CONCLUSION

This Draft Environmental Assessment (EA) considers the potential environmental impacts of construction and operation of an 4.08-mile rail line by the Southern Electric Railroad Company (SERC) in Jefferson County, Alabama. The proposed rail line would connect the James H. Miller, Jr. Electric Generating Plant (Plant Miller) with a mainline of the Norfolk Southern Railroad. The purpose of the line is to provide an alternative means of rail transport for coal inbound to Plant Miller.

Based on the information provided from all sources to date and its independent analysis, the Section of Environmental Analysis (SEA) preliminarily concludes that construction and operation of SERC's proposed rail line would have no significant environmental impacts if the Board imposes and SERC implements the mitigation recommended in Chapter 6.

SEA preliminarily recommends that the Board impose on any final decision approving construction and operation of the proposed rail line conditions requiring SERC to implement the mitigation contained in Chapter 6. SEA will consider all comments received in response to the EA in making its final recommendations to the Board.

EXECUTIVE SUMMARY

The Section of Environmental Analysis (SEA) of the Surface Transportation Board (Board) has prepared this draft Environmental Assessment (EA) in response to a petition filed by the Southern Electric Railroad Company (SERC) with the Board for authority to construct and operate a 4.08-mile rail line in Jefferson County, Alabama.[1]

ES.1 PURPOSE AND NEED FOR AGENCY ACTION

SERC, an affiliate of The Southern Company, proposes to build a rail line between the James H. Miller, Jr. Electric Generating Plant (Plant Miller) and a mainline of the Norfolk Southern Railroad. Coal would be the primary commodity carried by the proposed line. The Burlington Northern Santa Fe Corporation (BN) and CSX Transportation, Inc. (CSXT) currently provide rail service to Plant Miller. The purpose of the proposed rail line is to provide an alternative means of rail transport for coal inbound to Plant Miller.

The Board conditionally granted SERC's petition, subject to completion of the agency's environmental review process and further decision, making the exemption effective at that time, if appropriate, with whatever environmental conditions are found to be required.

SEA prepared the EA based on its independent analysis of the project, the comments and mitigation requested by various federal, state, and local agencies as well as other concerned parties, and all the information available to date. The EA assesses the potential environmental effects of the proposed action and feasible alternatives, including the "no-build" alternative. SEA has served the EA on the public, which has been invited to submit comments on the document.

ES.2 OVERVIEW OF THE AFFECTED ENVIRONMENT (See Chapter 2 for details)

The proposed rail line would be located in northwestern Jefferson County,entirely within the unincorporated part of the county. The proposed line would be located around 15 miles from the

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[0] The Board was formerly the Interstate Commerce Commission (ICC). The ICC Termination Act of 1995, Pub. L. No. 104-88, 109 Stat. 803, which was enacted on December 29, 1995, and took effect on January 1, 1996, abolished the ICC and transferred certain rail functions and proceedings to the Board.

city of Birmingham, which is the largest city in the state. Aside from the residential and commercial uses associated with the small nearby town of West Jefferson, and Plant Miller itself, land use in the project vicinity is primarily reclaimed coal strip mines, planted pine plantations, and relatively young regenerated forest.

The project area is in the Warrior Basin of the Cumberland Plateau. Project area topography is undulating, submature to mature surface developed on sandstones and shales that have been intricately dissected by young valleys. Relief is moderate with elevations at the proposed site ranging from 260 to 460 feet above mean sea level.

Surface drainage in the project area is either directly or indirectly to the Locust Fork of the Black Warrior River, the waters of which empty into the Tombigbee River and then the Alabama and Tensaw Rivers, and finally, into Mobile Bay.

No endangered, threatened or proposed species of fish, mussels, birds, or mammals, or their critical habitat occur in the project area. One specimen of the federally-listed threatened flattened musk turtle was captured approximately 1.7 miles downstream of the proposed Locust Fork crossing.

The Locust Fork at the site of the proposed crossing is designated by the U.S. Coast Guard as non-navigable. The only road which the rail line would cross at-grade has Average Daily Traffic of less than 50 vehicles.

Jefferson County is a marginal nonattainment area for ozone. Plant Miller is a major source of air pollutant emissions affecting air quality within the general project area. In most of the project area the major noise source would be traffic on local roads, with some contribution also from existing rail traffic on the NS.

SEA conducted a Phase I cultural resources survey of the proposed rail right-of-way and potential borrow/spoil sites and concluded that there are no resources within the survey area which are eligible for the National Register of Historic Places. The Alabama Historical Commission concurred in this finding.

ES.3 DESCRIPTION OF ALTERNATIVES, INCLUDING THE PROPOSED ACTION (See Chapter 3 for details)

ES.3.1 SERC’s Proposed Route

Construction

Figure A-2 shows the location of the proposed rail construction route. The proposed line would begin at NS milepost 821 and continue for approximately 4.08 miles to connect with existing industrial trackage at Plant Miller.

The rail line would begin on the west side of the Locust Fork and proceed in a generally southerly direction, crossing Kilgore Road at-grade and continuing south to cross under the Flat Top Road (the road would be built up on a bridge over the line). Further south, the line would cross the Locust Fork on a bridge before connecting with existing Plant Miller trackage. In addition, the proposed construction would also involve borrow/spoil sites to be located outside the rail ROW; Figure A-2 shows the location of these sites.

Operation and Maintenance

At present coal is the only commodity expected to be shipped over the proposed rail line, which would provide an alternate rail route for western coal from the Southern Powder River Basin. NS would provide rail service over the proposed line and is expected to make around 1,300 total train trips (both loaded and empty) annually, or slightly less than four train trips a day.

SERC indicates that independent contractors would perform ROW and track maintenance on the proposed rail ine. SERC would implement a regular program designed to keep the railroad bed free of weeds. This would include use of mechanical measures and herbicides to clear track bed and the ROW adjacent to the track bed.

ES.3.2 Alternatives Initially Considered But Subsequently Eliminated From Further Consideration

Trackage Rights

This alternative could take two forms: (1) NS' acquisition of trackage rights to operate over BN trackage to Plant Miller; or (2) NS' acquisition of trackage rights to operate over existing CSXT trackage to Plant Miller. However, for reasons detailed in Chapter 3, neither of these options appear to be feasible alternatives to the proposed action.

Alternate Rail Construction Routes

SERC initially identified three other alternate rail construction routes, shown in Figure A-2 as alternates I, II, and III. Table 3-2 is a summary comparison of route evaluation factors among the four potential rail construction routes (the proposed route and three alternates).

Alternate I. The western leg of Alternate I would begin on the NS mainline somewhat to the west of where the proposed route would begin. Just south of its beginning, Alternate I would cross Bibby Creek and then ascend a bluff, continuing in a southeasterly direction for a total of about three-quarters of a mile before joining the proposed route. Alternate I would then follow the same route as the proposed route for about 2.25 miles. Just beyond the southern boundary of borrow/spoil site #4, Alternate I would loop to the east, away from the proposed route, and then back again to the west to cross the proposed route. Alternate I would continue

southwest along the western bank of the Locust Fork to connect with SERC's rail line which was built a few years ago to join the BN with Plant Miller (this SERC line is shown in pink in Figure A-2).

Unlike the proposed route, Alternate I would not cross the Locust Fork. Table 3-2 shows that Alternate I would be 4.87 miles long, requiring 158 acres of land for the ROW and 122 acres for borrow/spoil, compared to 4.08 miles long for the proposed route, which would take 132 acres for the ROW and 96 acres for borrow/spoil. In addition to this, the primary difference between Alternate I and the other potential routes is that Alternate I would affect substantially more wetlands (1.8 acres as opposed to approximately one-quarter acres for the other routes). Alternate I would cross 1 perennial drainageway and 10 intermittent drainageways.

Alternate I would make one at-grade public road crossing, and at the same location as the proposed route. There are approximately 18 residences within 500 feet of the Alternate I ROW, with the nearest one being around 175 feet from the ROW. Land use within and near the ROW is the same as for the other three routes: reclaimed strip mines, planted pine plantations and relatively young regenerated forest. The route would affect no known threatened or endangered species or cultural resource sites on or eligible for the National Register.

Alternate II. Alternate II would begin on the NS at the same point as the proposed route and would follow the proposed route for approximately the first three miles. Just beyond the southern boundary of borrow/spoil site #4, Alternate II would loop to the east, away from the proposed route, and continue south to cross the Locust Fork a few hundred feet east of where the proposed route would cross. Several hundred feet after crossing the Locust Fork, Alternate II would rejoin the proposed route. Alternate II would share a total of approximately 3.5 miles in common with the proposed route.

Alternate II would be 4.06 miles long, requiring 131 acres of land for the ROW and 96 acres for borrow/spoil. Alternate II would affect the same amount of wetland acreage as would Alternate III and the proposed route. Alternate II would cross 2 perennial drainageways (the Locust Fork and Bibby Creek) and 9 intermittent drainageways.

Alternate II would make one at-grade public road crossing (Kilgore Road), and at the same location as the proposed route. There are approximately 18 residences within 500 feet of the Alternate II ROW, with the nearest one being around 175 feet from the ROW. Land use within and near the ROW is the same as for the other three routes. The route would affect no known threatened or endangered species or cultural resource sites listed on or eligible for the National Register.

Alternate III. Alternate III would begin on the NS at the same point as the proposed route and would follow that route for

approximately the first 1.3 miles. At approximately the southern boundary of borrow/spoil site #2, Alternate III would diverge from the proposed route to parallel it on the east for around 0.8 miles before rejoining it. Alternate III would then follow the proposed route for around one-half mile until, near Snowtown, it would again diverge from the proposed route. Alternate III would then roughly parallel the proposed route to the east for around 0.7 miles before rejoining it on the west bank of the Locust Fork. From that point Alternate III would follow the same route as the proposed route, crossing the Locust Fork at the same location. Alternate III would share a total of approximately 2.5 miles in common with the proposed route.

Alternate III would be 4.04 miles long, requiring 131 acres of land for the ROW and 96 acres for borrow/spoil. Alternate III would affect the same amount of wetland acreage as would Alternate II and the proposed route. Alternate III would cross 2 perennial drainageways (the Locust Fork and Bibby Creek) and 9 intermittent drainageways.

Alternate III would make one at-grade public road crossing (Kilgore Road), and at the same location as the proposed route. There are approximately 18 residences within 500 feet of the Alternate III ROW, with the nearest one being around 175 feet from the ROW. Land use within and near the ROW is the same as for the other three routes. The route would affect no known threatened or endangered species.

Alternate III would affect one cultural resource site considered eligible for listing on the National Register. The site, which is a medium-sized subsurface artifact scatter of suspected Late Woodland origin, is located within the ROW at approximately the point where the northern boundary of borrow/spoil area #3 would intersect the ROW (see Figure A-2).

Conclusion. SEA's preferred rail construction route is the route proposed by SERC. SEA prefers this route to Alternate I because it would affect substantially fewer wetlands, would require less total acreage,and would involve acquiring property from fewer landowners (17 landowners versus 20 for Alternate I).

In terms of environmental impacts, there is little difference between the proposed route and Alternates II and III. These two alternates would be very slightly shorter than the proposed route. They would cross the same road at-grade, and at the same location, as the proposed route. They would affect the same amount of wetlands as the proposed route. Both of these routes would cross the Locust Fork, and at about the same location as the proposed route. Alternate III would affect one cultural resource site which is eligible for the National Register of Historic Places, while Alternate II and the proposed route would not. Alternate III would require property from one fewer landowner than would Alternate II and the proposed route. Based on this information, SEA considers the proposed route to be preferable to Alternates II and III. This EA includes an in-depth environmental analysis of SERC's proposed

route and a less detailed analysis of Alternatives I, II, and III.

ES.3.3 No-Build Alternative

If the proposed rail line is not built, environmental impacts associated with that rail construction and operation would not occur. This would eliminate the need to develop and maintain ROW. Impacts on wetlands would also be avoided.

ES.4 SYNOPSIS OF ENVIRONMENTAL IMPACTS OF THE PROPOSED RAIL LINE CONSTRUCTION AND OPERATION (see Chapter 4 for details)

ES.4.1 Land Use

The proposed ROW would require approximately 132 acres of land, while potential borrow/spoil would total 177 acres. None of the agencies contacted indicated any public plans or policies which would be in conflict with the proposed action. There are no prime farmland soils which would be affected. There are no known hazardous waste sites within the proposed ROW.

There are no habitable structures within the proposed ROW. The nearest residence is approximately 175 feet from the proposed ROW. There are 18 residences located within 500 feet of the ROW.

ES.4.2 Socio-economic

SERC expects approximately 50 people to be employed during construction of the proposed rail line. To the extent that these people spend their wages locally, there would be a limited, short-term positive impact on the local economy.

ES.4.3 Water Resources

The proposed rail line construction and operation would not affect groundwater quantity or quality.

The proposed rail line would cross 2 perennial waterways, including the Locust Fork, and 9 larger intermittent drainageways, as well as numerous miscellaneous drainageways. The proposed construction would result in filling a total of approximately 0.22 acres of wetlands, at four sites.

The proposed drainageway crossings are not expected to significantly affect surface water quality. SERC would require its construction contractor to obtain and adhere to the terms and conditions of a National Discharge Elimination System (NPDES) General Permit, which would require implementation of appropriate structural and nonstructural Best Management Practices (BMPs) to prevent and minimize nonpoint source pollutants in stormwater discharges.

The U.S. Army Corps of Engineers has already authorized 9

proposed drainageway crossings, the filling of 4 small wetland areas, the Bibby Creek crossing, and the construction of the Locust Fork bridge through one or more of Nationwide Permits 13, 14, 25, and 26.

The steps which SERC would have to take to obtain and comply with the required NPDES permit and Corps Nationwide Permits would minimize adverse water quality impacts.

ES.4.4 Biological Resources

Implementation of measures which SERC would take to minimize erosion of soil into waterways should prevent significant soil erosion impacts on aquatic wildlife.

Construction of a railroad bridge at the proposed Locust Fork crossing should have no detrimental effect on populations of the flattened musk turtle, as bridge construction should result in minimal siltation and as the proposed bridge site is located some 1.7 miles upstream of the most favorable habitat where the flattened musk turtle was captured. The U.S. Fish and Wildlife Service concurs in this view. No other federal or state-listed endangered or threatened plant or animal species would be affected by the proposed action.

ES.4.5 Transportation/Safety

The proposed rail line would cross only one, lightly-travelled public road at-grade, and should cause only minimal grade crossing safety and delay impacts. The potential for other safety impacts, such as derailments, are also minimal.

ES.4.6 Air Quality

Rail line construction and operation would not significantly affect local air quality, due to the projected low level of traffic over the proposed rail line and also to the fact that trains which would be added to the proposed line would be offset by a reduction in train traffic over the BN and CSXT lines.

ES.4.7 Noise, Cultural Resources, and Recreation

Construction and operation of the proposed route would not have significant noise or vibration impacts and would not affect any properties listed on or eligible for inclusion in the National Register. There are no public recreational resources which would be affected by the proposed action.

ES.4.8 Conclusion and Recommendation

Based on the information provided from all sources to date and its independent analysis, SEA preliminarily concludes that construction and operation of SERC’s proposed rail line would have no significant environmental impacts if the Board imposes and SERC implements the mitigation recommended in Section ES.5.

ES.5 SECTION OF ENVIRONMENTAL ANALYSIS' RECOMMENDATIONS FOR MITIGATION

Recommended Mitigation

Based on SEA's review of all information available to date and its independent analysis of the proposed rail line construction and operation, all the comments and mitigation requested by various federal, state, and local agencies, as well as other concerned parties, and the mitigation offered by SERC, SEA recommends that, if the Board approves the proposed construction and operation, such approval be subject to the following mitigation measures:

Land Use

1. In situations where the proposed rail line would sever property which the Southern Electric Railroad Company (SERC) would not acquire, SERC shall provide access to the severed property by constructing roads and/or at-grade crossings.

2. SERC shall obtain an easement to cross the streambed of the Locust Fork of the Black Warrior River from the Alabama Department of Conservation and Natural Resources and shall abide by any conditions attached thereto.

3. Should hazardous wastes be encountered in the project area during the proposed construction, SERC shall handle and dispose of such wastes in accordance with applicable federal, state, and local regulations.

Water Resources

4. SERC shall ensure that the proposed bridge over the Locust Fork provides adequate clearance to accommodate occasional flooding which may exist in the area.
5. SERC shall comply with the conditions attached to the U.S. Army Corps of Engineers Nationwide Permits issued in conjunction with the proposed rail line construction.

6. Prior to beginning construction, SERC shall require its contractor to obtain from the Alabama Department of Environmental Management, Water Division, a National Pollutant Discharge Elimination System permit for regulated stormwater discharges and shall require the contractor to abide by all conditions attached thereto.

7. SERC shall use tightly sealed coffer cells for the pouring of concrete for the Locust Fork bridge piers.

8. SERC shall ensure that all exposed portions of the right-of-way (ROW) not directly involved in rail operations are revegetated as soon as feasible with native grasses and/or other appropriate vegetation to control erosion.

9. SERC shall use only those herbicides for controlling ROW vegetation which will minimize adverse effects on the aquatic community and which are approved by the U.S. Environmental Protection Agency for such purposes.

10. SERC shall obtain qualified contractors to apply ROW maintenance herbicides and shall limit application of such herbicides to the extent necessary for rail operations.

Transportation/Safety

11. SERC shall design and construct the proposed rail line in accordance with all applicable requirements of the Federal Highway Administration, the American Association of State Highway and Transportation Officials, and the American Railroad Engineers Association.

12. SERC shall not begin construction of the proposed rail line until the Jefferson County Commission has approved its construction plans.

Air Quality

13. SERC shall obtain the required open burning permits from the Alabama Forestry Commission and the Jefferson County Health Department prior to conducting such activities during construction and shall comply with any conditions attached thereto.

14. SERC shall use Best Management Plans to control fugitive dust during construction.

Conclusion and Request for Comments

Based on the information provided from all sources to date and its independent analysis, SEA preliminarily concludes that construction and operation of the proposed rail line would have no significant environmental impacts if the Board imposes and SERC implements the mitigation recommended above. Therefore, the environmental impact statement process is unnecessary in this proceeding.

SEA specifically invites comments on all aspects of this draft EA, including suggestions for additional mitigation measures. We will consider all comments received in making our final recommendations to the Board. The Board will consider our final recommendations and the environmental comments in making its final decision in this proceeding.

If you wish to file comments and any questions regarding this EA, send an original and 10 copies to the Office of the Secretary, Attn: Victoria Rutson, Environmental Review (FD 33387), Surface Transportation Board, 1925 K St. NW, Washington, D.C. 20423. Comments should refer to the docket number of this proceeding:

Finance Docket No. 33387.

Date made available to the public: August 28, 1997

Comment due date: September 18, 1997

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1.0

1.1 PURPOSE AND NEED FOR AGENCY ACTION

The Section of Environmental Analysis (SEA) has prepared this draft Environmental Assessment (EA) in response to a petition filed by the Southern Electric Railroad Company (SERC, or Petitioner) with the Surface Transportation Board (Board) for an exemption under 49 U.S.C. 10502 from the prior approval requirements of 49 U.S.C. 10901 to permit the construction and operation of a 4.08-mile rail line in Jefferson County, Alabama.[1] The petition was filed on April 24, 1997, and designated as Finance Docket No. 33387.

SERC, an affiliate of The Southern Company, proposes to build a rail line between the James H. Miller, Jr. Electric Generating Plant (Plant Miller) and a mainline of the Norfolk Southern Railroad. The Alabama Power Company, a subsidiary of The Southern Company, owns and operates Plant Miller. SERC expects coal to be the primary commodity carried by the proposed line. The Burlington Northern Santa Fe Corporation (BN) and CSX Transportation, Inc. (CSXT) currently provide rail service to Plant Miller. BN delivers western coal to the plant, while CSXT brings in higher sulfur eastern coal. Due to the Clean Air Act Amendments of 1990 (CAAA), use of higher sulfur eastern coal is being phased out, and the proposed rail line would provide an alternate rail route for western coal.[2]

On July 1, 1997, the Board preliminarily concluded that SERC's proposal met the standards of Section 10502 and conditionally granted this exemption petition, subject to the completion of the agency's environmental review process and further decision, making the exemption effective at that time, if appropriate, with whatever environmental conditions are found to be required.

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[0]The Board was formerly the Interstate Commerce Commission (ICC). The ICC Termination Act of 1995, Pub. L. No. 104-88, 109 Stat. 803, which was enacted on December 29, 1995, and took effect on January 1, 1996, abolished the ICC and transferred certain rail functions and proceedings to the Board.

[0] Title IV of the CAAA relates to control of acid deposition, commonly known as acid rain. One of the goals of Title IV is to reduce the adverse effects of acid deposition through reductions in annual sulfur dioxide emissions. The sulfur dioxide reductions are to be obtained in two phases. Phase I has already taken effect. In Phase II, which begins on January 1, 2000, the emissions limits imposed on Phase I plants will be tightened, and emissions limits will also be imposed on smaller, cleaner plants. Over the long run, the demand for electricity may increase, and, as Phase II of the CAAA comes into effect, utilities may face greater difficulty in securing low-sulfur, "compliance coal" on a competitive basis. SERC believes that access to more than one rail carrier for transporting western coal would result in a lower delivered cost of coal.

On June 13, 1997, SERC submitted a request to SEA for a waiver of the requirement that SEA prepare an Environmental Impact Statement (EIS) on the proposed rail line construction (Appendix B, Attachment 1). In its response of June 19, 1997, SEA granted the waiver (Appendix B, Attachment 2). In its letter, SEA found that the proposed construction and operation is unlikely to involve significant environmental impacts and that an EA, rather than an EIS, is appropriate in this proceeding. SEA based its conclusion on a number of factors, including: (1) consultations with SERC, SEA's consultant in this proceeding, and numerous governmental agencies, (2) a June 11, 1997, site inspection of the project area conducted by SEA staff and its consultant, (3) the projected low level of train traffic, (4) the line's proposed location in a sparsely populated area, (5) the low number of roads to be crossed at-grade, (6) the small amount of wetlands which would be affected, and (7) the absence of sensitive species or cultural resources to be affected.

SEA prepared this EA in accordance with the National Environmental Policy Act (NEPA) and with the Board's regulations implementing NEPA and other environmental laws at 49 CFR 1105. This EA assesses the environmental effects of the proposed action and alternatives. Chapter 2 describes the affected environment in the project area, Chapter 3 describes in detail the proposed action and alternatives, Chapter 4 identifies the potential environmental impacts of the proposed action, Chapter 5 summarizes unavoidable, adverse impacts of the proposed action, and Chapter 6 identifies SEA's preliminary recommendations for mitigation. The Board has served the EA on the public, which has been invited to submit comments on the document.

Figure A-1 in Appendix A shows the project area location within the State of Alabama and also within Jefferson County. Figure A-2 shows in more detail the location of the proposed rail construction route and possible alternate routes.

1.2 FRAMEWORK FOR THE EA PREPARATION

In the process of preparing this EA, SEA consulted with a number of governmental organizations to solicit their comments on the proposed project and environmental issues which should be addressed in this document. Appendix C contains the responses to this consultation process. This EA addresses the issues raised by the respondents, as well as requested mitigation.

A "third-party" contractor prepared this document. Third-party contractors work on behalf of the Board, working under SEA's direction to collect the needed environmental information and compile it into a draft EA or EIS, which is then submitted to SEA for its review, verification, and approval. Petitioner retains these contractors subject to SEA approval. SEA approved the third-party contractor in this proceeding on April 5, 1997.

CHAPTER 2.0 DESCRIPTION OF THE AFFECTED ENVIRONMENT

The purpose of this chapter is to give a brief overview of the affected environment in the project vicinity. Environmental impacts of the proposed action as well as permitting requirements are discussed in Chapter 4.

2.1 LAND USE

As shown in Figure A-1, the proposed rail line would be located within the northwest quadrant of Jefferson County, near its western border. The line would be located entirely within the unincorporated part of the county; the nearest incorporated town is West Jefferson (Figure A-2). Although Jefferson County is generally heavily urbanized, land use in the project area vicinity is much less urban. Aside from the residential and commercial uses associated with the town of West Jefferson, and Plant Miller itself, land use in the project vicinity is primarily reclaimed coal strip mines, planted pine plantations, and relatively young regenerated forest. From its beginning on the NS mainline, the proposed rail line would be located almost entirely on the western side of the Locust Fork of the Black Warrior River (the Locust Fork); only its southern terminus would be located on the eastern side of the Locust Fork.

2.2 SOCIO-ECONOMIC SETTING

The proposed line would be located approximately 15 miles from the city of Birmingham, which is the largest city in the state. Jefferson County is part of the Birmingham Metropolitan Statistical Area (BMSA), which is composed of Jefferson, Shelby, Walker, Blount, and St. Clair Counties.

On the western side of Locust Fork, the proposed line would be in census tract 115; on the eastern side of Locust Fork the line would be in census tract 121.04. Table 2-1 at the end of this chapter shows selected population statistics for the county and local area. As the table shows, population density in the census tracts where the line would be located is substantially less than in the county as a whole.

2.3 PHYSIOGRAPHY

The project area is in a part of the Cumberland Plateau known as the Warrior Basin. Topography in the basin consists of an undulating, submature to mature surface developed on sandstones and shales that have been intricately dissected by young valleys. Relief is moderate with elevations at the proposed site ranging from 260 to 460 feet above mean sea level. Drainage in the project area is to the Locust Fork.

Soils in the project area are primarily silt or sandy loams underlain by sandstones, siltstones, or shales. Substantial expanses of this soil coverage have been surface or deep mined for coal. No soils

meeting the criteria for prime farmland are found at the project site.[3]

The climate in Jefferson County is humid and subtropical, with mild winters and hot summers. In winter the average temperature is 45 degrees F; the average daily minimum temperature is 33 degrees F. In summer the average temperature is 78 degrees F; the average daily maximum temperature is 90 degrees F. Precipitation is abundant, ranging from 48 to 68 inches annually.

2.4 WATER RESOURCES

2.4.1 Groundwater

The project area is located in Area 4 as defined by the U.S. Geological Survey (USGS) Report 88-4133; the two major water-bearing aquifers in Area 4 are the Knox-Shady and the Tuscumbia-Fort Payne. However, neither of these aquifers occurs in the project area vicinity. The aquifer in the project area is formed by the Pottsville Formation, which is comprised of clastic rocks (sandstones and shales). Groundwater in the Pottsville aquifer occurs under unconfined conditions at depths typically less than 200 feet. Water occurs along secondary features such as open joints, faults, and bedding planes. The quantities of water available depends on the size and extent of the fractures in the rock mass. Groundwater in some areas may be rich in iron and sulfur.

2.4.2 Surface Water

Surface drainage in the project area is either directly or indirectly to the Locust Fork of the Black Warrior River, the waters of which empty into the Tombigbee River and then the Alabama and Tensaw Rivers, and finally, into Mobile Bay. The perennial stream at the northern end of the proposed rail line, near where it would connect with the NS, is an unnamed tributary of the Locust Fork referred to locally as Bibby Creek.

The Locust Fork is classified by the Alabama Department of Environmental Management (ADEM) as "Fish and Wildlife", indicating that the stream supports fishing, propagation of fish, aquatic life, and wildlife. Neither ADEM nor the limited USGS water quality data available for this section of Locust Fork indicate any water quality problems in this area of the waterway. The Locust Fork main channel is approximately 250-300 feet wide in the project area. The waterway's mean flow was measured at Sayre, Alabama, approximately 10 miles upstream of the project area; it was 1,457 cubic feet per second (cfs) for the period of

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[0] As defined by the U.S. Department of Agriculture, prime farmland is land on which "the soil qualities, growing season, and moisture supply are those needed for a well managed soil to produce a sustained high yield of crops in an economic manner. It may be cultivated land, pasture, woodland, or other land, but it is not urban and built-up land or water areas."

record 1929-31, 1942-90. Minimum discharge for Locust Fork at Sayre was 17 cfs, recorded September 28 and October 2, 1931. The estimated ten-year seven-day low flow for the stream at Sayre is 28 cfs. The Locust Fork stream channel in the project area is characterized by long pools with slow current, with a substrate of sand, silt, and scattered boulders or rock ledges.

The Bibby Creek stream channel ranges from about 10 to 30 feet in width. The stream channel is characterized by long pools with slow current. The substrate of the creek is sand, silt, and scattered rock ledges. There are no stream gages on this stream; therefore, no recorded median and minimum flows are available.

The other intermittent flow streams which the proposed rail line would cross are typically 2 to 6 wide. These drainageways all empty into the Locust Fork. There are no stream gages on these streams and so there are no recorded median and minimum flows available.

Certain sites within the project area are designated as "wetlands". A wetland is defined as an area that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands are valuable because they provide habitat for a variety of wildlife species and because they filter overland runoff, serve as stormwater storage basins, and stabilize stream banks.

The above wetland definition includes three basic elements for identifying and delineating wetlands: the presence of wetland hydrology, hydrophytic vegetation, and hydric soils. Wetland hydrology is determined by the presence of permanent or periodic inundation, or soil saturation to the surface, during at least a certain portion of the growing season. Hydric soils are those that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic (oxygen-deficient) conditions in the upper part. Hydrophytic vegetation is macrophytic plant life growing in water, soil, or on a substrate that is least periodically deficient in oxygen as a result of excessive water content. These criteria are developed in detail in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands.

A natural resource survey was performed which included application of the above criteria in identification of wetlands which lie within or adjacent to the proposed right-of-way (ROW) or borrow/spoil sites. Identified wetlands are as follows (see Figures A-23 through A-27):

(1) This wetland was an open marsh with scattered shrubs and small trees. It drains into what was an adjacent beaver pond; however, this pond has since been washed away by flooding. Dominant understory vegetation was soft rush, wood-grass and panic grass. Overstory vegetation included black willow and buttonbush.

(2) This is a disturbed forested wetland located in a sharp curve of the proposed route. Dominant understory was soft rush, Japanese honeysuckle, and blackberry. Dominant overstory consisted of black willow, red maple, silky dogwood,

sweetgum, and persimmon.

(3) The proposed rail line would not affect this wetland.

(4) At this location the proposed route would cross Bibby Creek. The wetland here is a forested wetland with a sparse Japanese honeysuckle understory. Tree and shrub overstory include brook-side alder, silky dogwood, yellow poplar, and sycamore.

(5) This is a small poorly drained depressional area and a small forested drain with recently formed hydric soils. Dominant vegetation was black willow, loblolly pine, sycamore, privet, green ash and hawthorn. Soils consisted of shale and other mined overburden.

(6) This forested drain was adjacent to a reclaimed strip mine. Dominant understory was bushy bluestem, wool-grass, soft rush, and panic grass. Overstory trees and shrubs included black willow and mimosa.

Potential impacts of the proposed line on the above waterways and wetlands are discussed in Chapter 4, Section 4.4.

2.5 BIOLOGICAL RESOURCES

There are no officially designated wildlife refuges or protected areas located within the project area. The survey of wetland resources noted above was part of a series of natural resource surveys which were conducted by qualified wildlife biologists for the proposed rail line ROW and potential borrow/spoil sites.[4] The purposes of the surveys were to: describe the aquatic and terrestrial plant and animal species expected and/or observed in the study area, as well as their abundance; evaluate the wildlife habitat; and determine if any threatened, endangered, or special concern species occur in the study area. The surveys involved two phases: consultation with various organizations and databases to obtain information, and field investigations to confirm and supplement the information so obtained. The survey reports' description of the biological resource within the proposed ROW and borrow/spoil sites is summarized below. Conclusions regarding the biological resource impacts of the proposed construction and operation are discussed in Chapter 4, Section 4.5.

2.5.1 Flora

Much of the area comprising the study site, is, to varying degrees, disturbed by past activities such as strip-mining and logging.

Proposed Rail ROW

At the northern end of the proposed rail ROW, where it would

[4] A borrow site is a location from which soil and/or rock will be excavated and brought to the construction site for placement under the trackbed or in other areas of the rail ROW. A spoil site is a location designated for placement of material excavated and removed from the construction site.

intersect the NS, the habitat consists of low, marshy ditch areas. This is a disturbed site and it is highly unlikely that any unusual herbaceous species occur here.

Continuing south, the proposed ROW would rise to meet an old railroad bed that runs along a steep hillside until it intersects a small stream (Bibby Creek) at an old railroad crossing. Much of the habitat here is mixed pine/hardwood forest.

South of the proposed Bibby Creek crossing, the habitat changes to "open overstory, early successional plant communities" as the ROW passes through an old field. At the southern end of this segment, north of the proposed Kilgore Road crossing, the habitat is "early successional mixed pine/hardwood forest", consisting of a planted loblolly pine plantation approximately 6 to 8 years old.

South of Kilgore Road, adjacent to spoil site #2, the proposed route would pass through a reclaimed stripmine now vegetated with a variety of "weedy" species. Continuing south

through approximately borrow/spoil site #3 (see Figure A-2), the proposed ROW would pass through an area which is primarily "upland mixed pine/hardwood forest". Most of this area has been logged or otherwise disturbed in the past.

Near its southern end, the proposed ROW just north of the Locust Fork follows a steep hillside and drops down to the floodplain of a small creek. This represents the most floristically diverse and interesting plant association type (bottomland/lowland mixed hardwood forest) along the proposed route.

The biological resources survey found that none of the above communities are of particular ecological or botanical interest.

Borrow/Spoil Sites

All of the proposed borrow/spoil sites are highly disturbed sites. They consist either of reclaimed strip-mines and pastures (sites number 2, 3, and 4) or cut-over shelterwood forest in the early stages of regeneration (site #1). No habitat of botanical significance was found on any of these sites, and no evidence was seen of any plants other than the weedy invasives typical of such disturbed areas.

Threatened, Endangered, and Special Concern Plant Species

None of the federally listed Endangered or Threatened plant species are known to occur in Jefferson County. A computer search of the data in the collections of the Auburn University Herbarium, the University of Alabama Herbarium, and the Mohr Herbarium discovered no collection references for any of these species in Jefferson County. Considering preferred habitat type and known locality data, none of these species are likely to occur in the study area or in nearby localities, and none were observed during the biological resources field survey. The U.S. Fish and Wildlife Service (FWS) agreed that no endangered, threatened or proposed species of plants or their critical habitat occur in the project area

(Appendix C, Attachment 4).

The State of Alabama does not have an official list of endangered plant species which confers legal protection or other official status on these species. There are, however, at least two unofficially recognized lists generally thought to identify the unusual and rare plant species in the state. Several species on these unofficial lists have been collected in Jefferson County. Special efforts to locate habitat for these were made during the field survey; however, none were located.

The Alabama Natural Heritage Program has distributed a Plant Tracking List of over 300 species of interest in Alabama. This list admittedly includes many abundant and even "weedy" species, quite a few of which are known to occur in Jefferson County and some of which could occur on or near the study site. The field survey identified all plants in flower, fruit or recognizable vegetative condition within the study area. Only one of the plant species observed, the *Gentiana villosa*, appears on any of these unofficial lists. Two specimens of *G. Villosa*, listed unofficially as Endangered in the state, were observed approximately 220 feet away from the surveyed proposed ROW near the Snowtown Church, in what appears to be an old road or survey clearing. The specimens were growing under a large water oak. As this species prefers dryish upland woods, usually oak-pine-hickory, it is reasonable to expect it to occur elsewhere in the study area; however, no other specimens were observed during the field survey.

2.5.2 Fauna

The following subsections summarize the results of biological resource surveys of animal life within the study area.

Fish

Fishes were surveyed in the Locust Fork main channel and a small tributary (Bibby Creek). The primary objective of the survey was to identify species which occur in streams near the proposed rail line and determine if any federal or state listed threatened, endangered or special concern species are present.

The survey documented 24 species of fishes representing 10 families in the study area. Twenty-one species were documented from the main channel of the Locust Fork and 6 species were recorded from Bibby Creek. Dominant species collected in the survey were threadfin shad, gizzard shad, and bluegill. No threatened, endangered, or special concern fishes were recorded from the study area and none are expected to occur.

Mussels

Historical records indicate that the following federally listed mussel species could potentially occur in the study area: *Epioblasma metastrata, Lampsilis altilis, Lampsilis perovalis, Medionidus acutissimus, Medionidus parvulus, Pleurobema decisum, Pleurobema furvum,*

Pleurobema perovatum, and Ptychobranchus greeni. Recent surveys suggest that some of these species have been extirpated, and others have been severely restricted in distribution within the Black Warrior river system.

The Locust Fork and Bibby Creek in the vicinity of the proposed line were searched for freshwater mussels or mussel evidence on September 3, 1996. Shallow water along the shoreline as well as backwaters, exposed gravel-rubble bars, and river bank were searched for live mussels and dead shell material. No evidence of any unionid mussels was observed.

There is no suitable habitat in the study area for the more sensitive mussel species requiring relatively high quality lotic (running water) conditions. This section of the Locust Fork is affected by Bankhead Reservoir (full pool elevation of 255 feet). The substratum is primarily sand or silt, with very slow current and no exposed shoal areas. Present and past mining activities have further degraded much of the aquatic habitat.

Threatened Flattened Musk Turtle

In 1991 the study area was surveyed for reptiles and amphibians. The federally-listed threatened flattened musk turtle (*Sternotherus depressus*) was found to occur at very low densities in the study area. One individual was captured in a total of 142 trap-hours. The specimen collected was found outside of the proposed ROW (approximately 1.7 miles downstream of the proposed Locust Fork crossing) in rocky habitat more favorable to the flattened musk turtle.

The flattened musk turtle prefers rocky or sand bottom substrates, with numerous boulders or cracks and crevices. As part of the 1991 survey, a general reconnaissance of the river area in the vicinity of the proposed route was conducted by boat. The area was visually evaluated for the specific habitat requirements for the species. This evaluation indicated that the preferred habitat was not present in most areas.

The capture of one flattened musk turtle in a total of 142 trap-hours indicates a population low to very low in density. This density is well below the overall population throughout the turtle’s range found in previous studies. Thus the site contains no "hotbeds” or concentrations of flattened musk turtles.

Birds and Mammals

The project area was surveyed for the presence of endangered and threatened birds and mammals. Special attention was paid to potential impacts of the proposed construction on animals listed as endangered or threatened on the current federal lists and any species proposed for listing by federal agencies. No federally listed threatened or endangered birds or mammals were discovered. Critical habitat for federally protected endangered and threatened birds and mammals was not found. There are currently are no birds or mammals proposed for federal listing dwelling in or near the project area.

The red-cockaded woodpecker (*Picoides borealis*) and the bald eagle

(*Haliaeetus leucocephalus*) were the only endangered species that would likely occur, and a thorough search for these birds was made on project area lands and other contiguous property. Habitat for the red-cockaded woodpecker does not exist. Roosting and feeding habitat for the bald and golden eagle is lacking. Any bald eagles that may be found during the winter would be transient, and not permanent residents.

FWS reviewed a summary of the survey results and agreed that no endangered, threatened or proposed species of fish, mussels, birds, or mammals, or their critical habitat occur in the project area (Appendix C, Attachment 3).

2.6 TRANSPORTATION

Figure A-2 shows the local transportation network. Transportation impacts are discussed in Chapter 4, Section 4.5.

Kilgore Road (County Road 144) is the only road the proposed rail line would cross at-grade. This secondary road is lightly travelled, with Average Daily Traffic (ADT) of less than 50 vehicles.

The proposed rail line would make a grade-separated crossing of Flat Top Road (County Road 12), which is a primary county highway interconnecting other communities, including the West Jefferson community. Flat Top Road had a 1994 ADT of 2,250 and has a predicted ADT of 3,330 in the year 2014.

The NS line to which the proposed rail line would connect is part of an NS mainline through the northwestern part of the state into Birmingham.

The U.S. Coast Guard has designated the Locust Fork at the site of the proposed rail crossing as non-navigable (Appendix C, Attachment 5).

2.7 AIR QUALITY

Plant Miller is a major source of air pollutant emissions affecting air quality within the general project area. The Birmingham urban area and associated industrial sources would also have some effect on air quality in the project vicinity.

Jefferson County has been designated as a marginal nonattainment area for ozone.[5] The National Ambient Air Quality Standard (NAAQS) for

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[0] Under the provisions of the Clean Air Act, the U.S. Environmental Protection Agency has established health-based National Ambient Air Quality Standards (NAAQS) for six air pollutants. Regions within a state are designated as either attainment or nonattainment areas. If emissions of a particular pollutant exceed the maximum emissions allowed under the national ambient air quality standard for that pollutant, then the region in

ozone is 0.12 part per million (ppm) on an hourly basis, which can be exceeded no more than three days during a rolling three-year period. Historically (1986-1988), the maximum allowable concentrations of ozone are exceeded in the BMSA only during May through August. The nearest Class I area is the Sipsey Wilderness, approximately 40 miles away.[6]

2.8 NOISE

The project area is rural, with land use being primarily woodland; in most of this area the major noise source would be traffic on local roads, with some contribution also from existing rail traffic on the NS. Existing day-night sound levels (L_{dn}) in such an area would be expected to be relatively low, ranging between 48 and 52 dB. However, ambient noise levels could be expected to be higher in the vicinity of Plant Miller due to the activities involved in operation of the plant, including existing rail and vehicular traffic there. Noise levels near the plant would be closer to those typically associated with industrial areas.

2.9 CULTURAL RESOURCES

SERC contracted with the University of Alabama Office of Archaeological Services for a cultural resource evaluation of the project area. The evaluation was performed during September 1996 and February 1997; its purpose was to determine the presence of historical/archaeological resources and to evaluate any such resources. The study consisted of a literature and records search of the project area and an on-site cultural resource survey along the proposed ROW and borrow/spoil sites.

The literature/records search involved examining the Alabama State Site Files (ASSF) and the National Register of Historic Places (National Register) and related supplements for Alabama. The records review indicated that there were no sites or properties in the project area which are currently listed on the National Register. Review of the ASSF showed no previously recorded archaeological sites within the proposed ROW but did show one such site within borrow/spoil site #5. The site was not considered significant and was not considered eligible for the National Register.

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question is designated as a "nonattainment area" for that pollutant. Likewise, if emissions do not exceed the maximum allowed levels, the region is an "attainment area" for the specific pollutant. The designations are pollutant-specific, which means that an area may fall into both categories for different pollutants.

[0] Amendments to the Clean Air Act had the intention of protecting air quality by setting aside "Class I" areas for pristine air quality. Class I air quality areas are generally locations such as national parks and wilderness areas.

The field survey identified seven new archaeological sites within the proposed ROW; these sites have been added to the ASSF. However, all are considered ineligible for the National Register due to the paucity of artifacts, disturbed contexts, and the lack of research potential, and no further archaeological work is recommended for these sites.

The cultural resource evaluation was submitted to the Alabama Historical Commission for its review. The Historical Commission concurred in the conclusion that there were no sites within the study area which are included in or eligible for nomination to the National Register (Appendix C, Exhibits 7 & 9).

2.10 RECREATION

There are no public recreational areas or wildlife refuges in the project vicinity.

CHAPTER 3.0 DESCRIPTION OF ALTERNATIVES, INCLUDING THE PROPOSED ACTION

3.1 SERC's PROPOSED ROUTE

3.1.1 Construction

SERC's proposes to build a rail line between Plant Miller and a NS mainline. The proposed line would begin at NS milepost 821 and continue for approximately 4.08 miles to connect with existing industrial trackage at Plant Miller.

SERC's proposed rail line is shown in green in Figure A-2. The line would begin on the west side of the Locust Fork and proceed in a generally southerly direction, to the east of the community of Kilgore. It would cross the Kilgore Road at-grade and, continuing south, would pass to the east of the community of Snowtown, where the rail line would cross under the Flat Top Road (the road would be built up on a bridge over the line). The rail line would continue in a southerly direction to finally descend a steep upland slope and enter a narrow floodplain along the west side of the Locust Fork. The line would cross the Locust Fork on a bridge and then parallel an existing coal tailings pond before connecting with existing Plant Miller trackage.

Basic steps in the construction process would be as follows:

- after the centerline is finalized, SERC would clear and remove all underbrush, trees, etc. for the proposed ROW;
- SERC would then finalize and locate spoil areas;
- cuts and fills for the slopes would be made to provide a flat surface for the top-of-grade profile;
- once the proper top-of-grade is compacted and any miscellaneous drainage piping installed, the sub-ballast would be placed and compacted to its proper elevation;
- at this time all ditches, crossings, etc. Would be installed or provided; and
- SERC would then complete final installation of the ties, ballast, and rail.

SERC would follow the same basic procedure at the location of highway or railroad structures, with the additional step of putting in piling, footings, etc. for any supports.

Minimum width of the proposed ROW would be 150 feet and maximum width would be 525 feet. Final ROW width would be determined by final rock cuts, fills, and ditch requirements, which provide sufficient room for the slopes and trackbed.

SERC expects construction to take approximately 16 months. Clearing/grubbing would take approximately 6 months, excavation and fill around 9 months, bridge construction approximately 9 months, and track laying around 8 months (some of these activities would occur simultaneously). Table 3-1 at the end of this chapter gives design

specifications for the proposed rail line.

Figure A-1 shows the regional location of the proposed line, while Figure A-2 shows the proposed rail line in the project area. Figure A-3 shows the proposed plan and profile of the line. In addition, the proposed construction would also involve borrow/spoil sites to be located outside the rail ROW; Figure A-2 shows the location of these sites.

3.1.2 Operation and Maintenance

Operations

SERC states that it expects up to 9 million tons of coal per year to be shipped over the proposed rail line. SERC says it knows of no other potential shippers over the proposed line and that at this time it does not expect any other commodity to be shipped over the line.

Coal moving over the proposed line would originate in the Southern Powder River Basin in Wyoming. The coal trains would move over the Union Pacific rail lines to Memphis, Tennessee, and from there over NS rail lines to the proposed line on into Plant Miller.

Plant Miller coal currently arrives by rail, truck, and river barge. BN currently delivers western coal to the plant, while CSXT brings in higher sulfur eastern coal. Use of the higher sulfur eastern coal is being phased out, and the proposed rail line would provide an alternate rail route for western coal from the Southern Powder River Basin.

NS would provide rail service over the proposed line and is expected to make around 1,300 total train trips (both loaded and empty) annually. SERC expects each train to consist of four locomotives and 115 cars, with typical train length of around 6,400 feet. Normal operating speed over the proposed line would be 25 mph, which is also the expected train speed at the grade crossing.

NS trains would deliver coal to Plant Miller seven days per week, at a time of day which could vary within any 24-hour time period.

Maintenance

SERC indicates that independent contractors would perform ROW and track maintenance on the proposed rail ine. These contractors would perform track inspections in accordance with FRA requirements, which provide for the maintenance of track gage, alignment and surfacing adequate for the class of track to which it is applied.

SERC would implement a regular program designed to keep the railroad bed free of weeds. This would include use of mechanical measures and herbicides to clear track bed and the ROW adjacent to the track bed. SERC would probably employ a performance contract through which the contractor would use herbicides approved for this purpose by the U.S. Environmental Protection Agency. Herbicides would be applied in accordance with label instructions and typically made annually and supplemented with spot applications, as needed. The typical pattern for herbicide application would be a strip along the length of the track bed and bounded on either side by drainage ditches. At road crossings, the

pattern would be extended to improve visibility at the crossing. Applications of herbicides for ROW maintenance would be performed by individuals licensed to perform such work, and would be limited to the extent necessary for rail operations. The herbicides selected for application to control the vegetation on the ROW would be selected so as to minimize any adverse effects on the aquatic community.

3.1.3 Related Actions

SERC proposes that NS be permitted to operate over the SERC rail line and provide transportation service to Plant Miller; to that end, SERC would enter into a trackage rights agreement with NS. The trackage rights agreement would be nonexclusive; NS would have the right to provide transportation service to other shippers which might locate along the proposed line in the future pursuant to a trackage rights agreement. A notice of exemption seeking authority for such trackage rights would be filed with the Board at the appropriate time.

3.2 ALTERNATIVES INITIALLY CONSIDERED BUT SUBSEQUENTLY ELIMINATED FROM FURTHER CONSIDERATION

The following are the options initially considered as alternatives to the proposed rail line construction and operation for movement of western coal from the Southern Powder River Basin to Plant Miller.

3.2.1 Trackage Rights Agreement between NS and BN

This alternative would involve NS acquisition of trackage rights to operate over BN trackage to Plant Miller. However, SERC considered this infeasible because BN imposed a weight restriction on NS for their railcar loading limits. This limit would increase the number of railcars required, and thus, railcar ownership requirements, by about six percent over what it would be with a higher (286,000 lb.) load limit. This in turn would increase the railcar cost associated with this alternative. Also, BN would essentially dispatch and control all train movements into Miller because of the movement over the BN trackage. This could place NS at a disadvantage regarding cycle time, scheduling, unloading operations, crew changes, etc. This option would also include the cost of construction for a length of new track and a cash payment to BN for trackage rights.

Because of the limitations described above, this alternative would not meet SERC’s project objectives.

3.2.2 Trackage Rights Agreement between NS and CSXT

This alternative would involve NS acquisition of trackage rights to operate over existing CSXT trackage to Plant Miller. However, SERC considered this infeasible for several reasons. Due to operational problems such as braking capability on sharp curves and steep grades, train size is restricted to a 90-car maximum (CSXT normally delivers 75 cars in a consist to Miller on this line). Train speed would also be limited on the CSXT trackage. In addition, the route contains two long wooden bridges and a tunnel through a large hill which would present

maintenance problems. There is also an at-grade crossing on a primary road heavily traveled by coal trucks and other cars.

Because of the limitations described above, this alternative would not meet SERC's project objectives.

3.2.3 Alternate Rail Construction Routes

In addition to the proposed rail construction route between NS and Plant Miller, SERC initially identified three other alternate rail construction routes, shown in Figure A-2 as alternates I, II, and III. All three alternate routes would share certain line segments in common with the proposed route. Table 3-2 is a summary comparison of route evaluation factors among the four potential rail construction routes (the proposed route and three alternates).

Alternate I

The western leg of Alternate I would begin on the NS mainline approximately 1,400 feet west of where the proposed route would begin. Several hundred feet south of its beginning on the NS, Alternate I would cross Bibby Creek and then ascend a bluff, continuing in a southeasterly direction for a total of about three-quarters of a mile before joining the proposed route. Alternate I would then follow the same route as the proposed route until just beyond the southern boundary of borrow/spoil site #4. At that point, Alternate I would loop to the east, away from the proposed route, and then back again to the west to cross the proposed route. Alternate I would continue southwest along the western bank of the Locust Fork to connect with SERC's rail line which was built a few years ago to join the BN with Plant Miller (this SERC line is shown in pink in Figure A-2). Alternate I would share a total of approximately 2.25 miles in common with the proposed route.

Unlike the proposed route, Alternate I would not cross the Locust Fork. Table 3-2 shows that Alternate I would be 4.87 miles long (25,700 feet), requiring 158 acres of land for the ROW and 122 acres for borrow/spoil, compared to 4.08 miles long (21,535 feet) for the proposed route, which would take 132 acres for the ROW and 96 acres for borrow/spoil. In addition to this, the primary difference between Alternate I and the other potential routes is that Alternate I would affect substantially more wetlands (1.8 acres as opposed to approximately one-quarter acres for the other routes). Table 3-2 shows that Alternate I would cross 1 perennial drainageway (Bibby Creek) and 10 intermittent drainageways (all four routes would also cross numerous miscellaneous drainageways).

Alternate I would make one at-grade public road crossing (Kilgore Road), and at the same location as the proposed route. There are approximately 18 residences within 500 feet of the Alternate I ROW, with the nearest one being around 175 feet from the ROW. Land use within and near the ROW is the same as for the other three routes: reclaimed strip mines, planted pine plantations and relatively young regenerated forest. The route would affect no known threatened or endangered species or cultural resource sites on or eligible for the National Register.

Alternate II

Alternate II would begin on the NS at the same point as the proposed route and would follow the same route as the proposed route for approximately the first three miles. Just beyond the southern boundary of borrow/spoil site #4, Alternate II would loop to the east, away from the proposed route, and continue south to cross the Locust Fork a few hundred feet to the east (upstream) of where the proposed route would cross. Several hundred feet after crossing the Locust Fork, Alternate II would rejoin the proposed route. Alternate II would share a total of approximately 3.5 miles in common with the proposed route.

Table 3-2 shows that Alternate II would be 4.06 miles long (21,420 feet), requiring 131 acres of land for the ROW and 96 acres for borrow/spoil, compared to 4.08 miles long (21,535 feet) for the proposed route, which would take 132 acres for the ROW and 96 acres for borrow/spoil. Alternate II would affect the same amount of wetland acreage as would Alternate III and the proposed route (around one-quarter acre). Alternate II would cross 2 perennial drainageways (the Locust Fork and Bibby Creek) and 9 intermittent drainageways.

Alternate II would make one at-grade public road crossing (Kilgore Road), and at the same location as the proposed route. There are approximately 18 residences within 500 feet of the Alternate II ROW, with the nearest one being around 175 feet from the ROW. Land use within and near the ROW is the same as for the other three routes. The route would affect no known threatened or endangered species or cultural resource sites listed on or eligible for the National Register.

Alternate III

Alternate III would begin on the NS at the same point as the proposed route and would follow that route for approximately the first 1.3 miles. At approximately the southern boundary of borrow/spoil site #2, Alternate III would diverge from the proposed route to parallel it on the east for around 0.8 miles before rejoining it. Alternate III would then follow the proposed route for around one-half mile until, near Snowtown, it would again diverge from the proposed route. Alternate III would then roughly parallel the proposed route to the east for around 0.7 miles before rejoining it on the west bank of the Locust Fork. From that point Alternate III would follow the same route as the proposed route, crossing the Locust Fork at the same location. Alternate III would share a total of approximately 2.5 miles in common with the proposed route.

Table 3-2 shows that Alternate III would be 4.04 miles long (21,310 feet), requiring 131 acres of land for the ROW and 96 acres for borrow/spoil, compared to 4.08 miles long (21,535 feet) for the proposed route, which would take 132 acres for the ROW and 96 acres for borrow/spoil. Alternate III would affect the same amount of wetland acreage as would Alternate II and the proposed route (around one-quarter acre). Alternate III would cross 2 perennial drainageways (the Locust Fork and Bibby Creek) and 9 intermittent drainageways.

Alternate III would make one at-grade public road crossing (Kilgore Road), and at the same location as the proposed route. There are

approximately 18 residences within 500 feet of the Alternate III ROW, with the nearest one being around 175 feet from the ROW. Land use within and near the ROW is the same as for the other three routes. The route would affect no known threatened or endangered species.

Alternate III would affect one cultural resource site (designated Site Je530) considered eligible for listing on the National Register. The site is located within the eastern half of the Alternate III ROW at approximately the point where the northern boundary of borrow/spoil area #3 would intersect the ROW (see Figure A-2). Site Je530 is a medium-sized subsurface artifact scatter of suspected Late Woodland origin. It is situated on an old terrace located on the west bank of the Locust Fork. The site is presently in old growth hardwood forest adjacent to a recent clear-cut area.

Conclusion

SEA's preferred rail construction route is the route proposed by SERC. This route is clearly preferable to Alternate I because: it would affect substantially less wetlands (approximately 0.24 acres versus 1.8 acres); would require less total acreage (228 acres for ROW and borrow/spoil versus 280 acres for Alternate I); and would involve acquiring property from fewer landowners (17 landowners versus 20 for Alternate I).

Table 3-2 shows that, in terms of environmental impacts, there is little difference between the proposed route and Alternates II and III. These two alternates would be very slightly shorter than the proposed route. They would cross the same road at-grade, and at the same location, as the proposed route. They would affect the same amount of wetlands as the proposed route. Both of these routes would cross the Locust Fork, and at about the same location as the proposed route. Alternate III would affect one cultural resource site which is eligible for the National Register of Historic Places, while Alternate II and the proposed route would not. Alternate III would require property from one fewer landowner than would Alternate II and the proposed route. Based on this information, SEA considers the proposed route to be preferable to Alternates II and III.

In letters dated June 26, 1997, and July 24, 1997, SERC requested that SEA include in this EA an in-depth environmental analysis of the proposed route and a less detailed analysis of the alternatives (Appendix B, Attachments 3 & 4). In its response of August 4, 1997, SEA indicated that this approach would be appropriate (Appendix B, Attachment 5). SEA based its determination on the results of consultations with its third-party consultant and other governmental agencies, its staff site inspection, and a review of environmental analysis data available up to that time.

3.3 THE "NO-BUILD" ALTERNATIVE

SEA also considered the "no-build" alternative. If the proposed rail line is not built, environmental impacts associated with that rail construction and operation would not occur. This would eliminate the need

to develop and maintain ROW. Impacts on wetlands would also be avoided. However, failure to gain competitive access to more than one rail carrier for transporting western coal could mean that SERC would face greater difficulty in securing low-sulfur, "compliance coal" on a competitive basis.

CHAPTER 4.0 ENVIRONMENTAL IMPACTS OF CONSTRUCTION AND OPERATION OF THE PROPOSED RAIL LINE

4 . 1 INTRODUCTION

This chapter addresses environmental impacts of constructing and operating over the proposed rail line. The issues raised by the various respondents to the consultation process are discussed in the appropriate sections of this chapter.

Impact mitigation is discussed in the text of the following sections. Chapter 6 presents SEA's recommended mitigation.

4.2 LAND USE/ECONOMIC DEVELOPMENT

4.2.1 Land Use

The potential for land use impacts from construction of a rail line generally arises from acquisition of land for the ROW and associated uses, as well as from effects on property adjacent to the ROW due to such things as restriction of access. The extent to which such impacts actually occur depends on the circumstances of the particular case.

Land use in the project vicinity is primarily reclaimed coal strip mines, planted pine plantations, and relatively young regenerated forest. The proposed rail line would pass entirely through an unincorporated part of Jefferson County. Neither the county government nor the Birmingham Regional Planning Commission indicated any public plans or policies to be affected by the proposed construction. The proposed ROW would require approximately 132 acres of land, which would be acquired from 17 property owners. SERC has identified 7 potential borrow/spoil sites, ranging in size from 8 to 48 acres and totaling 177 acres (see Figure A-2). SERC has already begun property acquisition and expects to finish acquisition in August 1997.[7]

County records indicate there are no public lands, other than road and river crossings, located within the proposed ROW. The State of Alabama, through the Department of Conservation and Natural Resources (DCNR), claims ownership of navigable riverbeds. The proposed rail line would cross the Locust Fork and includes approximately 1.4 acres of the Locust Fork riverbed. The proposed ROW also includes approximately 0.2 acres of public land where it would cross Kilgore Road at-grade. The

[0] SERC is proceeding with land acquisition at its own risk, as the Board could deny the petition.

proposed ROW would not include any prime farmland soils.

In some situations where the proposed ROW would sever property, SERC would purchase both sides of the severed parcel. In other such situations, SERC would provide access to the severed parcel by constructing roads and/or at-grade crossings.

SERC would place permanent steel fencing in deep cut areas. SERC expects this fencing to total approximately 5,000 linear feet. SERC would place the fencing on both sides of the track at the extreme edge of the ROW. SERC would be responsible for fence maintenance, which would be part of the normal track work inspection and maintenance program.

There are no habitable structures within the proposed ROW. There is one abandoned railroad trestle pier within the ROW; SERC would remove this during ROW clearing. The nearest residence to the ROW is located along Bibby Brickyard Road near the intersection of Bibby Brickyard Road and Kilgore Road. This residence is approximately 175 feet from the proposed ROW. There are 18 residences located within 500 feet of the ROW.

There are no known hazardous waste sites within the proposed ROW.

4.2.2 Economic Development

SERC expects approximately 50 people to be employed during construction of the proposed rail line. The average salary would be about $17 per hour. To the extent that the wages these employees would receive are spent within the local area, the local economy would be positively affected by the construction phase of the proposed action; however, this would represent a minimal effect due to the relatively limited number of construction employees and the limited duration of employment.

4.3 WATER RESOURCES

4.3.1 Groundwater

Rail line construction could theoretically affect groundwater *quantity* in two ways: (1) if placement of the line were in some way to interfere with infiltration of water through the earth's surface into the aquifers where groundwater is stored, or (2) if movement of water through the aquifer were to be interfered with due to severance of the aquifer by excavation for the rail line. However, the proposed action is not expected to have either of these effects. Groundwater recharge in the vicinity is slow and occurs over a wide area. The limited surface extent of the proposed rail line, combined with the low recharge rates in the area, should restrict if not eliminate the potential for reducing groundwater quantity. Furthermore, SERC states that it does not anticipate cutting into any aquifers in the areas of excavation for the proposed rail line.

Groundwater *quality* could be affected if a spill or release of contaminants were to occur during rail line construction or operation and penetrate the aquifer, thereby contaminating it. The likelihood of such a release is extremely small due to the fact that fuels and oils, the items most frequently associated with spills, would not be present in large quantities.

4.3.2 Surface Water

A rail line does not have to actually cross a waterway to affect it; however, generally speaking, the surface water resources of most concern are those a rail line would actually cross. The following discussion of impacts deals first with potential impacts of building the proposed rail line, and then with impacts of operating and maintaining it.

Construction

The actual process of constructing a rail line could affect drainageways and wetlands in the following ways:

- **Soil/Debris Deposition**. Soil or debris could be deposited into a waterway or wetland while rail construction activities are taking place in or near the waterway or wetland. Disturbance of the streambed by instream construction activities could also increase siltation. In addition, soil could erode into the waterway/wetland over time after completion of construction activities as a result of steep cut or fill slopes or as a result of inadequate revegetation procedures. Soil or debris deposition could adversely affect water quality.
- **Interference with Surface Drainage**. This could occur if placement of fill material were to block surface drainageways or if bridge or culvert openings were not large enough to accommodate waterflow, causing the drainageway to overflow its channel. This is a particular concern if any part of the proposed rail construction is to be located in a floodway, in which case the concern is that the railway structure not block movement of floodwaters to the extent that floodwater heights and velocities would be increased.
- **Wetland Impacts**. Wetland vegetation could be destroyed by work occurring in the wetland and also by adverse effects on water quality due to soil or debris deposition. Placement of fill material in a wetland to serve as support for the track structure removes a portion of the wetland from use and could alter the hydrology of that portion of the wetland which is not covered with fill.

Table 4-1 lists the larger drainageways which the proposed route would cross (it would also cross numerous miscellaneous drainageways). Figure A-4 shows the location of these drainageways. The construction contractor would provide for drainage requirements during

construction on an as-need basis. This is based upon the uncertainty of drainage slopes, ditches, and cuts within or along the ROW. The contractor would provide, where required, miscellaneous culverts, silt fences, ditches, and also rip-rap (rip-rap would be placed in areas where it would not have to be removed after construction). The final elevation of the slopes would provide the least disturbance to the surrounding drainage areas.

Figure A-5 shows typical miscellaneous culvert locations. All miscellaneous permanent drainage pipe under the proposed rail line or within the ROW would be 48-inch diameter concrete pipe (Class 5 under the rail line, Class 3 for other locations within the ROW). These pipe would be located based upon the final grade elevations of the track bed. Figures A-6 through A-11 show typical miscellaneous piping details for miscellaneous drainage.

SERC would place a concrete box section culvert at the proposed crossing of Bibby Creek (Station 23+00 on the proposed line, see Figure A-12). As this is a perennial stream, the design of the culvert is based upon the 100-year rainfall event and would be aligned with the creek orientation. Fill material would be placed in the creek bed adjacent to the culvert as part of the fill for the track structure. SERC determined the drainage area for that location and compared it to calculated regression solutions for rural streams. Bibby Creek is located in Alabama Hydrologic Area 1, which contains 87 rainfall stations. The calculated drainage area to the proposed box culvert head is 4.3 square miles. Figures A-13 through A-15 show plan, elevation, and section views of this culvert.

The proposed line would cross the Locust Fork on a 300-foot long bridge which would be located at Station 185+00. The proposed bridge would be made up of two 150-foot simple-span structures supported by a center pier in the Locust Fork and abutments located on the north and south embankments. The spans would be comprised of a composite concrete deck supported by four steel girders. Each steel girder would be 10.5 feet deep. Elevation of the Normal water level in the Locust Fork is approximately Elevation 254.0 feet. The proposed location of the bridge would provide approximately 41.5 feet of vertical clearance between the bridge and the normal water elevation. The Locust Fork at the bridge location is approximately 240 feet wide. Based on 3 core hole drillings at this location, average water depth is 15 feet, with one location being as much as 18.5 feet deep. The nearest River Mile Marker is 408, approximately one-half mile south of the proposed bridge location. Figures A-16 through A-22 show plan, profile, and miscellaneous detail views of the proposed bridge.

The ROW would be cleared prior to bridge construction. Bridge construction would begin with the construction and placement of the center river pier. The center pier and footing would be protected with coffer cell during construction.[8] While the center pier is under

[0] A coffer cell is a temporary watertight enclosure built in the water and then pumped dry to expose the bottom so that construction, as of piers, may be undertaken.

construction, the end abutments would also be started. The footing for the center pier would be a mat foundation, while the abutments would probably be on piling. After the concrete has cured for 14-28 days, the steel support girders would be placed into position and braced. Construction of the concrete deck would be sequentially poured, starting on each end of the bridge span. No other in-stream activities are anticipated.

The Coast Guard states that the Locust Fork at the proposed bridge location is non-navigable for purposes of its jurisdiction, and that no Coast Guard bridge permit would be required. However, the agency suggests that SERC construct the bridge so that it would provide sufficient clearance to accommodate occasional flooding which may occur in the area (Appendix C, Attachment 5).

ADEM states that the proposed rail line construction would require a general stormwater land disturbance permit if 5 or more acres of land would be disturbed (Appendix C, Attachment 11). As this would be the case, SERC states that it would require its construction contractor to obtain and adhere to the terms and conditions of a National Discharge Elimination System (NPDES) General Permit Number ALG610000. This General Permit is intended to cover stormwater discharges from construction and other land disturbance activity. The permittee would be required to fully implement and maintain appropriate structural and nonstructural Best Management Practices (BMPs) to prevent and minimize nonpoint source pollutants in stormwater discharges. The permittee would be required to perform regular, routine, comprehensive inspections and additional comprehensive inspections in response to significant precipitation accumulation. The permittee would be required to conduct sampling that it determines is necessary to ensure that effective BMPs are fully implemented, continually maintained, and upgraded as necessary to ensure that pollutant concentrations are within acceptable levels.

The Corps has already authorized the following activities, under Section 404 of the Clean Water Act (through one or more of Nationwide Permits 13, 14, 25, and 26): the proposed crossing of 9 drainageways; the filling of 4 small wetland areas; the crossing of Bibby Creek with associated filling of fringe wetlands; and the construction of a bridge over the Locust Fork, with associated placement of riprap on both banks and the discharge of concrete into a form to construct the center pier (Appendix C, Attachments 1 and 2).

SERC would need to obtain an easement from the Alabama Department of Conservation and Natural Resources to cross the Locust Fork riverbed.

DCNR requests that steps be taken to avoid adverse water quality impacts (Appendix C, Attachment 12). SEA believes that the steps which SERC and its construction contractor would have to take to obtain and comply with the required NPDES permit would minimize adverse water quality impacts.

Table 4-2 lists the wetland sites which the proposed rail line would affect and shows the amount of affected wetland acreage. Figures A-23 through A-26 show the location of the affected wetlands. Table 4-2 shows that the proposed rail line construction would result in

the filling of a total of 0.22 acres of wetlands. DCNR has requested that wetland losses associated with the proposed project be mitigated at a ratio of 2:1 to 10:1, depending on whether mitigation would be through restoration, creation, enhancement, or preservation (Appendix C, Attachment 12). In its authorization of the proposed activities which would affect wetlands, the Corps is not requiring mitigation of lost wetlands (Appendix C, Attachments 1 & 2). SERC states that it has taken steps to minimize wetland losses and it does not propose mitigation of lost wetland acreage.

Operation and Maintenance

An accident during train operations over the proposed line could result in a spill of contaminant (such as diesel fuel) into a waterway or wetland. However, the likelihood of a train accident is thought to be minimal due to the projected low traffic level on the line and also to the planned maintenance program for the rail line. In addition, diesel fuel for the locomotives, which is the primary potential contaminant to be carried, would only be present in limited quantities.

Maintenance of the proposed rail line could cause toxic materials to be deposited in a waterway if herbicides applied to the ROW to control vegetation were to run off into adjacent drainageways or wetlands. The typical pattern for herbicide application would be a strip along the length of the rail bed and bounded on either side by drainage ditches. SERC states that it would employ a qualified contractor for this task and that the contractor would follow label directions and use only herbicides approved for such use. Nevertheless, at least a limited potential exists for a certain amount of the applied herbicide to run or wash off from the part of the ROW on which it is sprayed into adjacent drainageways or wetlands, thereby potentially damaging the water resource. However, SERC feels that its proposed maintenance policy would minimize the potential for such run-off.

4.4 BIOLOGICAL RESOURCES

Aquatic wildlife is directly affected by water quality and quantity; therefore, the aspects of rail construction and operation which affect aquatic wildlife are essentially the same as those which affect surface water resources. As noted in Section 4.3, these activities are:

- construction activity in or adjacent to drainageways/wetlands could cause increased siltation of the water resource, with possible effects on vegetation and fish spawning
- removal of stream/riparian vegetation, including large trees overhanging streams, could affect water quality and, thus, aquatic wildlife
- construction activity in wetlands could uproot and destroy aquatic vegetation
- material or structures used to support the rail line as it crosses

the drainageway or wetland could permanently remove portions of the resource as habitat

- herbicides used in the ROW vegetation control program could wash into waterways, with a possibly toxic effect on aquatic flora and fauna
- operations over the proposed rail line could at some point result in accidents with a potential for contaminant spills into waterways.

Terrestrial wildlife could be affected by construction and operation of a rail line in the following ways:

- conversion of land within the ROW from its current habitat use
- the track and supporting structure could act as a barrier to animal movement
- operations over the line could sporadically disturb animals in the vicinity, perhaps during critical breeding/nesting periods

Project area biological resources are described in Chapter 2, Section 2.4.

Expected wetland impacts were discussed in Section 4.3. Section 4.3 also deals with the measures SERC would take to minimize erosion of soil into waterways. Implementation of these measures should prevent significant soil erosion impacts on aquatic wildlife.

Construction of a railroad bridge at the proposed Locust Fork crossing should have no detrimental effect on populations of the flattened musk turtle. The proposed bridge pier would be built in the approximate center of the river, where the river is typically 17-20 feet deep. The bridge pier would be built inside a sheet pile coffer cell, which should result in minimal siltation. In addition, bridge pilings themselves often create secondary potential habitat for flattened musk turtles by accumulating large log jams following high water events. Further, as the proposed bridge pier site is located approximately 1.7 miles upstream of the location of the most favorable habitat where the flattened musk turtle was captured, construction of the railroad bridge pier should not detrimentally affect populations of the species. FWS agrees that the proposed construction of the bridge over the Locust Fork would probably not adversely affect the flattened musk turtle (Appendix C, Attachment 4).

DCNR requests that the proposed project not adversely affect federal and state protected species and that construction avoid adverse instream impacts which could reduce the density or diversity of aquatic species (Appendix C, Attachment 12). Both the Corps Section 404 permits related to the proposed construction and the Alabama General Permit for storm water discharge require implementation of BMPs, which should prevent adverse stream and water quality impacts.

Should herbicides applied to the ROW during ROW maintenance

wash into drainageways, there could be an adverse effect on aquatic wildlife. Likewise, an accident during train operations over the proposed line could result in a spill of contaminant into a waterway; however, the chances of this are fairly minimal due to the low likelihood of a train accident.

Aside from the flattened musk turtle noted above, no other federally-listed endangered or threatened plant or animal species is thought to be present in the project area, and thus no impacts on such species are expected. No plant or animal species considered endangered, threatened, or of special concern at the state level are thought to be present within the proposed construction site.

Wildlife habitat within the proposed route has already been severely affected by current land use activities, such as mining and logging. Acreage which would be covered by the railbed would be lost as habitat throughout the life of the rail line; however, no wildlife populations appear to be critically dependent on habitat within the proposed ROW. The biological resource survey did not indicate that the proposed line would pose any problems as a barrier to wildlife movement, or that operations over the line would disturb critical wildlife activities.

4.5 TRANSPORTATION

Construction and operation of the proposed rail line could affect transportation in the following ways:

- Construction of the rail line could affect local transportation infrastructure
- operations over the proposed rail line could cause train-vehicular accidents at grade crossings
- operations over the proposed rail line could cause delays of vehicular traffic at grade crossings
- operations over the proposed rail line could cause train derailments
- potential reduction in transportation-related impacts on rail routes or other transportation modes which might incur a reduction in traffic as a result of the proposed action

4.5.1 Construction

The proposed rail line would not cross any existing rail lines. At approximately Station 160+00 of the proposed line, it would cross under a transmission line ROW. One of the transmission lines is a 115 kilovolt (kv) , and the other is a 44kv. The nearest support tower is located 350 feet east of the proposed rail centerline. The transmission line are 46 feet above the proposed top of rail. No work or modifications

to the transmission lines would be needed as a result of the proposed rail construction. There are no gas or water lines in or near the proposed rail ROW.

The Alabama Department of Transportation (Alabama DOT) indicates that the proposed rail line would cross the Corridor X highway project just west of Flat Top. Corridor X is the designation of a proposed Birmingham, Alabama, to Memphis, Tennessee, highway. Although the project has been under study for a number of years, a timetable for implementation is still uncertain. Alabama DOT states that the proposed rail line would not adversely affect the proposed highway (Appendix C, Attachment 10).

The proposed rail line would cross Kilgore Road at-grade at approximately Station 60+00. This would be a rubberized crossing with typical railroad cross buck signs, as well as whistle signs. SERC does not plan to install gates at this crossing, as they are not required due to the low amount of vehicular traffic at the crossing (ADT of 50 vehicles). Figures A-27 through A-29 show detailed views of the proposed Kilgore Road crossing.

The proposed rail line would cross Flat Top Road at approximately Station 148+00. SERC proposes to raise the county highway on a bridge over the railroad. SERC currently plans a bridge span 70 to 85 feet long. SERC would finalize span length after the final rail centerline is located and final cut and fill determined. The bridge would be wide enough to accommodate three lanes of traffic, two of which would be traffic lanes and the third a passing lane for the steep grades near the bridge. SERC expects that the bridge structure would be a concrete deck supported by concrete prestress beams. Figures A-30 through A-32 show detailed views of the proposed Flat Top Road crossing.

The Jefferson County Commission states that the proposed rail line, in aspects relating to Jefferson County roads, should meet all applicable requirements of the Federal Highway Administration, the American Association of State Highway and Transportation Officials, and the American Railroad Engineers Association (Appendix C, Attachment 14). SERC indicates that the proposed rail line has been designed to meet all applicable requirements of those organizations. SERC plans to submit construction plans to the county in the near future, and would not begin construction until the county has approved its construction plans.

Based on the above information, the proposed rail line construction would not adversely affect existing transportation infrastructure.

4.5.2 Operations

There would be approximately 1,300 total trips (loaded and empty) over the proposed rail line annually, which would equate to around 4 train trips per day.

The proposed rail line would make only one at-grade crossing of a public road (Kilgore Road). Due to the low vehicular traffic level

on the road, SEA expects safety and delay impacts at the crossing to be negligible. The Jefferson County Commission has requested that at-grade crossings be equipped with active warning devices (Appendix C, Attachment 14). However, SERC would equip the crossing with a passive, not active, warning device due to the low level of traffic on the road.

Any instance of train operation over a line involves at least a limited potential for derailment; however, the potential is very limited. Trains bound to or from the proposed line may cause a net increase in rail traffic on downline NS rail routes, and could thus cause a potential increase in grade crossing and derailment impacts on these routes. However, an average of four additional train movements per day on such routes should not significantly increase the potential for such impacts. In addition, transportation impacts due to additional train movements on downline NS routes would be offset to some extent by an expected reduction in Plant Miller train movements over the BN and CSXT.

4.6 AIR QUALITY

4.6.1 Construction

The Jefferson County Department of Health (DOH) is the appointed regulating authority for air pollution control matters in Jefferson County. DOH states that EPA has designated Jefferson County as a marginal nonattainment area for ozone and requested that the county reduce emissions of the ozone precursor pollutants volatile organic compounds (VOC) or nitrogen oxides compounds (NO_X) by nine percent by no later than the close of 1999.

Operation of construction equipment during the proposed construction would release insignificant amounts of VOC and NO_X and so would not be subject to any air quality regulations associated with the county's ozone attainment status.

Construction of the proposed line could also affect air quality due to fugitive dust created by land clearing and the transportation and placement of fill. In addition, open burning of debris and removed vegetation would contribute to temporary increases in particulates, nitrogen oxides, volatile organic compounds, and carbon monoxide emissions. An increase in organic compounds and nitrogen oxide emissions could cause an increase in ozone levels.

Implementation of soil erosion control measures required by General Permit ALG 160000 would help reduce not only water but also wind erosion of soil. In addition, SERC would require the contractor to control fugitive dust emissions during construction as necessary to ensure compliance with Jefferson County Air Pollution Control Rules and Regulations, Chapter 6, Part 6.2.

The construction contractor would pile up and burn cleared vegetation as well as other combustible material generated during construction. Currently, open burning during land-clearing activities is not allowed in Jefferson County during summer months due to the area's ozone nonattainment status. During months in which open burning is

allowed, applicants who wish to burn are required to obtain approval from the Alabama Forestry Commission and to obtain an Open Burning Permit from the DOH. Approval may be obtained from the Forestry Commission on the day of burning. This approval is good for two days only. The DOH requires that the applicant apply for a permit in advance of the burning date (five-day prior notice) so that a site evaluation may be conducted. After the site evaluation, a permit may or may not be issued. An applicant may reapply if a permit is denied, after certain criteria are met.

Implementation of the dust control measures noted above and obtaining the appropriate open burning permits should prevent significant air quality impacts due to construction of the proposed line.

4.6.2 Operation

Rail operations can affect air quality through emission of air pollutants from locomotive diesel fuel combustion. Rail transportation of coal can also cause emissions of coal dust from the rail cars during transportation and also during loading and unloading activities.

The Board applies a threshold level of rail traffic increase for determining whether to quantify the air pollution which would be generated by rail traffic over a new rail line proposed for construction. This threshold is contained in 49 CFR 1105.7(e)(5).[9] If the line proposed for construction is not located in either a Class I or a nonattainment area, pollutant emissions from rail traffic will be quantified only if the proposed action would add eight or more trains per day to the line to be constructed.

The project area is not in a Class I area; however, Jefferson County is a marginal nonattainment area for ozone. Air pollutants emitted during diesel fuel combustion can create ozone, but in this case pollutants emitted during operations over the proposed line would be offset by a reduction in pollutants emitted by BN or CSXT coal trains moving to the plant. Because of this, expected air pollutant emissions from rail operations over the proposed line have not been quantified. Furthermore, substantially fewer than eight train movements per day are expected to be added to the proposed line.

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[0] It should be noted, however, that this threshold is applied with flexibility; SEA finds it a useful guide in a preliminary assessment of the need for more detailed analysis. When circumstances warrant, SEA will examine air quality impacts of a proposed rail line construction even though proposed traffic levels do not exceed the threshold noted here. Precedence for use of such thresholds was established in Finance Docket (F.D.) 30400, Santa Fe Southern Pacific Corporation-Control-Southern Pacific Transportation Company; Merger the Atchison, Topeka and Santa Fe Railway Company and Southern Pacific Transportation Company Environmental Assessment served November 1, 1985, at 32,33,and 44, and F.D. No. 3200, et al., Rio Grande Industries, Inc.; SPTC Holding, Inc.; The Denver Rio Grande and Western Railroad Company-Control-Southern Pacific Transportation Company. Environmental Assessment, served May, 1988, page 2.

4.7 NOISE

4.7.1 Construction

Noise levels in the area would rise substantially during construction of the rail line. Vehicles and machinery used for land clearing, road bed construction, and bridge construction would generate temporary increases in noise levels. However, construction noise emissions would be of short term duration and would be confined to the sixteen-month construction period. In addition, the line would be constructed in a largely rural area which is sparsely populated, thus limiting the number of people potentially affected by such noise. Furthermore, noise generated by construction equipment would dissipate fairly rapidly over distance and would be further reduced by any barriers occurring between the noise source and noise receptors, such as hill, trees, or embankments.

4.7.2 Operations

Train operations over the proposed rail line would be likely to raise ambient noise levels in the immediate vicinity of the line.

The Board applies a threshold level of rail traffic increase for determining whether to quantify noise which would be generated by rail traffic over a new rail line proposed for construction. This threshold is contained in 49 CFR 1105.7(e)(6).[10] If the proposed action would add eight or more trains per day to the line to be constructed, noise to be generated by operations over the line must be quantified and sensitive receptors may have to be identified. As projected train operations over the proposed line fall substantially short of this threshold, SEA has not quantified the potential increase in noise levels due to such operations. However, it can be said that the potential increase in noise would be fairly minimal due to the low rail traffic level; also, the number of noise receptors would be relatively few, as the line would pass through a rural area, with few receptors located near it.

4.8 CULTURAL RESOURCES

The cultural resource survey conducted for the proposed action and described in Chapter 2, Section 2.8, indicated no sites on or eligible for the National Register along the proposed ROW. The survey also found no such sites within the potential borrow/spoil areas. The

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[10] It should be noted, however, that SEA applies this threshold with flexibility, finding it a useful guide in a preliminary assessment of the need for more detailed analysis. When circumstances warrant, SEA will examine noise impacts of a proposed rail line construction even though proposed traffic levels do not exceed the threshold noted here.

results of the survey were forwarded to the Alabama Historical Commission for review. Based on this review, the State Historical Preservation Officer indicated that the project would have no effect on any cultural resources included in or eligible for nomination to the National Register (Appendix C, Attachments 7 & 9).

4.9 RECREATION

There are no public recreational areas in the project area, and the proposed construction would not affect access to recreational areas. Therefore, no impacts on recreational resources are expected.

4.10 IMPACTS OF ALTERNATIVES

Alternate Construction Routes

As discussed in more detail in Chapter 3, Section 3.2.3, Alternate I would have more severe environmental impacts than the proposed route because it would affect substantially more wetlands (approximately 1.8 acres versus 0.24 acres), would require more total acreage (280 acres for ROW and borrow/spoil versus 228 acres for the proposed route); and would involve acquiring property from more landowners (20 landowners versus 17 for the proposed route).

Construction and operation of Alternates II and III would have very similar environmental impacts to the proposed route. These two alternates would be very slightly shorter than the proposed route. They would cross the same road at-grade, and at the same location, as the proposed route. They would affect the same amount of wetlands as the proposed route. Both of these routes would cross the Locust Fork, and at about the same location as the proposed route. Alternate III would affect one cultural resource site which is eligible for the National Register of Historic Places, while Alternate II and the proposed route would not. Alternate II and the proposed route would require property from one more landowner than would Alternate III.

None of the three alternate routes would affect threatened or endangered species. SERC states that Alternates I, II, and III would cost more to build than the proposed route.

In environmental terms, SEA considers the proposed route to be clearly preferable to Alternate I and somewhat preferable to Alternates II and III.

No-Build

Under the no-build alternative, the projected environmental impacts of constructing and operating any of the potential rail construction routes would not occur. This includes impacts of acquiring and maintaining the ROW and impacts on wetlands. However, failure to gain competitive access to more than one rail carrier for transporting western coal could mean that SERC would face greater difficulty in securing low-sulfur, "compliance coal" on a competitive basis.

CHAPTER 5.0UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

The proposed rail line construction would result in conversion of approximately 132 acres of land to rail use for the ROW. Another 177 acres would be at least temporarily affected by use for borrow/spoil.

The proposed construction would result in filling a total of approximately 0.22 acres of wetlands, at four sites. Construction would also remove land under the railbed and some distance on each side from use as wildlife habitat.

The proposed at-grade crossing of Kilgore Road would have limited safety and delay impacts. Proposed rail line operations would have localized, but insignificant, air and noise impacts.

CHAPTER 6.0 SECTION OF ENVIRONMENTAL ANALYSIS' RECOMMENDATIONS FOR MITIGATION

Based on SEA's review of all information available to date and its independent analysis of the proposed rail line construction and operation, all the comments and mitigation requested by various federal, state, and local agencies, as well as other concerned parties, and the mitigation offered by SERC, SEA recommends that, if the Board approves the proposed construction and operation, such approval be subject to the following mitigation measures:

Land Use

1. In situations where the proposed rail line would sever property which the Southern Electric Railroad Company (SERC) would not acquire, SERC shall provide access to the severed property by constructing roads and/or at-grade crossings.

2. SERC shall obtain an easement to cross the streambed of the Locust Fork of the Black Warrior River from the Alabama Department of Conservation and Natural Resources and shall abide by any conditions attached thereto.

3. Should hazardous wastes be encountered in the project area during the proposed construction, SERC shall handle and dispose of such wastes in accordance with applicable federal, state, and local regulations.

Water Resources

4. SERC shall ensure that the proposed bridge over the Locust Fork provides adequate clearance to accommodate occasional flooding which may exist in the area.

5. SERC shall comply with the conditions attached to the U.S. Army Corps of Engineers Nationwide Permits issued in conjunction with the proposed rail line construction.

6. Prior to beginning construction, SERC shall require its contractor to obtain from the Alabama Department of Environmental Management, Water Division, a National Pollutant Discharge Elimination System permit for regulated stormwater discharges and shall require the contractor to abide by all conditions attached thereto.

7. SERC shall use tightly sealed coffer cells for the pouring of concrete for the Locust Fork bridge piers.

8. SERC shall ensure that all exposed portions of the right-of-way (ROW) not directly involved in rail operations are revegetated as soon as feasible with native grasses and/or other appropriate vegetation to control erosion.

9. SERC shall use only those herbicides for controlling ROW

vegetation which will minimize adverse effects on the aquatic community and which are approved by the U.S. Environmental Protection Agency for such purposes.

10. SERC shall obtain qualified contractors to apply ROW maintenance herbicides and shall limit application of such herbicides to the extent necessary for rail operations.

Transportation/Safety

11. SERC shall design and construct the proposed rail line in accordance with all applicable requirements of the Federal Highway Administration, the American Association of State Highway and Transportation Officials, and the American Railroad Engineers Association.

12. SERC shall not begin construction of the proposed rail line until the Jefferson County Commission has approved its construction plans.

Air Quality

13. SERC shall obtain the required open burning permits from the Alabama Forestry Commission and the Jefferson County Health Department prior to conducting such activities during construction and shall comply with any conditions attached thereto.

14. SERC shall use Best Management Plans to control fugitive dust during construction.

Conclusion and Request for Comments

Based on the information provided from all sources to date and its independent analysis, SEA preliminarily concludes that construction and operation of the proposed rail line would have no significant environmental impacts if the Board imposes and SERC implements the mitigation recommended above. Therefore, the environmental impact statement process is unnecessary in this proceeding.

SEA specifically invites comments on all aspects of this draft EA, including suggestions for additional mitigation measures. We will consider all comments received in making our final recommendations to the Board. The Board will consider our final recommendations and the environmental comments in making its final decision in this proceeding.

If you wish to file comments and any questions regarding this EA, send an original and 10 copies to the Office of the Secretary, Attn: Victoria Rutson, Environmental Review (FD 33387), Surface Transportation Board, 1925 K St. NW, Washington, D.C. 20423. Comments should refer to the docket number of this proceeding: Finance Docket No. 33387.

Date made available to the public:
August 28, 1997

Comment due date:

September 18, 1997