Shared Area Analyzed Grade Crossings with an ADT of 5,000 or Greater

County	City	Rail Line Segment		Road Crossed	ADT	
		To	From		5,000 - 10,000	> 10,000
Philadelphia	Philadelphia	Field, PA	South Philadelphia, PA	Delaware-East	X	-
Philadelphia	Philadelphia	Field, PA	South Philadelphia, PA	Delaware-East	-	X

Although the potential for accidents at grade crossings would increase for crossings with increased train traffic, the potential for accidents on interstate highways would decrease because the number of long-haul trucks would decrease. Systemwide, the Acquisition is expected to have a beneficial effect on safety.

Information on vehicle delays is provided in Section 1.2.4.1.2.

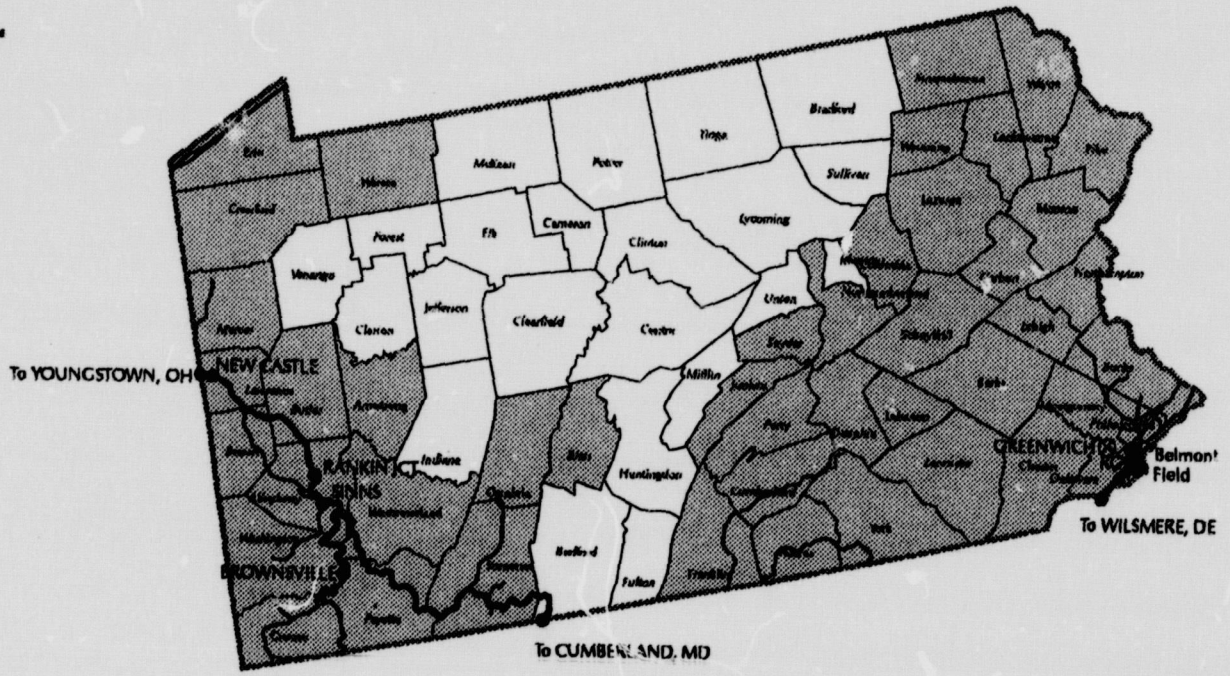
19.4.2 Hazardous Materials Transportation

The proposed Acquisition would not affect CSX's and NS's policies or operating procedures governing the transport of hazardous materials. Although the quantities of materials transported may increase, the Acquisition would not affect the type of materials handled or the methods used to safeguard shipments. Additional information on CSX's and NS's transportation of hazardous materials is provided in Section 1.2.4.3 of this Part.

19.4.3 Hazardous Waste Sites/Spill Sites on the Right-of-Way

Information on CSX and NS hazardous waste sites and spill sites is provided in Section 1.2.4.4 of this Part. A summary of CSX's, NS's and Conrail's hazardous materials reportable incidents from 1991 through 1995 is provided in Appendix F to Part 1.

CSX RAIL LINE SEGMENTS, RAIL YARDS AND INTERMODAL FACILITIES REQUIRING ENVIRONMENTAL ANALYSIS IN PENNSYLVANIA



LEGEND

- Rail Line Segments Requiring Environmental Analysis
- Rail Line Segments Not Requiring Environmental Analysis
- Nodes
- Rail Yard
- Intermodal Facility
- Non-Attainment
- Maintenence
- Attainment

Note: Rail System Includes Trackage Rights and Haulage

FIGURE 2-21.1

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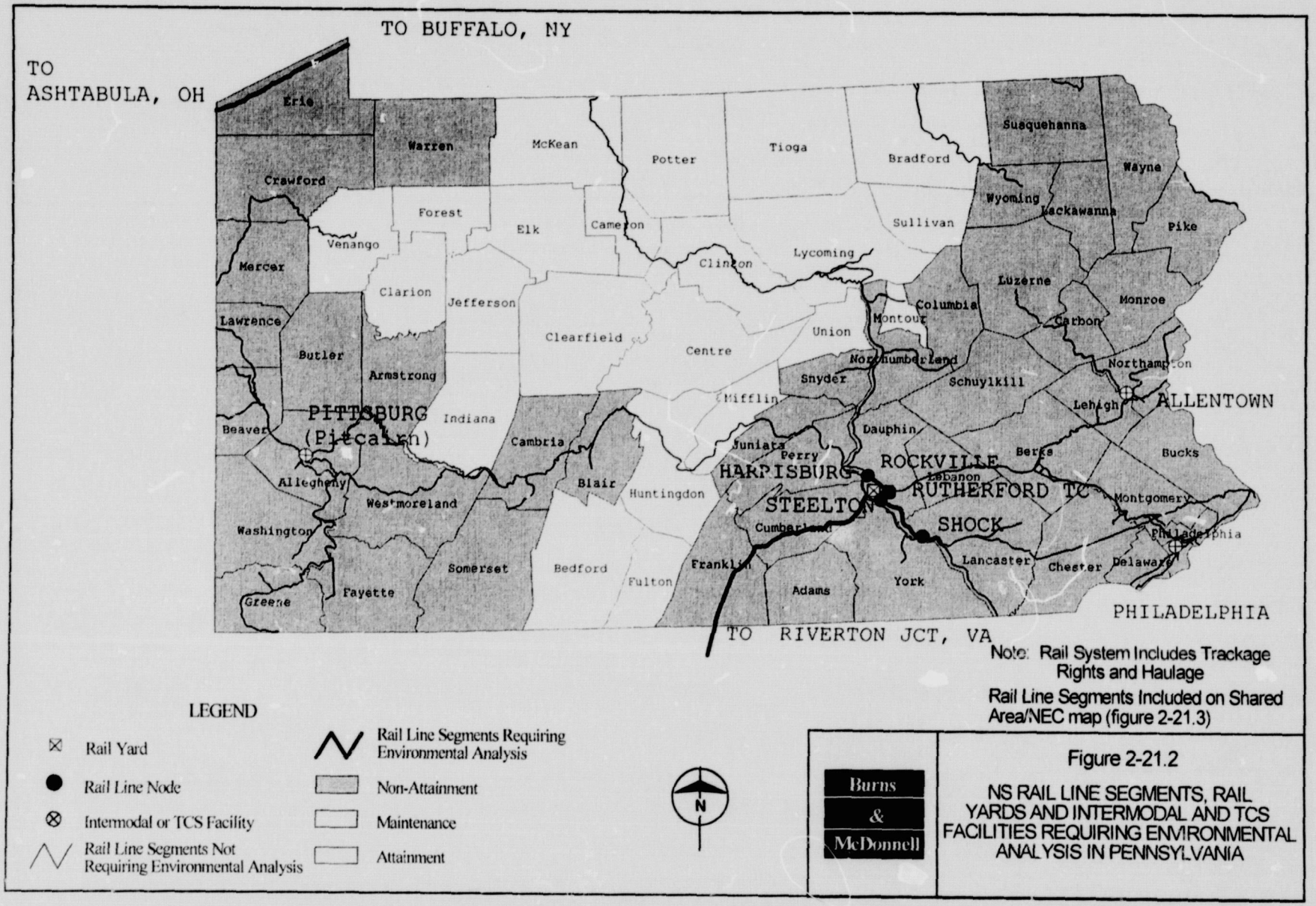
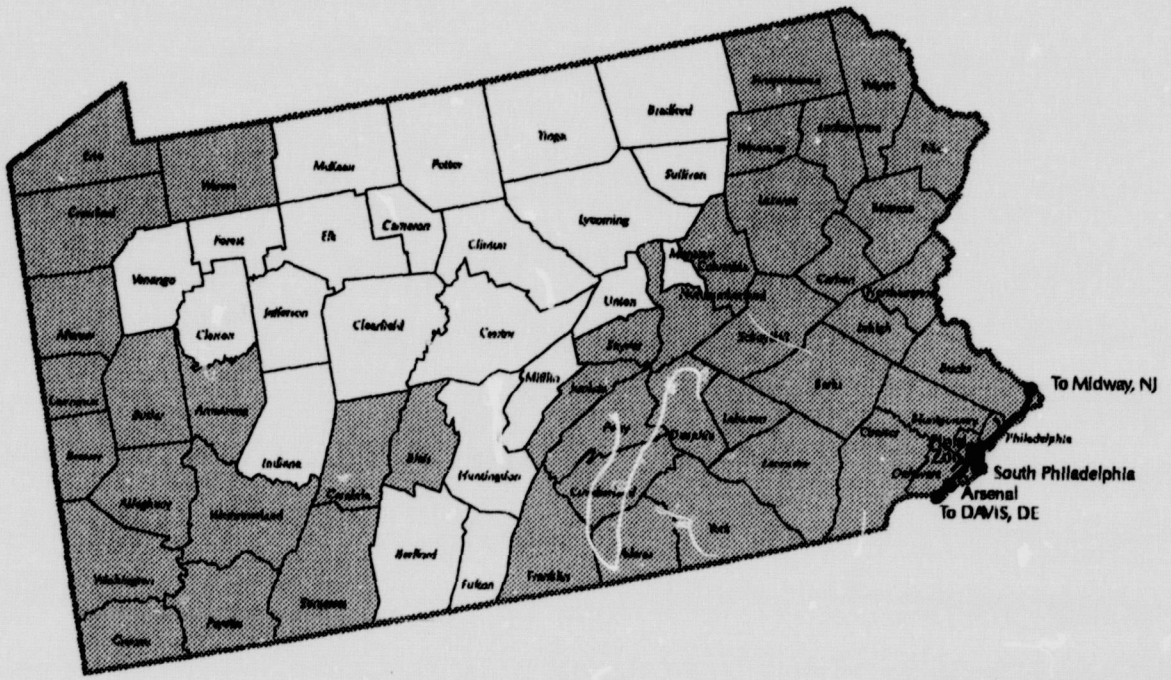


Figure 2-21.2

NS RAIL LINE SEGMENTS, RAIL YARDS AND INTERMODAL AND TCS FACILITIES REQUIRING ENVIRONMENTAL ANALYSIS IN PENNSYLVANIA

SHARED AREA AND NEC RAIL LINE SEGMENTS, RAIL YARDS AND INTERMODAL FACILITIES
REQUIRING ENVIRONMENTAL ANALYSIS IN PENNSYLVANIA



LEGEND

- Rail Line Segments Requiring Environmental Analysis
- Rail Line Segments Not Requiring Environmental Analysis
- Nodes
- Rail Yard
- Intermodal Facility
- Non-Attainment
- Maintenence
- Attainment

FIGURE 2-21.3

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20.0 SOUTH CAROLINA

20.0 SOUTH CAROLINA

RAIL LINE SEGMENTS, RAIL YARDS AND INTERMODAL FACILITY IMPACTS

No CSX or NS rail line segments, rail yards or intermodal facilities in South Carolina would experience increased traffic or activity that would meet STB thresholds. Therefore no adverse impacts would occur in South Carolina as a result of the proposed Acquisition. CSX and NS anticipate that due to predicted truck-to-rail diversions, South Carolina will experience a benefit in the areas of air emissions, noise and safety.

21.0 TENNESSEE

21.0 TENNESSEE

RAIL LINE SEGMENTS, RAIL YARDS AND INTERMODAL FACILITY IMPACTS

This section provides an analysis of the potential environmental impacts in Tennessee resulting from increases in activity on rail line segments, at rail yards and at intermodal facilities related to the proposed Acquisition. Consistent with the Surface Transportation Board's (STB) environmental rules at 49 CFR Part 1105.7(e), the analysis specifically considered impacts to: (1) air quality, (2) noise, (3) local and regional transportation systems and (4) safety. This analysis indicates that the proposed Acquisition would have relatively minor environmental impacts in Tennessee. Before assessing the environmental impacts, a brief description of the key elements of the Acquisition as it relates to Tennessee immediately follows.

Both CSX and NS will reroute movements to more efficient routes that will improve customer service, on-time performance and car utilization. Tennessee shippers will extend their single-line market reach via CSX and NS into the Northeast and Midwest. Significant potential exists for CSX and NS to divert traffic from trucks to rail, which will have a favorable impact upon highway congestion and air quality conditions.

As a result of the Acquisition, Memphis will become a major gateway for rail traffic moving from the West to New England and the Northeast. Tennessee freight customers will benefit from faster transit times and single-line service to and from key eastern markets. Tennessee's grain customers will benefit from access to grain sources in Indiana and Ohio that are currently served by Conrail.

Tennessee will be served by four of the CSX service routes to be established following the Acquisition. These routes include the Heartland Service Route, linking Nashville to Detroit and Cleveland and the Memphis Gateway Service Route, linking Memphis with the Northeast and New England. The expanded Memphis Gateway will provide efficient single-line service to important markets in the northeastern states. It will especially benefit shippers of auto parts, finished vehicles and chemicals by cutting one to two days off today's transit times. Second-

morning intermodal service is planned between Memphis and Cleveland. The Heartland Corridor from Nashville will create a new route for the automotive industry from Nashville to the great Lakes and Northeast, and is expected to improve transit times by one-half day.

Following the Acquisition, NS will add, improve and modify a significant number of train schedules to take advantage of the new route structure, upgraded routes and traffic diverted from trucks. At Sevier Yard in Knoxville NS will block traffic for the Shenandoah Corridor and Kansas City and St. Louis Gateways. General merchandise train service over the NS Shenandoah route will operate between Allentown, PA, and Knoxville with southbound blocks for Macon and northbound Allentown blocks from Chattanooga and Birmingham. Running time between Knoxville and Allentown will be 33 hours. Tennessee shippers will benefit with improved service, routing options and reduced transit times. Significant opportunities exist to divert traffic from truck to rail which will reduce highway congestion and improve air quality.

No route abandonments are anticipated in Tennessee by CSX or NS.

21.1 AIR QUALITY IMPACTS

Of the 95 counties in Tennessee, 11 counties have nonattainment areas and/or maintenance areas for air quality. The nonattainment areas are near Nashville, Chattanooga and Memphis. These areas are nonattainment for CO, ozone and/or lead.

Two counties with nonattainment areas for CO, ozone and/or lead, one county that is a maintenance area and two counties that are attainment have CSX or NS rail line segments, rail yards, and/or intermodal facilities that meet STB thresholds (See Table 1-1). These are listed below and shown in Figures 2-22.1 and 2-22.2. Line segments with Amtrak or commuter trains operating on them are in bold.

CSX Rail Line Segments

Rail Line Segment				County/State	Air Quality Status	Trains per Day		Increase in GTM (%)
From		To				Pre-Acquisition	Post-Acquisition	
Amqui	TN	Nashville	TN	Sumner	N	40.8	48.4	30
Evansville	IN	Amqui	TN	Davidson Montgomery Robertson	M A A	23.4	32.7	53
• M=Maintenance, A=Attainment, N=Nonattainment.								

CSX Rail Yard

Rail Yard	County	Air Quality Status	Rail Cars Handled per Day	
			Pre-Acquisition	Post-Acquisition
Leewood	Shelby	D-NA	120	153
• D-NA= Deemed Nonattainment.				

NS Intermodal Facility

Intermodal Facility	County	Air Quality Status	Trucks per Day		Change in ADT on local roads (%)
			Pre-Acquisition	Post-Acquisition	
Memphis	Shelby	D-NA	120	196	0.1-2.8
• D-NA= Deemed Nonattainment.					

The increases in air emissions resulting from the increases in traffic or activity are estimated in the Impact Analysis by County section. Even though air emissions would be increased in the immediate vicinity of these rail facilities, other rail facilities in Tennessee (and in other states served by CSX and NS) would experience decreases in traffic or activity, with consequent decreases in localized air emissions. These decreases would be a result of rerouting freight on the expanded CSX and NS systems to shorter, more direct routes.

In addition, the diversion of freight from trucks to rail would result in reduced air emissions in the vicinity of major highways. Moreover, because trains emit a lower level of air pollutants per unit of freight moved than trucks, the diversion of freight from trucks to rail would also result in reduced air emissions systemwide.

21.1.1 Impact Analysis by County

This section analyzes the impacts to air quality in each county where a rail line segment, rail yard or intermodal facility meets the STB thresholds for analysis of air emissions. If a rail line segment crosses the county boundary, only the emissions from that portion of the segment within the county are estimated. Counties that are only partially nonattainment were evaluated to determine if any CSX, NS or Conrail rail facilities are in the nonattainment portion of the county. If any CSX, NS or Conrail rail facilities are in the nonattainment portion, the county was deemed nonattainment. If no CSX, NS or Conrail rail facilities are in the nonattainment portion, the county was deemed attainment. Counties that are nonattainment or were deemed nonattainment are discussed first, followed by counties that are maintenance or have maintenance areas and then counties that are attainment or were deemed attainment areas.

21.1.1.1 Nonattainment Areas

In Tennessee, two counties classified as nonattainment areas have rail line segments, a rail yard and an intermodal facility that would experience increases in traffic or activity such that STB thresholds would be met.

21.1.1.1.1 *Shelby County, TN*

Shelby County is classified as deemed nonattainment for lead, maintenance (marginal) for ozone and maintenance for CO. Increases in emissions have been estimated for each of the rail facilities in Shelby County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

Estimated Increase in Emissions for the CSX Rail Yard

Rail Yard	Estimated Increase in Emissions (tons per year)					
	NOx	CO	VOC	SO_2	PM	Pb
Leewood	1.9	0.2	0.1	0.1	0.04	0.0000027
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead						

Estimated Increase in Emissions for the NS Intermodal Facility

Intermodal Facility	Estimated Increase in Emissions (tons per year)					
	NOx	CO	VOC	SO_2	PM	Pb
Memphis	1.96	3.49	0.47	0.48	0.91	0.000038
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead						

Discussion of Impacts in Shelby County

Rail yards and intermodal facilities are considered mobile (not stationary) sources under EPA's air pollution regulations. As discussed in Section 1.2.1, emissions from activities at intermodal facilities in maintenance areas were compared to the New Source Review benchmark for maintenance areas (i.e., 100 tons per year). None of the facilities' emissions increases would exceed the New Source Review Criteria.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity. nonattainment areas.

21.1.1.1.2 *Sumner County, TN*

Sumner County is classified as nonattainment (moderate) for ozone. Increases in emissions have been estimated for each of the rail facilities in Sumner County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

CSX Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	Change	
Amqui, TN	Nashville, TN	16	0.5	40.8	48.4	7.6	30
• GTM = Gross Ton Miles							

Estimated Increase in Emissions for the Portion of the CSX Rail Line Segment in Sumner County

Rail Line Segment		Estimated Increase in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Amqui, TN	Nashville, TN	4.6	0.5	0.2	0.3	0.1	0.0000097
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Sumner County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail segment activity in Sumner County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

21.1.1.2 Maintenance Areas

In Tennessee one county classified as a maintenance area has rail line segment that would experience an increase in traffic or activity such that STB thresholds would be met.

21.1.1.2.1 *Davidson County, TN*

Davidson County is classified as maintenance for ozone. Increases in emissions have been estimated for each of the rail facilities in Davidson County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

CSX Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Evansville, IN	Amqui, TN	137	14.4	23.4	32.7	9.3	53
• GTM = Gross Ton Miles							

Estimated Increase in Emissions for the Portion of the CSX Rail Line Segment in Davidson County

Rail Line Segment		Estimated Increase in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Evansville, IN	Amqui, TN	143.1	15.9	5.3	9.3	3.6	0.0003
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Davidson County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail segment activity in Davidson County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

21.1.1.3 Attainment Areas

In Tennessee, two counties classified as attainment areas have rail line segments that would experience increases in traffic or activity such that STB thresholds would be met.

21.1.1.3.1 *Montgomery County, TN*

Montgomery County is classified as attainment for all pollutants. Increases in emissions have been estimated for each of the rail facilities in Montgomery County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

CSX Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Evansville, IN	Amqui, TN	137	3.8	23.4	32.7	9.3	53
• GTM = Gross Ton Miles							

Estimated Increase in Emissions for the Portion of the CSX Rail Line Segment in Montgomery County

Rail Line Segment		Estimated Increase in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Evansville, IN	Amqui, TN	38.0	4.2	1.4	2.5	1.0	0.000081
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Montgomery County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail activities in Montgomery County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

21.1.1.3.2 *Robertson County, TN*

Robertson County is classified as attainment for all pollutants. Increases in emissions have been estimated for each of the rail facilities in Robertson County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

CSX Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	Change	
Evansville, IN	Amqui, TN	137	23	23.4	32.7	9.3	53
• GTM = Gross Ton Miles							

Estimated Increase in Emissions for the Portion of the CSX Rail Line Segment in Robertson County

Rail Line Segment		Estimated Increase in Emissions (tons per year)					
From	To	NO_x	CO	VOC	SO_2	PM	Pb
Evansville, IN	Amqui, TN	228.5	25.4	8.5	14.8	5.8	0.00048
• NO_x = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Robertson County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail activities in Robertson County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

21.2 NOISE IMPACTS

The CSX line segments and NS intermodal facility that would experience increases in traffic or activity meeting the STB thresholds for noise analysis (see Table 1-2) are listed below. Traffic increases on some rail facilities in Tennessee would meet STB's thresholds for noise analysis. Analyses were performed to identify where the noise level would increase by 2 dBA or greater and be above 65 dBA. In areas that would experience such an increase, noise-sensitive receptors within the pre-Acquisition and post-Acquisition 65 dBA Ldn contour were counted. The number of noise-sensitive receptors (residences, schools, churches, hospitals) is provided. If a rail line segment crosses state boundaries, that portion of the segment in each state is analyzed under the same segment name in the noise section of that state.

CSX Rail Line Segment

Segment		Trains Per Day			Change in dBA	Distance to Ldn Contour	
From	To	Pre-Acquisition	Post-Acquisition	Difference		Line Segment	Grade Crossing
Evansville, IN	Amqui, TN	23.4	32.7	9.3	< 2 dBA	--	--

• -- = Not applicable

Evansville, IN to Amqui, TN

This rail segment, which currently has a volume of 23.4 trains per day, would experience an increase of 9.3 trains per day as a result of the proposed Acquisition. The projected increase in train volume on this segment would cause less than a 2 dBA increase in the Ldn. No adverse noise impacts are expected.

NS Intermodal Facilities

Intermodal Facility Location	Trucks per Day		Change in ADT on local roads (%)	Intermodal Yard	
	Pre-Acquisition	Post-Acquisition		Change in dBA	Approx. Dist to 65 dBA Ldn Contour
Memphis	120	196	0.1-2.8	2.1	109

Memphis, TN

The Memphis facility is on Spottswood Avenue. Truck transportation to the facility is via I-240, US-78, East Parkway, Prescott and Spottswood Avenue. The land use around the facility is predominantly urban. A rail yard is north of the facility.

Currently, the Memphis intermodal facility serves 120 trucks per day. Post-Acquisition, this facility is expected to experience an increase of 152 trucks trips per day, a 63.3 percent increase in the ADT on local roads. The increased activity at the facility is expected to cause an increase in noise levels of 2.1 dBA. No noise-sensitive receptors would be within the 65 dBA Ldn contour for post-Acquisition conditions. Further, the increased truck traffic would cause less than a 2 dBA increase in traffic noise on local roads. Therefore, no adverse noise impacts are projected.

21.3 TRANSPORTATION

The primary transportation impacts of the proposed Acquisition are related to additional truck traffic generated at intermodal facilities where intermodal activity is projected to increase. Impacts near intermodal facilities would result from increased truck traffic using local roadways to enter and exit the intermodal facility. For those facilities with an expected increase of 50 trucks

or more per day or an increase of 10 percent of the ADT on local roads, the impacts of this increased traffic on the local roadway system were analyzed. Traffic count data were obtained from local and state transportation agencies. While the offsetting benefits of the proposed Acquisition were not quantified at the local level, the traffic impacts from added truck traffic at intermodal facilities would be partially offset in many localities by the significant number of truck-to-rail diversions.

One NS intermodal facility in Memphis, TN is expected to experience additional truck traffic of 50 trucks or more per day. However, the additional truck traffic from the intermodal facility would not cause adverse impacts on the local transportation system. The specified intermodal facility is discussed below.

Memphis

The Memphis facility is on Spottswood Avenue in southeastern Memphis. Truck transportation to the facility is via I-240, US-78, East Parkway, Prescott Avenue, and Spottswood Avenue. Average Daily Traffic (ADT) for the vicinity obtained from the Tennessee Department of Transportation is as follows:

- I-240 - approximately 112,820 vehicles per day
- US-78 - approximately 27,520 vehicles per day
- East Parkway approximately 26,610 vehicles per day
- Prescott Avenue - approximately 38,650 vehicles per day
- Spottswood Avenue - approximately 5,500 vehicles per day

Traffic counts reported are from data collected between 1992 and 1995 and represent the average count for both directions.

Post-Acquisition, the Memphis intermodal facility would serve approximately 76 more trucks per day. The additional truck traffic was assumed to be distributed throughout a 24-hour day. The total daily increase of 76 truck trips represents about a 0.1 percent increase in ADT on I-240, about a 0.6 percent increase in ADT on US-78, about a 0.6 percent increase in ADT on East Parkway, about a 0.4 percent increase in ADT on Prescott Avenue and about a 2.8 percent increase in ADT on Spottswood Avenue. Thus, these increases would have a minor impact on the local and regional transportation network.

21.4 SAFETY

Impacts on safety may occur as a result of increased traffic on rail line segments. Safety impacts are primarily related to changes in vehicle delays at grade crossings and the potential for train-vehicle accidents at grade crossings. Other safety impacts include potential train accidents, and hazardous materials incidents.

No significant adverse safety impacts would result from the proposed Acquisition. Overall, a net safety benefit is expected due to truck-to-rail diversions. Safety issues and methodology are discussed in Section 1.2.4 of Part 2 and in Appendix D of Part 1 of this ER.

21.4.1 Grade Crossing Safety

The grade crossings in the State of Tennessee with an ADT of 5,000 or greater along analyzed lines are listed below. The estimated change in frequency of accidents for a specific crossing can be determined by identifying the number of trains per day, pre- and post-Acquisition, on the specified line segment (Section 21.1), identifying the ADT of the road crossed by the line segment listed below, and based on the identified information, finding the appropriate cells in Table 1-5 in Section 1.2.4.1.

CSX Analyzed Grade Crossings with an ADT of 5,000 or Greater

County	City	Rail Line Segment		Road Crossed	ADT	
		To	From		5,000-10,000	> 10,000
Davidson	Nashville	Nashville, TN	Amqui, TN	Third Ave	X	-
Davidson	Nashville	Nashville, TN	Amqui, TN	Craighead	X	-
Davidson	Nashville	Nashville, TN	Amqui, TN	Berry Rd	X	-
Davidson	Nashville	Nashville, TN	Amqui, TN	Sidco Drive	X	-
Roberts	Springfield	Amqui, TN	Evansville, IN	Main St	X	-

Although the potential for accidents at grade crossings would increase for crossings with increased train traffic, the potential for accidents on interstate highways would decrease because the number of long-haul trucks would decrease. Systemwide, the Acquisition is expected to have a beneficial effect on safety.

Information on vehicle delays is provided in Section 1.2.4.1.2.

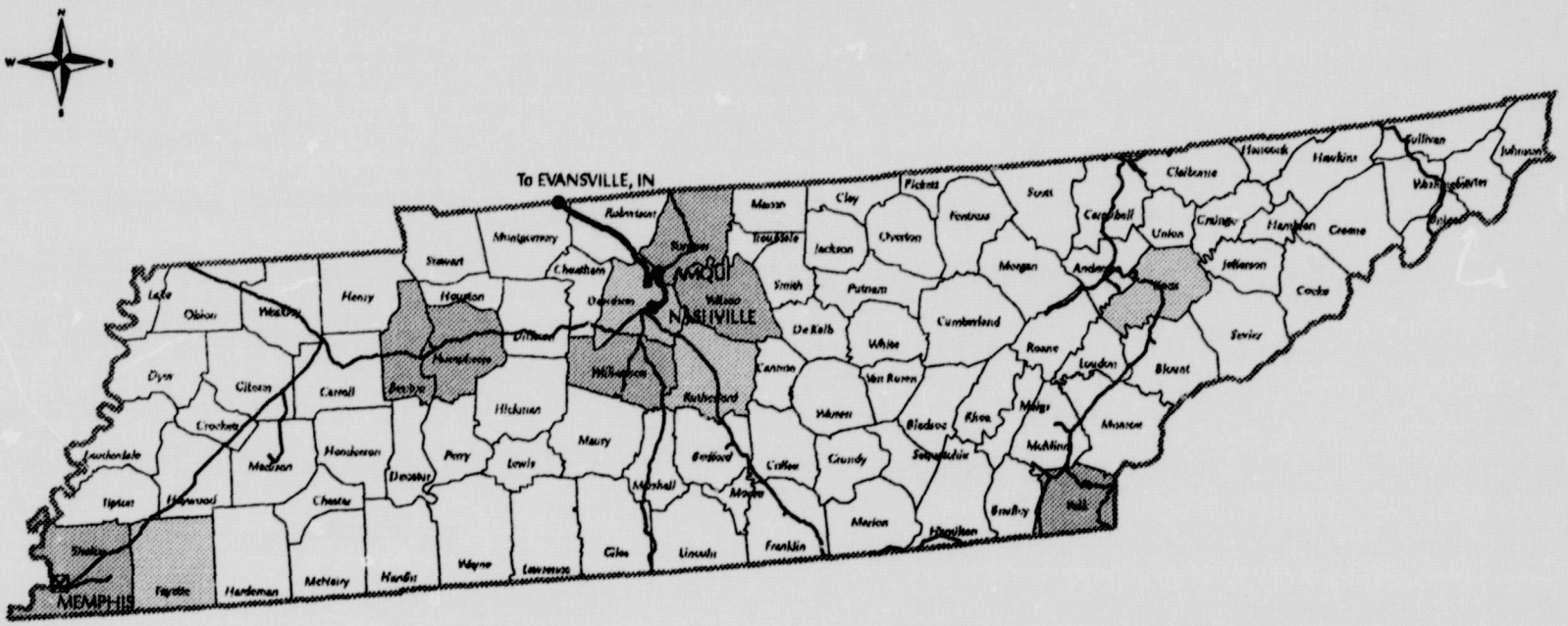
21.4.2 Hazardous Materials Transportation

The proposed Acquisition would not affect CSX's and NS's policies or operating procedures governing the transport of hazardous materials. Although the quantities of materials transported may increase, the Acquisition would not affect the type of materials handled or the methods used to ensure the safe movement of these shipments. Additional information on CSX's and NS's transportation of hazardous materials is provided in Section 1.2.4.3 of this Part.

21.4.3 Hazardous Waste Sites/Spill Sites on the Right-of-Way

Information on CSX and NS hazardous waste sites and spill sites is provided in Section 1.2.4.4 of this Part. A summary of CSX's, NS's and Conrail's hazardous materials reportable incidents from 1991 through 1995 is provided in Appendix F to Part 1.

CSX RAIL LINE SEGMENTS, RAIL YARDS AND INTERMODAL FACILITIES REQUIRING ENVIRONMENTAL ANALYSIS IN TENNESSEE



LEGEND

- Rail Line Segments Requiring Environmental Analysis
- Rail Line Segments Not Requiring Environmental Analysis
- Nodes
- Rail Yard
- Intermodal Facility
- Non-Attainment
- Maintenence
- Attainment

Note: Rail System Includes Trackage Rights and Haulage

FIGURE 2-22.1

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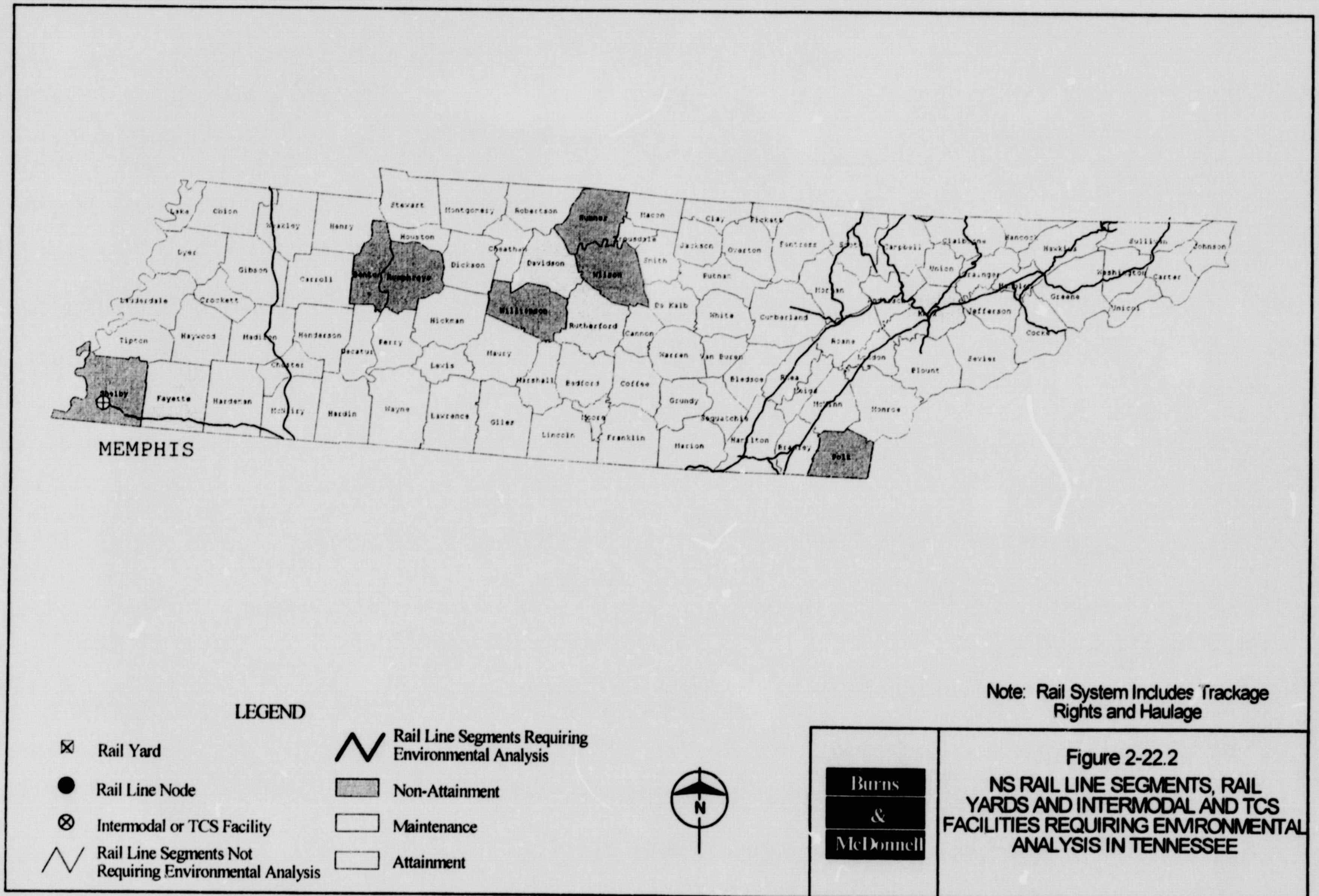

Figure 2-22.2
NS RAIL LINE SEGMENTS, RAIL YARDS AND INTERMODAL AND TCS FACILITIES REQUIRING ENVIRONMENTAL ANALYSIS IN TENNESSEE

22.0 VIRGINIA

22.0 VIRGINIA

RAIL LINE SEGMENTS, RAIL YARDS AND INTERMODAL FACILITY IMPACTS

This section provides an analysis of the potential environmental impacts in Virginia resulting from increase in activity on rail line segments, at rail yards and at intermodal facilities related to the proposed Acquisition. Consistent with the Surface Transportation Board's (STB) environmental rules at 49 CFR Part 1105.7(e), the analysis specifically considered impacts to: (1) air quality, (2) noise, (3) local and regional transportation systems and (4) safety. This analysis indicates that the proposed Acquisition would have some environmental impacts in Virginia. Before assessing the environmental impacts, a brief description of the key elements of the Acquisition as it relates to Virginia immediately follows.

Both CSX and NS will reroute movements to more efficient routes that will improve customer service, on-time performance and car utilization. Through this Acquisition, Virginia shippers will extend their single-line market reach via CSX and NS into the Northeast and Midwest. New truck-competitive rail service will help alleviate congestion along major Virginia interstate highway routes, and traffic in main line rail corridors will operate more efficiently.

Virginia will be served by six major CSX service route combinations including rail services lanes linking Virginia with the Northeast and New England, as well as points in the Midwest and South. These service routes will provide for rail service between nearly all major areas in the South and Ohio Valley, as well as the Mississippi River gateways for interchange of traffic with western railroads.

In addition, as a result of new intermodal services that will become available, significant potential exists for diverting traffic from trucks to rail along the entire East Coast, which will have a favorable impact upon highway congestion and air quality conditions. Further, new rail service from the Monogahela coal fields of Western Pennsylvania will add another source of coal traffic for the CSX served export docks at Newport News.

NS plans significant capacity improvements on its Shenandoah Corridor including raising clearances between Riverton and Roanoke. Sidings are planned at Clark, Rural Retreat, Glade Springs and Bristol. These projects will improve operations and permit NS to offer reduced transit times and improved on-time performance.

New expedited coal service will be available via the NS Shenandoah route. The rerouting via Hagerstown and the Shenandoah Valley will save an average of 143 miles per trip. Transit times will be reduced between 25 and 30 hours. New rail service from the Monogahela coal fields will add another source of coal traffic for Norfolk's NS served export docks.

No route abandonments are anticipated in Virginia by CSX or NS.

22.1 AIR QUALITY IMPACTS

Of the 95 counties in Virginia, 12 counties have nonattainment areas for air quality. The nonattainment areas are near Richmond and the District of Columbia. These areas are nonattainment for ozone.

Nine of the counties with nonattainment areas for ozone and 11 of the counties in attainment areas that have rail line segments that would experience increases in traffic or activity that meet STB thresholds (See Table 1-1). These are listed below and shown in Figures 2-23.1 and 2-23.2. Line segments with Amtrak or commuter trains operating on them are in bold.

CSX Rail Line Segments

Rail Line Segment		County	Air Quality Status	Trains per Day		Increase in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	
Doswell VA	Fredericksburg VA	Hanover	N	30.7	37.3	28
Fredericksburg VA	Potomac Yard VA	Alexandria Fairfax Prince William Stafford	N N N N	38.3	45.4	29
Richmond VA	Doswell VA	Hanover Henrico Richmond City	N N N	32.3	39.3	22
S. Richmond VA	Weldon NC	Chesterfield Colonial Heights Richmond City	N N N	26.4	31.0	18

- N=Nonattainment

NS Rail Line Segments

Rail Line Segment		County	Air Quality Status	Trains per Day		Increase in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	
Riverton Jct., VA	Randolph St., VA	Augusta	A	3.9	12.1	231
		Botetourt	A			
		Buena Vista	A			
		Page	A			
		Roanoke	A			
		Roanoke City	A			
		Rockbridge	A			
		Rockingham	A			
		Warren	A			
		Waynesboro	A			
Harrisburg, PA	Riverton Jct., VA	Clarke	A	11.1	19.6	82
		Warren	A			

- A = Attainment.
- GTM = Gross Ton Miles
- * = lines upon which Conrail or NS have trackage rights

The increases in air emissions resulting from the increases in traffic or activity are estimated in the Impact Analysis by County section. Even though air emissions would be increased in the

immediate vicinity of these rail facilities, other rail facilities in Virginia (and in other states served by CSX and NS) would experience decreases in traffic or activity, with consequent decreases in localized air emissions. These decreases would be a result of rerouting freight on the expanded CSX and NS systems to shorter, more direct routes.

In addition, the diversion of freight from trucks to rail would result in reduced air emissions in the vicinity of major highways. Moreover, because trains emit a lower level of air pollutants per unit of freight moved than trucks, the diversion of freight from trucks to rail would also result in reduced air emissions systemwide.

22.1.1 Impact Analysis by County

This section analyzes the impacts to air quality in each county where a rail line segment, rail yard or intermodal facility meets the STB thresholds for analysis of air emissions. If a rail line segment crosses the county boundary, only the emissions from that portion of the segment within the county are estimated. Counties that are nonattainment or were deemed nonattainment are discussed first, followed by counties that are attainment or were deemed attainment areas.

22.1.1.1 Nonattainment Areas

In Virginia, nine counties classified as nonattainment areas have rail line segments that would experience increases in traffic or activity that meet STB thresholds.

22.1.1.1.1 *Alexandria, VA*

Alexandria is classified as nonattainment (serious) for ozone and maintenance for CO. Increases in emissions have been estimated for each of the rail facilities in Alexandria that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

CSX Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	Change	
Fredericksburg, VA	Potomac Yard, VA	49	5.6	38.3	45.4	7.1	29
• GTM = Gross Ton Miles							

Estimated Increases in Emissions for the Portion of CSX Rail Line Segment in Alexandria

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Fredericksburg, VA	Potomac Yard, VA	25.2	2.8	0.9	1.6	0.6	0.000053
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Alexandria

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail segment activity in Alexandria would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.1.2 *Chesterfield County, VA*

Chesterfield County is classified as nonattainment (moderate) for ozone. Increases in emissions have been estimated for each of the rail facilities in Chesterfield County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

CSX Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
S. Richmond, VA	Weldon, NC	82	12.8	26.4	31.0	4.6	18
• GTM = Gross Ton Miles							

Estimated Increases in Emissions for the Portion of CSX Rail Line Segment in Chesterfield County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
S. Richmond, VA	Weldon, NC	42.6	4.7	1.6	2.8	1.1	0.00009
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Chesterfield County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail segment activity in Chesterfield County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.1.3 *Colonial Heights County, VA*

Colonial Heights County is classified as nonattainment (moderate) for ozone. Increases in emissions have been estimated for each of the rail facilities in Colonial Heights County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

CSX Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	Change	
S. Richmond, VA	Weldon, NC	82	2.5	26.4	31.0	4.6	18
• GTM = Gross Ton Miles							

Estimated Increases in Emissions for the Portion of CSX Rail Line Segment in Colonial Heights County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
S. Richmond, VA	Weldon, NC	8.3	0.9	0.3	0.5	0.2	0.000018
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Colonial Heights County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail segment activity in Colonial Heights County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.1.4 *Fairfax County, VA*

Fairfax County is classified as nonattainment (serious) for ozone. Increases in emissions have been estimated for each of the rail facilities in Fairfax County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

CSX Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Fredericksburg, VA	Potomac Yard, VA	49	13.3	38.3	45.4	7.1	29
• GTM = Gross Ton Miles							

Estimated Increases in Emissions for the Portion of CSX Rail Line Segment in Fairfax County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Fredericksburg, VA	Potomac Yard, VA	59.8	6.6	2.2	3.9	1.5	0.00013
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Fairfax County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail segment activity in Fairfax County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.1.5 *Hanover County, VA*

Hanover County is classified as nonattainment (moderate) for ozone. Increases in emissions have been estimated for each of the rail facilities in Hanover County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

CSX Rail Line Segments

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	Change	
Doswell, VA	Fredericksburg, VA	37	7.6	30.7	37.3	6.6	28
Richmond, VA	Doswell, VA	24	6.4	32.3	39.3	7.0	22

• GTM = Gross Ton Miles

Estimated Increases in Emissions for the Portion of CSX Rail Line Segments in Hanover County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Doswell, VA	Fredericksburg, VA	33.6	3.7	1.2	2.2	0.8	0.000071
Richmond, VA	Doswell, VA	24.5	2.7	0.9	1.6	0.6	0.000052
	Total	58.1	6.4	2.1	3.8	1.4	0.00012

• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead

Discussion of Impacts in Hanover County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail segment activity in Hanover County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.1.6 *Henrico County, VA*

Henrico County is classified as nonattainment (moderate) for ozone. Increases in emissions have been estimated for each of the rail facilities in Henrico County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

CSX Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	Change	
Richmond, VA	Doswell, VA	24	6.9	32.3	39.3	7.0	22
• GTM = Gross Ton Miles							

Estimated Increases in Emissions for the Portion of CSX Rail Line Segment in Henrico County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Richmond, VA	Doswell, VA	26.1	2.9	1.0	1.7	0.7	0.000055
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Henrico County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail segment activity in Henrico County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.1.7 *Prince William County, VA*

Prince William County is classified as nonattainment (serious) for ozone. Increases in emissions have been estimated for each of the rail facilities in Prince William County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

CSX Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	Change	
Fredericksburg, VA	Potomac Yard, VA	49	10.4	38.3	45.4	7.1	29
• GTM = Gross Ton Miles							

Estimated Increases in Emissions for the Portion of CSX Rail Line Segment in Prince William County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Fredericksburg, VA	Potomac Yard, VA	46.8	5.2	1.7	3.0	1.2	0.000099
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Prince William County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail segment activity in Prince William County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.1.8 *Richmond City, VA*

Richmond City is classified as nonattainment (moderate) for ozone. Increases in emissions have been estimated for each of the rail facilities in Richmond City that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

CSX Rail Line Segments

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	Change	
Richmond, VA	Doswell, VA	24	10.7	32.3	39.3	7.0	22
S. Richmond, VA	Weldon, NC	82	2.5	26.4	31.0	4.6	18
• GTM = Gross Ton Miles							

Estimated Increases in Emissions for the Portion of CSX Rail Line Segments in Richmond City

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Richmond, VA	Doswell, VA	40.6	4.5	1.5	2.6	1.0	0.000086
S. Richmond, VA	Weldon, NC	8.2	0.9	0.3	0.5	0.2	0.000017
	Total	48.8	5.4	1.8	3.1	1.2	0.0001
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Richmond City

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail segment activity in Richmond City would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.1.9 *Stafford County, VA*

Stafford County is classified as nonattainment (serious) for ozone. Increases in emissions have been estimated for each of the rail facilities in Stafford County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

CSX Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Fredericksburg, VA	Potomac Yard, VA	49	16.6	38.3	45.4	7.1	29
• GTM = Gross Ton Miles							

Estimated Increases in Emissions for the Portion of CSX Rail Line Segment in Stafford County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Fredericksburg, VA	Potomac Yard, VA	74.9	8.3	2.8	4.9	1.9	0.00016
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Stafford County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail segment activity in Stafford County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.2 Attainment Areas

In Virginia, 11 counties classified as attainment areas have rail line segments that would experience increases in traffic or activity that would meet STB thresholds.

22.1.1.2.1 *Augusta County, VA*

Augusta County is an attainment area. Increases in emissions have been estimated for each of the rail facilities in Augusta County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

NS Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Riverton Jct., VA	Randolph St., VA	181.00	38.93	3.9	12.1	8.2	231
• GTM = Gross Ton Miles							

Estimated Increases in Emissions for the Portion of NS Rail Line Segment in Augusta County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Riverton Jct., VA	Randolph St., VA	293.57	32.60	10.88	19.02	7.41	0.00062
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Augusta County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail activities in Augusta County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.2.2 *Botetourt County, VA*

Botetourt County is an attainment area. Increases in emissions have been estimated for each of the rail facilities in Botetourt County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

NS Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Riverton Jct., VA	Randolph St., VA	181.00	27.84	3.9	12.1	8.2	231
• GTM = Gross Ton Miles							

Estimated Increases in Emissions for the Portion of NS Rail Line Segment in Botetourt County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Riverton Jct., VA	Randolph St., VA	209.98	23.32	7.79	13.61	5.30	0.00045
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Botetourt County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail activities in Botetourt County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.2.3 *Buena Vista County, VA*

Buena Vista County is an attainment area. Increases in emissions have been estimated for each of the rail facilities in Buena Vista County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

NS Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Riverton Jct., VA	Randolph St., VA	181.00	2.85	3.9	12.1	8.2	231
• GTM = Gross Ton Miles							

Estimated Increases in Emissions for the Portion of NS Rail Line Segment in Buena Vista County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Riverton Jct., VA	Randolph St., VA	21.48	2.39	0.80	1.39	0.54	0.000046
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Buena Vista County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail activities in Buena Vista County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.2.4 *Clarke County, VA*

Clarke County is an attainment area. Increases in emissions have been estimated for each of the rail facilities in Clarke County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

NS Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Harrisburg, PA	Riverton Jct, VA	133	16.25	11.1	19.6	8.5	82
• GTM = Gross Ton Miles							

Estimated Increases in Emissions for the Portion of NS Rail Line Segment in Clarke County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Harrisburg, PA	Riverton Jct, VA	99.65	11.07	3.69	6.46	2.52	0.00021
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Clarke County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail activities in Clarke County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.2.5 Page County, VA

Page County is an attainment area. Increases in emissions have been estimated for each of the rail facilities in Page County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

NS Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Riverton Jct., VA	Randolph St., VA	179.00	31.94	3.9	12.1	8.2	231
• GTM = Gross Ton Miles							

Estimated Increases in Emissions
for the Portion of NS Rail Line Segment in Page County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Riverton Jct., VA	Randolph St., VA	240.85	26.75	8.93	15.61	6.08	0.00051
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Page County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail activities in Page County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.2.6 *Roanoke County, VA*

Roanoke County is an attainment area. Increases in emissions have been estimated for each of the rail facilities in Roanoke County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

NS Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Riverton Jct., VA	Randolph St., VA	179.00	2.54	3.9	12.1	8.2	231
• GTM = Gross Ton Miles							

Estimated Increases in Emissions
for the Portion of NS Rail Line Segment in Roanoke County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Riverton Jct., VA	Randolph St., VA	19.13	2.12	0.71	1.24	0.48	0.000041
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Roanoke County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail activities in Roanoke County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.2.7 *Roanoke City, VA*

Roanoke City is an attainment area. Increases in emissions have been estimated for each of the rail facilities in Roanoke City that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

NS Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	Change	
Riverton Jct., VA	Randolph St., VA	179.00	2.64	3.9	12.1	8.2	231
• GTM = Gross Ton Miles							

Estimated Increases in Emissions
for the Portion of NS Rail Line Segment in Roanoke City

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Riverton Jct., VA	Randolph St., VA	19.92	2.21	0.74	1.29	0.50	0.00004
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Roanoke City

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail activities in Roanoke City would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.2.8 *Rockbridge County, VA*

Rockbridge County is an attainment area. Increases in emissions have been estimated for each of the rail facilities in Rockbridge County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

NS Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Riverton Jct., VA	Randolph St., VA	179.00	35.05	3.9	12.1	8.2	231
• GTM = Gross Ton Miles							

Estimated Increases in Emissions
for the Portion of NS Rail Line Segment in Rockbridge County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Riverton Jct., VA	Randolph St., VA	264.28	29.35	9.80	17.12	6.67	0.00056
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Rockbridge County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail activities in Rockbridge County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.2.9 *Rockingham County, VA*

Rockingham County is an attainment area. Increases in emissions have been estimated for each of the rail facilities in Rockingham County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

NS Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	Change	
Riverton Jct., VA	Randolph St., VA	179.00	21.83	3.9	12.1	8.2	231
• GTM = Gross Ton Miles							

Estimated Increases in Emissions
for the Portion of NS Rail Line Segment in Rockingham County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Riverton Jct., VA	Randolph St., VA	164.60	18.28	6.10	10.67	4.16	0.00035
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Rockingham County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail activities in Rockingham County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.2.10 *Warren County, VA*

Warren County is an attainment area. Increases in emissions have been estimated for each of the rail facilities in Warren County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

NS Rail Line Segments

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	Change	
Harrisburg, PA	Riverton Jct., VA	133	6.99	11.1	19.6	8.5	82
Riverton Jct., VA	Randolph St., VA	179.00	13.77	4.9	15.5	10.6	231
• GTM = Gross Ton Miles							

Estimated Increases in Emissions for the Portion of NS Rail Line Segments in Warren County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Harrisburg, PA	Riverton Jct., VA	42.88	4.76	1.59	2.78	1.08	0.000091
Riverton Jct., VA	Randolph St., VA	103.85	11.53	3.85	6.73	2.62	0.00022
	Total	146.73	16.29	5.44	9.51	3.70	0.00031

- NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead

Discussion of Impacts in Warren County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail activities in Warren County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.1.1.2.11 *Waynesboro County, VA*

Waynesboro County is an attainment area. Increases in emissions have been estimated for each of the rail facilities in Waynesboro County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

NS Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Riverton Jct., VA	Randolph St., VA	179.00	3.62	3.9	12.1	8.2	231
• GTM = Gross Ton Miles							

Estimated Increases in Emissions for the Portion of NS Rail Line Segment in Waynesboro County

Rail Line Segment		Estimated Increases in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Riverton Jct., VA	Randolph St., VA	27.27	3.03	1.01	1.77	0.69	0.000058
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Waynesboro County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail activities in Waynesboro County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

22.2 NOISE IMPACTS

The NS rail line segments that would experience increases in traffic or activity meeting the STB thresholds for noise analysis (see Table 1-2) are listed below. Traffic increases on some rail facilities in Virginia would meet STB thresholds for noise analysis. Analyses were performed to identify where the noise level would increase by 2 dBA or greater and be above 65 dBA. In areas that would experience such an increase, noise-sensitive receptors within the pre-Acquisition and

post-Acquisition 65 dBA Ldn contour were counted. The number of noise-sensitive receptors (residences, schools, churches, hospitals) is provided. If a rail line segment crosses state boundaries, that portion of the segment in each state is analyzed under the same segment name in the noise section of that state.

NS Rail Line Segments

Segment		Trains Per Day			Change in dBA	Distance to Ldn Contour	
From	To	Pre-Acquisition	Post-Acquisition	Difference		Line Segment	Grade Crossing
Harrisburg, PA	Riverton Jct., VA	11.1	19.6	8.5	2.4	150	450
Riverton Jct., VA	Randolph Street, VA	3.9	12.1	8.2	4.7	150	350

Harrisburg, PA to Riverton Jct., VA

This rail segment currently has 11.06 trains per day. The segment would experience an increase of 8.56 trains per day and an increase of 82.40 percent in gross ton-miles per year as a result of the proposed Acquisition. The change in train volume would result in an Ldn increase of 2.4 dBA, exceeding the threshold for noise analysis. The majority of impacts would occur at or near grade crossings where train horns would be sounded as a warning; 126 grade crossings are on this segment. The current 65 dBA Ldn contour of 100 feet (150 feet at grade crossings) would extend to approximately 300 feet (450 feet at grade crossings) perpendicular to the tracks. Noise impacts for sensitive receptors along this segment are described below:

Gaylord

The rail line trends northeast to southeast through the center of this small town. A few residences are located in the community.

Berryville

The rail line trends northeast to southwest along the edge of this medium-sized town. There are residences, businesses, industry, schools and churches located in the community.

Pigeon Hill

The rail line trends northeast to southwest along the edge of this small town. There are residences and a church located in the community.

Briggs

The rail line trends northeast to southwest along the edge of this small town. There are a few residences and a church located in the community.

Boyce

The rail line trends northeast to southwest near the center this small town. There are residences, businesses, industries, schools and churches located in the community.

White Post

The rail line trends northeast to southwest along the edge of this small town. There are residences, businesses and churches located in the community.

Ashby

The rail line trends northeast to southwest through the center of this small town. There are a few residences located in the community.

Number of Sensitive Receptors
Harrisburg, PA to Riverton Jct., VA Line Segment

Pre-Acquisition				Post-Acquisition			
Residences	**Schools**	**Churches**	**Hospitals**	**Residences**	**Schools**	**Churches**	**Hospitals**
601	3	7	0	987	4	9	0
• only represents noise-sensitive receptors in Virginia							

Riverton Jct., VA to Randolph Street, VA

This rail currently has 3.9 trains per day. The segment would experience an increase of 8.22 trains per day and an increase of 231 percent in gross ton-miles per year as a result of the

proposed Acquisition. The change in train volume would result in an Ldn increase of 4.7 dBA, exceeding the threshold for noise analysis. The majority of impacts would occur at or near grade crossings where train horns would be sounded as a warning; 263 grade crossings are on this segment. The current 65 dBA Ldn contour of 50 feet (100 feet at grade crossings) would extend to approximately 150 feet (350 feet at grade crossings) perpendicular to the tracks. Noise impacts for sensitive receptors along this segment are described below:

Kari

The rail line trends northeast to southwest along the edge of this small town. There are a few residences in the community.

Limeton

The rail line trends northeast to southwest along the edge of this small town. There are residences, schools and churches in the community.

Bentonville

The rail line trends northeast to southwest through the center of this small town. There are residences, businesses, schools and churches in the community.

Overall

The rail line trends northeast to southwest along the edge of this small town. There are residences in the community.

Compton

The rail line trends northeast to southwest near the center of this small town. There are residences and churches in the community.

Rileyville

The rail line trends north to south through the center of this small town. There are residences and churches in the community.

Vaughn

The rail line trends north to south along the edge of this small town. There are a few residences and a church in the community.

Kimball

The rail line trends north to south through the center of this small town. There are a few residences in the community.

Luray

The rail line trends northeast to southwest through the center of this medium-sized town. There are residences, businesses, industries, schools, churches and a hospital in the community.

Stanley

The rail line trends northeast to southwest through the center of this small town. There are residences, businesses, industries, schools and churches in the community.

Ingham

The rail line trends northeast to southwest near the center of this small town. There are a few residences in the community. The tracks run along the boundary of national park lands at Ingham.

Grove Hill

The rail line trends northeast to southwest on the east side of this small town. There are residences, schools and churches in the community.

Shenandoah

The rail line trends north and south along the edge of this small town. There are residences, businesses and churches in the community.

Verbena

The rail line trends northeast to southwest through the center of this small town. There are residences in the community.

Elkton

The rail line trends north to south near the center of this small town. There are residences, businesses, industries, schools and churches in the community.

Island Ford

The rail line trends northeast to southwest through the center of this small community. There are a few residences in the community.

Rocky Bar

The rail line trends northeast to southwest along the edge of this small community. There are residences and churches in the community.

Lynnwood

The rail line trends northeast to southwest along the edge of this hamlet. There are a few residences in the community.

Grottoes

The rail line trends northeast to southwest near the center of this small community. There are residences, businesses, industries, schools and churches in the community.

Harriston

The rail line trends northeast to southwest through the center of this small community. There are residences and a church in the community.

Sampson

The rail line trends northeast to southwest along the edge of this hamlet. There are a few residences in the community.

Crimora

The rail line trends north to south along the edge of this small community. There are residences, businesses, schools and churches in the community.

Waynesboro

The rail line trends northeast to southwest through the southern portion of this mid-sized city. There are numerous residences, businesses, industries, schools and churches in the community.

Lyndhurst

The rail line trends northeast to southwest through the center of this small community. There are residences and churches in the community.

Lipscomb

The rail line trends east to west through the center of this hamlet. There are a few residences in the community.

Stuarts Draft

The rail line trends east to west along the southern edge of this medium-sized town. There are residences, businesses, industries, schools and churches in the community.

Wilda

The rail line trends east to west along the edge of this hamlet. There are a few residences in the community.

Cold Spring

The rail line trends northeast to southwest through the center of this town. There are a few residences in the community.

Lofton

The rail line trends northeast to southwest through the center of this hamlet. There are residences in the community.

Pkin

The rail line trends northeast to southwest through the center of this hamlet. There are residences in the community.

Vesivius

The rail line trends northeast to southwest through the center of this small community. There are residences and churches in the community.

Marlbrook

The rail line trends northeast to southwest along the edge of this hamlet. There are residences in the community.

Midvale

The rail line trends northeast to southwest through the center of this hamlet. There are residences in the community.

Cornwall

The rail line trends northeast to southwest through the center of this small community. There are residences and churches in the community.

Riverside

The rail line trends northeast to southwest through the center of this hamlet. There are a few residences in the community.

Stewardsburg

The rail line trends north to south along the edge of this hamlet. There are a few residences in the community.

Buena Vista

The rail line trends north to south along the edge of this medium-sized town. There are residences, businesses, industries, schools, churches and a junior college in the community.

Buffalo Forge Station

The rail line trends northeast to southwest along the edge of this hamlet. There are a few residences in the community.

Glasgow

The rail line trends northeast to southwest through the center of this small community. There are residences, businesses, industries and schools in the community.

Natural Bridge Station

The rail line trends northeast to southwest near the center of this small community. There are residences, schools and churches in the community.

Gilmore Hills

The rail line trends east to west on the south side of this small community. There are a few residences in the community.

Rocky Point

The rail line trends northeast to southwest along the edge of this community. There are a few residences in the community.

Arcadia

The rail line trends northeast to southwest along the edge of this small community. There are a few residences in the community.

Buchanan

The rail line trends northeast to southwest through the center of this medium-sized town. There are residences, businesses, industries, schools and churches in the community.

Lithia

The rail line trends northeast to southwest through the center of this small community. There are a few residences and churches in the community.

Specs

The rail line trends northeast to southwest through the center of this small community. There are a few residences in the community.

Nace

The rail line trends northeast to southwest along the edge of this small community. There are a few residences in the community.

Troutville

The rail line trends northeast to southwest near the center of this small town. There are residences, businesses, industries, schools and churches in the community.

Cloverdale

The rail line trends northeast to southwest along the edge of this small community. There are residences, businesses, industries, schools and churches in the community.

Roanoke

This segment of the rail line trends north and south through the center of this medium-sized city. There are numerous residences, businesses, industries, schools and churches in the community.

Number of Sensitive Receptors
Riverton Jct., VA to Roanoke, VA Line Segment

Pre-Acquisition				Post-Acquisition			
Residences	**Schools**	**Churches**	**Hospitals**	**Residences**	**Schools**	**Churches**	**Hospitals**
412	0	5	0	716	1	11	0

22.3 TRANSPORTATION

There are no intermodal facilities in Virginia that would experience an increase of 50 trucks or more per day or an increase in 10 percent of the ADT on local roads.

22.4 SAFETY

Impacts on safety may occur as a result of increased traffic on rail line segments. Safety impacts are primarily related to changes in vehicle delays at grade crossings and the potential for train-vehicle accidents at grade crossings. Other safety impacts include potential train accidents and hazardous materials incidents.

No significant adverse safety impacts would result from the proposed Acquisition. Overall, a net safety benefit is expected due to truck-to-rail diversions. Safety issues and methodology are discussed in Section 1.2.4 of Part 2 and in Appendix D of Part 1 of this ER.

22.4.1 Grade Crossing Safety

The grade crossings in the State of Virginia with an ADT of 5,000 or greater along analyzed lines are listed below. The estimated change in frequency of accidents for a specific crossing can be determined by identifying the number of trains per day pre- and post-Acquisition on the specified line segment (Section 22.1), identifying the ADT of the road crossed by the line segment listed below and, based on the identified information, finding the appropriate cells in Table 1-5 in Section 1.2.4.1.

CSX Analyzed Grade Crossings with an ADT of 5,000 or Greater

County	City	Rail Line Segment		Road Crossed	ADT	
		To	From		5,000-10,000	> 10,000
Fredericksburg	Fredericksburg	Fredericksburg, VA	Doswell, VA	US 17	-	X
Richmond	Richmond	Doswell, VA	Richmond, VA	Hungary Rd	X	-
Hanover	Ashland	Doswell, VA	Richmond, VA	England St	X	-
Richmond	Richmond	Weldon, NC	S. Richmond, VA	Jahnke Rd	-	X
Richmond	Richmond	Weldon, NC	S. Richmond, VA	Broadrock Rd	-	X
Richmond	Richmond	Weldon, NC	S. Richmond, VA	Walmsley Blvd	X	-
Chester	Chester	Weldon, NC	S. Richmond, VA	Centralia Rd	X	-
Emporia	Emporia	Weldon, NC	S. Richmond, VA	E. Atlantic	-	X
Petersburg	Petersburg	Weldon, NC	S. Richmond, VA	Vaughn Rd	X	-

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NS Analyzed Grade Crossings with an ADT of 5,000 or greater

County	City	Rail Line Segment		Road Crossed	ADT	
		To	From		5,000 - 10,000	> 10000
Augusta	Stuarts Draft	Randolph St., VA	Riverton Jct., VA		X	
Clarke	Berryville	Riverton Jct., VA	Harrisburg, PA	St. Rt. 7 Business	X	
Page	Luray	Randolph St., VA	Riverton Jct., VA	East Main Street	X	

Although the potential for accidents at grade crossings would increase for crossings with increased train traffic, the potential for accidents on interstate highways would decrease because the number of long-haul trucks would decrease. Systemwide, the Acquisition is expected to have a beneficial effect on safety.

Information on vehicle delays is provided in Section 1.2.4 1.2.

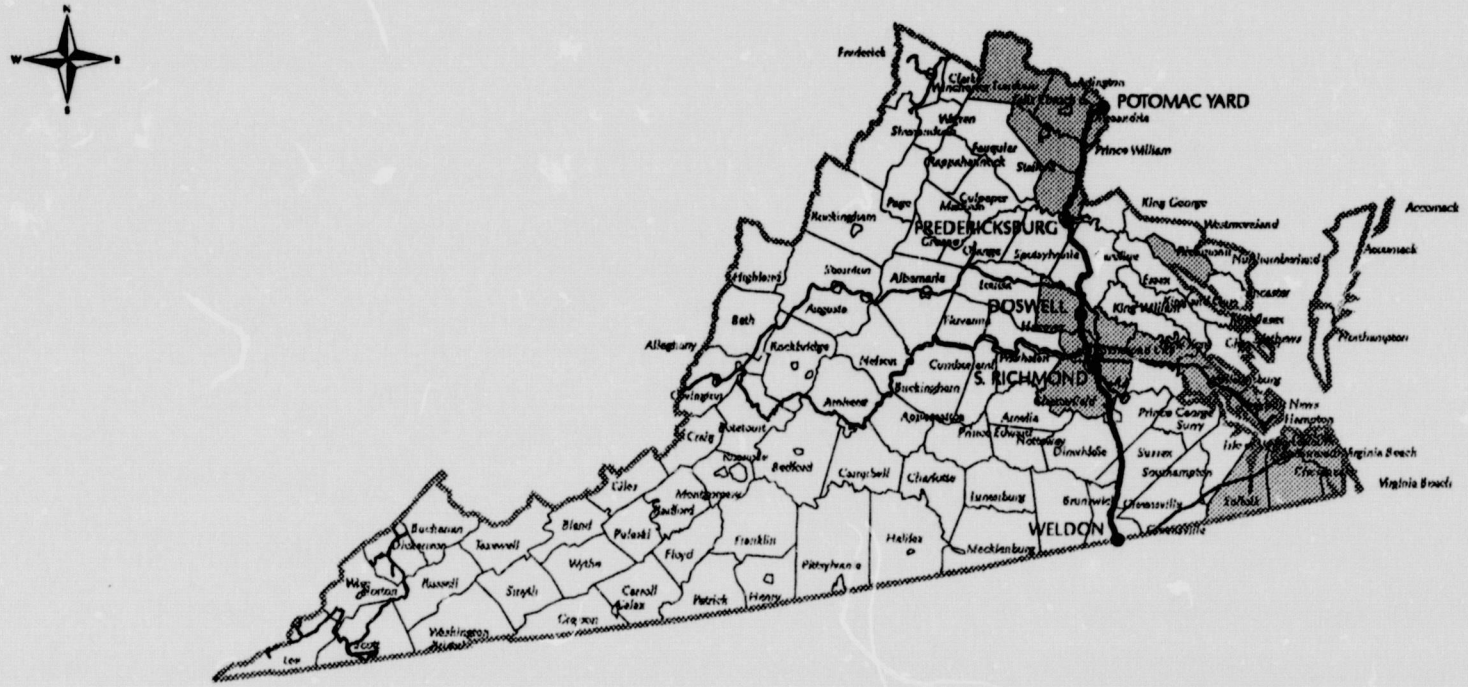
22.4.2 Hazardous Materials Transportation

The proposed Acquisition would not affect CSX's and NS's policies or operating procedures governing the transport of hazardous materials. Although the quantities of materials transported may increase, the Acquisition would not affect the type of materials handled or the methods used to ensure the safe movement of these shipments. Additional information on CSX's and NS's transportation of hazardous materials is provided in Section 1.2.4.3 of this Part.

22.4.3 Hazardous Waste Sites/Spill Sites on the Right-of-Way

Information on CSX and NS hazardous waste sites and spill sites is provided in Section 1.2.4.4 of this Part. A summary of CSX's, NS's and Conrail's hazardous material reportable incidents from 1991 through 1995 is provided in Appendix F to Part 1.

CSX RAIL LINE SEGMENTS, RAIL YARDS AND INTERMODAL FACILITIES REQUIRING ENVIRONMENTAL ANALYSIS IN VIRGINIA



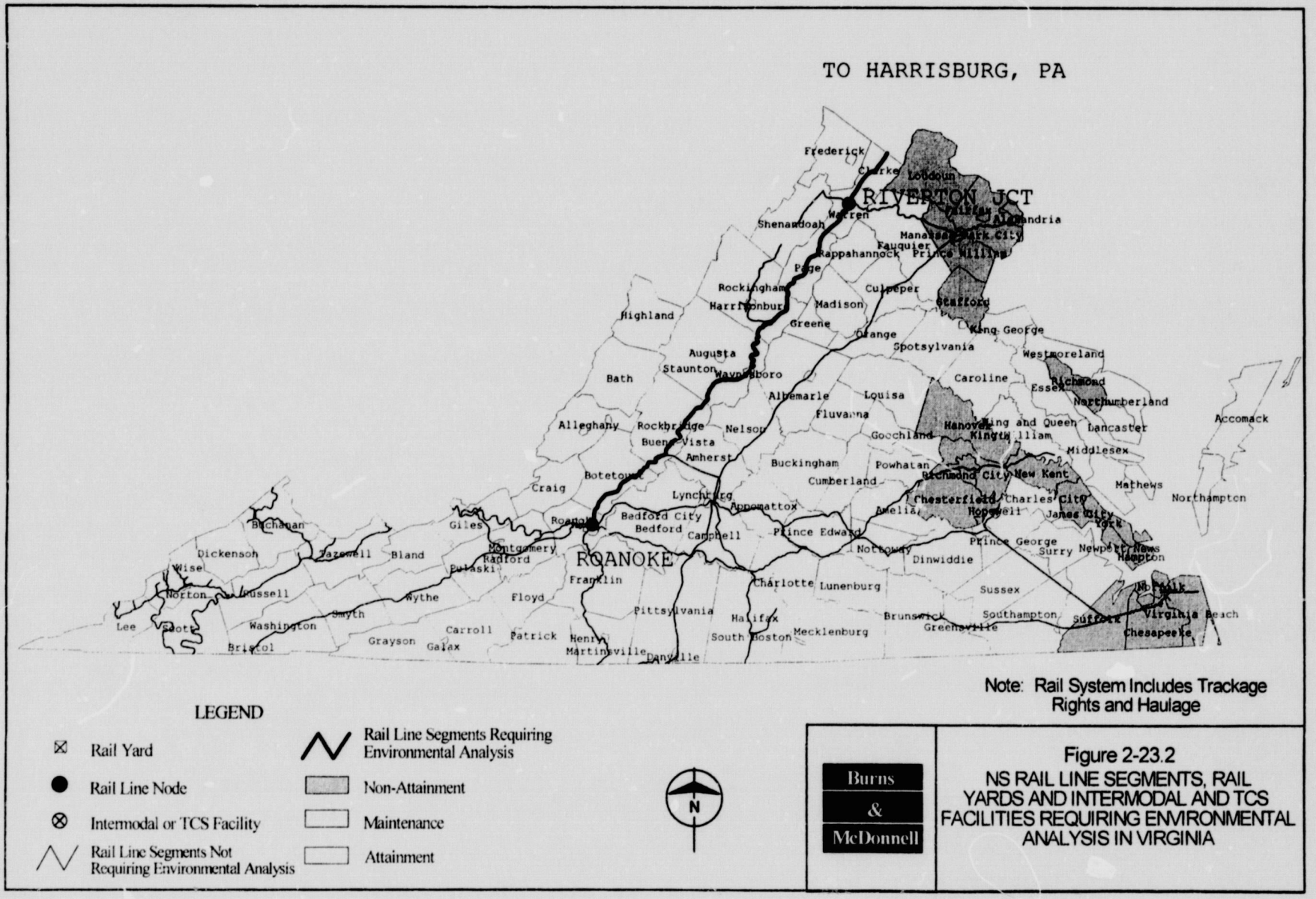
LEGEND

- Rail Line Segments Requiring Environmental Analysis
- Rail Line Segments Not Requiring Environmental Analysis
- Nodes
- Rail Yard
- Intermodal Facility
- Non-Attainment
- Maintenence
- Attainment

Note: Rail System Includes Trackage Rights and Haulage

FIGURE 2-23.1

DAMES & MOORE
A DAMES & MOORE GROUP COMPANY



Burns & McDonnell

Figure 2-23.2
NS RAIL LINE SEGMENTS, RAIL YARDS AND INTERMODAL AND TCS FACILITIES REQUIRING ENVIRONMENTAL ANALYSIS IN VIRGINIA

23.0 WEST VIRGINIA

23.0 WEST VIRGINIA
RAIL LINE SEGMENTS, RAIL YARDS AND INTERMODAL FACILITY IMPACTS

This section provides an analysis of the potential environmental impacts in West Virginia resulting from increases in activity on rail line segments, at rail yards and at intermodal facilities related to the proposed Acquisition. Consistent with the Surface Transportation Board's (STB) environmental rules at 49 CFR Part 11 05.7(e), the analysis specifically considered impacts to: (1) air quality, (2) noise, (3) local and regional transportation systems and (4) safety. This analysis indicates that the proposed Acquisition would have relatively minor environmental impacts in West Virginia. Before assessing the environmental impacts, a brief description of the key elements of the Acquisition as it relates to West Virginia immediately follows.

The service and efficiency benefits that will be produced by consolidation of the eastern rail network into two comparably sized, financially strong systems will benefit West Virginia. CSX and NS will open new markets for West Virginia rail shippers.

West Virginia will be served by CSX service routes between the East and Midwest. Following the Acquisition, West Virginia will be served by four of the CSX service routes including the Central Service Route, linking the Southeast with Detroit and Chicago via Charleston and Huntington, and the Memphis Gateway Service Route, linking Memphis with New England via Martinsburg.

NS will serve West Virginia via its existing east-west main line through Kenova, plus two Conrail lines, one out of Columbus, OH to Charleston with connections south at Deepwater, and the Monongahela Railway via Pittsburgh, PA. Coal traffic from Conrail mines in the Charleston area destined to points generally north and east of Harrisburg. PA will see a reduction in circuity averaging 143 miles due to rerouting over a shorter combination of the Conrail line to Deepwater

thence NS via Elmore to Hagerstown, MD, and beyond. To handle increased tonnage attributable to coal reroutes NS proposes a $6.9 million investment to improve rail and tie conditions at Deepwater Bridge/Elmore, WV.

CSX and NS will share certain facilities now operated by Conrail. The Monongahela Railway (MGA) will be owned and operated by NS with CSX having equal access to all current and future facilities on the line. The MGA serves coal producers in Monongahela and Marion counties. West Virginia coal producers will benefit from dual CSX and NS access to the port at Ashtabula, OH, for trans-shipments to the Great Lakes. New markets will open for MGA and West Virginia coal to the export docks at Newport News, VA, and Norfolk, VA, and Baltimore, MD.

No abandonments are anticipated in West Virginia by CSX or NS.

23.1 AIR QUALITY IMPACTS

Of the 53 counties in West Virginia, eight of the counties have nonattainment areas and/or maintenance areas for air quality. The nonattainment areas are near Weirton. These areas are nonattainment for PM-10 (particulate matter less than 10 microns) and SO_2 (sulfur dioxide).

One county in maintenance areas and six of the counties in attainment areas have CSX and NS rail line segments that would experience increases in traffic or activity that would meet STB thresholds (See Table 1-1). These are listed below and shown in Figures 2-24.1 and 2-24.2. Line segments with Amtrak or commuter trains operating on them are in bold.

CSX Rail Line Segments

Rail Line Segment				County	Air Quality Status	Trains per Day		Increase in GTM (%)
From		To				Pre-Acquisition	Post-Acquisition	
WD Tower	WV	Rivesville	WV	Marion	A	1.5	3.4	108
Pt of Rocks	**MD**	**Harpers Ferry**	**WV**	**Berkeley** **Jefferson**	**A** **A**	**47.7**	**56.0**	**30**

- A=Attainment

NS Rail Line Segments

Rail Line Segment		County	Air Quality Status	Trains per Day		Increase in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	
Elmore, WV	Deepwater, WV	Fayette Kanawha Raleigh Wyoming	A M A A	0.3	2.3	> 1,000 *
Fola Mine, WV	Deepwater, WV	Fayette	A	0.6	2.0	319
Harrisburg, PA	Riverton Jct., VA	Jefferson	A	11.1	19.6	82

- M = Maintenance, A = Attainment, N = Nonattainment.
- GTM = Gross Ton Miles
- * Since there is little to no pre-Acquisition traffic the percent increase is not meaningful.

The increases in air emissions resulting from the increases in traffic are estimated in the Impact Analysis by County section. Even though air emissions would be increased in the immediate vicinity of these rail facilities, other rail facilities in West Virginia (and in other states served by CSX and NS) would experience decreases in traffic or activity, with consequent decreases in localized air emissions. These decreases would be a result of rerouting freight on the expanded CSX and NS systems to shorter, more direct routes.

In addition, the diversion of freight from trucks-to-rail would result in reduced air emissions in the vicinity of major highways. Moreover, because trains emit a lower level of air polutants per unit of freight moved than trucks, the diversion of freight from trucks to rail would also result in reduced air emissions systemwide.

23.1.1 Impact Analysis by County

This section analyzes the impacts to air quality in each county where a rail line segment, rail yard or intermodal facility meets the STB thresholds for analysis of air emissions. If a rail line segment crosses the county boundary, only the emissions from that portion of the segment within the county are estimated. Counties that are maintenance or have maintenance areas are discussed first, followed by counties that are attainment or were deemed attainment areas.

23.1.1.1 Maintenance Areas

In West Virginia, one county classified as a maintenance area has a rail line segment that would experience increases in traffic that would meet STB thresholds.

23.1.1.1.1 *Kanawha County, WV*

Kanawha County is classified as a maintenance area (moderate) for ozone. Increases in emissions have been estimated for each of the rail facilities in Kanawha County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

NS Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	Change	
Elmore, WV	Deepwater, WV	60	3.34	0.3	2.3	2.0	> 1,000 *

- GTM = Gross Ton Miles
- * Since there is little to no pre-Acquisition traffic the percent increase is not meaningful.

Estimated Increases in Emissions
for the Portion of NS Rail Line Segment in Kanawha County

Rail Line Segment		Estimated Increase in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Elmore, WV	Deepwater, WV	7.35	0.82	0.27	0.48	0.19	0.000016

• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead

Discussion of Impacts in Kanawha County

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail segment activity in Kanawha County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

23.1.1.2 Attainment Areas

In West Virginia, six counties classified as attainment areas have rail line segments that would experience increases in traffic or activity that would meet STB thresholds.

23.1.1.2.1 *Berkeley County, WV*

Berkeley County is classified as attainment. Increases in emissions have been estimated for each of the rail facilities in Berkeley County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

CSX Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Pt of Rocks, MD	Harpers Ferry, WV	38	0.9	47.7	56.0	8.3	30
• GTM = Gross Ton Miles							

Estimated Increases in Emissions for the Portion of CSX Rail Line Segment in Berkeley County

Rail Line Segment		Estimated Increase in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Pt of Rocks, MD	Harpers Ferry, WV	5.8	0.6	0.2	0.4	0.1	0.000012
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Berkeley County

The increased rail activities in Berkeley County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

23.1.1.2.2 *Fayette County, WV*

Fayette County is classified as attainment. Increases in emissions have been estimated for each of the rail facilities in Fayette County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

NS Rail Line Segments

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Elmore, WV	Deepwater, WV	60	28.30	0.3	2.3	2.0	> 1,000 *
Fola Mine, WV	Deepwater, WV	17	17	0.6	2.0	1.4	319

- GTM = Gross Ton Miles
- * Since there is little to no pre-Acquisition traffic the percent increase is not meaningful.

Estimated Increases in Emissions for the Portion of NS Rail Line Segments in Fayette County

Rail Line Segment		Estimated Increase in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Elmore, WV	Deepwater, WV	67.48	7.49	2.50	4.37	1.70	0.00014
Fola Mine, WV	Deepwater, WV	27.45	3.05	1.02	1.78	0.69	0.000058
	Total	94.93	10.54	3.52	6.15	2.39	.000198

- NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead

Discussion of Impacts in Fayette County

The increased rail activities in Fayette County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

23.1.1.2.3 *Jefferson County, WV*

Jefferson County is an attainment area. Increases in emissions have been estimated for each of the rail facilities in Jefferson County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

CSX Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Pt of Rocks, MD	Harpers Ferry, WV	38	12.7	47.7	56.0	8.3	30
• GTM = Gross Ton Miles							

Estimated Increases in Emissions for the Portion of CSX Rail Line Segment in Jefferson County

Rail Line Segment		Estimated Increase in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Pt of Rocks, MD	Harpers Ferry, WV	86.7	9.6	3.2	5.6	2.2	0.00018
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

NS Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Harrisburg, PA	Riverton Jct., VA	133.00	18.16	11.1	19.6	8.5	82
• GTM = Gross Ton Miles							

Estimated Increases in Emissions
for the Portion of NS Rail Line Segment in Jefferson County

Rail Line Segment		Estimated Increase in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Harrisburg, PA	Riverton Jct., VA	111.34	12.36	4.13	7.21	2.81	0.00024
• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead							

Discussion of Impacts in Jefferson County

The increased rail activities in Jefferson County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

23.1.1.2.4 *Marion County*

Marion County is classified as attainment. Increases in emissions have been estimated for each of the rail facilities in Marion County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

CSX Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	Change	
WD Tower, WV	Rivesville, WV	4	4	1.5	3.4	1.9	108
• GTM = Gross Ton Miles							

Estimated Increases in Emissions
for the Portion of CSX Rail Line Segment in Marion County

Rail Line Segment		Estimated Increase in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
WD Tower, WV	Rivesville, WV	6.0	0.7	0.2	0.4	0.2	0.000013

• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM-10 = particulate matter less than 10 microns in diameter, Pb = lead

Discussion of Impacts in Marion County

The increased rail activities in Marion County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

23.1.1.2.5 ***Raleigh County, WV***

Raleigh County is classified as attainment. Increases in emissions have been estimated for each of the rail facilities in Raleigh County that would experience an increase in traffic or activity that meet STB thresholds, as presented below:

NS Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-	Change	
Elmore, WV	Deepwater, WV	60	20.40	0.3	2.3	2.0	> 1,000 *

• GTM = Gross Ton Miles
• * Since there is little to no pre-Acquisition traffic the percent increase is not meaningful.

Estimated Increases in Emissions
for the Portion of NS Rail Line Segment in Raleigh County

Rail Line Segment		Estimated Increase in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Elmore, WV	Deepwater, WV	44.91	4.99	1.66	2.91	1.13	0.000095

• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead

Discussion of Impacts in Raleigh County

The increased rail activities in Raleigh County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

23.1.1.2.6 *Wyoming County*

Wyoming County is an attainment area. Increases in emissions have been estimated for each of the rail facilities in Wyoming County that would experience an increase in traffic or activity that meets STB thresholds, as presented below:

NS Rail Line Segment

Rail Line Segment		Total Length (miles)	Length within County (miles)	Trains per Day			Change in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	Change	
Elmore, WV	Deepwater, WV	60	7.96	0.3	2.3	2.0	> 1,000 *

• GTM = Gross Ton Miles
• * Since there is little to no pre-Acquisition traffic the percent increase is not meaningful.

Estimated Increases in Emissions
for the Portion of the NS Rail Line Segment in Wyoming County

Rail Line Segment		Estimated Increase in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Elmore, WV	Deepwater, WV	17.52	1.95	0.65	1.14	0.44	0.000037

• Nox = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead

Discussion of Impacts in Wyoming County

The increased rail activities in Wyoming County would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions and traffic decreases on certain rail lines. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

23.2 NOISE IMPACTS

The CSX and NS rail line segments that would experience increases in traffic or activity meeting the STB thresholds for noise analysis (see Table 1-2) are listed below. Analyses were performed to identify where the noise level would increase by 2 dBA or greater and be above 65 dBA. In areas that would experience such an increase, noise-sensitive receptors within the pre-Acquisition and post-Acquisition 65 dBA Ldn contour were counted. The number of noise-sensitive receptors (residences, schools, churches, hospitals) is provided. If a rail line segment crosses state boundaries, that portion of the segment in the state is analyzed under the same segment name in the noise section of that state.

CSX Rail Line Segments

Segment		Trains Per Day			Change in dBA	Distance to Ldn Contour	
From	To	Pre-Acquisition	Post-Acquisition	Difference		Line Segment	Grade Crossing
Pt of Rocks, MD	Harpers Ferry, WV	47.7*	56.0	8.3	1.0	--	--
WD Tower, WV	Rivesville, WV	1.5	3.4	1.9	3.5	70	200
*Includes 14.4 passenger trains per day, -- = Not applicable							

Pt of Rocks, MD to Harpers Ferry, WV

This rail segment, which currently has a volume of 47.7 trains per day, would experience an increase of 8.3 trains per day as a result of the proposed Acquisition. The projected increase in train volume on this segment would cause less than a 2 dBA increase in the Ldn. No adverse noise impacts are expected.

WD Tower, WV to Rivesville, WV

This rail line starts in Fairmont and follows the Monongahela River northeast ending in the town of Rivesville. This line segment currently carries an average of 1.5 trains per day. The line would experience an increase of 1.9 trains per day and an increase of 108 percent in gross ton-miles per year as a result of the proposed Acquisition. This change in gross ton-miles per year exceeds the STB's threshold for noise analysis. Most of the noise impacts would occur at or near grade crossings where train horns would be sounded as a warning. Near grade crossings the current 65 dBA Ldn contour of 100 feet would extend to approximately 200 feet.

Fairmont

The line segment passes through the town of Fetterman. This is a residential town with some industrial and commercial buildings. There are no grade crossings in this town since there are overpasses for all street crossings.

Rivesville

Still following the Monongahela River, the tracks enter the town of Rivesville. This is a small, residential town with one grade crossing.

Number of Sensitive Receptors: WD Tower, WV to Rivesville, WV CSX Line Segment

Pre-Acquisition				Post-Acquisition			
Resid.	School	Church	Hospital	Resid.	School	Church	Hospital
8	0	0	0	13	0	0	0

NS Line Segments

Segment		Trains Per Day			Change in dBA	Distance to Ldn Contour	
From	To	Pre-Acquisition	Post-Acquisition	Difference		Line Segment	Grade Crossing
Elmore, WV	Deepwater, WV	0.3	2.3	2.0	6.5-8.4	50	150
Fola Mine, WV	Deepwater, WV	0.6	2.0	1.4	4.2-5.1	50	100
Harrisburg, PA	Riverton Jct., VA	11.1	19.6	8.5	2.4	150	450

Elmore, WV to Deepwater, WV

This rail segment currently has 0.29 trains per day. This segment would experience an increase of 2.01 trains per day and an increase of greater than 1000 percent in gross ton-miles per year as a result of the proposed Acquisition. The change in train volume would result in an Ldn increase of 6.5-8.4 dBA, exceeding the impact criterion. Most impacts would occur at or near grade crossings where train horns would be sounded as a warning; 102 grade crossings are on this segment. The current 65 dBA Ldn contour of 50 feet (50 feet at grade crossings) would extend to approximately 100 feet (150 feet at grade crossings) perpendicular to the tracks. Noise impacts for sensitive receptors along this segment are described below:

Elmore

This is an extremely small community of a few residences on both sides of the south to north-trending track.

Mullens

The track trends southwest to northeast along the southeast edge of this small community. Residences, businesses, schools and churches are located in the community.

Nuriva

The track trends southwest to northeast through the center of this small community. Residences, businesses, churches are located in the community.

Otsego

The track trends southeast to northwest along the south edge of this small community. Residences, businesses, and industries are located in the community.

Pierpont

This is an extremely small community where the track trends south to north along the south edge. Residences, businesses, industries, schools and churches are located in the community.

Maben

This is an extremely small community where the track trends south to north along the west edge of the community. Residences and industries are located in the community.

Hotchkiss

This is an extremely small community; the track trends west to east along the south edge of this community. Residences, businesses, industries, schools and churches are located in the community.

Slab Fork

The track trends south to north along the east edge of this extremely small community. Residences, businesses, industries, schools and churches are located in the community.

Lester

The track trends south to north through the center of this small community. Residences, businesses, schools and churches are located in the community.

Hoohoo

The track trends south to north east of this extremely small community. Only residences are located in the community.

Tolleys

The track trends south to north along the north edge of this extremely small community. Residences and churches are located in the community.

Surveyor

The track trends south to northeast east of this small community. Residences and schools are located in the community.

Eccles

The track trends south to north along the west edge of this small community. Residences, businesses, schools and churches are located in the community.

Harper

Through the center of this extremely small community, the track trends south to north. Residences, businesses and churches are located in the community

Maynor

The track trends south to north along the east edge of this extremely small community. Residences and churches are located in the community.

Cirtsville

The track trends south to north through the center of this extremely small community. Only residences are located in the community.

Willis Branch

The track trends south to north through the center of this extremely small community. Residences and churches are located in the community.

Pax

The track trends south to north through the center of this extremely small community. Residences, businesses, schools and churches are located in the community.

Lively

The track trends southeast to northwest along the southeast edge of this small community. Only residences are located in the community.

Dothan

The track trends southeast to northwest through the center of this small community. Residences and churches are located in the community.

Oak Hill Junction

The track trends southeast to north through the center of this extremely small community. Only residences are located in the community.

Wriston

The track trends southeast to northwest along the east edge of this extremely small community. Only residences are located in the community.

Hamilton

The track trends southwest to northeast along the south edge of this extremely small community. Only residences are located in the community.

Kincaid

The track trends south to north through the center of this small community. Only residences are located in the community.

Page

The track trends south to north through the center of this small community. Residences, businesses, schools and churches are located in the community.

North Page

The track trends south to north along the east edge of this extremely small community. Residences and churches are located in the community.

Deepwater

The track trends south to north through the center of this extremely small community. Only residences are located in the community.

Number of Sensitive Receptors
Elmore, WV to Deepwater, WV NS Line Segment

Pre-Acquisition				Post-Acquisition			
Residences	Schools	Churches	Hospitals	Residences	Schools	Churches	Hospitals
0	0	0	0	486	0	12	0

Fola Mine, WV to Deepwater, WV

This rail segment currently has 0.58 trains per day. This segment would experience an increase of 1.42 trains per day and an increase of 319.36 percent in gross ton-miles per year as a result of the proposed Acquisition. The change in train volume would result in an Ldn increase of 4.2-5.1 dBA, exceeding the impact criterion. Most impacts would occur at or near grade crossings where train horns would be sounded as a warning; 12 grade crossings are on this segment. The current 65 dBA Ldn contour of 50 feet (50 feet at grade crossings) would extend to approximately 100 feet (100 feet at grade crossings) perpendicular to the tracks. Noise impacts for sensitive receptors along this segment are described below:

Vaughan

This is an extremely small community with only a few residences around the north to south-trending track.

Belva

This is a small community with only a few residences and businesses around the northeast to southwest-trending track.

Alta

This is an extremely small community with only a few residences west of the northwest to southeast-trending track.

Gamoca

This is an extremely small community with only a few residences east of the northwest to southeast-trending track.

Brownsville

This is an extremely small community with only a few residences west of the northwest to southeast-trending track.

Gauley Bridge

This is an extremely small community with only a few residences west of the north to south-trending track.

Glen Ferris

This is an extremely small community with only a few residences west of the north to south-trending track.

Charlton Heights

This is an extremely small community with only a few residences north of the east to west-trending track.

Falls View

This is an extremely small community with only a few residences surrounding the east to west-trending track.

Alloy

This is an extremely small community with only a few residences north of the southeast to northwest-trending track.

Number of Sensitive Receptors
Fola Mine, WV to Deepwater, WV NS Line Segment

Pre-Acquisition				Post-Acquisition			
Residences	**Schools**	**Churches**	**Hospitals**	**Residences**	**Schools**	**Churches**	**Hospitals**
0	0	0	0	247	0	2	0

Harrisburg, PA to Riverton Jct., VA

This segment currently has 11.06 trains per day and would experience an increase of 8.56 trains per day and an increase of 82.40 percent in gross ton-miles per year as a result of the proposed Acquisition. The change in train volume would result in an Ldn increase of 2.4 dBA, exceeding the STB threshold for noise analysis. The majority of impacts would occur at or near grade crossings where train horns would be sounded as a warning; 126 grade crossings are on this segment. The current 65 dBA Ldn contour of 100 feet (150 feet at grade crossings) would extend to approximately 300 feet (450 feet at grade crossings) perpendicular to the tracks. Noise impacts for sensitive receptors along this segment are described below:

Sheperdstown

The rail line trends northeast to southwest near the center of this small town. There are residences, businesses, industry, schools and churches located in the community. The rail line traverses through a national historical park north of Sheperdstown.

Shenandoah Junction

The rail line trends north and south along the edge of this small town. Residences and churches are located in the community.

Number of Sensitive Receptors
Harrisburg, PA to Riverton Jct., VA Segment

Pre-Acquisition				Post-Acquisition			
Residences	**Schools**	**Churches**	**Hospitals**	**Residences**	**Schools**	**Churches**	**Hospitals**
601	3	7	0	987	4	9	0
• only represents noise-sensitive receptors in West Virginia							

23.3 TRANSPORTATION

There are no intermodal facilities in West Virginia that would experience an increase of 50 trucks or more per day or an increase in 10 percent of the ADT on local roads.

23.4 SAFETY

Impacts on safety may occur as a result of increased traffic on rail line segments. Safety impacts are primarily related to changes in vehicle delays at grade crossings, the potential for train-vehicle accidents at grade crossings, and hazardous materials transportation. Other safety impacts include potential train accidents and hazardous materials incidents (releases of hazardous materials).

No significant adverse safety impacts would result from the proposed Acquisition. Overall, a net safety benefit is expected due to truck-to-rail diversions. A detailed discussion of the safety issues and methodology is provided as discussed in Section 1.2.4 of Part 2 and in Appendix F of Part 1 of this ER.

23.4.1 Grade Crossing Safety

The grade crossings with an ADT of 5,000 or greater along analyzed lines are listed below. The estimated change in frequency of accidents for a specific crossing can be determined by identifying the number of trains per day pre- and post-Acquisition on the specified line segment (Section 23.1), identifying the ADT of the road crossed by the line segment listed below and, based on the identified information, finding the appropriate cells in Table 1-5 in Section 1.2.4.1.

NS Analyzed Grade Crossings with an ADT of 5,000 or greater

County	City	Rail Line Segment		Road Crossed	ADT	
		To	From		5,000 - 10,000	> 10,000
Fayette	Glenn Ferris	Deepwater, WV	Fola Mine, WV	US 60 & US 21	X	
Jefferson	Ranson	Riverton Jct., VA	Harrisburg, PA	Route 9	X	
Jefferson	Ranson	Riverton Jct., VA	Harrisburg, PA	Mildred Street	X	

Although the potential for accidents at grade crossings would increase for crossings with increased train traffic, the potential for accidents on interstate highways would decrease because the number of long-haul trucks would decrease. Systemwide, the Acquisition is expected to have a beneficial effect on safety.

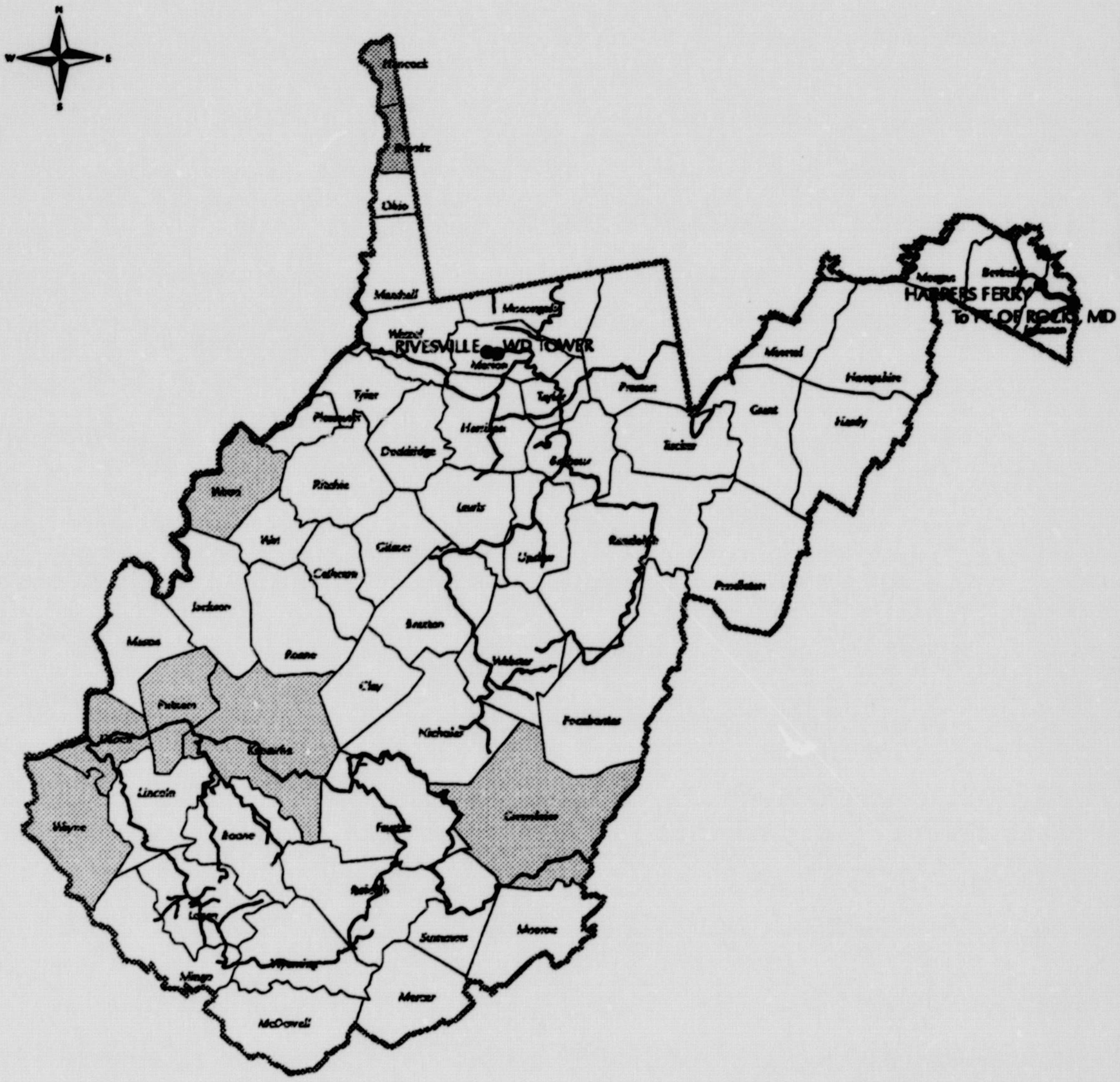
23.4.2 Hazardous Materials Transportation

The proposed Acquisition would not affect CSX's and NS's policies or operating procedures governing the transport of hazardous materials. Although the quantities of materials transported may increase, the Acquisition would not affect the type of materials handled or the methods used to ensure the safe movement of these shipments. Additional information on CSX's and NS's transportation of hazardous materials is provided in Section 1.2.4.3 of this Part.

23.4.3 Hazardous Waste Sites/Spill Sites on the Right-of-Way

Information on CSX and NS hazardous waste sites and spill sites is provided in Section 1.2.4.4 of this Part. A summary of CSX's, NS's and Conrail's hazardous material reportable incidents from 1991 through 1995 is provided in Appendix F of Part 1.

CSX RAIL LINE SEGMENTS, RAIL YARDS AND INTERMODAL FACILITIES REQUIRING ENVIRONMENTAL ANALYSIS IN WEST VIRGINIA



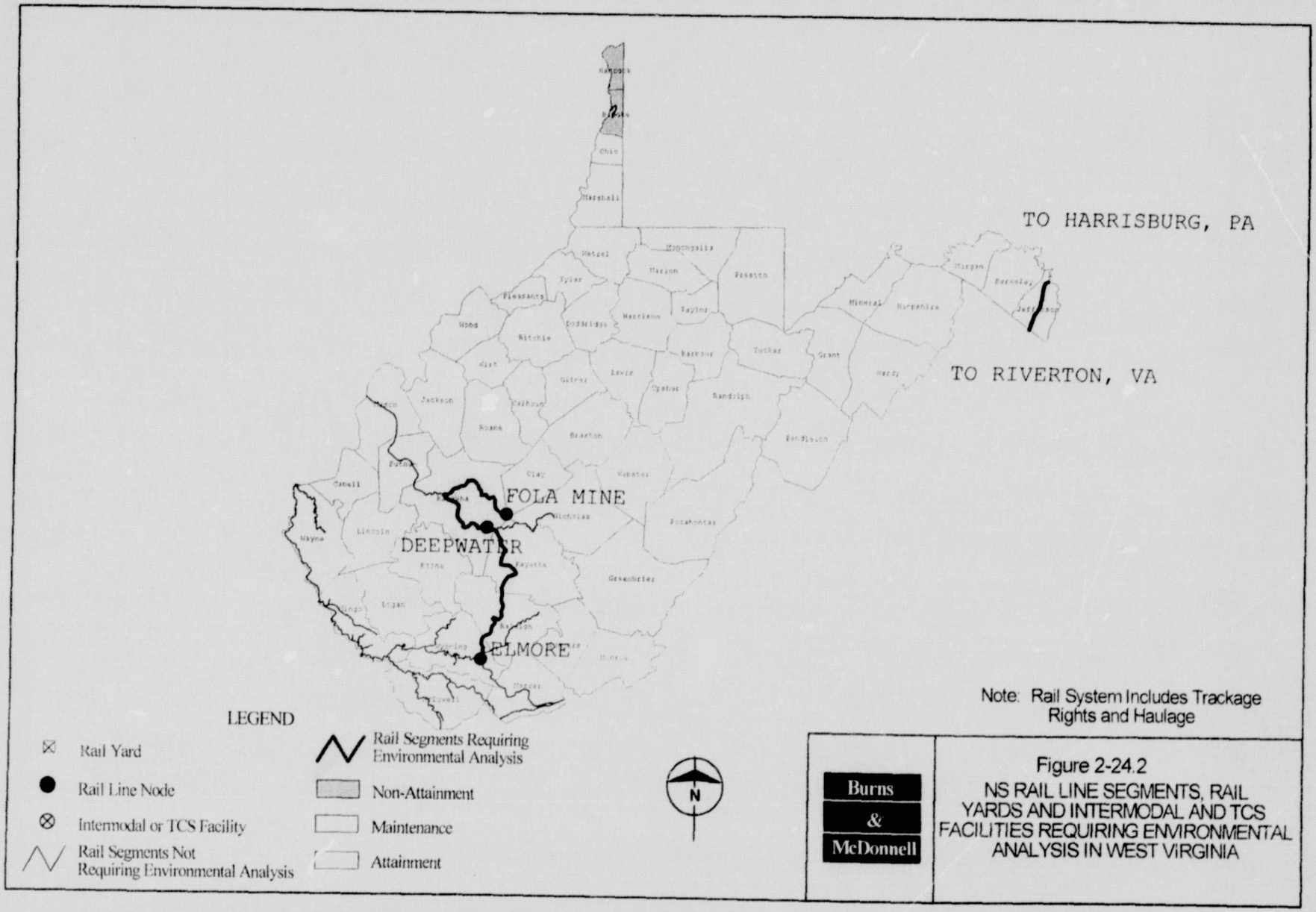
LEGEND

- Rail Line Segments Requiring Environmental Analysis
- Rail Line Segments Not Requiring Environmental Analysis
- Nodes
- Rail Yard
- Intermodal Facility
- Non-Attainment
- Maintenence
- Attainment

Note: Rail System Includes Trackage Rights and Haulage

FIGURE 2-24.1

DAMES & MOORE
A DAMES & MOORE GROUP COMPANY


TO HARRISBURG, PA
TO RIVERTON, VA
FOLA MINE
DEEPWATER
ELMORE
LEGEND
Rail Yard
Rail Line Node
Intermodal or TCS Facility
Rail Segments Not Requiring Environmental Analysis
Rail Segments Requiring Environmental Analysis
Non-Attainment
Maintenance
Attainment
N
Note: Rail System Includes Trackage Rights and Haulage
Burns & McDonnell
Figure 2-24.2
NS RAIL LINE SEGMENTS, RAIL YARDS AND INTERMODAL AND TCS FACILITIES REQUIRING ENVIRONMENTAL ANALYSIS IN WEST VIRGINIA

24.0 DISTRICT OF COLUMBIA

24.0 DISTRICT OF COLUMBIA
RAIL LINE SEGMENTS, RAIL YARDS AND INTERMODAL FACILITY IMPACTS

This section provides an analysis of the potential environmental impacts in the District of Columbia resulting from increases in activity on rail line segments, at rail yards and at intermodal facilities related to the proposed Acquisition. Consistent with the Surface Transportation Board's (STB) environmental rules at 49 CFR Part 1105.7(e), the analysis specifically considered impacts to: (1) air quality, (2) noise, (3) local and regional transportation systems and (4) safety. This analysis indicates that the proposed Acquisition would have environmental impacts in District of Columbia. Before assessing the environmental impacts, a brief description of the key elements of the Acquisition as it relates to the District of Columbia immediately follows.

Two-carrier competition between CSX and NS, long known for their vigorous competition throughout the Southeast and parts of the Midwest, will benefit the District of Colombia.

New truck-competitive rail service will help alleviate highway congestion in the D.C. area, and main line rail corridors will operate more efficiently. CSX and NS will become more competitive with motor carriers as a result of their expanded networks and enhanced abilities to offer attractive intermodal services to shippers of time-sensitive freight. Thus, relatively short and medium haul traffic lanes will experience an increase in intermodal market share, resulting in less traffic congestion and environmental benefits of improved air quality and safety. CSX will also open clearance at the Virginia Avenue Tunnel for multi-level rail car service on the Atlantic Coast Service Lane.

Neither the CSX nor the NS operating plans are expected to have an adverse impact upon passenger operations in the Washington area.

NS would have trackage rights on the CSX line from Alexandria, VA through Washington, D.C. via Anacostia to Landover, MD to connect with Amtrak's Northeast Corridor (NEC). CSX would be assigned Benning Yard in Washington, as well as the Pope's Creek Secondary.

NS would provide local freight service on Amtrak's NEC in Washington between Landover and Union Station. Both CSX and NS would have overhead trackage rights to operate trains on the NEC between New York and Washington D.C. NS would also have trackage rights on CSX between suburban Washington, D.C. and Philadelphia. Projected freight volumes and operations would not interfere with NEC passenger operations as freight trains are expected to operate over the NEC primarily at night. (See Part 1 for an in-depth discussion of passenger operations).

24.1 AIR QUALITY IMPACTS

The District of Columbia is classified as nonattainment (serious) for ozone. NS does not have any owned rail line segments, rail yards or intermodal facilities in the District of Columbia. NS would have trackage rights on CSX from Alexandria, VA through Washington D.C. via Anacostia to Landover, MD. There are no Shared Areas in the District of Columbia. The CSX rail line segments in the District of Columbia would experience increases in activity that meet STB thresholds (see Table 1-1). These are listed below and shown in Figure 2-25.1. Line segments with Amtrak or commuter trains operating on them are in bold.

CSX Rail Line Segments

Rail Line Segment		County	Air Quality Status	Trains per Day		Increase in GTM (%)
From	To			Pre-Acquisition	Post-Acquisition	
Fredericksburg, VA	**Potomac Yard, VA**	**Washington, D.C.**	**N**	**38.3**	**45.4**	**29**
Anacostia, DC	Virginia Ave, DC	Washington D.C.	N	19.3	28.6	12
Virginia Ave, DC	**Potomac Yard, DC**	**Washington D.C.**	**N**	**52.9**	**63.6**	**18**
Washington, DC	**Pt of Rocks, MD**	**Washington D.C.**	**N**	**38.2**	**45.2**	**48**
Alexandria Jct, MD	**Washington, DC**	**Washington D.C.**	**N**	**39.4**	**46.3**	**63**
Landover, MD	Anacostia, DC	Washington, D.C.	N	3.4	11.4	124

• N = Nonattainment

Estimated Increases in Emissions for the Portion of CSX Rail Line Segments in District of Columbia

Rail Line Segment		Estimated Increase in Emissions (tons per year)					
From	To	NOx	CO	VOC	SO_2	PM	Pb
Fredericksburg, VA	Potomac Yard, DC	4.0	0.4	0.1	0.3	0.1	0.0000085
Anacostia, DC	Virginia Ave., DC	4.8	0.5	0.2	0.3	0.1	0.000010
Virginia Ave., DC	Potomac Yard, DC	16.6	1.8	0.6	1.1	0.4	0.000035
Washington, DC	Pt of Rocks, MD	15.1	1.7	0.6	1.0	0.4	0.000032
Alexandria Jct, MD	Washington, DC	11.0	1.2	0.4	0.7	0.3	0.000023
Landover, MD	Anacostia, DC	8.4	0.9	0.3	0.5	0.2	0.000018
	Total	59.9	6.5	2.2	3.9	1.5	0.00013

• NOx = nitrogen oxides, CO = carbon monoxide, VOC = volatile organic compounds, SO_2 = sulfur dioxide, PM = particulate matter, Pb = lead

Discussion of Impacts in District of Columbia

Rail line segments are considered mobile (not stationary) sources under EPA's air pollution regulations. The increased rail segment activity in the District of Columbia would result in increased levels of all pollutants, with the greatest increase in NOx.

As stated previously, significant systemwide offsetting benefits to air quality would result from truck-to-rail diversions. Systemwide, the decrease in emissions from truck-to-rail diversions would outweigh the increased emissions from increased rail activity.

24.2 NOISE IMPACTS

The CSX rail line segments in the District of Columbia that would experience increases in traffic meeting the STB thresholds for noise analysis are listed below. Analyses were performed to identify where the noise level would increase by 2 dBA or greater and be above 65 dBA. In areas that would experience such an increase, noise-sensitive receptors within the pre-Acquisition and post-Acquisition 65 dBA Ldn contour were counted. The number of noise-sensitive

receptors (residences, schools, churches, hospitals) is provided. If a rail line segment crosses state boundaries, the portion of the segment in each state is analyzed under the same segment name in the noise section of that state.

CSX Rail Line Segments

Segment		Trains Per Day			Change in dBA	Distance to Ldn Contour	
From	To	Pre-Acquisition	Post-Acquisition	Difference		Line Segment	Grade Crossing
Landover, MD	Anacostia, DC	3.4	9.11	5.7	5.6	200	--
Anacostia, DC	Virginia Ave, DC	19.3	28.6	9.3	< 2 dBA	360	1000
Virginia Ave, DC	Potomac Yd, DC	52.9*	63.6*	10.7	2.0	560	1570
*Includes 31 passenger trains per day, -- = Not Applicable							

Landover, MD to Anacostia, DC

This line segment starts just to the north of Landover Road in Landover, MD and runs south to the small yard near the Anacostia River. Only the portion that is within the District of Columbia is discussed here. This line segment currently has 3.4 trains per day. As a result of the Acquisition, the segment would experience an increase of 5.7 trains per day. The change in train volume would result in Ldn increase of 5.3 dBA. There are no grade crossings along this segment. The Ldn 65 contour would increase from 100 feet to 200 feet along this segment.

The tracks pass through a largely residential area of the District of Columbia. There are a number of neighborhoods with very dense row houses, hence the high number of noise impacts for this section. There are also two churches and two schools near the tracks.

Number of Sensitive Receptors: Landover, MD to Anacostia, DC Line Segment

Pre-Acquisition				Post-Acquisition			
Resid.	School	Church	Hosp.	Resid.	School	Church	Hosp.
250	0	0	0	539	2	2	0

Anacostia, DC to Virginia Ave, DC

This line segment starts just to the south of the yard near the Anacostia River and runs southwest to the end of the tunnel near Virginia Avenue. This line segment currently has 19.3 trains per day. As a result of the Acquisition, the segment would experience an increase of 9.3 trains per day. The change in train volume would result in Ldn increase of 2.0 dBA. The 65 dBA Ldn contour would increase from 270 feet to 360 feet along this segment. Most of the segment on the west side of the river is in a tunnel. The remainder of the line segment passes through commercial areas. No adverse noise impacts are projected for this line segment.

Virginia Ave, DC to Potomac Yd, DC

This line segment starts at Virginia Avenue, runs northwest near the mall, and then southwest across the Potomac River to the Potomac Yard. This line segment currently has 17.9 freight and 31 passenger trains per day. As a result of the Acquisition, the segment would experience an increase of 10.7 freight trains per day. The change in train volume would result in Ldn increase of 2.4 dBA. There are no grade crossings along this segment. The Ldn 65 contour would increase from 480 feet to 560 feet along the track segment.

This line segment first passes through an area that contains a number of monuments and the Smithsonian Institution. After it crosses the Potomac River, there are only industrial buildings and the Washington National Airport. There are no sensitive receptors along this line segment. No adverse noise impacts are projected for this line segment.

24.3 TRANSPORTATION

There are no CSX or NS intermodal facilities in the District of Columbia.

24.4 SAFETY

Impacts on safety may occur as a result of increased traffic on rail line segments. Safety impacts are primarily related to changes in vehicle delays at grade crossings, the potential for train-vehicle accidents at grade crossings, and hazardous materials transportation. Other safety impacts include

train-train accidents, derailments and incidents (releases of hazardous materials).
No significant adverse safety impacts would result from the proposed Acquisition. Overall, a net safety benefit is expected due to truck-to-rail diversions. Safety issues and methodology are discussed in Section 1.2.4 of Part 2 and in Appendix D of Part 1 of this ER.

24.4.1 Grade Crossing Safety

The grade crossings in District of Columbia with an ADT of 5,000 or greater along analyzed lines are listed below. The estimated change in frequency of accidents for a specific crossing can be determined by identifying the number of trains per day pre- and post-Acquisition on the specified line segment (Section 24.1), identifying the ADT of the road crossed by the line segment listed below and, based on the identified information, finding the appropriate cells in Table 1-5 in Section 1.2.4.1.

CSX Analyzed Grade Crossings with an ADT of 5,000 or Greater

County	City	Rail Line Segment		Road Crossed	ADT	
		To	From		5,000-10,000	> 10,000
District of Columbia	Washington DC	Anacostia, DC	Landover, MD	V St NE	X	-

Although the potential for accidents at grade crossings would increase for crossings with increased train traffic, the potential for accidents on interstate highways would decrease because the number of long-haul trucks would decrease. Systemwide, the Acquisition is expected to have a beneficial effect on safety.

Information on vehicle delays is provided in Section 1.2.4.1.2.

24.4.2 Hazardous Materials Transportation

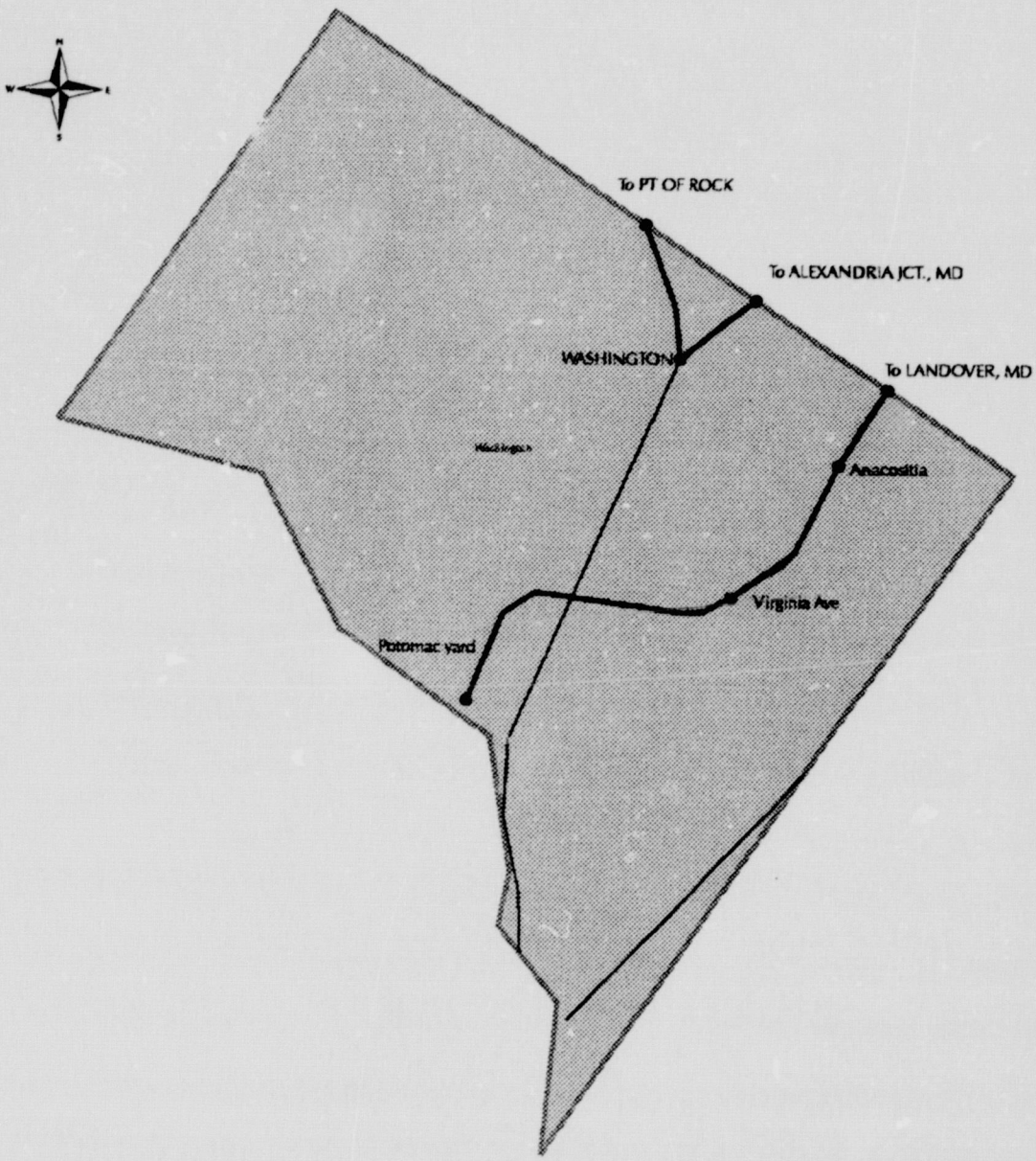
The proposed Acquisition would not affect CSX's and NS's policies or operating procedures governing the transport of hazardous materials. Although the quantities of materials transported

may increase, the Acquisition would not affect the type of materials handled or the methods used to ensure the safe movement of these shipments. Additional information on CSX's and NS's transportation of hazardous materials is provided in Section 1.2.4.3 of this Part.

24.4.3 Hazardous Waste Sites/Spill Sites on the Right-of-Way

Information on CSX and NS hazardous waste sites and spill sites is provided in Section 1.2.4.4 of this Part. A summary of CSX's, NS's and Conrail's hazardous materials reportable incidents from 1991 through 1995 is provided in Appendix F to Part 1.

CSX RAIL LINE SEGMENTS, RAIL YARDS AND INTERMODAL FACILITIES REQUIRING ENVIRONMENTAL ANALYSIS IN WASHINGTON D.C.



LEGEND

- Rail Line Segments Requiring Environmental Analysis
- Rail Line Segments Not Requiring Environmental Analysis
- Nodes
- Rail Yard
- Intermodal Facility
- Non-Attainment
- Maintenence
- Attainment

Note: Rail System Includes Trackage Rights and Haulage

FIGURE 2-25.1

DAMES & MOORE
A DAMES & MOORE GROUP COMPANY

180274 CSX/NS-23

BEFORE THE
SURFACE TRANSPORTATION BOARD

Finance Docket No. 33388

CSX CORPORATION AND CSX TRANSPORTATION, INC.,
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
— CONTROL AND OPERATING LEASES/AGREEMENTS —
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION

RAILROAD CONTROL APPLICATION

VOLUME 6C OF 8

ENVIRONMENTAL REPORT
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PART 4—PROPOSED CONSTRUCTION PROJECTS

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June 1997

ENVIRONMENTAL REPORT

CSX CORPORATION AND CSX TRANSPORTATION, INC.,
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
-CONTROL AND OPERATING LEASES/AGREEMENTS-
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION

PROPOSED ABANDONMENTS

PART 3 of 4

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CSX Corporation and CSX Transportation, Inc. (CSX), and Norfolk Southern Corporation and Norfolk Southern Railway Company (NS), are filing an application with the Surface Transportation Board (STB) seeking authority to control Conrail Inc. and Consolidated Rail Corporation and to allocate the assets of Conrail between them.

This Environmental Report describes the proposed action and expected environmental effects. This Environmental Report has been prepared by CSX and NS to assist the STB in its review of the potential environmental effects of the proposed action. The STB has announced its intention to prepare an Environmental Impact Statement on the proposed action. The STB will publish a notice in the Federal Register soliciting comments on the scope of the environmental review process.

We are providing this Environmental Report so that you may review the information that will form the basis for the STB's independent environmental analysis of this proceeding. If you believe that any of the information is misleading or incorrect or that any pertinent information is missing, or if you have any comments related to environmental matters, you may file comments with the STB. Anyone wishing to file comments on environmental matters should submit an original and ten (10) copies of the comments to:

Office of the Secretary
Case Control Unit
Finance Docket No. 33388
Surface Transportation Board
1925 K Street, N.W.
Washington, DC 20423-0001

Attention:
Elaine K. Kaiser
Chief, Section of Environmental Analysis
Environmental Filing

Questions and comments on environmental matters may also be directed to the STB's Section of Environmental Analysis at its toll-free number: **1-888-869-1997.**

Your comments will be considered by the STB in evaluating the environmental impacts of the proposed action.

GUIDE TO THE ENVIRONMENTAL REPORT
(published in three volumes):

The Environmental Report includes four parts:

Volume 6A

Part 1: Overview and Description of the Proposed Acquisition
This Part provides an overview of the proposed Acquisition, a summary of the potential environmental impacts and descriptions of analytical methodologies. A Glossary and List of Abbreviations and Acronyms are included in the front of Part 1.

Volume 6B

Part 2: Operational Impacts - Rail Line Segments, Rail Yards and Intermodal Facilities
This Part provides detailed analysis of the potential environmental impacts related to proposed changes in traffic and other Acquisition-related activities on specific rail line segments, at rail yards, and at intermodal/Triple Crown Services facilities.

Volume 6C

Part 3: Proposed Abandonments
This Part provides detailed analyses of each proposed abandonment, proposed mitigation of potential environmental impacts associated with the abandonments and descriptions of analytical methodologies.

Part 4: Proposed Construction Projects
This Part provides detailed analyses of each proposed construction project (connections and other projects requiring newly acquired rights-of-way or property), proposed mitigation of the potential environmental impacts related to each project and descriptions of analytical methodologies.

VOLUME 6C
MASTER TABLE OF CONTENTS

PART 3 PROPOSED ABANDONMENTS

PART 4 PROPOSED CONSTRUCTION PROJECTS

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PART 3 PROPOSED ABANDONMENTS

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LIST OF TABLES

LIST OF FIGURES

*Figures are included at the end of the applicable state section.

* * * * *

1.0 INTRODUCTION

1.0 INTRODUCTION

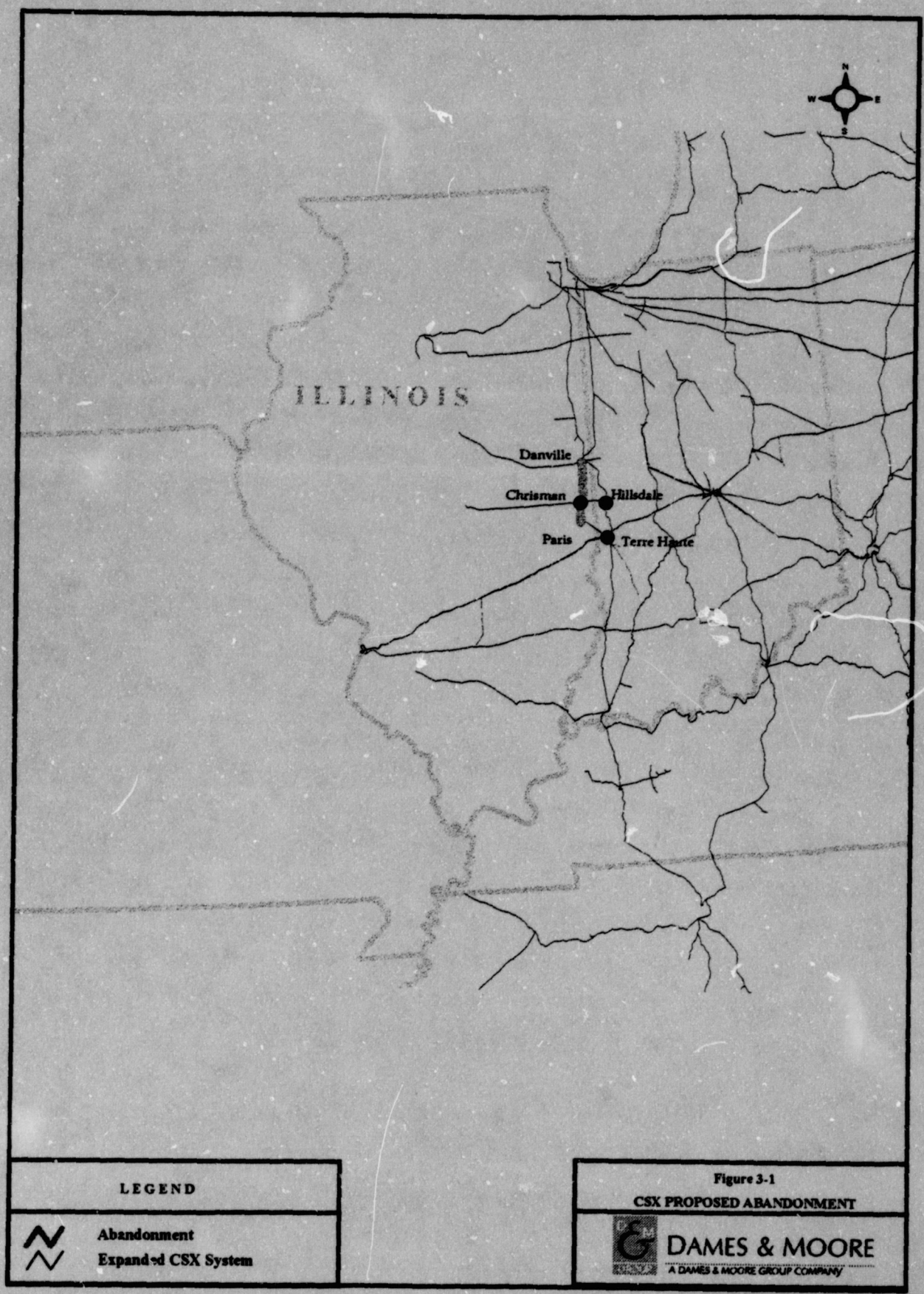
1.1 OVERVIEW

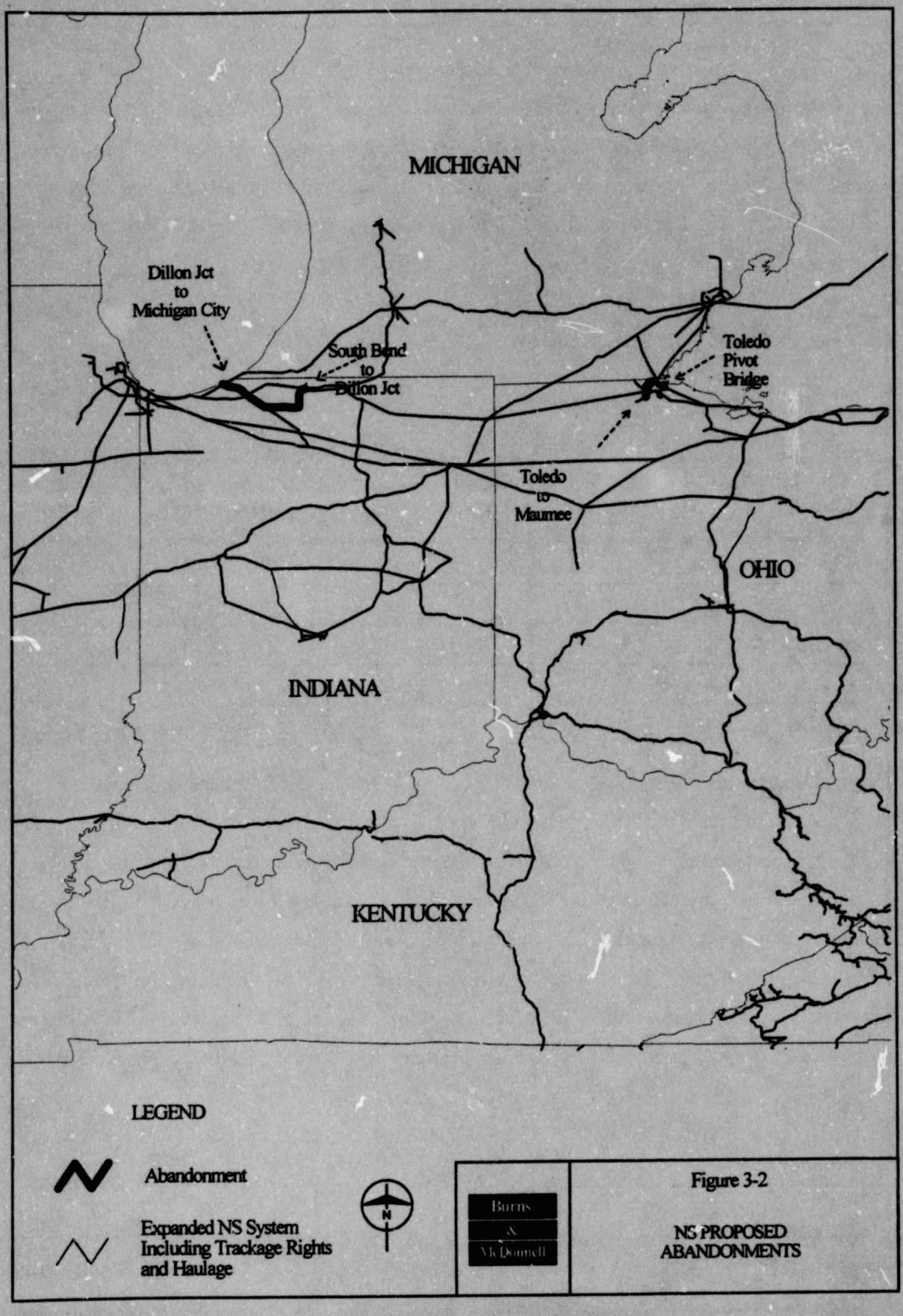
This Part 3 of the Environmental Report (ER) is prepared for the proposed Acquisition of Conrail, Inc. and Consolidated Rail Corporation (Conrail or CR) by CSX Corporation and CSX Transportation, Inc. (CSX) and Norfolk Southern Corporation and Norfolk Southern Railway Company (NS) and division of Conrail's assets. As used hereafter in this ER, the term "Acquisition" means the entirety of the transactions contemplated in this procedure. This Part contains an analysis of the potential environmental impacts associated with the five abandonment projects proposed by CSX and NS as a part of the Acquisition (Table 3-1). No abandonments are proposed for the Shared Assets Areas jointly served by CSX and NS.

Conrail assets are being acquired and divided between CSX and NS. There is very little redundancy between existing CSX lines and the Conrail lines that CSX would operate. Similarly, there is very little redundancy between existing NS lines and the Conrail lines that NS would operate. Thus, CSX and NS propose to abandon a combined total of only 79.7 miles of track.

CSX proposes abandoning one rail line in Illinois totaling approximately 29 miles (Figure 3-1). The proposed abandonment would be completed within three years after the Acquisition. Through traffic currently moving on this rail line (presently owned by Conrail) would be rerouted to a nearby CSX line. There are no local shippers on this line. Paris customers would be served from the remaining portion of the Danville Secondary to Terre Haute. CSX customers in Chrisman would continue to be served via the CSX line from Hillsdale. The Conrail line proposed to be abandoned would thus be redundant after the Acquisition. Operating and maintaining this rail line would not be economical or efficient.

NS proposes abandoning three rail lines and one rail bridge totaling approximately 50.7 miles located in Indiana and Ohio (Figure 3-2). The proposed abandonments would be completed within three years after the Acquisition. Through traffic currently moving on these rail lines


N
W
E
S
ILLINOIS
Danville
Chrisman
Hillsdale
Paris
Terre Haute
LEGEND
Abandonment
Expanded CSX System
Figure 3-1
CSX PROPOSED ABANDONMENT
DAMES & MOORE
A DAMES & MOORE GROUP COMPANY


MICHIGAN
Dillon Jct
to
Michigan City
South Bend
to
Dillon Jct
Toledo
Pivot
Bridge
Toledo
to
Maumee
OHIO
INDIANA
KENTUCKY
LEGEND
Abandonment
Expanded NS System
Including Trackage Rights
and Haulage
N
Burns
&
McDonnell
Figure 3-2
NS PROPOSED
ABANDONMENTS

would be rerouted to other more direct and efficient routes within the NS system. Four local shippers who collectively ship a total of 111 carloads per year would lose rail service as a result of two of these rail line abandonments and would be served by truck. Because other rail lines are generally available, rail-to-truck diversions would be minimal. Due to the rerouting of through and local rail traffic, operating and maintaining the rail lines proposed for abandonment would no longer be economical or efficient.

The rail lines proposed for abandonment are listed in Table 3-1.

Table 3-1
Rail Lines Proposed for Abandonment

Rail Line	Current Operator	Length (miles)	Milepost	Discussed in Section
Danville, IL to Paris, IL	Conrail	29.0	93.00 - 122.00	2.1
Dillon Junction, IN to Michigan City, IN	NS	21.5	I137.3 - I158.8	3.1
South Bend, IN to Dillon Junction, IN	NS	21.5	SK2.5 - SK24.0	3.2
Toledo, OH to Maumee, OH	NS	7.5	TM5.0 - TM12.5	4.1
Toledo Pivot Bridge, OH	NS	0.2	CS2.8 - CS3.0	4.2

The proposed process for removal of rail and related equipment and structures is discussed in Section 1.2 of this Part. Methodologies and potential impacts are discussed in Appendix A to Part 3. The environmental impact analyses of the proposed abandonments are described, by state, in Sections 2 through 4 of this Part. As explained in Sections 2 through 4, the abandonment of these rail lines would have minimal, if any, adverse environmental impacts. Indeed, the abandonments likely would have environmental benefits, including elimination of air emissions, noise, grade crossing traffic delays, potential grade crossing incidents and possible conversion of abandoned lines for recreational use under the "Rails to Trails" program.

1.2 ABANDONMENT PROCESS

CSX and NS use similar processes when abandoning rail lines. The process described below applies to both CSX and NS.

It is the separate, general policy of both CSX and NS to endeavor to convey ownership and liability of rail rights-of-way and associated structures, such as bridges, to other parties interested in utilizing or maintaining the right-of-way to be abandoned. If there is no suitable, interested party, the right-of-way is abandoned.

As part of the abandonment process, CSX and NS would remove rail, ties, appurtenances (signals, switches, phone boxes, other buildings), road crossings and, in some instances, bridges. Removal of abandoned rail lines would result in minimal surface disturbance. Nearly all abandonment activities would be completed within the railroad right-of-way. Exceptions to this would be primarily where some bridge removal might require surface disturbance outside the right-of-way. It should be noted that the original rail line construction involved the removal of topsoil, some subsoil grading and the addition of fill and ballast. Salvage of abandoned lines would thus have little, if any, effect on the existing condition of the natural environment.

Rail would be picked up by equipment operating over the rail line or by rubber-tired equipment driving on or along the roadbed. The equipment would pick up the rails behind it and place the rail onto a rubber-tired truck driven alongside the tracks or onto a rail car moving in front of the equipment. Rail would be salvaged for reuse or sold for scrap.

After the rail is removed, rubber-tired equipment (most likely a boom truck) would be used to remove and transport the ties. These vehicles would drive on the roadbed or existing roads adjacent to the roadbed. The ties would be salvaged for other uses or disposed of according to applicable local, state and federal requirements.

In most situations, the ballast would be left in place. In areas where the ballast is removed for salvage, dump trucks and front-end loaders would operate on the roadbed or on existing roads adjacent to the roadbed.

Where bridges (wooden and steel) would be removed, the rail and decking on the bridge would be removed first. These removal operations would be conducted from the roadbed. Next, the main support structure of the bridge would be removed. Removal operations would be conducted from the roadbed and/or adjacent areas, including stream banks. Finally, the bridge pilings would either be taken out completely or cut down to two feet below stream bed level. Nearly all bridge removal work would be completed from the bridge decking, roadbed or adjacent areas outside of the stream bed. Wherever possible, work in the stream bed would be avoided. Bridges with longer spans that have pilings in the waterway might require work in the stream bed but that work would be minimized by restricting equipment to the greatest extent possible. An alternative to complete removal of large steel bridges would be to remove the decking only, leaving the remainder of the bridge in place. Such action could occur if ownership of the bridge were conveyed for a non-rail use.

Appurtenances, such as signals and phone boxes, would be removed to their foundations. Water conveyance structures, including tubes and culvert, would be left in place. Similarly, no tunnels would be removed. Some smaller structures, such as rockslide detectors, may be left in place. Removal of appurtenances would be accomplished primarily with rubber-tired vehicles on the roadbed or occasionally from an adjacent road.

Road crossings would be removed last. The rails would be removed and the area backfilled with aggregate. That portion of the hard road surface then would be repaved. Removal of individual grade crossings would last from one to two days depending on the size of the crossing, resulting in temporary road closure or a reduction in the number of traffic lanes.

Following these removal operations, the right-of-way would be converted to open land, development compatible with adjacent property, public utility or transportation rights-of-way, or recreational purposes, such as the "Rails-to-Trails" program.

Under the "Rails-to-Trails" program, the railroad right-of-way would be converted to recreational use but would remain available for potential future transportation uses. Bridges on lines converted to trails would not be removed. The right-of-way, including bridges, would be maintained by the trail owner.

1.3 POTENTIAL IMPACTS AND METHODOLOGIES

The following topics were analyzed for each proposed abandonment:

- Land use
- Water resources
- Biological resources
- Air quality
- Noise
- Historic and cultural resources
- Transportation and safety
- Energy

The methodology for evaluation of the potential impacts of each of these topics is included in Appendix A to Part 3. Overall, abandoning rail lines would result in beneficial environmental effects for the segments involved as discussed in Section 1.1 above. Air quality and noise impacts from train operations and maintenance would be eliminated.

2.0 ILLINOIS

2.0 ILLINOIS

One rail line abandonment project is proposed in Illinois by CSX. This section analyzes the potential environmental impacts associated with the proposed abandonment project. A detailed description of the proposed abandonment, including alternative actions considered, the existing environment, the potential environmental impacts and proposed mitigation is provided below. The rail line segment proposed for abandonment is listed in the table below.

Location	Length (miles)	Description
Paris to Danville	29	Abandonment of existing Conrail rail line that serves the Paris and Danville areas with approximately one train per day.

2.1 PARIS TO DANVILLE (CONRAIL DANVILLE SECONDARY)

CSX and Conrail propose to abandon the segment of Conrail's Danville Secondary Track between Paris, IL in Edgar County (mile post 93.00) and Westville, IL (a small town south of Danville, IL) in Vermilion County (mile post 122.00). See Figure 2-1. The line would be acquired by CSX in the transaction sought to be approved in Finance Docket No. 33388. Currently, Conrail operates approximately one overhead train per day over the Danville Secondary from Danville to Terre Haute, IN, including the segment proposed to be abandoned. CSX's main line from Danville to Evansville, IN, also runs from Danville to Terre Haute, to the east of the Conrail line.

CSX would not need both the Danville Secondary Track and its main line from Chicago to Evansville for overhead traffic. The CSX track is superior to the Conrail track, and would carry the overhead traffic now moving over the Conrail track. There are no customers on the line sought to be abandoned. Danville customers would continue to be served via the CSX line.

Paris customers would continue to be served via a local train from the remaining portion of the Danville Secondary from Terra Haute.

2.1.1 Proposed Action and No-Action Alternative

2.1.1.1 Proposed Action

The proposed action would involve the abandonment of 29 miles of existing Conrail rail line between Paris and Danville.

The proposed action would include removal of railroad associated equipment along the right-of-way. Such equipment includes rails, ties, appurtenances (i.e. communications, signals) and grade crossings. Abandonment operations would generally be limited to the existing right-of-way. The right-of-way would then be available for conversion to alternative uses such as recreational trails, public utility rights-of-way, local transportation corridors, conversion to adjacent land uses, or a combination of the above. Abandonment procedures are discussed in more detail in Section 1.2.

2.1.1.2 No-Action Alternative

There is no reasonable alternative to the proposed abandonment. Two separate rail lines between Danville and Terre Haute are not needed in the expanded CSX system. The CSX main line from Chicago to Evansville, IN is the superior track and would carry all the overhead traffic between Danville and Terre Haute. Moreover, there is no need to maintain the 29-mile segment of the Danville Secondary for local traffic, as Danville can be served from the CSX main line and Paris can be served from the remaining portion of the Conrail Danville Secondary from Terre Haute. Maintaining the line sought to be abandoned would be an unnecessary expense, and would not benefit the environment.

2.1.2 Description of Existing Environment

2.1.2.1 Land Use

The following description of land use is based upon available data listed in Section 2.1.6 and a site visit conducted by Dames & Moore on January 17, 1997. The 29 miles of rail line proposed for abandonment are located in rural areas of Edgar and Vermilion Counties. Land use within the right-of-way is limited to rail activities. Land cover includes primarily grasses, shrubs, weeds and trees. Land use along the 29-mile rail line between Paris and Danville is predominantly rural, undeveloped and agricultural. Farmland, pasture and wooded fence rows occur adjacent to the rail line. Scattered residential and light industrial properties are located along the rail line. Two cemeteries lie adjacent to the right-of-way. The topography of the region is nearly flat, with low rises between valleys; it ranges in elevation from approximately 650 to 700 feet above mean sea level.

The rail line begins just north of the western branch of Twin Lakes in Paris, Edgar County, and proceeds northward through the small towns of Harris, Wetzel, Horace and Edgar, crossing Willow Creek, Indian Creek, and South Fork Brouilletts Creek. The land use along this stretch is limited to sparse residential areas and grain elevators near the towns, with undeveloped agricultural land between the towns.

North of Edgar, the rail line crosses Brouilletts Creek, and passes through Chrisman, before continuing north through more agricultural land. Residential and commercial land uses are located along the rail line in Chrisman. North of Chrisman, the rail line closely parallels State Highway 150 for approximately two miles. Land use remains agricultural, with some residential areas, and much vacant land adjacent to the rail line.

After crossing northward into Vermilion County, the rail line passes through Ridge Farm, where adjacent land development includes a cemetery, residences, and businesses. Further to the north in Vermilion Grove, the rail line is adjacent to a second cemetery.

Approximately 1½ miles north of Vermilion Grove, the rail line crosses the Little Vermilion River, near the town of Olivet. Residences were noted in this area, and the areas adjacent to and north of the river are wooded. Within Georgetown, located north of the Little Vermilion River, land use includes residences, a church, businesses, a grain elevator, and a school. Further to the north, and extending along the remaining length of the rail line are agricultural or vacant lands, mining and a lagoon to the west of the rail line, and residential areas and a water tower within the Town of Westville.

The Soil Surveys of Edgar and Vermilion Counties, OH, prepared by the U.S. Department of Agriculture's Soil Conservation Service, were reviewed to determine if soil series designated as prime farmland occur adjacent to the rail line proposed for abandonment. The information revealed that nearly the entire length of the rail line is located on or adjacent to soil series that are designated as prime farmland, or prime farmland where drained.

The soil series occurring along the rail line in Vermilion County that are prime farmland soils include Catlin silt loam, Dana silt loam, Elburn silt loam, Flanagan silt loam, Ipava silt loam, Proctor silt loam, Raub silt loam and Xenia silt loam. The soil series occurring along the rail line that are prime farmland, where drained, include Drummer silty clay loam, Sable silty clay loam, Peotone silty clay loam, and Sabina silt loam. Ambraw loam, found in the bottom of some drainage courses, is considered a prime farmland soil, if it is drained, and is either protected from flooding, or not frequently flooded during the growing season.

Draft soil series maps obtained from Edgar County indicate that the soil series present along the rail line in Edgar County that are prime farmland soils include Berton silt loam, Dana silt loam, Elburn silt loam, Flanagan silt loam, Parr silt loam, Proctor silt loam, Wingate silt loam, and Xenia silt loam. Soils indicated as prime farmland where drained include Drummer silty clay loam, Fincastle silt loam, and Toronto silt loam. Larson silt, which is present locally along some streams, such as Brouilletts Creek and Crabapple Creek, is also considered a prime farmland soil where drained and protected from frequent flooding.

A review of floodplain maps for Edgar and Vermilion Counties show that the proposed abandonment section crosses the 100-year floodplain in four areas. In Edgar County, the crossings of South Fork Brouilletts Creek, Brouilletts Creek, and an unnamed tributary to Crabapple Creek (just north of Chrisman) are within the 100-year floodplain. In Vermilion County, the rail line crosses the 100-year floodplain only at the Little Vermilion River.

There are no federally recognized Indian tribes or reservations along the proposed rail line abandonment (Corbine, 1997).

2.1.2.2 Water Resources and Wetlands

A total of 22 bridges or culverts were observed along the rail line during a site visit conducted by Dames & Moore on January 17, 1997. The proposed abandonment segment intercepts 15 perennial or intermittent watercourses as mapped by the USGS, including Willow Creek, Indian Creek, South Fork Brouilletts Creek, Brouilletts Creek, Crabapple Creek and Little Vermilion River. The segment is located adjacent to six water bodies as mapped by the USGS. For the purpose of this study, a water body is defined as a permanent or intermittent body of standing water, including ponds, lakes, reservoirs, bayous, catchments, and beaver ponds.

According to the USFWS National Wetland Inventory (NWI) maps, more than 24 wetlands (palustrine forested and palustrine emergent) are intercepted by or located adjacent to (within 500 feet) the proposed abandonment segment (Figure 2.1).

The segment is not located in a Coastal Zone Management Area.

2.1.2.3 Biological Resources

Vegetation

The vegetation along the proposed abandonment right-of-way is primarily ruderal weeds, grasses, shrubs, and trees. Land adjacent to this segment contains deciduous and mixed-deciduous forest, shrub brush, small scattered wetlands, croplands and pastures.

Wildlife

The right-of-way provides some limited habitat suitable for a variety of terrestrial wildlife species. The adjacent forest and fields provide cover for small mammals such as mice, moles, squirrels, rabbits and reptiles, along with their winged predators. Various birds forage in these areas, including common songbirds and game species. Adjacent forests and fields provide food and shelter for larger species such as deer, wild turkey, racoons, opossums, coyotes and other predatory animals. Wetlands provide habitat for amphibians, semiaquatic reptiles, and waterfowl.

Threatened and Endangered Species

According to information received from the U.S. Fish and Wildlife Service in May 1997, no federally listed threatened or endangered species are known to inhabit Edgar or Vermilion Counties.

According to information received from the Illinois Endangered Species Protection Board in May 1997, two state endangered or threatened species, the spike mussel (*Elliptio dilatata*) and the eastern massasauga snake (*Sistrurus catenatus*) are known to inhabit Edgar County, IL. The spike mussel inhabits small to large streams and lakes in mud or gravel substrates. The eastern massasauga's habitat includes wet prairies, bogs, swamps, and rarely, dry woodlands.

The Endangered Species Protection Board also identified six state endangered or threatened species known to inhabit Vermilion County: large-seeded mercury (Acalypha deamii), swamp

metalmark butterfly (Calephelis muticum), Kirtland's snake (Clonophis kirtlandi), the spike mussel (Elliptio dilatata), four-toed salamander (Hemidactylium scutatum), and river chub (Nocomis micropogon). Wooded river bottoms are the large-seeded mercury's habitat. The swamp metalmark is found in wet meadows, marshes and bogs. Habitat for Kirtland's snake includes wet meadows, open-swamp forests, reservoirs and occasionally wet, vacant urban areas. The spike mussel's habitat is as discussed above for Edgar County. Four-toed salamander's are found in boggy woodland ponds and sphagnum areas adjacent to woodlands, and springfed headwaters of small woodland streams. The river chub's habitat includes rocky runs and flowing pools in small to medium size rivers.

Sanctuaries, Refuges, Forests and Parks

No wildlife sanctuaries, refuges, or national, or state forest/parks are located within 500 feet of the proposed project. One local park, Oubache Park, is located adjacent to the right-of-way approximately 1 mile north of Olivet. It contains recreational facilities.

2.1.2.4 Air Quality

The proposed abandonment is in Edgar and Vermilion counties. Both counties are currently categorized as being in attainment with the National Ambient Air Quality Standards (NAAQS) for all pollutants. Existing sources of air emissions include primarily vehicles and farm machinery.

2.1.2.5 Noise

Trains, automobiles, trucks and farm equipment are the primary sources of noise in the area proposed for abandonment. Sensitive receptors within 500 feet of the rail line include residences in the communities of Harris, Wetzel, Horace, Edgar, Ridge Farm, Chrisman, Vermilion Grove and Westville.

2.1.2.6 Historic and Cultural Resources

The Paris to Danville line was constructed around 1855 as part of the Cleveland, Cincinnati, Chicago & St. Louis Railway Company. The line became part of the New York Central Railroad Company sometime after 1952 and then of the Penn Central Transportation Company in 1968. The line became part of Conrail in 1976.

Using age (50 years and older) as a criterion, 18 structures (all bridges) were identified as being potentially historic. Based solely on age, these structures may be potentially eligible for the National Register of Historic Places (NRHP). However, Conrail currently has no other evidence that any such structures meet the significance criteria for listing on the National Register Criteria (36 CFR 60).

Table 2-1 below lists the eighteen potentially historic structures identified along the proposed abandonment.

Table 2-1
Structures on Danville Secondary Line

Mile Post	Length (feet)	Year Built	Structure Type & Additional Information
99.77	32	1905	Bridge, concrete box construction
99.21	20	1906	Bridge, concrete box construction
99.83	30	1906	Bridge, concrete arch construction
102.89	66	1906	Bridge, deck girder construction, with open undergrade deck
103.52	39	1938	Bridge, I-beam construction, with overhead concrete deck
104.51	6	1901	Bridge, cast iron pipe construction
104.87	25	1905	Bridge, concrete arch construction

Mile Post	Length (feet)	Year Built	Structure Type & Additional Information
106.72	16	1905	Bridge, concrete box construction
107.73	8	1918	Bridge, concrete box construction
109.02	52	1913	Bridge, deck girder construction, with open undergrade deck
109.51	41	1913	Bridge, deck girder construction, with open undergrade deck
112.08	5	1906	Bridge, cast iron pipe construction
112.92	27	1905	Bridge, concrete box construction
113.76	6	1905	Bridge, cast iron pipe construction
114.59	237	1903	Bridge, deck girder construction, with open undergrade deck (bridge partially removed)
114.84	6	1906	Bridge, concrete box construction
115.76	25	1906	Bridge, concrete arch construction
116.77	6	1906	Bridge, cast iron pipe construction

The State Historic Preservation Office (SHPO) cultural resources inventory indicate that there are at least six archeological sites in the general vicinity of the rail line, including both prehistoric and historic period sites. The nearest is site V-263, an undated prehistoric site located 3,000 feet west of the rail line near the Town of Midway. Several archeological surveys have been conducted in the immediate vicinity of the rail line with negative results. In general, the SHPO inventory indicates a relatively low potential for archeological resources of any period in immediate vicinity of the line. CSX will continue the Section 106 consultation process.

2.1.2.7 Transportation and Safety

There are 33 public and 23 private at-grade crossings along the Paris to Danville rail segment. Most of the grade crossings are rural roads that carry relatively small motor vehicle traffic volumes. Average Daily Traffic (ADT) counts from the Federal Railroad Authority (FRA) database for the at-grade crossings were reviewed. The only three at-grade crossings with ADT counts over 1,000 are located in Vermilion County and are as follows:

- College Avenue in Olivet averaged 4,000 vehicles per day
- County Road 650N in Georgetown averaged 1,250 vehicles per day
- Main Street in Westville averaged 2,200 vehicles per day

The Environmental Data Resources, Inc. (EDR) database report did not identify any hazardous waste sites within 500 feet of the proposed abandonment corridor. The database search revealed 15 unmappable sites within the city limits of Catlin, Chrisman, Danville, Georgetown, Lake Carroll, Paris, and Westville. The 15 sites include two RCRIS-TSD sites, three CERCLIS sites, nine LUST sites, and one SWF/LF site. These sites could not be located because of poor address or geocoding information provided to the state and/or federal databases.

2.1.3 Potential Environmental Impacts of Proposed Action

2.1.3.1 Land Use

The proposed abandonment would change the land use of the estimated 230 acres within the right-of-way. Following track removal and salvage activities, the right-of-way would be available for conversion to alternate uses such as recreational trails, public utility rights-of-way, local transportation corridors, conversion to adjacent land uses, or a combination of the above.

The abandoned right-of-way is expected to be compatible with adjacent land uses. The abandonment would not affect any prime farmland. The right-of-way may be suitable for

alternate public use under 49 U.S.C. § 10905, but it may be subject to reversionary interests that would affect its use if it is no longer used for rail purposes.

2.1.3.2 Water Resources

Because salvage operations associated with abandonments usually result in little disturbance to lands within or adjacent to the right-of-way, significant impacts to water resources and wetlands are not expected.

2.1.3.3 Biological Resources

Significant impacts to biological resources are not expected to result from the proposed abandonment.

Vegetation

Existing vegetation in the rail line right-of-way would be temporarily disturbed by the removal activities. However, depending on the use of the right-of-way after abandonment, opportunistic plant species could quickly revegetate the disturbed area.

Wildlife

Wildlife along the rail line would be temporarily disturbed by removal activities. However, once the abandonment is complete, depending on the use of the right-of-way after abandonment, the right-of-way area could revert to a more natural environment.

Threatened and Endangered Species

The abandonment would have no effect on federally threatened or endangered species as none are known to exist in the area.

The Illinois Endangered Species Protection Board has indicated that state-listed threatened and

endangered species could potentially occur in the area of the proposed abandonment. The abandonment would likely benefit suitable habitat for threatened and endangered species within and along the right-of-way. Habitat along the rail line would be temporarily disturbed by removal activities. However, once the abandonment is complete, the area would revert to a more natural environment.

Sanctuaries, Refuges, Forests, and Parks

Oubache Park in Olivet would benefit from the elimination of periodic train noise.

2.1.3.4 Air Quality

The operation of heavy equipment would be the primary source of pollutant emissions during removal activities. Particulate matter, volatile organic compounds (VOCs), carbon monoxide (CO) and nitrogen oxide (NO_x) result from combustion of diesel fuel. Fugitive dust emissions result from the operation of heavy equipment. The combustion emissions associated with removal operations (VOCs, CO, and NO_x) generally would be minor and of short duration and would have insignificant impacts on air quality. Fugitive dust can be controlled by using water sprays or other suitable dust suppressants.

Post-abandonment pollutant emissions along the right-of-way would be eliminated due to the cessation of rail traffic and rail line maintenance activities.

2.1.3.5 Noise

Abandonment operations would require the use of trucks and heavy equipment and would cause temporary increases in noise levels. Noise from removal operations would be short-term. Since train operations and rail line maintenance would no longer occur, noise from those activities would be eliminated. Therefore, the proposed abandonment would benefit sensitive noise receptors (residences) in the vicinity of this rail line.

2.1.3.6 Historic and Cultural Resources

Dames & Moore has initiated consultation with the Illinois SHPO and will continue the consultation process required by the National Historic Preservation Act. The SHPO will be provided good quality photographs of the railroad structures identified. Mitigation measures may be needed if sites that will be affected by the abandonment are evaluated and found to be significant. Although it is unlikely that abandonment activities would impact known or unreported archeological sites, Dames & Moore will also continue consultation related to archeological resources.

2.1.3.7 Transportation and Safety

The abandonment of the Paris to Danville rail segment would eliminate the need for 33 public and 23 private at-grade crossings. The removal of at-grade crossings would eliminate traffic delays and the potential for collisions with trains at these crossings.

Temporary disruption of local traffic patterns and increased wear and tear on the roads may occur during abandonment activities. These impacts are expected to be temporary and are not likely to affect the viability or life of the roads.

The EDR database search indicated no hazardous waste sites within 500 feet of the proposed abandonment. No other sites of environmental concern were identified within the vicinity of the proposed construction site based on the site visit. If hazardous wastes are encountered during the proposed abandonment activities, CSX will contact the appropriate state agencies to address issues related to the site.

Fuels and oil necessary for abandonment activities would be present in only small quantities. In the unlikely event of a spill, appropriate emergency response procedures would be used to promptly address any spill. Accordingly, the proposed abandonement is not anticipated to

increase the probability or consequences of hazardous waste contamination.

2.1.3.8 Energy

The STB requires an evaluation of the impacts of a rail abandonment on energy consumption if the abandonment would result in a diversion of more than 1,000 rail cars per year to truck transportation or diversion of more than 50 rail cars per mile per year over any line segment. Impacts to energy consumption relate to the reduced efficiency of transporting materials by truck as compared to rail. The Paris to Danville abandonment will only impact overhead traffic all of which will be rerouted over other CSX lines. Therefore, there will be no diversion of traffic from rail to truck and no adverse impact to energy consumption.

2.1.4 Proposed Mitigation

Even without the mitigation measures identified below, the proposed abandonment would result in minimal impact to land use, water resources, biological resources, air quality, noise, cultural resources, and transportation and safety. With these mitigation measures, any minor adverse impacts would be further minimized.

2.1.4.1 Land Use

CSX will restore any adjacent properties that are disturbed during abandonment activities to their prior conditions.

2.1.4.2 Water Resources

CSX will use Best Management Practices to control erosion, runoff and surface instability during abandonment. After the abandonment is completed, in the case of highway bridges, CSX will reseed the right-of-way sloped areas to provide permanent cover and prevent potential erosion. CSX will disturb the smallest area possible around streams and tributaries and will revegetate disturbed areas immediately following removal operations. CSX will clear debris from all culverts to avoid potential flooding and stream flow alteration, in accordance with federal, state and local regulations. CSX will obtain all necessary federal, state and local permits if activities require the alteration of or work in wetlands, ponds, lakes, streams, or rivers; or if activities would cause soil or other materials to wash into these water resources.

2.1.4.3 Biological Resources

CSX will use Best Management Practices to control erosion, runoff and surface instability during abandonment. After the abandonment is completed, CSX will reseed the right-of-way sloped areas to provide permanent cover and prevent potential erosion.

2.1.4.4 Air Quality

CSX will comply with all applicable federal, state and local regulations regarding the control of fugitive dust. Fugitive dusts generated during removal operations will be minimized by using such control methods as water spraying.

2.1.4.5 Noise

CSX will control temporary noise from abandonment equipment by ensuring all machinery has properly functioning muffler systems and by work hour controls.

2.1.4.6 Historic and Cultural Resources

CSX will continue the Section 106 consultation process. In the event that potentially significant resources are discovered during the course of the project, CSX will cease work in the area and immediately coordinate with the Illinois State Historic Preservation Office (SHPO).

2.1.4.7 Transportation and Safety

CSX will use appropriate signs and barricades to control traffic disruptions during abandonment activities near grade crossings. All roads disturbed will be restored to the conditions required by state or local regulations. CSX will observe all applicable federal, state, or local regulations regarding handling and disposal of any waste materials encountered or generated during the proposed project. In the case of a spill, appropriate emergency response procedures and remediation measures will be implemented. All hazardous materials will be transported in compliance with the U.S. Department of Transportation Hazardous Materials Regulations (49 CFR Parts 171-174 and 177-179).

2.1.5 References

Land Use

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USDI, 1988. Fish and Wildlife Service, National Wetlands Inventory Map, Paris North, Illinois.

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USGS, 1966. Topographic Quadrangle, Georgetown, Illinois. Revised 1977.

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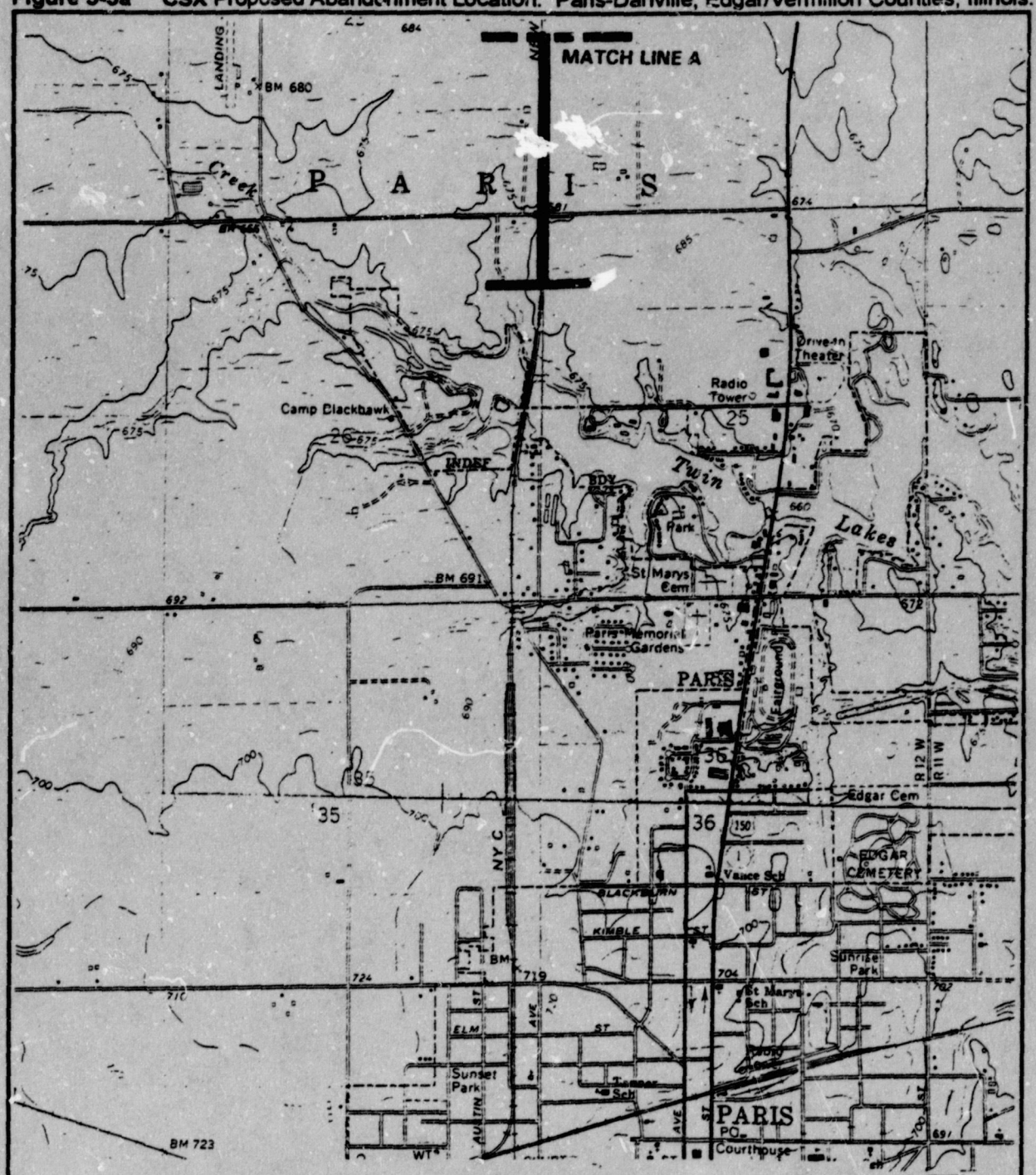
FIGURES

Figure 3-3a CSX Proposed Abandonment Location: Paris-Danville, Edgar/Vermilion Counties, Illinois.



THERE ARE NO KNOWN HISTORIC SITES IMPACTED BY THE PROPOSED CONSTRUCTION.

SITE IS NOT IN A DESIGNATED FLOOD ZONE.
NO WETLANDS ARE LOCATED WITHIN 500 FEET OF THE PROPOSED PROJECT.

DAMES & MOORE
A DAMES & MOORE GROUP COMPANY

SCALE 1:24,000

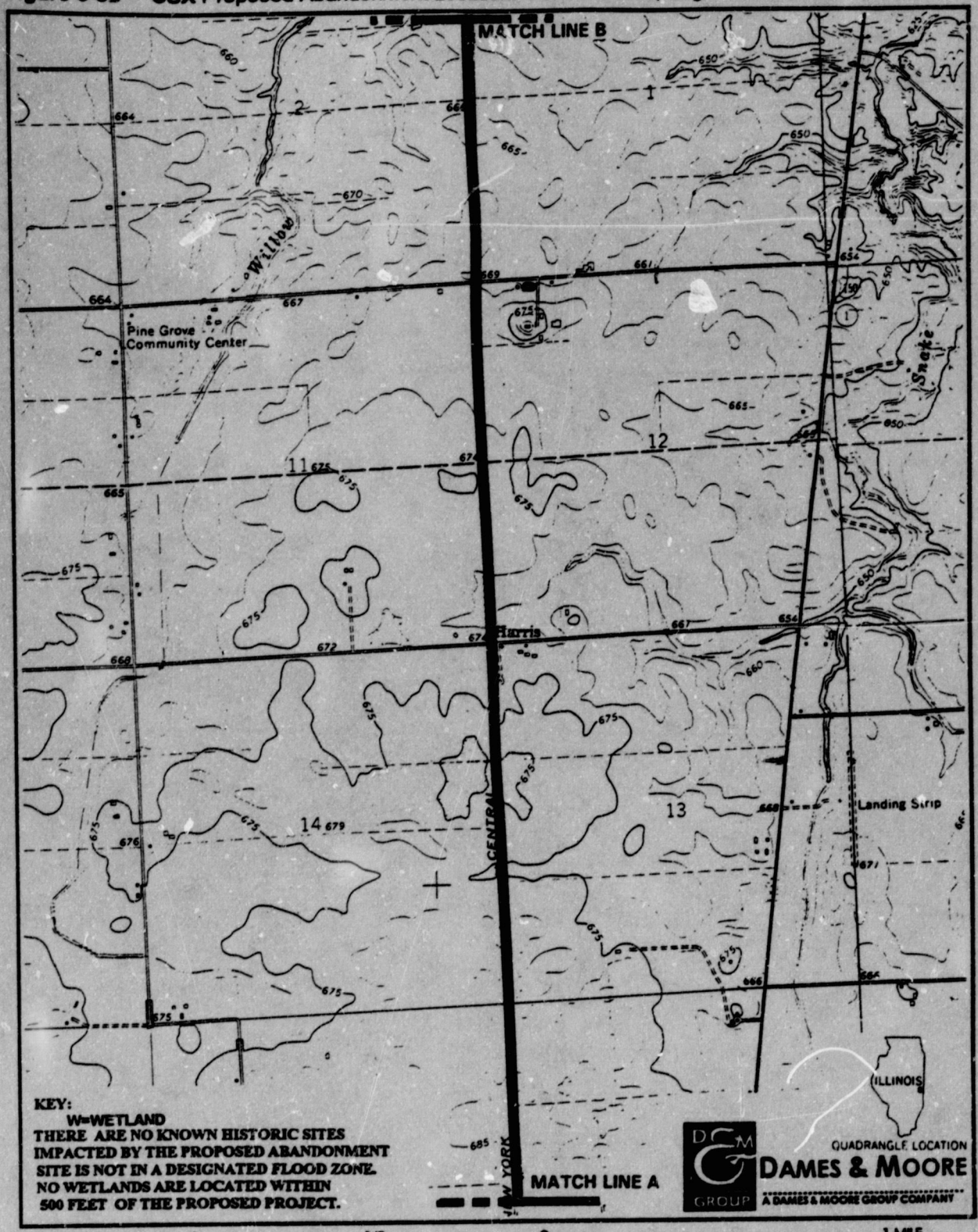
0 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

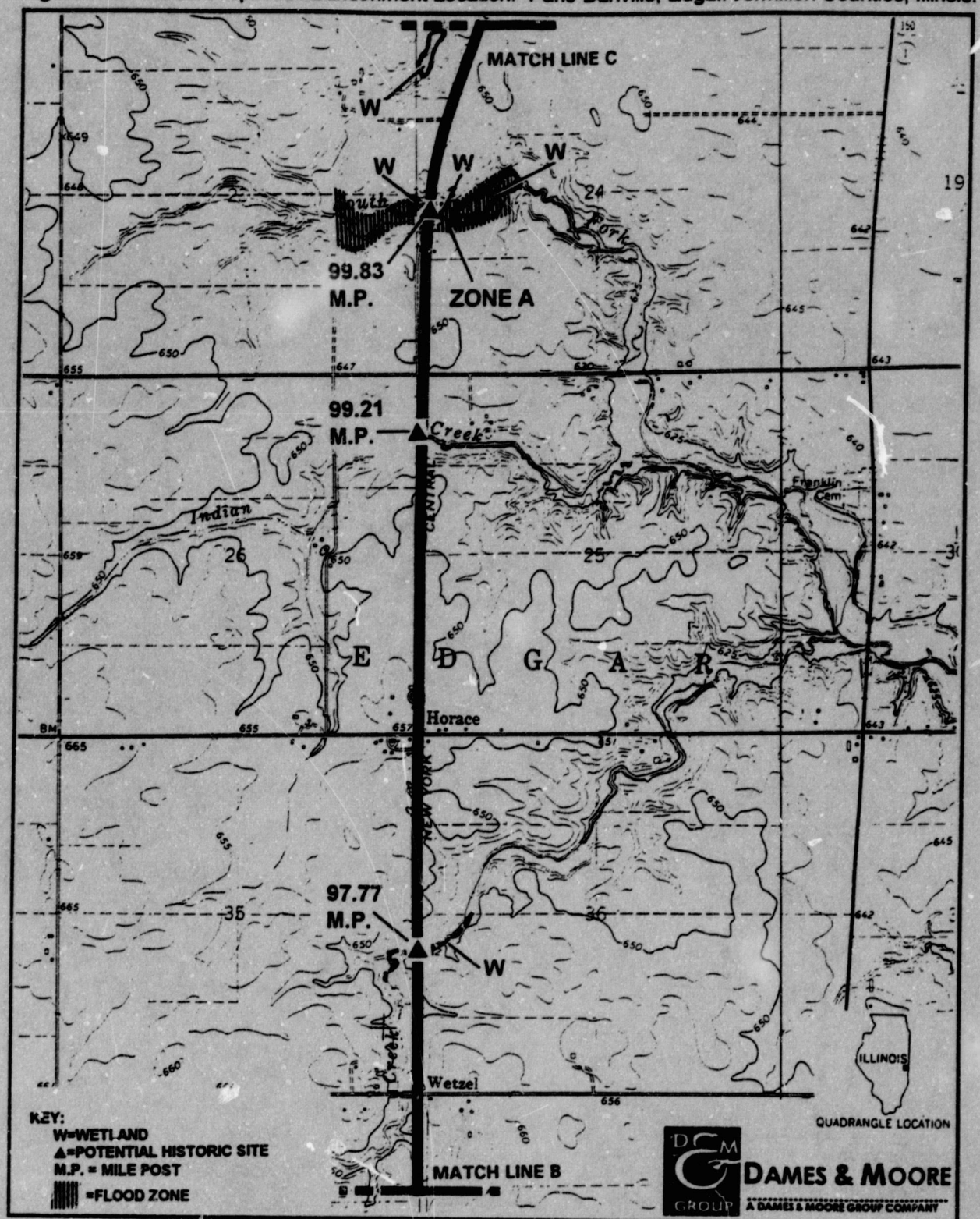
Base Map: *USGS 7.5' Topographic Quadrangles: Paris North, Illinois 1966 (Photorevised 1979); Paris South, Illinois 1966 (Photorevised 1977)*

Figure 3-3b CSX Proposed Abandonment Location: Paris-Danville, Edgar/Vermilion Counties, Illinois.



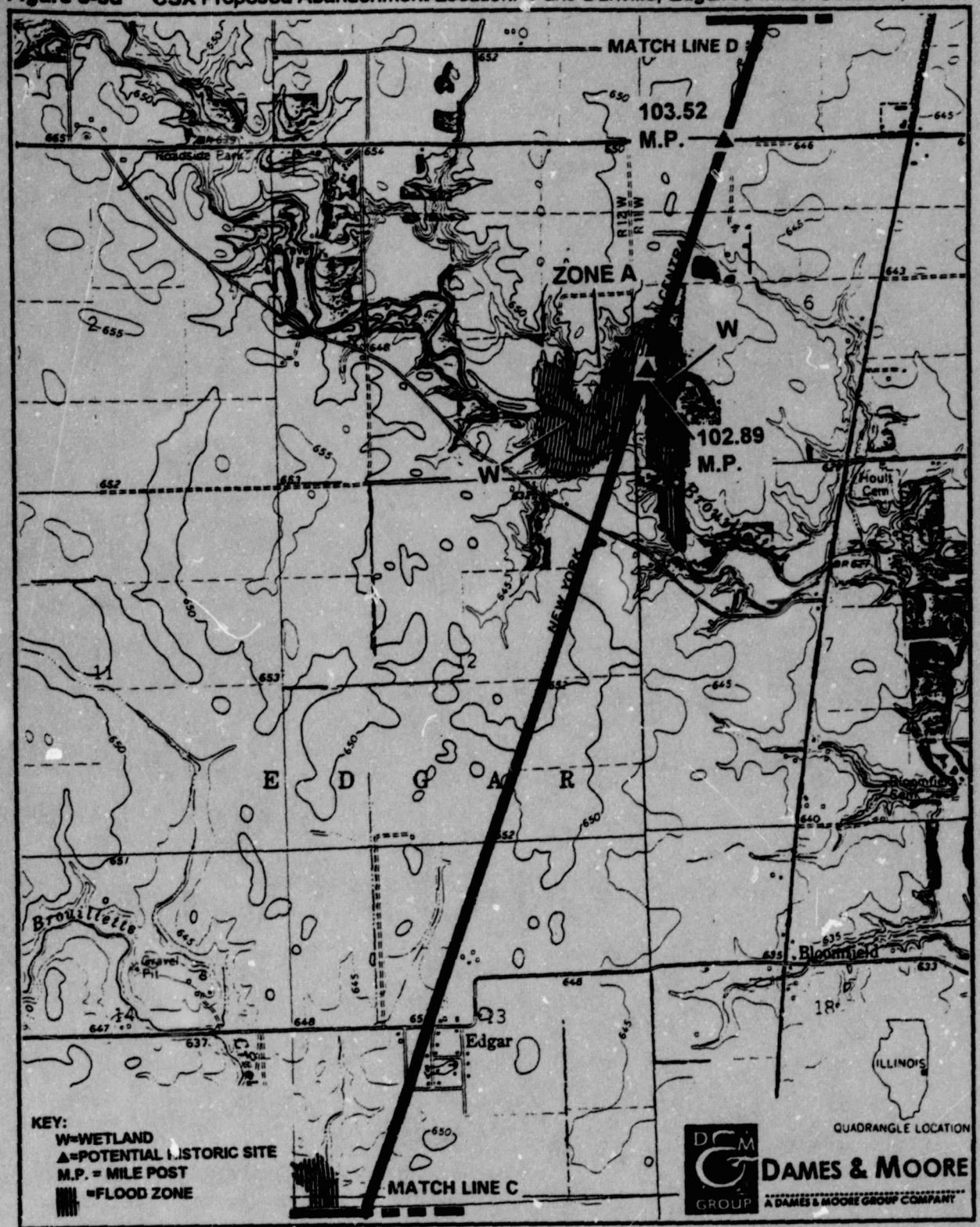
Base Map: *USGS 7.5' Topographic Quadrangle: Paris North, Illinois 1966 (Photorevised 1979)*

Figure 3-3c CSX Proposed Abandonment Location: Paris-Danville, Edgar/Vermilion Counties, Illinois.



Base Map: *USGS 7 5' Topographic Quadrangle: Paris North, Illinois 1966 (Photorevised 1979)*

Figure 3-3d CSX Proposed Abandonment Location: Paris-Danville, Edgar/Vermilion Counties, Illinois.



Base Map: *USGS 7.5' Topographic Quadrangles: Chrisman, Illinois 1966; Paris North, Illinois 1966 (Photorevised 1979)*

Figure 3-3e CSX Proposed Abandonment Location: Paris-Danville, Edgar/Vermilion Counties, Illinois.

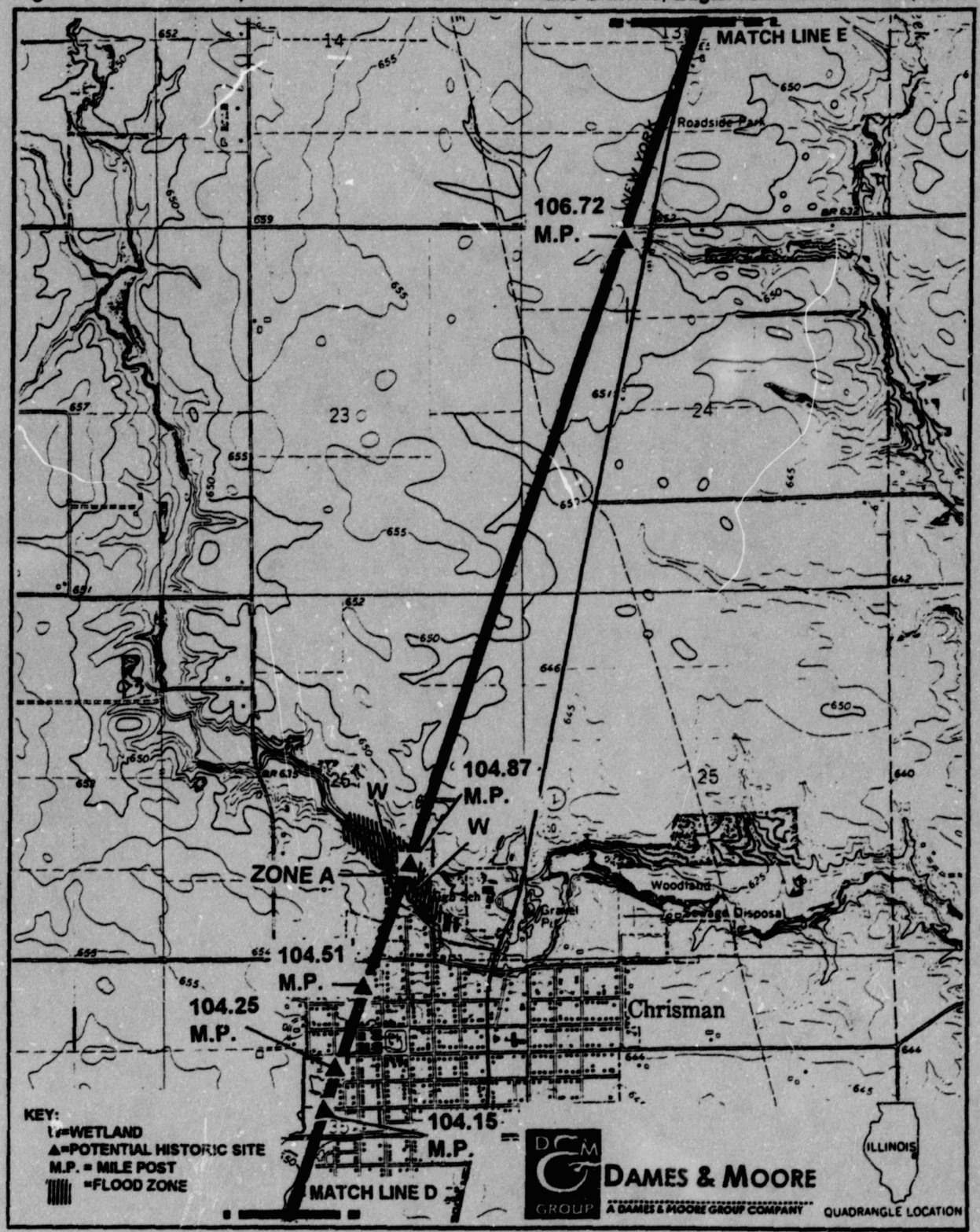
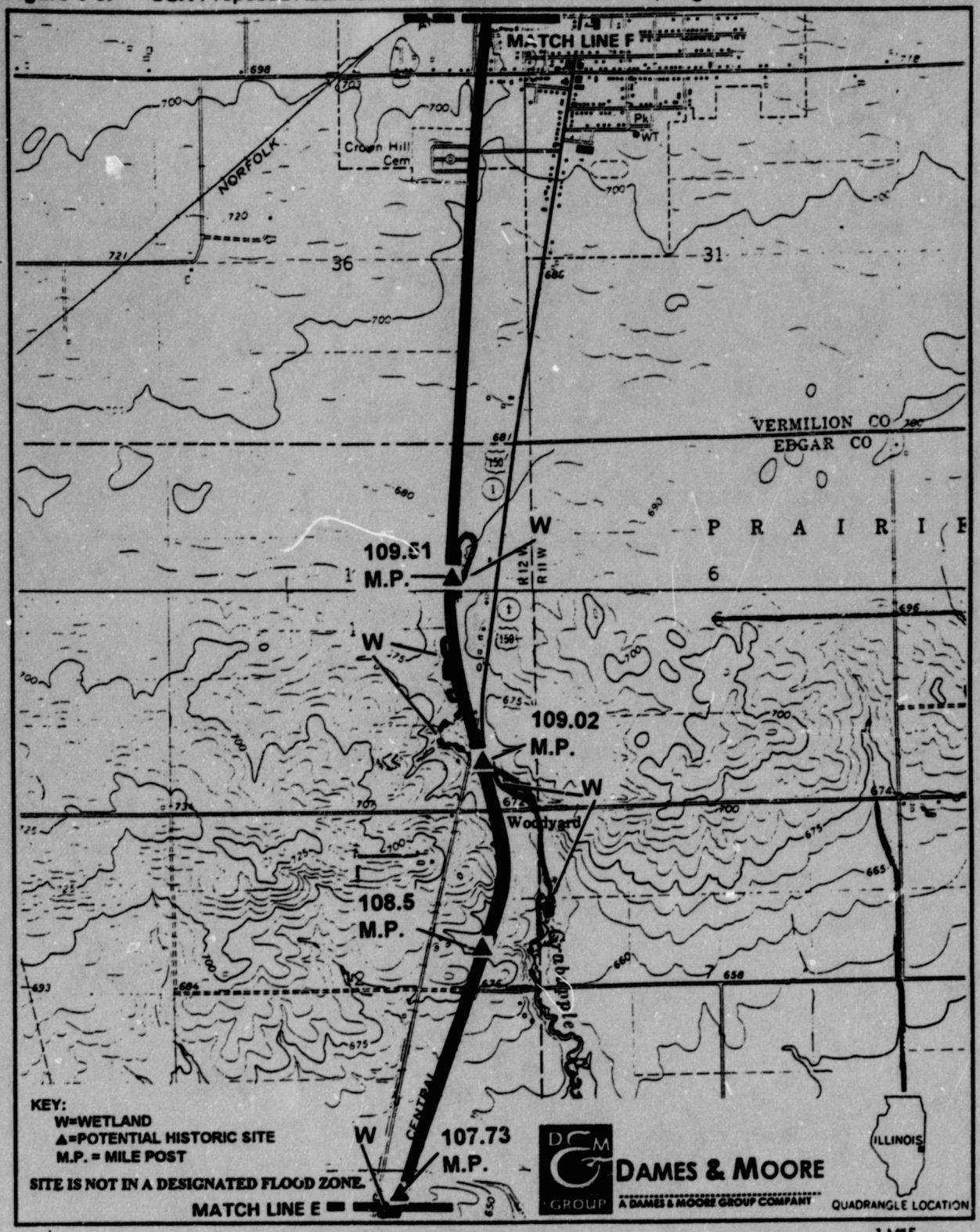


Figure 3-3f CSX Proposed Abandonment Location: Paris-Danville, Edgar/Vermilion Counties, Illinois.



Base Map: *USGS 7.5' Topographic Quadrangles: Chrisman, Illinois 1966; Georgetown, Illinois 1966 (Photoinspected 1977)*

Figure 3-3g CSX Proposed Abandonment Location: Paris-Danville, Edgar/Vermilion Counties, Illinois.

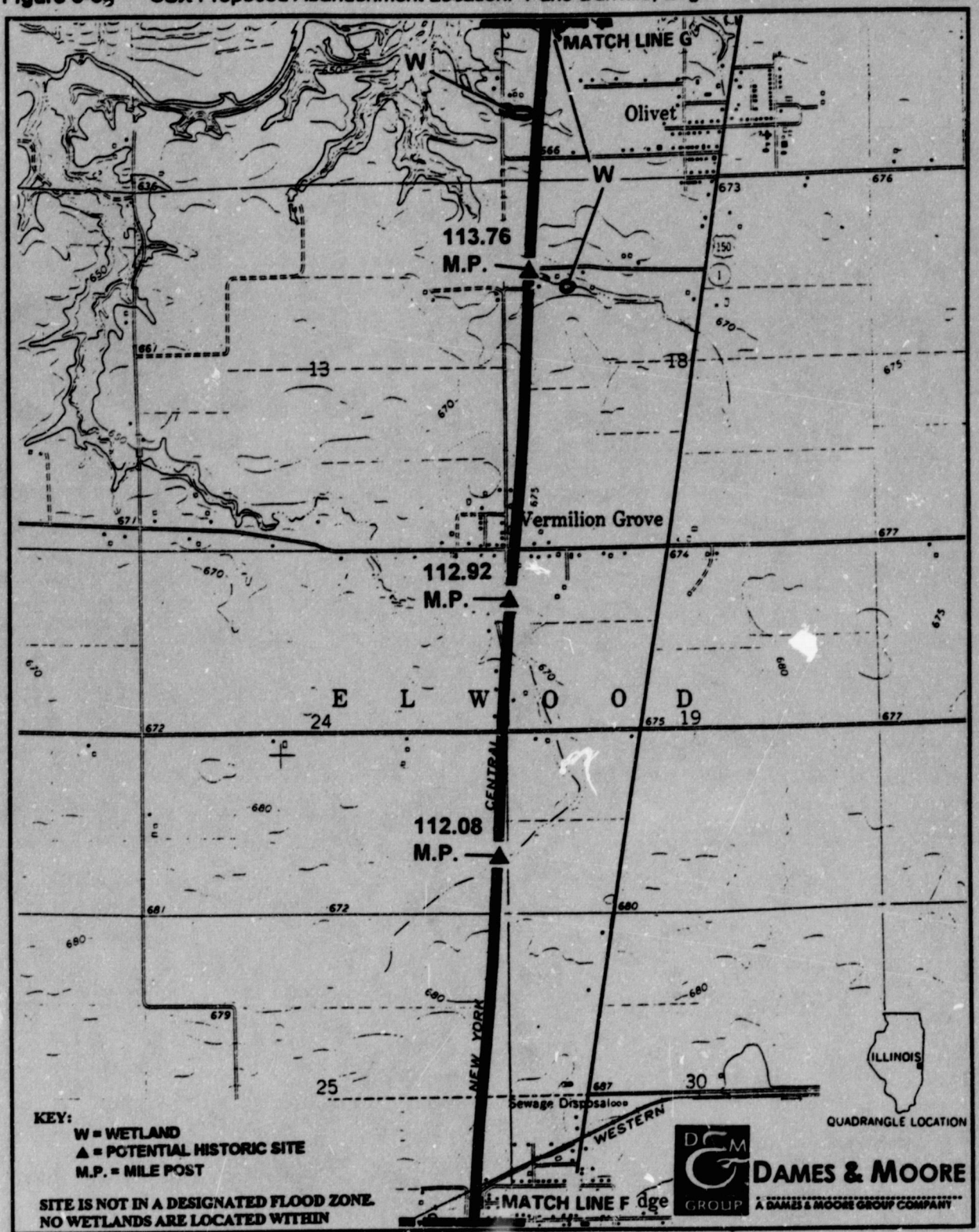


Figure 3-3h CSX Proposed Abandonment Location: Paris-Danville, Edgar/Vermilion Counties, Illinois.

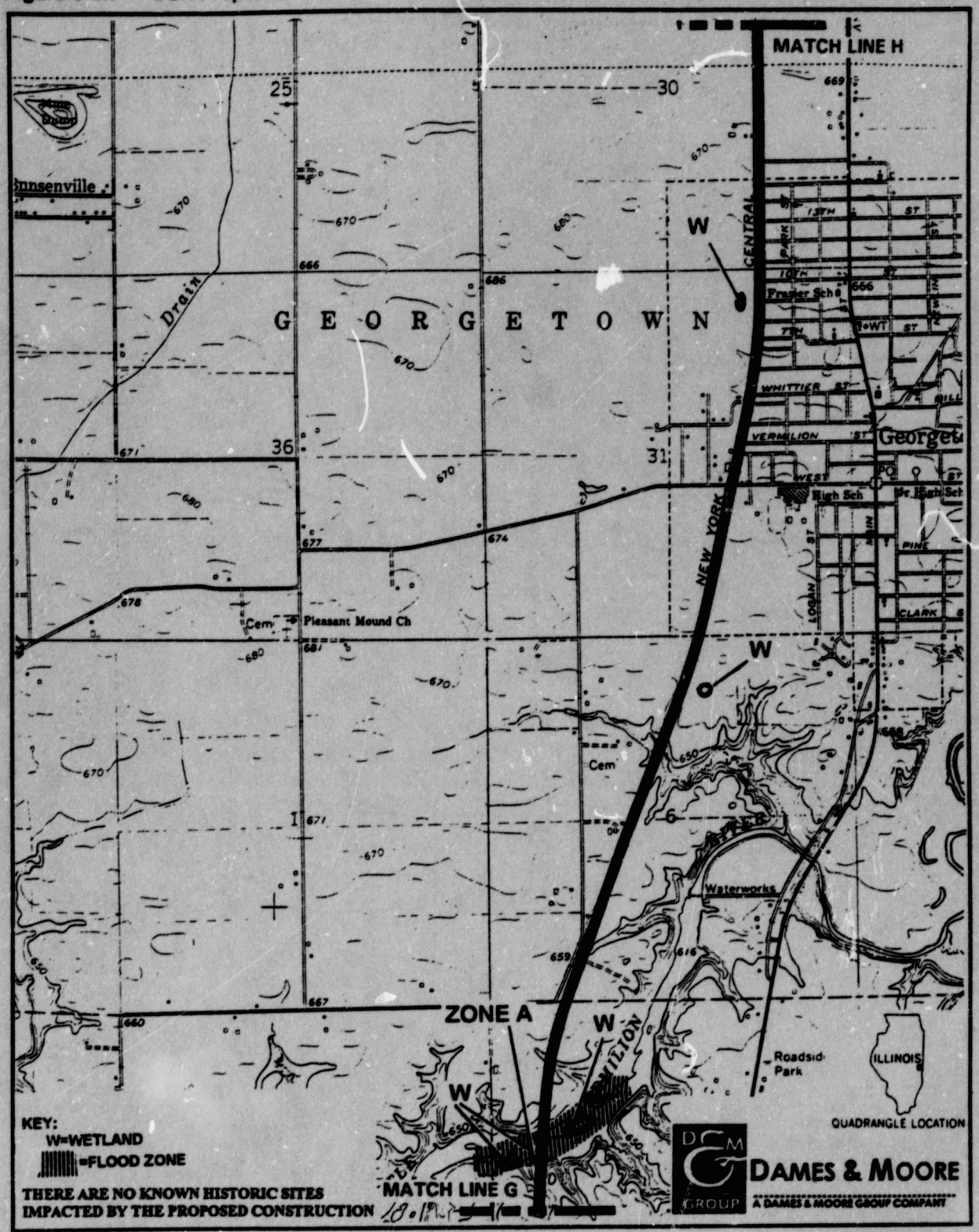
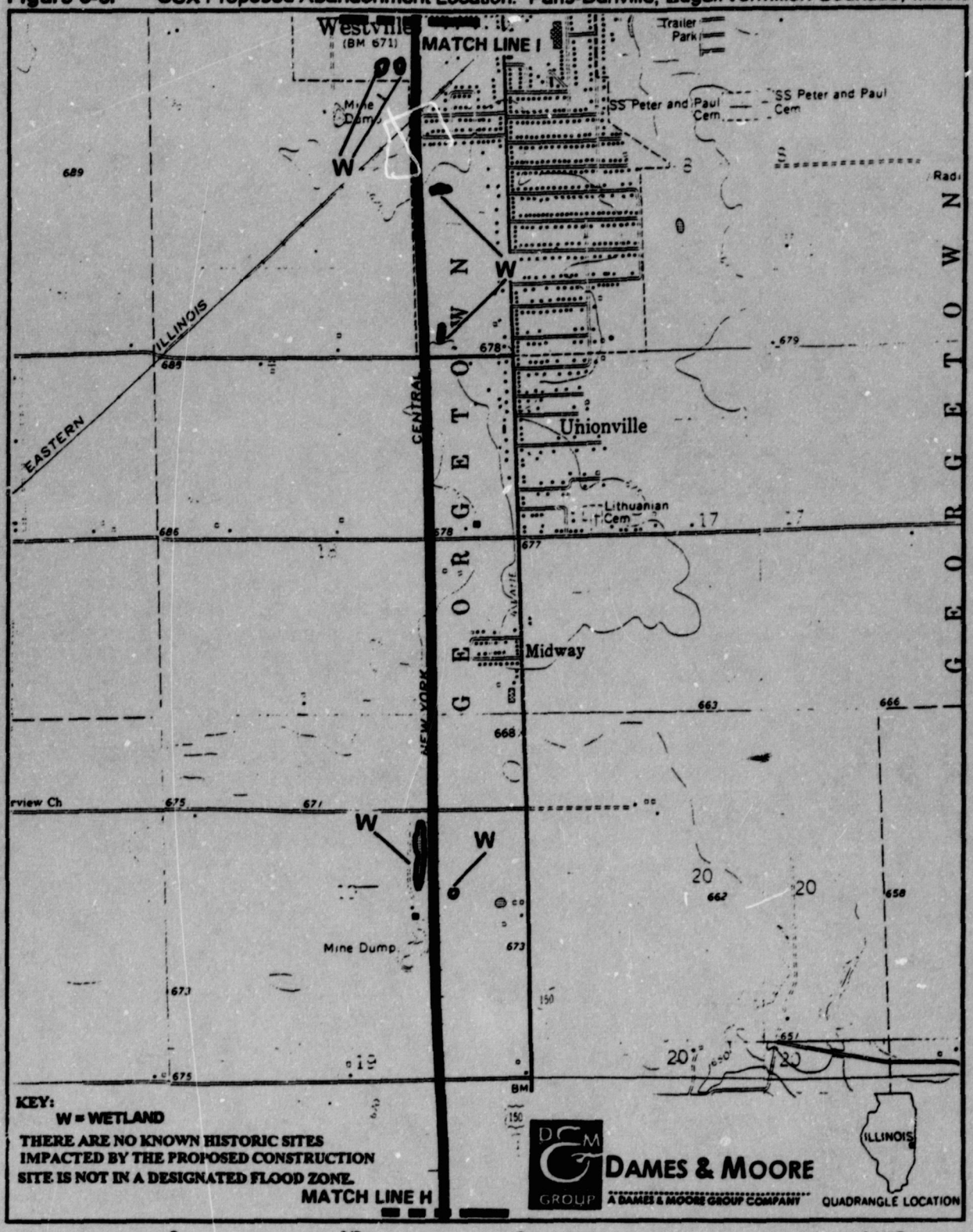


Figure 3-3i CSX Proposed Abandonment Location: Paris-Danville, Edgar/Vermilion Counties, Illinois.



SCALE 1:24,000

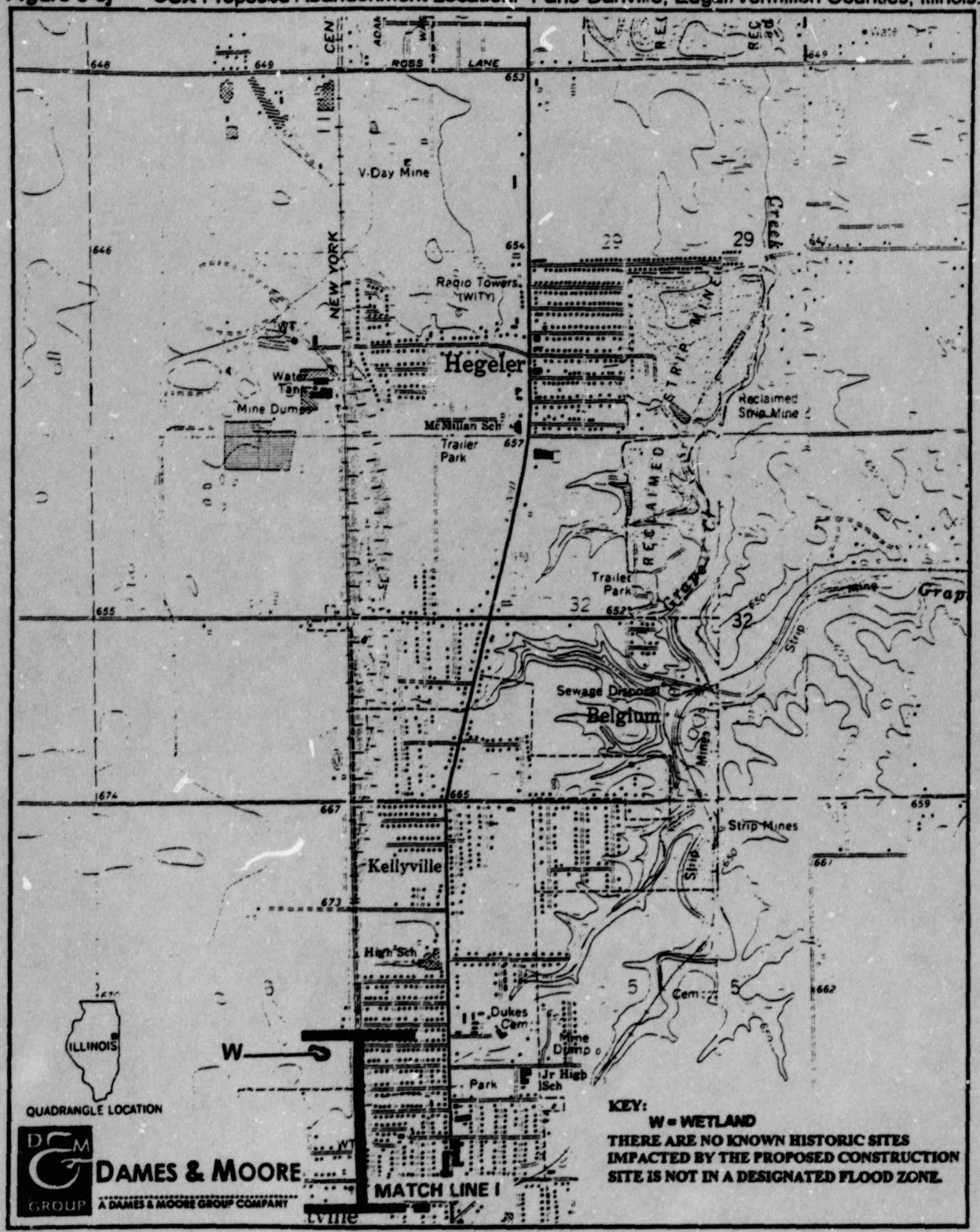
0 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles: Georgetown, Illinois 1966 (Photoinspected 1977); Danville Southwest, Illinois 1966 (Photorevised 1978)*

Figure 3-3j CSX Proposed Abandonment Location: Paris-Danville, Edgar/Vermilion Counties, Illinois.



Base Map: *USGS 7.5' Topographic Quadrangle: Danville Southwest, Illinois 1966 (Photorevised 1978)*

3.0 INDIANA

3.0 INDIANA

Two rail line abandonment projects are proposed in Indiana by NS. This chapter analyzes the potential environmental impacts associated with the proposed abandonment projects. The rail line segments proposed for abandonment are listed in the table below.

Location	Length (miles)	Description
Dillon Junction to Michigan City	21.5	Abandonment of existing NS branch line on which approximately one train per week serves Michigan City. NS would acquire Conrail line serving Michigan City. Approximately 21 carloads per year would be diverted to truck. No overhead traffic exists as the NS branch line ends at Michigan City.
South Bend to Dillon Junction	21.5	Currently NS operates two trains per day on this branch line. All customers at South Bend would be served via the Conrail line to be operated by NS. No overhead traffic exists as the NS branch line ends at South Bend. NS anticipates no increase in truck traffic from this abandonment.

3.1 DILLON JUNCTION TO MICHIGAN CITY

Dillon Junction (Dillon) is in La Porte County, approximately one mile south of Stillwell, IN. Michigan City, also in La Porte County, is on the Michigan-Indiana border on the southeast shore of Lake Michigan.

This segment proposed for abandonment is currently operated by NS. The area crossed is predominantly rural; however, commercial, light industrial and residential areas occur along the

line within Michigan City. The NS branch line ends at Michigan City.

3.1.1 Proposed Action and Alternatives

3.1.1.1 Proposed Action

The proposed action would include the abandonment of 21.5 miles of an existing NS rail line between Dillon Junction and Michigan City, IN, from MP I137.3 to MP I158.8 (Figure 3-4). Dillon is a rail crossing between two NS rail segments. The rail line segment proposed for abandonment begins near Union Street in northeastern Michigan City and ends at Dillon Junction.

Currently, approximately one NS train per week uses this rail line segment. Approximately five days per week, a local train serves customers from Argos to Dillon. When necessary to serve customers, this service is extended to Michigan City, approximately once per week. The 21 carloads per year to Michigan City average to a conservative maximum of one train per week. Two customers in Stillwell (one carload annually each) and one customer in Michigan City (19 carloads annually) would lose rail service as a result of this abandonment. On this 21.5 mile segment, 21 carloads per year results in a traffic density of less than one carload per mile, which is generally deemed not economically viable by railroads. These 21 carloads would divert to an equivalent 84 trucks per year, or 1.6 trucks per week, on area roads. One customer in LaPorte (zero carloads in 1996) relocated to Walkerton, which is between Dillon and Plymouth and would still be served by NS. Another customer in LaPorte (two cars in 1996) would be served via the east-west Conrail line to be operated by NS. There is no overhead traffic on this line.

The subject rail line is not economically viable. Abandonment of this segment would eliminate the commitment of resources in manpower and expense to continue to maintain this unnecessary segment of line. Abandonment of this line is therefore preferred in order to obtain the maximum financial benefit from the proposed Acquisition.

The proposed action would include removal of railroad-associated equipment along the right-of-way. Such equipment includes rails, ties, appurtenances (i.e., communications, signals) and grade crossings. Culvert structures would not be removed as part of the abandonment process. Abandonment operations would be limited to the existing right-of-way. The right-of-way would be available for conversion to alternative uses such as recreational trails, public utility rights-of-way, local transportation corridor, conversion to adjacent land uses, wildlife habitat, or a combination of the above. Abandonment procedures are discussed in greater detail in Section 1.2.

3.1.1.2 Alternatives

Alternatives to the proposed abandonment action include: (1) discontinued train traffic with no abandonment; (2) continued operations by another carrier, and (3) the no-action alternative (i.e., continuing present operations). Under the no-action alternative, NS would continue to maintain and operate this less efficient rail route. This alternative would reduce the full operational, environmental and economic benefits which would be made possible by the proposed Acquisition.

The Chicago SouthShore and South Bend (CSSB) serves the Michigan City area. CSSB has overhead trackage rights on the branch from Michigan City to Stillwell for interchange with Grand Trunk Western (GTW); although it does not use them currently. CSSB could, upon successful negotiation of handling charges and a sales price for the line, purchase the line and offer rail service. However, given the low traffic density of the line, this is not an economically realistic option. CSSB could purchase only the part of the line segment serving the Michigan City shipper.

3.1.2 Existing Environment

3.1.2.1 Land Use

Land use along the 21.5 mile rail line between Dillon and Michigan City is predominantly rural. Wooded fence rows line the edge of the right-of-way. Vegetation contained in the right-of-way is primarily grasses, low-growing shrubs and weedy annuals.

Land use adjacent to the right-of-way includes woodland, agriculture, and residential. Deciduous forest comprises approximately 50 percent of the land adjacent to this rail segment. Crop land and pastures constitute approximately 30 percent of the land use along the right-of-way. More than 75 percent of the land between Dillon and La Porte is considered prime agricultural lands, while 25 to 75 percent of the land north of La Porte to the Michigan City area is considered prime. The remaining 20 percent of land use adjacent to the right-of-way includes primarily residential and is found in La Porte and Michigan City. Scattered rural residences also exist along this segment, some bordering the right-of-way.

This rail segment passes through two incorporated cities: La Porte (population approximately 21,507), and Michigan City (population approximately 33,822). Residential and commercial areas dominate land usage in the cities, with buildings and yards bordering the edge of the right-of-way. Local businesses, such as Toro and Sullair in Michigan City and Mahoney Auto Body in La Porte, are less than 100 feet from the edge of the right-of-way. The unincorporated communities of Stillwell and Oakwood, located at the U.S. Route 35 grade crossing, are along the right-of-way. The Swan Lake Memorial Cemetery near Michigan City also borders this segment.

No portion of the proposed abandonment is within a designated coastal zone management area.

According to the Bureau of Indian Affairs, no federally-recognized Indian tribes or Indian reservations are in Indiana.

3.1.2.2 Water Resources

The proposed abandonment crosses nine streams, including Trail Creek, and one pond. Another seven ponds and lakes are located adjacent to the rail right-of-way. Approximately 40 palustrine emergent wetlands occur both in and adjacent to the existing right-of-way according to National Wetland Inventory (NWI) maps (Figure 3-4).

Federal Emergency Management Agency (FEMA) maps indicate that approximately 550 feet of rail line borders land in the 100 year floodplain.

3.1.2.3 Biological Resources

Vegetation

Existing vegetation within the right-of-way includes weedy annuals, low-growing shrubs and various grass species. Land adjacent to this segment contains deciduous and mixed-deciduous forest, scrub brush, small scattered wetlands, cropland and pastures.

Wildlife

The right-of-way provides habitat for a variety of terrestrial species, such as mice, moles, squirrels, rabbits, reptiles, and birds of prey. However, habitat is limited within the 100 foot wide right-of-way. Adjacent forests and fields provide food and shelter for larger species such as deer, wild turkey, raccoons, opossums, coyotes and other predatory animals. Wetlands that run next to the rail line provide habitat for frogs and semi-aquatic snakes and turtles.

Threatened and Endangered Species

The U.S. Fish and Wildlife Service (USFWS) and the Indiana Department of Natural Resources (DNR) were consulted regarding threatened and endangered species in the area of the proposed rail line abandonment. The USFWS indicated that the proposed project is within the range of the federally endangered Indiana bat, peregrine falcon, Mitcheli's satyr butterfly and dune thistle, and federally threatened bald eagle. However, the USFWS does not anticipate any significant

direct impacts to these animals. The Indiana DNR responded that these projects will have minimal effects on fish, wildlife and botanical resources.

Parks, Forests, Preserves, Refuges and Sanctuaries

The Kingsbury State Fish and Wildlife Area is located approximately one mile southwest of Dillon Junction. Some public lands, including four city parks are located within 0.25 mile of this rail line segment. These parks include Harrison Park and Krueger Memorial Park in Michigan City and La Porte City Park and Allesee Park in La Porte. None of these facilities will be impacted negatively by the proposed abandonment.

3.1.2.4 Air Quality

Currently, portions of La Porte County have nonattainment status designation for SO_2 pollution according to the National Ambient Air Quality Standards (NAAQS) . The description of this nonattainment region is as follows: an area bound on the north by Lake Michigan and the Indiana/Michigan State line, on the west by the La Porte - Porter County line and the south and east by I-94. The Dillon Junction to Michigan City rail line segment crosses into this area near the Michigan City limits. Approximately 4.5 miles of the rail line segment are within this nonattainment area. Abandonment of the line through this nonattainment area will have a positive impact on air quality, on a localized basis.

3.1.2.5 Noise

Rail, vehicular and commercial traffic are the primary sources of noise in the area of the proposed rail line abandonment. Automobile and truck traffic contribute to noise levels in the vicinity of the 42 at-grade crossings along the rail line.

Sensitive noise receptors within 500 feet of the proposed abandonment include four parks, one cemetery, and approximately 408 residences/residential complexes in the Michigan City and

LaPorte areas. In the unincorporated town of Stillwell, sensitive noise receptors within 500 feet of the proposed abandonment include 29 residences/residential complexes.

3.1.2.6 Historic and Cultural Resources

The Dillon Junction to Michigan City rail line was constructed between January 1850 and July 1852 as a part of the Louisville, New Albany and Chicago Railway. Six bridges are part of the proposed abandonment. They range in construction date from 1896 to 1954. The following three bridges shown in NS's records are 50 years or more old:

- The bridge spanning a waterway at MP 156.56 for a distance of 60.50 feet. It consists of a single span of steel deck plate girder construction with an open deck and masonry abutments. The bridge was constructed in 1896. Burns & McDonnell's evaluation of this bridge indicated that it may be eligible for NRHP listing.

- Multispan deck plate girder structure with an open deck built in 1928. The construction is steel with masonry abutments. It spans 181 feet at MP 158.13 over Trail Creek. Burns & McDonnell's evaluation of this multispan deck plate girder bridge is that it may be eligible for NRHP listing.

- Multispan plate girder timber beam structure built in 1910, with three spans crossing County Route 150E. It is listed in the Historic Bridge Program of Indiana and in Burns & McDonnell's evaluation is potentially eligible for NRHP listing.

Indiana's Department of Natural Resources records and the NRHP listings did not identify any archaeological sites that would be affected by the project and only one historic structure. The

historic structure is the Lake Erie and Western (LE&W) freight depot in LaPorte, IN. This depot was constructed in 1916 and consists of a frame structure with horizontal siding and a gable roof. The depot is west of the NS tracks between Factory Street and Lincolnway, and is currently being used as a railroad office. The depot is included in the *Indiana Railroad Depots: A Threatened Heritage*, by Francis H. Parker and is potentially eligible for inclusion on the National Register of Historic Places.

3.1.2.7 Transportation and Safety

The existing ground transportation network consists of NS lines that intersect one another south of the town of Stillwell. This intersection is called Dillon Junction. Abandonment equipment can access Dillon Junction by using a light-duty improved surface road called South Road.

There are 42 at-grade crossings along the Dillon Junction to Michigan City rail segment, including two major thoroughfares, State Routes (S.R.) 2 and 4, along with other secondary highway and light-duty roads. Average Daily Traffic (ADT) data collected between 1989 and 1992 for the two highways is listed below:

- S.R. 2 averaged 17,150 vehicles per day
- S.R. 4 averaged 3,880 vehicles per day

ADT data was not available for the remaining at-grade crossings.

The Dillon Junction to Michigan City line segment currently serves local Michigan City traffic and two customers in Stillwell. Daily traffic on this segment is low; a conservative maximum of one train per week uses the segment. Dillon/Kingsbury traffic would continue to be served by NS. No overhead traffic exists as this line ends at Michigan City. One shipper relocated from LaPorte to Walkerton and would still be served by NS. The other shipper in LaPorte (two carloads annually) would be served via the east-west Conrail line through LaPorte

that NS would operate. Three customers (21 carloads annually) would divert from rail to truck service as a result of the abandonment.

The results of the Environmental Data Resources, Inc. (EDR) database report identified four Indiana SPILLS sites, two CERCLIS sites and three LUST sites within 500 feet of the proposed abandonment. The database search revealed 99 unmappable sites. These sites could not be located due to poor address or geocoding information provided to the state or federal databases. No evidence of these sites was observed within or adjacent to the right-of-way during the site visit.

3.1.3 Potential Environmental Impacts of Proposed Action

3.1.3.1 Land Use

The proposed abandonment would change the existing land use designation of the railroad right-of-way from active to inactive status. An estimated 253 acres of land would be affected by this change. Removal activities would generally not disturb adjacent land uses, although the possible removal of bridges may require the use of construction equipment outside of the rail line right-of-way. Any adjacent land that would be disturbed by removal activities would be restored by NS. The proposed abandonment would not affect any prime farmlands or have any adverse impacts on parks, schools or cemeteries. The abandoned right-of-way is expected to be compatible with adjacent land uses.

No coastal zone management areas would be impacted by the proposed abandonment.

NS does not have fee title to all of the right-of-way underlying the proposed abandonment. As such, upon abandonment, NS will not have a contiguous corridor available for future use. If an agreement to rail bank the involved right-of-way is not completed prior to abandonment, the lack of contiguous fee title, together with considerations related to location, physical condition, and adjacent conditions, leads NS to believe the right-of-way of the line proposed for abandonment

would not be suitable for alternative public uses, such as highways or other forms of mass transit, energy production, related transportation facilities, conservation or recreation corridors, or other public uses.

3.1.3.2 Water Resources

Removal activities associated with the proposed abandonment could temporarily disturb small areas of soil, thereby increasing the potential for soil erosion and sedimentation into area water bodies and adjacent wetlands. Vehicles would be restricted from wetlands and streams. The roadbed would be used for vehicle traffic whenever feasible during removal to minimize disturbance to vegetation within the right-of-way. Actions to control erosion and sedimentation could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches and sediment collection basins to insure minimal impacts to the water quality of surrounding water bodies.

Disturbance to streambeds during possible bridge pier removal would temporarily increase water turbidity. This increase would be temporary and restricted to the area of the bridge and a short distance downstream. Turbidity increases are expected to be less than those currently experienced during high rainfall and stream flow periods.

3.1.3.3 Biological Resources

Vegetation

Existing vegetation in the rail line right-of-way would be temporarily disturbed during the abandonment process due to vehicle traffic. Trimming of some trees adjacent to the right-of-way may be necessary for safe operation of removal equipment. However, opportunistic plant species would quickly revegetate the corridor. Current vegetation control practices along the right-of-way would be discontinued after removal operations are completed allowing the spread of adjacent vegetation. The area would eventually revert to vegetative communities similar to those

adjacent to the right-of-way. Therefore, the overall impact of the proposed abandonment on vegetation along the right-of-way would be beneficial.

Wildlife

Abandonment would not adversely affect wildlife species within and along the rail segment right-of-way. Wildlife along the rail line would be temporarily disturbed during the abandonment process due to human activity and noise from removal equipment. However, once the abandonment is completed, the area would revert to a more natural environment. Wildlife habitat would be increased, and quality should be enhanced, thereby providing for greater species diversity and population size.

Removal operations could temporarily increase soil erosion into area wetlands and streams. However, adverse impacts to fish populations and habitats are not expected as NS will comply with permit requirements, sediment control measures and other recommended mitigation procedures.

Threatened and Endangered Species

Although USFWS has indicated that federally-listed threatened or endangered species could potentially occur in the area of the proposed abandonment, no effects on such species or their critical habitat are anticipated. This determination is based on the lack of any recorded occurrences at or along the rail segment, and the lack of any observations of occurrences of such species or their habitats during site visits.

Parks, Forests, Preserves, Refuges and Sanctuaries

If the proposed abandonment is approved, the Kingsbury State Fish and Wildlife Area would benefit from the elimination of rail traffic and associated noise disturbances. The rail right-of-way is expected to revert back to a more natural environment, providing additional buffer along the east boundary of the Kingsbury State Fish and Wildlife Area.

The right-of-way may be made available for inclusion into the Kingsbury State Fish and Wildlife Area, which would provide more sanctuary for area wildlife and land for recreation.

The Harrison Park and Krueger Memorial Park in Michigan City and La Porte City Park and Allesee Park in La Porte would also benefit from the elimination of periodic disturbance of users due to train noise.

3.1.3.4 Air Quality

The operation of heavy equipment would be the primary source of pollutant emissions during removal activities. Such pollutants vary by the source, as described below:

- Particulate matter, volatile organic compounds (VOCs), carbon monoxide (CO) and nitrogen oxides (NO_x) resulting from the combustion of diesel fuel.
- Fugitive dust emissions along the right-of-way and unimproved roads resulting from the operation of heavy equipment.

Fugitive dust can be controlled by using control measures such as water spraying. The combustion emissions associated with removal operations (VOCs, CO and NO_x) generally would be minor and of short duration and would have insignificant impacts on air quality.

Post-abandonment pollutant emissions along the right-of-way would be eliminated due to the cessation of rail traffic and rail line maintenance activities.

3.1.3.5 Noise

Removal operations associated with the abandonment would cause temporary increases in noise levels. These operations would require the use of trucks and front-end loaders. Noise generated by such equipment would be temporary. Small increases in traffic noise could occur due to slow

or stopped traffic when the crews are working on at-grade crossings. Following removal activities, noise from all rail-related activities would be eliminated along the rail segment.

While the noise from removal operations would be temporary, human and wildlife receptors, including 437 residences/residential complexes within 500 feet of the line, would benefit from the reduction in long-term noise levels.

3.1.3.6 Historic and Cultural Resources

The proposed Dillon Junction to Michigan City abandonment could have an adverse effect on four historic properties. The properties include three bridges of potential historic significance located at mileposts 156.56 and 158.13 and county Route 150E, as well as an LE&W freight depot (now a railroad office) in LaPorte. All four structures are considered eligible or potentially eligible for listing on the NRHP. An evaluation has not been performed to determine if similar structures are present elsewhere in the state. All of these structures have existed in a railroad setting. The abandonment will alter this setting. If any of the resources related to this line are determined eligible for listing on the NRHP, the alteration of the setting could be considered an adverse effect. Burns & McDonnell has initiated consultation with the Indiana SHPO regarding these properties. NS will take no steps to alter the bridges or depot until the Section 106 process has been completed.

Based upon initial consultations with the Indiana SHPO and research at the Indiana Department of Natural Resources, no known or documented archaeological sites exist along the rail line segment proposed for abandonment. However, the potential for undocumented archaeological sites and historic properties has not been dismissed. Burns & McDonnell will continue consultation with the Indiana SHPO to determine any further requirements.

3.1.3.7 Transportation and Safety

The abandonment of the Dillon Junction to Michigan City rail segment would eliminate the need for 42 at-grade crossings. Two major thoroughfares are among these crossings, which are State Routes 2 and 4, along with secondary highways and light-duty roads. The removal of at-grade crossings would eliminate any potential for vehicle/train accidents or pedestrian-related accidents at these crossings. The elimination of the 42 crossings would also mean no traffic delays at these crossings due to passing train traffic.

The results of the EDR database report were the identification of four Indiana SPILLS sites, three CERCLIS sites and three LUST sites within 500 feet of the proposed abandonment. None of these sites are expected to be impacted by the abandonment.

The locations of the mappable sites are as follows:

- One Indiana SPILLS site (Fairfield Street), two LUST sites (Roeske Avenue and Michigan Blvd.) and one CERCLIS site (Michigan Blvd. and Meinke Rd.) are within the abandonment corridor in Michigan City, IN. Information on the CERCLIS site indicated that the discovery of the site was on July 22, 1987; the preliminary assessment was conducted on February 8, 1988 and a screening site inspection was conducted on November 1, 1993. This site is currently under investigation by the EPA to assess the extent of further action.

- Three Indiana SPILLS sites (Koomler Dr. and Factory St.) and one LUST site (Berkel Dr.) are within the corridor in LaPorte, IN.

Because the disturbance resulting from removal of rail and ties would be limited to minor surface disturbance, none of the known sites are expected to be impacted as a result of the proposed

abandonment. If any contamination is encountered during removal operations, NS will follow appropriate response and remediation procedures.

Fuels and oil necessary for abandonment activities would be present in only small amounts. In the unlikely event that a spill occurs, only a small amount would be released. NS has an emergency action plan for hazardous materials incidents for such events, and NS employees are trained in emergency response and spill management.

The database search revealed 99 unmappable sites. These sites could not be located because of poor address or geocoding information provided to the state and/or federal databases. No evidence of these sites was observed within or adjacent to the right-of-way during the site visit.

3.1.3.8 Energy

The STB requires an evaluation of the impacts of a rail abandonment on energy consumption if the abandonment would result in a diversion of more than 1,000 rail cars per year to truck transportation or diversion of more than 50 rail cars per mile per year over any line segment. Impacts to energy consumption relate to the reduced efficiency of transporting materials by truck as compared to rail. The Dillon to Michigan City abandonment would result in only 21 rail carloads per year diverted to truck. This would not exceed the STB thresholds. The detailed methodology for assessing energy impacts is provided in an Appendix to Part 1 of this ER.

3.1.4 Potential Environmental Impacts of Alternative Action

Alternatives to the proposed abandonment would include no-action (and therefore no change in operations) or discontinuation of service without abandonment. In the first case, the action would have no effect on the existing quality of the human and natural environment or energy consumption. In the second case, the action would result in the elimination of the effects of railroad operations along this segment, such as noise and air emissions.

3.1.5 Proposed Mitigation

Mitigation proposed by NS to minimize environmental impacts are listed below.

3.1.5.1 Land Use

- NS will restore any adjacent properties that are disturbed during removal activities to their previous condition.

- Heavy equipment will be restricted from adjacent cemeteries wherever possible. Should disturbance to a cemetery be unavoidable, NS will comply with all state laws and statutes for the protection of cemeteries.

3.1.5.2 Water Resources

- NS will use Best Management Practices (BMPs) to control soil erosion and sedimentation in streams during removal operations. Such actions could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches and sediment collection basins.

- NS will disturb the smallest area possible around streams and tributaries and will revegetate disturbed areas immediately following removal operations.

- NS will clear all debris from culverts to avoid potential flooding and stream flow alteration, in accordance with federal, state and local regulations.

- NS will obtain all necessary federal, state and local permits if activities require the alteration of or work in wetlands, ponds, lakes, streams, or rivers; or if activities would cause soil or other materials to wash into these water resources.

3.1.5.3 Biological Resources

- NS will encourage regrowth of vegetation in disturbed areas through stabilization of disturbed soils and reseeding.

- NS will use BMPs to control soil erosion and sedimentation in streams during removal operations. Such actions could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches and sediment collection basins.

3.1.5.4 Air Quality

- NS will comply with all applicable federal, state and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during removal operations will be minimized by using control methods such as water spraying.

3.1.5.5 Noise

- NS will control temporary noise from removal equipment by ensuring all machinery has properly functioning muffler systems and by work hour controls.

3.1.5.6 Historic and Cultural Resources

- NS will make a reasonable effort to convey ownership of bridges and other structures determined potentially eligible for the NRHP to prevent their removal.

- NS will retain its interest in and take no steps to alter the three bridges located at mileposts 156.56, 158.13 and county route 150E and the LE&W freight depot until the Section 106 process of the National Historic Preservation Act (16 U.S.C. 470f, as amended) has been completed for these structures.

- If previously unknown archaeological remains are found during removal operations, NS will cease work in the area and immediately coordinate with the Indiana SHPO.

3.1.5.7 Transportation and Safety

- NS will observe all applicable federal, state and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during removal operations.

- NS will dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

- NS will restore roads disturbed during removal activities to the condition required by state or local regulations.

- NS will use appropriate signs and barricades to control traffic disruptions during removal operations at or near the 42 at-grade crossings.

- NS will transport any hazardous materials generated by removal activities in compliance with the U.S. Department of Transportation Hazardous Materials Regulations (49 CFR Parts 171-174 and 177-179).

- If any contamination is encountered or a spill occurs during removal operations, NS will follow appropriate response and remediation procedures outlined in its Emergency Response Plan.

3.1.6 References

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USFWS, 1997. Federally Listed Threatened and Endangered Species in the State of Indiana, February 10, 1997.

3.2 SOUTH BEND TO DILLON JUNCTION

South Bend, IN is in St. Joseph County, northwest of Fort Wayne, IN. Dillon Junction (Dillon), located in LaPorte County, is west of South Bend. South Bend is approximately 72 miles from Fort Wayne; Dillon Junction is approximately 77 miles from Ft. Wayne.

This segment proposed for abandonment is currently operated by NS. The area along the right-of-way is primarily rural; however, light industrial, commercial and residential areas occur along the segment within South Bend.

3.2.1 Proposed Action and Alternatives

3.2.1.1 Proposed Action

The proposed action would include the abandonment of 21.5 miles of existing NS rail line between South Bend (northwest of the intersection of Edward and Prairie Streets) and Dillon Junction, IN, from MP SK2.5 to MP SK24.0 (Figure 3-5). Dillon is a rail crossing between two NS rail segments.

Currently, two trains per day use this rail segment. NS will serve businesses located in South Bend from a Conrail line to be operated by NS.

The proposed action would include removal of railroad-associated equipment along the right-of-way. Such components include rails, ties, appurtenances (i.e., communications, signals) and grade crossings. Culvert structures would not be removed as part of the abandonment process. Abandonment operations would be limited to the existing right-of-way. The right-of-way would be available for conversion to alternative uses such as a recreational trail, public utility right-of-way, local transportation corridor, conversion to adjacent land uses, wildlife habitat, or a combination of the above. Abandonment procedures are discussed in more detail in Section 1.2.

3.2.1.2 Alternatives

As there are no shippers impacted by this abandonment, the only alternatives to the proposed abandonment include: (1) discontinued service with no abandonment; and (2) the no-action alternative (i.e., continuing present operations). Under the no-action alternative, NS would continue to maintain and operate this less efficient rail route. These alternatives would not provide the full operational, environmental and economic benefits possible through the proposed Acquisition.

3.2.2 Existing Environment

3.2.2.1 Land Use

The 21.5-mile segment between South Bend to Dillon Junction is predominately rural, passing through croplands and some open pasture. Adjacent to the right-of-way, areas of deciduous forest are scattered among the farmlands. Less common land uses include residences and businesses. The only communities located along the rail line are Pine (population approximately 1,000) and North Liberty (population approximately 1,366). Prime farmland occurs for approximately 6.0 miles along the right-of-way southwest of South Bend.

No portion of the proposed abandonment is located within a designated coastal zone management area.

According to the Bureau of Indian Affairs, no federally-recognized Indian tribes or Indian reservations are in Indiana.

3.2.2.2 Water Resources

The proposed abandonment crosses Potato Creek, Kankakee River and Little Kankakee River, with two of these crossed more than once. According to NWI maps, there are approximately 50

palustrine wetlands, including emergent and forested, that occur both in and adjacent to the existing right-of-way.

Five lakes are adjacent to the rail line. Dollar Lake, which was originally a landfill, is located southwest of South Bend between MP SK3 and MP SK5 on the west side of the track. Wharton Lake is located on the east side of the line approximately 3.5 miles southwest of the South Bend city limits. Catfish Lake is approximately 1.0 mile southwest of Wharton Lake on the east side of the tracks. Rupel and Elizabeth Lakes are located between 0.5 to 1.5 miles west of North Liberty. Both are on the south side of the tracks.

FEMA maps indicate that approximately 16.5 miles of the South Bend to Dillon line segment are within Zone C (areas with minimal flooding). Approximately 500 feet of rail near Potato Creek has adjacent land that is in Zone A (areas that are in the 100 year flood plain), while 500 feet of rail just outside North Liberty near Rupel Lake also has land in Zone A. In the area of the Kankakee River, approximately 1.0 mile of rail passes through a Zone A flood area. Near Dillon Junction, about 2.0 miles of line enters Zone X (areas outside the 500 year flood plain).

3.2.2.3 Biological Resources

Vegetation

Existing vegetation within the right-of-way includes weedy annuals, various grass species, and low-growing trees and shrubs. Land adjacent to this segment contains cropland, pasture, fallow fields and deciduous forest.

Wildlife

The 100-foot wide right-of-way provides habitat for a variety of species. The adjacent fields and forests provide cover for small mammals. Larger mammals such as deer are likely to forage in adjacent agricultural areas. Various species of songbirds and reptiles may also use the habitat along the right-of-way. Amphibian species, which include frogs and salamanders, may be found

in the wetlands. Ponds and lakes along the right-of-way are expected to contain a variety of both game and nongame fish such as largemouth bass, bluegill, channel catfish, bullheads, and carp.

Threatened and Endangered Species

The USFWS and the Indiana DNR were contacted regarding threatened and endangered species in the area of the proposed rail line abandonment. The USFWS indicated that the proposed project is within the range of the federally endangered Indiana bat, peregrine falcon, Mitchell's satyr butterfly and dune thistle, and federally threatened bald eagle. However, the USFWS does not anticipate any significant direct impacts to these animals. The Indiana DNR responded that these projects will have minimal effects on fish, wildlife and botanical resources.

Parks, Forest Preserves, Refuges and Sanctuaries

The Kingsbury State Fish and Wildlife Area is located approximately one mile southwest of Dillon Junction. Potato Creek Recreation Area is located within one mile of the rail line. South Bend has three city parks within one mile of the segment.

3.2.2.4 Air Quality

Currently, St. Joseph County has a partial nonattainment status designation in 40 CFR, Part 81, Subpart C, Section 107 for Total Suspended Particulates (TSP) pollution with the National Ambient Air Quality Standards (NAAQS). The description of this nonattainment region is as follows: an area north of Kern Road and east of Pine Road. Approximately five miles of this rail segment is within the nonattainment area.

3.2.2.5 Noise

Rail, vehicular and commercial traffic are the primary sources of noise in the area of the proposed rail line abandonment. Average Daily Traffic (ADT) data collected between 1989 and 1992 for U.S. Route 31 (between U.S. 31 and S.R. 23) averaged 11,540 passenger and

commercial vehicles.

Sensitive noise receptors within 500 feet of the proposed abandonment include 200 residences/residential complexes, and one school.

3.2.2.6 Historic and Cultural Resources

Six bridges are part of the proposed abandonment. Four bridges were constructed between 1904 and 1942 making them 50 years or more old. Of the four bridges the following two are considered potentially eligible for inclusion on the NRHP:

- A single-span stone arch bridge spanning Potato Creek at MP SK-12.08. The bridge, constructed in 1904, is ten feet long and 26.8 feet tall. An evaluation of this stone arch bridge indicates that it may be eligible for NRHP listing.

- A six-span bridge over Potato Creek with five pile trestles spanning 53 feet and one deck plate girder spanning 30 feet at milepost SK 17.73. The construction date for the deck plate girder portion of the bridge is 1942; the construction date for the remaining five spans is unknown. An evaluation of this multispan bridge is that it may be eligible for NRHP listing.

A review of the Indiana Department of Natural Resources's records and the National Register of Historic Places (NRHP) listings and information identified one archaeological site that may be affected by the project. No historic structures were identified. The archaeological site is recorded in the Indiana SHPO files as 12SJ8. It is described on one site form as a woodland camp with mounds/earthworks and as a light scatter of a few pieces of fire-cracked rock on another site form. The site form describing the mounds/earthworks recommends that the site be resurveyed. The form describing a few fire-cracked rocks does not agree with that recommendation. Since the site is depicted on the maps as being bisected by the railroad, and

since there are conflicting reports concerning its potential importance, Burns & McDonnell's evaluation of the site is that it may be eligible for NRHP listing, pending further research and field survey.

3.2.2.7 Transportation and Safety

The South Bend-to-Dillon Junction rail segment has 39 grade crossings. These grade crossings include four major thoroughfares: U.S. Route 31 and State Routes 4, 23 and 104. ADT for these grade crossings are as follows:

- U.S. Route 31 averages 11,540 passenger and commercial vehicles.
- S.R. 4 averages 2,150 passenger and commercial vehicles.
- S.R. 23 averages 5,300 passenger and commercial vehicles.
- S.R. 104 averages 1,000 passenger and commercial vehicles.

Currently two trains per day operate over the South Bend to Dillon Junction line. South Bend shippers would be served from the existing Conrail line which NS would operate. No through traffic exists as the NS branch line ends at South Bend.

Review of the EDR database report identified four Indiana SPILLS sites, six LUST sites, and two RCRIS-TSD sites located within 500 feet of the proposed abandonment corridor. The location of these sites is:

- four Indiana SPILLS sites (three at South Olive Street and one at West Indiana Avenue).
- six LUST sites (two at Prairie Avenue, one at Pulaski Boulevard, two at South Olive Street, and one at Market Street).
- two RCRIS-TSD sites (one at Market Street and one at Indiana Avenue.

The database search revealed 90 unmappable sites in the St. Joseph and La Porte Counties of

Indiana, with 76 and 14 unmappable sites in each county, respectively. These sites could not be located due to poor address or geocoding information provided to the state and/or federal databases. No evidence of these sites was observed within the right-of-way during the site visit.

3.2.3 Potential Environmental Impacts of Proposed Action

3.2.3.1 Land Use

The proposed abandonment would change the existing land use designation of the railroad right-of-way from active to an inactive status. Approximately 261 acres of land would be affected by this change. Removal activities generally would not disturb adjacent land uses. Any adjacent land that would be disturbed by removal activities would be restored by NS. The proposed abandonment would not affect any prime farmlands. The abandoned right-of-way is expected to be compatible with adjacent land uses.

No coastal zone management areas would be impacted by the proposed abandonment.

NS does not have fee title to all of the right-of-way underlying the proposed abandonment. As such, upon abandonment, NS will not have a contiguous corridor available for future use. If an agreement to rail bank the involved right-of-way is not completed prior to abandonment, the lack of contiguous fee title, together with considerations related to location, physical condition, and adjacent conditions, leads NS to believe the right-of-way of the line proposed for abandonment would not be suitable for alternative public uses, such as highways or other forms of mass transit, energy production related transportation facilities, conservation or recreation corridors, or other public uses.

3.2.3.2 Water Resources

Removal activities associated with the proposed abandonment could disturb small areas of soil, thereby increasing the potential for soil erosion and sedimentation into area water bodies and

adjacent wetlands. Vehicles would be restricted from wetlands and streams. The roadbed will be used for vehicle traffic whenever feasible during removal to minimize disturbance to vegetation within the right-of-way. Actions to control erosion and sedimentation could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches and sediment collection basins to ensure minimal impacts to the water quality of surface waters and wetlands.

Disturbance to streambeds during possible bridge pier removal would temporarily increase water turbidity. This increase would be temporary and restricted to the area of the bridge and a short distance downstream. Turbidity increases are expected to be less than those currently experienced during high rainfall and stream flow periods.

3.2.3.3 Biological Resources

Vegetation

Existing vegetation on the rail right-of-way would be temporarily disturbed during the abandonment process due to vehicle traffic. Trimming of some trees adjacent to the right-of-way may be necessary for safe operation of equipment. However, opportunistic plant species would quickly revegetate the corridor. Current vegetation control practices along the right-of-way would be discontinued after removal operations are completed allowing the spread of adjacent vegetation. The area would eventually revert to vegetative communities similar to those adjacent to the right-of-way. Therefore, the overall impact of the proposed abandonment on vegetation along the right-of-way would be beneficial.

Wildlife

Abandonment would not adversely affect wildlife species within and along the rail segment right-of-way. Wildlife along the rail line would be temporarily disturbed during the abandonment process due to human activity and noise from removal equipment. However, once the abandonment is completed, the right-of-way would revert to a more natural environment. Wildlife habitat would be increased, and quality should be enhanced, thereby providing for greater species diversity and population sizes.

Removal operations could temporarily increase soil erosion into area wetlands and streams. However, adverse impacts to fish populations and habitats are not expected as NS will comply with permit requirements, sediment control measures and other recommended mitigation procedures.

Threatened and Endangered Species

Although USFWS has indicated that federally-listed threatened or endangered species could potentially occur in the area of the proposed abandonment, no effects on such species or their critical habitat are anticipated. This determination is based on the lack of any recorded occurrences within or near the rail right-of-way, and the lack of any observations of occurrences of such species or their habitats during the site visit.

Parks, Forest Preserves, Refuges and Sanctuaries

The proposed abandonment would have minimal impacts on the parks within one mile of the South Bend-to-Dillon line segment. Users of these areas may experience noise disturbance for a short period during removal. After removal, activity on the rail line would cease, and any rail-related disturbance would be eliminated.

3.2.3.4 Air Quality

The operation of heavy equipment would be the primary source of pollutant emissions during removal activities. Such pollutants vary by the source, as described below:

- Particulate matter, volatile organic compounds (VOCs), carbon monoxide (CO) and nitrogen oxides (NO_x) resulting from the combustion of diesel fuel.

- Fugitive dust emissions along the right-of-way and unimproved roads resulting from the operation of heavy equipment.

Fugitive dust can be controlled by using control measures such as water spraying. The combustion emissions associated with removal operations (VOCs, CO and NO_x) generally would be minor and of short duration and would have insignificant impacts on air quality.

Post-abandonment pollutant emissions along the right-of-way would be eliminated due to the cessation of rail traffic and rail line maintenance activities.

3.2.3.5 Noise

Removal operations associated with the abandonment would cause temporary increases in noise levels. These operations would require the use of trucks and front-end loaders. Noise generated by such equipment would be temporary. Small increases in traffic noise could occur due to slow or stopped traffic when the crews are working on at-grade crossings. Following removal activities, noise from all rail-related activities would be eliminated along the rail segment.

While the noise from removal operations would be temporary, human and wildlife receptors, including 200 residences/residential complexes and one school within 500 feet of the line, would benefit from the reduction in long-term noise levels.

3.2.3.6 Historic and Cultural Resources

The proposed South Bend to Dillon Junction abandonment could have an adverse effect on two historic properties. The properties include two bridges of potential historic significance located at milepost SK 12.08 and SK 17.73. An evaluation has not been performed to determine if similar structures are present elsewhere in the state. As these bridges are part of a railroad setting, abandonment and the alteration of this setting could constitute an adverse effect if either is determined eligible for listing on the NRHP. NS has initiated consultation with the Indiana SHPO regarding these properties. NS will take no steps to alter the bridges until the Section 106 process has been completed.

Based upon Burns & McDonnell's initial consultations with the Indiana SHPO and research at the Indiana Department of Natural Resources (IDNR), one known archaeological site exists along the rail line segment proposed for abandonment (IDNR No. 12SJ8). It is described as a woodland camp with mounds/earthworks on one site form and as a light scatter of fire cracked rock on another site form. No recorded historic properties are indicated within the project area. However, NS's plans for abandonment may cause adverse impacts on 12SJ8. NS has initiated consultation with the Indiana SHPO regarding this property. NS will take no steps to alter 12SJ8 until the Section 106 process has been completed.

Upon completion of the Section 106 process, if any other archaeological site is discovered during the abandonment or removal process, NS will continue the Section 106 consultation process to address the discovery and treatment of archaeological sites. NS will continue consultation with the Indiana SHPO to determine any further requirements.

3.2.3.7 Transportation and Safety

The abandonment of the South Bend to Dillon Junction rail segment would eliminate the need for 39 at-grade crossings. Four major thoroughfares are among these crossings: U.S. Route 31 and State Routes 4, 23 and 104.

Discontinuing rail service along the line would eliminate any potential for vehicle/train accidents at these crossings. Abandonment would eliminate trains operating through the communities of Pine, North Liberty and the south side of South Bend, which have residential development adjacent to the right-of-way. Abandonment of this segment would also eliminate the potential for train/pedestrian accidents along the line.

Review of the EDR database report indicated that four Indiana SPILLS sites, one NPL/CERCLIS site, six LUST sites, and two RCRIS-TSD sites are within 500 feet of the proposed abandonment corridor. The location of the mappable sites are as follows:

- Four Indiana SPILLS sites (three at South Olive Street and one at West Indiana Avenue), six LUST sites (two at Prairie Avenue, one at Pulaski Boulevard, two at South Olive Street, and one at Market Street), and two RCRIS-TSD sites (one at Market Street and one at Indiana Avenue) located within the corridor in South Bend.

Because the disturbance resulting from removal of rail and ties would be limited to minor surface disturbance, none of the known sites are expected to be impacted as a result of the proposed abandonment. If any contamination is encountered during removal operations, NS will follow appropriate response and remediation procedures.

The database search revealed 90 unmappable sites in the St. Joseph and La Porte Counties of Indiana, with 76 and 14 unmappable sites in each county, respectively. These sites could not be located due to poor address or geocoding information provided to the state and/or federal databases. No evidence of these sites was observed within the right-of-way during the site visit.

3.2.3.8 Energy

The STB requires an evaluation of the impacts of a rail abandonment on energy consumption if the abandonment would result in a diversion of more than 1,000 rail cars per year to truck transportation or diversion of more than 50 rail cars per mile per year over any line segment. Impacts to energy consumption relate to the reduced efficiency of transporting materials by truck as compared to rail. The South Bend to Dillon abandonment would not result in diversion of any rail traffic to trucks. Therefore, the STB thresholds would not be exceeded. The detailed methodology for assessing energy impacts is provided in an Appendix to Part 1 of this ER.

3.2.4 Potential Environmental Impacts of Alternative Action

Alternatives to the proposed abandonment would include no-action (and therefore no change in operations) or discontinuation of service without abandonment. In the first case, the action would have no effect on existing quality of the human and natural environment or energy consumption. In the second case, the action would result in the elimination of the effects of railroad operations, such as noise and air emissions.

3.2.5 Proposed Mitigation

Mitigation proposed by NS to minimize environmental impacts are listed below.

3.2.5.1 Land Use

- NS will restore any adjacent properties that are disturbed during right-of-way removal activities to their prior condition.

- Heavy equipment will be restricted from adjacent cemeteries wherever possible. Should disturbance to a cemetery be unavoidable, NS will comply with all state laws and statutes for the protection of cemeteries.

3.2.5.2 Water Resources

- NS will use BMPs to minimize soil erosion and sedimentation in streams and wetlands during removal operations. Such actions could include using sediment barriers (e.g., silt fences or straw bail dikes), diversion ditches and sediment collection basins.

- NS will disturb the smallest area possible around streams and tributaries and will revegetate disturbed areas immediately following removal operations.

- NS will clear all debris from culverts to avoid potential flooding and stream flow alteration, in accordance with federal, state and local regulations.

- NS will obtain all necessary federal, state and local permits if removal activities require the alteration of or work in wetlands, ponds, lakes, streams, or rivers; or if these activities would cause soil or other materials to wash into these water resources.

3.2.5.3 Biological Resources

- NS will encourage regrowth of vegetation in disturbed areas through stabilization of disturbed soils and reseeding.

- NS will use BMPs to minimize soil erosion and sedimentation in streams and wetlands during removal operations. Such actions could include using sediment barriers (e.g., silt fences or straw bail dikes), diversion ditches and sediment collection basins.

3.2.5.4 Air Quality

- NS will comply with all applicable federal, state and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during removal operations will be minimized by using control methods such as water spraying.

3.2.5.5 Noise

- NS will control temporary noise from equipment by ensuring all machinery has properly functioning muffler systems and by work hour controls.

3.2.5.6 Historic and Cultural Resources

- NS will make reasonable effort to convey ownership of bridges and other structures determined potentially eligible for the NHRP to prevent their removal.

- NS will retain its interest in and take no steps to alter the two bridges located at milepost SK 12.08 and SK 17.73 or archaeological site 12SJ8 until the Section 106 process of the National Historic Preservation Act (16 U.S.C. 470f, as amended) has been completed.

- If previously unknown archaeological remains are found during removal operations NS will cease work in the area and immediately contact the Indiana SHPO.

3.2.6.7 Transportation and Safety

- NS will observe all applicable federal, state and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during removal operations.

- NS will dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

- NS will restore roads disturbed during removal activities to conditions as required by state or local regulations.

- NS will use appropriate signs and barricades to control traffic disruptions during removal operations at and near the 39 at-grade crossings.

- NS will transport all hazardous materials generated by removal activities in compliance with the U.S. Department of Transportation Hazardous Materials Regulations (49 CFR

Parts 171-174 and 177-179).

- If any contamination is encountered or a spill occurs during removal operations, NS will follow appropriate response and remediation procedures outlined in its Emergency Response Plan.

3.2.7 References

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FEMA, 1978. Flood Insurance Rate Map, St. Joseph County, panel 125 (unincorp.). St. Joseph County, Indiana. August 15, 1978. Reference number 180224-0125-a.

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USGS, 1974. Topographic Quadrangle. North Liberty, Indiana, 1974.

USGS, 1974. Topographic Quadrangle. Stillwell, Indiana, 1974.

USDI, 1987. Fish and Wildlife Service, National Wetlands Inventory Map. Southbend, Indiana, 1987.

USDI, 1987. Fish and Wildlife Service, National Wetlands Inventory Map. Lakeville, Indiana, 1987.

USDI, 1987. Fish and Wildlife Service, National Wetlands Inventory Map. North Liberty, 1987.

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USGS, 1974. Topographic Quadrangle. Stillwell, Indiana, 1974.

USGS, 1969.Topographic Quadrangle. South Bend, Indiana, 1969.

USGS, 1974. Topographic Quadrangle. Lakeville, Indiana, 1974.

USGS, 1974. Topographic Quadrangle. North Liberty, Indiana, 1974.

USGS, 1974. Topographic Quadrangle. Stillwell, Indiana, 1974.

USFWS, 19 Federally Listed Threatened and Endangered Species in the State of Indiana, February 10, 1997.

FIGURES

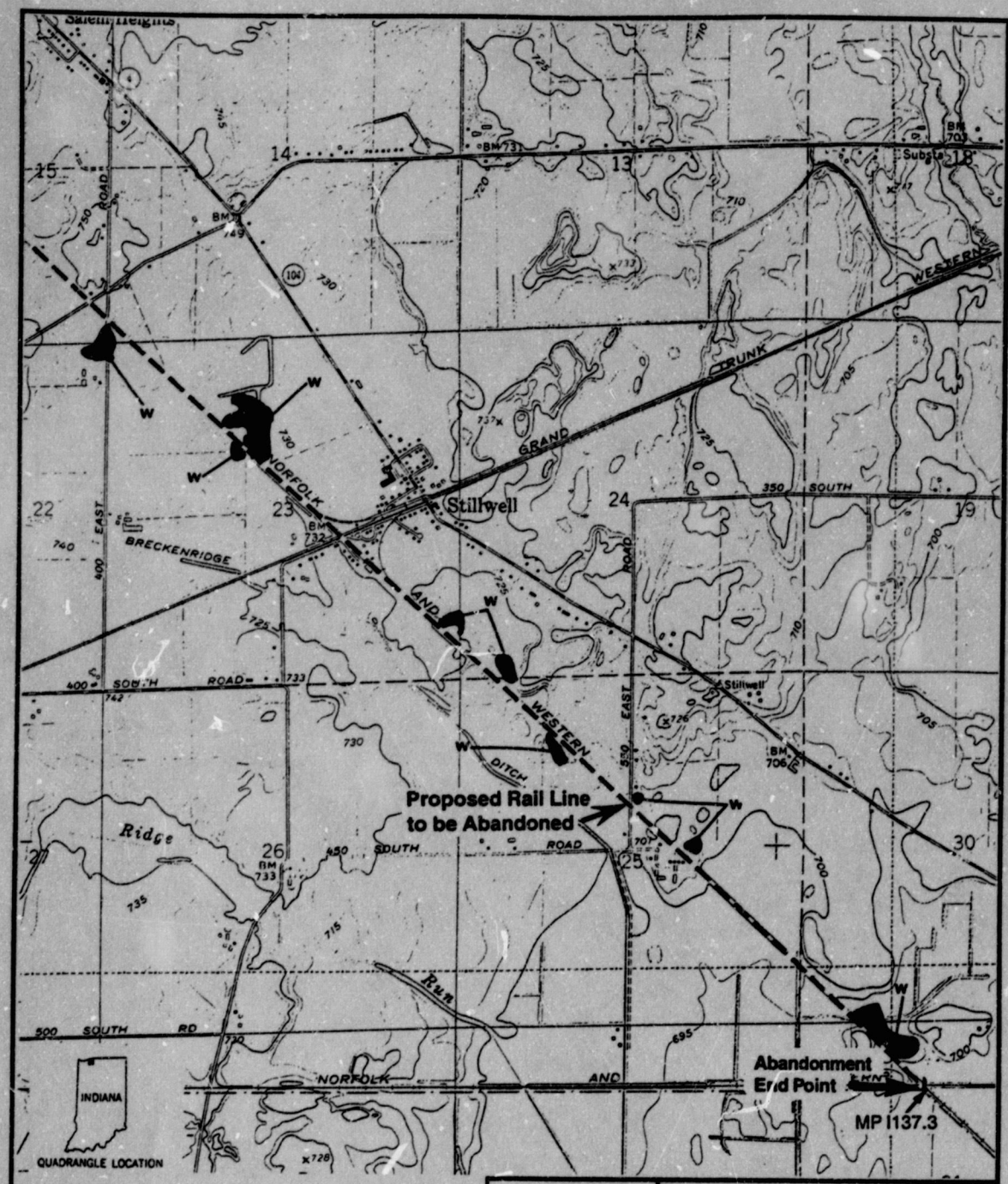


Figure 3-4a
NS PROPOSED ABANDONMENT
DILLON JUNCTION TO
MICHIGAN CITY
LA PORTE COUNTY, INDIANA

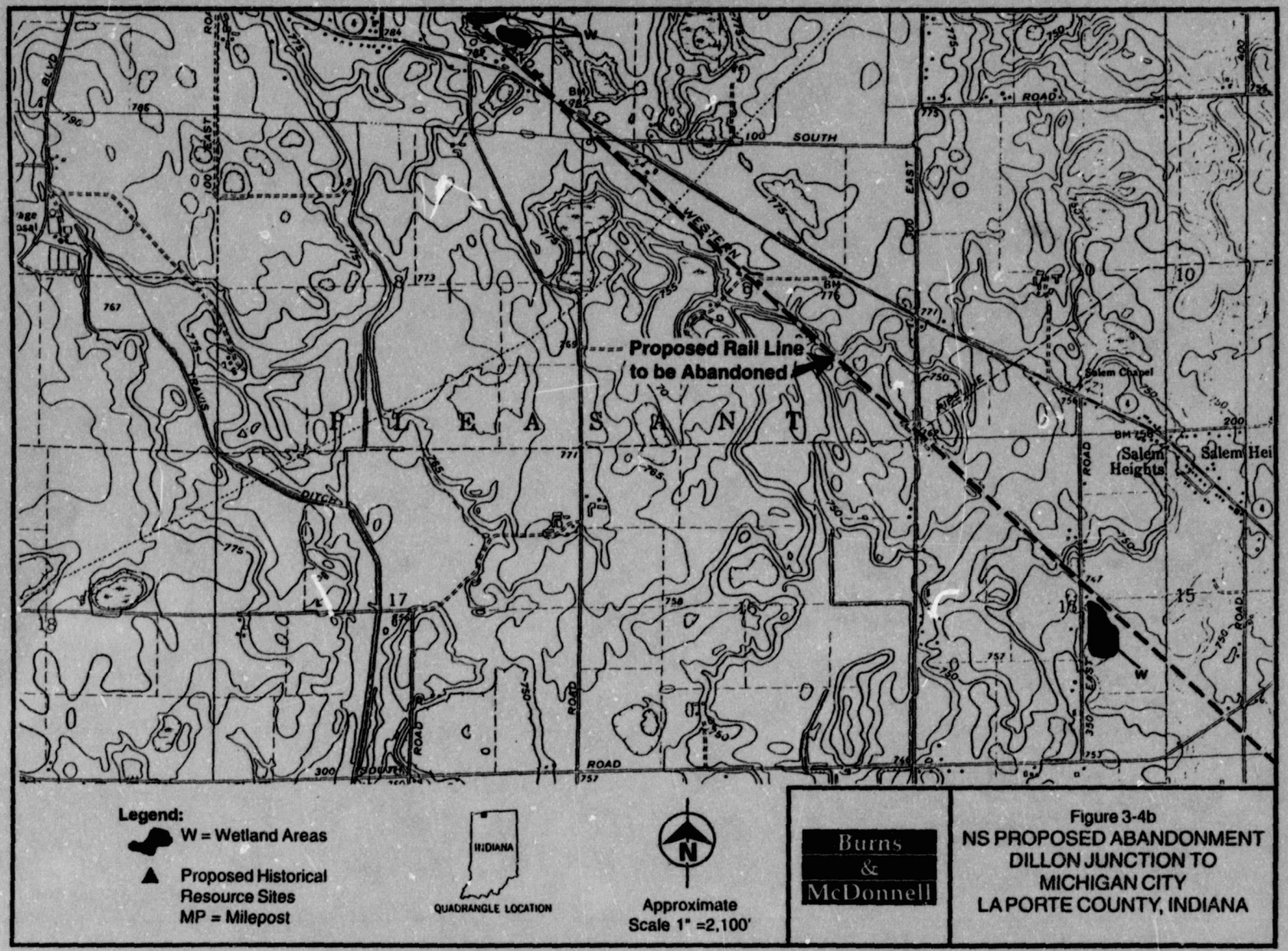


Figure 3-4b
NS PROPOSED ABANDONMENT
DILLON JUNCTION TO
MICHIGAN CITY
LA PORTE COUNTY, INDIANA

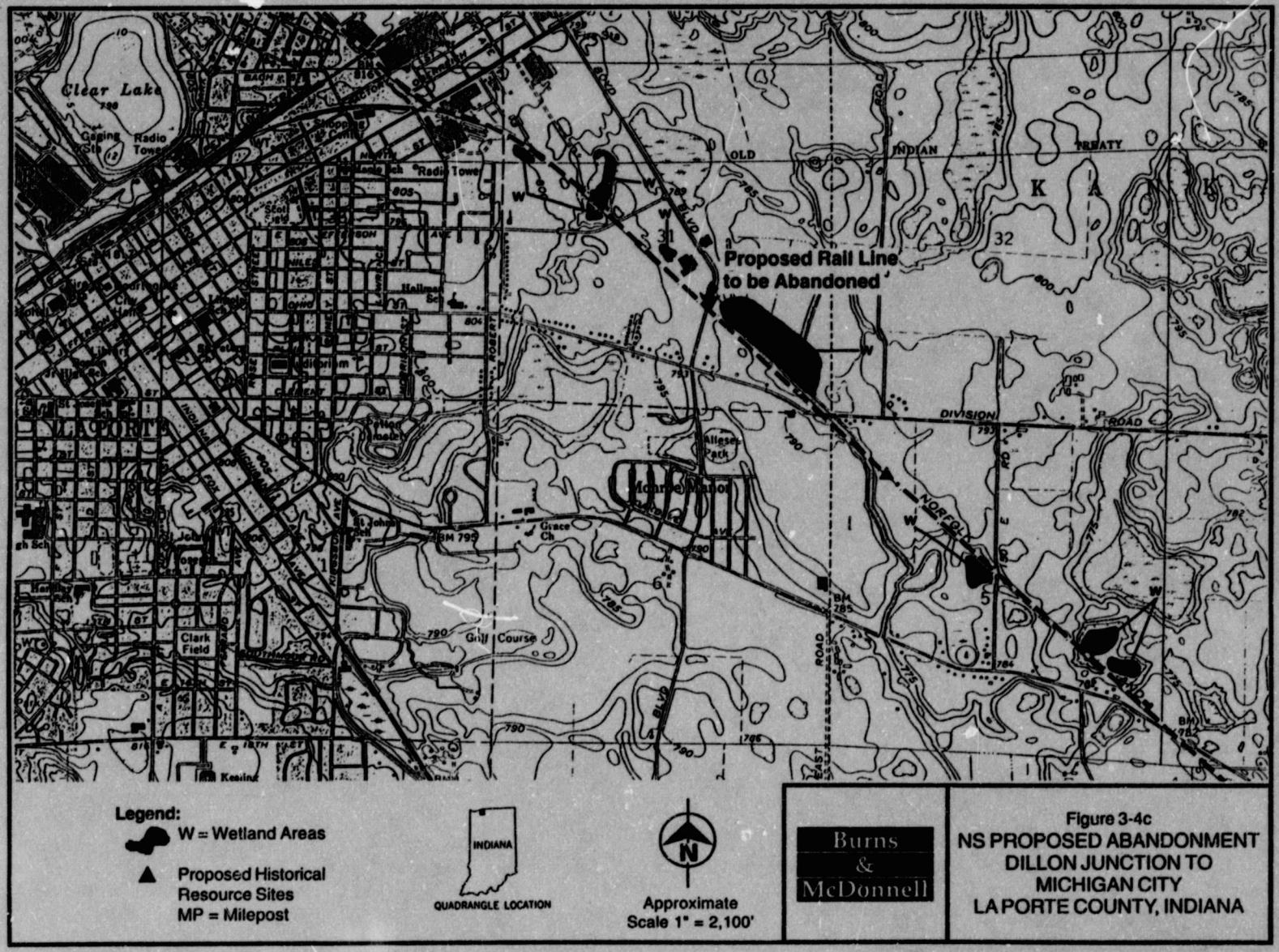


Figure 3-4c
NS PROPOSED ABANDONMENT
DILLON JUNCTION TO
MICHIGAN CITY
LA PORTE COUNTY, INDIANA

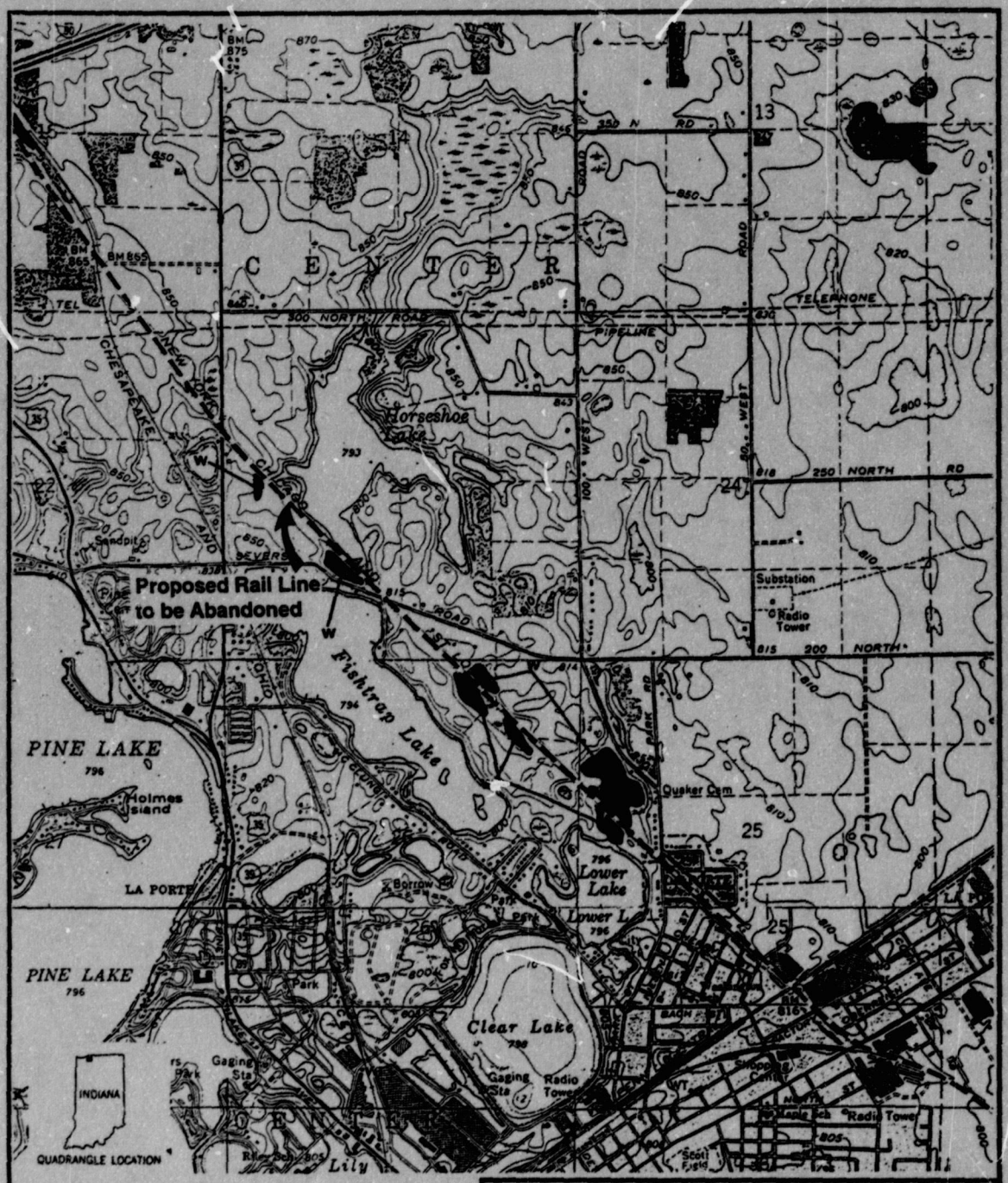


Figure 3-4d
NS PROPOSED ABANDONMENT
DILLON JUNCTION TO
MICHIGAN CITY
LA PORTE COUNTY, INDIANA

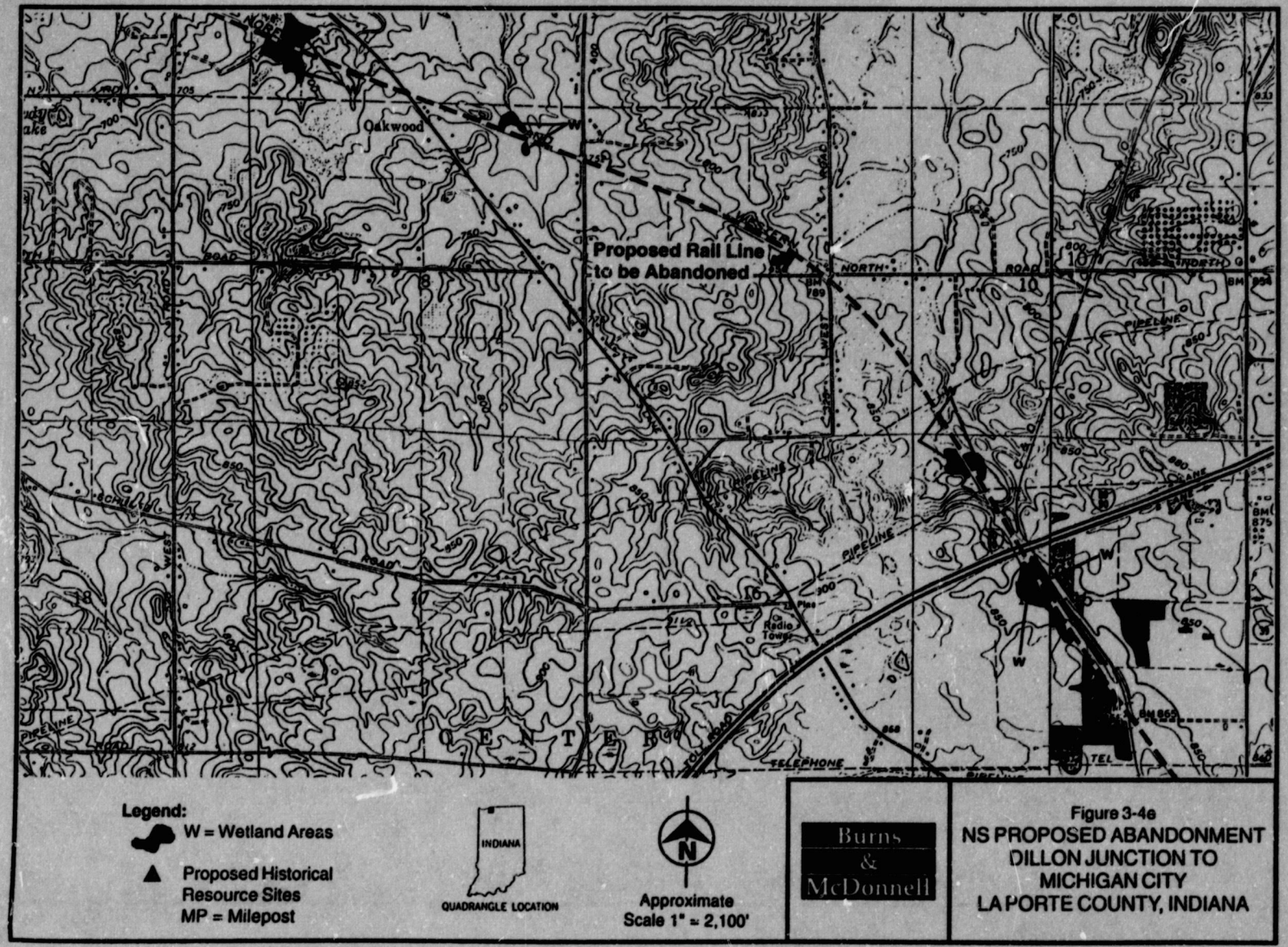


Figure 3-4e
NS PROPOSED ABANDONMENT
DILLON JUNCTION TO
MICHIGAN CITY
LA PORTE COUNTY, INDIANA

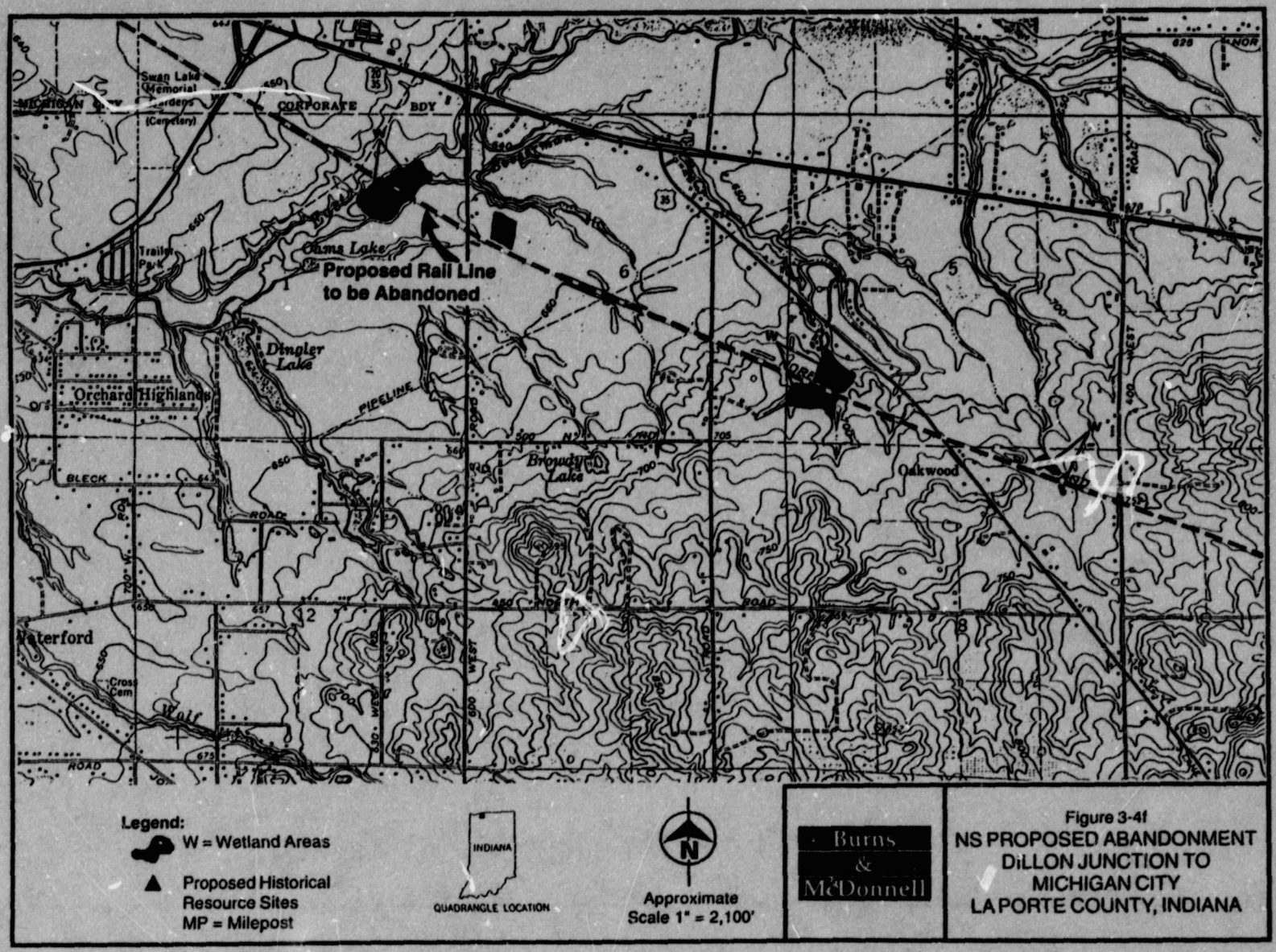


Figure 3-41
NS PROPOSED ABANDONMENT
DILLON JUNCTION TO
MICHIGAN CITY
LA PORTE COUNTY, INDIANA

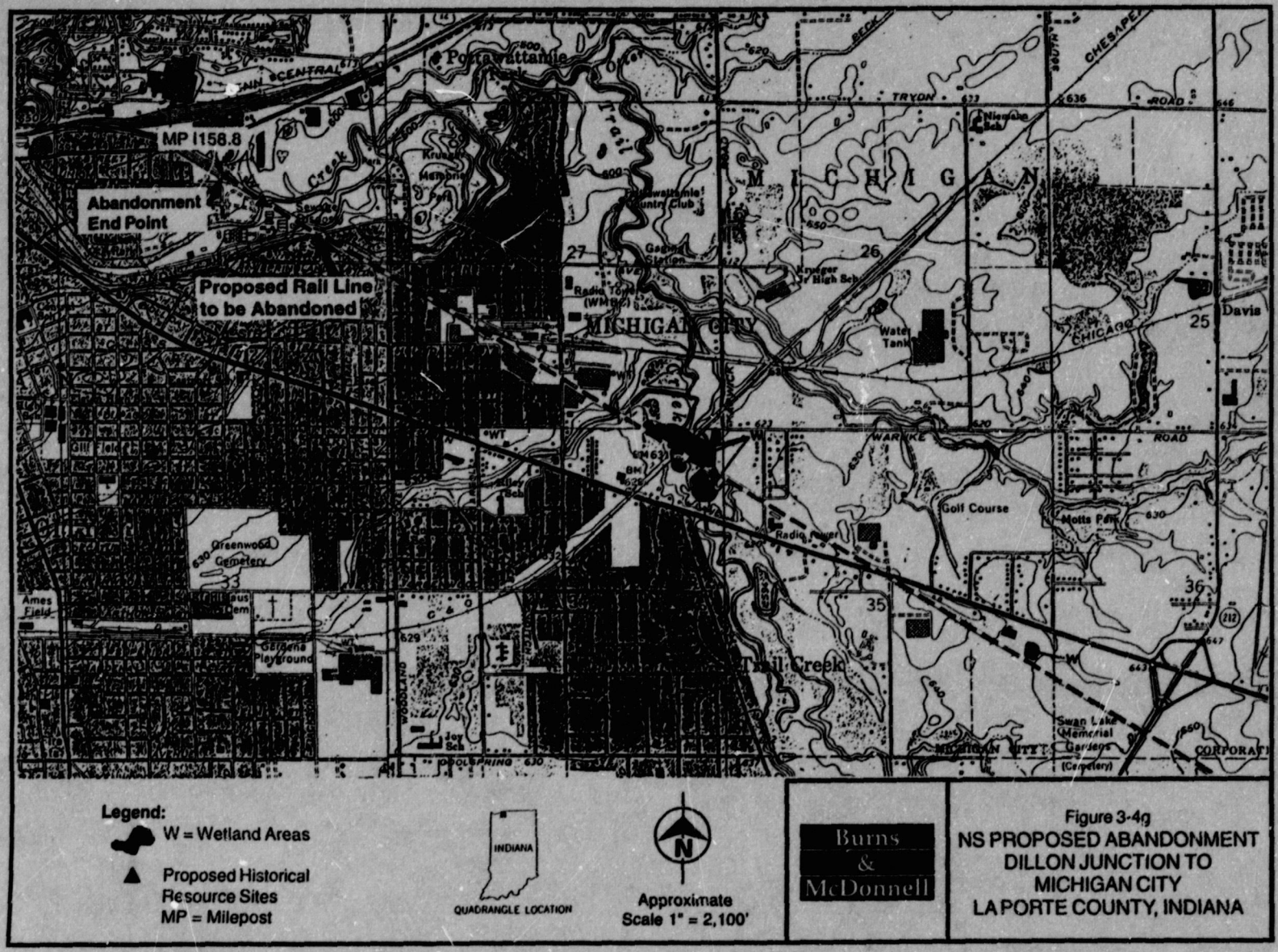


Figure 3-4g
NS PROPOSED ABANDONMENT
DILLON JUNCTION TO
MICHIGAN CITY
LA PORTE COUNTY, INDIANA

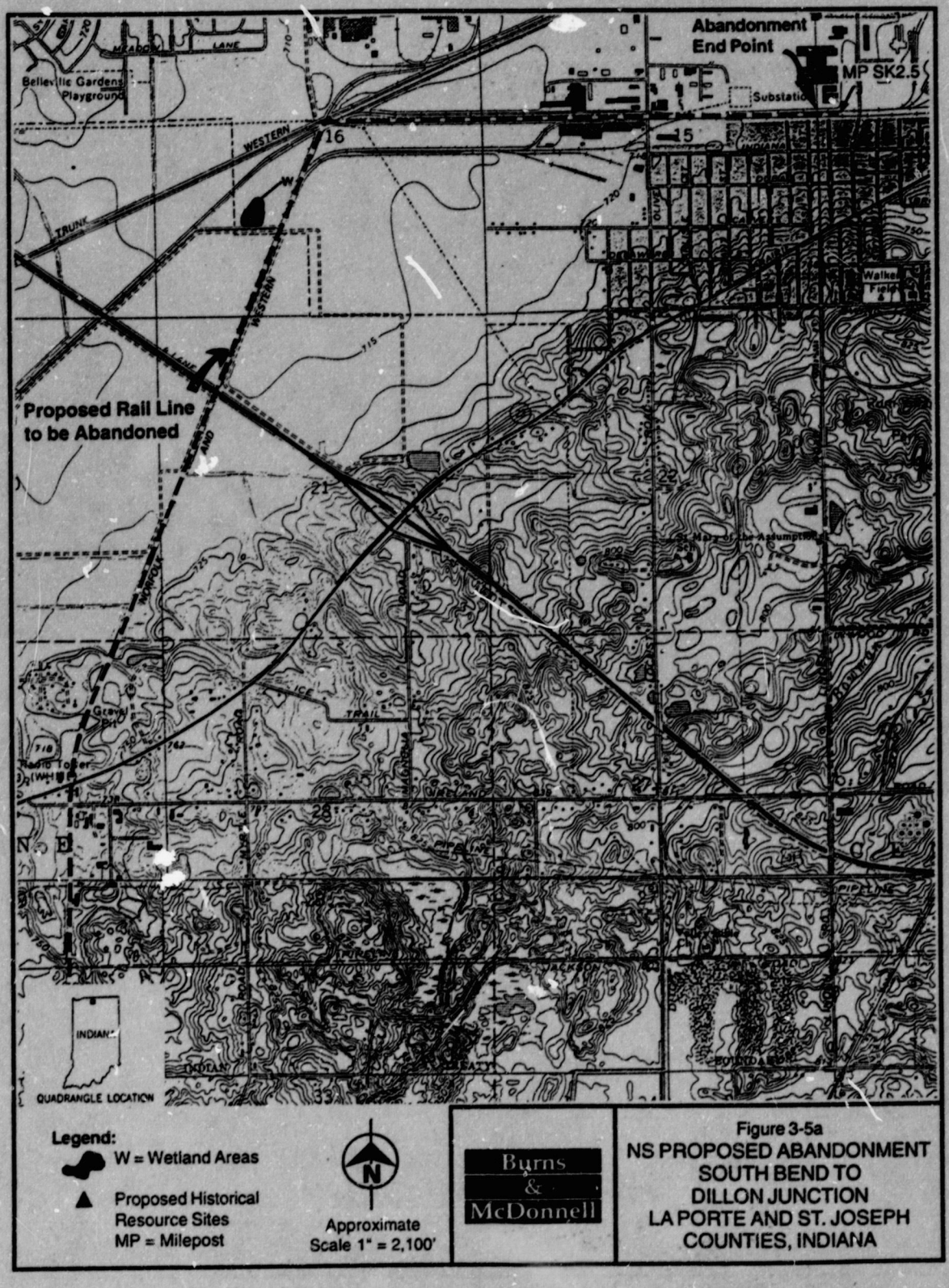


Figure 3-5a
NS PROPOSED ABANDONMENT
SOUTH BEND TO
DILLON JUNCTION
LA PORTE AND ST. JOSEPH
COUNTIES, INDIANA

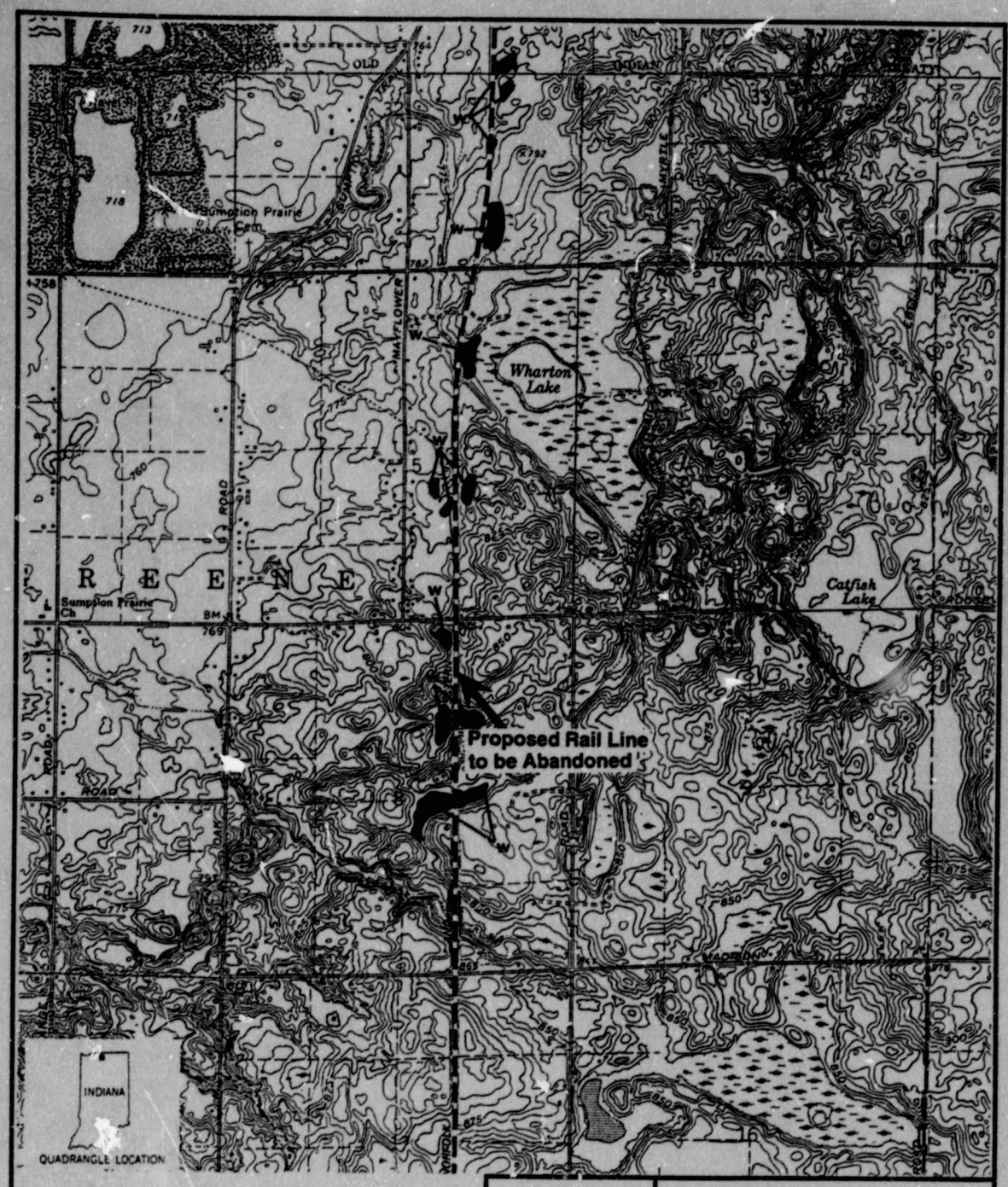


Figure 3-5b
NS PROPOSED ABANDONMENT
SOUTH BEND TO
DILLON JUNCTION
LA PORTE AND ST. JOSEPH
COUNTIES, INDIANA

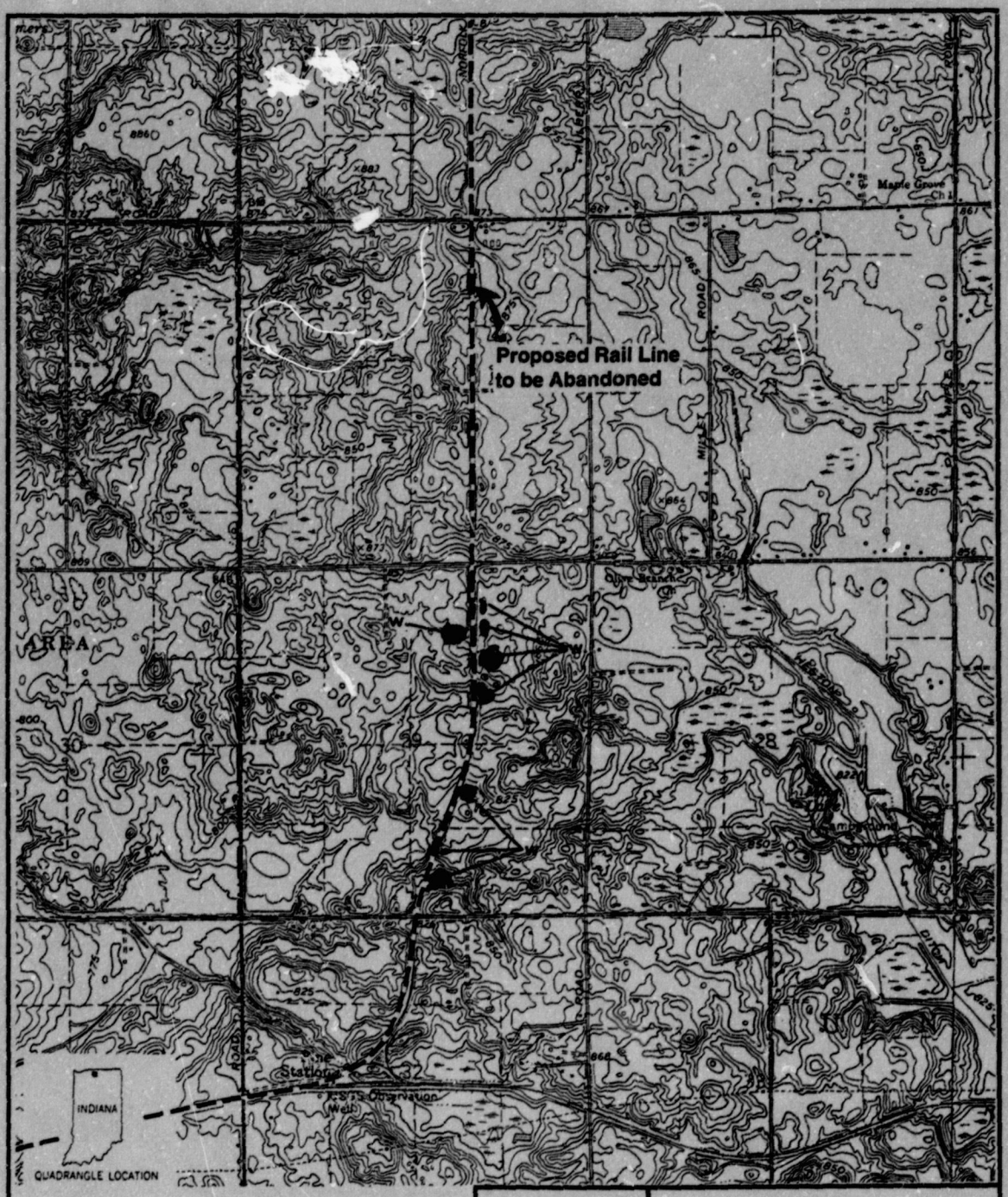


Figure 3-5c
NS PROPOSED ABANDONMENT
SOUTH BEND TO
DILLON JUNCTION
LA PORTE AND ST. JOSEPH
COUNTIES, INDIANA

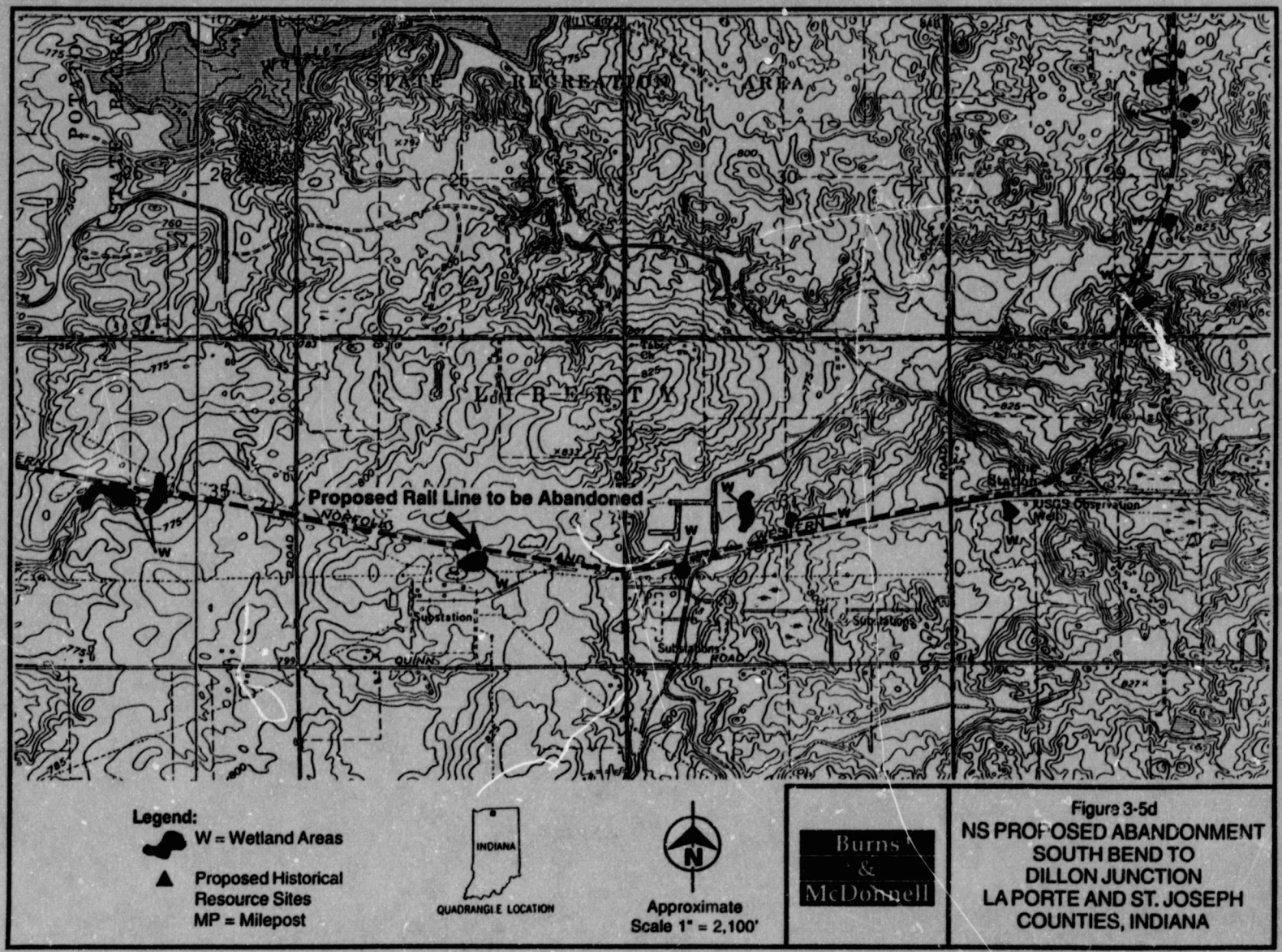


Figure 3-5d
NS PROPOSED ABANDONMENT
SOUTH BEND TO
DILLON JUNCTION
LA PORTE AND ST. JOSEPH
COUNTIES, INDIANA

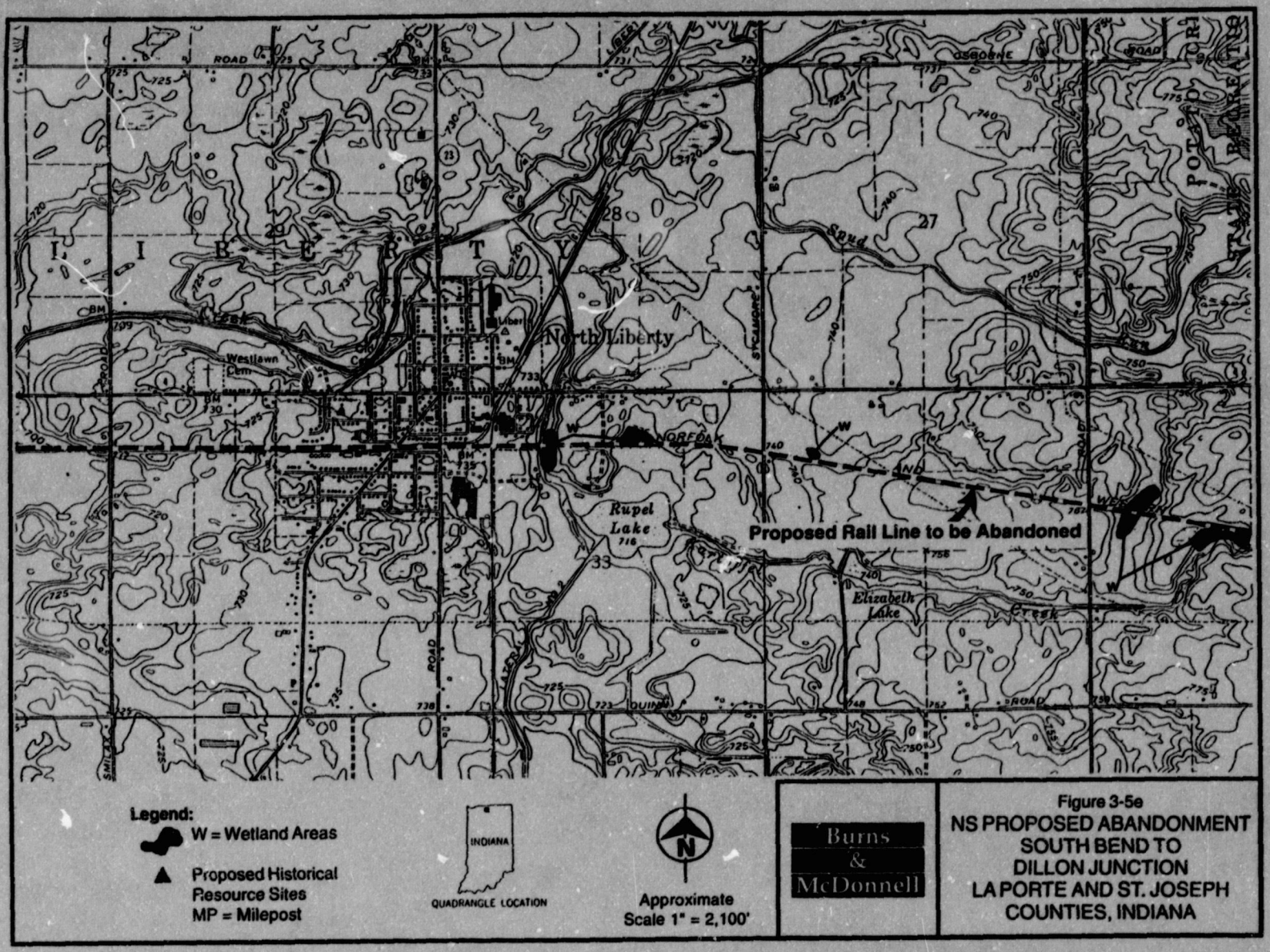


Figure 3-5e
NS PROPOSED ABANDONMENT
SOUTH BEND TO
DILLON JUNCTION
LA PORTE AND ST. JOSEPH
COUNTIES, INDIANA

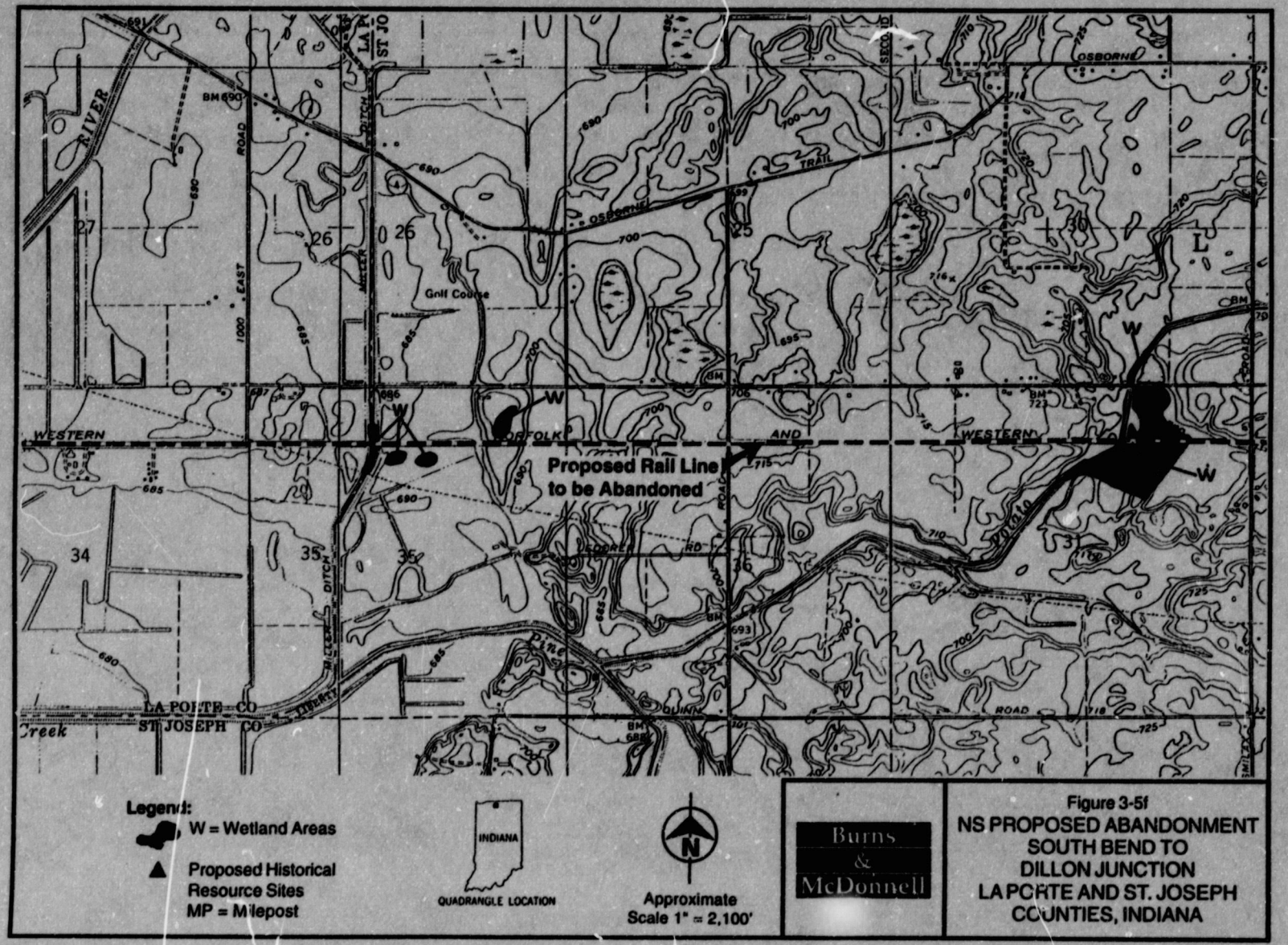
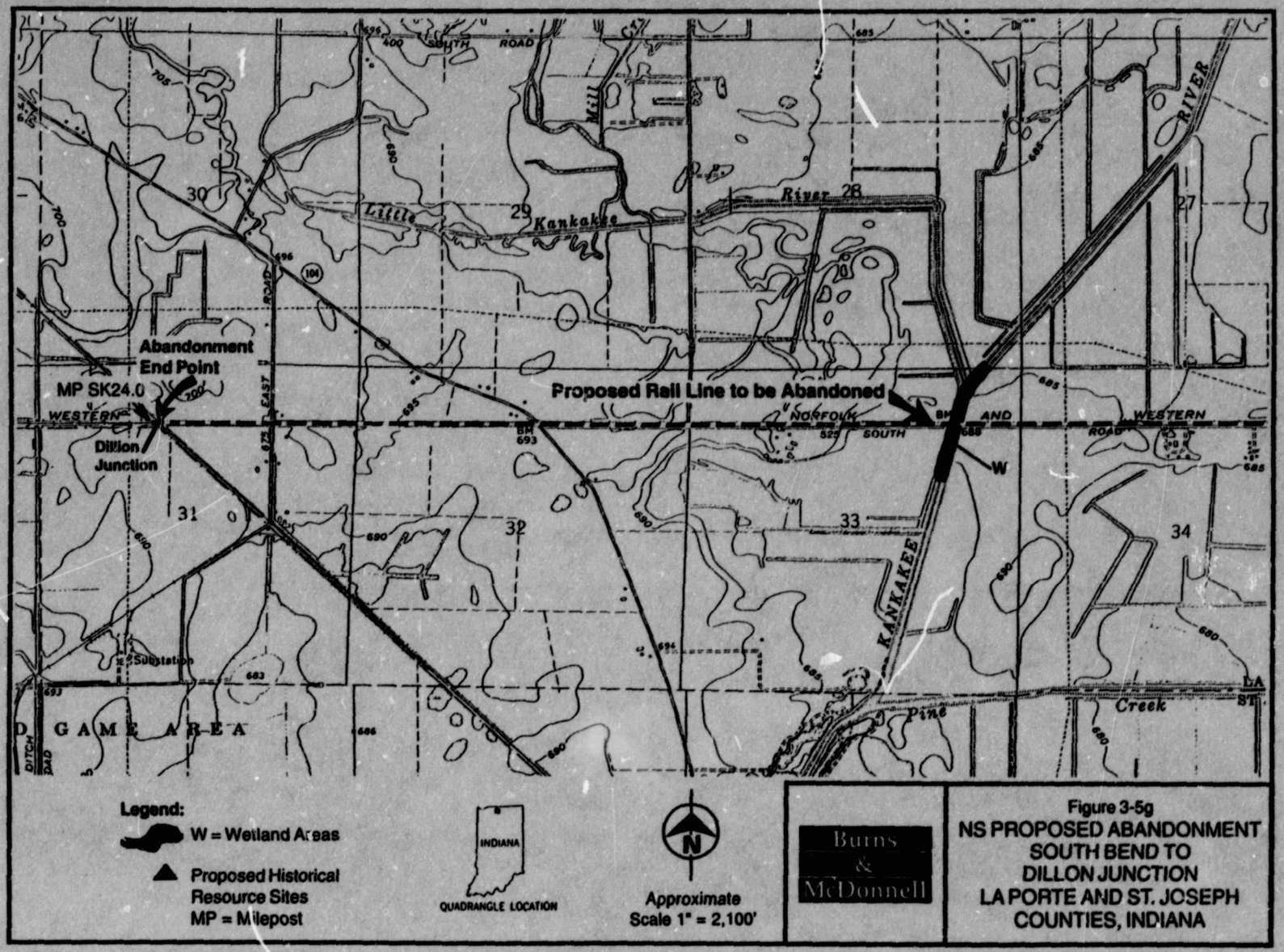


Figure 3-5f
NS PROPOSED ABANDONMENT
SOUTH BEND TO
DILLON JUNCTION
LA PORTE AND ST. JOSEPH
COUNTIES, INDIANA


Abandonment
End Point
MP SK24.0
Dillon
Junction
Proposed Rail Line to be Abandoned
WESTERN
NORFOLK
AND
WESTERN
SOUTH
ROAD
EAST
ROAD
Little
Kankakee
River
Mill
RIVER
KANKAKEE
Pine
Creek
GAME AREA
Substation
30
29
28
27
31
32
33
34
W
Legend:
W = Wetland Areas
Proposed Historical
Resource Sites
MP = Milepost
INDIANA
QUADRANGLE LOCATION
N
Approximate
Scale 1" = 2,100'
Burns
&
McDonnell
Figure 3-5g
NS PROPOSED ABANDONMENT
SOUTH BEND TO
DILLON JUNCTION
LA PORTE AND ST. JOSEPH
COUNTIES, INDIANA

4.0 OHIO

4.0 OHIO

Two rail line abandonment projects are proposed in Ohio by NS. This chapter analyzes the potential environmental impacts associated with the proposed abandonment projects. The rail line segment and bridge proposed for abandonment are listed in the table below.

Location	Length (miles)	Description
Toledo to Maumee (Toledo Back Belt)	7.5	Abandonment of existing NS rail line that serves Toledo with approximately two trains per day. Approximately 90 carloads per year would be diverted to truck.
Toledo Pivot Bridge	0.2	Abandonment of a pivot bridge that provides NS access across the Maumee River. Overhead traffic would be rerouted, resulting in no rail to truck diversions.

A detailed description of each proposed abandonment, including alternative actions considered, the existing environment, the potential environmental impacts, and proposed mitigation, are provided below.

4.1 TOLEDO TO MAUMEE (TOLEDO BACK BELT)

Toledo is in Lucas County, near the southwest shore of Lake Erie on the Michigan-Ohio border. Maumee, also in Lucas County, is approximately eight miles southwest of Toledo.

The segment proposed for abandonment is currently operated by NS. The area crossed by the segment consists predominantly of residential and commercial uses, with some industrial

facilities.

4.1.1 Proposed Action and Alternatives

4.1.1.1 Proposed Action

The proposed action includes abandonment of approximately 7.5 miles of existing NS rail line between Toledo and Maumee, OH, from MP TM5.0 to MP TM12.5 (Figure 3-6). This rail segment begins in northern Toledo at Laskey Road and trends south to near the Maumee city limits. The proposed abandonment ends at Gould Junction, an intersection of two NS-owned lines.

The proposed action would include removal of railroad-associated equipment along the right-of-way. Such equipment includes rails, ties, appurtenances (i.e., communications, signals) and grade crossings. Culvert structures would not be removed as part of the abandonment process. Abandonment operations would be limited to the existing right-of-way. The right-of-way would be available for conversion to alternative uses such as recreational trails, public utility rights-of-way, local transportation corridor, conversion to adjacent land uses, wildlife habitat, or a combination of the above. Abandonment procedures are discussed in greater detail in Section 1.2.

Following the Acquisition of Conrail, the subject rail line, which is used primarily for routing purposes, would not be necessary. Lines acquired due to the Acquisition would enable existing overhead NS rail traffic operating on this segment to be rerouted to other NS lines. Approximately 90 carloads per year from the line's sole shipper would be diverted to truck. Abandonment of this segment would eliminate the commitment of resources in manpower and expense to continue to maintain this unnecessary segment of line. Abandonment of this line is therefore preferred in order to obtain the maximum benefit from the proposed Acquisition.

4.1.1.2 Alternatives

Alternatives to the proposed abandonment action include: (1) discontinued train traffic with no abandonment; (2) continued operations by another carrier; and (3) the no-action alternative (continuing present operations). The Ann Arbor Railroad (AA) could purchase and serve the customer on the line; however, this would require AA to use trackage rights over CSX to access the line. This would be operationally inefficient and possibly not economically viable. CSX could purchase and operate the line; however, a traffic density of 12 carloads per mile would not be economically justifiable. Under the no-action alternative, NS would continue to maintain and operate this less efficient rail route. These alternatives would not provide the full operational, environmental and economic benefits possible through the proposed Acquisition.

4.1.2 Existing Environment

4.1.2.1 Land Use

Land uses along the 7.5-mile rail line segment between Toledo and Maumee are predominantly residential and commercial, but include some industry. The rail right-of-way itself consists of the rail line, graveled rail bed and sideslopes, and scattered areas of scrub brush and weedy annuals and grasses. Three city parks and one golf course are located adjacent to the right-of-way. Small occasional stands of scrub brush and weedy annuals separate these areas from the tracks. Commercial areas are most prevalent near crossings. Some larger companies that border this segment are Dupont, Teledyne, and Brent Industries.

No portion of the proposed abandonment is within a designated coastal zone management area.

According to the Bureau of Indian Affairs, no federally-recognized Indian tribes or Indian reservations are in Ohio.

4.1.2.2 Water Resources

The Toledo to Maumee rail segment crosses the Ottawa River, Swan Creek, Delaware Creek, two intermittent streams, and two drainage ditches (Figure 3-6). National Wetland Inventory (NWI) maps indicate two wetlands within 100 feet of this rail segment, including one palustrine open water wetland on each side of the right-of-way.

4.1.2.3 Biological Resources

Vegetation

Ballast and bare soil make up the majority of the right-of-way ground cover. Vegetation in residential and commercial areas is limited to fence lines bordering the right-of-way. Fence lines contain primarily weedy annuals and scrub brush, which exists outside of residential properties. Non-native grasses, deciduous and evergreen trees, and shrubs are common on residential properties adjacent to the rail line. Adjacent to parks, schools and golf courses there tends to be more natural vegetation cover. Stands of deciduous trees with underbrush, annual weeds and non-native grasses are found. However, these stands are uncommon and usually exist near ditches.

Wildlife

The right-of-way provides minimal habitat for wildlife because it contains little if any vegetative cover. The area is heavily disturbed and influenced by industrial and commercial development. Adjacent scrub brush and weedy annuals provide cover for small mammals such as mice, moles and rabbits. Adjacent timbered areas near parks and ditches provide food and shelter for squirrels, opossums and songbirds.

Threatened and Endangered Species

The United States Fish and Wildlife Service (USFWS) and the Ohio Department of Natural Resources (DNR) were contacted regarding threatened and endangered species in the area of the proposed rail line abandonment. They did not identify any threatened or endangered species or

their potential habitats in the project area. The area is heavily disturbed and influenced by industrial and commercial development. No threatened or endangered species or their potential habitats were observed during a site visit, nor are any anticipated to be present.

Parks, Forests, Preserves, Refuges and Sanctuaries

Three city parks that provide recreational facilities are located within 500 feet of the rail line segment. These parks are Bowman Park, located near Crestwood Road; Ottawa Park, which includes a municipal golf course, near Bancroft Street; and a city park at Schneider Road.

4.1.2.4 Air Quality

A portion of Lucas County currently has a nonattainment status for SO_2 pollution. The area of nonattainment includes the region east of Route 23 and west of the eastern boundary of the Oregon Township. All 7.5 miles of the Toledo to Maumee rail line segment are within this nonattainment area. Current sources of air emissions along this segment include vehicles, locomotives and industrial facilities.

4.1.2.5 Noise

Currently, an average of two trains per day operate on the Toledo to Maumee rail line segment. Rail, vehicular and commercial traffic are the primary sources of noise along this rail line segment.

Sensitive noise receptors within 500 feet of the proposed abandonment include 3,000 residences/residential complexes, two schools and three churches.

4.1.2.6 Historic and Cultural Resources

The Toledo to Maumee rail line was constructed around 1869 as a part of the Detroit, Monroe, and Toledo Railroad by the Lake Shore and Michigan Southern Railway Company. Based upon photographic evidence and physical inspection, six bridges along the proposed abandonment were evaluated to determine their potential eligibility for the National Register of Historic Places (NRHP). Two of the bridges are concrete culverts, one being a common box culvert and the second being two modern concrete pipes with a reinforced concrete bed. The remaining four bridges are of a single span plate girder design with an open deck and concrete supports. These designs are common on almost all rail lines and generally have dates ranging from 1910 to 1960. Although some of these bridges are potentially eligible for the NRHP because of their probable age (over 50 years old), all are of modest scale and undistinguished in design. An evaluation of these six bridges is that none of them meet the criteria for inclusion on the NRHP.

Burns & McDonnell's review of NRHP listings and the Ohio State Historic Preservation Office's (SHPO) records identified four archaeological sites within 1,000 feet of the proposed abandonment. None of these sites are currently listed on or eligible for the NHRP.

4.1.2.7 Transportation and Safety

An average of two trains per day currently operate over the Toledo to Maumee rail line segment. Only one rail shipper, A&K Rail Materials, is located on the line. NS purchased the line from CSX as a shortcut to improve rail service in the Toledo area. Following the Acquisition of Conrail by CSX and NS, this route would not be required since Conrail lines that NS will operate would be more efficient. Overhead traffic on the line would be rerouted to these more efficient Conrail lines.

The abandonment contains 18 at-grade crossings along the 7.5 miles of line, including three major throughfares: State Route 2, Central Avenue, and Dorr Street. ADT for three grade crossings follow:

- S.R. 2 averaged 24,180 vehicles per day
- Dorr Street averaged 19,770 vehicles per day
- Central Avenue averaged 17, 060 vehicles per day

Data were not available on the other 15 at-grade crossings for this segment. Other crossings are medium duty and residential roads which carry low to moderate amounts of traffic.

The Environmental Data Resources, Inc. (EDR) database report identified 24 State Inventory of Leaking Underground Storage Tanks (LUST) sites, 22 Ohio (SPILLS) sites, and two Resource Conservation and Recovery Information System-Treatment, Storage, or Disposal (RCRIS-TSD) sites within 500 feet of the proposed abandonment corridor. The two RCRIS-TSD facilities identified are the Teledyne CAE plant located at 1330 Laskey Road and the Dupont Toledo Plant located at 1930 Tremainsville Road. The database search revealed 395 unmappable sites. These sites are located somewhere within Lucas County and could not be precisely located due to poor address or geocoding information. No evidence of any of these sites was observed within the right-of-way during the site visit.

4.1.3 Potential Environmental Impacts of Proposed Action

4.1.3.1 Land Use

The proposed abandonment would change the existing land use designation of the railroad right-of-way from active to inactive status. An estimated 91 acres of land would be affected by this change. Removal activities would not disturb adjacent land uses. Any adjacent land that would be disturbed by removal activities would be restored by NS. The proposed abandonment would not affect any prime farmlands. The abandoned right-of-way is expected to revert to a use compatible with adjacent land uses.

No coastal zone management areas would be affected by the proposed abandonment.

NS does not have fee title to all of the right-of-way underlying the proposed abandonment. As such, upon abandonment, NS will not have a contiguous corridor available for future use. If an agreement to rail bank the involved right-of-way is not completed prior to abandonment, the lack of contiguous fee title, together with considerations related to location, physical condition, and adjacent conditions, leads NS to believe the right-of-way of the line proposed for abandonment would not be suitable for alternative public uses, such as highways or other forms of mass transit, energy production related transportation facilities, conservation or recreation corridors, or other public uses.

4.1.3.2 Water Resources

Removal activities associated with the proposed abandonment could disturb small areas of soil, thereby increasing the potential for soil erosion and sedimentation into area water bodies and adjacent wetlands. Vehicles would be restricted from wetlands and streams except when necessary for possible removal of bridge structures. The roadbed will be used for vehicular traffic whenever feasible during removal activities to minimize disturbance to vegetation within the right-of-way. Actions to control erosion and sedimentation could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches and sediment collection basins to ensure minimal impacts to the water quality of surface waters and wetlands.

Disturbance to streambeds during possible bridge pier removal would temporarily increase water turbidity. This increase would be temporary and restricted to the area of the bridge and a short distance downstream. Turbidity increases are expected to be less than those currently experienced during high rainfall and stream flow periods.

4.1.3.3 Biological Resources

Vegetation

Existing vegetation in the rail line right-of-way would be temporarily disturbed during the abandonment process due to vehicular traffic. Trimming of some trees adjacent to the right-of-way may be necessary for safe operation of equipment. However, opportunistic plant species would quickly spread to and revegetate the corridor. Current vegetation control practices along the right-of-way would be discontinued after removal operations are completed, allowing the spread and growth of adjacent vegetation. The area would eventually revert to communities similar to those adjacent to the right-of-way. Therefore, the overall impact of the proposed abandonment on vegetation along the right-of-way would be beneficial.

Wildlife

Abandonment would not adversely affect wildlife species within and along the rail segment right-of-way. Wildlife along the rail line would be temporarily disturbed during the abandonment process due to human activity and noise from removal equipment. However, once the abandonment is completed, the area would revert to a more natural environment. Wildlife habitat would be increased, and quality should be enhanced, thereby providing for greater species diversity and population size.

Removal operations could temporarily increase soil erosion into area wetlands and streams. However, adverse impacts to fish populations and habitats are not expected as NS will comply with permit requirements, sediment control measures and other recommended mitigation procedures.

Threatened and Endangered Species

Responses from the USFWS and Ohio DNR indicate they do not expect any impacts to threatened or endangered species or their potential habitats in the project area. No threatened or endangered species were observed during a site visit nor are they anticipated to be present. Therefore, this project would have no impact on them.

Parks, Forests, Preserves, Refuges, and Sanctuaries

Bowman Park, Ottawa Park, and the city park would benefit from the elimination of rail traffic and associated noise disturbances. The elimination of the potential for train/pedestrian-related accidents would make these parks safer for recreational uses.

4.1.3.4 Air Quality

Currently, part of Lucas County is in nonattainment for SO_2. Pollutant emissions during the proposed action would generally result from the operation of heavy equipment. Such pollutants vary by the source, as described below:

- Particulate matter, volatile organic compounds (VOCs), carbon monoxide (CO) and nitrogen oxides (NO_x) resulting from the combustion of diesel fuel.

- Fugitive dust emissions along the right-of-way and unimproved roads resulting from the operation of heavy equipment.

Fugitive dust can be controlled using control measures such as water spraying. The combustion emissions associated with removal operations (VOCs, CO, and NO_x) would be minor, of short duration and have insignificant impacts on air quality.

Post-abandonment pollutant emissions along the right-of-way would be eliminated due to the abandonment. Diversion of 90 rail carloads per year to truck would increase truck emission in the project area. However, because locomotives and vehicles contribute little SO_2, the elimination of trains along this rail segment and the addition of trucks in the county would have minimal if any impact on the nonattainment status of Lucas County.

4.1.3.5 Noise

Removal operations associated with the abandonment would cause temporary increases in noise levels during the removal of rails, ties, plates, spikes, railroad-related utilities, and signaling devices. These activities would require the use of trucks and front-end loaders. Noise generated by equipment would be temporary. Small increases in traffic noise could occur due to slow or stopped traffic when the crews are working on at-grade crossings. This increase would be temporary, occurring for only a short period during removal activities at grade crossings. Human and wildlife receptors, including 3,000 residences/residential complexes, two schools and three churches within 500 feet of the line, would benefit from the reduction in noise levels. Following removal activities, elevated noise from all rail-related actions would be eliminated.

4.1.3.6 Historic and Cultural Resources

No potentially historic bridges or structures were identified on the right-of-way proposed for abandonment. Four documented archeological sites are within 1,000 feet of the rail right-of-way. None of these sites would be affected by abandonment activities. The proposed Toledo to Maumee abandonment will have no effect on known or documented cultural resources. However, the potential for undocumented cultural resources has not been dismissed. If an archaeological site is discovered, the find will be reported to the SHPO immediately. NS will continue consultation with the Ohio SHPO to determine any further requirements.

4.1.3.7 Transportation and Safety

The proposed action would eliminate the need for 18 at-grade crossings, including the high traffic crossings of State Route 2, Dorr Street, and Central Avenue. After removal operations are complete, the lack of grade crossings would eliminate any potential delays and vehicle/train or train/pedestrian accidents. The recreational quality and safety of area parks, including Bowman,

Ottawa, and the city park, and schools, including the University of Toledo and Bowsher High School, would be enhanced from the absence of train traffic.

The results of the EDR database were the identification of 24 LUST sites, 22 Ohio SPILLS sites and two RCRIS-TSD sites within the proposed abandonment corridor. Preliminary information indicates that these sites are within 500 feet of the proposed rail line abandonment. The two RCRIS-TSD facilities identified are the Teledyne CAE plant located at 1330 Laskey Road and the Dupont Toledo Plant located at 1930 Tremainsville Road.

Because the disturbance resulting from removal of rail and ties would be limited to minor surface disturbance, none of the known sites are expected to be impacted as a result of the proposed abandonment. If any contamination is encountered during removal operations, NS will follow appropriate response and remediation procedures.

The database search revealed 395 unmappable sites. These sites could not be located because of poor address or geocoding information provided to the state and/or federal databases. No evidence of these sites was observed within the right-of-way during the site visit.

4.1.3.8 Energy

The STB requires an evaluation of the impacts of a rail abandonment on energy consumption if the abandonment would result in a diversion of more than 1,000 rail cars per year to truck transportation or diversion of more than 50 rail cars per mile per year over any line segment. Impacts to energy consumption relate to the reduced efficiency of transporting materials by truck as compared to rail. The Toledo to Maumee abandonment would result in the diversion of only 90 carloads per year to truck. This would not exceed STB thresholds. The detailed methodology for assessing energy impacts is provided in an Appendix to Part 1 of this ER.

4.1.4 Potential Environmental Impacts of Alternatives

Alternatives to the proposed abandonment would include no-action (and therefore no change in operations), continued operation by another operator, or discontinuation of service without abandonment. In either of the first two cases, the action would have no effect on the existing quality of the human or natural environment or energy consumption. In the third case, the action would result in the elimination of the effects of railroad operations, such as noise and air emissions.

4.1.5 Proposed Mitigation

Mitigation proposed by NS to minimize environmental impacts are listed below.

4.1.5.1 Land Use

- NS will restore any adjacent properties that are disturbed during right-of-way removal activities.

- Heavy equipment will be restricted from adjacent cemeteries wherever possible. Should disturbances to a cemetery be unavoidable, NS will comply will all state laws and statutes for the protection of cemeteries.

4.1.5.2 Water Resources

- NS will use Best Management Practices (BMPs) to minimize soil erosion and sedimentation in streams during removal operations. Such actions could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches and sediment collection basins.

- NS will disturb the smallest area possible around streams and tributaries and will revegetate disturbed areas immediately following removal operations.

- NS will clear all debris from culverts to avoid potential flooding and stream flow alteration, in accordance with federal, state and local regulations.

- NS will obtain all necessary federal, state and local permits if removal activities require the alteration of or work in wetlands, ponds, lakes, streams or rivers; or if removal activities would cause soil or other materials to wash into these water resources.

4.1.5.3 Biological Resources

- NS will encourage regrowth of vegetion in disturbed areas through stabilization of disturbed soils and reseeding.

- NS will use BMPs to minimize soil erosion and sedimentation in streams during removal operations. Such actions could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches and sediment collection basins.

4.1.5.4 Air Quality

- NS will comply with all applicable federal, state and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during removal operations will be minimized by using control methods such as water spraying.

4.1.5.5 Noise

- NS will control temporary noise from equipment by ensuring all machinery has properly functioning muffler systems and by work hour controls.

4.1.5.6 Historic and Cultural Resources

- NS will make a reasonable effort to convey ownership of bridges and other structures determined potentially eligible for the NRHP to prevent their removal.

- NS will retain their interest in and take no steps to alter any structures potentially eligible for NRHP listing until the Section 106 process of the National Historic Preservation Act 16 (16 USC 470f., as amended) has been completed.

- If previously unknown archaeological remains are found during abandonment and removal operations, NS will cease work in the area and immediately contact the Ohio SHPO.

4.1.5.7 Transportation and Safety

- NS will observe all applicable federal, state and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during removal operations.

- NS will dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

- NS will restore roads disturbed during removal activities to conditions as required by state or local regulations.

- NS will use appropriate signs and barricades to control traffic disruptions during removal operations at and near the 18 at-grade crossings.

- NS will transport all hazardous materials generated by removal activities in compliance