

¹⁰ *Transit Noise and Vibration Impact Assessment Manual*, Federal Transit Administration, April 1995.

¹¹ *TCRP Report 23, "Wheel Rail Noise Control Manual,"* Transportation Research Board, June 1997.

¹² *TCRP Report 23, "Wheel Rail Noise Control Manual,"* Transportation Research Board, June 1997.

\$300,000 to \$400,00 for a 700-car fleet.¹³ Rail operators often subcontract rail grinding services because of high equipment cost. The service life for wheel truing and rail grinding equipment is approximately 10 to 15 years. The precise cost of rail grinding varies dramatically based on the required grinding level and frequency of track usage, track type and conditions, and other variables, such as the use of contracted services. Costs ranging between \$1,000 to \$2,000 per rail mile might be expected for freight rail lines, excluding travel and time required to clear the track.¹⁴

Because rail grinding and truing is a regular maintenance practice for most freight lines, noise reduction benefits are already being realized. Additional noise reduction may be deemed feasible or reasonable on a case-by-case basis, depending on the feasibility of improving an operator's program, (i.e. if this maintenance is already performed on a sufficiently aggressive schedule, additional rail grinding or wheel truing may have no further noise reduction benefit). Wheel-rail maintenance practices are directly related to safety. Well-maintained wheels and track structures can reduce the likelihood of derailment, especially on curved and high-speed track systems.

Locomotive Noise Control. The reduction of diesel engine and exhaust noise may be achieved through improved exhaust silencer technology. Active noise control is a potential solution, although at the moment research is inconclusive. Active noise control is the process of using loudspeaker-generated sound pressures to cancel out diesel exhaust noise. Currently, the FRA is sponsoring a feasibility study on active noise control for diesel locomotives. Practical issues are a significant component of this research, such as developing sensor microphones and loudspeakers which can withstand the extremely high temperature of the exhaust stack.

The level of locomotive engine noise is dependant on the engine's size and power, design, and the original equipment. Engines are typically fitted with factory-installed silencers, but their effectiveness varies widely. Use of retrofit noise reducing equipment is often limited by available space, including the height of the locomotive, which is, in turn, restricted by the clearance of bridges, tunnels, and overpasses. The best opportunity to have quiet locomotives lies with the design of new locomotives, or in the specification stage at time of purchase. Peak noise levels from various new locomotives may differ by as much as 10 decibels.¹⁵

Locomotive engine noise control could reduce the area of impact in regions where the source of noise impacts is not horn noise or wheel-rail noise. In areas where locomotives move slowly or are dormant, engine noise controls would greatly contribute to overall noise reduction. However,

¹³ *TCRP Report 23, "Wheel Rail Noise Control Manual,"* Transportation Research Board, June 1997.

Teleconference with Allen Zarembski, Zeta-Tech Associates, Re: Wheel-rail Maintenance Procedures, August 12, 1997.

¹⁴ *TCRP Report 23, Wheel Rail Noise Control Manual,"* Transportation Research Board, June 1997.

¹⁵ Paul Nelson, *Transportation Noise Reference Book*, 1987.

if the impacts in these regions are limited, locomotive noise controls would be a minor benefit. Practical active noise control systems will not be readily available for fleet-wide installation for five to 10 years.¹⁶

Research continues on active noise control solutions, and market-ready systems are not yet available. A current study goal is to establish a 10 decibel overall noise reduction (which includes the use of improved exhaust silencers for high frequency noise).¹⁷ SEA does not consider this a viable option at the present time.

Noise Barriers. Noise barriers are walls designed to interrupt the path of sound between the source (train locomotive and wheel-rail interface) and noise sensitive areas. Noise barriers are effective for reducing locomotive and wheel-rail noise. The performance of noise barriers depends on the relative heights of the noise source, the barrier type, and the sensitive area. Barriers are better for shielding wheel-rail noise (which originates near the height of the rail) than horn noise (which originates from the top of the locomotive). The typical wheel-rail noise reduction ranges from 5 to 15 decibels. Barriers typically perform better in higher speed operating areas, where wheel-rail noise dominates.

Barrier construction costs vary according to wall material, required height and length of wall, required footings, and site accessibility. A conservative estimate (10-foot-high wall at \$20 per square foot installed material cost) is \$200 per linear foot. The required length of the wall is determined by the size of the sensitive area to be protected. Noise barrier service life varies with the barrier material. Extensive use of highway noise barriers over the last few decades indicates that wooden barriers can last 10 to 15 years, and that concrete or masonry walls should last more than 30 years. In some areas, graffiti removal is a maintenance issue.

Continuous noise walls can provide the added safety feature of restricting unauthorized access to the rail right-of-way. Noise barriers near a highway/rail at-grade crossing are not practical because they may interfere with a motorist's ability to see approaching trains. Aesthetics are often a factor in public acceptance of noise barriers. Noise barriers also may restrict access of maintenance crews to the railroad right-of-way.

Noise barriers have been installed in many areas of the United States, and worldwide. They have proven to be a feasible noise mitigation option for reducing rail noise, especially in situations where wheel-rail noise dominates. The reasonableness of installation cost depends upon the quantity, and distance between, noise-sensitive locations. Because mitigation costs are often expressed in terms of cost per protected unit (or dwelling), the more protected units there are, the lower the cost per unit. If protected units are close together, wall length can be reduced, and

¹⁶ Teleconference with Paul Remington BBN, Re: Locomotive Active Noise Control Technology, August 11, 1997.

¹⁷ Teleconference with Paul Remington, BBN, Re: Locomotive Active Noise Control Technology, August 11, 1997.

the overall cost per dwelling reduced as well. Therefore, SEA considers noise barriers to be the most appropriate mitigation measure when a large number of affected dwellings are close together along high-speed segments of the rail lines where wheel/rail noise is predominant.

F.6.3 Comparison and Conclusions

Each noise mitigation option has its own conditional applications, strengths and weaknesses. However, direct comparison of mitigation options can be misleading without careful consideration of site-specific variables and noise impacts associated with a given location, and uncertainties regarding precise costs and application of alternative mitigation options in relation to those variables.

The application of any mitigation option is also dictated by national and local policies (present or future) that may restrict or regulate its use. At the time of this EIS, several of the options discussed in this report are under regulatory review. Any conclusions or comments reported here would be subordinate to subsequent regulatory rule-making.

Table F-2 presents SEA's preferred mitigation options for general application scenarios. The application scenario is expressed in terms of noise source (horn noise near highway/rail at-grade crossings or wayside noise), rail or automobile traffic, population density, and other special conditions. This table serves as a general comparative reference.

Table F-2
Application Summary for Mitigation Options

Application Scenario	Preferred Mitigation Option
Highway/Rail at-grade crossing, high traffic, high density	Grade separation, four quadrant crossing gates
Highway/Rail at-grade crossing, moderate traffic, medium density	Four quadrant crossing gates, median barrier
Highway/Rail at-grade crossing, low traffic, low density	Local highway/rail at-grade crossing horn, building sound insulation
Highway/Rail at-grade crossing, low traffic, high density	Local highway/rail at-grade crossing horn, median barrier
Highway/Rail at-grade crossing, system-wide noise reduction	Horn modifications
Wayside noise, medium to high density	Noise barriers
Wayside noise, medium to low density	Building sound insulation
Wayside or idling noise, limited highly sensitive areas, layover facilities	Operational controls, continuously welded rail
Wayside noise, system-wide noise reduction	Wheel-rail maintenance, noise control

Table F-3 presents a brief summary comparison of key issues for each mitigation method, along with its typical application scenario. Here, as above, "traffic" refers to combined train and

automobile traffic through a grade crossing, "density" refers to the relative density or proximity of noise-sensitive locations (such as homes).

Table F-3
Summary of Mitigation Options for Noise Effects

Mitigation Option	Advantages	Disadvantages	Cost per Unit	Typical Application
Highway/Rail at-grade Separations	Eliminates horn sounding, used to address traffic and safety	Very expensive	\$5 million to \$10 million per crossing	High traffic, high density
Highway/Rail at-grade Crossing Warning Device	Greatly reduced noise impact, inexpensive	May not be as safe as train mounted horns	\$12,000 to \$15,000 per crossing	Medium density, high traffic crossing
Highway/Rail at-grade Crossing Closures	Eliminates horns, inexpensive	Worsens vehicular traffic, limits access	Less than \$10,000 per crossing	Low traffic crossing
Four Quad Gates	Eliminates horns, considered safe	More expensive than other horn elimination options	\$100,000 to \$300,000 per crossing	High density, high traffic crossing
Median Barriers	Eliminates horns	Some safety concerns	Varies: up to \$200,000 per crossing	Medium density, medium/high traffic crossing
One Way Street Pairings	Eliminates horns, inexpensive	Worsens vehicular traffic, limits access	Less than \$10,000 per crossing	Low traffic crossing
Modified Locomotive Horns	Reduces horn exposure	May be expensive, requires more study	Less than \$10,000 per locomotive	High density crossing
Building Sound Insulation	Inexpensive noise reduction for isolated homes	Only works inside homes, high system-wide costs	\$10,000 to \$20,000 per home	Low density crossing (horn or wayside)
Continuous Welded Rail	Provides system-wide noise reduction	Too expensive for noise benefit alone	Varies, depending on existing track	System-wide wayside noise
Wheel/Rail Maintenance	Provides system-wide noise reduction	Usually already done (no new improvement)	Varies, depending on current procedures	System-wide wayside noise
Noise Barriers	Reduces wayside noise in high density areas	Can be expensive, restricts maintenance access, visual impacts	\$200 per linear foot	High density wayside noise

Table F-3
Summary of Mitigation Options for Noise Effects

Mitigation Option	Advantages	Disadvantages	Cost per Unit	Typical Application
Operational Controls	May reduce noise in sensitive areas where no other options apply	Heavy restrictions on operational efficiency, capacity	Not applicable	Highly sensitive areas, all other methods impractical
Land Use Provisions	Can prevent future impacts, reduce severe impacts	Potentially expensive to acquire impacted properties	Varies, depending on property values	Undeveloped or highly impacted areas

F.7 EIS NOISE ANALYSIS RESULTS

Attachments F-1 and F-2 of this Appendix show the overall results of receptor counts for rail line segments, rail yards, and intermodal facilities for the proposed Conrail Acquisition.

Attachment F-1 shows the counts of noise sensitive receptors within the pre- and post-Acquisition 65 dBA L_{dn} noise contours for rail line segments that meet or exceed the Board's thresholds for noise analysis.

Attachment F-2 shows the counts of noise sensitive receptors within the pre- and post-Acquisition 65 dBA L_{dn} noise contours for rail yards and intermodal facilities that meet or exceed the Board's thresholds for noise analysis.

Attachment F-1

**Rail Line Segments that Meet STB Thresholds
for Noise Analysis**

Attachment F-1
Rail Line Segments that Meet STB Requirements for the Noise Analysis

Appendix F Noise

Seg. ID #	State	County	Ownership		Rail Line Segment		Train and Rail Data					Pre-Acquisition Distance to Ldn (ft)		Post-Acquisition Distance to Ldn (ft)			Receptor Counts	
			Post Acq.	Pre Acq.	Between	And	1995 Base		Post-Acquisition			Wayside	Xing	Change in dBA	Wayside	Xing	Pre Acq.	Post Acq.
							Pagr. Trn.	Frt. Trn.	Frt. Trn.	Change In Trn.	% Change MGT							
C-1	Washington	DC	CSX	CR	Anacosta	Virginia Ave	0	19.3	28.6	9.3	12	269	533	1.7	343	1,052		
C-2	Washington	DC	CSX	CR	Virginia Ave	Potomac Yard, VA	35	17.9	28.6	10.7	18	256	508	0.8	343	1,052	0	9
C-2	Virginia	Arlington	CSX	CR	Virginia Ave	Potomac Yard, VA	35	17.9	28.6	10.7	18	256	508	0.8	343	1,052	0	0
C-10	Illinois	Cook	CSX	CSX	Barr Yard	Blue Island Jct	0	17.0	32.9	15.9	132	248	760	2.9	375	1,148	2	77
C-20	Indiana	Allen	CSX	CR	Adams	Ft. Wayne	0	5.9	13.9	8.0	460	128	254	3.7	219	670	24	3
C-21	Indiana	Vanderburgh	CSX	CSX	Evansville	Amqui, TN	0	23.4	32.7	9.3	53	303	928	1.5	373	1,144	0	0
C-22	Indiana	Allen	CSX	NS	Ft. Wayne	Warsaw	0	2.4	6.4	4.0	214	55	133	4.3	135	413	133	662
C-24	Indiana	Starke	CSX	CR	Tolleston	Clark Jct.	0	0.0	5.0	5.0	1,000	0	0	U	115	354	0	158
C-25	Indiana	Gibson	CSX	CSX	Vincennes	Evansville	0	22.3	30.8	8.5	75	294	901	1.4	360	1,103	0	0
C-26	Indiana	Lake	CSX	NS	Warsaw	Tolleston	0	1.0	5.0	4.0	206	32	77	7.0	87	211	185	845
C-27	Indiana	Lake	CSX	CSX	Willow Creek	Pine Jct.	2	20.1	36.6	16.5	105	292	896	2.4	414	1,269	340	509
C-35	Maryland	Washington DC	CSX	CR	Landover	Anacostia, D.C.	0	3.4	9.1	5.7	117	91	180	4.3	168	515	4	31
C-36	Maryland	Frederick	CSX	CSX	Pt. of Rock	Harpers Ferry, WV	19	33.3	41.6	8.3	30	378	1,157	0.6	434	1,331	0	0
C-40	Michigan	Monroe	CSX	CSX	Carellton	Toledo, OH	0	21.9	33.1	11.2	61	291	891	1.8	376	1,153	0	0
C-61	Ohio	Cuyogoga	CSX	CR	Berea	Greenwich	0	14.5	54.2	39.7	250	225	455	5.7	512	1,569	713	1,732
C-62	Indiana	Allen	CSX	CR	Bucyrus	Adams, IN	0	5.9	13.9	8.0	412	128	254	3.7	219	670	759	1,685
C-64	Ohio	Crawford	CSX	CR	Crestline	Bucyrus	0	6.5	14.5	8.0	417	136	270	3.5	225	688	66	200
C-65	Ohio	Henry	CSX	CSX	Deshler	Toledo, OH	0	0.6	14.2	13.6	>1000	31	94	13.7	221	679	128	1,423
C-66	Ohio	Henry	CSX	CSX	Deshler	Willow Creek, IN	2	21.4	47.7	26.3	111	286	878	3.3	473	1,449	668	1,152
C-67	Ohio	Richland	CSX	CR	Greenwich	Crestline	0	14.5	31.3	16.8	88	225	445	3.3	364	1,114	531	851
C-68	Ohio	Huron	CSX	CSX	Greenwich	Willard	2	32.5	55.2	22.7	96	372	1,140	2.2	518	1,587	285	392
C-69	Ohio	Cuyogoga	CSX	CR	Marcy	Short	0	16.4	45.8	29.4	267	243	481	4.5	461	1,411	101	190
C-70	Ohio	Marion	CSX	CSX	Marion	Fostoria	0	17.8	27.4	9.6	56	225	782	1.9	334	1,021	0	0
C-71	Ohio	Marion	CSX	CR	Marion	Ridgeway	0	16.1	31.8	15.7	31	240	476	3.0	367	1,125	101	517
C-72	Ohio	Cuyogoga	CSX	CR	Mayfield	Marcy	0	3.4	43.8	40.4	933	91	180	11.1	448	1,374	98	317
C-73	Ohio	Cuyogoga	CSX	CR	Quaker	Mayfield	0	6.8	43.8	37.0	933	140	278	8.1	448	1,374	169	423
C-74	Ohio	Cuyogoga	CSX	CR	Short	Berea	0	13.4	47.3	33.9	578	214	424	5.5	470	1,440	127	495
C-75	Ohio	Seneca	CSX	CSX	Willard	Fostoria	2	32.5	54.0	21.5	97	372	1,140	2.1	511	1,566	1,145	1,469
C-82	Pennsylvania	Allegheny	CSX	CSX	Rankin Jct.	New Castle	0	28.9	38.3	9.4	74	346	1,059	1.2	412	1,263	0	0
C-83	Pennsylvania	Philadelphia	CSX	CR	RG	Field	0	0.0	16.0	16.0	>1000	0	0	N/A	239	732	0	0
C-85	Pennsylvania	Allegheny	CSX	CSX	Sinns	Brownsville	0	1.5	10.8	9.3	>1000	54	167	8.6	186	571	549	994
C-86	Pennsylvania	Allegheny	CSX	CSX	Sinns	Rankin Jct.	2	30.8	40.2	9.4	77	360	1,102	1.1	425	1,302	0	0
C-110	West Virginia	Marion	CSX	CSX	WD Tower	Rivesville	0	1.5	3.4	1.9	108	54	167	3.5	90	276	8	13
N-10	Delaware	New Castle	NS	CR	Edgemoor	Bell	0	5.0	11.8	6.8	165	115	229	3.7	148	361	0	0
N-30	Illinois	Cook	NS	NS	IC 95 St. Chicago	Pullman Jct.	0	2.0	5.9	3.9	179	49	119	4.7	96	233	0	6
N-33	Illinois	Champaign	NS	NS	Tilton	Decatur	0	22.7	39.1	16.4	64	223	543	2.4	313	763	946	1,477
N-34	Illinois	Cook	NS	CR	Colehour	Calumet Park	0	1.1	2.5	1.4	125	45	89	3.6	56	137	61	101
N-40	Indiana	Delaware	NS	NS	Alexandria	Muncie	0	2.6	11.8	9.3	370	57	139	6.6	148	361	85	471
N-41	Indiana	Allen	NS	NS	Butler	Ft. Wayne	0	13.6	27.3	13.7	99	162	394	3.0	250	609	199	462
N-42	Indiana	Lake	NS	NS	Control Pt. 501	Indiana Harbor	14	43.4	60.3	16.9	33	334	814	1.1	410	1,000	0	0
N-43	Indiana	Allen	NS	NS	Ft. Wayne TC	Ft. Wayne Yard	0	6.6	9.6	3.0	132	103	250	1.6	130	316	0	0
N-44	Indiana	Allen	NS	NS	Ft. Wayne	Peru	0	19.0	34.9	15.9	100	199	486	2.6	291	710	679	1,076
N-45	Illinois	Vermillion	NS	NS	Lafayette	Tilton, IL	0	23.6	41.0	17.4	80	228	556	2.4	323	785	531	736
N-46	Indiana	Tippecanoe	NS	NS	Peru	Lafayette	0	18.4	40.2	21.8	113	195	476	3.4	319	776	689	1,454
N-120	Michigan	Jackson	NS	CR	Jackson	Kalamazoo	8	5.4	12.0	6.6	162	121	240	1.7	150	364	0	0
N-121	Michigan	Jackson	NS	CR	W. Detroit	Jackson	8	2.9	12.1	9.2	313	82	163	2.7	150	366	408	744
N-60	New York	Chemung	NS	CR	Corning	Geneva	0	0.2	1.6	1.4	500	16	32	8.9	43	105	0	252
N-61	New York	Erie	NS	CR	Ebenezer Jct.	Buffalo	0	0.0	11.4	11.4	>1000	0	0	#DIV/0!	145	353	0	0
N-70	New York	Erie	NS	NS	Ashtabula	Buffalo, NY	0	13.0	25.2	12.2	118	157	383	2.9	238	579	1,646	2,416

(R) Residence (C) Church
(S) School (H) Hospital

Attachment F-1

Appendix F: Noise

Rail Line Segments that Meet STB Requirements for the Noise Analysis

Seg. ID #	State	County	Ownership		Rail Line Segment		Train and Rail Data					Pre-Acquisition Distance to Ldn (ft.)		Post-Acquisition Distance to Ldn (ft.)			Receptor Counts	
			Post Acq.	Pre Acq.	Between	And	1995 Base		Post-Acquisition			Wayside	Xing	Change in dBA	Wayside	Xing	Pre Acq.	Post Acq.
							Pgr. Trn.	Frt. Trn.	Frt. Trn.	Change In Trn.	% Change MGT							
N-71	Ohio	Seneca	NS	NS	Bellevue	Bucyrus	0	26.0	34.6	8.6	39	243	591	1.2	290	706	0	0
N-72	Ohio	Sandusky	NS	NS	Bellevue	Vermilion	0	15.6	27.0	11.4	64	176	429	2.4	248	605	157	238
N-73	Ohio	Crawford	NS	NS	Bucyrus	Fairgrounds Col	0	26.0	34.3	8.3	41	243	591	1.2	286	703	0	0
N-74	Ohio	Cuyogoga	NS	CR	Cleveland	Shortline Jt.	0	2.0	4.2	2.2	>1000	65	129	3.2	78	189	0	21
N-75	Ohio	Cuyogoga	NS	NS	Cleveland	Ashtabula	0	13.0	36.6	23.6	214	157	383	4.5	300	732	619	1,628
N-77	Ohio	Lucas	NS	CR	Oak Harbor	Miami	4	48.0	61.5	13.5	21	475	941	1.0	416	1,012	0	0
N-78	Ohio	Butler	NS	CR	Dayton	Ivorydale	0	11.7	18.9	7.2	76	141	280	2.1	171	417	856	1,242
N-79	Ohio	Ottawa	NS	NS	Oak Harbor	Bellevue	0	7.7	27.2	19.5	185	113	276	5.5	250	608	247	513
N-80	Ohio	Cuyogoga	NS	NS	Vermilion	Cleveland	0	13.5	34.1	20.6	81	161	392	4.0	287	700	2,194	4,439
N-81	Ohio	Cuyogoga	NS	CR	White	Cleveland	2	12.5	29.7	17.2	131	205	406	3.4	264	642	30	61
N-82	Ohio	Ashtabula	NS	CR	Youngstown	Ashtabula	0	11.7	23.8	12.1	74	196	390	3.1	270	657	129	213
N-85	Ohio	Erie	NS	CR	Bellevue	Sandusky Dock	0	1.4	11.7	10.3	139	52	103	9.2	147	359	5	29
N-86	Ohio	Lucas	NS	CR	Miami	Airline	4	55.4	64.0	8.6	9	519	1,030	0.6	426	1,036	0	0
N-90	Pennsylvania	Dauphin	NS	CR	Harrisburg	Rutherford	0	44.3	57.9	13.6	4	451	895	1.2	400	974	0	0
N-91	Pennsylvania	Dauphin	NS	NS	Harrisburg	Riverton Jct., VA	0	11.1	19.6	8.6	82	142	346	2.5	203	494	611	1,000
N-93	Pennsylvania	Dauphin, Lancaster	NS	CR	Harrisburg	Shocks	0	2.2	6.0	3.8	143	69	137	4.4	97	236	2	86
N-100	Virginia	Augusta	NS	NS	Riverton Jct.	Roanoke	0	3.9	12.1	8.2	228	74	180	5.0	150	366	340	1,269
N-110	West Virginia	Fayette	NS	NS	Elmore	Deepwater	0	0.3	2.3	2.0	>1000	15	36	8.8	53	130	0	498
N-111	West Virginia	Fayette	NS	CR	Fols Mine	Deepwater	0	0.6	2.0	1.4	346	31	61	5.2	49	119	0	249
S-20	Michigan	Monroe	SH/NEC	CR	Carleton	Ecorse	0	2.0	11.2	9.2	>1000	65	129	7.5	191	586	54	446
S-21	Michigan	Wayne	SH/NEC	CR	W.Detroit	North Yard	0	7.9	13.2	5.3	119	154	305	2.2	212	650	53	83
S-40	Pennsylvania	Delaware, Phila	SH/NEC	NEC	Arsenal	Davis, DE	116	2.3	10.5	8.2	63	71	141	0.3	184	563	0	0
S-42	Pennsylvania	Philadelphia	SH/NEC	CR	South Phil.	Field	0	8.2	21.1	12.9	303	157	312	4.1	284	870	0	0

Change in dBA based on 10 log ratio of pre and post merger rail volume (including passenger trains), contours based on freight only. Note--NS EIS counts done using shielding and 98.4 dBA wayside SEL.
 For shared track: CR reference levels used for pre, CSX (worst case) used for post.

Attachment F-2

**Rail Yards and Intermodal Facilities that Meet STB Thresholds
for Noise Analysis**

Attachment F-2
Rail Yards that Meet STB Thresholds for Noise Analysis

Yard Description					Change In	% Increase	Rail Cars / Day		Change	Distance	Rec. Counts	
ID #	State	Location	Yard	Facility	Trks/Day	In Avg Traffic	Pre Acq.	Post Acq.	In dBA	to 65 Ldn	Pre	Post
NY-03	Indiana	Ft. Wayne	NS		300	106	283	583	3	1,000	16	32
NY-06	Ohio	Conneaut	NS		44	145	30	74	4	500	18	37
NY-08	Ohio	Toledo (airline)	NS		520	N/A	0	520	<2	---	0	0
NY-09	Pennsylvania	Harrisburg (Enola)	NS		129	110	117	246	<2	300-700	124	160

Intermodal Facilities that Meet STB Thresholds for Noise Analysis

Facility Description					Change In	% Increase	Trucks / Day		Change	Distance	Rec. Counts	
ID #	State	Location	RR	Facility	Trks/Day	In Avg Traffic	Pre Acq.	Post Acq.	In dBA	to 65 Ldn	Pre	Post
NM-01	Georgia	Atlanta (Inman)	NS		143	1.6-2.8	569	712	<2	---	0	0
NM-02	Illinois	Chicago (Landers)	NS		95	0.1-0.9	412	507	1	---	0	0
NM-03	Illinois	Chicago (47th St.)	NS		205	0.2-2.5	532	737	<2	---	0	0
NM-04	Kentucky	Louisville (Bueche)	NS		53	0.4-1.1	119	172	<2	---	0	0
NM-05	Louisiana	New Orleans	NS		63	0.3-3.7	64	127	3	40	0	0
NM-06	Maryland	Baltimore	NS		92	2.9-3.0	108	200	3	145	0	0
NM-07	Michigan	Detroit	NS	Melvindale	57	0.1-0.8	257	314	<2	---	0	0
NM-08	Missouri	Kansas City (Votz)	NS	Votz	120	0.6-4.6	229	349	<2	---	0	0
NM-09	Missouri	St. Louis	NS	Luther	194	0.6-31.9	188	382	3	223	0	0
NM-10	New Jersey	Elizabeth	NS	E-rail, Portside	385	0.4-3.1	98	483	7	180	0	0
NM-11	Ohio	Bellevue	NS		65	U	0	65	U	69	0	0
NM-12	Ohio	Columbus	NS	Discovery Park	53	0.2-8.8	131	184	<2	---	0	0
NM-13	Ohio	Toledo (Airline)	NS		37	0.2-1.0	104	141	<2	---	0	0
NM-14	Pennsylvania	Allentown	NS		99	0.5-2.5	39	138	6	113	0	0
NM-15	Pennsylvania	Harrisburg	NS	Rutherford	330	2.0-11.9	68	398	N/A	250	0	0
NM-16	Pennsylvania	Philadelphia	NS	Morrisville	183	4	164	347	3	209	0	0
NM-17	Pennsylvania	Pittsburgh	NS	Pitcalm	114	3	0	114	N/A	250	0	0
NM-18	Tennessee	Memphis	NS		76	0.1-2.8	120	196	2	109	0	0
CM-01	Georgia	Atlanta	CSX	Hulsey	80	1.0-6.0	523	603	<2	---	0	0
CM-02	Illinois	Chicago	CSX	59th Street	815	2.0-6.0	0	815	N/A	375	0	69
CM-03	New Jersey	Little Ferry	CSX	Little Ferry	177	2.0-7.0	215	392	3	225	0	0
CM-04	New Jersey	South Kearny	CSX	South Kearny	78	1.0-2.0	410	488	<2	---	0	0
CM-05	Pennsylvania	Philadelphia	CSX	Greenwich	272	0.7-4.7	0	272	N/A	250	0	0

* U = Undefined

APPENDIX G

Cultural Resources

APPENDIX G

Cultural Resources

In June 1997, CSX Corporation (CSX) and Norfolk Southern Corporation (NS), together with Conrail Inc., filed a joint application with the Surface Transportation Board (Board) seeking authority for CSX and NS to acquire control of Conrail. As part of this Acquisition, CSX and NS would divide Conrail's assets between the two companies. The proposed transaction involves over 44,000 miles of rail lines and related facilities extending over a large portion of the eastern United States. CSX and NS have stated that the transaction would increase service capabilities, improve operating efficiency, and promote competition.

The proposed transaction would result in a rerouting of train traffic that would generate increases and decreases in traffic along some rail line segments and in some rail yards. The proposed diversion of highway truck shipments to the expanded CSX and NS systems could result in increased local truck traffic in and around intermodal facilities and a corresponding decrease in long-haul truck traffic. In addition, the rerouting and consolidation activities associated with the proposed Acquisition would involve abandonment of some rail lines, new constructions, and expansion of some rail yards and intermodal facilities.

The Board's Section of Environmental Analysis (SEA) has prepared an Environmental Impact Statement (EIS) to evaluate potential impacts that may result from the proposed Acquisition. As part of the EIS preparation process, a multi-disciplinary team conducted a comprehensive analysis of impacts to safety, traffic and transportation, energy, air quality, noise, cultural resources, hazardous materials, natural resources, land use/socioeconomics, and environmental justice. This Appendix focuses on SEA's approach to cultural resources. SEA addressed the following major areas of cultural resources:

- Historic structures.
- Archeological resources.

G.1 OVERVIEW

The following sections discuss the process by which SEA identified and evaluated potential impacts to cultural resources. This includes a discussion of applicable Federal and state regulations for impact analysis, the screening process, the types of data collected, and the assumptions and criteria applied to the data to determine if impacts resulting from the proposed Acquisition would be significant.

G.2 REGULATIONS AND GUIDANCE FOR IMPACT ANALYSIS

The National Environmental Policy Act (NEPA) requires that Federal agencies integrate the NEPA process with other environmental laws. Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470f) requires that impacts on historic properties be taken into consideration in any Federal undertaking. Advisory Council on Historic Preservation (ACHP) regulations define "historic properties" as any "prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register" (36 CFR Part 800.2).

The analyses for NEPA and for Section 106 are often parallel and the EIS prepared for this project summarizes the Section 106 process and determinations. ACHP has adopted guidelines for implementing Section 106 (36 CFR Part 800). Consultation with the State Historic Preservation Officer (SHPO) and the ACHP is an integral part of the Section 106 process. Section 106 guidelines prescribe the following steps, which are described in detail below:

- Identify historic properties.
- Determine the area of potential effect.
- Evaluate historic significance by applying National Register of Historic Places (NRHP) eligibility criteria (36 CFR Part 60.4).
- Assess effects by applying ACHP criteria of effect and adverse effect (36 CFR Part 800.9).
- Develop avoidance and mitigation measures if necessary.
- Document the process.

SEA, in accordance with the Board's implementing regulations under 49 CFR Part 1105.8, has consulted with the SHPO in every state affected by the proposed Acquisition. Initial findings and supporting documentation are being or have been submitted to the SHPO in each state. Although every attempt has been made to complete this evaluation prior to the release of this document, some additional properties may be identified as a natural outgrowth of the Section 106 process, and any associated effects will be addressed during the circulation period.

G.3 SCREENING PROCESS

One of the first steps in developing the environmental analysis for the proposed action was to identify areas of potential impact through the threshold screening process.

The process, described more fully in Chapter 3 of the EIS, was based on standards set by the Board. SEA refined this initial screening by including only those classes of action under this Acquisition that could reasonably be expected to have an effect on historic properties. Construction of new connections or facilities and abandonment activities, by their very nature, may be expected to affect historic properties. Traffic changes proposed for rail segments, rail

yards, and intermodal facilities have little effect on historic and cultural resources and were eliminated from further consideration. Moreover, because the Board has limited jurisdiction over Acquisition-related activities (per 49 CFR Part 1105.8), it may only impose impact mitigating conditions on abandonments and new constructions. For these reasons, SEA confined the assessment of effects on historic properties to new construction and abandonment activities.

G.4 DATA SOURCES AND TYPES

SEA used the following reference sources as part of the review process:

- Literature on the history of the railroad.
- Interviews with railroad historians.
- Local histories and other materials.

G.5 ASSUMPTIONS, EVALUATION CRITERIA AND ANALYSIS

SEA, with input from qualified prehistoric and historic archaeologists, historians, and architectural historians, identified historic and archaeological resources potentially affected by Acquisition-related actions. SEA evaluated whether these resources met the National Register criteria for eligibility. SEA also assessed the likelihood of encountering previously unknown significant archaeological resources. SEA reviewed previous records and developed historic background and contextual information, where appropriate. SEA conducted site visits in those areas that would be affected by proposed rail line abandonments or new construction. The State Historic Preservation Officers (SHPOs) also offered opinions for potential resource occurrence and significance.

The area of potential effect (APE) is defined by ACHP as the "geographic area or areas within which an undertaking may cause changes in the character or use of historic properties" (36 CFR Part 800.2(c)). For the purposes of the present project, the APE for archaeological resources is the area potentially disturbed by construction or abandonment activities; for historic structures, the APE includes this area as well as buildings or structures in proximity to the construction or abandonment site.

G.5.1 Archaeological Resources

Using the data obtained through various sources, SEA determined if significant archaeological sites were present within site-specific project areas and conducted field surveys for all project locations where there was a high likelihood that additional sites, presently undocumented, exist within the project area. Some of the undocumented sites may be significant (qualifying them as historic properties) and could be affected by the proposed project at specific locations.

SEA evaluated potentially significant historic and prehistoric archeological resources through surface examination and subsurface excavations. SEA also conducted archival research for historic archeological resources.

G.5.2 Historic Resources

SEA consulted records maintained by the SHPOs and the railroads as the initial step in identifying historic structures (architectural and engineering resources). SEA then conducted field surveys at each construction and abandonment project site to confirm that previously recorded structures were still present and to identify previously undocumented historic structures (i.e., structures constructed 50 or more years ago). For each identified historic structure, SEA collected data on date of construction, structure type and integrity, and other relevant features needed to evaluate its significance. For each previously documented structure, SEA identified any subsequent modifications to the structure that may have affected its integrity.

G.5.3 Determination of Significance

SEA evaluated historic properties as to their significance based on their age, type, use, uniqueness, context in local and national history, and other factors. The National Register defines significance in the following terms:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or (b) that are associated with the lives of persons significant in our past; or (c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or (d) that have yielded or may be likely to yield, information important in prehistory or history. (36 CFR Part 60.4).

SEA gathered information on the significance of historic properties located in the areas of the proposed new construction or abandonments from a variety of sources. Sources included literature on the history of the railroad, railroad historians, local histories, and other materials. SEA consulted with the SHPO of each state, and applied the National Register criteria to historic properties potentially affected by the project, and made determinations as to National Register eligibility.

Most of the proposed construction and rail line abandonment areas had never been systematically surveyed for historic resources. Consequently, record searches alone proved inadequate for identifying historic properties. SEA conducted field surveys to identify, describe, and establish construction dates for historic buildings, structures, districts, and objects located in the study area. In addition, SEA historians developed historic contextual information on each site-specific area.

G.5.4 Determination of Effect

The ACHP's Criteria of Effect and Adverse Effect (36 CFR Part 800.9) provide the basis for determining an undertaking's potential effect on historic properties. These criteria are quoted in their entirety as follows:

An undertaking has an effect on a historic property when the undertaking may alter characteristics of the property that may qualify the property for inclusion in the National Register. For the purpose of determining effect, alteration to features of a property's location, setting, or use may be relevant depending on a property's significant characteristics and should be considered (36 CFR Part 800.9(a)).

An undertaking is considered to have an adverse effect when the effect on a historic property may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects on historic properties include, but are not limited to: (1) physical destruction, damage, or alteration of all or part of the property; (2) isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the National Register; (3) introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting; (4) neglect of a property resulting in its deterioration or destruction; and (5) transfer, lease, or sale of the property (36 CFR Part 800.9(b)).

Effects of an undertaking that would otherwise be found to be adverse may be considered as being not adverse for the purpose of these regulations: (1) When the historic property is of value only for its potential contribution to archeological, historical, or architectural research, and when such value can be substantially preserved through the conduct of appropriate research, and such research is conducted in accordance with applicable professional standards and guidelines; (2) When the undertaking is limited to the rehabilitation of buildings and structures and is conducted in a manner that preserves the historical and architectural value of affected historic property through conformance with the Secretary's 'Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings', or (3) When the undertaking is limited to the transfer, lease, or sale of a historic property, and adequate restrictions or conditions are included to ensure preservation of the property's significant historic features (36 CFR Part 800.9(c)).

These criteria of effect and adverse effect formed the basis for SEA's determination of the kind of effect on each type of project action. When an effect would occur, SEA applied the Criteria of Adverse Effect to determine whether the effect should be considered adverse. The criteria are discussed below as they would apply to those projects in the Acquisition that are within the Board's jurisdiction. Relevant criteria of adverse effect are shown in italicized text.

With regards to rail line abandonments, only one of the five criteria of adverse effect is not applicable because, by its very nature, it would not result in the *introduction of visual, audible,*

or atmospheric elements that are out of character with the property or alter its setting. Activities that could result in an adverse effect are presented below.

Salvage. If salvage operations are proposed as part of the abandonment, that action could result in the *physical destruction, damage, or alteration* of a directly related historic property. Because salvage operations associated with abandonments usually cause little disturbance to lands within or adjacent to the railroad right-of-way, impacts to archaeological resources are not normally anticipated. Where significant ground disturbance is necessary, impacts to archaeological resources could possibly occur. An example of this would be the ground disturbance associated with the removal of bridge abutments, culverts, and tunnels.

Abandonment and salvage operations could eliminate the railroad setting, thereby affecting associated historic properties by causing the *isolation from or alteration of the character of the property's setting*. An example of this would be the removal of the tracks adjacent to a historic depot no longer under railroad ownership.

Ownership. In the absence of adequate preservation stipulations or continued use for railroad operations, eventual *transfer, lease or sale* of an abandoned property may result in an adverse effect. Conversely, sale of a segment for proposed continued railroad use or sale of a building for an adaptive reuse project would probably not result in an adverse effect.

Maintenance. Abandonment without salvage operations and in the absence of a routine maintenance program could subsequently cause an adverse effect through the *neglect of the property resulting in its deterioration or destruction*.

New connections could result in the *physical destruction, damage, or alteration* of a historic property. Construction could damage archaeological resources if it extends into previously undisturbed areas, or site clearings could be included in the construction plan, resulting in historic buildings potentially being demolished. If a historic property is identified on land to be acquired, a *transfer, lease or sale* would occur. If the construction results in a change in the location of tracks away from an existing association with a historic property, it could cause the *isolation from or alteration of the character of the property's setting* and could indirectly lead to *neglect*. If construction brings railroad operations closer to a sensitive historic property, it may introduce *visual, audible, or atmospheric elements that are out of character with the property or alter its setting*.

G.6 MITIGATION

If an Acquisition-related activity associated with a construction or abandonment has potential for adverse effects on historic resources, SEA consulted with the appropriate SHPO and considered potential mitigation strategies described below:

- Railroad designers and engineers could modify the alignment of a proposed new construction project to reduce the area of new ground disturbance or the number of resources affected.
- Qualified teams could move the resource to a safe location.
- Qualified teams could document the resource in accordance with Historic American Building Survey/Historic American Engineering Record (HABS/HAER) standards. In general, documentation includes photographs of the resource taken before it is altered or destroyed, along with a description and history of the resource.

Possible strategies for mitigating impacts to archeological resources include:

- Qualified archaeologists could secure resources by covering the site completely with soil or suitable fill material, thereby sealing the resource and protecting it from further disturbance.
- Qualified archeologists could recover the archeological remains and provide for their long-term curation. Recovery involves excavating and salvaging artifacts and other resources from the site. The general approach to curating artifacts is to place them in a museum or archive to preserve them for future generations.

APPENDIX H

Hazardous Materials and Waste Sites

APPENDIX H

Hazardous Materials and Waste Sites

In June 1997, CSX Corporation (CSX) and Norfolk Southern Corporation (NS), together with Conrail Inc., filed a joint application with the Surface Transportation Board (Board) seeking authority for CSX and NS to acquire control of Conrail. As part of this Acquisition, CSX and NS would divide Conrail's assets between the two companies. The proposed transaction involves over 44,000 miles of rail lines and related facilities extending over a large portion of the eastern United States. CSX and NS have stated that the transaction would increase service capabilities, improve operating efficiency, and promote competition.

The proposed transaction would result in a rerouting of train traffic that would generate increases and decreases in traffic along some rail line segments and in some rail yards. The proposed diversion of highway truck shipments to the expanded CSX and NS systems could result in increased local truck traffic in and around intermodal facilities and a corresponding decrease in long-haul truck traffic. In addition, the rerouting and consolidation activities associated with the proposed Acquisition would involve some rail line abandonment and construction projects and expansion of some rail yards and intermodal facilities.

The Board's Section of Environmental Analysis (SEA) has prepared an Environmental Impact Statement (EIS) to evaluate potential impacts that may result from the proposed Acquisition. As part of the EIS preparation process, a multi-disciplinary team conducted a comprehensive analysis of impacts to safety, traffic and transportation, energy, air quality, noise, cultural resources, hazardous materials, natural resources, land use/socioeconomics, and environmental justice. This Appendix focuses on SEA's approach to hazardous materials and waste sites. SEA examined the potential for disturbance of hazardous materials and waste sites due to the construction of rail line connections and rail line abandonment.

H.1 OVERVIEW

The following sections discuss the process by which SEA identified and evaluated potential impacts to hazardous waste sites and hazardous materials. This includes a discussion of applicable Federal and state regulations for impact analysis, the screening process, the types of data collected, and the assumptions and criteria applied to the data to determine if impacts resulting from the proposed Acquisition would be significant. This Appendix also presents the results of the Environmental Data Resources, Inc. (EDR) data search. Appendix B, "Safety," includes a discussion of the analysis methods for potential safety effects of rail transportation of hazardous materials due to the proposed Acquisition.

H.2 REGULATIONS AND GUIDANCE FOR IMPACT ANALYSIS

SEA based the hazardous materials and waste sites analysis upon the regulatory requirements of the Board and other agencies with respect to hazardous wastes. The following is a description of these regulatory requirements:

- The Board regulations at 49 CFR 1105.7(e)(7) state that locations of known hazardous waste sites, or locations where there have been known hazardous materials spills on the right-of-way, must be identified. These regulations also require that the types of hazardous materials be identified.
- The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) directed the EPA to investigate uncontrolled or abandoned hazardous waste sites for priority remediation under the Superfund Program by establishing a National Priority List (NPL).
- The Resource Conservation and Recovery Act of 1976 (RCRA) called for the EPA to compile a listing of facilities that generate, transport, store, treat, or dispose of hazardous waste.

H.3 SCREENING PROCESS

One of the first steps in developing the environmental analysis for the proposed action was to identify areas of potential impact through the threshold screening process. The process, described in Chapter 3 of the EIS, was based on standards set by the Board.

During the initial review of the hazardous materials evaluation process, SEA determined that potential disturbances of hazardous materials would be most likely to occur during the construction of rail line connections or rail line abandonments. For this reason, SEA eliminated operational changes on rail line segments and at intermodal facilities and rail yards from further impact analysis. The Applicants provided Attachment H-1 which discusses financial responsibility for Conrail's environmental liabilities. This attachment identified how current clean-up efforts will be addressed Post-Acquisition.

Specifically, SEA's evaluation focused on hazardous waste site impacts for 25 sites where new rail connections or abandonments are proposed. The 25 sites are located in seven states: Indiana, Illinois, Maryland, Michigan, New Jersey, New York, and Ohio. Existing or potential hazardous waste sites located more than 500 feet from the railroad right-of-way are unlikely to be disturbed by the construction of new rail connections or abandonment activities. Therefore, analysis did not extend beyond 500 feet from the railroad; SEA analyzed potential hazardous waste impacts only on the sites proposed for rail line abandonment or construction, and the surrounding 500 feet.

H.4 DATA SOURCES AND TYPES

SEA used site visits and a variety of data sources to identify the locations of reported releases, spills, incidents, or other environmental concerns on or adjacent to the proposed rail line connection and abandonment sites.

H.4.1 Database Searches

SEA obtained and reviewed database searches previously conducted by Environmental Data Resources, Inc. (EDR). Dames & Moore for CSX and Burns & McDonnell for NS originally commissioned these searches prior to the submittal of the Joint Application for the Conrail Acquisition. The search radius for each database at each site was at least 500 feet. SEA reviewed the results of the EDR searches which included the following:

- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), which contains data on potentially hazardous waste sites that have been reported to the EPA by states, municipalities, private companies, and private persons pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund). CERCLIS contains sites that are either proposed for or on the National Priorities List (NPL) and sites that are being screened and assessed for possible inclusion on the NPL.
- NPL, a subset of CERCLIS that identifies more than 1,200 sites for priority cleanup under CERCLA.
- De-listed NPL, which provides information from the EPA on sites deleted from the NPL. Sites may be deleted from the NPL when no further action is appropriate.
- No Further Remedial Action Planned (NFRAP), an EPA database that lists sites deleted from CERCLIS because no further remedial action is planned. This may be because an investigation found no contamination, the contamination was removed quickly without the need to place the site on the NPL, or the contamination was not serious enough to require Federal CERCLA action or NPL consideration.
- Resource Conservation and Recovery Information System (RCRIS-TSD), an EPA database that includes selective information on sites that generate, transport, store, treat, or dispose of hazardous waste, as defined by the Resource Conservation and Recovery Act (RCRA).
- Emergency Response Notification System (ERNS), an EPA database that records and stores information on reported releases of oil and hazardous substances.
- Federal Reporting Data System (FRDS), an EPA Office of Drinking Water database that provides information regarding public water supplies and their compliance with monitoring

requirements, maximum contaminant levels, and other requirements of the Safe Drinking Water Act.

- Area Radon Information, an EPA database that provides residential radon data from a study conducted from 1986 to 1992.
- USGS Water Wells, a USGS database containing descriptive information on sites where the USGS collects or has collected data on surface water or groundwater.
- Oil, gas pipeline, and electrical transmission line data extracted by EDR from 1994 USGS 1:100,000 scale maps.
- 100- and 500-year flood zone data collected from the Federal Emergency Management Agency (FEMA).
- WATER DAMS, a database of more than 74,000 dams maintained by FEMA.
- World earthquake epicenters, of Richter Scale 5 or greater, obtained from the Department of Commerce, National Oceanic and Atmospheric Administration.
- Sensitive receptors: locations of schools; hospitals; day care centers; and nursing homes where sensitive human receptors may be located.
- Former Manufactured Gas (Coal Gas) site locations, a database provided exclusively to EDR by Real Property Scan, Inc. Copyright 1993 by Real Property Scan, Inc.
- Orphan/unmappable sites, any sites for which the databases searched do not provide information sufficient to map the location.

State databases in the EDR search included:

- Leaking Underground Storage Tank Sites (LUSTs), state records of reported leaking underground storage tanks.
- Solid Waste Facilities and Landfill Sites (SWF/LF), state records of solid waste disposal facilities and landfills. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA criteria for solid waste landfills or disposal sites.
- State Hazardous Waste Sites (SHWS), state hazardous waste site records comparable to the Federal CERCLIS. These sites may or may not be listed in CERCLIS. Priority sites planned for cleanup using state funds (state equivalent of CERCLA) are identified along with sites where cleanup will be paid for by responsible parties. The available information varies by state.

- Illinois Solid Waste Landfill Inventory, a Northeastern Illinois Planning Commission (NIPC) inventory of active and inactive solid waste disposal sites, based on state, local government, and historical archive data.
- Illinois county well data obtained from the Illinois State Geological Survey.
- Illinois Private Well Database and Public, Industrial, Commercial Survey, obtained from the Illinois State Water Survey.
- Indiana spill incidents and community and non-community wells data obtained from the Indiana Department of Environmental Management.
- Michigan Public and Private Water Wells, obtained from the Michigan Department of Natural Resources.
- Michigan Oil and Gas Wells, obtained from the Michigan Department of Natural Resources.
- Known Contaminated Sites in New Jersey Associated with Bureau of Underground Storage Sites (BUST), KNOWN LUST, a New Jersey Department of Environmental Protection database.
- RELEASE, a New Jersey Department of Environmental Protection hazardous material release database. This database contains initial notification information reported to the Department of Environmental Protection Environmental Action Line. The office has not conducted any investigations to determine its validity or accuracy.
- New Jersey Public Community Wells, obtained from the New Jersey Department of Environmental Protection.
- New York Public Water Wells, obtained from the New York Department of Health.
- New York SPILLS, a New York Department of Environmental Conservation database that lists spills reported since April 1, 1986.
- Ohio SPILLS, an Ohio Environmental Protection Agency database that includes reported incidents, spills, or releases to the environment.
- Ohio Public Water Systems, obtained from the Ohio Environmental Protection Agency Division of Drinking and Groundwater.

H.4.2 Other Data Sources Consulted

- The Hazardous Materials Information Reporting System (HMIRS), a U.S. Department of Transportation (DOT) database that contains hazardous materials spill incidents on the right of way reported to DOT since 1971.
- The Environmental Report (ER).

H.5 ASSUMPTIONS, EVALUATION CRITERIA AND ANALYSIS

SEA followed a multi-step process to identify and evaluate hazardous waste sites.

H.5.1 Data Review

SEA reviewed USGS topographic maps and aerial photographs, where available, for the following information:

- General aspect of each site and its surrounding area.
- Size, location, and flow directions of streams, wetlands, and other water bodies.
- Apparent ground water flow direction (water table aquifer).
- Contaminant migration potential.
- Sensitive human and ecological receptors (schools, hospitals, wetlands, streams).
- Quarries.
- Aboveground storage tank farms.
- Other relevant structures or features.

SEA obtained the HMIRS database for all railroad tracks in all states affected by the proposed Acquisition and examined it to characterize the frequency and nature of spills of hazardous materials, including ozone-depleting substances. SEA used details from the last five years to identify the location, source, and size of spills on the right-of-way. SEA selected the last five years because the railroad spill response practices have changed and recent data are more representative of remedial clean up actions and practices. Both CSX and NS have spill response programs and employee training to minimize the potential for spills. SEA sorted the data by year, state, railroad, and the type and quantity of material spilled. SEA also reviewed information on how the spills occurred.

SEA reviewed the data present in the Environmental Report and correlated it with other available data sources.

SEA contacted relevant state agencies in the seven states with railroad line connections or abandonment sites and collected information on:

- Known hazardous materials release sites.
- Other incidents, spills, and pollution complaints.
- Remediated sites.
- Above or underground storage tanks.
- Facilities licensed to handle hazardous materials.

Local fire marshals from each community where a rail line new connection or abandonment supplemented this information. SEA also asked the fire marshals to provide a description of their community contingency plans to respond to potential disturbances of hazardous waste sites or releases of hazardous materials.

H.5.2 Site Visits

SEA made site visits to verify information obtained from the data sources and agency coordination and to search for any evidence of possible hazardous materials releases or remedial activities presently not recorded. A site visit checklist used on all site visits included the following:

- Date of inspection.
- Site information: name, location, telephone number, and person in charge of facility.
- Name of inspectors.
- Name of railroad personnel conducting tour.
- Known spills on site: date, quantity, location, material released, and nature of the release.
- Whether the site is scheduled for rail abandonment or connection.
- Long-term use intended for sites planned for rail abandonment.
- Rail connection plans.

- Whether the site is included on the databases described in Data Sources and Types.
- Any evidence of stressed vegetation.
- Any evidence of surface staining.
- Any evidence of chemicals, drums, or tanks.
- Any potential sensitive human or ecological receptors (for example, water supply wells, surface water, wetlands, schools, or hospitals).
- Topography and apparent surface drainage.
- List of photographs taken at the site.
- Observations of any remedial actions underway at the site.

H.5.3 Determination of Significance

The impact analysis focused on the presence of hazardous materials that might be disturbed during the construction of rail connections or rail line abandonments.

SEA considered impacts to be not significant if:

- The connection or abandonment would require no disturbance or loss of railroad control of any hazardous materials.
- Hazardous materials were present, but either the contamination had been removed or appropriate regulatory authorities had determined that no remedial action was required.
- Any materials released were small in quantity and low in toxicity.

SEA considered impacts to be potentially significant if the connection or abandonment could disturb either hazardous materials requiring remedial action or remediated sites with contaminants still in place and there was reason to believe such disturbance might occur in an uncontrolled manner.

H.6 EDR DATA SEARCH RESULTS

As discussed in Section H.4.1 of this appendix, SEA reviewed the Environmental Data Resources, Inc. (EDR) database search reports to identify known hazardous waste sites or related environmental concerns in the vicinity of the proposed construction or abandonment areas. The search radius for each database at each site was at least 500 feet. The mapped sites identified in

the FDR reports are summarized below in Table H-1. Unmapped (orphan) sites identified in the EDR reports are discussed in Chapter 5.

Table H-1
Summary of Sites Mapped by EDR

State/ Location	No. of Listings	Type of Incident	Site Name/Address	Distance (ft.) and Direction from Project Area
ILLINOIS				
75th Street Southwest Connection, Chicago, Cook County (CSX)				
	1	LUST	Chicago Department Fleet Mgmt. 7521 South Western Avenue	1,320 ft. west
Lincoln Avenue Connection, Dolton, Cook County (CSX)				
	1	RCRIS	Safety Kleen EnviroSystems 633 East 138th Street	1,320 ft. north
	1	RCRIS	MCM Land Company 1220 East 138th Street	2,640 ft. northeast
	1	CERCLIS	Land & Lake 1220 East 138th Street	2,640 ft. northeast
	1	CERCLIS	Cottage Grove Landfill West 138th Street & Cottage Grove Avenue	2,376 ft. northeast
	1	CERCLIS	Land & Lake No. 2 E 138th St. & Cottage Grove Ave.	2,482 ft. northeast
	1	SHWS	Safety Kleen EnviroSystems 633 East 138th Street	1,320 ft. north
	1	SHWS	Stauffer Chemical Co. 612 East 138th Street	1,320 ft. north
	1	SWF/LF	Land & Lake 138th St. & Cottage Grove Ave.	2,376 ft. northeast
	1	LUST	Pier II Marine 826 East 138th Street	2,112 ft. northeast
	1	LUST	Ball Incon Glass Packaging 13850 Cottage Grove Avenue	2,376 ft. northeast
	66	ERNS	633 East 138th Street (Safety Kleen)	1,320 ft. north
	1	ERNS	13925 Center Avenue	686 ft. northwest
	1	ERNS	426 East 142nd Street	2,112 ft. southwest

Table H-1
Summary of Sites Mapped by EDR

State/ Location	No. of Listings	Type of Incident	Site Name/Address	Distance (ft.) and Direction from Project Area
Kankakee Connection, Kankakee, Kankakee County (NS)				
	1	LUST	Sadie Roxy Inc. 395 North Schuyler Avenue	1,320 ft. south
	1	LUST	Tousignant Inc. 305 N. East Avenue	1,584 ft. south- southwest
	1	LUST	City Of Kankakee 385 East Oak	2,640 ft. south- southeast
INDIANA				
Butler Connection, Butler, DeKalb County (NS)				
	1	LUST	Miles Homes 685 Main Street	317 ft. east
South Bend to Dillon Junction Abandonment, St. Joseph and LaPorte Counties (NS) (Note: This information is based on the redefined South Bend abandonment endpoint.)				
	1	LUST	Asphalt Engineers Inc. 59755 Market Street	528 ft. east
	1	RCRIS- TSD	Van Waters and Rogers 59865 Market Street	528 ft. east
NEW JERSEY				
Little Ferry Connections, Ridgefield Park, Bergen County (CSX)				
Little Ferry North Connection				
	1/1	RCRIS- TSD/NJ Release	Halcon Catalyst Industries 59 Industrial Avenue	2,270 ft. west
	1/1	SHWS/ LUST	Thomas S. Taranto, Inc. 223 Bergen Turnpike	1,690 ft. southeast
	1/1/1	SHWS/N J Release/ NJ Spills	Depalma Printing Company Inc. 1 Teaneck Road	1,690 ft. southeast
	1	SHWS	R.A. Hamilton Corporation 9 Bergen Turnpike	1,848 ft. northwest

Table H-1
Summary of Sites Mapped by EDR

State/ Location	No. of Listings	Type of Incident	Site Name/Address	Distance (ft.) and Direction from Project Area
	1	CERCLIS	Halcon Catalyst Industries 33 Industrial Avenue	2,429 ft. west
	1/1	SWF/LF/ LUST	Gates Construction Corp. 208 Gates Road	2,376 ft. southwest
	1	SWF/LF	Esposito Construction SLF North Washington Avenue	1,848 ft. northwest
	1	LUST	Maple Court Apartments 25 Teaneck Road	1,637 ft. southeast
	1	LUST	Mobile Service Station #15-C20 Winant/Ridgefield Avenue	1,901 ft. north- northeast
	1	LUST	Super Value (Citgo) Route 46/Ridgefield Avenue	1,901 ft. north- northeast
	1	LUST	Merit Service Station 1642 U.S. Highway 46	2,112 ft. north
	1	LUST	Getty Service Station #56276 1490 Bergen Boulevard	2,112 ft. north
	1	LUST/NJ Release	Little Ferry Asphalt Plant 9 Bergen Turnpike	1,848 ft. northwest
	1/1	NJ Spills/ NJ Release	NYS Railway Yard Bergen Turnpike	1,056 ft. northwest
	1/1	NJ Spills/ NJ Release	MTC Towing 239 Bergen Turnpike	1,795 ft. Southeast
	1/1	NJ Spills/ NJ Release	Residence 107 Ridgefield Avenue	2,270 ft. north- northeast
	1/1	NJ Spills/ NJ Release	Scientific Design Co. Inc. 49 Industrial Avenue	2,270 ft. west

Table H-1
Summary of Sites Mapped by EDR

State/ Location	No. of Listings	Type of Incident	Site Name/Address	Distance (ft.) and Direction from Project Area
	1/1	NJ Spills/ NJ Release	Frank Constantino Residence 102 Laurel Street	2,376 ft. northeast
	1/1	NJ Spills/ NJ Release	145 Industrial Avenue	1,320 ft. west
	1/1	NJ Spills/ NJ Release	BEC 120 Industrial Avenue	1,373 ft. west
	1	ERNS	223 Bergen Turnpike	1,690 ft. southeast
Little Ferry South Connection				
	1	SHWS	International Fireworks Co. Fairview Avenue/94th Street	1,742 ft. east- southeast
	1	SHWS	International Aromatics Inc. 9419 Railroad Avenue	1,954 ft. east- southeast
	1	SWF/LF	North Bergen Recycling Inc. 9505 95th Street	2,112 ft. east
	1	NJ Release	Meer Corp. 9500 Railroad Avenue	2,376 ft. east- southeast
NEW YORK				
Blasdell Connection, Blasdell, Erie County (NS)				
	1	LUST	Natalzia Mobile Home 45 Lisa Lane	317 ft. south
	1	LUST	Oil Tank Leak at Lisa 45 Lisa Lane	317 ft. south
	1	LUST	Residence of Mobile Home 62 Lisa Lane	370 ft. southeast
	1	LUST	Transformers at Old RR 91 Cleveland Avenue	1,478 ft. southeast

Table H-1
Summary of Sites Mapped by EDR

State/ Location	No. of Listings	Type of Incident	Site Name/Address	Distance (ft.) and Direction from Project Area
	1	LUST	Tom Higgins Tanks 3473 South Park Avenue	1,584 ft. northeast
	1	SPILLS	Full Circle Auto Graphics 2053 Electric Avenue	1,690 ft. northeast
	1	SPILLS	Willand Dumping 134 Cleveland Avenue	1,795 ft. east
	1	SPILLS	Collision Shop 3375 South Park Avenue	1,795 ft. northeast
	1	SPILLS	Container in Vacant Field 46 Pierce Street	2,640 ft. northeast
	1	SPILLS	Petroleum Sales & Service 3287 S. Park Avenue	2,640 ft. northeast
	1	SPILLS	Petroleum Sales & Service 3287 S. Park Avenue	2,640 ft. northeast
OHIO				
Collinwood Connection, Cleveland, Cuyahoga County (CSX)				
	6	Ohio Spills	Consolidated Rail Corp. 601 East 152 Street	In construction area at 152nd Street crossing
	1	LUST	Conrail East 152nd Street (30 feet east of pump station)	In construction area at 152nd Street crossing
	1/1	LUST/ Ohio Spills	Conrail Flexi-Flo Terminals 577 East 152nd Street	158 ft. north of southwest part
	1	LUST	B&C Co 577 East 152nd Street	158 ft. north of southwest part
	3	LUST	Axle Properties Part 765 East 140th Street	158 ft. north of southwest part

Table H-1
Summary of Sites Mapped by EDR

State/ Location	No. of Listings	Type of Incident	Site Name/Address	Distance (ft.) and Direction from Project Area
	1	LUST	Unknown (Impacts in Euclid Creek) 1201 East 185th Street	264 ft. northwest of northeast end
	1	LUST	Marathon 3320 18501 Nottingham Road	264 ft. northwest of northeast end
	1	LUST	Cleveland Public Power 13915 Aspinwall	264 ft. south-west of southwest part
	1	LUST	Acme Iron & Metal Co. 16201 Saranac Road	264 ft. south-west of southwest central part
	1	LUST	Gahr Machine Co. 19199 St. Clair Avenue	317 ft. southeast of northeast part
	1	RCRIS-TSD	Papps Body Shop Inc. 20980 St. Clair Avenue	317 ft. southeast of northeast part
	1	LUST	Melinz Industries Inc. 16226 South Waterloo Road	422 ft. northwest of central part
	1	LUST	Former Wahl Rigging Corp. 16100 South Waterloo Road	422 ft. northwest of central part
	1	LUST	Aquasonic Car Wash 20500 Lakeland Boulevard	422 ft. northwest of northeast part
	1	LUST	Unknown Site Name 185th Street/Waterloo Street	475 ft. northwest of northeast part
	1	LUST	BP 04061 East 185th / Lakeshore	475 ft. northwest of northeast part
	1	LUST	Ink Tech Corp. 18220 Lanken Avenue	475 ft. northwest of northeast part
	1	LUST	Spero Electric Corp. 18222 Lanken Avenue	475 ft. northwest of northeast part

Table H-1
Summary of Sites Mapped by EDR

State/ Location	No. of Listings	Type of Incident	Site Name/Address	Distance (ft.) and Direction from Project Area
	1	LUST	Unknown Site Name 185th Street/Waterloo Street	475 ft. northwest of northeast part
	1	RCRIS- TSD	Ameriwave Environmental Inc. 17877 St. Clair Avenue	475 ft. southeast of northeast part
	1	RCRIS- TSD	Eaglebrook of Ohio Inc. 17877 St. Clair Avenue	475 ft. southeast of northeast part
	1	LUST	Former Pro Seal Mfg. Co. 16710 South Waterloo Road	581 ft. north of central part
	1	LUST	Prestige Productions 13600 Deisse Avenue	1,003 ft. west of southwest part
Willard Connection, Huron and Seneca Counties (CSX)				
	1/1	LUST/ SPILLS	CSX Transportation Inc. 317 Front Street	20,064 ft. southeast
	1	LUST	City of Willard 2 South Myrtle	21,120 ft. southeast
	1	LUST	CSX Transp. Inc. 200 Woodland Avenue	21,120 ft. southeast
	1	ERNS/ SPILLS	CSX Railroad 135 Front Street	20,064 ft. southeast
Columbus Connection, Columbus, Franklin County (NS)				
	1	LUST	Sunoco 711 E. Weber Road	845 ft. east
	1	LUST	Capital Business Forms 2505 Silver Drive	1,320 ft. south
Toledo-Maumee Abandonment, Toledo, Lucas County (NS)				
	3	OH SPILLS	General Mills Inc. 1250 W. Laskey Road	106 ft. northeast of north end

Table H-1
Summary of Sites Mapped by EDR

State/ Location	No. of Listings	Type of Incident	Site Name/Address	Distance (ft.) and Direction from Project Area
	1	LUST	Former HI FI 1441 W. Laskey Road	106 ft. north of north end
	1/1/1	LUST/ RCRIS- TSD/ OH SPILLS	Teledyne CAE 1330 Laskey Road	264 ft. north of north end
	1	LUST	Toledo Fire Station #23 2754 Laskey Road	8,712 ft. west of north end
	1	LUST	Snyder Tire 1560 W. Laskey Road	264 ft. northwest of north part
	1	OH SPILLS	SRW Maintenance Corp. 4925 Jackman Road	158 ft. west of north part (north of Jackman Road crossing)
	6/1	OH SPILLS/ RCRIS- TSD	Du Pont/E I De Nemours & Co. 1930 Tremainsville Road	Adjacent and east of north part northeast-east of Tremainsville Road crossing)
	1	LUST	Schrader Tire & Oil 4033 Fitch Road	317 ft. east of north part (east of Sylvania crossing)
	1	LUST	BP #06850 4128 Monroe Street	475 ft. northwest of north part (northwest of Monroe Street crossing)
	1	LUST	Cliff Clarks Inc. 4102 Monroe Street	158 ft. northwest of north part (northwest of Monroe Street crossing)

Table H-1
Summary of Sites Mapped by EDR

State/ Location	No. of Listings	Type of Incident	Site Name/Address	Distance (ft.) and Direction from Project Area
	1	LUST	Abandoned 7-11 #18251 4111 Monroe Street	211 ft. northwest of north part (northwest of Monroe Street crossing)
	1	LUST	Home Builders Supply Co. 2939 Douglas Road	264 ft. west of north-central part (1,003 ft. southwest of Central Avenue crossing)
	1	LUST	Abandoned UST 1700 N. Westwood Avenue	211 ft. east of central part (1,056 ft. north of Dorr Street crossing)
	2	OH SPILLS	Owens Illinois Company 1700 N. Westwood Avenue	211 ft. east of central part (1,056 ft. north of Dorr Street crossing)
	2	LUST	Westwood Annex South 1615 N. Westwood Avenue	106 ft. east of central part (792 ft. northeast of Dorr Street crossing)
	1	OH SPILLS	Sun Refining & Marketing 2710 Dorr Street	211 ft. east of central part (east of Dorr Street crossing)
	1	LUST	Sunoco Service Station 2710 Dorr St. & Westwood Ave.	211 ft. east of central part (east of Dorr Street crossing)
	1	LUST	Douglas Curry Excavating Inc. 2724 Avondale Avenue	106 ft. east of south-central part (east of Avondale Avenue crossing)

Table H-1
Summary of Sites Mapped by EDR

Stat./ Location	No. of Listings	Type of Incident	Site Name/Address	Distance (ft.) and Direction from Project Area
	1	LUST	Nadzar Rubber Co. 2727 Avondale Avenue	106 ft. east of south-central part (east of Avondale Avenue crossing)
	1	LUST	Mentzer Residence 715 Elysian Avenue	264 ft. west of south-central part (422 ft. southwest of Avondale Avenue crossing)
	1	LUST	Foreman Auto 2705 Nebraska Avenue	581 ft. east of south-central part (east of Nebraska Avenue crossing)
	1	LUST	Former JH Davis 7 Son Co. 111 Burbank Drive	581 ft. east of south-central Part (792 ft. northeast of Hill Avenue crossing)
	1	LUST	Georgia Pacific Corp. 2815 Hill Avenue	Adjacent and east of south-central part (southeast of Hill Avenue crossing)
	1	LUST	Ameritech 130 Telstar Drive	Adjacent and west of south-central part (792 ft. southwest of Hill Avenue crossing)
	1	LUST	Dunbar Real Estate 2851 South Avenue	211 ft. east of southern part (east of South Avenue crossing)

Table H-1
Summary of Sites Mapped by EDR

State/ Location	No. of Listings	Type of Incident	Site Name/Address	Distance (ft.) and Direction from Project Area
	1	LUST	Great Lakes Industry Cont. 2852 South Avenue	158 ft. east of southern part (east of South Avenue crossing)
	1	LUST	Empire Petro 2925 Airport Highway	Adjacent and west of southern part (southwest of Airport Highway crossing)
	1	LUST	Empire Oil Station 2921 Airport Highway	Adjacent and west of southern part (southwest of Airport Highway crossing)
	1	OH SPILLS	Name Unknown 1415 Winnette Drive	211 ft. west of southern part (581 ft. north of Glendale Avenue crossing)
	7	OH SPILLS	Plaskon Inc. 2829 Glendale Avenue	211 ft. west of southern part (west of Glendale Avenue crossing)
Toledo Pivot Bridge Abandonment, Toledo, Lucas County (NS)				
	1	Coal Gas	Ohio Fuel Gas Co. 315 Wheeling Avenue	2,218 ft. south

H.7 MITIGATION

Since remediation of contaminated areas is subject to extensive Federal, state, and local regulation and SEA has no reason to believe such requirements will not be complied with, no additional mitigation is necessary.

Attachment H-1

**Applicants' Statement Regarding Financial Responsibility for Conrail's
Environmental Liabilities**

APPLICANTS' STATEMENT REGARDING FINANCIAL RESPONSIBILITY FOR CONRAIL'S ENVIRONMENTAL LIABILITIES

The contractual agreements between and among the Applicants deal comprehensively with actual or potential environmental liabilities of Conrail, Inc. and Consolidated Rail Corporation (collectively "Conrail"). The transaction will not adversely affect the cleanup of any contaminated property currently owned by Conrail or the satisfaction of any other environmental liability of Conrail.

The Transaction Agreement by and among CSX Corporation and CSX Transportation, Inc. (collectively "CSX"), Norfolk Southern Corporation and Norfolk Southern Railway Company (collectively "NS"), Conrail and CRR Holdings LLC, dated as of June 10, 1997 (the "Transaction Agreement") (found in Volumes 8B and 8C of the Railroad Control Application filed with the Board on June 23, 1997), provides for the satisfaction of all of Conrail's environmental liabilities as explained below.

Most of Conrail's railroad lines and assets will be conveyed to two new subsidiaries of Conrail that will be operated separately by CSX and NS. Those assets, referred to as "Allocated Assets" are described in Schedule 1 of the Transaction Agreement (Volume 8B, pages 83-103). In general terms, CSX will operate many of the assets of the former New York Central Railroad (to be owned by a new Conrail subsidiary to be named New York Central Lines LLC or "NYC") and NS will operate many of the assets of the former Pennsylvania Railroad (to be owned by a new Conrail subsidiary to be named Pennsylvania Lines LLC or "PRR"). The remaining Conrail lines and assets which will continue to be owned by Conrail and will not be allocated to NYC or PRR are referred to as "Retained Assets." Most of the Retained Assets will be operated by Conrail as Shared Assets Areas for the benefit of both CSX and NS.

Section 2.8(b) of the Transaction Agreement allocates responsibility for environmental liabilities. In general, environmental liabilities associated with the Allocated Assets will follow those assets and become the direct responsibility of NYC or PRR, as the case may be. As the operators of the Allocated Assets, CSX and NS will pay rents to NYC and PRR respectively which will be used to satisfy their liabilities. CSX and NS will each be responsible for liabilities arising from their own operations after the Closing Date involving the Allocated Assets.

Environmental liabilities associated with the Retained Assets will remain the responsibility of Conrail. After the Closing Date, the Shared Assets Areas Operating Agreements will apportion between CSX and NS the financial responsibility for costs and liabilities (including environmental liabilities) which arises from use of the Shared Assets Areas. See Sections 9 and 11 to each of the Shared Assets Operating Agreements for North Jersey, South Jersey/Philadelphia and Detroit in Volume 8C.

Finally, Section 4.3 of the Transaction Agreement requires CSX and NS to provide funds to Conrail to satisfy its obligations (including environmental obligations), if rental and other payments from CSX and NS are insufficient to do so.

APPENDIX I

Natural Resources

APPENDIX I

Natural Resources

In June 1997, CSX Corporation (CSX) and Norfolk Southern Corporation (NS), together with Conrail Inc., filed a joint application with the Surface Transportation Board (Board) seeking authority for CSX and NS to acquire control of Conrail. As part of this Acquisition, CSX and NS would divide Conrail's assets between the two companies. The proposed transaction involves over 44,000 miles of rail lines and related facilities extending over a large portion of the eastern United States. CSX and NS have stated that the transaction would increase service capabilities, improve operating efficiency, and promote competition.

The proposed transaction would result in a rerouting of train traffic that would generate increases and decreases in traffic along some rail line segments and in some rail yards. The proposed diversion of highway truck shipments to the expanded CSX and NS systems could result in increased local truck traffic in and around intermodal facilities and a corresponding decrease in long-haul truck traffic. In addition, the rerouting and consolidation activities associated with the proposed Acquisition would involve some rail line abandonment and construction projects and expansion of some rail yards and intermodal facilities.

The Board's Section of Environmental Analysis (SEA) has prepared an Environmental Impact Statement (EIS) to evaluate potential impacts that may result from the proposed Acquisition. As part of the EIS preparation process, a multi-disciplinary team conducted a comprehensive analysis of impacts to safety, traffic and transportation, energy, air quality, noise, cultural resources, hazardous materials, natural resources, land use/socioeconomics, and environmental justice. This Appendix focuses on SEA's approach to the following major areas of natural resources:

- Water resources and wetlands.
- Biological resources, including Federally-listed threatened and endangered species, protected wildlife habitats and migration corridors, wildlife refuges and sanctuaries, national, state and/or local parks or forests, and protected unique or critical habitats.

I.1 OVERVIEW

The following sections discuss the process by which SEA identified and evaluated potential impacts to natural resources. These sections include a discussion of applicable Federal and state regulations for impact analysis, the screening process, the types of data collected, and the assumptions and criteria applied to the data to determine if impacts resulting from the proposed Acquisition would be significant.

I.2 REGULATIONS AND GUIDANCE FOR IMPACT ANALYSIS

SEA conducted the study following the guidelines of the Council on Environmental Quality (CEQ) (40 CFR Part 1500), the regulations of the National Environmental Policy Act of 1969 (NEPA) (Pub. L. 91-190, 42 U.S.C. 4321-4347, January 1, 1970) as amended, and the standards of the Surface Transportation Board (49 CFR Part 1105). Table I-1 lists the legal authority for Federal environmental review and consultation requirements for natural resource issues, identifies the Federal agencies responsible for enforcement of such regulations, and defines the applicable activities associated with the proposed Conrail Acquisition that may require such review or consultation for natural resource issues.

Table I-1
Federal Programs Protecting Natural Resources

Legal Authority	Federal Agency	Activities of Concern
Section 404 of the Clean Water Act of 1977 (CWA), as amended by the Water Quality Control Act of 1987 (Pub. L. 100-4, 1988); Federal Water Pollution Control Act (33 U.S.C. 1251-1376); Executive Order 11990 "Protection of Wetlands" (42 FR 26961; May 1977)	Department of the Army's Corps of Engineers (USACE)	Discharges into "waters of the U.S." (including wetlands)
Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)	USACE	Construction activities in "navigable waters"
Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531-1544) as amended; Fish and Wildlife Conservation Act of 1956 and 1980; Fish and Wildlife Coordination Act of 1934, amended 1946, 1958, 1977 (16 U.S.C. 661-667e); Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1401 et seq.)	U.S. Department of the Interior's Fish and Wildlife Service (USFWS); U.S. Department of Commerce's National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS)	Activities affecting Federally-protected threatened and endangered species of plants and animals
Executive Order 11988 "Floodplain Management" (May 1977)	Federal Emergency Management Agency	Activities proposed in floodplains

SEA considered potential impacts from the proposed Conrail Acquisition related to the National Pollutant Discharge Elimination System (NPDES), as directed by Section 402 of the CWA; and wild and scenic rivers, as directed by the Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271 et seq.). Additionally, SEA possessed technical experience in performing the appropriate field analyses, including the USACE's "three-parameter wetlands approach" that evaluates hydric soils, wetlands hydrology, and hydrophytic vegetation in the process of identifying the presence of wetlands.

I.3 SCREENING PROCESS

One of the first steps in developing the environmental analysis for the proposed action was to identify areas of potential impact through the threshold screening process. SEA based the screening process, described more fully in Chapter 3 of the EIS, on standards set by the Board. SEA further refined the initial screening.

Physical alteration of habitats and water resources directly affect water resources, wetlands, and biological resources. For the second screening, SEA determined that the potential for impacts to natural resources was most likely to be associated with projects related to the abandonment of rail lines and the construction of new connector lines, intermodal facilities, and rail yards. For projects within these categories, SEA reviewed the extent of activity and impacts to habitat relative to existing water and wetland resources that may be affected by such projects. SEA determined that operational changes, such as increases or decreases in the number of trains on a rail line segment, have little direct effect on these natural resources.

I.4 DATA SOURCES AND TYPES

SEA verified the information presented in the Environmental Report (ER) for the proposed acquisition of Conrail by CSX and NS to determine if the information was complete and at an appropriate level of detail. In addition, SEA referred to the following resources to develop their baseline analysis of the proposed Acquisition's effects.

- U.S. Geological Survey (USGS) 7.5-minute series topographic maps.
- USFWS National Wetlands Inventory (NWI) maps.
- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs).
- U.S. Department of Agriculture's Natural Resource Conservation Service (NRCS) county soil surveys and applicable lists of hydric soils.
- Federal, state, and local agency comments in response to scoping letters from the Board.
- Internet databases and other pertinent "on-line" information.

1.5 ASSUMPTIONS, EVALUATION CRITERIA, AND ANALYSIS

1.5.1 Water Resources and Wetlands

Evaluation Process

Once SEA identified site-specific project areas that could potentially affect natural resources, SEA used a three-step process to develop an impact analysis for water resources and wetlands.

Step 1: Map Review and Analysis. SEA reviewed USGS topographic maps to locate surface water features in each project's vicinity. SEA examined the maps for all perennial and intermittent streams, natural impoundments, and man-made water bodies relative to the probable extent and effects of the proposed project activities.

SEA also examined NWI maps which provide guidelines for the estimated location and area of wetlands and deepwater habitats in the United States. The U.S. Fish and Wildlife Service classifies NWI wetlands and deepwater habitats according to an alphanumeric system developed by Cowardin et. al. (1979). SEA used this alphanumeric system to describe all wetlands and deepwater habitats mentioned in this EIS. SEA further substantiated the potential for wetlands within a project vicinity by consulting NRCS county soil surveys. The NRCS soil surveys, when referenced with applicable lists of hydric soils, provide an indication of the possible location of hydric soils. Hydric soils are one parameter, along with the presence of wetlands hydrology and hydrophytic vegetation used in the determination of the presence of wetlands.

SEA also reviewed the Federal Emergency Management Agency's Flood Insurance Rate Maps of the project vicinity in order to determine whether the proposed project activity was likely to occur in proximity to a 100-year floodplain. Such project activity within a floodplain could affect water quality and flooding characteristics in the area.

Step 2: Field Review. SEA visited all project sites that SEA had previously determined to have the most likely potential for impacts to water resources and wetlands. SEA primarily based their identification of site visit locations on indicators from the reference materials. In addition, SEA considered the possible extent of project activities and the site visit evaluations from members of other technical teams, such as the Land Use and Cultural Resource study teams.

At each of the sites visited, SEA observed the natural environment, determined the potential impacts to water resources and wetlands, recorded their findings on standardized data sheets, and photographed views of pertinent natural resources.

Step 3: Evaluation of Impacts. SEA began their evaluation of impacts during the field review. By comparing the planned activity to the water resources and wetlands present, SEA was able to determine the potential effect of the project. SEA used the following criteria to determine the effect on water resources and wetlands:

STB

FD

33388

12-12-97

K

28629V5A

9/11

- Alteration of stream embankments with rip-rap, concrete, and/or other stabilization measures.
- Temporary or permanent loss of surface water area associated with the incidental deposition of fill.
- Downstream sediment deposition or water turbidity due to fill activities, dredging, and/or soil erosion from upland construction sites.
- Direct or indirect destruction and/or degradation of aquatic, wetland, and riparian vegetation and/or habitat.
- Degradation of water quality through sediment loading or resulting from chemical and/or petroleum spills.
- Alteration of water flow that could increase bank erosion or flooding, uproot or destroy vegetation, or affect fish and wildlife habitats.

Once SEA determined the criteria for effects to water resources and wetlands, they developed a list of significant impacts that would require specific mitigation activities to compensate for these impacts. The following lists possible impacts to water resources and wetlands by proposed construction and abandonment activities that SEA determined would be classified as significant:

- Any removal, alternation, or filling of a wetland without the issuance of a Section 404 permit by the U.S. Army Corps of Engineers. Under Section 404 of the Clean Water Act of 1977, any discharge of fill material into waters designated as "waters of the United States" is not allowable unless a permit is issued by the Army Corps of Engineers. Any alteration of wetlands or waters of the United States without the issuance of a permit will require mitigation activities to compensate for the filling activities.
- Impacts to wetlands that are known to function as habitat for endangered species. The Endangered Species Act of 1973 protects all Federally-listed threatened or endangered species from activities affecting those species.
- Impacts to water resources that are identified drinking water sources.
- Impacts to floodplains that significantly alter the flooding patterns within and adjacent to the impact area.

As part of this impact analysis process, SEA also noted the potential need for Federal permits, such as USACE's permits for impacts to jurisdictional wetlands as defined in Section 404 of the CWA. The last part of the impact analysis process was to identify potential options for mitigation measures. SEA developed both a set of general approaches for mitigating impacts to water resources and wetlands.

1.5.2 Biological Resources

"Biological resources" are defined as Federally-listed threatened and endangered species, protected wildlife habitats and migration corridors, wildlife refuges and sanctuaries, national, state and/or local parks or forests, and protected unique or critical habitats. SEA used a similar three-step process to determine effects on biological resources.

Step 1: Data Collection and Review. In developing an analysis of the proposed Acquisition's effects on biological resources, SEA reviewed and verified the information presented in the ER, consulted with appropriate agencies such as the USFWS, examined appropriate representative specimens as present in herbarium collections, and searched Internet biological resource listings. SEA studied, as feasible, representative live or preserved specimens of Federally protected plants and animals, as well as photocopies of specimens and descriptions of species and their associations to prepare SEA for the site visit phase of the analysis.

SEA used this information to develop a method for identifying areas potentially containing biological resources that could be affected by the Acquisition. Specifically, SEA selected sites for detailed study based on the following factors:

- Existence of a clear record of the presence of a protected species or habitat.
- Location of a site within a species' regional geographic distribution and habitat.

These factors did not automatically exclude highly developed urban areas from consideration because some protected species, especially plant species, thrive in the somewhat disturbed conditions like those found adjacent to railroad facilities.

Step 2: Field Review. SEA visited the sites identified during the first step of the biological resources impact analysis. Using a standardized data collection sheet, SEA confirmed their preliminary assessment of the site's existing conditions, and then collected the information needed to assess the impact of the Acquisition on the area's biological resources. The site visit included photographic documentation of the area.

Step 3: Evaluation of Impacts. Like the evaluation of water resources and wetlands, SEA began their evaluation of impacts to biological resources during the field review. SEA compared the plans for the area against confirmed or potential biological resources, using the following criteria to determine the effect on biological resources:

- Loss or degradation of protected plant or wildlife communities.
- Disturbance of nesting, breeding, or foraging areas of protected wildlife.

- Loss or degradation of areas designated by regulatory or review agencies as critical habitat. Table I-2 contains brief descriptions of suitable habitat for, and identifies those states containing designated critical habitat for, Federally-protected animal species.
- Loss or degradation of wildlife sanctuaries, refuges, or national, state, or local parks and/or forests.
- Alteration of movement or migration corridors for wildlife.

Table I-2
Federally-Protected Animal Species

Scientific Name	Common Name	State Found	Suitable Habitat	States With Critical Habitat
<i>Vertebrates</i>				
<i>Myotis sodalis</i>	Indiana Bat	IL, IN, MD, MI, NJ, NY, OH	<ul style="list-style-type: none"> • winter: in caves • summer: in hollow trees & under bridges 	IN, MI, NJ, NY, OH
<i>Myotis grisescens</i>	Gray Bat	IL, IN	<ul style="list-style-type: none"> • found in caves near rivers 	None
<i>Canis lupus</i>	Gray Wolf	MI	<ul style="list-style-type: none"> • any natural habitat 20 degrees N Lat. occupied by ungulates • areas away from heavy human use 	MI
<i>Sciurus niger cinereus</i>	Delmarva Peninsula Fox Squirrel	MD	<ul style="list-style-type: none"> • old growth • pine-oak forests 	IN
<i>Haliaeetus leucocephalus</i>	Bald Eagle	IL, IN, MD, MI, NJ, NY, OH	<ul style="list-style-type: none"> • old growth trees • near water • oldest/tallest trees 	None
<i>Falco peregrinus anatum</i>	American Peregrine Falcon	IL, IN, MD, MI, NJ, NY, OH	<ul style="list-style-type: none"> • open habitats • cliffs • near water 	MI, NJ, NY
<i>Charadrius melodus</i>	Piping Plover	IL, IN, MD, MI, NJ, NY, OH	<ul style="list-style-type: none"> • sandy-rocky riverbanks 	None
<i>Dendroica kirtlandii</i>	Kirtland's Warbler	IL, MI	<ul style="list-style-type: none"> • pine branch thickets 	None

**Table I-2
Federally-Protected Animal Species**

Scientific Name	Common Name	State Found	Suitable Habitat	States With Critical Habitat
<i>Sterna antillarum</i>	Least Tern	IL, IN	<ul style="list-style-type: none"> rivers/streams sandbars (bare) 	None
<i>Sterna dougalli dougalli</i>	Roseate Tern	NY, NJ	<ul style="list-style-type: none"> rocky or vegetated shoreline 	None
<i>Nerodia sipedon insularum</i>	Lake Erie Water Snake	OH	<ul style="list-style-type: none"> cliffs & rocky shorelines of limestone islands 	None
<i>Nerodia erythrogaster neglecta</i>	Northern Copperbelly Water Snake	IN, MI, OH	<ul style="list-style-type: none"> lowland swamps 	None
Vertebrates				
<i>Lepidochelys kempii</i>	Kemp's Sea turtle	MD, NJ, NY	<ul style="list-style-type: none"> coastal & estuarine waters 	None
<i>Chelonia mydas</i>	Green Sea Turtle	MD, NY	<ul style="list-style-type: none"> shallow, well vegetated coastal waters 	NY
<i>Eretmochelys imbricata</i>	Hawksbill Sea Turtle	MD, NJ, NY	<ul style="list-style-type: none"> coastal waters 	NJ, NY
<i>Dermochelys coriacea</i>	Leatherback Sea Turtle	MD, NJ, NY	<ul style="list-style-type: none"> coastal waters 	NY
<i>Caretta caretta</i>	Loggerhead Sea Turtle	MD, NJ, NY	<ul style="list-style-type: none"> coastal waters 	None
<i>Etheostoma sellare</i>	Maryland Darter	MD	<ul style="list-style-type: none"> one riffle of Deer Creek, Harford County 	MD
<i>Nosturus trautmani</i>	Scioto Madtom	OH	<ul style="list-style-type: none"> one riffle of Big Darby Creek 	None
<i>Scaphirhynchus albas</i>	Pallid Sturgeon	IL	<ul style="list-style-type: none"> large rivers 	None
Invertebrates				

Table I-2
Federally-Protected Animal Species

Scientific Name	Common Name	State Found	Suitable Habitat	States With Critical Habitat
<i>Alasmodonta heterodon</i>	Dwarf Wedge Mussel	MD, NY	<ul style="list-style-type: none"> • small to medium streams • sand/gravel 	None
<i>Pleuroblema clava</i>	Clubshell Mussel	IN, OH	<ul style="list-style-type: none"> • small rivers and streams • clean/loose sand 	None
<i>Cyprogenia stegaria</i>	Fanshell Mussel	IL, IN, OH	<ul style="list-style-type: none"> • medium to large rivers • deep water/gravel 	None
<i>Obovaria retusa</i>	Ring Pink Mussel	IN	<ul style="list-style-type: none"> • large rivers • gravel/sand 	None
Invertebrates				
<i>Hemistena lata</i>	Cracking Pearlymussel	IN	<ul style="list-style-type: none"> • medium to large rivers • mud/gravel/sand 	None
<i>Lampsilis higginsii</i>	Higgins' Eye Pearlymussel	IL	<ul style="list-style-type: none"> • large rivers • deep water • mud/gravel 	None
<i>Plethobasus cooperianus</i>	Orange-foot Pimple Back Pearlymussel	IL, IN	<ul style="list-style-type: none"> • deep rivers • gravel 	None
<i>Epioblasma torulosa torulosa</i>	Tubercled-blossom Pearlymussel	IN	<ul style="list-style-type: none"> • medium to large rivers • gravel 	None
<i>Lampsilis abrupta</i>	Pink Mucket Pearlymussel	IN, OH	<ul style="list-style-type: none"> • large rivers • gravel/sand 	None
<i>Epioblasma obliquata obliquata</i>	Purple Pearlymussel	OH	<ul style="list-style-type: none"> • large rivers • sand/gravel • swift currents 	None
<i>Epioblasma obliquata perobliquata</i>	White Cat's Paw pearlymussel	IN, OH	<ul style="list-style-type: none"> • large rivers • sand/gravel • swift water 	None

Table I-2
Federally-Protected Animal Species

Scientific Name	Common Name	State Found	Suitable Habitat	States With Critical Habitat
<i>Plethobasus cicatricosus</i>	White Whartyback pearlymussel	IL, IN	<ul style="list-style-type: none"> • deep rivers • gravel 	None
<i>Epioblasma torulosa rangiana</i>	Northern Riffleshell	IN, MI, OH	<ul style="list-style-type: none"> • streams • packed sand/gravel 	None
<i>Pleurobema plenum</i>	Rough Pigtoe	IN	<ul style="list-style-type: none"> • medium to large rivers • sand/gravel 	None
<i>Potamilus capax</i>	Fat Pocketbook	IL, IN	<ul style="list-style-type: none"> • deep rivers • slow water • mud/sand 	None
Invertebrates				
<i>Succinea chittenangoensis</i>	Chittenango Ovate Amber Snail	NY	<ul style="list-style-type: none"> • aquatic vegetation • Madison County 	None
<i>Discus macclintocki</i>	Iowa Pleistocene Snail	IL	<ul style="list-style-type: none"> • rocky slopes • Birch, Maple, Dogwood, Willow trees 	None
<i>Somatochlora hineana</i>	Hine's Emerald Dragonfly	IL	<ul style="list-style-type: none"> • wetlands/ over limestone bedrock • marshes along the Des Plains River 	None
<i>Lycaeides melissa samuelis</i>	Karner Blue Butterfly	IL, IN, MI, NY, OH	<ul style="list-style-type: none"> • associated with wild lupine plants 	None
<i>Neonympha mitchellii mitchellii</i>	Mitchell's Satyr Butterfly	IN, MI, OH	<ul style="list-style-type: none"> • alkaline prairie wetland 	None
<i>Nicrophorus americanus</i>	American Burying Beetle	OH, MI	<ul style="list-style-type: none"> • undisturbed areas 	None
<i>Cicindela puritana</i>	Puritan Tiger Beetle	MD	<ul style="list-style-type: none"> • clean sandy areas 	None

Table I-2
Federally-Protected Animal Species

Scientific Name	Common Name	State Found	Suitable Habitat	States With Critical Habitat
<i>Brychius hungerfordi</i>	Hungerford's Crawling Water Beetle	MI	<ul style="list-style-type: none"> riffles of cool, clear, alkaline streams moderate to fast water flow Emmet and Montmorency Counties, MI 	None
<i>Cicindela dorsalis dorsalis</i>	Northeastern Beach Tiger Beetle	MD, NJ	<ul style="list-style-type: none"> clean, undisturbed sand beaches 	None
Plants				
<i>Plantanthera leucopaea</i>	Eastern Prairie Fringed Orchid	IL, MI, OH	<ul style="list-style-type: none"> wet meadows sphagnum bogs lake borders 	None
<i>Hymenoxys herbacea</i> , <i>culis</i> var. <i>glabra</i>	Lakeside Daisy	IL, OH	<ul style="list-style-type: none"> barren limestone bedrock 	None
<i>Aconitum noveboracense</i>	Northern Wild Monkshood	IL, NY, OH	<ul style="list-style-type: none"> shaded cliffs stream sides algific talus slopes 	None
<i>Trifolium stoloniferum</i>	Running Buffalo Clover	IN, OH	<ul style="list-style-type: none"> open woods grasslands roadsides streambanks 	None
<i>Dalea foliosa</i>	Leafy Prairie Clover	IL	<ul style="list-style-type: none"> rocky cedar glades 	None
<i>Lespedeza leptostachya</i>	Prairie Bush Clover	IL	<ul style="list-style-type: none"> open prairie habitat 	None
<i>Cirsium pitcheri</i>	Pitcher's Thistle	IL, MI, IN	<ul style="list-style-type: none"> open, sandy areas 	None
<i>Asclepias meadii</i>	Mead's Milkweed	IL, IN	<ul style="list-style-type: none"> dry upland prairies 	None
<i>Mimulus glabratus</i> var. <i>Michiganensis</i>	Michigan Monkey-flower	MI	<ul style="list-style-type: none"> wetlands shady areas wet soils 	None

**Table I-2
Federally-Protected Animal Species**

Scientific Name	Common Name	State Found	Suitable Habitat	States With Critical Habitat
<i>Spiraea virginia pogonia</i>	Virginia Spiraea	OH	<ul style="list-style-type: none"> • streamsides • levees 	None
<i>Iris lacustris</i>	Dwarf Lake Iris	MI	<ul style="list-style-type: none"> • wetlands 	None
<i>Isotria medeoloides</i>	Small Whorled Pogonia	IL, MI, NJ, OH	<ul style="list-style-type: none"> • acidic, dry, open, deciduous woods 	None
<i>Aeschynomene virginica</i>	Sensitive Joint-Vetch	MD	<ul style="list-style-type: none"> • intertidal zones • marsh edge 	None
<i>Agalinis acuta</i>	Sandplain Gerardia	MD, NY	<ul style="list-style-type: none"> • sandy soils 	None
<i>Helonias bullata</i>	Swamp Pink	MD	<ul style="list-style-type: none"> • wetlands • associated with evergreens 	None
<i>Oxypclis canbyi</i>	Canby's Dropwort	MD	<ul style="list-style-type: none"> • open, wet area • organic solid 	None
<i>Ptilimnium nodosum</i>	Harperella	MD	<ul style="list-style-type: none"> • gravel shoals of swift streams • edges of pine ponds in coastal plane 	None
<i>Scirpus ancistrochaetus</i>	Northeastern Bulrush	MD	<ul style="list-style-type: none"> • sinkholes • Mountain Ponds 	None
<i>Amaranthus pumilus</i>	Seabeach Amaranth	NY	<ul style="list-style-type: none"> • sand with shell fragments 	None
<i>Sedum integrifolium ssp. Leedyi</i>	Leedy's Roseroot	NY	<ul style="list-style-type: none"> • cliffsides 	None
<i>Solidago houghtonii</i>	Houghton's Goldenrod	MI, NY	<ul style="list-style-type: none"> • shorelines of lakes 	None
<i>Boltonia decurrens</i>	Decurrent False Aster	IL	<ul style="list-style-type: none"> • moist sandy floodplains • prairie wetlands 	None
<i>Rhynchospora knieskernii</i>	Knieskern's Beaked-rush	IL	<ul style="list-style-type: none"> • open wetlands 	None

Table I-2
Federally-Protected Animal Species

Scientific Name	Common Name	State Found	Suitable Habitat	States With Critical Habitat
<i>Schwalbea americana</i>	American Chaffseed	NJ	<ul style="list-style-type: none"> moist pine flatwoods open savannahs open grass-sedge systems 	None
<i>Asplenium scolopendrium</i> var. <i>Americana</i>	American Hart's Tongue Fern	MI, NY	<ul style="list-style-type: none"> upland older growth forests 	None

As with water resources, SEA developed a list of significant impacts to biological resources that would require specific mitigation actions to compensate for impacts. The following lists possible impacts to biological resources by proposed construction and abandonment activities that SEA determined would be classified as significant:

- Impacts to areas identified as critical habitat for Federally listed threatened or endangered species. The Endangered Species Act of 1973 protects all Federally-listed threatened or endangered species from activities affecting those species.
- Loss or degradation of wildlife sanctuaries, refuges, or national parks and/or forests that significantly alters the function or accessibility of those resources.
- Disruption of the movement or migratory corridor for wildlife that significantly alters regional population numbers or diversity.

On these data sheets, SEA also noted the potential need for additional coordination with appropriate regulatory and review agencies, in particular regarding Section 7 of the ESA. During the impact analysis, SEA developed a list of potential options for mitigating adverse effects at individual sites, as well as a list of general mitigation strategies. SEA proposes the following strategies to mitigate impacts to natural resources from the proposed construction and abandonment projects. The railroads will implement these mitigation activities to avoid and to minimize significant impacts to natural resources. Either the railroads would normally incorporate the implementation of these activities as a part of their standard construction practices or the regulatory agencies would normally require the implementation of these activities as a part of their permitting process.

Those mitigation strategies normally part of standard railroad construction practices include the following.

- During construction and abandonment activities, when possible, the railroads will perform all activities within the existing railroad bed; this strategy will minimize the area of disturbance to natural resources.
- The railroad will stabilize areas of vegetation that have been disturbed by the construction or abandonment activities by reseeding the areas; this strategy will assist with erosion and sediment control of the disturbed areas.
- The railroads will avoid and minimize impacts to water resources through the use of erosion and sediment control measures; in addition, the railroads will utilize standard construction practices to avoid adverse impacts to surface waters; these construction practices include the use of Geotextiles, straw bales, silt fencing, and detention ponds to control the discharge of soils and sediments into surface waters.
- The railroads will keep free of obstruction all newly constructed drainage facilities, such as pipes or culverts under the proposed rail connections, to allow the unimpeded flow of water at the determined rate through the area.
- During the construction of the proposed rail connections, the railroads will use only borrow and fill material that is of high quality and that is contamination-free; this strategy will avoid and minimize potential impacts to sensitive natural resource areas.
- The railroads will maintain all construction equipment used in the proposed construction activities in good condition to minimize potential leaks or spills of hazardous materials into sensitive natural resource areas.

Those mitigation strategies normally part of permitting requirements of regulatory agencies include the following:

- The railroads will notify all appropriate regulatory agencies prior to the initiation of construction activities; the railroads will obtain all Federal, state, and local permits if construction activities require the alteration of any wetlands, ponds, lakes, streams, or rivers, or if these activities would cause soil or other materials to wash into these water resources; the railroads will use appropriate techniques to minimize any adverse effects to water bodies.
- When possible, the railroads will adjust planned activities to avoid disturbance or adverse effects to natural resources; this strategy may include modifying the proposed alignment of connectors to avoid or minimize impacts to wetland areas, streams, or critical habitats.

- For extensive impacts to wetlands, the railroads will preserve, restore, or create compensation wetlands to replace the acres of wetlands that were impacted by construction or abandonment activities.
- The railroads will schedule any construction proposed within identified critical habitats of threatened and endangered species during the time of year as to avoid interference with breeding or reproductive seasons.
- Where possible, the railroads will avoid construction activities within known locations of Federally-listed species; if the railroads are unable to redesign the proposed project to avoid impacts, then the railroads will minimize impacts to these species by first performing a full survey of the proposed construction site to identify the entire population of the protected species. Once they have identified the locations of these species, the railroads will be responsible for relocating the listed population or for creating a new habitat for the listed species within the vicinity of the impact.

APPENDIX J

Land Use/Socioeconomics

APPENDIX J

Land Use/Socioeconomics

In June 1997, CSX Corporation (CSX) and Norfolk Southern Corporation (NS), with Conrail Inc., filed a joint application with the Surface Transportation Board (Board) seeking authority for CSX and NS to acquire control of Conrail. As part of this Acquisition, CSX and NS would divide Conrail's assets between the two companies. The proposed transaction involves more than 44,000 miles of rail lines and related facilities extending over a large portion of the eastern United States. CSX and NS have stated that the transaction would increase service capabilities, improve operating efficiency, and promote competition.

The Board's Section of Environmental Analysis (SEA) has prepared an Environmental Impact Statement (EIS) to evaluate potential impacts that may result from the proposed Acquisition. As part of the EIS preparation process, a multi-disciplinary team conducted a comprehensive analysis of impacts to safety, traffic and transportation, energy, air quality, noise, cultural resources, hazardous materials, natural resources, land use/socioeconomics, and environmental justice. This Appendix focuses on SEA's approach to land use/socioeconomics. More specifically, SEA analyzed the potential land use and socioeconomic impacts due to new constructions and rail line abandonments.

J.1 OVERVIEW

The following sections discuss the process by which SEA identified and evaluated potential impacts to land use. This includes a discussion of applicable Federal and state regulations for impact analysis, the screening process, the types of data collected, and the assumptions and criteria applied to the data to determine if impacts resulting from the proposed Acquisition would be significant.

J.2 REGULATIONS AND GUIDANCE FOR IMPACT ANALYSIS

SEA analyzed the potential land use impacts of the proposed new constructions and rail line abandonments. Pursuant to the Board's rule in 49 CFR 1105.7(e)(3), each site was assessed for the following issues:

- Consistency of the proposed action with land use plans in effect.
- Effect of the proposed action on prime farmland.
- Consistency of the proposed action with existing Coastal Zone Management plans (49 CFR 1105.9).
- Suitability of abandonment rights-of-way for alternative public uses.

SEA visited various sites to verify the accuracy of the land use descriptions presented in the Environmental Report (ER). SEA consulted local, county, regional, and state planning agencies, as needed, in the area of each site.

J.3 SCREENING PROCESS

A first step in developing the environmental analysis for the proposed action was to identify areas of potential impact through a screening process. This process allowed SEA to narrow down the 44,000 miles of track with their associated facilities in 24 states to a smaller group of rail line segments, rail yards, and intermodal facilities (facilities where they transfer freight or passengers between trains and motor vehicles). The process, described more fully in Chapter 3 of the EIS, was based on standards set by the Surface Transportation Board.

SEA reviewed the various Acquisition-related changes proposed by the Applicants and determined that operational changes for rail line segments and intermodal facilities are not a likely source of land use effects since the facilities are already in place. However, new constructions and rail line abandonments present potential land use issues and, therefore, the land use analysis focused on those activities.

SEA also evaluated the potential socioeconomic effects of proposed Acquisition-related activities. SEA focused their evaluation on the direct physical effects on the environment that could result in socioeconomic effects. Like the land use impact analysis, this socioeconomic analysis also focused on new constructions and rail line abandonments and included an analysis of whether such activities would displace residences or businesses.

J.4 DATA SOURCES AND TYPES

SEA based their descriptions of existing land uses and determinations of land use impacts related to the proposed Acquisition on information provided by the following sources:

- The Environmental Report (ER) submitted with the Application.
- Aerial photographs.
- U.S. Geological Survey (USGS) mapping.
- Geographic Information System (GIS) mapping.
- Zoning maps.
- Site visit records and information available from the railroad's consultants or obtained for this EIS as necessary.
- Consultation with local, county, regional and state planning agencies as needed.

- Consultation with the Bureau of Indian Affairs concerning the locations of Indian reservations or lands in the areas of the proposed rail line abandonments or new constructions.
- Consultation with the State Coastal Zone Management Programs in those states where proposed rail line abandonments or new constructions would occur in or near a coastal zone.

J.5 ASSUMPTIONS, EVALUATION CRITERIA AND ANALYSIS

J.5.1 Data Collection and Site Review

As part of the data collection process, SEA gathered information regarding existing land use and land use plans, prime farmland, coastal zones, and Indian reservations from the data sources listed above. SEA focused on those areas designated for new construction or rail line abandonment. The SEA consulted with local, county, regional, or state planning agencies, as necessary, with jurisdictions in the area of each site. Table J-1 lists the planning agencies contacted by SEA. Attachment J-1 contains correspondence from these planning agencies.

Table J-1
Planning Agencies Consulted By SEA

State	Project Site	Agency	Street Address	City	ZIP
Illinois	75th Street	Chicago Department of Planning	10th Floor, Room 1003, 121 N. LaSalle Street	Chicago	60602
	Exermont	Zoning Office	County Courthouse 10 Public Square	Bellville	62220
	Kankakee	Kankakee County Planning	165 N. Schuyler Avenue	Kankakee	60901
	Lincoln Avenue	City Clerk	14014 Park Avenue	Dolton	60419
	Paris to Danville	County Board	6 North Vermilion Street	Danville	61832
	Paris to Danville	County Board	115 West Court Street, Room J	Paris	61944
	Paris to Danville	Village of Westville	201 N. State Street	Westville	61883
	Paris to Danville	City of Georgetown	208 S. Walnut	Georgetown	61846
	Paris to Danville	City of Chrisman	222 W. Madison Street	Chrisman	61924
	Paris to Danville	Planning Commission	123 S. Central	Paris	61944
	Sidney	County Planning and Zoning	1776 E. Washington	Urbana	61801
	Sidney	Village of Sidney	408 W. Main Street	Sidney	61877
	Tolono	Village of Tolono	507 W. Strong P.O. Box 667	Tolono	61880
	Tolono	County Planning and Zoning	1776 E. Washington	Urbana	61801
Indiana	Alexandria	Alexandria Planning Commission	125 N. Wayne P.O. Box 149	Alexandria	46001
	Alexandria	County Planning Commission	16 E. 9th Street	Anderson	46016
	Butler	City of Butler	201 S. Broadway	Butler	46721
	Butler	DeKalb County Planning Commission	301 S. Union Street	Auburn	46706
	South Bend to Dillon Jct	Michiana Area Council of Governments	County - City Building, 11th Floor	South Bend	46601
	South Bend to Dillon Jct	Department of Community and Economic Development	1200 County-City Building	South bend	46601

Table J-1
Planning Agencies Consulted By SEA

State	Project Site	Agency	Street Address	City	ZIP
	South Bend to Dillon Jct	Area Planning	County - City Building, 11th Floor	South Bend	46601
	South Bend to Dillon Jct	County Planning Commission	809 State Street	La Porte	46368
	Tolleston	Department of Planning, Zoning Division	401 Broadway, Room B5	Gary	46402
	Willow Creek	City of Portage Department of Planning	6070 Central Avenue	Portage	46368
	Willow Creek	Porter County Planning Commission		Valparaiso	46383
Maryland	Hagerstown	County Planning Division	100 W. Washington Street, Room 320	Hagerstown	21740
	Hagerstown	Hagerstown Department of Planning	1 E. Franklin	Hagerstown	21740
Michigan	Ecorse Jct	Planning and Development Department	City of Detroit, 65 Cadillac Tower, Suite 2300	Detroit	48226
	Ecorse Jct	Community Development	10600 W. Jefferson Avenue	River Rouge	48211
	Ecorse Jct	Planning Department	600 Randolph, Suite L-14	Detroit	48226
New York	Blasdell	Department Of Environment And Planning, Planning Division	Room 1053, Rath Office Building 95 Franklin Street	Buffalo	14202
	Blasdell	Village of Blasdell	121 Miriam Avenue	Blasdell	14210
	Gardenville Jct	Department Of Environment And Planning, Planning Division	Room 1053, Rath Office Building 95 Franklin Street	Buffalo	14202
	Gardenville Jct	Office of the Supervisor	1250 Union Road	West Seneca	14224
New Jersey	Little Ferry	County Planning Department	21 Main Street	Hackensack	07601
	Little Ferry	Bureau of Coastal Regulations	501 E. State Street	Trenton	08625
Ohio	Bucyrus	Crawford County Development Board	117 East Mansfield Street	Bucyrus	44820
	Collinwood Yard	City Planning Commission	City Hall, Room 501, 601 Lakeside Avenue	Cleveland	44114
	Collinwood Yard	Planning Department	323 Lakeside Ave W #400	Cleveland	44113
	Collinwood Yard	Ohio DNR Office, Real Estate and Land Management.	1952 Belcher Drive Bldg. C-4	Columbus	43224
	Columbus	Long Range Planning	109 N. Front Street	Columbus	43215
	Crestline	Crawford County Development Board	117 East Mansfield Street	Bucyrus	44820
	Greenwich	Village of Greenwich	Main Street & Townsend	Greenwich	44837
	Greenwich	Huron County Commissioners	180 Milan Avenue	Norwalk	44857
	Oak Harbor	County Planning Commission	315 Madison Street, Suite 208	Port Clinton	43452
	Sidney	Regional Planning Sidney	201 W. Poplar Street	Sidney	45365
	Toledo Pivot Bridge	Lucas County Planning Commission	One Government Center, Suite 1620	Toledo	43604

Table J-1
Planning Agencies Consulted By SEA

State	Project Site	Agency	Street Address	City	ZIP
	Toledo to Maumee	Lucas County Planning Commission	One Government Center, Suite 1620	Toledo	43604
	Vermillion	County Planning	2900 Columbus Avenue	Sandusky	44870
	Vermillion	Ohio DNR Office, Real Estate and Land Management.	1952 Belcher Dr. Bldg. C-4	Columbus	43224
	Willard Yard	County Administrator's Office	81 Jefferson Street	Tiffin	44883
	Willard Yard	Huron County Commissioners	180 Milan Avenue	Norwalk	44857

During July 1997, SEA conducted site visits at various locations to verify the accuracy of the land use descriptions presented in the ER and information obtained through the data collection process. Based on these visits, SEA found the land use descriptions provided in the ER to be accurate.

The following sections describe the methods used to gauge the effects of proposed new constructions and rail line abandonments to existing and proposed land uses, prime farmland, coastal zone management areas, and Indian reservations.

Consistency with Land Use Plans

From the ER, other available data, and site reviews, SEA prepared descriptions of existing land use for sites where new constructions and rail line abandonments are proposed. This also included the areas immediately adjacent to these sites. SEA coordinated with local planning agencies in each county, city, or incorporated town. SEA sent letters to these agencies with a description of the proposed action and a map of the site. SEA asked the local planning agencies to provide information regarding whether the proposed action is consistent with the local land use plans. SEA determined that a land use impact would occur where the proposed action was found to be inconsistent with the local land use plan.

Prime Farmland

SEA identified the existence of prime farmland pursuant to the Farmland Policy Protection Act of 1981. SEA used the information provided in the ER. In addition, SEA sent letters to the local agencies asking them to provide information regarding whether the proposed action would affect prime agricultural lands in the vicinity of the site. SEA made determinations at each construction and abandonment site as to whether the proposed action would affect prime farmland.

Coastal Zones

Based on the information provided in the ER and information obtained from the letters to the local planning agencies, SEA identified any proposed new construction or rail line abandonment that would occur in a Coastal Zone Management Area. The term "coastal zone" means the

coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches. SEA determined whether these activities would adversely affect land within the State Coastal Zone Management Area through further data review and coordination with state coastal zone management agencies.

Pursuant to the Board's rule in 49 CFR 1105.9, if any site exists on land within a state coastal zone pursuant to the Coastal Zone Management Act (16 USC 1451), SEA consulted with the state coastal zone management agency to determine whether they listed the action as subject to review in the state's coastal zone management plan. If the action was listed, SEA prepared a consistency certification and provided it to the state agency (pursuant to 15 CFR 930.57 and 930.58) along with the following information:

- Detailed descriptions of the proposed activity and its associated facilities sufficient to permit an assessment of their probable coastal zone effects.
- Any information required by the state (pursuant to 15 CFR 930.56).
- A brief assessment relating the probable coastal zone effects of the proposed action to the relevant elements of the management program.
- A brief set of findings, derived from the assessment, showing that the proposed activity and its effects (e.g., air, water, hazardous materials, wetlands, etc.) are consistent with the provisions of the management program (pursuant to 15 CFR 930.58(a)(4)). The state must approve the consistency certification.

If the activity associated with the proposed action was not listed by the state as subject to review in the coastal zone management plan, SEA provided notice of the proposal to the state coastal zone manager.

Native American Lands

Based on the information provided in the ER and on the ER coordination letter from the Bureau of Indian Affairs - Eastern Region, SEA identified any proposed construction or abandonment that would occur on Native American Lands. In addition, SEA consulted with the Bureau of Indian Affairs - Minneapolis Area office, for information regarding the State of Michigan, which was the only area of the project not in the jurisdiction of the Eastern Region office.

In addition to the above analysis of potential environmental effects to Native American lands resulting from the proposed Conrail Acquisition, SEA also evaluated whether any rail segment that met SEA's activity threshold for environmental analysis traverses through any Native American reservation. SEA performed the same analysis for rail segments identified as "Key Routes" for the transport of hazardous materials.

Socioeconomic Effects

SEA determined whether relocation of any business or residence would result from the proposed action, and the significance of such relocation. SEA used information provided in the ER, site maps or photos, USGS maps, GIS mapping, information obtained during site visits, or other sources to identify any businesses or residences in the footprint of the construction area.

Alternative Uses

For rail line abandonments, SEA determined whether each railroad right-of-way would be suitable for alternative public uses. SEA based their analysis on mapping, land ownership, surrounding land uses, field observations, and consultation with county planning agencies.

Alternative Modes

For rail line abandonments, SEA identified whether alternative modes of transportation would exist for goods and services that currently use the rail line segment to be abandoned. To do this, SEA used the ER, USGS maps, aerial photography, information obtained from site visits, and consultation with county planning agencies.

J.5.2 Land Use/Socioeconomics Significance Criteria

SEA determined that the following thresholds must be exceeded for a significant land use impact to occur.

Consistency with Land Use Plan. The proposed action would be inconsistent with local land use plans in such a way that proceeding with the action would substantially alter the character and use of the adjoining area.

Prime Farmland. The impact to prime farmland would be such that a substantial portion of farmland in the county, as defined by local land use planning authorities, would be removed from actual or potential production.

Coastal Zone. The proposed action occurring in a coastal zone would be inconsistent with the requirements of the state coastal zone management department.

Socioeconomic Effects. Displacement of businesses or residences due to construction or abandonment.

J.5.3 Mitigation Strategies.

The SEA evaluated land use impacts associated with new constructions and rail line abandonments in a number of areas including: consistency with local land use plans; prime

farmland; consistency with Coastal Zone Management Areas (CZMA); socioeconomic effects; and abandonments. The strategies for mitigating significant impacts are described below:

Consistency with Local Land Use Plans

If SEA identified an inconsistency with local land use plans, SEA consulted with local planning officials to determine appropriate mitigation, which may include the following:

- Determine if the location of the proposed new construction could be modified to be consistent with local plans.
- Realignment or movement of the location of the proposed new construction to another area.
- Use of landscaping or other aesthetic treatments.
- Creation of setback or other physical buffers between the construction and adjacent land uses.

Prime Farmland

If prime farmland would be affected by a new construction project, SEA evaluated mitigation strategies, such as realignment of the construction to avoid or reduce the impact on prime farmland in the area.

Coastal Zone Management Areas

Constructions and abandonments located within Coastal Zone Management Areas may be subject to review by the state coastal zone management agency for consistency with Coastal Zone Management Plans. In these cases, SEA prepared consistency certifications and provided them to the state agencies. If as part of the state agency's review of the consistency certificate, modifications to the proposed construction/abandonment or mitigation measures were required, these modifications and mitigation measures are included in this EIS.

Socioeconomics

If proposed constructions would displace existing businesses or residences, the mitigation strategy involved relocation of the business or resident(s) pursuant to state law requirements governing equitable compensation for such actions.

Abandonments

For each abandonment, the mitigation strategies considered for significant impacts included:

- Reservation of abandoned rail line corridors and property by public entities for possible short haul, light rail, intercity or commuter route, roadway corridor, or similar use.
- Develop possible alternative public uses for the abandoned right-of-way such as public trails, public parks, green belts, and habitat corridors.
- Improve access to alternative transportation systems by modifying roadways, driveways, or other rail corridor, to replace the loss of rail access.

SEA considered each of the above mitigation strategies whenever impacts to land uses were determined to exist.

Attachment J-1

Correspondence Received from Planning Agencies Contacted by SEA

COUNTY - PORTER



Administration Center
155 Indiana Avenue - Suite 304
Valparaiso, Indiana 46383

PLAN COMMISSION

(219) 465-3540

August 25, 1997

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, DC 20005

received
8/29/97
cm

Re: Finance Docket No. 33388 - CSX and Norfolk Southern.

Dear Mr. Gilotte,

In response to the Surface Transportation Board Letter for the rail line construction in Willow Creek. This construction is not within the unincorporated jurisdiction of the Porter County Plan Commission. The proposed construction is within the City of Portage, following is the Portage City Planner's name and address.

Janet Barkowski
Portage City Planner
6070 P. Central Ave.
Portage, IN 46368

(219) 762-7607

If could be of further help please contact my office.

Sincerely,

Robert W. Thompson, Jr.
Executive Director

cc: file

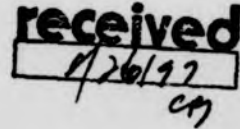
DEKALB COUNTY PLAN COMMISSION

Office of the Building Commissioner

301 S Union St. -Auburn, IN 46706

August 25, 1997

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington DC 20005



RE: Finance Docket No. 33388 -- CSX & Norfolk Southern Control and Acquisition -- Conrail
Agency Consultation on Constructions

Dear Mr. Gilotte,

I received the above referenced documents from your department last Friday, August 22, 1997. As requested, I have reviewed the proposed rail segment connecting the existing NS and Conrail lines east of Butler, IN. As a result of this review, I have determined that the project lies within the corporate limits of the City of Butler. Note that the City of Butler has established a City Plan Commission which exercises zoning control within the city limits of Butler and as the jurisdiction of the DeKalb County Plan Commission stops at those city limits, I feel that the Butler City Planner, Mr. Joseph Iliff, should be contacted for additional comment on this project. Mr. Iliff can be reached at the following address.

JOSEPH ILIFF
City Planner

201 South Broadway
Butler, IN 46721
219-868-5200
Fax: 868-5982



With regards to the territory under the jurisdiction of the DeKalb County Plan Commission, I believe that the interconnection for between the NS and Conrail lines will substantially benefit the growing local industrial base in eastern DeKalb County by allowing transshipment from the NS along the CSX line to which there is an existing connection and along the Conrail line to which this project will make a new connection. Additionally, there is currently a large farmer's cooperative which relies on the existing Conrail line for shipments of grain to the eastern ports. For several years, individuals in the area have discussed exploring some way that the Conrail and NS lines could be connected thereby allowing local products more direct access to the southern ports and grain markets. Plans had progressed so far as to spur a feasibility study for a short line railroad operating as a switching yard between the Conrail and NS lines as well as serving the growing industrial corridor located Southwest of Butler along the NS line. The substantial

DEKALB COUNTY PLAN COMMISSION

Office of the Building Commissioner

301 S Union St. -Auburn, IN 46706

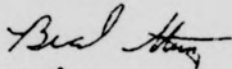
progress of the acquisition of Conrail by CSX and NS had placed the short line project on hold until the final impacts of the acquisition could be determined. It is my belief that the connecting rail segment between the Conrail and NS lines could reduce the immediate need for the short line project if not eliminate it entirely. Once NS has acquired the existing Conrail line and the new segment is in place, rail traffic from the existing Conrail line could possibly switch more easily to the NS line.

This project is consistent with the comprehensive land use plan for the county as it should support and further the present and future industrial growth in the area. The present and future zoning of the land involved is strictly the purview of the City of Butler.

The location of this project does not directly affect any prime agricultural lands. The land is within the Corporate Limits of Butler, is not used as agricultural land, is of such a size and shape that its agricultural use is extremely unlikely, and contains several existing structures.

The site is not within a designated coastal zone.

Respectfully,



Brad Stump
Zoning Administrator



CITY OF GARY

PLANNING & ECONOMIC DEVELOPMENT

401 BROADWAY, ROOM B-5

GARY, INDIANA 46402

(219) 881-1332 • FAX (219) 886-0817

SCOTT L. KING, MAYOR

SUZETTE RAGGS, DEPUTY MAYOR

JAMES D. CRAIG

Zoning Administrator

August 27, 1997

Carmen Gilotte
DeLeuw, Cather and Company
1133 15th Street, N. W.
Washington, D.C. 20005

RE: Environmental Analysis

Dear Mr. Gilotte:

Please be informed that we have reviewed the proposal for construction of a proposed Rail Line Connection within our City as it relates to Environmental Concerns and its effect on our Comprehensive Plan and Long Term Planning Objectives.

The area involved is within a Residential District and is projected to remain as such.

The new Rail Line will be within an existing Railroad Right-of-way and therefore, will not create any conflict with existing uses or the environment as far as this office can determine.

Its not within a designated floodplain.

We do not have any designated Costal Zones nor is this location considered Prime Agricultural Farmland.

We trust this correspondence will help you assess your review of any environmental impact this project presents.

However, please feel free to contact this office should you need additional information.

Sincerely,



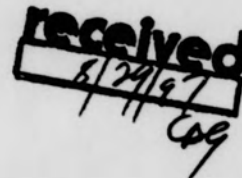
James D. Craig
Zoning Administrator

JDC:lc

cc: Roland Elvambeuna, City Engineer

August 25, 1997

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, DC 20005



Dear Mr. Gilotte:

My office received a request to review the enclosed rail abandonment Friday, August 22nd. Since I was out of the office, I did not receive the request until Monday, August 25, 1997.

Please note that your request for our review of the proposed South Bend to Dillon Junction rail line abandonment and your "accelerated" review schedule does not provide MACOG with enough time to respond responsibly.

We will begin the review process as soon as possible. Please contact me with questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sandra M. Seanor".

Sandra M. Seanor
Executive Director

SMS:sls

F:\ABC\MACOG\WORKPLAN\1997\RAIL\LO8CG1SS.WPD

**City of Sidney**

Sent Via Facsimile
August 26, 1997

received

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, DC 20005

Dear Mr. Gilotte:

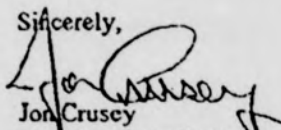
I have reviewed the maps and project description of the proposed rail line construction in Sidney. My review of this proposed project finds the following:

- 1a. The future-land use plan classification for the area of new construction projects public/semi-public land uses.
- 1b. The area adjacent to the proposed construction project is the City's cemetery and police shooting range. The shooting range will be relocated to accommodate this project. While there are residential uses to west, they are buffered from the construction project by the former Miami-Erie Feeder Canal.
2. The proposed project site is presently occupied by the City's police shooting range. I am not aware of any potential effect the proposed rail line would have on prime agricultural lands.
3. This proposed project site is not located within a designated coastal zone.

It is therefore my opinion that the proposed rail line segment construction is consistent with the City of Sidney future land-use plan and map.

I hope this information is useful. Should you have any questions or need additional information, please contact me at (937) 498-8131.

Sincerely,


Jon Crusey
Planning Coordinator

Municipal Building, 201 West Poplar St., Sidney, Ohio 45365-2781
Phone 937-498-2335, Fax 937-498-8119



OTTAWA REGIONAL PLANNING COMMISSION

COUNTY COURTHOUSE - Room 208 - 315 MADISON STREET - PORT CLINTON, OHIO 43452
Phone (419) 734-6780 - 898-7731 - 862-3232 - 855-8134 - FAX 734-6898

August 26, 1997

received
8/29/97

copy

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, D.C. 20005

RE: Finance Docket No. 33388
CSX and Norfolk Southern Control & Acquisition

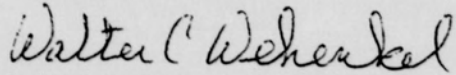
Dear Mr. Gilotte:

You have requested information from my office relative to the environmental impact statement for the above referenced project. Please be advised that the following facts are submitted for your use in the preparation of said statement.

- 1a. The future land use plan for Salem Township identifies the area of the new construction for extensive type uses. Extensive is defined as agriculture, woodlots, and low density residential houselots on 2/3 of an acre or more of land. No specific review or recommendations are included in the plan for transportation.
- 1b. The proposed new construction would not be potentially inconsistent with the land use plan.
- 1c. The applicable zoning district is agricultural. In Ohio, Section 519.21.1 prohibits township zoning from regulating the location, erection, construction, reconstruction, change, alteration, maintenance, removal, use or enlargement of any buildings or structures of any railroad.
2. The area involved in the proposed construction is identified as prime agricultural lands. It would appear that only a very small amount of land will be removed from productivity by the proposed construction. Larger amounts would be removed if the land area were developed residentially.
3. The proposed construction location is not within a designated coastal zone nor would the construction adversely impact any existing land or water resources.

Should you have additional comments or questions, please do not hesitate to contact my office.

Sincerely,

A handwritten signature in cursive script that reads "Walter C. Wehenkel". The signature is written in dark ink and is positioned above the typed name and title.

Walter C. Wehenkel
Director

cc: file



CITY OF GARY

PLANNING & ECONOMIC DEVELOPMENT

401 BROADWAY, ROOM B-3
GARY, INDIANA 46402

(219) 881-1332 • FAX (219) 884-0817

SCOTT L. KING, MAYOR
SUZETTE RAGGS, DEPUTY MAYOR

JAMES D. CRAIG
Zoning Administrator

August 27, 1997

Carmen Gilotte
DeReuw, Cather and Company
1133 15th Street, N. W.
Washington, D.C. 20005

RE: Environmental Analysis

Dear Mr. Gilotte:

Please be informed that we have reviewed the proposal for construction of a proposed Rail Line Connection within our City as it relates to Environmental Concerns and its effect on our Comprehensive Plan and Long Term Planning Objectives.

The area involved is within a Residential District and is projected to remain as such.

The new Rail Line will be within an existing Railroad Right-of-way and therefore, will not create any conflict with existing uses or the environment as far as this office can determine.

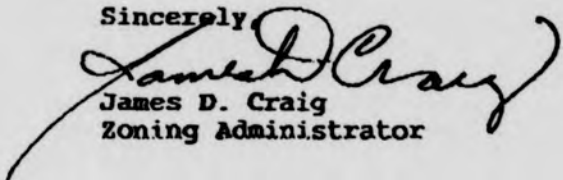
Its not within a designated floodplain.

We do not have any designated Costal Zones nor is this location considered Prime Agricultural Farmland.

We trust this correspondence will help you assess your review of any environmental impact this project presents.

However, please feel free to contact this office should you need additional information.

Sincerely,


James D. Craig
Zoning Administrator

JDC:lc

cc: Roland Elvambeuna, City Engineer

August 29, 1997

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, DC 20005

received
9/29/97

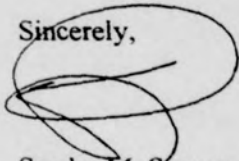
Dear Mr. Gilotte:

As we discussed, the MACOG Senior Staff reviewed your agency's request for information regarding the abandonment of the CSX line known as the South Bend to Dillon Junction rail line.

1. From Pine Station to the St. Joseph County line, the rail line is shown as a part of the MACOG bike/pedestrian plan.
2. The City of South Bend is currently reviewing the abandonment as a part of an overall plan for the City. Larry Magliozzi, Assistant Director of South Bend Planning & Neighborhood Development, should be contacted for their input.
3. The line could be used as a multi-purpose rails to trails type facility that would include not only the bike and pedestrian, but also for equestrian users.
4. Many wetlands are adjacent to the proposed abandonment area. Rail removal should mitigate and consider the impact on the wetlands.

If further information is requested, please feel free to call. I have forwarded your request for comments to the City of South Bend.

Sincerely,



Sandra M. Seanor
Executive Director

SMS:sls

Area Plan Commission of St. Joseph County

1140 County-City Building
South Bend, Indiana 46601

Robert W. Sante
Executive Director

John W. Byorni
Assistant Director

Phone 219 235-9571

Fax 219 235-9813

August 29, 1997

received
9/5/97

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, NW
Washington, DC 20005

Re: Proposed South Bend to Dillon Junction Rail Abandonment

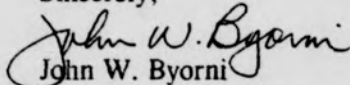
Dear Mr. Gilotte:

Thank you for the opportunity to review the proposed abandonment of the above referenced rail line. Unfortunately, the time frame in which you need to have our response, does not allow the staff sufficient time to fully review the proposed abandonment.

Based on a cursory review, it does not appear that the proposed abandonment would have any effect upon adjacent land uses or prime agricultural lands. It does appear that some, if not all of the line, would be suitable for a rails to trails corridor. Our agency is not directly involved in rails to trails planning. Some of the agencies that should address this issue would be the Michiana Area Council of Governments (MACOG), the City of South Bend Community Development Department, and the St. Joseph County Park and Recreation Department. It is my understanding that MACOG has already been notified of this proposal.

If you have any questions, please feel free to contact me.

Sincerely,


John W. Byorni





County of Erie

DENNIS T. GORSKI
COUNTY EXECUTIVE

DEPARTMENT OF ENVIRONMENT AND PLANNING

September 2, 1997

RICHARD M. TOBE
COMMISSIONER

STANLEY J. KEYSA
DEPUTY COMMISSIONER OF
PLANNING & ECONOMIC
DEVELOPMENT

Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street N.W.
Washington, D.C. 20005

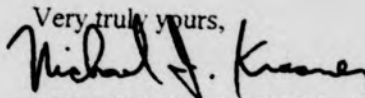
Re: Finance Docket No. 33388
CSX/Norfolk Southern/Conrail

Dear Mr. Gilotte:

In response to your request for information on the above-referenced item regarding proposed new rail construction at the Blasdell and Gardenville Junction sites:

1. The Town of West Seneca (Gardenville site) identifies this area as "General Manufacturing" in its 1963 Master Plan. The site is now zoned M-2 (General Manufacturing). According to the Erie County Soils Survey, the site contains Niagara silt loam, which is a prime agricultural soil; however, there is no current agricultural activity within one-half mile of the site. The proposed action presents no inconsistencies with future land use plans.
2. The Village of Blasdell has zoned the area M-1 (Manufacturing). The site contains urban soil; no prime agricultural soils are present. The proposed action presents no inconsistencies with future land use plans. Please be advised, however, that Lake Avenue is a county highway; any plans affecting Lake Avenue must be reviewed and accepted by the Erie County Department of Public Works (John C. Loffredo, Commissioner; 716-858-8306).

If you have any further questions, please call me at 716-858-6086.

Very truly yours,

MICHAEL J. KRASNER, AICP
Senior Planner

MJK:es

cc: Stanley Keysa
John Loffredo
mjk851



City of Butler

201 South Broadway
Butler, Indiana 46721

Clerk Treasurer
(219) 868-5200
Department of
Water & Sanitation
(219) 868-5881
City Planner
(219) 868-5200
Fax
(219) 868-5882
E-mail
joe@butler.in.us

Wednesday, September 3, 1997

received
9/5/97

Carmen Gilotte
DeLeuw, Cather & Company
1133 Fifteenth Street, Northwest
Washington, DC 20005

Dear Mr. Carmen Gilotte,

This letter is in response to your request for review by the City of Butler, Indiana on the construction plans of the Norfolk Southern Railroad, pending their ownership of both rail lines that cross in Butler. I appreciate the information you have provided for us, and the conversation I had with Jeff Johnson to answers my questions. I would like to preface this by saying that I requested additional information on the projected traffic changes through town, but those have not arrived. With your deadline for my response so soon, I will have to base my review solely on the information you initially provided, but I would still like to receive additional details on the changes in traffic.

The last complete revision of the zoning map for the City of Butler was performed in 1991, and that map zones the areas immediately adjacent to the crossing of the railroads where the construction will take place as Local and General Business, Light Industrial, and a small amount of Two Family Residential and Mobile Home Residential. Today, the land uses at the crossing are similar. On the northwest side of US 6 and the NS tracks is city property, used by the utilities department. On the Northeast side is Evan's Equipment, a trucking company and heavy industrial use. On the westside of the NS Tracks, from US 6 to the Conrail tracks are a single family detached dwelling unit, and a bowling alley. On the eastside of the NS tracks from US 6 to the Conrail tracks is a small commercial site. On the westside of the NS tracks south of the Conrail tracks is railroad property, mainly unused, and a small unpaved access road from Beech Street to a few homes located on the eastside of the tracks, called Erie Street.

The Butler Plan Commission and I are in the process of developing new land use and zoning maps for the city. The maps drawn by me and reviewed by the plan commission so far show only minor changes. The house currently located between the bowling alley and the NS tracks would be zoned Two Family Residential rather than commercially. The two commercially zoned properties would both be General Business. The property zoned Mobile Residential would be changed to Single Family Residential, allowing single family detached dwelling units, but not mobile homes. All of these still proposed changes are minor, and are not inconsistent with the NS construction proposal.

Butler has no prime farmland or coastal zone areas to be affected by this construction.

The other concern of the City of Butler with the construction and projected traffic changes is with the safety equipment at two of our four railroad crossings in the city. The crossing of US 6 and the NS tracks is currently only one track, but the construction will make it double tracked. The safety equipment must satisfy the needs of a double track, and the projected increase in train traffic from 15 to 17 trains daily. The crossing of the current Conrail line and Federal Street on the westside of the city is the only one without the safety arms which block vehicular traffic during a train crossing. It has only constantly flashing yellow lights. Although the projected level of trains at that crossing is



City of Butler

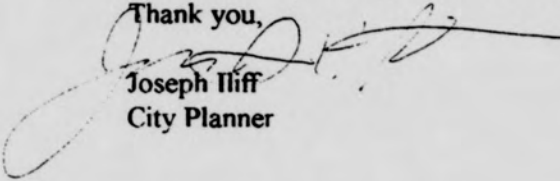
201 South Broadway
Butler, Indiana 46721

Clerk Treasurer
(219) 868-5200
Department of
Water & Sanitation
(219) 868-5881
City Planner
(219) 868-5200
Fax
(219) 868-5882
E-mail
joe@butler.in.us

expected to drop from 51 to 40 trains daily, the pedestrian and vehicular traffic is expected to increase along Federal Street as properties to the south and west of the city are developed into residential and recreational uses. Federal Street is an important collector street for the southwest corner of the city, and the safety equipment at that crossing needs to reflect the increased traffic along it.

In conclusion, I have found no inconsistencies between the proposed construction of Norfolk Southern, and the current and proposed land use plans of the City of Butler. I have enclosed copies of our zoning maps dated 1991 showing the two areas I have addressed. As I mentioned, I would still like to receive more detailed projections showing the changes in train traffic in every direction into and out of the city. Please contact me if you have further questions or concerns on this matter.

Thank you,


Joseph Iliff
City Planner

H E JONES RD

BUTLER INDIANA
DEKALB COUNTY
1991



MAJOR THOROUGHFARES

CLASSIFICATIONS

RESIDENTIAL

	SE-R	SINGLE FAMILY RESIDENTIAL
	TE-R	TWO FAMILY RESIDENTIAL
	GH-R	GROUP HOUSE & GARDEN APARTS
	TP-R	TRAILER PARK RESIDENTIAL
	MH-R	MOBILE HOME RESIDENTIAL

BUSINESS

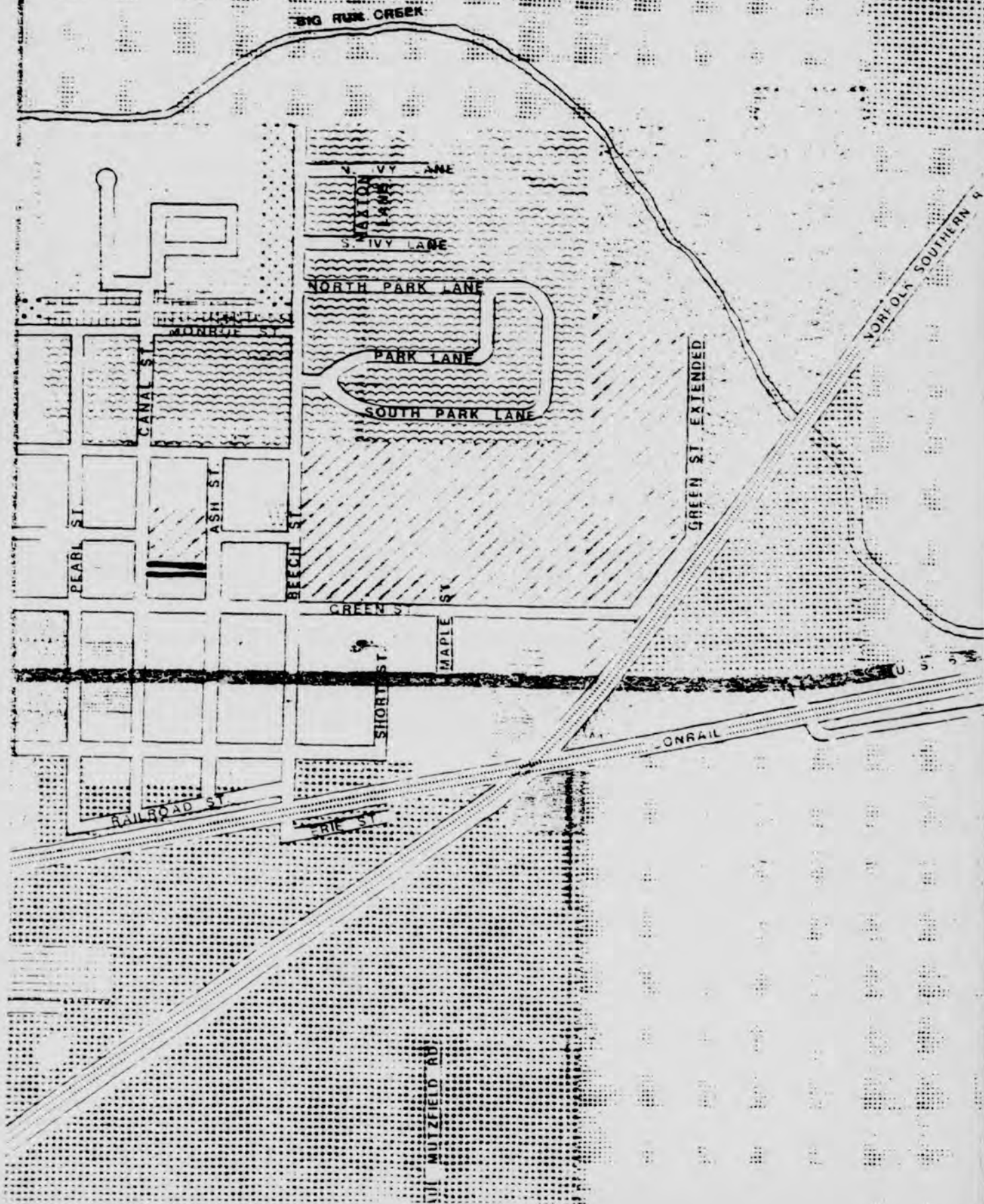
	L-B	LOCAL BUSINESS
	G-B	GENERAL BUSINESS

INDUSTRIAL

	L-I	LIGHT INDUSTRY
	H-I	HEAVY INDUSTRY

MISCELLANEOUS

	INST	INSTITUTIONAL
	REC	RECREATIONAL
	AG	AGRICULTURAL



FEUTSCH DITCH

ALADD WMEH DR

C.H. 89

U.S. 6

COMMERCE ST

ERIE ST

WESTERN AVE

CAK ST

DEPOT ST

CONRAIL

FEDERAL AVE

WESTERN AVE

BOOSTER ST



City of Columbus
Mayor Gregory S. Inghilusa

Department of Trade and Development

George J. Arnold, Director

September 4, 1997

Director's Office
99 N. Front St.
Columbus, OH 43215-9031
Phone: (614) 645-0591
FAX: (614) 645-0295
TDD: (614) 645-6407

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, DC 20005

received

Economic Development Division
99 N. Front St.
Columbus, OH 43215-9031
Phone: (614) 645-0172
FAX: (614) 645-7855
TDD: (614) 645-6407

RE: Finance Docket No. 33388 -- CSX and Norfolk Southern Control and Acquisition --
Conrail: Agency Consultation on Constructions

Dear Mr. Gilotte:

Planning Division
109 N. Front St.
Columbus, OH 43215-9020
Phone: (614) 645-0502
FAX: (614) 645-1453
TDD: (614) 645-6407

Steve McClary asked me to respond on behalf of the City of Columbus Planning Division to the request made by the Surface Transportation Board's Section of Environmental Analysis for our review of the location and extent of proposed rail line segment construction in Columbus.

Land Management and
Relocation Division
109 N. Front St.
Columbus, OH 43215-9020
Phone: (614) 645-7442
FAX: (614) 645-8404
TDD: (614) 645-6407

The segment of rail line identified in Columbus is located in a developed urban corridor between I-71, a major north-south highway, and an established neighborhood known as Clintonville. While the Columbus Comprehensive Plan does not identify or recommend specific land uses, it does provide general information on the location and character of residential neighborhoods. According to the Columbus Comprehensive Plan, the neighborhood west of the subject segment of rail line is comprised of medium to large single-family homes built from the late 1800s to the early 1900s. Additionally, there may be duplexes and apartments on the edges of the community.

Development Regulation Division
1290 E. Jefferson Ave.
Columbus, OH 43206-3372
Phone: (614) 645-7433
FAX: (614) 645-7840
TDD: (614) 645-3293

The zoning in this area includes manufacturing uses east of the rail line, between the rail line and the highway, and single-family residential uses along the west side of the rail line. One notable feature along this segment of rail line is the Glen Echo Ravine. This ravine extends eastward through the neighborhood to the rail line, and includes a neighborhood park.

Neighborhood Development Division
50 W. Gay St.
Columbus, OH 43215-9040
Phone: (614) 645-7795
FAX: (614) 645-6675
TDD: (614) 645-6802

The proposed rail line segment construction is within an existing and active rail corridor. As such, it is recognized in and consistent with the Columbus Comprehensive Plan. Further, the proposed construction does not appear to create any inconsistent land uses or zoning designations in the subject area.

Facilities Services Division
50 W. Gay St.
Columbus, OH 43215-9040
Phone: (614) 645-6767
FAX: (614) 645-6767
TDD: (614) 645-6802

Finally, there are no prime agricultural lands in this area, and the proposed construction is not within a designated coastal zone.

Thank you for providing this opportunity for us to review and give input to the proposed rail line construction. If you have any questions, or if you require additional information, please contact me at (614) 645-8635.

Sincerely,

Deneen M. DeRodes

Deneen M. DeRodes, AICP
Long Range Planner

The City of Columbus is an
Equal Opportunity Employer

VILLAGE OF TOLONO

507 W. Strong, P.O. Box 667
Tolono, IL 61880

Phone (217) 485-5212
Fax (217) 485-5117

received
9/8/97 CDG

September 4, 1997

Mr Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street N W
Washington DC 20005

VIA FAX AT 202.775.3468 AND MAIL

Re: Finance Docket No. 33388 - CSX and
Norfolk Southern Control and Acquisition -
Conrail: Agency Consultation on
Constructions

Village of Tolono, Illinois

Environmental Impact Assessment

Dear Mr Gilotte:

The Village of Tolono, Illinois, is in receipt of a letter dated August 28, 1997, from the Surface Transportation Board, Section of Environmental Analysis. The purpose of this letter is to provide you with a brief response to your questions and to raise our protest over the September 5, 1997 response deadline.

The packet of materials delivered to the Village measured about 3 inches in height representing several hundred pages. While the Village desires to reasonably accommodate any requests, it understandably is very concerned when it is given unreasonable time frames for response. Thus, we reserve the right to supplement these materials as more information becomes available. In addition, we are also providing you with notice that the Village has commissioned a limited environmental impact statement which should be forwarded to you in the first half of October.

I. GENERAL CONCERNS

The Board of Trustees, at their meeting on September 2, 1997, reviewed with the Village Engineer, Village Attorney, and staff the materials provided. It was their consensus that such a spur line would have a large detrimental impact on the Village of Tolono. The following points of concerns were raised:

- The transportation of HAZARDOUS MATERIALS and train traffic appears to be within 75 feet (+/-) of single-family residences.
- The local fire district does not have the equipment to handle hazardous material spills next to the residential areas, especially with the increased probability of their occurrence, as well as the increased probability of fires in general.
- Additional train traffic would be an additional hazard to the people in the area, especially the children.
- The new spur would add another track to the main railroad crossing area for school children; during construction there would be no access across the tracks for the children.
- Increased levels of noise.
- Increased volume of train traffic (from 21 to 37 trains per day).
- What is the summation of time of increase in trains on the N/S line when you increase from 21 to 37 per day?
- Increased train traffic would greatly burden an already stressed access to US Route 45 from the east side of Tolono.
- Lack of number of crossings for all emergency vehicles during such construction.
- Lack of number of crossings for residents during construction, including the closure of one arterial street and one collector street.
- Currently Daggy St, the street which would either be adjacent to the new spur or eliminated by the new spur, is a truck route, used by farmers to deliver grains to the local elevator. How will the construction of the spur effect Daggy Streets current truck route status? Would other streets require a change in their designation?
- There is no time for a planning commission review or zoning board of appeals review at this time.
- Time does not allow responses from individuals in the area.
- The spur does not comply with the Village's land use plan.
- Concern over damage to existing utilities which would be crossed:
 - A trunkline watermain which serves the southern portion of the Village, the mobile home park, and other homes further south has no loop; should it be damaged, no other water service would be available until it is repaired.
 - A 27 in. dia. storm sewer which serves the west side of the Village and the newly constructed US Route 45 detention basins; should it be damaged, no other stormwater outlet would be available until it is repaired.
- Area effected during construction stated as 1,600 ft by 200 ft ? Appears that the 200 feet width would infringe on Village streets or individual lots. We are unable to tell without specific maps being provided (Refer to the attached figure).

- Borrow material would be required. Increased elevations from new construction could increase flooding on adjoining residential areas ?
- Increased train traffic in close proximity to housing. Need to provide suitable noise and visual barrier of allowed to be constructed. Intersection with RR and Benham St to be reconstructed - loss of arterial road on south edge of Village during construction.
- Time of train operation?
- Interference during evening hours?
- What type of freight is expected?
- Increase in closure time of public streets.
- Reverted land use if line is abandoned?
- Expected dates of construction?

II. PRELIMINARY RESPONSE TO QUESTIONS

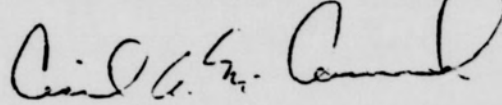
The responses to the questions in your letter are as follows:

1. Consistency with land-use. The area adjacent to the proposed rail spur is zoned R-2, medium density residential. Almost all of the residences built in the area are comprised of owner-occupied single-family dwellings. In a review of the scale and definition of the Drawings provided, we were unable to determine exactly where the spur line is intended to be constructed. We cannot envision a 100 foot permanent track right-of-way or a 200 foot temporary construction easement without the resulting relocation of persons along Daggy St., the lack of use or even demolition of Daggy St. itself, and the likely demolition of residential homes. It is impossible to imagine a more inconsistent use of land than heavy industrial rail use in the midst of single-family residences.
- a. Future classification land-use plan. The future land-use plan classification is the same as it now exists, that being R-2 residential zoning.
- b. Potential inconsistent land uses. The proposed railroad spur would not be permitted under R-2 zoning and would be highly inconsistent with the existing and future zoning use of the property.
- c. If no land use plan. Not applicable.
2. Effect on agricultural land. Not applicable.
3. Effect on water resources within coastal zones. Not applicable.

Based upon the materials submitted, we are very concerned about the disastrous impact that the proposed railroad spur will have on our community. We will continue to review the materials and intend to supplement our response with additional information as it becomes available.

Sincerely,

the VILLAGE OF TOLONO, ILLINOIS

A handwritten signature in dark ink, appearing to read 'Cecil McCormick', written over the printed name.

Cecil McCormick
Village President

cc: Elaine K Kaiser, Surface Transportation Board
Carol Moseley Braun, US Senator, w/ att.
Richard Durbin, US Senator, w/ att.
Thomas W Ewing, Member of Congress, w/ att.
Penny Severns, State Senator, w/ att.
Stanley B Weaver, State Senator, w/ att.
Julie A Curry, State Representative, w/ att.
Marc R Miller, Village Attorney
G Alan Peterson, Village Engineer



received
CSX 9/12/97

September 8, 1997

George V. Voinovich • Governor
Donald C. Anderson • Director

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th St., N.W.
Washington, D.C. 20005

Dear Mr. Gilotte:

We recently received notification of your proposed project as indicated in a Surface Transportation Board letter dated August 22, 1997 regarding the NS and CSX acquisition of Conrail. The project areas of interest indicated in the letter consist of the CSX Collinwood Yard intermodal facility and the NS Vermilion connection.

As described in the project documentation attached with the letter, neither project area is located in the designated Coastal Area of Lake Erie. The Ohio Coastal Management Program (OCMP), recently approved, requires that any project that is situated in the designated Coastal Area must be consistent with the policies of the OCMP.

Since our understanding of these projects suggests that the proposed constructions will occur outside of the designated Coastal Area of Lake Erie, the applicant will not be required to document that the projects are consistent with OCMP policies.

Please address any requests for determinations of potential environmental impacts within a designated coastal zone and its consistency with Ohio's coastal zone management plan to my attention in the future. If you have any questions or need additional information contact me at 614-265-6411.

Sincerely,

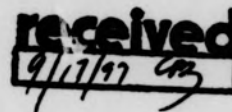
Kim Baker, Environmental Administrator
Resource Management Section
Division of Real Estate and Land Management



Erie County Dept. of Planning & Development
Erie Regional Planning Commission

September 11, 1997

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street N.W.
Washington, D.C. 20005



Dear Mr. Gilotte:

As per my telephone conversation with Jeff Johnson of your department, we have reviewed your proposal for construction of a rail line between Coen Road and Ridsen Road. As indicated to Mr. Johnson, the Comprehensive plan and zoning resolution for Vermilion Township designate the area between Coen Road and Ridsen Road as industrial and the area east of Coen Road is zoned Agrilcutural and it is noted that this area is not in designated a coastal management area and is not located in a floodplain; therefore, we are of the opinion that the construction of this line is consistent with our long-term and short-term planning documents. A copy of the Township Zoning Map is enclosed.

Sincerely,

Alex MacNicol
Alex MacNicol
Director

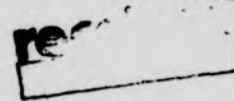
AM/jlk



CITY OF PORTAGE

Department of Planning

CITY HALL
6070 CENTRAL AVENUE
PORTAGE, INDIANA 46368
762-7607



received
9/18/97

September 11, 1997

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, D.C. 20005

RE: Finance Docket No. 33388 - CSX and Norfolk
Southern Control and Acquisition - Conrail: Agency
Consultation on Constructions

Dear Mr. Gilotte:

This letter is in response to your request for a review of the proposed rail line construction in Portage. The existing rail lines are included in the land use map for the city. The railway is zoned I-1, Light Industrial. The property to the north is zoned Recreational/Open Space. The property to the south is zoned C-2, Community Business. The area to the west is zoned R-2, Single Family and the property to the east is zoned C-1, Local Business, and R-1, Single Family. There are no plans by the city to change that zoning.

There is a historic site and landmark on the north side of the railroad property in the city park.

The increase in the number of trains which will be traveling through the residential areas will present a problem to the adjacent neighbors. There is a visibility problem with the crossing which crosses Samuelson Road just south of Old Porter Road. This is a dangerous intersection because there is a change in the elevation of the road at that point. The intersection is on the north side of the track and lower than the tracks. There is another dangerous intersection approximately $\frac{3}{4}$ of a mile to the east. Oak Tree Mobile Home Park is located on the south side of the tracks. The only

CITY OF PORTAGE, INDIANA

PLANNING/BUILDING DEPARTMENT

entrance from this Park is across the tracks. Most of the residents of the mobile home park are senior citizens and an increase in the number of trains traveling at the permitted speed limits create a dangerous combination. The crossing at the mobile home park has flashing lights but there are no gates.

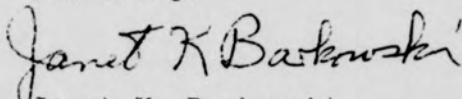
There is no agricultural land within this construction area in the City of Portage.

This property is not within a coastal zone management area.

We understand the need to improve the rail lines. However, the permitted speed and the increase in the number of trains going through the city will create safety problems for residents in that area. The noise level is so high in the city park that conversation must stop when a train is passing through. Would it be possible for you to plant evergreen trees along your right of way to help screen out some of the noise? We would also like to request that you reduce the maximum speed allowed for passenger and freight trains in a residential area.

Thank you for any consideration which you may be able to give to our concerns. If you have any questions you may contact me at 219-762-7607.

Sincerely,



Janet K. Barkowski
Portage City Planner



MAX CALL
Chairman

6 N. Vermilion
Danville, Illinois 61832
(217) 431-2555

COUNTY BOARD VERMILION COUNTY ILLINOIS

September 11, 1997

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, DC 20005
Fax: (202) 775-3468

RE: Finance Docket No. 333388 -- CSX and Norfolk
Southern Control and Acquisition -- Conrail; Agency
Consultation or Abandonments

Replies to your questions follow:

Question # 1

Determine the consistency of the proposed
abandonment with your future comprehensive land-use
plan and map. Please identify:

(a) The future land-use plan classification for
the area of the new proposed abandonment.

(b) Any potential inconsistent land uses created
by the proposed abandonment.

Answer # 1(a)

The county of Vermilion does not have zoning.
There is no known plan of land use for subject area.

Answer # 2(b)

I would imagine that "Rails for Trails" might
show an interest after abandonment.

There will probably be some interest shown by
adjoining farmers.

Question # 2

Determine and confirm any potential effect on
prime agricultural lands (based on the attached U.S.
Natural Resources Conservation Service definition).



Printed on recycled paper

Answer # 2

Although prize agricultural land does exist along this line, I can't envision much of an impact to the land.

Question # 3

Determine and confirm any effect on land or water resources within a designated coastal zone and its consistency with the coastal zone management plan.

Answer # 3

I don't see any impact on natural resources here.

Question # 4

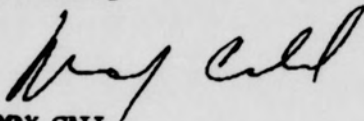
Determine whether the right-of way is suitable for alternative public uses. Specifically:

(a) If you determine that the proposed abandonment is suitable for alternative public use, please provide SEA with the rationale for such a determination;

Answer # 4(a)

I would think this line within Vermilion County would make a good rails to trails corridor.

Sincerely



MAX CALL
VERMILION COUNTY BOARD CHAIRMAN

MC/md

**OFFICE OF THE MAYOR
CITY OF GEORGETOWN**

**Darrell L. Acord, Mayor
208 South Walnut Street
Georgetown, Illinois 61846**

September 15, 1997

Telephone (217) 662-2525

Fax (217) 662-2358

Mr. Carmen Gilotte:
DeLeuw, Cather, & Company
1133 15th Street, N.W.
Washington, DC 20005

received
9/15/97

RE: The Board's Section of Environmental Analysis for the abandonment of railroad corridor under Finance Docket No. 33388 and AB-167(Sub-No. 1181x) & AB-55(Sub-No. 551x).

Dear Mr. Gilotte:

To answer your questions for the proposed abandonment and existing land use.

1. This will be consistent with our future land use.

(a) We hope to make this into a trail, since it connects our City to one of our public parks.

(b) I do not see any potential inconsistent land uses created by this abandonment.

2. I do not see any potential effect on prime agricultural lands.

3. There is no coastal zone here.

4. I feel this right-of-way is suitable for alternative public uses.

(a) This corridor would make a perfect trail, because it runs adjacent to Route 1 in some areas where there are several Historic markers. This line has also protected the west side of our city by acting as a levy against heavy rainfall that is brought to our city through the drainage district from the fields to the west of our city. It makes a great habitat for all different kinds of wildlife.

(b) The City of Georgetown would like to see the entire 29 miles of this corridor turned into a trail for recreational purposes and to protect the wildlife habitat.

If it can not be left intact for trail use, the City would be interested to use it for roadway alignment, because most of our East West roads on the West side are deadend. This would provide us with a North South street that would connect all these streets, plus this would connect our park to the residential part of our City.

I have also attached the letter I sent to Mr. Vernon A. Williams, Secretary, Surface Transportation Board, 12th & Constitution Ave., NW, Washington, DC 20423.

The City of Georgetown is very interested in this corridor, because of our fear that the levy that this line has made for the City, could be bought and dug out which would cause severe flooding in our City during heavy rainfalls.

Respectfully,

Darrell L. Acord

Darrell L. Acord, Mayor
City of Georgetown

**OFFICE OF THE MAYOR
CITY OF GEORGETOWN**

**Darrell L. Acord, Mayor
208 South Walnut Street
Georgetown, Illinois 61846**

Telephone (217) 662-2525

Fax (217) 662-2358

September 6, 1997

Mr. Vernon A. Williams
Secretary
Surface Transportation Board
12th & Constitution Ave., NW
Washington, DC 20423

Re: Consolidated Rail Corp. & CSX Transportation, Inc. - Abandonment- Edgar and Vermilion Counties, Illinois AB-167(Sub-No. 1181x) & AB-55(Sub-No. 551x) Finance Docket No. 33388.

Dear Mr. Williams:

This comment should be treated as a protest or a petition for reconsideration in the above-captioned proceeding. This comment is filed on behalf of the City of Georgetown which is a government agency interested in transportation and natural resources, which is hereinafter referred to as "Commenter".

While not taking a position on the merits of this abandonment, Commenter requests issuance of a Public Use Condition as well as a Certificate or Notice of Interim Trail rather than an outright abandonment authorization between milepost 93.00+ at Paris, IL, and milepost 122.00+ at Danville, IL.

A. Public Use Condition

Commenter requests the STB to find that this property is suitable for other public use, specifically trail use, and to place the following conditions on the abandonment.

1. An order prohibiting the carrier from disposing of the corridor, other than the tracks, ties and signal equipment, except of public use on reasonable terms. The justification for this condition is that the rail corridor in question will connect a public park to a major residential area. The corridor would make an excellent recreational trail and conversion of the property to trail use is in accordance with local plans. In addition, the corridor provides important wildlife habitat and greenspace and its preservation as a recreational trail is consistent with that end. The time period sought is 180 days from the effective date of the abandonment authorization. Commenter needs this much time because we have not had an opportunity to assemble or to review title information, complete a trail plan or commence negotiations with the carrier.

2. An order barring removal or destruction of potential trail-related structures such as bridges, trestles, culverts, and tunnels. The justification for this condition is that these structures have considerable value for recreational trail purposes. The time period requested is 180 days from the effective date of the abandonment authorization for the same reason as indicated above.

B. Interim Trail Use

The railroad right-of-way in this proceeding is suitable for railbanking. In addition to the public use conditions sought above, Commenter also makes the following request:

STATEMENT OF WILLINGNESS TO ASSUME FINANCIAL RESPONSIBILITY

In order to establish interim trail use and rail banking under section 8(d) of the National Trails System Act, 16 U.S.C. S1247(d), and S1152.29, the City of Georgetown is willing to assume full responsibility for management of, for any legal liability arising out of the transfer or use of (unless the user is immune from liability, in which case it need only indemnify the railroad against any potential liability), and for the payment of any and all taxes that may be levied or assessed against the right-of-way owned and operated by CPC and is to be operated by CSXT pursuant to authority presently being sought in Finance Docket No. 33388.

The property, known as the Danville Secondary Track extends from railroad milepost 93.00+ near Paris, IL, to railroad milepost 122.00+ near Danville, IL, a distance of 29 miles in Edgar and Vermilion Counties, Illinois. The right-of-way is part of a line of

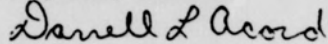
railroad proposed for abandonment in STB Docket No. AB-167 (Sub-no. 1181x) and AB-55 (Sub-no. 551x).

A map depicting the right-of-way is attached.

The City of Georgetown acknowledges that use of the right-of-way is subject to the user's continuing to meet its responsibilities described above and subject to possible future reconstruction and reactivation of the right-of-way for rail service.

By my signature below, I certify service upon Consolidated Rail Corp., 2001 Market Street - 16A, Philadelphia, PA 19101-1416 and CSX Transportation, Inc., 500 Water St., J150, Jacksonville, FL 32202, by U.S. Mail, postage prepaid, first class, this 6th day of Sept. 1997.

Respectfully Submitted,

A handwritten signature in cursive script that reads "Darrell L. Acord".

Darrell L. Acord, Mayor

on behalf of: City of Georgetown, Planning Commission

TOLEDO-LUCAS COUNTY PLAN COMMISSIONS

ONE GOVERNMENT CENTER, SUITE 1620, JACKSON STREET, TOLEDO, OHIO 43604, PHONE (419) 245-1200

WALTER T. EDELEN, AICP
DIRECTOR

FAX (419) 936-3730

September 16, 1997

received
9/18/97 COG

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, D.C. 20005

**Re: Finance Docket No. 33388 – CSX and Norfolk Southern Control and Acquisition –
Conrail: Agency Consultation on Abandonments (Toledo Pivot Bridge)**

Dear Mr. Gilotte:

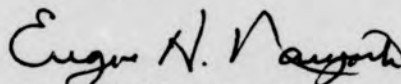
The proposed abandonment of the Toledo to Maumee Toledo Pivot Bridge across the Maumee River is a regional issue that may be more comprehensively commented upon by the Toledo Metropolitan Area Council of Governments (TMACOG).

This river crossing is one of three rail crossings in the Toledo that serve east-west and north-south rail traffic. Since the Maumee River has international shipping traffic, the rail crossings have some degree of vulnerability. For this reason there is value in retaining the Toledo Pivot Bridge to provide an alternative should one or more of the other bridge crossings be out of commission.

In addition, the retention of the Toledo Pivot Bridge is an element of the regional intermodal transportation system. With Toledo as one of the largest rail centers in the country, it is important that those elements of the system that have interstate and national importance for the movement of goods be retained.

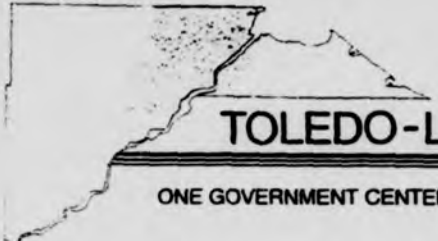
Thank you for the opportunity to comment on this proposed abandonment. Please keep me posted.

Sincerely yours,


Eugene H. Naujock, AICP
Manager-Planning

EHN079:slk

cc: Anthony L. Reams, Director, Public Service
William L. Knight, Director, TMACOG



TOLEDO-LUCAS COUNTY PLAN COMMISSIONS

ONE GOVERNMENT CENTER , SUITE 1620 , JACKSON STREET , TOLEDO, OHIO 43604 , PHONE (419) 245-1200

WALTER T. EDELEN, AICP
DIRECTOR

FAX (419) 936-3730

September 16, 1997

received
9/18/97 CA

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, D.C. 20005

Re: **Finance Docket No. 33388 – CSX and Norfolk Southern Control and Acquisition –
Conrail: Agency Consultation on Abandonments (Toledo Back Belt)**

Dear Mr. Gilotte:

The proposed abandonment of the Toledo to Maumee (Toledo Back Belt) presents an opportunity for the City of Toledo. This particular line has numerous at-grade crossings that impede traffic flow with a concomitant increase in air pollution and represent a public safety hazard by blocking emergency equipment runs. If this line segment were in public ownership, a linear park or greenway could be established to connect a variety of parks, recreational facilities, and educational facilities. I shall consider issues relating to the proposed abandonment in the order indicated in your letter of notification.

The consistency of the proposed abandonment with our comprehensive land use plan and map is an issue in process. By that I mean the City of Toledo has provided funds for a comprehensive plan in this year's capital improvements budget to update the plan adopted in 1953. We will be working with the Department of Natural Resources on open space and park land facilities and needs. This piece of right-of-way represents a rich opportunity for public recreation creativity, both for contiguous property and as a spine for more far reaching concepts.

Most of the proposed abandonment is within or adjacent to residentially developed or zoned land. Adjacent land that is of a commercial or industrial nature is linear within larger residential or institutional land uses. The proposed abandonment is seen to benefit adjacent residential uses.

There would be no effect on prime agricultural lands, inasmuch as the line traverses an urban area. By the same token, there would be no effect on land or water resources within a designated coastal zone management plan.

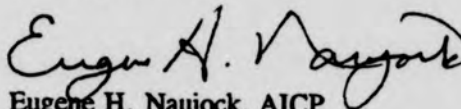
The City of Toledo Rails to Trails Team, appointed by the Mayor of Toledo, met on September 4, 1997, and unanimously supports alternative public use of the proposed abandonment. The Team has representatives from City Departments, the Regional Bikeway Committee, the Toledo Area Metroparks, the Northwest Ohio Rails to Trails Association, bicycle dealers, and the Toledo Metropolitan Area Council of Governments (TMACOG).

Mr. Carmen Gilotte
DeLeuw, Cather & Company
September 16, 1997
page 2

Adjacent to the north end of the proposed abandonment lie a shopping center, a community park and a Start High School site. As one proceeds to the south, the route passes through residential areas and along the west side of Ottawa Park and golf course (with a bike loop), then through the University of Toledo (UT) campus, on south a half mile west of the UT Community and Technical College, and on through the Medical College of Ohio campus and terminating at Bowsher High School. On the UT campus, a connection can be made to the University Trail, a rail to trail that extends six and a half miles to the northwest connecting the University, Wildwood Preserve Metropark, and Sylvania Southview High School. At the south end, there is potential for a westward connection to the Swan Creek Preserve Metropark and an eastward connection to an Anthony Wayne Trail route to the Toledo Zoological Gardens and northward to downtown and beyond. In essence, this route has the potential to serve as a greenway spine or trail that facilitates connecting together a variety of recreational and institutional elements. While the initiative comes as a recreational thrust, it is considered that as connections are made, more people will find these routes as an alternative transportation system.

Thank you for the opportunity to comment on this proposed abandonment. If or when it comes to fruition, we would like to have a public entity have the first and preferred option for reuse. Please keep me posted.

Sincerely yours,



Eugene H. Naujock, AICP
Manager-Planning

EHN080:slk

cc: Walter T. Edelen, Director, Plan Commissions
James W. Barney, Director, Natural Resources
Ross Hamre, Commissioner, Natural Resources
Diana Evans, TMACOG

**BOARD OF COUNTY
COMMISSIONERS**

Terry Boose
Larry Silcox
Karen Wilhelm



180 Milan Avenue
Norwalk, Ohio 44857-1195
Telephone (419) 668-3092
FAX (419) 663-3370

September 16, 1997

received
9/16/97

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, DC 20005

Dear Mr. Gilotte:

In response to your request for an assessment of potential environmental impacts of the proposed rail line segment construction in Greenwich, Ohio, please see the attached communications.

The communications from Huron County Emergency Management Assistance and Huron County Soil and Water Conservation District identify the concerns related to this project.

Thank you for your consideration of these concerns. Please feel free to contact our office at 419-668-3092 at any time for further discussion.

Huron County Commissioners

A handwritten signature in cursive script, appearing to read "Karen Wilhelm".

Karen Wilhelm, President

A handwritten signature in cursive script, appearing to read "Terry Boose".

Terry Boose, Vice President



Huron County Emergency Management Agency

William L. Ommert, Coordinator, 180 Milan Avenue, Norwalk, Ohio 44857

Phone: 419-663-5772

Fax: 419-668-5909



September 15, 1997

Board of Huron County Commissioners
180 Milan Avenue
Norwalk, OH 44857

RE: Surface Transportation Environmental Study - Greenwich Railroad Expansion

Dear Board of Commissioners:

After reviewing material and conferring with Cary Brickner, Chief Art Evans, Mike King, and Mayor Fishbaugh, I have the following recommendations:

- 1) Emergency public access will be jeopardized for residents living north and west of the current Conrail right-of-way due to the increased number of trains and switching taking place at the diamond area. This means, police, fire, and ambulance services may not be able to respond to residents in the above mentioned area.
- 2) The Village of Greenwich is concerned about street damage (hauling fill) for the improved area.
- 3) Fair and equitable treatment for property owners. Whose property will be taken?
- 4) Culverts and drainage areas will need to be enlarged to handle storm waters (see attached letter from Cary Brickner).

Please send these comments to the Surface Transportation Board as some of these are life threatening.

Sincerely yours,

Bill Ommert, Director
Huron County Emergency Management Agency

DRAINAGE RECOMMENDATIONS

Involving

CSX TRANSPORTATION, INC
Connection Construction
Greenwich, Ohio
September, 1997

Submitted by: Cary Brickner; District Manager / Drainage Coordinator

Four separate drainage crossings have been identified along the proposed connection construction. (See attached map with location and numbering)

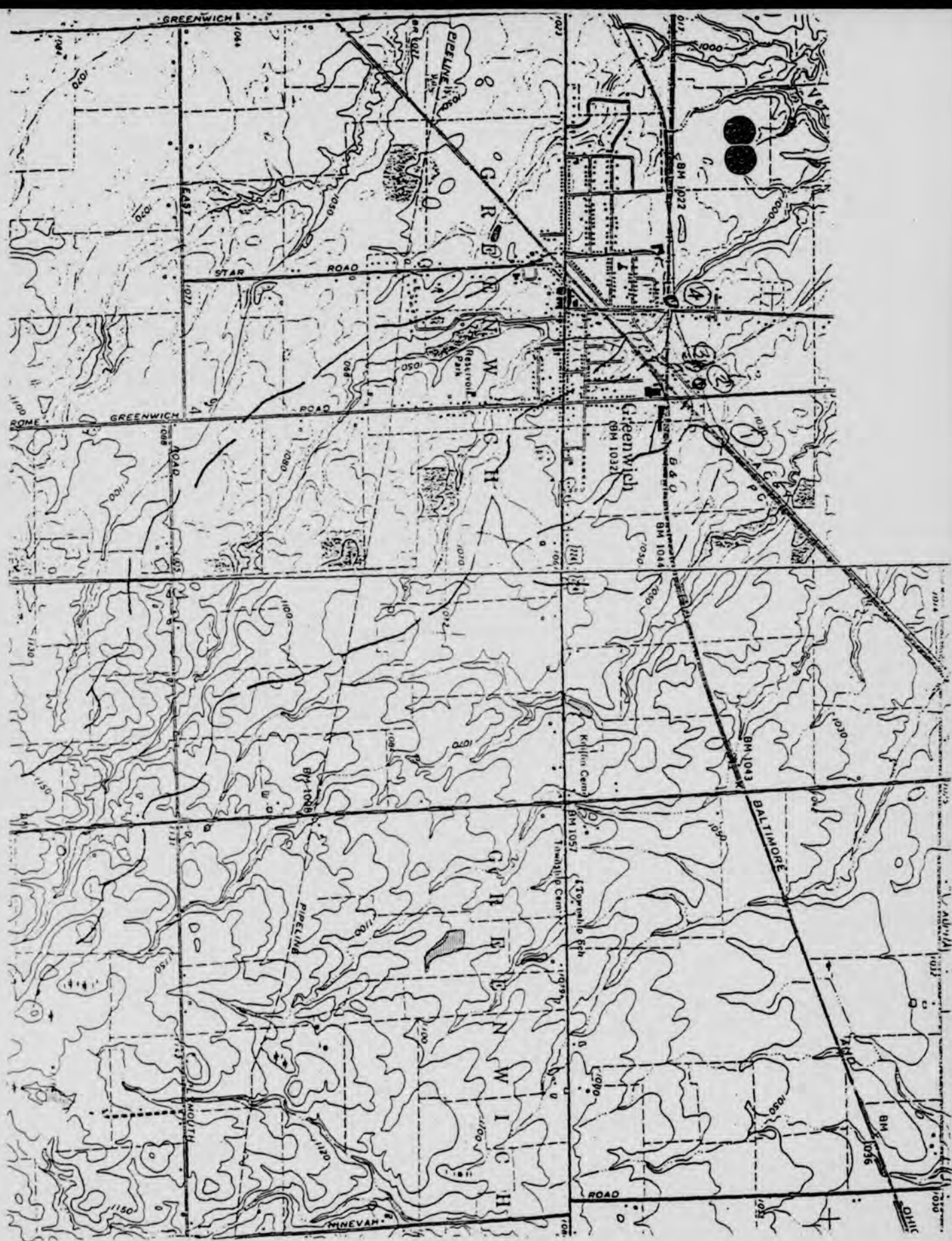
Recommendations:

Crossing #1 - the 30" inch cast iron pipe needs to be extended at least 10 feet beyond the proposed toe of slope on both the north and south side such as to prevent ballast stone and other debris from rolling down the slope and obstructing the free flow of runoff.

- The condition of the existing 30" culvert needs to be inspected and repaired. It appears as though the tongue and groove culvert pipe have separated. A sink hole was observed between the rails and ties above.

Crossing #2 - is a 10 inch clay tile which was observed to be crushed and obstructed. This tile should be repaired and replaced within the width of the right of way or relocated and outleted to the west along the south side of the railroad into the drainage ditch located about 300 feet to the west.

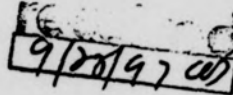
Crossings #3 & #4 - #3 is a 48" cast iron tongue and groove culvert pipe and #4 in an open span bridge. Both appear to be of sufficient size and depth. Both need to be extended at least 10 feet beyond the proposed toe of slope on both the north and south side such as to prevent ballast stone and other debris from rolling down the slope and obstructing the free flow of runoff.





City Planner
165 North Schuyler
Kankakee, Illinois 60901
(815) 936-7320 - Fax (815) 936-7314

September 18, 1997



Mr. Carmen Gilotte
De Lewu, Cather & Company
1133 15th Street, N.W.
Washington, DC 20005

Re: Environmental Analysis - Rail Line Segment Construction

Dear Mr. Gilotte:

In response to your enclosed letter of August 21, 1997, please note the following:

1. The proposed rail line segment construction project is not inconsistent with the City's comprehensive plan (currently under development) as the proposed land use and zoning classification of the subject property is industrial; and,
2. The proposed rail line segment would have little or no effect on agricultural lands.

Should you have any further questions or require any additional information, please give me a call.

Sincerely,

David A. Schaeffer
City Planner

Encl.

DAS/dh

City of Paris Illinois

123 SOUTH CENTRAL AVENUE

PARIS, ILLINOIS 61944

FRANK L. CLINTON, MAYOR

(217) 465-7601 FAX (217) 466-1308

ROBERT J. SUNKEL
COMMISSIONER

WM. D. INGRUM, JR.
COMMISSIONER

STEPHEN T. FOLEY
COMMISSIONER

MARJORIE ERKENBECK
COMMISSIONER

PAUL H. RUFF
CITY CLERK
CITY MANAGER

DENNIS THIEL
CITY TREASURER

RICHARD L. JAMES
CITY ATTORNEY

ELIZABETH PATTEN
DEPUTY CITY CLERK



Thursday, September 18, 1997

Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, DC 20005

received
9/22/97

Dear Mr. Gilotte:

The Planning Commission of the City of Paris, Ill., has received your information regarding the proposed abandonment of the present branch line segment of Conrail running from north of Paris, Ill. to south of Danville, Ill., with your request for review and comment.

The Plan Commission is advisory to the City Council, and administers the city's Land Use Zoning ordinance, which has jurisdiction for 1.5 miles beyond the city limits. The proposed abandonment as indicated on the attached maps appears to begin approximately one quarter mile north of the north city limits which are the city-owned property surrounding the west lake of Twin Lakes. The area under city jurisdiction currently is zoned R-1 (rural agricultural). There are no plans at present for any change in this land use classification, nor is there any long-range projection on the master city plan for changes in land use adjacent to the present rail line (such as industrial zoning.) Since CXS proposes to maintain service via the branch line from Paris to Terre Haute, Ind., we have been assured there will be no adverse economic effects from the abandonment upon our local industry requiring rail transportation.

To reply to your specific inquiries:

- 1) The proposed abandonment would be consistent with the city's comprehensive land use plan.
- 2) The only affect on prime farmland use would be the potential for adjoining property owners to acquire right-of-way for agricultural purposes.
- 3) This is not within a costal zone.
- 4) The city has been notified that other organizations along the proposed abandonment may seek to preserve the section for consideration as a "rails to trails" corridor. Neither the Plan Commission nor the City of Paris have a position on that proposal at this time.

I hope this presents the information you desire. Please keep the City of Paris advised of the abandonment process.

Sincerely,

Ned Jenison, Chairman, Paris Planning Commission

MEMBER ILLINOIS LEAGUE MUNICIPALITIES



TOWN OF WEST SENECA

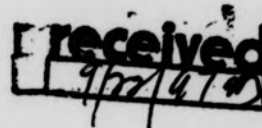
GEORGE D. MONTZ, P.E.
ENGINEERING DEPARTMENT
TOWN ENGINEER

SUPERVISOR
PAUL T. CLARK

TOWN COUNCIL
BARBARA A. RUDNICKI
CHRISTOPHER F. OSMANSKI
JERRY M. HICKS
CHRISTOPHER P. WALSH

September 19, 1997

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, DC 20005



**Re: Surface Transportation Board Letter of
September 8, 1997 to Supervisor Paul Clark
Regarding Proposed Construction in Gardenville Junction**

Dear Mr. Gilotte,

This is to acknowledge receipt of the above letter to Supervisor Clark regarding the proposed rail line segment construction in Gardenville Junction and the existing land-use environment of the area (see attached sketch).

The area is zoned M-2 Manufacturing, which is consistent with the proposed construction. There is no prime agricultural land in the immediate area to be effected.

If there are any questions on the above, feel free to contact me at this office.

Very truly yours,

George D. Montz, P.E.
Town Engineer

GDM/mlw

cc: P. Clark - Supervisor
File



STB

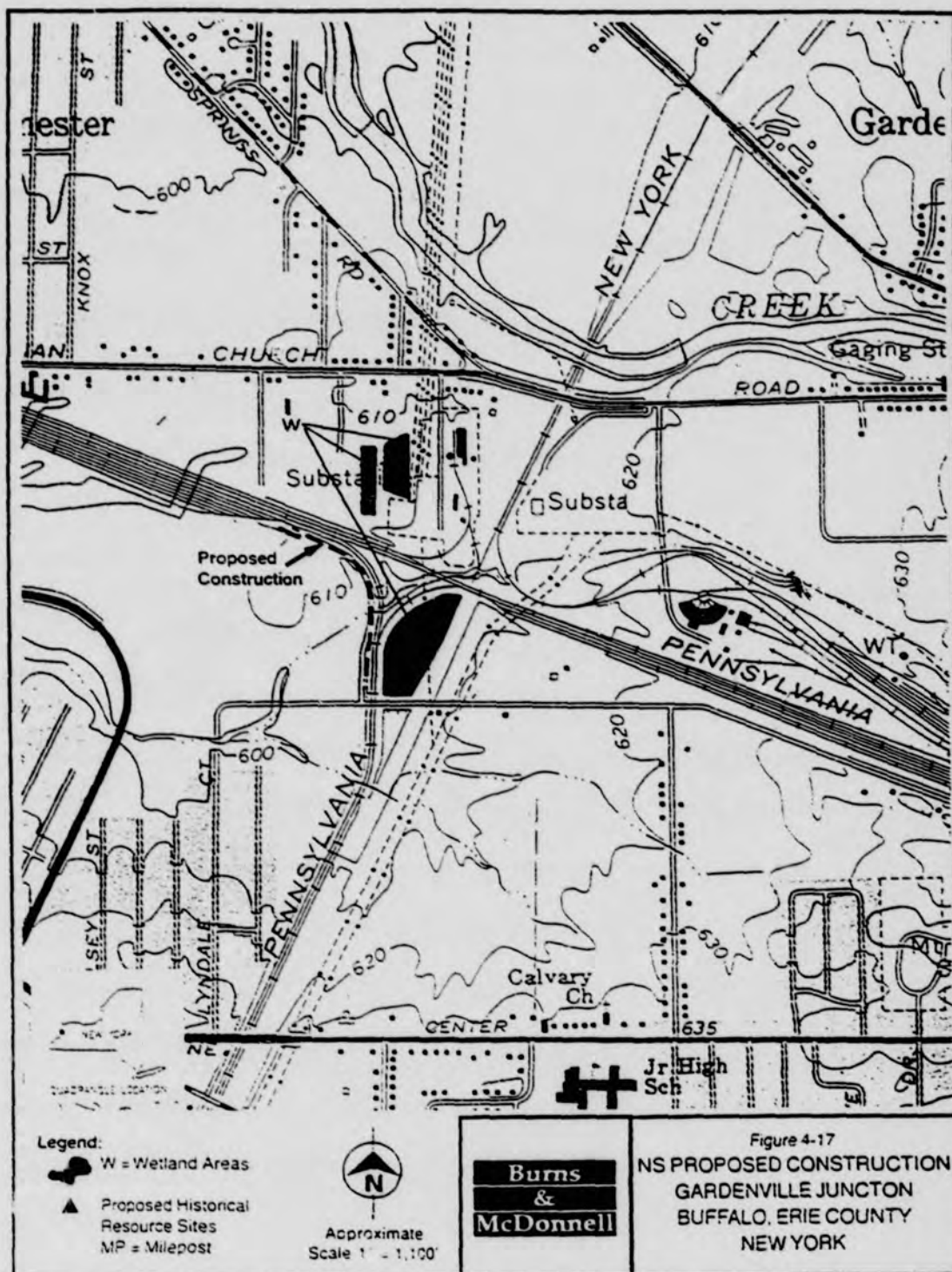
FD

33388

12-12-97

K

28629V5A 10/11



CITY OF CHRISMAN

BENTON B. CALDWELL
COMMISSIONER

GEORGE WIL HOULT
COMMISSIONER

PAIGE BROOKS
CITY CLERK

222 WEST MADISON
CHRISMAN, ILLINOIS 61924
(217) 269-2214
FAX (217) 269-3195
Homer R. Wolfe, Mayor

TOM HOULT
COMMISSIONER

HERSCHEL KETCHUM
COMMISSIONER

KAY WOLFE
CITY TREASURER

September 22, 1997

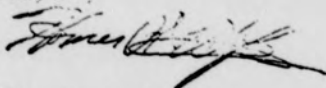
received
9/27/97

To: Mr. Carmen Gilotte
DeLeuw, Carter & Company
1133 15th Street N.W.
Washington D.C. 20005

After review of the proposed abandonment of the Conrail line we find that,

- #1. That the land use plan is consistent with the proposed abandonment.
- #2. There is no effect on prime agricultural lands (based on the attached U.S. Natural Resources Conservation Services definition).
- #3. There is no effect on land or water resources within a designated coastal zone and its consistency with the coastal zone management plan.
- #4. The City of Chrisman's plans would be to designate the abandoned rail lines to be used as an access road to the city's dump, and also to be used as hiking and bike trail.

Mayor,



Homer R. Wolfe



received
9/29/97

CITY OF HAGERSTOWN MARYLAND

DEPARTMENT OF PLANNING

TELEPHONE 301-739-8577 X138

September 25, 1997

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, D.C. 20005

Dear Mr. Gilotte:

RE: Finance Docket No. 33388—CSX and Norfolk
Southern Control and Acquisition

Thank you for your letter of August 28, 1997, requesting our involvement in the environmental review process of the above-referenced merger. On behalf of the City of Hagerstown I offer the following comments in regard to the specific issues you raise.

"1. Determine the consistency of the proposed rail line segment construction with your future comprehensive land-use plan and map. Please identify:

(a) The future land-use plan classification for the area of the new construction;"

Response: The Comprehensive Plan for the City of Hagerstown classifies the specific area of the new construction as railroad right-of-way. Contiguous to the east the area is classified "Open Space" and "Recreational" land use and includes the 60+ acre City Park. Immediately to the west is the CSX Roundhouse site for which the land use is "To be Determined". The right-of-way is the demarcation line between the "Wesel Boulevard" and "South End" neighborhoods.

"(b) Any potential inconsistent land uses created by the proposed construction;"

Response: While the new connection itself does not create an inconsistent land use, the construction activity will have a detrimental impact on the contiguous residential land use. All construction activity should consider the apartment building immediately east of the site and take appropriate noise reduction and other mitigating measures.

"(c) If there is no future land-use plan, ..."

Response: Refer to (a) above.



LAPORTE COUNTY PLAN COMMISSION

Government Complex 5th Level
809 State Street
LaPorte, Indiana 46350-3329
Phone: (219) 326-6808 Ext. 221 or 219
FAX: (219) 326-7362

RAY HAMILTON
Building Commissioner

September 25, 1997

received
9/29/97

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, DC 20005

RE: Finance Docket No. 33388
CSX and Norfolk Southern Control and Acquisition - Conrail:
Agency Consultation on Abandonments

Dear Mr. Gilotte:

In reference to a letter dated August 21st, 1997 from the Surface Transportation Board, the proposed abandonment of said mentioned rail line will not have any adverse effect on our Comprehensive Land Use Planning Map(s). This is not in a coastal zone management area nor will it adversely effect any prime agricultural land.

If you have any further questions, you may contact this office at (219) 326-6808, extensions 219, 221 or 418.

Respectfully,

Ray Hamilton
Building Commissioner

RH/atp

Mr. Carmen Gilotte
Page 2
September 25, 1997

"2. Determine and confirm any potential effect of the proposed rail line construction on prime agricultural lands (based on the attached U.S. Natural Resources Conservation Service definition)."

Response: Not applicable. The Soil Survey of Washington County, Maryland, does not classify soils in the developed part of the City.

"3. Determine and confirm any effect on land or water resources within a designated coastal zone and its consistency with the coastal zone management plan."

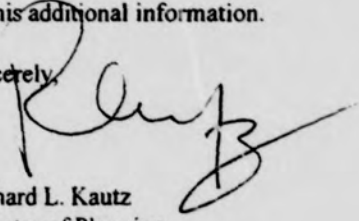
Response: Not applicable.

Thank you for allowing us to participate in this environmental review process. I hope these responses meet the needs of your organization in its review of the merger. I would like to thank Mr. Jeff Johnson for his assistance in helping me understand some of the specifics pertaining to this issue. He was very helpful and cooperative.

While all of the above comments pertain to activities being undertaken by Norfolk Southern, I have some questions about how the CSX activities might impact the City. I cannot tell from the information available to me if CSX will be abandoning any trackage or facilities within the City of Hagerstown. Will the CSX Roundhouse be abandoned? Will the track connecting the CSX yard to the NS line to Front Royal be abandoned and removed? The answer to both issues will have an impact on the future plans of the City. I would appreciate a detailed response about these issues or direction about how to contact the responsible person involved with CSX.

Thank you for your assistance in obtaining this additional information.

Sincerely,


Richard L. Kautz
Director of Planning

c: Bruce Zimmerman - City Administrator
Bruce Johnston - City Engineer

OFFICIALS**MAYOR**
Mike Weese**VILLAGE CLERK**
Mary Gundrum**TREASURER**
Mike Larson**VILLAGE OF WESTVILLE****201 NORTH STATE STREET**
WESTVILLE, ILLINOIS 61083**VILLAGE TRUSTEES**

John Barton

George Henaley

La Verne "Penny" Jenkins

Jeff Slavik

Tom Thomsbrough

Al Vecellio

SEPTEMBER 26, 1997

MR. CARMEN GILOTTE
DE LEUW, CATHER & COMPANY
1133 15TH STREET N.W.
WASHINGTON DC 20005

DEAR MR. GILOTTE:

ANSWERS TO THE QUESTIONS ON THE ENCLOSED SHEET.

- 1- IT IS CONSISTENT TO VILLAGE OF WESTVILLE ZONING ORDINANCE.
- 2- DOES NOT EFFECT FARMLAND USAGE.
- 3- DOES NOT EFFECT COASTAL ZONE.
- 4- ALTERNATE USE FOR VILLAGE OF WESTVILLE WOULD BE ADVANTAGEOUS TO USE AN ALTERNATE ROADWAY.

VERY TRULY YOURS
MAYOR MIKE WEESE
VILLAGE OF WESTVILLEBIRTH PLACE OF NIGHT FOOTBALL
SITE OF FIRST GAME IN U.S.A. - 1928

City of River Rouge

MICHIGAN

10000 WEST JEFFERSON AVENUE
RIVER ROUGE, MICHIGAN 48218-1242
TELEFAX (313) 842-4711

September 29, 1997

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, DC 20005

RE: Finance Docket No. 33388
CSX and Norfolk Southern Control and Acquisition

Mr. Gilotte:

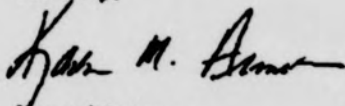
After reviewing the maps and work description of the proposed rail line segment construction in the City of River Rouge documented in your communication dated August 21, 1997 to Mr. Al Bogdan, Director of Planning for Wayne County we have found the following:

1. The proposed project does not conflict with our future comprehensive land-use plan and map.
2. The proposed project has no effect on prime agricultural lands.
3. The proposed project does not impact a designated coastal zone.

However, the City does have serious concerns that increased rail traffic will further aggravate the problematic blocking of pedestrian and vehicular traffic at the Visger and Pleasant Street crossings.

We appreciate having the opportunity to participate in this environmental review process.

Sincerely,



Karen M. Armas,
Community Development Director



CITY OF DETROIT
PLANNING & DEVELOPMENT DEPARTMENT

2300 CADILLAC TOWER
DETROIT, MICHIGAN 48226
PHONE 313 • 224 • 6380
FAX 313 • 224-1629

150 MICHIGAN AVE.
DETROIT, MICHIGAN 48226
PHONE 313 • 224 • 2560
FAX 313 • 224-4579

September 29, 1997

Mr. Carmen Gilotte
Deleuw, Cather & Company
1133 15th Street, N.W.
Washington, DC 20005

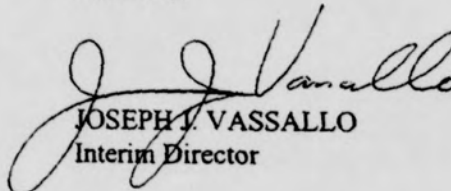
Dear Mr. Gilotte:

The City of Detroit Planning & Development Department has reviewed the environmental impact of the proposed rail line segment construction of Ecorse Junction. Based on our review, below are answers to the questions raised:

- 1) The proposed plan is consistent with the future land-use plan and current zoning.
- 2) The proposed plan has no effect on prime agricultural land.
- 3) The proposed plan has no effect on any land or water resources.

If you have any questions, please contact myself or Thomas Walters, Executive Manager of our Planning Section at (313) 224-1421.

Sincerely,


JOSEPH J. VASSALLO
Interim Director

JJV/vh

cc: Thomas Walters

DENNIS W. ARCHER, MAYOR

ATTENTION: Carmen Gilotte

EDGAR COUNTY BOARD
SEPTEMBER 30, 1997

1. By abandoning the railroad it is consistent with the land use plan.
2. It would have no effect on prime farm land.
3. Coastal zone does not pertain to this area.
4. At this time we are not interested in getting involved with constructing anything in place of the railway.

Adonna Bennett
Adonna Bennett
Edgar County Board Chairman

received
10/1/97 az
3



City of Cleveland

Michael R. White, Mayor

received
10/14/97

City Planning Commission
Hunter Morrison, Director
601 Lakeside Avenue, Room 501
Cleveland, Ohio 44114-1071
216/664-2210 • Fax 216/664-3281

Mr. Carmen Gilotte
DeLeuw, Cather & Co.
1133 15th Street, N.W.
Washington, DC 20005

Dear Mr. Gilotte,

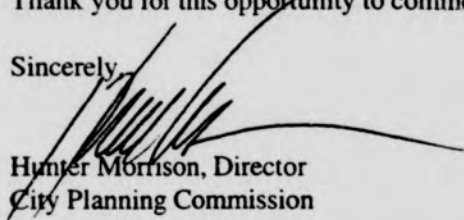
This letter is in response to your correspondence regarding the CSX/NS acquisition of Conrail properties and the work that is proposed at Collinwood Yards within the City of Cleveland. Your letter refers to three specific issues: consistency of the proposed rail segment with the future land use plan, its potential impact on prime agricultural lands, and effects on land or water resources within a designated coastal zone. Below are our responses:

- o Consistency with future land use plan: The land in question is zoned Industrial and is proposed for industrial uses on the future land use map.
- o Potential effect on prime agricultural land: The land involved has not been under cultivation for at least 100 years and has been industrial in nature for decades. Therefore, there would be no affect on agricultural land.
- o Effect on land or water resources within a designated coastal zone: It is our understanding that this property does not lie within and coastal zone management area. Therefore, there would be no affect on a coastal zone management area.

The City of Cleveland has other concerns regarding potential environmental impacts this proposal may have on the immediate area, such as noise, additional truck traffic generated by the project, etc. We may be in contact with you on these issues.

Thank you for this opportunity to comment.

Sincerely,


Hunter Morrison, Director
City Planning Commission

OFFICE OF THE MAYOR

City of Alexandria

INDIANA

James R. Wehsollek
Mayor



INCORPORATED FEBRUARY 4, 1893

October 1, 1997

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th St. N.W.
Washington, DC 20005

received
10/2/97

Dear Mr. Gilotte,

We've received notification of the proposed construction project as part of the Conrail acquisition. The following are answers to your questions:

1. The proposed construction will be consistent with local land use.
2. The proposed construction will not have an effect on prime farm land.
3. There is no effect on the costal zone.

The City of Alexandria has several concerns related to traffic signals at crossings within the city. We are presently working with the railroad company to get these issues taken care in order to protect public safety. We appreciate the railroad's attention and expect their continued cooperation to make a satisfactory result for everyone.

Sincerely,

James R. Wehsollek
Mayor

JRW/lk

1200 COUNTY-CITY BUILDING
SOUTH BEND, INDIANA 46601-1830



PHONE 219/235-9371
FAX 219/235-9021
TDD 219/ 235-5567

CITY OF SOUTH BEND STEPHEN J. LUECKE, MAYOR
COMMUNITY & ECONOMIC DEVELOPMENT

JON R. HUNT
EXECUTIVE DIRECTOR

ANN E. KOLATA
DEPUTY EXECUTIVE DIRECTOR

received
10/17/97

October 3, 1997

Mr. Carmen Gilotte
DeLeuw, Cather & Company
1133 15th Street, N.W.
Washington, DC 20005

Re: Finance Docket No. 33388
Dillon Junction Rail Line Abandonment

Dear Mr. Gilotte:

Thank you for your letter of September 26, 1997 offering the City of South Bend an opportunity to comment on the proposed abandonment noted above. Although I am responding several days after your October 1, 1997 deadline, I hope that the comments noted below can still be of assistance to you.

The City was made aware of the abandonment on June 25, 1997 through a letter from the Rails-to-Trails Conservancy. Subsequently, the St. Joseph County Parks Department filed for Public Use Condition/Interim Trail Use. The City supports the County's application.

Approximately two miles (from MP SK2.5, west) of the Dillon Junction abandonment falls within the corporate limits of the City. The predominant land use on either side of the track on the east end of the noted two miles is used industrially and is zoned "E" Heavy Industrial. The remaining mile, also zoned "E" Heavy Industrial, is prime agricultural land and is planted in crops. Just south of the eastern terminus of the abandonment, is the Rum Village neighborhood, a neighborhood that the City is actively involved in relative to public works projects. The abandonment in itself would not conflict with planned public improvements.

St. Joseph County, along with the City, are in the preliminary stages of developing a comprehensive land use plan. The current zoning classification on either side of the track supports a variety of industrial uses. I would anticipate that that would continue to be supported by long range planning. Due to the cost of demucking, I would further anticipate that what is not currently developed, will remain as cropland in the foreseeable future.

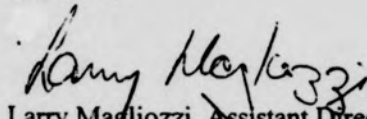
REDEVELOPMENT ANN E. KOLATA 219/235-9371	BUSINESS ASSISTANCE & DEVELOPMENT DONALD E. INKS 219/235-9335	FINANCIAL & PROGRAM MANAGEMENT ELIZABETH LEONARD 219/235-9335	BUREAU OF HOUSING KATHRYN BAUMGARTNER 521 ECLIPSE PLACE 219/235-9475 FAX: 219/235-9469	PLANNING & NEIGHBORHOOD DEVELOPMENT PAMELA C. MEYER 219/235-9660 FAX: 219/235-9697
--	--	--	--	--

There is active interest in developing a county-wide trail system in St. Joseph County. Preliminary steps are being taken to coordinate the County and City efforts in this regard. The City of Mishawaka will also be included in this effort. South Bend already has an extensive river walk and bike network. This network will eventually link with the river network that the City of Mishawaka is developing, and that the County has developed. St. Joseph County is also actively pursuing purchase of a two mile abandoned rail line north of South bend, to the Michigan State line. This segment will eventually connect to the Kalhaven Trail in Michigan. South Bend is currently pursuing the abandonment of the Plymouth Industrial Track (STB Docket No. AB-167 (Sub-No. 1165X) as a future link to the developing system.

As a final comment, the Dillon Junction abandonment wraps around one of the top two state parks in Indiana, Potato Creek State Park (Figure 3-5d of the Burns & McDonnell exhibit, and indicated on the map as "State Recreation Area"). The possibility and opportunity to link the South Bend/Mishawaka urban area with this premier recreational facility by trail, cannot be underestimated. Not only can a well developed, regional trail system provide quantifiable quality of life issues, but the tourism potential also cannot go unnoticed.

Thank you for the opportunity to comment. Please call if I can be further assistance.

Sincerely,



Larry Magliozzi, Assistant Director
Division of Planning & Neighborhood Development.

cc: Jon Hunt

lm/rail07



William "Bill" Shaw President
Judith J. Evans Clerk/Collection
TRUSTEES
Belia M. Campos Mary K. Duggan
Bert Herzog James T. Jefferson
Harold Kemp Ronnie C. Lewis

William Thomas Administrative
Assistant to the Mayor
Samalla H. McClellan Chief Of Staff
Carl Forn Treasurer
Everett C. McLeary Attorney

VILLAGE OF DOLTON • 14014 Park Avenue • Dolton, Illinois 60419-1098 • Cook County • 708-849-4000 • FAX 708-201-3235

October 06, 1997

Project 97-052

Mr. Carmen Gilotte
DeLew Cather & Company
1133 15th Street
Washington, D.C. 20005

Re: Finance Docket No. 33388
CSX & Norfolk Southern
Control & Acquisition

Dear Mr. Gilotte:

In response to the Surface Transportation Board letter of 9/02/97 (which was not received by the Mayors office until 9/23/97) the Village of Dolton would like to go on record as opposing the construction of a connection between the B & OCT and the IHB railroads as proposed. The increase in train traffic will be detrimental to the ingress and egress of vital emergency services and will exacerbate already long delays to Dolton residents. The work violates the spirit of Dolton's master plan to create a viable downtown business community.

In response to the questions in the letter of 9/02/97 the following is offered:

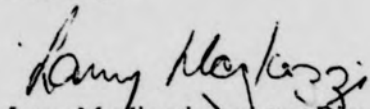
- 1a) Based on your exhibit A it appears that the proposed rail line is to be constructed within existing railroad right-of-way and it is unlikely that this land use would change. However please advise the village if you determine that any land outside of the existing railroad right-of-way is required. Any work outside the existing right-of-way would be inconsistent with the current village zoning.
- 1b) As long as the work is on existing railroad right-of-way the proposed work does not appear to be an inconsistent land use.
- 1c) There is no applicable village zoning classification for railroad right-of-ways.
- 2) There does not appear to be a potential effect of the proposed rail line on prime agricultural lands.

There is active interest in developing a county-wide trail system in St. Joseph County. Preliminary steps are being taken to coordinate the County and City efforts in this regard. The City of Mishawaka will also be included in this effort. South Bend already has an extensive river walk and bike network. This network will eventually link with the river network that the City of Mishawaka is developing, and that the County has developed. St. Joseph County is also actively pursuing purchase of a two mile abandoned rail line north of South bend, to the Michigan State line. This segment will eventually connect to the Kalhaver Trail in Michigan. South Bend is currently pursuing the abandonment of the Plymouth Industrial Track (STB Docket No. AB-167 (Sub-No. 1165X) as a future link to the developing system.

As a final comment, the Dillon Junction abandonment wraps around one of the top two state parks in Indiana, Potato Creek State Park (Figure 3-5d of the Burns & McDonnell exhibit, and indicated on the map as "State Recreation Area"). The possibility and opportunity to link the South Bend/Mishawaka urban area with this premier recreational facility by trail, cannot be underestimated. Not only can a well developed, regional trail system provide quantifiable quality of life issues, but the tourism potential also cannot go unnoticed.

Thank you for the opportunity to comment. Please call if I can be further assistance.

Sincerely,



Larry Magliozzi, Assistant Director
Division of Planning & Neighborhood Development.

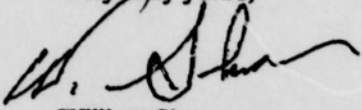
cc: Jon Hunt

lm/rail07

3) The proposed rail line is not within a designated coastal zone.

If there are any further questions, please do not hesitate to call.

Very truly yours,

A handwritten signature in dark ink, appearing to read 'W. Shaw', with a stylized flourish at the end.

William Shaw
Mayor
WS/elm

xc: Everett C. McLeary, Village Attorney
George Budwash, Village Engineer

ERNEST J. JEWETT
Mayor
RONALD W. SPORYZ, Jr.
Deputy Mayor
KATHLEEN COLE
GEORGE LEE
BETTY CARLIN ANDERSON
Trustees



BARBARA S. CESAR
Village Administrator
Village Clerk & Treasurer

BARBARA D. SHEEHAN
Deputy Clerk

JAMES SHAW
Village Attorney

EUGENE W. SALISBURY
Village Justice

Village of Blasdell

"Gateway to the Southtowns"

Mr. Carmen Gilotte
DeLEUW, CATHER & COMPANY
1133 Fifteenth Street N.W.
Washington, DC 20005

RE: FINANCE DOCKET NO. 33388--CSX AND NORFOLK SOUTHERN
CONTROL AND ACQUISITION -- CONRAIL: AGENCY CONSULTATION
ON CONSTRUCTIONS

Dear Gilotte:

Pursuant to your request of September 8, 1997 relative to the above matter currently under the scrutiny of the Service Transportation Board, please be advised of the following:

1. There is no inconsistency in the proposed rail line segment construction which adversely impacts a land use plan and map.
2. There is no adverse impact with respect to the proposed rail line construction on prime agricultural lands.
3. The proposed construction does not impact upon a designated coastal zone.
4. The proposed construction may well have an impact upon vehicular traffic within the Village of Blasdell. Inasmuch as there is a residential zoning classification to the East of the proposed construction. We are concerned about aesthetics, the level of noise, and any transitory pollutants that could be emitted as a result of the construction.

Once construction is completed we recognize that the volume of rail traffic through the Village of Blasdell may increase substantially. Questions regarding safety to pedestrians and vehicular traffic within the Village of Blasdell are a concern. The level of noise certainly is an area that could be adversely impacted.

The Village of Blasdell stands ready to cooperate with the Surface Transportation Board. We recognize the compelling need to afford expedient rail transportation services to Western New York industry. As a consequence, the Village will cooperate in every way to ensure that the proposed construction can proceed on schedule.

Mr. Carmen Gilotte
page two
October 15, 1997

Should you have any concerns with respect to this response, or need additional information, kindly contact the undersigned or the Village Clerk/Administrator of the Village of Blasdell, Ms. Barbara Cesar at the address and telephone number indicated above.

Very truly yours,

Ernest J. Jewett

Ernest J. Jewett
Mayor of the Village of Blasdell

CORCORAN & GREENE

ATTORNEYS AT LAW
A Professional Corporation

ROBERT T. CORCORAN **
DEBORAH L. GREENE

JASON J. MILLER **
KAREN M. VENICE
KATHLEEN ALLEN **
DEANNA V. DELPLATO

SUSAN B. CUSTER
LEGAL ASSISTANT

* Fellow, American Academy
of Matrimonial Lawyers

* Member of NJ and NY Bar
** Member of NJ and PA Bar

Elaine K. Kaiser, Chief
Section of Environmental Analysis
Surface Transportation Board
1925 K Street, N.W.
Washington, DC 20423-0001

Re: Ridgefield Board of Adjustment/
Finance Docket No. 33388-CSX and
Norfolk Southern Control and Acquisition-Conrail

Dear Ms. Kaiser:

Please be advised that we represent the Board of Adjustment of the Borough of Ridgefield, located at 604 Broad Avenue in Ridgefield, New Jersey. We are in receipt of a copy of your correspondence dated September 23, 1997 addressed to our Zoning Board Chairman, Mr. Anthony Mauro, in connection with the above-captioned acquisition of Conrail by CSX and Norfolk Southern Corporation.

Please be advised that with respect to the proposed rail line construction project slated for Little Ferry, New Jersey, involving two new connections between Conrail and NYS&W tracks to allow movement of trains between Conrail lines and the Little Ferry Intermodal facility, please be advised that the Borough of Ridgefield is a distinct and separate entity from the Village of Ridgefield Park which is located on the western side of Overpeck Creek, with Ridgefield being located on the eastern side of Overpeck Creek. The attachment to your correspondence states that "the proposed construction site is located within the corporate boundaries of the Village of Ridgefield Park..."

Accordingly, it would not appear from your documentation that the Borough of Ridgefield is the appropriate entity for input into your Environmental Impact Study. I would therefore request that you direct your enquiry to the Village of Ridgefield Park with municipal offices located at 234 Main Street, Ridgefield Park, New Jersey 07660.

401 Hackensack Avenue
Continental Plaza • Fifth Floor
Hackensack, New Jersey 07601

Telephone
(201) 342-5151

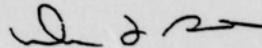
Facsimile
(201) 342-7190

Internet
<http://www.corcoran-greene.com>

Elaine K. Kaiser
October 22, 1997
Page 2

I trust that the above adequately advises you as to the status of this matter. If you should have any questions or comments regarding the enclosed, please feel free to contact me.

Very truly yours,



Deborah L. Greene

cc: Carmen Gilotte ✓
Gabrielle Aguele

F:\work\ridgefield\norfolk.022

APPENDIX K

Environmental Justice

APPENDIX K

Environmental Justice

Executive Order No. 12898 directs federal agencies to examine the effects of their actions on minority and low income communities in order to ensure that all communities and persons live in a safe and healthful environment.¹ The Order directs agencies to utilize existing law to ensure that when they act:

- They do not discriminate on the basis of race, color, or national origin.
- They identify and address "disproportionately high and adverse human health or environmental effects" of their actions on minority and low-income populations.
- They provide opportunities for community input in the NEPA process, including input on potential effects and mitigation measures.

The Order charged the Council on Environmental Quality (CEQ) with the duty of developing guidance for federal agencies on how to achieve these broad goals. CEQ has not issued final guidance, though it recently issued draft guidance.² The Environmental Protection Agency (EPA), also issued draft guidance but this was intended for its own NEPA compliance analyzes, not those of other federal agencies.³ Finally, the Department of Transportation issued an Order establishing procedures for applying the Executive Order to DOT programs.⁴

SEA utilized all four documents - the Executive Order, draft CEQ guidance, draft EPA guidance, and DOT Order - to examine the environmental justice implications of the proposed Conrail Acquisition. This analysis entailed six steps:

-
- ¹ The Order requires executive branch agencies, and requests independent agencies, to comply. See Order dated February 11, 1994 and accompanying "Memorandum for the Heads of All Departments and Agencies."
 - ² "Draft Guidance for Considering Environmental Justice under the National Environmental Policy Act," CEQ, May 7, 1997.
 - ³ "Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyzes," EPA, July 12, 1996.
 - ⁴ 62 Fed. Reg. 18377 et seq. (April 15, 1997).

- Identify the potential health and environmental effects of the proposed acquisition.
- Determine whether these potential effects might occur in minority or low income communities.
- Assess whether potential effects in minority or low income communities could be "high" and "adverse."
- Determine whether potentially high and adverse effects "disproportionately affect" minority or low income communities, (In other words, are such effects predominately borne, more severe, or greater in magnitude, in a minority or low income community?).
- If so, consult with the affected minority or low income community about both alternatives to the proposed application and potential mitigation measures.
- Identify all practicable mitigation measures and alternatives to avoid or reduce the disproportionate effect.

These six steps are described below in the following Environmental Justice Methodology, along with a description of words and phrases unique to the Environmental Justice analysis.

K.1 DEFINITIONS

The Executive Order does not define the terms "minority" or "low-income" so SEA used the same definitions as CEQ, EPA, and DOT. These definitions are unique to an environmental justice analysis and are the basis for the methodology that follows.

Minority Population: According to Council on Environmental Quality (CEQ) Guidelines, minority populations should be identified where either (a) "the minority population of the affected area exceeds 50% or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis." The appropriate unit of geographic analysis could be a governing body's jurisdiction, a neighborhood, census tract, or other similar unit as long as it does not artificially dilute or inflate the affected minority population. If there is more than one minority group present and the minority percentage, (calculated by totaling all minority persons), meets one of the CEQ thresholds.

Minority Individuals: Minority individuals are classified by the Bureau of Census into the following: American Indian or Alaskan Native; Asian or Pacific Islander; Black (not of Hispanic Origin); and Hispanic.

Low - Income Population: A "low-income" person is someone whose median household income is below the Department of Health and Human Services poverty guidelines which vary

according to household size. The poverty thresholds for a population in an affected area are identified in the annual statistical poverty thresholds from the Bureau of the Census (Current Population Reports, Series P-60 on Income and Poverty⁵). In 1989, national poverty thresholds were:

\$6,310	one person
\$8,076	two persons
\$9,885	three persons
\$12,674	four persons
\$14,990	five persons
\$16,921	six persons
\$19,162	seven persons
\$21,328	eight persons
\$25,480	nine or more persons

Disproportionately High and Adverse Impacts: SEA used the following process to define whether an impact is disproportionately high and adverse on the affected population: 1) "determine whether environmental effects are significant, as employed by NEPA; and 2) determine whether these impacts are or may be having an adverse impact on minority populations or low-income populations that appreciably exceeds or is likely to exceed those on the general population or other appropriate comparison group (CEQ Guidelines)."

K.2 IDENTIFICATION OF THE POTENTIAL HEALTH AND ENVIRONMENTAL EFFECTS OF THE PROPOSED ACQUISITION.

SEA examined a broad range of potential health and environmental effects that could result from the proposed acquisition, including effects on safety, traffic, air quality, noise, cultural and historic resources, hazardous waste sites and hazardous materials transport, natural resources, and land uses. SEA studied the following rail activities, associated with the proposed Acquisition, that exceeded the thresholds for environmental analysis as established by the Board's regulations in 49 CFR 1105.7(e).

- Increases in train traffic on various rail line segments.
- Construction of new connections.
- Increases in auto and truck traffic along intermodal truck routes.
- Increases in rail activity at intermodal facilities.
- Increases in rail activity at rail yards.

⁵ Sea used 1989 data, the most recent year for which actual population counts (rather than statistical estimates) are available. The US Bureau of the Census will issue new data in the year 2000.

Temporary, minor effects on natural resources might result in the few locations where tracks would be removed due to rail line abandonments. These effects are normally regulated by Federal, state, and local environmental agencies. SEA did not perform an environmental justice analysis of these temporary effects because the long-term effects are beneficial to the communities (e.g., eliminating noise and offering opportunities for rail-to-trail conversions), rather than "adverse."

Table K-1 describes criteria used by SEA to identify which activities, proposed under the acquisition, required additional environmental analysis. The activities which meet the criteria described in Table K-1 were then evaluated in more detail by each individual resource team to determine if impacts would occur if the proposed acquisition were approved. The information regarding impacts generated by the individual resource teams, was then coordinated with the Environmental Justice analysis of affected populations to determine if an Environmental Justice Impact would occur as a result of the proposed Acquisition.

Table K-1
Thresholds for Impact Analysis

Activity Site	Threshold for Air Quality Attainment Areas	Threshold for Air Quality Nonattainment Areas
Rail Line Segments	Increase of 8 trains per day or 100% increase in annual gross ton miles.	Increase of 3 trains per day or 50% increase in annual gross ton miles.
Rail Yards	Increase of 100% in carload activity per day.	Increase of 50 trucks per day or 10% increase in average daily traffic volume on any affected road segment.
Intermodal Facilities	Increase of 50 trucks per day or 10% increase in average daily traffic volume on any affected road segment.	Increase of 50 trucks per day or 10% increase in average daily traffic volume on any affected road segment.
New Connections	All new connections were examined	All new connections were examined

K.3 DETERMINATION OF WHETHER THE POTENTIAL EFFECTS MIGHT OCCUR IN MINORITY OR LOW-INCOME COMMUNITIES

To make the determination of whether any potential environmental effects might occur in minority or low-income communities, SEA needed to know:

- A. Where would potential effects likely occur (i.e., over what geographic areas).
- B. What is the minority and low income population of each potentially affected area.

SEA began by defining the geographic area where the potential effects could occur around each of the four types of rail activities (i.e., rail line segments, new connections, intermodal facilities, and rail yards). SEA termed this the "area of potential effect".

Neither the Executive Order, the draft CEQ guidelines, the draft EPA guidelines, nor the DOT order define how to select the "area of potential effect." SEA defined the "area of potential effect" as the maximum area potentially exposed to the Board's noise threshold of 65 dBA. SEA chose the 65 dBA threshold because it offered a practical, uniform approach to identifying the communities which would experience the most significant noise impacts and also encompassed areas that could be expected to experience other localized effects such as traffic congestion, grade crossings delays, visual intrusion, pedestrian and safety effects, and construction impacts associated with the proposed Acquisition.

SEA examined all new constructions, rail yards, intermodals, and rail line segments which met any of the Board's thresholds for environmental analysis identified in Chapter 1 of this Draft EIS. SEA determined where exceedance of the 65 dBA threshold could occur around each of these locations. The resultant boundaries range from 400 to 1500 feet -- roughly two to eight blocks in a typical urban area. Table K-2 shows the "area of potential effect" for each type of rail activity.

In developing the "area of potential effect", SEA used a conservative approach that overestimates the actual noise levels at rail line segments in order to be more inclusive of potentially affected populations. This resulted in a uniform "area of potential effect" along the entire length of each rail line segment. SEA made the following assumptions in developing the area of potential effect:

- that the minimum area to be analyzed encompassed 400 feet on either side of the rail line.

Table K-2
Areas of Potential Effect by Type of Action

Rail Activity	Area of Potential Effect (in feet)
Rail Yards	<ul style="list-style-type: none"> • 400 ft around the perimeter of the facility
Intermodal Facilities	<ul style="list-style-type: none"> • 400 ft around the perimeter of the facility • 400 ft on both sides of major truck access routes to the nearest interstate highway
Rail Line Segments	<ul style="list-style-type: none"> • 400 ft on both sides of a rail line with increases of 3-8 trains per day • 640 ft on both sides of a rail line with increases of 9-16 trains per day • 1500 ft on both sides of a rail line with increases of 17 or more trains per day

Table K-2
Areas of Potential Effect by Type of Action

Rail Activity	Area of Potential Effect (in feet)
New Connections	<ul style="list-style-type: none"> • 400 ft on both sides of a rail line with increases of 3-8 trains per day • 640 ft on both sides of a rail line with increases of 9-16 trains per day • 1500 ft on both sides of a rail line with increases of 17 or more trains per day

Next, SEA determined the minority and low income characteristics of the population within each of the area of potential effect. Using the definitions above (see Section K.1), SEA collected detailed U.S. Census data for the counties where acquisition-related activities would occur. These data included the following:

- total population data in each county
- total minority population in each county
- total low-income population in each county

These county-level data were used to determine if the characteristics of the affected population were meaningfully different than the characteristics of the population of the larger area.

Within the area of potential effect for each of the rail activities, SEA collected similar census data at the "block group" level. "Block groups" are small, statistical subdivisions of census tracts. In addition, the minority population data at the block group level was broken into racial groups. Block group level information allowed SEA to better understand the income and racial characteristics of the people living in the area of potential effect.

SEA utilized the computerized geographic information system (GIS) base map to coordinate the block group census data with the areas of potential effect for each rail activity in order to obtain accurate population counts. In addition, the minority and low-income composition of the areas of potential effect were analyzed using Wessex "U.S. Streets and Boundaries" TIGER GIS census data.

Neither the Executive Order nor the DOT order on Environmental Justice define what constitutes a minority or low-income population. Therefore, using CEQ's and EPA's draft guidance, SEA developed the following thresholds for determining whether the persons within the area of potential effect constituted a minority population:

- the percent of the minority people in an area of potential effect equaled or exceeded 50 percent of the total population within that area, or

- the percent of the minority people in an area of potential effect was at least 10 percent greater than the percentage of minority population of the county or counties in which the rail activity is located.

The following thresholds were developed for determining whether the population within the area of potential effect constituted a low-income population:

- the percent of the low-income population in an area of potential effect equaled or exceeded 50 percent of the total population within the area, or
- the percent of the low-income population in an area of potential effect was at least 10 percent greater than the percentage of low-income population of the county or counties in which the rail activity is located.

K.3.1 Rail Line Segments

The Environmental Justice analysis evaluated the population characteristics of persons within the area of potential effect for each rail segment which exceeded the thresholds for environmental analysis as established by the Board's regulations (see Table K1). The analysis included the following steps.

Step 1: Calculation of Minority and Low-income Populations - For all of those rail line segments that meet the Board's thresholds for environmental analysis, SEA analyzed the census block groups included within the area of potential effect, as determined by the number of increased trains. The following information was then collected for each segment: 1) the total population of each block group located in the area of potential effect, 2) the total minority population of each block group located in the area of potential effect, and 3) the total low-income population in each block group located in the area of potential effect. SEA totaled these populations for all of the block groups to determine the population characteristics along each rail line segment. From these totals, SEA determined the percentage of the population along each segment that is minority and low-income.

Step 2: Calculation to Determine if Environmental Justice Threshold is Met - Whenever the percent minority or low-income population in the area of potential effect of a rail line segment equals or exceeds 50 percent, SEA considered the rail line segment to meet the environmental justice threshold for further analysis.

For those rail line segments that did not have a percent minority or low-income population equal or greater than 50 percent, the segment was evaluated to determine if the percent minority or low-income is at least 10 percent greater than the percent minority or low-income population in the county or counties in which the rail line segment is located. In order to determine if the population in the area of potential effect for these rail line segment meets this environmental justice threshold, SEA collected the following data for the county or counties through which each segment traveled: 1) the total population, 2) the total minority population, and 3) the total low-

income population. SEA totaled these numbers across all the counties traversed by the rail segment. From these sums, SEA determined the total percentage of the population in the counties along each segment that is minority and low-income. The minority and low-income percentages for the counties were then compared against the minority and low-income percentages of each rail line segment to determine if the percent of minority or low-income population in the area of potential effect was at least 10 percent greater than the county's percentage of minority or low-income population.

Whenever the percent minority or low-income population in the area of potential effect along each rail line segment is at least 10 percent greater than the minority or low-income percentage in the county or counties through which the rail line segment traveled, SEA considered the rail line segment to meet the environmental justice threshold for further analysis.

K.3.2 New Connections

The Board requires analysis of potential environmental justice impacts associated with the constructions of all new connections that are under its jurisdiction. The construction of new connections between two rail lines fall under the Board's jurisdiction and SEA analyzed all the proposed connections related to the Acquisition.

Step 1: Calculation of Minority and Low-income Populations - For all new connections, SEA analyzed the census block groups within the area of potential effect as determined by the number of increased trains proposed for these connections (see Table K-2). The following information was then collected for each new connection: 1) the total population in each block group located in the area of potential effect, 2) the total minority population in each block group located in the area of potential effect, and 3) the total low-income population in each block group located in the area of potential effect. SEA totaled these numbers across all of the block groups. From these sums, SEA determined the total percentage of the population in the area of potential effect that is minority and low-income.

Step 2: Calculation to Determine if Environmental Justice Threshold is Met - Whenever the percent minority or low-income population in the area of potential effect of a new connection equals or exceeds 50 percent, SEA considered the new connection to meet the environmental justice threshold for further analysis.

Whenever the percent minority or low-income population in the area of potential effect did not equal or exceed 50 percent, but is at least 10 percent greater than the minority or low-income percentage in the county in which the new connection is located, SEA considered the connection to meet the environmental justice threshold for further analysis.

K.3.3. Rail Yards

SEA examined all those rail yards where there is a proposed increase in rail activity as a result of the Acquisition, and where the exceedences of the thresholds for environmental analysis as

established by the Board's regulations in 49 CFR 1105.7(e): an increase of at least 100 percent in carload activity, or in nonattainment areas, and increase of at least 20 percent carloads.

Step 1: Calculation of Minority and Low-income Populations - For all rail yards, SEA analyzed the census block groups within the potential area of effect, 400 feet around the site (see Table K-2). The following information was then collected for each rail yard: 1) the total population in each block group located in the area of potential effect, 2) the total minority population in each block group located in the area of potential effect, and 3) the total low-income population in each block group located in the area of potential effect. SEA totaled these numbers across all of the block groups. From these sums, SEA determined the total percentage of the population for each rail yard that is minority and low-income.

Step 2: Calculation to Determine if Environmental Justice Threshold is Met - Whenever the percent minority or low-income population in the area of potential effect of a rail yard equals or exceeds 50 percent, SEA considered the site to meet the environmental justice threshold for further analysis.

Whenever the percent minority or low-income population in the area of potential effect did not equal or exceed 50 percent, but is at least 10 percent greater than the minority or low-income percentage in the county in which the rail yard is located, SEA considered the site to meet the environmental justice threshold for further analysis.

K.3.4 Intermodal Facilities

SEA examined all those intermodal facilities (sites and truck routes) where there is an increase in rail activity as a result of the proposed acquisition, and where there are exceedences of the thresholds for environmental analysis as established by the Board's regulations in 49 CFR 1105.7 (e): an average increase in truck traffic on a given road segment of more than 10 percent of the average daily traffic, or fifty vehicles a day.

Step 1: Calculation of Minority and Low-income Populations - For all intermodal facilities, the calculation of minority and low-income populations was done separately for intermodal sites and intermodal truck routes. SEA analyzed the census block groups that fall within the area of potential effect, 400 feet around the intermodal sites and routes (see Table K-2). The following information was then collected for each intermodal facility: 1) the total population in each block group located in the area of potential effect, 2) the total minority population in each block group located in the area of potential effect, and 3) the low-income population in each block group located in the area of potential effect. SEA totaled these numbers across all of the block groups. From these sums, SEA determined the total percentage of the population for both the intermodal site and truck routes for each intermodal facility that is minority and low-income.

Step 2: Calculation to Determine if Environmental Justice Threshold is Met - Whenever the percent minority or low-income population in the area of potential effect of an intermodal site

or truck route equals or exceeds 50 percent, SEA considered the site to meet the environmental justice threshold for further analysis.

Whenever the percent minority or low-income population in the area of potential effect did not equal or exceed 50 percent, but is at least 10 percent greater than the minority or low-income percentage in the County in which the sites or routes are located, SEA considered the facility to meet the environmental justice threshold for further analysis.

K.4 ASSESSMENT OF WHETHER POTENTIAL EFFECTS IN MINORITY OR LOW-INCOME COMMUNITIES COULD BE "HIGH" AND "ADVERSE"

Neither the Executive order nor DOT's Order on Environmental Justice define how an agency is to assess "high" and "adverse" impacts. To protect minority and low-income communities, SEA has taken a conservative approach by identifying any significant adverse environmental effect.

SEA compared the analysis findings of the other resource disciplines (air, noise, land use, natural resources, traffic, safety, cultural resources, hazardous material sites, and hazardous materials transport) with those areas which met the environmental justice thresholds for minority or low-income populations. If an environmental effect was determined not to be "significant" according to each resource teams' significance criteria, then the specific rail activity proposed and area of potential effect was dropped from further analysis. However, if an environmental effect was determined to be significant according to the teams' significance criteria, and if the significant effect would occur within an area which the population met the minority and/or low-income threshold, SEA assessed whether the overall impact is disproportionate on minority and low-income communities.

K.5 DETERMINATION OF WHETHER POTENTIALLY HIGH AND ADVERSE EFFECTS "DISPROPORTIONATELY AFFECT" MINORITY OR LOW-INCOME COMMUNITIES.

To make this determination, SEA reviewed the potential high and adverse environmental effects to determine the following:

- Whether the potential effects would be predominately borne by minority or low-income communities, or
- Whether the potential effects would be more severe or greater in magnitude in such communities.

SEA used qualitative analysis approach which included review of several different factual circumstances, including cumulative effects of exposure to health and environmental impacts from many sources, to determine the significance levels on a local case-by-case basis. A

determination of a significant environmental justice impact specifically included SEA's consultation with affected communities.

K.6 CONSULTATION WITH THE AFFECTED MINORITY OR LOW-INCOME COMMUNITIES ABOUT ALTERNATIVES AND POTENTIAL MITIGATION MEASURES

For each significantly affected environmental justice community, SEA made a determination as to whether additional site visits were needed. SEA tailored outreach efforts to ensure that the affected community(ies) were informed of the proposed Acquisition and provide the community a meaningful opportunity to participate in the environmental review process of the Draft Environmental Impact Statement (DEIS). This effort supplements the extensive public outreach already undertaken by SEA and described in Chapter 1 of this DEIS. This additional outreach, directed to business and neighborhood associations, city council member, religious organizations, libraries, and other appropriate community representatives was intended to:

- seek widespread notice and dissemination of SEA's environmental impact analysis,
- provide additional opportunities for community input to the NEPA process,
- solicit information about cumulative effects in minority and low-income communities, and
- allow minority and low-income communities to comment on appropriate mitigation measures.

Detailed public outreach plans have been developed and implemented for each community for which a potential environmental justice effect has been identified. Section K.8 contains these outreach plans.

If an impact was determined to be significant, then SEA examined the proposed mitigation measures identified by the individual resource teams. If mitigation efforts were not feasible or reasonable, SEA documented why mitigation was not feasible. SEA also evaluated additional measures to offset and opportunities to enhance the community through site visits and input received through the public outreach efforts. Throughout the process, SEA has sought public input on:

- whether there is a disproportionate impact on any minority or low-income community,
- the propriety of mitigation measures to reduce or avoid any disproportionate impact, and
- additional alternatives and mitigation to reduce or avoid any disproportionate impact.

SEA also seeks input on benefits, costs, practicality, and disadvantages (including adverse social, economic, environmental, or human health impacts) of any such alternatives or mitigation measures.

Mitigation for significant environmental justice impacts could consist of strategies and measures identified for specific resource impacts. Strategies from the traffic and transportation discipline, for example, could include re-routing intermodal facility truck traffic into one-way street pattern to reduce truck volumes on a residential street. Strategies from the noise discipline, for example, could include noise barriers adjacent to train tracks at particularly sensitive receptor locations such as schools or hospitals. Mitigation related to safety could include fencing for rail lines traversed by high numbers of pedestrians, or measures to improve the aesthetics around the railroad rights-of-way in environmental justice communities are other types of mitigation which could be proposed by SEA.

Additional mitigation strategies for environmental justice could include independently negotiated mitigation agreements between railroads and individual communities. However, SEA considers arrangements by the railroad to embark on or conduct outreach activities as mitigation, which are beyond the Board's jurisdiction.

K.7 RESULTS OF THE IDENTIFICATION OF POPULATIONS MEETING THE ENVIRONMENTAL JUSTICE THRESHOLDS

The following tables provide the results of the analysis SEA completed to identify if populations within the area of potential effect for each of the rail activities met the environmental justice thresholds for additional analysis.

Alabama

Table K-3
Alabama Environmental Justice Summary for Rail Yards

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50%, or < 50% but 10% > County	Low-Income Population > 50%, or < 50% but 10% > County	Population Meets Threshold for Environmental Justice Analysis
Jefferson County	651,525	36.1%	16.0%	N/A		
Boyles (Birmingham) (CY-01)	2,068	95.4%	52.6%	Yes	Yes	Yes

Table K-4
Alabama Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for Environmental Justice Analysis
Etowah, Jefferson, St. Clair Counties	801,374	31.8%	16.0%	N/A		
Norris Yd - Attalia (N-001)	3,664	44.6%	24.5%	Yes	No	Yes

Washington, D.C.

Table K-5
Washington, D.C. Environmental Justice Summary for Rail Line Segment

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50% but 10% > County	Population Meets Threshold for Environmental Justice Analysis
District of Columbia	606,900	72.6%	16.9%	N/A		
Anacostia - Virginia Ave.(C-001)	5,427	72.1%	27.1%	Yes	Yes	Yes
District of Columbia, Arlington VA, Fairfax VA, Prince Williams VA, Stafford VA, Alexandria VA, Fredericksburg VA	2,003,552	38.4%	8.0%	N/A		
Virginia Ave. - Potomac Yd (C-002)	13,610	32.3%	7.0%	No	No	No
District of Columbia, Frederick MD, Montgomery MD	1,514,135	43.6%	9.2%	N/A		

Table K-5
Washington, D.C. Environmental Justice Summary for Rail Line Segment

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50% but 10% > County	Population Meets Threshold for Environmental Justice Analysis
Washington DC - Pt. Of Rocks (C-003)	19,706	50.8%	8.6%	Yes	No	Yes
District of Columbia, Prince George's	2,672,336	64.9%	10.7%	N/A		
Alexandria Jct. Benning (C-030, C-03X)	3,462	91.2%	18.5%	Yes	No	Yes
District of Columbia, Prince George's	1,336,168	64.9%	10.7%	N/A		
Alexandria Jct. Wash DC (C-031)	2,462	74.2%	9.3%	Yes	No	Yes
District of Columbia, Prince George's	2,672,336	64.9%	10.7%	N/A		
Landover - Anacostia, DC. (C-035, C-03X)	2,751	92.2%	16.6%	Yes	No	Yes

Delaware

Table K-6
Delaware Environmental Justice Summary for Rail Line Segment

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for Environmental Justice Analysis
New Castle County	441,946	20.7%	7.5%	N/A		
Edgemoor - Bell (N-010)	1,527	10.8%	5.9%	No	No	No
New Castle, DE Cecil, MD	513,293	18.7%	7.5%	N/A		
Davis - Perryville, MD (S-001)	2,499	8.4%	15.0%	No	No	No
New Castle DE, Delaware PA, Philadelphia PA,	2,575,174	36.1%	15.3%	N/A		
Arsenal PA - Davis DE (S-040)	44,257	38.8%	18.6%	No	No	No
New Castle (DE), Delaware, Philadelphia	2,575,174	36.1%	15.3%	N/A		
RG - Wilsmere, DE (C-084)	25,613	29.4%	13.9%	No	No	No

Georgia

Table K-7
Georgia Environmental Justice Summary of Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50%, or < 50% but 10% > County	Low-Income Population > 50%, or < 50% but 10% > County	Population Meets Threshold for Environmental Justice Analysis
De Kalb County	545,837	48.0%	9.9%	N/A		
Doraville (NY-01)	7,277	63.6%	26.1%	Yes	Yes	Yes

Table K-8
Georgia Environmental Justice Summary for Intermodal Sites

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population >50% or <50% but 10% > County	Low-Income Population >50% or <50%, but 10% > County	Population Meets Threshold for Environmental Justice Analysis
Fulton County	648,951	53.2%	18.4%	N/A		
Site Hulsey (CM-01)	2,581	58.4%	41.2%	Yes	Yes	Yes
Truck route Hulsey (CM-01)	3,281	53.3%	33.3%	Yes	Yes	Yes
Site Inman (NM-01)	4,218	81.2%	64.0%	Yes	Yes	Yes
Truck route Inman (NM-01)	22,671	61.3%	45.8%	Yes	Yes	Yes

Table K-9
Georgia Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for Environmental Justice Analysis
Fulton County	303,724	53.2%	18.4%	N/A		
Howell - Spring (N-020)	3,384	97.0%	27.1%	Yes	No	Yes
Butts, Clayton, Dekalb, Fulton, Henry, Monroe Counties	808,727	46.1%	13.4%	N/A		
Spring - Scherer Coal (N-022)	7,505	62.0%	30.2%	Yes	Yes	Yes

Illinois

Table K-10
Illinois Environmental Justice Summary for New Connections

Area of Potential Effect	Total Population	Total Minority Percentage	Low-Income Percentage	Minority Population >50% or <50% but 10% > County	Low-Income Population >50% or <50%, but 10% > County	Population Meets Threshold for Environmental Justice analysis
Cook County	5,105,067	42.9%	14.2%	N/A		
75 th Street (CX-01)	4,610	90.7%	10.4%	Yes	No	Yes
Lincoln Ave. (CX-03)	2,605	43.9%	8.8%	No	No	No
Kankakee County	96,255	17.7%	13.3%	N/A		
Kankakee (NX-01)	3,419	53.5%	38.2%	Yes	Yes	Yes

Table K-11
Illinois Environmental Justice Summary for Intermodal Sites

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population >50% or <50% but 10% > County	Low-Income Population >50% or <50%, but 10% > County	Population Meets Threshold for Environmental Justice analysis
Cook County	5,105,067	42.9%	14.2%	N/A		
Site 47 th Street (NM-03)	6,797	81.1%	36.5%	Yes	Yes	Yes
Truck routes 47 th Street (NM-03)	3961	67.8%	37.1%	Yes	Yes	Yes
Site 59 th Street (CM-02)	9,382	98.3%	27.2%	Yes	Yes	Yes
Truck routes 59 th Street (CM-02)	69,473	71.55%	14.5%	Yes	No	Yes

Table K-11
Illinois Environmental Justice Summary for Intermodal Sites

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population >50% or < 50% but 10% > County	Low-Income Population >50% or <50%, but 10% > County	Population Meets Threshold for Environmental Justice analysis
Truck routes Landers (NM-02)	82,596	84.2%	18.5%	Yes	No	Yes

Table K-12
Illinois Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for Environmental Justice Analysis
Cook County	5,105,067	42.9%	14.2%	N/A		
IC 95 St. - Pullman Jct. (N-030)	9,184	98.9%	22.7%	Yes	No	Yes
Christian, Macoupin, Madison, Montgomery Counties	362,063	6.3%	11.8%	N/A		
Taylorville - Granite City (N-032)	4,328	2.9%	11.4%	No	No	No
Champaign, Macon, Piatt, Vermillion Counties	394,036	13.6%	14.2%	N/A		
Tilton - Decatur (N-033)	10,410	10.2%	15.6%	No	No	No
Cook, IL, Lake, IN	5,580,661	42.2%	14.2%	N/A		
Colehour - Calumet Park (N-034)	1,001	12.1%	13.5%	No	No	No
Cook County	5,105,067	42.9%	14.2%	N/A		

Table K-12
Illinois Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for Environmental Justice Analysis
Barr Yd. - Blue Island Jct. (C-010)	2,048	73.2%	24.1%	Yes	No	Yes
Cook County	5,105,067	42.9%	14.2%	N/A		
Blue Island Jct. - 59th Street (C-011)	9,831	47.4%	9.5%	No	No	No
Vermillion, IL, Foutain, IN, Tippecanoe, IN, Warren, IN Counties	244,839	8.2%	14.2%	N/A		
Lafayette, IN - Tilton, IL(N-045)	1,664	27.0%	27.7%	Yes	Yes	Yes
Cook, IL, Lake, IN	5,580,661	42.2%	14.2%	N/A		
Indiana Harbor, IN - S. Chicago, IL (N-047)	838	38.9%	10.8%	No	No	No
Cook, IL, Lake Counties	5,580,661	42.2%	14.2%	N/A		
Pine Jct. - Barr Yd. (C-023)	4,192	44.3%	12.7%	No	No	No

Indiana

Table K-13
Indiana Environmental Justice Summary for New Connections

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low-Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
De Kalb County	35,324	1.5%	6.5%	N/A		
Butler (NX-05)	2,017	2.5%	7.7%	No	No	No
Lake County	475,594	37.4%	13.8%	N/A		
Tolleston (NX-06)	3,321	98.7%	19.1%	Yes	No	Yes
Madison County	130,669	8.8%	9.1%	N/A		
Alexandria (NX-04)	1,966	0.3%	15.3%	No	No	No
Porter County	128,932	4.3%	6.1%	N/A		
Willow Creek (CX-05)	5,428	5.9%	12.3%	No	No	No

Table K-14
Indiana Environmental Justice Summary for Rail Yards

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low-Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Lake County	475,594	34.4%	13.8%	N/A		
Curtis (Gary) (CY-02)	710	83.9%	22.5%	Yes	No	Yes
Allen County	300,836	13.2%	7.9%	N/A		
Fort Wayne (NY-03)	1,704	4.9%	9.6%	No	No	No

Table K-15
Indiana Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Deleware, Madison Counties	250,328	8.1%	14.6%	N/A		
Alexandria - Muncie (N-040)	5,661	16.0%	27.0%	No	Yes	Yes
Allen, Dekalb Counties	336,160	11.9%	7.8%	N/A		
Butler - Ft. Wayne (N-041)	3,646	38.4%	17.7%	Yes	No	Yes
Lake County	475,594	34.4%	13.8%	N/A		
CP 501 - Indiana Harbor (N-042)	663	99.5%	73.9%	Yes	Yes	Yes
Allen County	300,836	13.2%	7.9%	N/A		
Ft. Wayne TC - Ft. Wayne Yd. (N-043)	1,271	16.2%	18.0%	No	Yes	Yes
Allen, Huntington, Miami, Wabash Counties	408,229	10.6%	8.2%	N/A		
Ft. Wayne - Peru (N-044)	3,786	3.5%	10.9%	No	No	No
Vermillion, IL, Fountain, IN, Tippecanoe, IN, Warren, IN Counties	244,839	8.2%	14.2%	N/A		
Lafayette, IN - Tilton, IL(N-045)	1,664	27.0%	27.7%	Yes	Yes	Yes
Carroll, Cass, Miami, Tippecanoe Counties	224,717	5.9%	12.4%	N/A		
Peru - Lafayette (N-046)	5,221	5.8%	13.7%	No	No	No
Cook, IL, Lake, IN Counties	5,580,661	42.2%	14.2%	N/A		

Table K-15
Indiana Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Indiana Harbor, IN - S. Chicago, IL (N-047)	838	38.9%	10.8%	No	No	No
Allen County	300,836	13.2%	7.9%	N/A		
Adams - Ft Wayne (C-020)	963	69.9%	31.3%	Yes	Yes	Yes
Vanderburgh, Christian, KY Henderson, KY Hopkins, KY, Todd, KY, Webster, KY, Davidson, TN Montgomery, TN, Robertson, TN, Sumner, TN Counties	1,104,121	19.0%	13.1%	N/A		
Evansville - Amqui, TN (C-021)	12,241	20.9%	19.8%	No	No	No
Allen, Kosciusko, Whitley Counties	393,781	10.6%	7.5%	N/A		
Ft. Wayne - Warsaw (C-022)	2,883	13.2%	16.6%	No	No	No
Cook, IL, Lake Counties	5,580,661	42.2%	14.2%	N/A		
Pine Jct. - Barr Yd. (C-023)	4,192	44.3%	12.7%	No	No	No
Lake County	475,594	34.3%	13.8%	N/A		
Tolleston - Clark Jct. (C-024)	1,234	98.7%	20.4%	Yes	No	Yes
Gibson, Knox, Vanderburgh, Henderson, KY Counties	279,899	7.0%	12.9%	N/A		

Table K-15
Indiana Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Vincennes - Evansville (C-025)	7,215	4.0%	18.4%	No	No	No
Kosciusko, Lake, LaPorte, Marshall, Porter, Starke Counties	841,815	21.9%	11.3%	N/A		
Warsaw - Tolleston (C-026)	6,587	34.7%	20.8%	Yes	No	Yes
Lake, Porter Counties	604,526	28.0%	12.2%	N/A		
Willow Creek - Pine Jct.(C-027)	6,683	70.1%	35.3%	Yes	Yes	Yes
Dekalb (IN), Elkhart (IN), Kosciusko (IN), LaPorte (IN), Marshall (IN), Noble (IN), Porter (IN), St. Joseph (IN), Defiance, Henry Counties	888,383	8.0%	8.1%	N/A		
Deshler - Willow Creek, IN (C-066)	21,554	6.1%	7.6%	No	No	No

Kentucky

Table K-16
Kentucky Environmental Justice Summary for Intermodal Sites

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low-Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Jefferson County	664,937	18.6%	13.7%	N/A		
Site Buechel (Louisville) (NM-4)	1,540	43.8%	16.9%	Yes	No	Yes
Truck route Buechel (Louisville) (NM-4)	5,540	17.4%	7.0%	No	No	No

Louisiana

Table K-17
Louisiana Environmental Justice Summary for Intermodal Sites

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low-Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ analysis
Orleans Parish	496,938	66.9%	31.6%	N/A		
Site Oliver (NM-05)	3,301	93.0%	44.0%	Yes	Yes	Yes
Truck routes Oliver (NM-05)	10,156	94.2%	40.7%	Yes	No	Yes

Maryland

Table K-18
Maryland Environmental Justice Summary for New Connections

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population >50% or < 50% but 10% > County	Low-Income Population >50% or <50%, but 10% > County	Population Meets Threshold for EJ Analysis
Washington County	121,393	7.5%	9.3%	N/A		
Hagerstown (NX-07)	4,457	5.7%	18.5%	No	No	No

Table K-19
Maryland Environmental Justice Summary for Intermodal Sites

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population >50% or < 50% but 10% > County	Low-Income Population >50% or <50%, but 10% > County	Population Meets Threshold for EJ Analysis
Baltimore City	736,014	61.4%	5.5%	N/A		
Site Baltimore (NM-06)	2,418	6.2%	15.9%	No	Yes	Yes
Truck routes Baltimore (NM-06)	2,892	10.9%	16.5%	No	Yes	Yes

Table K-20
Maryland Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Anne Arundel, Baltimore, Prince Georges, Baltimore City	2,584,655	40.8%	10.1%	N/A		
Baltimore - Bowie (S-010)	13,013	69.5%	25.0%	Yes	Yes	Yes
Prince Georges County	729,268	58.4%	5.8%	N/A		
Bowie - Landover (S-011)	4,582	57.3%	4.6%	Yes	No	Yes
District of Columbia, Prince George's Counties	2,672,336	64.9%	10.7%	N/A		
Alexandria Jct. Benning (C-030, C-03X)	3,462	91.2%	18.5%	Yes	No	Yes
District of Columbia, Prince George's Counties	1,336,168	64.9%	10.7%	N/A		
Alexandria Jct. Wash DC (C-031)	2,462	74.2%	9.3%	Yes	No	Yes
Baltimore, Baltimore City	1,428,148	39.3%	13.9%	N/A		
Baltimore - Relay (C-032)	5,730	64.7%	17.3%	Yes	No	Yes
Allegany, MD, Allegheny, Bedford, Fayette, Somerset, Westmoreland, PA Counties	2,053,204	9.4%	12.4%	N/A		
Cumberland - Sinns, PA (C-033)	9,358	7.7%	25.2%	No	Yes	Yes

Table K-20
Maryland Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Anne Arundel, Howard, Prince George's Counties	1,343,835	39.1%	5.0%	N/A		
Jessup - Alexandria Jct. (C-034)	5,126	25.4%	8.7%	No	No	No
District of Columbia, Prince George's Counties	2,672,336	64.9%	10.7%	N/A		
Landover - Anacostia, DC. (C-035, C-03X)	2,751	92.2%	16.6%	Yes	No	Yes
Frederick, Washington, MD Jefferson, WV Counties	307,527	7.7%	7.2%	N/A		
Pt. Of Rocks - Harper's Ferry (C-036)	1,117	4.4%	6.3%	No	No	No
Anne Arundel, Baltimore, Howard Counties	1,306,701	16.0%	4.8%	N/A		
Relay - Jessup (C-037)	925	23.8%	2.9%	No	No	No
District of Columbia, Frederick MD, Montgomery MD	1,514,135	43.6%	9.2%	N/A		
Washington DC - Pt. Of Rocks (C-003)	19,706	50.8%	8.6%	Yes	No	Yes
New Castle, DE Cecil, MD Counties	513,293	18.7%	7.5%	N/A		

Table K-20
Maryland Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Davis - Perryville, MD (S-001)	2,499	8.4%	15.0%	No	No	No

Michigan

Table K-21
Michigan Environmental Justice Summary for New Connections

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low-Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Wayne County	2,111,687	43.9%	20.1%	N/A		
Ecorse Jct. (NX-08)	2,541	52.9%	38.8%	Yes	Yes	Yes

Table K-22
Michigan Environmental Justice Summary for Rail Yards

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low-Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Wayne County	2,111,687	43.9%	20.1%	N/A		
Rougemere (CY-03)	4,224	6.6%	46.8%	No	Yes	Yes

Table K-23
Michigan Environmental Justice Summary for Intermodal Sites

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population >50% or <50%, but 10% > County	Low-Income Population >50% or <50%, but 10% > County	Population Meets Threshold for EJ Analysis
Wayne County	2,111,687	43.9%	20.1%	N/A		
Site Melvindale (NM-07)	4,259	12.6%	15.2%	No	No	No
Truck route Melvindale (NM-07)	17,040	6.7%	9.0%	No	No	No

Table K-24
Michigan Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Calhoun, Jackson, Kalamazoo Counties	509,149	12.2%	13.3%	N/A		
Jackson - Kalamazoo (N-120)	5,970	18.4%	22.5%	No	No	No
Jackson, Washtenaw, Wayne Counties	2,544,380	39.0%	18.8%	N/A		
W. Detroit - Jackson (N-121)	23,874	18.7%	18.9%	No	No	No
Monroe, Wayne Counties	2,245,287	41.5%	19.4%	N/A		
Carleton - Ecorse (S-020)	6,844	7.6%	9.0%	No	No	No
Wayne County	237,813	43.9%	20.1%	N/A		
W. Detroit - North Yard (S-021)	2,678	73.2%	45.1%	Yes	Yes	Yes
Wayne County	237,813	43.9%	20.1%	N/A		

Table K-24
Michigan Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
W. Detroit - Delray (S-022)	3,522	30.0%	43.9%	No	Yes	Yes
Monroe, MI, Lucas OH Counties	595,961	16.0%	13.8%	N/A		
Carleton - Toledo (C-040)	5,296	10.5%	16.9%	No	No	No

Missouri

Table K-25
Missouri Environmental Justice Summary for Rail Yards

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low-Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
St. Louis City	993,529	16.6%	5.6%	N/A		
Luther (NY-04)	537	80.6%	0.0%	Yes	No	Yes

Table K-26
Missouri Environmental Justice Intermodal Sites

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low-Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Clay County	153,411	5.3%	5.9%	N/A		
Site Voltz (NM-08)	419	1.9%	21.9%	No	Yes	Yes

Table K-26
Missouri Environmental Justice Intermodal Sites

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population >50% or < 50% but 10% > County	Low-Income Population >50% or <50%, but 10% > County	Population Meets Threshold for EJ Analysis
Truck routes Voltz (NM-08)	2,929	10.9%	13.6%	No	No	No
St. Louis City	993,529	16.6%	5.6%	N/A		
Site Luther (NM-09)	537	79.5%	0.0%	Yes	No	Yes
Truck routes Luther (NM-09)	12,451	17.0%	9.4%	No	No	No

New Jersey

Table K-27
New Jersey Environmental Justice Summary of New Connections

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population >50% or < 50% but 10% > County	Low-Income Population >50% or <50%, but 10% > County	Population Meets Threshold for EJ Analysis
Bergen County	825,380	17.4%	3.9%	N/A		
Little Ferry (CX-04)	2,709	19.5%	6.6%	No	No	No

Table K-28
New Jersey Environmental Justice Summary for Intermodal Sites

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population >50% or <50% but 10% > County	Low-Income Population >50% or <50%, but 10% > County	Population Meets Threshold for EJ Analysis
Bergen County	825,380	17.4%	3.9%	N/A		
Site Little Ferry (CM-03)	2,793	17.9%	5.0%	No	No	No
Truck route Little Ferry (CM-03)	6,516	51.1%	14.4%	Yes	No	Yes
Hudson County	553,099	52.6%	14.8%	N/A		
Site So. Kearny (CM-04)	109	4.6%	12.8%	No	No	No
Truck routes So. Kearny (CM-04)	3,573	54.5%	19.8%	Yes	No	Yes
Union County	493,819	34.7%	7.2%	N/A		
Site E-Rail (NM-10)	3,297	63.6%	7.8%	Yes	No	Yes
Truck routes E-rail (NM-10)	19,531	73.0%	17.3%	Yes	Yes	Yes
Port Side (NM-10)	1,747	81.6%	0.0%	Yes	No	Yes

Table K-29
New Jersey Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Bergen, Hudson Counties	1,378,479	31.5%	8.3%	N/A		
Ridgewood Jct. - Croxton (N-050)	13,745	15.3%	5.3%	N	N	N
Union County	493,819	34.7%	7.2%	N/A		
Lane - Union (S-030)	10,070	52.7%	11.2%	Y	N	Y
Mercer, NJ, Middlesex, NJ, Bucks, PA Counties	1,538,778	18.0%	5.2%	N/A		
Midway, NJ - Morrisville, PA (S-031)	5,720	56.7%	18.1%	Yes	Yes	Yes
Union County	493,819	34.7%	7.2%	N/A		
PN - Bayway (S-032)	3,277	77.1%	24.9%	Yes	Yes	Yes
Union, Middlesex Counties	1,165,599	28.0%	6.0%	N/A		
Union - Midway (S-033)	10,320	35.4%	8.8%	No	No	No
Bergen, NJ, Rockland, NY Counties	1,090,855	18.0%	4.5%	N/A		
Suffern - Ridgewood Jct. (N-064)	4,315	9.9%	2.1%	No	No	No

New York

Table K-30
New York Environmental Justice Summary for New Connections

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population >50% or <50% but 10% > County	Low-Income Population >50% or <50% but 10% > County	Population Meets Threshold for EJ analysis
Erie County	968,532	15.1%	12.2%	N/A		
Blasdell (NX-09)	1,169	2.9%	5.8%	No	No	No
Gardenville Jct. (NX-10)	4,603	1.1%	6.2%	No	No	No

Table K-31
New York Environmental Justice Summary for Rail Yards

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population >50% or <50% but 10% > County	Low-Income Population >50% or <50% but 10% > County	Population Meets Threshold for EJ analysis
Erie County	968,532	15.1%	12.2%	N/A		
Bison (NY-05)	1,663	0.7%	6.8%	No	No	No

Table K-32
New York Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population >50% or <50% but 10% > County	Low Income Population >50% or <50%, but 10% > County	Population Meets Threshold for EJ Analysis
Chemung, Ontario, Schuyler, Seneca, Steuben, Yates Counties	364,539	4.3%	10.9%	N/A		
Corning - Geneva (N-060)	1,794	10.6%	24.7%	No	Yes	Yes

Table K-32
New York Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Erie County	968,532	15.1%	12.2%	N/A		
Ebenezer Jct. - Buffalo (N-061)	4,027	2.7%	17.2%	No	No	No
Bergen, NJ, Orange, NY, Rockland, NY Counties	1,398,502	17.4%	5.5%	N/A		
Suffern - Campbell Hall (N-062)	2,515	11.1%	6.0%	No	No	No
Orange County	307,647	15.2%	9.3%	N/A		
Campbell Hall - Port Jervis (N-063)	1,266	13.0%	10.0%	No	No	No
Bergen, NJ, Rockland, NY Counties	1,090,855	18.0%	4.5%	N/A		
Suffern - Ridgewood Jct. (N-064)	4,315	9.9%	2.1%	No	No	No
Erie County	968,532	15.1%	12.2%	N/A		
Buffalo - CP Sycamore (C-050)	2,109	23.8%	37.1%	No	Yes	Yes
Erie, Genesee, Monroe Counties	1,742,560	15.6%	11.3%	N/A		
Chili - Frontier (C-051)	3,221	5.5%	7.9%	No	No	No
Erie County	968,532	15.1%	12.2%	N/A		
CP Sycamore - Black Rock (C-052)	6,683	43.8%	25.6%	Yes	Yes	Yes
Herkimer, Montgomery, Oneida, Schenectady Counties	517,899	7.0%	11.0%	N/A		

Table K-32
New York Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Hoffmans - Utica (C-053)	4,679	10.7%	16.9%	No	No	No
Albany, Schenectady Counties	441,879	10.4%	9.2%	N/A		
Selkirk - Hoffmans (C-054)	1,717	2.2%	3.1%	No	No	No
Chautauqu NY, Erie OH, Huron OH, Erie PA Counties	1,486,000	12.0%	12.8%	N/A		
Ashtabula, OH - Buffalo, NY (N-070)	15,658	14.0%	21.0%	No	No	No

North Carolina

Table K-33
North Carolina Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Halifax (NC), Northampton (NC), Chesterfield, Dinwiddie, Greenville, Prince George, Sussex, Colonial Heights, Emporia, Petersburg, Hopewell Counties	615,855	40.8%	14.1%	N/A		
S. Richmond - Weldon (C-103)	9,030	39.1%	10.7%	No	No	No

Ohio

Table K-34
Ohio Environmental Justice Summary for New Connections

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population >50% or <50% but 10% > County	Low-Income Population >50% or <50%, but 10% > County	Population Meets Threshold for EJ analysis
Crawford County	47,870	1.4%	11.6%	N/A		
Bucyrus (NX-11)	2,882	1.9%	18.6%	No	No	No
Crestline (CX-07)	1,506	4.9%	10.2%	No	No	No
Cuyahoga County	1,412,140	28.4%	13.8%	N/A		
Collinwood Yard (CX-10)	3,415	20.9%	18.2%	No	No	No
Erie County	76,779	10.3%	9.0%	N/A		
Vermillion (NX-14)	2,903	0.5%	9.2%	No	No	No
Franklin County	961,437	19.1%	13.0%	N/A		
Columbus (NX-12)	10,682	10.2%	18.0%	No	No	No
0.3522	56,240	3.3%	9.5%	N/A		
Greenwich (CX-06)	2,228	1.0%	10.9%	No	No	No
Willard Yard (CX-09)	5,128	6.1%	16.0%	No	No	No
Ottawa County	40,029	4.7%	6.6%	N/A		
Oak Harbor (NX-13)	4,423	1.5%	4.8%	No	No	No
Shelby County	44,915	2.8%	7.8%	N/A		
Sidney (CX-08)	5,176	3.4%	9.6%	No	No	No

Table K-35
Ohio Environmental Justice Summary For Rail Yards

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population >50% or <50% but 10% > County	Low-Income Population >50% or <50%, but 10% > County	Population Meets Threshold for EJ analysis
Ashtabula County	99,821	5.3%	16.1%	N/A		
Conneaut (NY-06)	3,580	2.7%	23.8%	No	No	No
Luca County	462,361	19.4%	15.3%	N/A		
Airline Jct. (NY-08)	2,116	18.6%	17.1%	No	No	No
Homestead (NY-07)	1,884	5.6%	5.3%	No	No	No
Wood County	113,269	4.7%	10.6%	N/A		
Stanley (CY-04)	1,251	2.7%	5.4%	No	No	No

Table K-36
Ohio Environmental Justice Summary for Intermodal Sites

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population >50% or <50% but 10% > County	Low-Income Population >50% or <50%, but 10% > County	Population Meets Threshold for EJ analysis
Erie County	76,779	10.3%	9.0%	N/A		
Site Bellevue (NM-11)	1,642	2.3%	2.6%	No	No	No
Truck routes Bellevue (NM-11)	7,754	1.8%	6.6%	No	No	No
Franklin County	961,437	19.1%	13.0%	N/A		
Site Watkins Yard (NM-12)	3,095	76.2%	8.6%	Yes	No	Yes

Table K-36
Ohio Environmental Justice Summary for Intermodal Sites

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population >50% or < 50% but 10% > County	Low-Income Population >50% or < 50%, but 10% > County	Population Meets Threshold for EJ analysis
Truck routes Watkins Yard (NM-12)	15,153	39.7%	10.0%	Yes	No	Yes
Lucas County	462,361	19.4%	15.3%	N/A		
Site Airline (NM-13)	2,116	18.6%	17.1%	No	No	No
Truck routes Airline (NM-13)	10,464	77.5%	34.6%	Yes	Yes	Yes

Table K-37
Ohio Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Chautauqau NY, Erie OH, Huron OH, Erie PA Counties	1,486,000	12.0%	12.8%	N/A		
Ashtabula, OH - Buffalo, NY (N-070)	15,658	14.0%	21.0%	No	No	No
Crawford, Huron, Sandusky, Seneca Counties	225,806	4.9%	10.1%	N/A		
Bellevue - Bucyrus (N-071)	2,007	1.5%	12.4%	No	No	No
Erie, Huron Counties	133,019	7.3%	9.2%	N/A		
Bellevue - Vermillion (N-072)	848	1.4%	5.9%	No	No	No

Table K-37
Ohio Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Crawford, Delaware, Franklin, Marion Counties	1,140,510	16.6%	12.5%	N/A		
Bucyrus -Fairgrounds (N-073)	14,554	9.59%	12.1%	No	No	No
Cuyahoga County	1,412,140	28.4%	13.8%	N/A		
Cleveland - Shortline Jct.(N-074)	4,413	21.8%	28.9%	No	Yes	Yes
Ashtabula, Cuyahoga, Lake Counties	1,727,460	23.9%	12.8%	N/A		
Cleveland - Ashtabula (N-075)	71,286	47.6%	22.4%	Yes	No	Yes
Hamilton County	866,228	22.7%	13.3%	N/A		
Ivorydale - Cincinnati (N-076)	3,516	9.2%	18.1%	No	No	No
Lucas, Ottawa, Wood Counties	615,659	15.8%	13.9%	N/A		
Oak Harbor - Miami (N-077)	2,741	18.1%	18.1%	No	No	No
Butler, Hamilton, Montgomery, Warren Counties	1,845,425	17.9%	12.3%	N/A		
Dayton - Ivorydale (N-078)	9,105	8.3%	15.8%	No	No	No
Huron, Ottawa, Sandusky Counties	158,232	5.7%	8.6%	N/A		
Oak Harbor - Bellevue (N-079)	8,875	12.0%	11.3%	No	No	No
Cuyahoga, Erie, Lorain Counties	1,760,045	25.4%	13.2%	N/A		

Table K-37
Ohio Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Vermillion - Cleveland (N-080)	74,564	13.9%	16.9%	No	No	No
Cuyahoga County	1,412,140	28.4%	13.8%	N/A		
White - Cleveland (N-081)	15,672	63.7%	44.4%	Yes	Yes	Yes
Ashtabula, Mahoning, Trumbull Counties	592,440	11.8%	14.2%	N/A		
Youngstown - Ashtabula (N-082)	2,665	25.2%	26.3%	Yes	Yes	Yes
Cuyahoga, Portage, Stark, Summit Counties	2,437,300	20.8%	12.9%	N/A		
Alliance - White (N-084)	5,623	10.1%	8.2%	No	No	No
Erie, Huron Counties	133,019	7.3%	9.2%	N/A		
Bellevue - Sandusky Docks (N-085)	1,372	14.4%	22.3%	No	Yes	Yes
Lucas County	462,361	19.4%	15.3%	N/A		
Miami - Airline (N-086)	1,931	44.2%	39.3%	Yes	Yes	Yes
Ashtabula, Cuyahoga, Lake Counties	1,727,460	23.9%	12.8%	N/A		
Ashtabula - Quaker (C-060)	6,833	13.3%	11.5%	No	No	No
Cuyahoga, Huron, Lorain Counties	1,739,506	25.3%	13.3%	N/A		
Berea - Greenwich (C-061)	9,213	3.1%	6.1%	No	No	No

Table K-37
Ohio Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Allen (OH), Allen (IN), Crawford, Hardin, Van Wert, Wyandot Counties	542,290	10.4%	9.6%	N/A		
Bucyrus - Adams (C-062)	6,542	6.4%	14.2%	No	No	No
Butler, Hamilton Counties	1,157,707	18.5%	12.6%	N/A		
Cincinnati - Hamilton (C-063)	9,893	26.7%	6.7%	No	No	No
Crawford County	47,870	1.4%	11.6%	N/A		
Crestline - Bucyrus (C-064)	499	1.9%	12.6%	No	No	No
Henry, Wood Counties	142,377	4.8%	9.8%	N/A		
Deshler - Toledo (C-065)	2,325	4.0%	4.2%	No	No	No
Dekalb (IN), Elkhart (IN), Kosciusko (IN), LaPorte (IN), Marshall (IN), Noble (IN), Porter (IN), St. Joseph (IN), Defiance, Henry Counties	888,383	8.0%	8.1%	N/A		
Deshler - Willow Creek, IN (C-066)	21,554	6.1%	7.6%	No	No	No
Crawford, Huron, Richland Counties	230,247	6.2%	10.9%	N/A		
Greenwich - Crestline (C-067)	4,666	1.9%	14.5%	No	No	No
Huron County	56,240	3.3%	9.5%	N/A		

Table K-37
Ohio Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Greenwich - Willard (C-068)	1,651	7.0%	16.7%	No	No	No
Cuyahoga County	1,412,140	28.4%	13.8%	N/A		
Marcy - Short (C-069)	12,101	3.6%	6.3%	No	No	No
Marion, Seneca, Wyandot Counties	146,261	4.8%	11.3%	N/A		
Marion - Fostoria (C-070)	1,883	5.1%	15.3%	No	No	No
Hardin, Marion Counties	95,385	4.4%	13.9%	N/A		
Marion - Ridgeway (C-071)	1,075	5.3%	24.2%	No	Yes	Yes
Cuyahoga County	1,412,140	28.4%	13.8%	N/A		
Mayfield - Marcy (C-072)	12,858	67.3%	42.2%	Yes	Yes	Yes
Quaker - Mayfield (C-073)	25,024	83.1%	29.7%	Yes	Yes	Yes
Short - Berea (C-074)	6,386	9.6%	4.4%	No	No	No
Huron, Seneca Counties	115,973	4.3%	10.1%	N/A		
Willard - Fostoria (C-075)	6,774	5.8%	15.0%	No	No	No
Mahoning OH, Beaver PA, Lawrence PA Counties	547,145	11.4%	14.6%	N/A		
Rochester PA - Youngstown OH (N-095)	1,999	13.5%	20.4%	No	No	No

Table K-37
Ohio Environmental Justice Summary for Rail Line Segments

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Mahoning, Lawrence Counties	361,052	13.9%	15.4%	N/A		
New Castle - Youngstown (C-081)	1,889	23.3%	25.1%	No	No	No

Pennsylvania

Table K-38
Pennsylvania Environmental Justice Summary for Rail Yards

Area of Potential Effect	Total Population	Total Minority Percentage	Total Low-Income Percentage	Minority Population > 50% or < 50% but 10% > County	Low-Income Population > 50% or < 50%, but 10% > County	Population Meets Threshold for EJ Analysis
Dauphin County	237,813	18.6%	10.1%	N/A		
Enola (NY-09)	1,883	19.5%	12.7%	No	No	No
Philadelphia County	1,585,577	47.9%	20.3%	N/A		
Greenwich (CY-06)	2,229	31.6%	0.0%	No	No	No