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ENVIRONMENTAL ASSESSMENT
Finance Docket No. 33877

Illinois Central Railroad Company
Construction and Operation - in East Baton Rouge Parish,
Louisiana

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Surface Transportation Board
Section of Environmental Analysis

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CONCLUSION

This environmental assessment (EA) considers the potential environmental impacts of IC's proposed rail line construction and operation of a 3.2 mile rail line in East Baton Rouge Parish, Louisiana. The proposed rail line would connect IC's Maryland Industrial Lead Branch line (sometimes referred to as IC's "Zee line") with the Baton Rouge Polyolefins ("BRPO") plant owned and operated by ExxonMobil Chemical Company. The EA preliminarily concludes that this proposal would not significantly affect the quality of the natural or human environment provided the recommended mitigation measures set forth in Section 5.0 are implemented. Accordingly, the Section of Environmental Analysis (SEA), within the Surface Transportation Board (Board) recommends that, if the Board approves this project, IC be required to implement the mitigation contained in Section 5.0. SEA will consider all comments received in response to the EA in making its final recommendations to the Board.

EXECUTIVE SUMMARY

Statement of Proposed Action

Illinois Central Railroad Company (“IC”), a subsidiary of Canadian National Railway Company (“CN”) proposes to construct and operate a rail line of approximately 3.2 miles in length in East Baton Rouge Parish, Louisiana (Figure ES-1). This environmental assessment (EA) addresses the potential environmental impacts associated with construction and operation of the proposed IC rail line.

The proposed rail line would connect IC’s Maryland Industrial Lead branch line (sometimes referred to as IC’s “Zee line”) with the Baton Rouge Polyolefins (“BRPO”) plant owned and operated by ExxonMobil Chemical Company. The Kansas City Southern Railway (“KCS”) is the only railroad that currently provides direct service to the BRPO Plant. The proposed rail line would allow IC to provide alternative direct rail service to the BRPO Plant. IC expects to operate one train per day (in and out, round trip), seven days per week over the rail line.

The proposed rail line alignment (Figure ES-1), which is the focus of this EA, would depart from the existing IC Maryland siding in the vicinity of the ExxonMobil Corporation former tank farm property¹ and head west. The proposed rail line would cross the former tank farm property in a westerly direction toward U.S. Highway 61. The proposed rail line would cross U.S. Highway 61 at-grade approximately 1,200 feet south of Thomas Road. The proposed rail line would also cross (at-grade) an existing KCS rail line² (the KCS rail line is a single track in this area). Continuing west, the proposed rail line would pass to south and west of the former Baton Rouge Police Firing Range and Ergon Oil properties and across a portion of the City-Parish of East Baton Rouge Devil’s Swamp Landfill, which is now closed. The proposed rail line would then turn north and follow the Greater Baton Rouge Port Commission property along the east side of the Baton Rouge Barge Canal before connecting with the ExxonMobil BRPO property at its western boundary.

The BRPO Plant’s existing transportation facilities are located on the north side of the plant. The proposed IC rail line would terminate at the western property line of the BRPO plant. ExxonMobil would be solely responsible for constructing all track connections within the plant area necessary to facilitate IC entry into the plant and access to the inbound and outbound tracks on the north side of the plant.

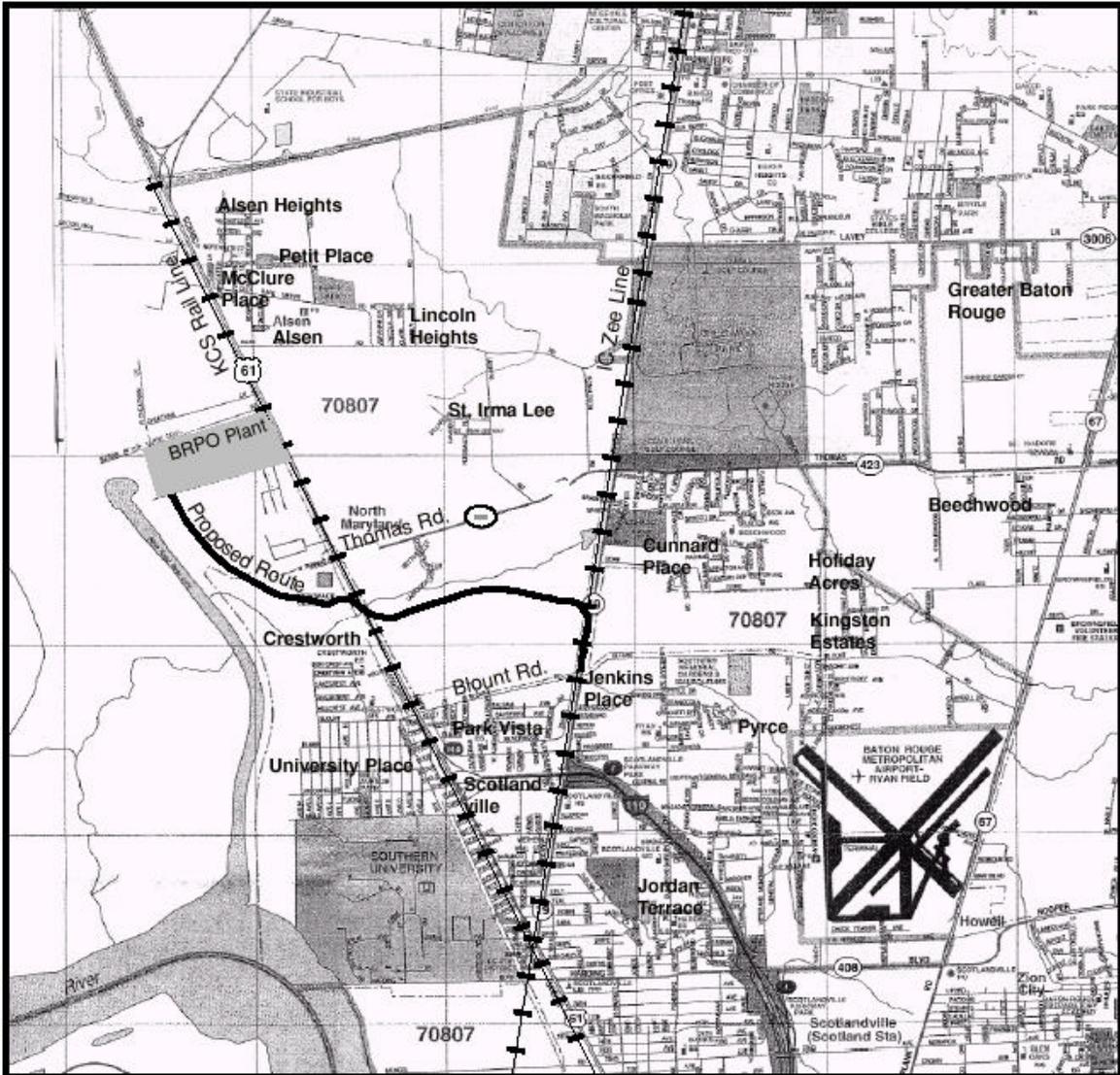
¹ The oil storage tanks were removed from this property in the late 1990’s. The property is currently vacant with the exception of five storage tanks that were retained along the eastern boundary of the property. The storage tanks remaining on the site are currently empty.

²IC has sought to reach an agreement with KCS regarding the at-grade crossing of KCS’s track at this location. If an agreement cannot be reached, IC will seek appropriate relief from the Board under 49 U.S.C. 10901(d).

On November 28, 2000, IC submitted a written request to the Surface Transportation Board (the Board) for a waiver of the preparation of an environmental impact statement (EIS) required by the Board's regulations for rail line construction proposals and requested instead the preparation of an EA. On December 7, 2000, the Section of Environmental Analysis (SEA), the office within the Board responsible for completing the environmental review process, granted a waiver from the requirement to prepare an EIS (See Appendix 4). SEA based this decision on the information available to date that included:

- (1) The preferred route of the proposed project is located in an area that is primarily industrial in nature. Consequently, little or no pristine or environmentally sensitive areas will be traversed by the line.
- (2) Completion of this project should have no effect on the thresholds set forth in the Board's environmental regulations at 49 CFR 1105.7 (e)(4) or (5).
- (3) The project is not expected to have any effect on archeological or historical architectural resources.
- (4) The project should have little or no impact on residential areas.
- (5) No threatened, endangered fish or wildlife or species of special concern have been found to inhabit the project area.
- (6) A small wetland/year-round drainage area may be affected.
- (7) Some safety issues associated with crossing U.S. Highway 61 and the existing KCS rail line may be involved.
- (8) Some potential concerns may be at issue regarding possible soil contamination located at the tank farm site and the transportation of hazardous materials on the proposed IC line.

SEA preliminarily concluded that, based on this information, site visits, consultations with appropriate state, local and Federal agencies, the environmental impacts of the proposed project appeared unlikely to be significant. SEA noted that the Board will consider the EA, public comments, and any post environmental assessment recommendations before making its final decision in this proceeding. SEA also noted that should the environmental review process disclose unanticipated impacts that are significant, preparation of an EIS may be warranted.



East Baton Rouge Parish, Louisiana



Figure ES-1
Project Location, Proposed
Route and Existing Residential
Community Map

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Independent Third Party Contractor

Public Affairs Management, with corporate headquarters in San Francisco, California, and a regional office in Washington D.C., was retained as the independent third party contractor to assist SEA in the preparation of this EA. The use of third party contractors is addressed at 49 CFR 1105.4 (j). Under the direction, supervision, and approval of SEA, the third party contractor develops the technical data required to conduct the environmental review of the proposed project, and assists in the preparation of the EA.

Description of the Affected Environment

Following is an overview of the project area.

The project area is located in East Baton Rouge Parish, Louisiana, approximately six miles north of downtown Baton Rouge, Louisiana. The project area is bordered by Louisiana State Highway 19 and the existing IC Maryland Industrial Lead track on the west and the Baton Rouge Barge Canal on the west. The proposed alignment would cross one roadway, U.S. Highway 61³, which is a four-lane, divided, expressway.

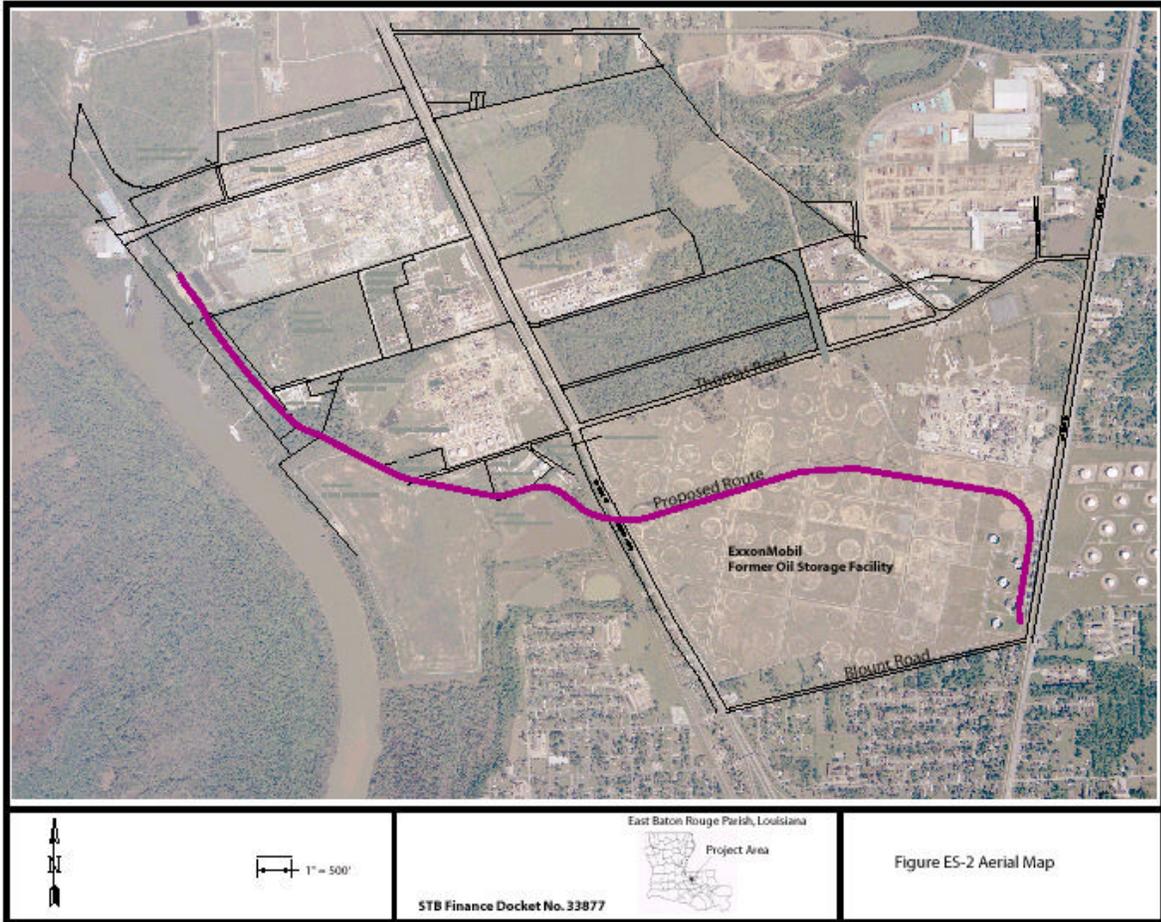
Land uses in the project area are predominately industrial with several large chemical plants, and smaller storage and manufacturing facilities. Residential neighborhoods are located to the north and south of the project area. The closest residential area to the proposed rail line is the Crestworth neighborhood, located 1300 feet to the south. Other residential neighborhoods in the project vicinity include University Place, Park Vista, Jenkins Place, Pyrce, Kingston Estates, Holiday Acres, Cunnard Place, and St. Irma Lee. (See Figure ES-1).

Existing noise levels in the area range from 53 to 71 dBA (decibels).⁴ Air Quality in the project area is generally good. However, East Baton Rouge is an area where ozone levels have exceeded Federal standards.

There are several areas of surface water located along the proposed rail line including a drainage channel located on the Maryland Tank Farm property located between State Highway 19 and U.S. Highway 61, and two ravines located along the western boundary of the project area which drain into the Baton Rouge Barge Canal.

³ U.S. Highway 61 is known locally as Scenic Highway 61.

⁴ Noise levels in the project area were monitored on April 5-6, 2001. The noise levels represent the Day and Night average noise level or DNL.



The project area contains two basic types of habitat, grasslands and bluffslands. Bluffslands in the project area occur along an approximately 1/4- mile wide and 1/8-mile long strip between the Baton Rouge Barge Canal and industrial land uses to the east. The predominant overstory vegetation is a mixture of hardwood species. Grassland areas cover most of the project area and are areas that have been converted from mixed hardwood forests in the early 1900's.

Alternatives Considered

IC evaluated three alternatives to the preferred route (Figure ES-3). IC found that each of these alternatives appeared to have greater potential adverse environmental effects and safety impacts than the preferred route including:

- C Additional impacts to sensitive wetland areas.
- C Locations closer to sensitive residential communities possibly creating noise, air quality and land use impacts.
- C Additional at-grade crossings of existing KCS rail lines in the area.
- C Crossing locations along U.S. Highway 61 that could result in additional safety problems.

IC requested and SEA agreed, after reviewing and analyzing all the material, that IC's preferred route was environmentally preferable to the alternative routes and determined that only IC's preferred route would be studied in detail in this EA. Appendix 4 contains correspondence related to SEA's determination regarding the alternative routes.

SEA also considered the no-build alternative which would mean that the propose rail line would not be constructed and the environmental impacts of constructing and operating the preferred route would not occur. In addition, the no-build alternative would mean that the BRPO plant would continue to be served solely by KCS.

Public Involvement Activities

IC and ExxonMobil Chemical Company have conducted several community meetings in the project area. The purpose of these meetings were to inform local residents about the proposed rail line and to provide an opportunity for the community to ask questions.

Representatives of IC and ExxonMobil Chemical Company held three public meetings to explain the project to residents of the project area. The first meeting took place in Scotlandville on September 15, 2000. IC and ExxonMobil held a second meeting, also held in Scotlandville, at the Crestworth Middle School, on the evening of February 6, 2001. A bus tour of the area to be traversed by the rail line preceded the meeting. A third public meeting was held on the evening of March 6, 2001 at the Alsen Community Center in Alsen.

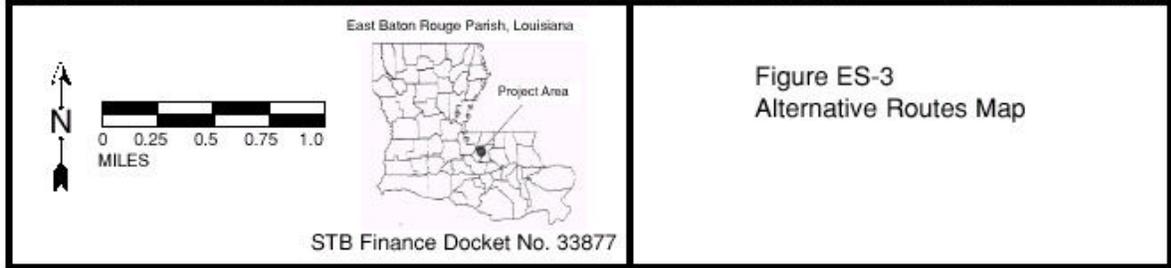
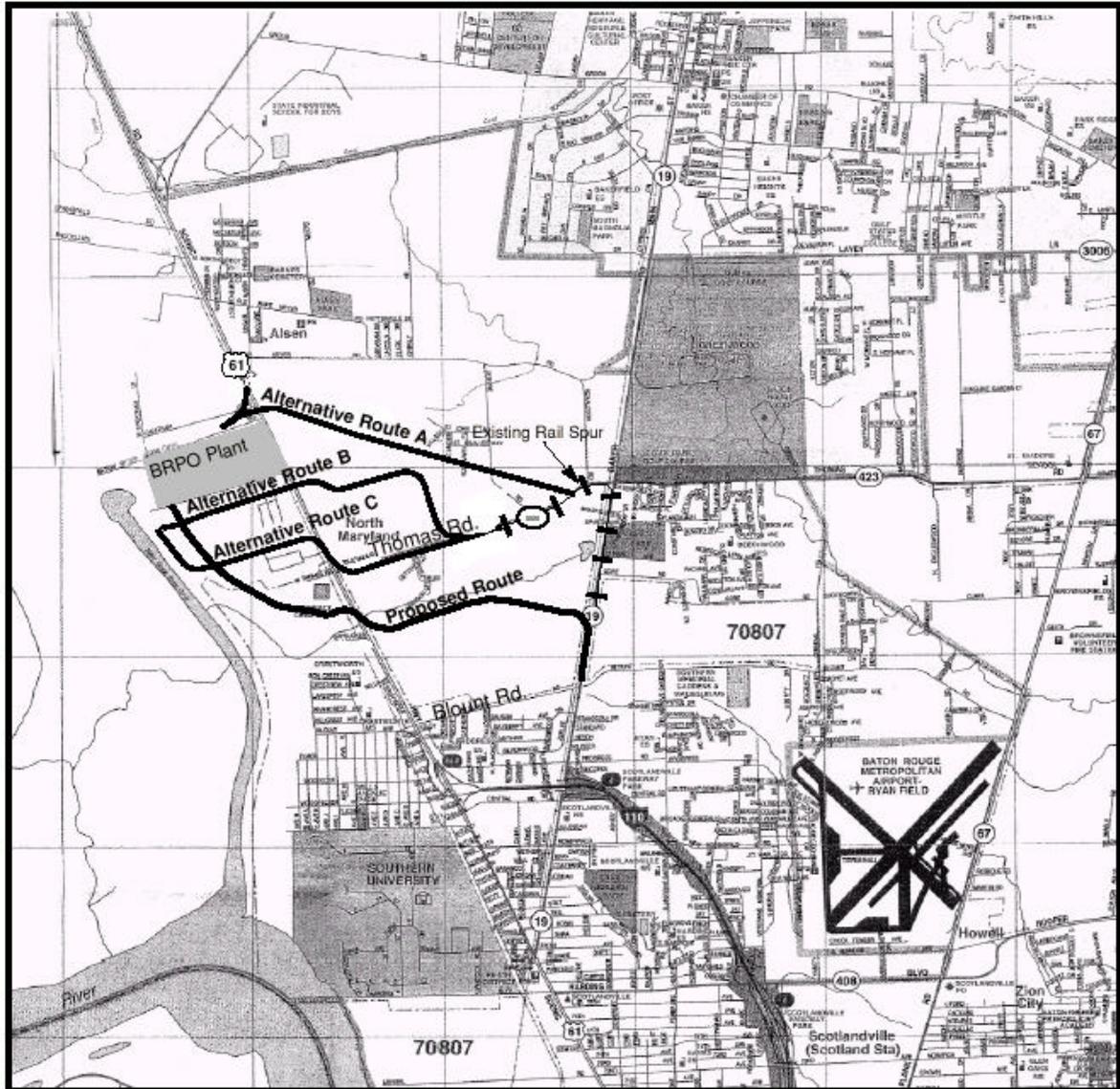


Figure ES-3
Alternative Routes Map

Synopsis of Environmental Impacts of the Proposed Action

The following discussion summarizes the potential environmental impacts from the construction and operation of the proposed rail line. As discussed here and in more detail in Section 4.0, SEA expects that the construction and operation of the proposed rail line would have minimal negative impacts.

Geology, Soils and Climate

The proposed rail line is located in the Parish of East Baton Rouge, Louisiana. East Baton Rouge is located in the south-eastern central part of the state and is a low-lying area close to the Mississippi River delta. Elevation of this physio-geographic area ranges from approximately 55-75 feet, with a number of steep, vegetated ravines and drainages interspersed throughout the project site. The topography was originally flat but the land has been significantly altered with burms and ponds as the area has been developed for industrial purposes.

Alluvial sediments from the Mississippi River are found in nearly one-third of the state's total land area. The site is located at the boundary between two of these alluvial sediments: the Mississippi River Valley and Prairie Terrace formations. Various types of clay, silt and sand make up the parent material in both alluvial sediments. A series of underground aquifers exist below the alluvial sediments and range in depth from 200 to approximately 2,800 feet with various types of sediments confining each aquifer.

The climate is sub-tropical with the average total precipitation varying between 64 and 77 inches per year. The average temperature in winter is 58 degrees Fahrenheit; the average temperature in summer is 80 degrees Fahrenheit. The summer temperatures are usually accompanied by high humidity and frequent rainfall.

Surface and Groundwater

Several ravines were identified along the proposed rail line. Removal of vegetation for the channel crossings could result in disturbance of these ravines. Section 5.0 contains mitigation designed to protect the ravines.

Ground water is located approximately 200 feet below the surface and therefore there is no significant impact.

Air Quality

Construction and operation of the proposed rail line would not result in any substantial effects to air quality.

The Baton Rouge area is currently designated as a Nonattainment Area for ozone precursors. Areas in nonattainment must observe certain Federal thresholds, which for ozone are set at 50 tons/year. The emissions generated by the proposed construction and operation are estimated to be under 10 tons/year,

well below the established Federal threshold of 50 tons/year. Section 5.0 does contain recommend dust control measures to further reduce the generation of air borne particulates during construction.

Biological Resources

The construction and operation of the proposed rail line would not affect any threatened or endangered species. However, these activities would disturb waters of the U.S. as defined by the Army Corps of Engineers and will require review and permitting by that agency. It appears that the estimated acreage to be disturbed by the proposed rail line would meet the eligibility requirements of the Nationwide Permit.

Removal of vegetation for the channel crossings could result in disturbance to wildlife if construction was carried out during the nesting season. Section 5.0 contains mitigation designed to protect nesting species if any are encountered during construction activities.

Noise

The construction and operation of the proposed rail line would not affect any noise sensitive land uses.

Cultural Resources

Although no cultural or historic resources were identified in the project area, construction of the proposed rail line could affect previously undiscovered historic or prehistoric resources. Section 5.0 includes mitigation to ensure that any resources encountered during construction are addressed in accordance to Federal Guidelines.

Hazardous Material/Waste Sites

Although no recorded releases of hazardous materials occurred in the area of the construction limits, construction workers could nevertheless be exposed to hazardous materials due to possible unreported releases in site soils, particularly from construction activities across the former tank farm property. Construction workers could also be exposed to contamination from fill material, particularly if soil stockpiled at the BRPO plant is used in the construction of the proposed rail line right-of-way. [See page 4-13 for further detail about fill material]

Construction of the project could also potentially interfere with the installation of a methane gas dispersed/leachate collection system at the City-Parish of East Baton Rouge Devil's Swamp Landfill if not coordinated with the East Baton Rouge Parish Environmental Section.

Section 5.0 includes mitigation that requires IC to prepare a health and safety plan for construction workers. The mitigation also requires coordination with the East Baton Rouge Parish Environmental Section to ensure that the proposed rail line does not interfere with the post-closure activities, including installation of a methane gas dispersal system and a leachate collection system at the Devil's Swamp Landfill.

Traffic Safety

SEA analyzed the potential impact of the proposed rail crossing on U.S. Highway 61 with respect to the appropriateness of the at-grade crossing, and the impact of the crossing on vehicular delays for traffic along U.S. Highway 61. SEA determined that an active signalized crossing with cantilevered signals would be the appropriate safety design for the at-grade crossing due to the level of automobile traffic on U.S. Highway 61 and train traffic on the proposed rail line. SEA also took measurements to determine vehicular delays. These measurements indicated that the proposed at-grade crossing is not expected to cause any significant delays to vehicular traffic on U.S. Highway 61.

Based on its analysis, SEA concludes that the proposed at-grade crossing of U.S. Highway 61 would not result in a significant impact on traffic safety, therefore, mitigation, such as a grade separated crossing is not warranted.

The IC and the Louisiana Department of Transportation and Development (LA DOTD) are currently consulting regarding the design of the at-grade crossing of U.S. Highway 61 and specific active warning devices to be installed at this location⁵. LA DOTD has preliminarily indicated that flashing-light signals on an overhead structure or cantilevered supports (i.e., the structure would support the flashing lights over the highway), pavement markings, and advance warning signs in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) would be appropriate for this location based on the number of trains, one train per day, and hours of operation (12:00 midnight to 5:00 am).

Hazardous Materials Transportation Safety

There would be no significant impact in hazardous materials transport safety. The amount of hazardous materials that would be transported over the proposed rail line would result in the potential for a release per track mile every 23,110 years. In the unlikely event of an accident on the proposed rail line, it is highly unlikely that it would result in a release of hazardous materials because train speeds would be 10 miles per hour.

Socioeconomic/Environmental Justice Issues

⁵IC has submitted an application to the LA DOTD for approval of the proposed rail crossing of U.S. Highway 61. LA DOTD is currently reviewing the application and conducting ongoing consultation with IC regarding the specific design of active warning devices.

Within the 2-mile radius study area, SEA identified 24 U.S. Census block groups⁶ where the population would qualify as an environmental justice community. Based on the findings of impacts from the other areas of study, no impacts from construction and operation of the proposed rail line would be disproportionately borne by the groups identified as environmental justice communities.

Conclusion

This environmental assessment (EA) considers the potential environmental impacts of IC's proposed rail line construction and operation of a 3.2 mile rail line in East Baton Rouge Parish, Louisiana. The proposed rail line would connect IC's Maryland Industrial Lead Branch line (sometimes referred to as IC's "Zee line") with the Baton Rouge Polyolefins ("BRPO") plant owned and operated by ExxonMobil Chemical Company. The EA preliminarily concludes that this proposal would not significantly affect the quality of the natural or human environment provided the recommended mitigation measures set forth in Section 5.0 are implemented. Accordingly, the Surface Transportation Board (STB) recommends that, if the Board approves this project, IC be required to implement the mitigation contained in Section 5.0. SEA will consider all comments received in response to the EA in making its final recommendations to the Board.

Request for Comments

SEA specifically invites comments on all aspects of this EA, including the scope and adequacy of the recommended mitigation as well as any other reasonable alternatives. SEA will consider all comments received in response to the EA in making its final recommendations to the Board. The Board will consider SEA's final recommendations and the environmental comments in making its final decision in this proceeding.

Distribution and notification of the availability of the EA has been done in accordance with the requirements of the National Environmental Policy Act (NEPA) and the Council on Environmental Quality's Regulations for Implementing NEPA. SEA has taken additional steps to ensure that all interested parties are notified of the availability of the EA and afforded the opportunity to review and provide comments on the analysis and recommended mitigation measures in the EA.

Distribution and notification of the availability of the EA has included the following:

- C Distribution and/or notification of the EA to parties on the Board's Service List for this proceeding (including IC, all parties requesting to be on the Service List, U.S. Senators

⁶ The U.S. Census is based on information collected for areas called census tracts. Each census tract is comprised of a number of smaller units called block groups, for which specific demographic information can be obtained.

representing Louisiana, U.S. Congresspersons representing the project area, State senators and congresspersons representing the project area and Federal, state and local agencies with an interest in the project.)

- C Placing three (3) copies of the EA in the following local, publically accessible locations:
 1. Crestworth Middle School Library;
 2. East Baton Rouge Parish Public Library (Scotlandville Branch);
 3. 2031 Central Road, Suite 19 - Councilman Addison's Office.

- C Publication of a notice of the availability of the EA in the Federal Register and in The Advocate newspaper which is a newspaper of general circulation in the project area.

- C Mailing a notice of the availability of the EA to all residents and property owners within 1,500 feet of the proposed rail line construction, attendees at community workshops held by IC, and homeowner and neighborhood group representatives in the project area.

If you wish to file comments or questions regarding this EA, send an original and 10 copies to the Section of Environmental Analysis, Surface Transportation Board, 1925 K Street NW, Washington, DC 20423, to the attention of Dana White, telephone 202-565-1552. Please refer to Finance Docket No. 33877 in all correspondence addressed to the Board.

Date made available to the public: July 20, 2001
Comment due date: August 20, 2001

1.0 PURPOSE AND NEED

On November 28, 2000, Illinois Central Railroad Company (IC), a wholly-owned subsidiary of Canadian National Railway Company (CN), submitted a petition to the Surface Transportation Board (Board) for an exemption under 49 U.S.C. 10502 for construction and operation of a rail line in East Baton Rouge Parish, Louisiana. The primary purpose of the project is to establish competitive rail access for rail service to and from ExxonMobil's Baton Rouge Polyolefins (BRPO) plant. Under 49 U.S.C. 10502 the Board must exempt the proposed construction of a rail line from the requirements of 49 U.S.C. 10901 if it finds that regulation of the project: (1) is not necessary to carry out the transportation policy of 49 U.S.C. 10102; and (2) either: (a) the transaction or service is of limited scope, or (b) the application of a subdivision of subtitle IV of the Interstate Commerce Commission Termination Act is not needed to protect shippers from the abuse of market power.

ExxonMobil's BRPO plant is one of the worlds largest producers of high-density polyethylene (HDPE) and polypropylene (PP) plastics. The total production capacity of the BRPO plant is now approximately 2.6 billion pounds of HDPE and PP annually. Approximately 90% of the plant's current production is shipped by rail to distribution terminals and plastic molding plants throughout North America. The BRPO plant generates an average of approximately 35 carloads of outbound plastic pellets per day. The plant also receives approximately 15 tank cars per month of solvents used in the manufacturing process.

The BRPO plant is served directly by only the KCS. While IC technically has commercial access to the plant via reciprocal switching, IC finds that KCS's present switching charge generally precludes participation in traffic to and from the BRPO plant by any other carriers. The proposed rail line would allow IC to provide alternative direct service to the plant.

ExxonMobil has also indicated that rail service is the only viable option for bulk shipment of plastic resins and that direct access from a second railroad will allow ExxonMobil to achieve more competitive rates and service and reduce transportation costs to BRPO, as well as better service and reduced costs to ExxonMobil customers and ultimately the consumer.

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 PROPOSED ACTION

The proposed action consists of the construction, operation and maintenance of a new rail line approximately 3.2 miles in length. The proposed rail line alignment (Figure ES-1), which is the focus of this EA, would depart from the existing IC Maryland siding in the vicinity of the Exxon Mobil Corporation former tank farm property⁷ and head west. The proposed rail line would cross the former tank farm property in a westerly direction toward U.S. Highway 61. The proposed rail line would cross U.S. Highway 61 at-grade approximately 1,200 feet south of Thomas Road. The proposed rail line would also cross (at-grade) an existing KCS rail line (the KCS rail line is a single track in this area)⁸. Continuing west, the proposed rail line would pass to the south and west of the Baton Rouge Police Firing Range and Ergon Oil properties and across a portion of the City-Parish of East Baton Rouge Devil's Swamp Landfill, which is now closed. The proposed rail line would then turn north and follow the Greater Baton Rouge Port Commission property along the east side of the Baton Rouge Barge Canal before connecting with the ExxonMobil BRPO property at its western boundary.

Over its course, the proposed rail line would cross industrial lands, U.S. Highway 61, the existing KCS single-track rail line, three drainages, and some undeveloped areas. There are no residential land uses located immediately adjacent to the proposed route. The nearest residential areas are located south of Blount Road and west of U.S. Highway 61. At its closest point the proposed rail line would be located 500 feet north of existing residences near the corner of Blount Road and Highway 19. These same residences, however are adjacent to the existing IC Maryland Industrial lead branch (within approximately 50 feet) which parallels Highway 19. The next closest residential area to the proposed rail line is located west of U.S. Highway 61. The proposed rail line would be located approximately 1,500 feet north of these residences at its closest point. The KCS rail line paralleling U.S. Highway 61 passes much closer to these residences (approximately 500 feet) to the east.

2.1.1 Construction

The line to be constructed would consist of a single track. Construction of the track and rail bed would follow methods approved by the American Railway Engineering and Maintenance of Way Association (AREMA) and the U. S. Department of Transportation, Federal Railroad Administration (FRA). The entire length of the proposed rail line would involve new construction. The embankment for the proposed single track would be constructed of native materials at the site and from local sources. The roadbed

⁷ The oil storage tanks were removed from this property in the late 1990s. The property is currently vacant with the exception of five storage tanks that were retained along the eastern boundary of the property. The storage tanks remaining on the site are currently empty.

² A separate proceeding will be initiated by IC at the Board for this crossing

would be capped with a minimum of six inches of fine graded crushed aggregate sub-ballast material. The track would be laid with continuous welded rail. Drainage structures would be corrugated metal pipes sized to carry the flow from a 100-year storm. The grade crossing at U.S. Highway 61 would consist of a full depth concrete crossing. A timber and asphalt crossing would be used at private road crossings. Appropriate warning devices would be installed at each grade crossing in accordance with the requirements of the Louisiana Department of Transportation.

The topography along the proposed rail line varies from relatively flat to areas of steep ravines. Much of the area along the proposed rail line has been previously disturbed by industrial construction (e.g. former tank farm property, City-Parish of East Baton Rouge Devil's Swamp Landfill); however, some areas contain relatively natural vegetation. General surface grading of the area will be required as well as cuts and fills in steeper areas and where the rail line would cross drainages and ravines. The right-of-way width would vary from 50 feet wide in areas with relatively flat topography to over 100 feet wide in steeper topography to account for cut and fill slopes. Culverts would be installed under fill areas to provide for the continued conveyance of runoff.

Construction is expected to take approximately 4-9 months from the time of initial activities through final inspection. Construction activities would occur on weekdays between approximately 7:00 a.m. and 5:00 p.m.

2.1.2 Operation

The proposed line would be operated under the control of IC's, Baton Rouge Yardmaster. Trains operating over the proposed line would be operated at a maximum timetable-restricted speed of 10 mph.

IC expects to operate a maximum of one train per day (round trip), seven days a week on the proposed rail line. A typical IC train serving the BRPO plant via the proposed rail line would consist of approximately 35 hopper cars per train. The proposed operation of the rail line could also include the transport of approximately 15 tank cars per month of hazardous materials used in the manufacturing process of HDPE and PP. If handled by IC, these tank cars would be included in the train of hopper cars as needed. ExxonMobil and IC have agreed that, except in unusual circumstances, IC will enter and exit the BRPO plant between the hours of 12:00 midnight and 5:00 am.

2.1.3 Maintenance

The track would be constructed and maintained to FRA Class II standards. The track structures would be inspected weekly as required by FRA track standards. Additional inspections would be carried out, as necessary, when warranted by weather. The IC would conduct maintenance of the track.

2.2 ALTERNATIVES

In addition to IC's preferred route, IC studied three possible alternative routes to provide service to the BRPO plant. These alternatives are labeled Route A, B, and C (Figure ES-3). Alternative routes A-C

are described below along with SEA's findings and reasons for not evaluating these routes in detail in this EA.

Alternative Route A - This alternative route would extend in a northwest direction from the Stupp Brothers Bridge and Iron Company north of Thomas Road. This alternative route would result in the construction of approximately 1.3 miles of new rail line and would cross U.S. Highway 61 near the intersection of Barge Terminal Road and U.S. Highway 61. While this alternative route is shorter than IC's preferred route, it would result in additional impacts on the natural and human environment and was rejected from further study. Alternative Route A would impact sensitive wetland and forested areas to the east of U.S. Highway 61 and come in close proximity to two residential communities (Alsen and St. Irma Lee). This alternative route could also require the relocation of existing commercial businesses along the northbound side of U.S. Highway 61 across from the intersection of Barge Terminal Road and U.S. Highway 61. The location of the at-grade crossing of U.S. Highway 61 could cause substantial traffic safety concerns because of the close proximity of Barge Terminal Road and the large truck volumes in this area. This alternative route would also cross the KCS railroad where there are two tracks and in close proximity to existing switching activities at the BRPO plant.

Alternative Route B - This alternative route would extend west from the end of existing IC track near Agway Company just north of Thomas Road. This alternative route would turn north to traverse around the eastern edge of the Exxon Resin Plant before turning west, crossing U.S. Highway 61 near the access road to Dravo Lime Company and head west toward the Baton Rouge Barge Canal (BRBC) before turning north again and entering the BRPO plant at its western end. Alternative Route B would require the construction of approximately 2.0 miles of new rail line. While shorter than IC's preferred route, this alternative would result in additional impacts on the natural and human environment and was rejected from further study. This alternative would cross sensitive wetland and forested areas to the east of U.S. Highway 61. This route would also cross U.S. Highway 61 in close proximity to the intersection of U.S. Highway 61 and the access road to Dravo Lime Company possibly creating a traffic safety hazard. This alternative route would also need to cross the KCS railroad at three separate locations, including one location where there are four KCS tracks.

Alternative Route C - This alternative route would extend in a western direction from the end of an existing IC track near Agway Company just north of Thomas Road. Alternative Route C would require the construction of approximately 2.2 miles of new rail line. This alternative route would cross U.S. Highway 61 north of Thomas Road, turn north and then to the west toward to the BRBC and Dravo Lime Company, before turning north again and connecting with the BRPO plant at its western end. While shorter than IC's preferred route, this alternative would result in additional impacts on the natural and human environment and was rejected from further study. This alternative route would cross sensitive wetland and forested areas east of U.S. Highway 61. This route would cross U.S. Highway 61 in close proximity to private access driveways which could create a traffic safety hazard. Alternative Route C would also require crossing the KCS railroad at two separate locations, including one location where there are three KCS tracks.

The “no build” or “no action” alternative would result in continued rail operations as currently exists. The IC would not construct the proposed rail line to the BRPO plant and, thus, the KCS would continue to be the only railroad that provides direct service to the plant. ExxonMobil would continue to pursue additional shipping services to accommodate the increased production of HDPE and PP. The approximate 35 railroad cars of HDPE and PP per day and the approximate 15 cars of hexene and isobutane per month would have to be handled by KCS, denying ExxonMobil the benefits of increased competition for transportation service and rates, and access to the additional rail capacity and routing options available to ExxonMobil via IC’s proposed line.

Trackage rights are agreements between railroads for the use of each other’s tracks for transporting goods. The IC would need to obtain from KCS the right to use KCS’ tracks to provide a direct service to the BRPO plant in competition with KCS. This alternative was not considered further because of expected difficulties in negotiating an economically feasible rate to use the KCS tracks and the potential for congestion if both railroads used the same lead tracks to serve the plant.

The BRPO plant currently ships approximately 13% of their product by truck. An increase in use of truck transport would not adequately accommodate the increased production of HDPE and PP from the BRPO plant. The nature of the HDPE and PP product dictates the type of transport. The product is produced by grades for different used and loaded directly into rail cars after production for immediate shipment or for temporary storage prior to shipment. There is limited space available at the BRPO plant to construct storage facilities for later loading into rail cars and trucks. Because of these reasons, this alternative was not considered further.

3.0 AFFECTED ENVIRONMENT

This chapter provides a description of the existing environment in the proposed project area and vicinity. The proposed 3.2-mile rail line is located between Highway 19 on the east, the Baton Rouge Barge Canal (BRBC) on the west, Blount Road to the south, and Rafe Mayer Road on the north.

3.1 GEOLOGY, SOILS AND CLIMATE

3.1.1 Approach and Methodology

SEA evaluated the proposed rail line to determine whether the proposed construction and operation would substantially affect local geology, and soils and the effect of local climate conditions. The analysis included a review of topographic maps, site visits and review of relevant published reports.

3.1.2 Environmental Setting

East Baton Rouge is located in the south-eastern central part of the state and is a low-lying area close to the Mississippi River delta. The proposed rail line would be located to the east of the Baton Rouge Barge Canal, a tributary of the Mississippi River. Elevation of this physio-geographic area ranges from approximately 55-75 feet, with a number of steep, vegetated ravines and drainages interspersed throughout the project site. The topography was originally flat but the land has been significantly altered with berms and ponds as the area has been developed for industrial purposes.

3.1.2.1 Geologic Conditions

■ Alluvial sediments from the Mississippi River are found in nearly one-third of the state's total land area. The site is located at the boundary between two of these alluvial sediments: the Mississippi River Valley and Prairie Terrace formations. Various types of clay, silt and sand make up the parent material in both alluvial sediments. A series of underground aquifers exist below the alluvial sediments and range in depth from 200 to approximately 2,800 feet with various types of sediments confining each aquifer.

3.1.2.2 Soil Conditions

■ The soils within the project area can be divided into three distinct sections from east to west: the tank farm area, the transition area, and the blufflands adjacent to the canal. Soils in the tank farm area are of the Frost series. Frost soils are located on the Prairie terrace Formation. These soils are flat, or nearly so, and are poorly drained. Numerous small drainage ditches have been constructed across the tank farm in order to convey runoff to a perennial channel that flows toward the Canal. The loessial soils in the transition area are on gentle slopes with generally poor permeability. According to the soil survey, terrace escarpments are “between terraces and flood plains” and are “highly dissected by ravines”. Erosion is a hazard if the area is disturbed and left bare.

A small portion of land east of the BRPO plant and U.S. Highway 61 is currently undeveloped. A portion of it is currently used as a hay meadow and pastureland for cattle and horses. Another portion is woodlands. Although several soil series mapped in the area include prime farmlands soils, no land in the area is currently used for crop production.

3.1.2.3 Climate Conditions

Louisiana has a humid subtropical climate, with hot summers and mild winters. Average maximum annual temperature is 91.4 degrees fahrenheit. Average minimum annual temperature is 41.9 degrees fahrenheit. The high summer temperatures are usually accompanied by high humidity and frequent rainfall.

Annual precipitation average is about 68 inches per year. Rainfall totals are often higher due to hurricanes that may strike the coast in late summer and early autumn.

3.2 SURFACE AND GROUNDWATER

3.2.1 Approach and Methodology

SEA evaluated the proposed rail line to determine whether the proposed construction and operation would substantially affect surface and groundwater. The analysis included a review of existing maps, photos, reports, correspondence and a field survey. This section describes the affected environment. Effects and mitigation measures are discussed in Section 4.2.

3.2.2 Environmental Setting

3.2.2.1 Waters of the United States

The project area includes several areas of surface water including the BRBC (a dredged waterway that connects the Port of Baton Rouge dock to the Mississippi River), an approximate 10-foot wide drainage channel that crosses the northern part of the former tank farm property, and ponds located to the west of the now-closed City-Parish of East Baton Rouge Devil's Swamp Landfill, and north of the Crestworth neighborhood, and two ravines located north of the Devil's Swamp Landfill that drain into the BRBC.

3.2.2.2 Groundwater

The Baton Rouge aquifer system is a series of underground aquifers that range in depth from 200 to approximately 2,800 feet. These aquifers supply water for domestic and industrial uses within the area. The aquifers are named according to their depth in feet from the surface to their base beneath the industrial district of Baton Rouge.

3.2.2.3 Floodplains

The project area is located just outside the 100-year floodplain of the Mississippi River, separated by a steeply-sloping ridge along the western edge of the project area. East Baton Rouge Parish participates in the National Flood Insurance Program. According to the Flood Insurance Rate Map (FIRM) of this area, the project area lies within an area mapped as being outside the 500-year floodplain.

3.3 AIR QUALITY

3.3.1 Approach and Methodology

SEA evaluated the proposed rail line to determine whether the proposed construction and operation would substantially affect air quality. This section describes the affected environment. Effects and mitigation measures are discussed in Section 4.3.

The analysis of air quality included a review of:

- C National Ambient Air Quality Standards
- C The Louisiana Department of Environmental Quality State Implementation Plan
- C Section 176(c) of the Clean Air Act, 42 U.S.C. 7401, et seq.

3.3.2 Environmental Setting

The proposed rail line would be used by one train per day, round trip, 7 days per week, to bring empty rail cars to the ExxonMobil BRPO plant and take rail cars filled with plastic pellets (i.e. non-hazardous materials) from the plant. In addition approximately 15 cars of hexene and isobutane would be brought to the plant each month by IC or KCS. These chemicals originate outside the Baton Rouge area and, if transported by IC, would be transported to the ExxonMobil BRPO plant as part of IC's daily trip to the plant (i.e., they would not result in additional train trips).

3.3.2.1 Existing Air Quality

The EPA uses six "criteria pollutants" as indicators of air quality, and has established for each of them a maximum concentration above which adverse effects on human health may occur. These threshold concentrations are called National Ambient Air Quality Standards. When an area does not meet the air quality standard it is designated as a nonattainment area for that standard. While ozone is a regulated criteria pollutant, it is not directly emitted from sources. Ozone forms as a result of volatile organic compounds (VOCs) and oxides of nitrogen (NO_x) reacting with sunlight in the atmosphere. Louisiana violates the standard for ozone in five parishes— Ascension, East Baton Rouge, Iberville, Livingston and

West Baton Rouge. Collectively, these parishes are called the Baton Rouge Nonattainment area. Ozone nonattainment areas are classified as extreme, severe, serious, moderate or marginal. The Baton Rouge Nonattainment Area's current classification is "serious".

State Guidelines - The Louisiana Department of Environmental Quality (DEQ) has responsibility for implementation of an ozone reduction strategy, known as the State Implementation Plan (SIP). As required by the Clean Air Act of 1990, multiple SIP revisions have been submitted for the Baton Rouge Nonattainment Area. In 1995 the DEQ submitted to the EPA an attainment demonstration plan which demonstrated that the ozone standard would be attained by 1999. The SIP provided for significant reductions in emissions of Volatile Organic Compounds (VOC) primarily from more stringent controls on gasoline and chemical storage tanks, leaking equipment, barge/ship loading of volatile liquids and the venting of waste gas. Controls on nitrogen oxides (NO_x) emissions were not included in the strategy.

According to the SIP, baseline emissions from non-road mobile sources (e.g., construction equipment, lawn and garden equipment, aircraft and locomotives) account for 21.8 tons per day of VOCs. According to the Louisiana Department of Environmental Quality, total VOC emissions from locomotives from all railroads operating in the Baton Rouge Non-attainment Area in 1999 were 0.14 tons per day, or less than 1% of all non-road mobile source VOC emissions.

The Baton Rouge Nonattainment Area continues to violate the ozone standard after the 1999 attainment deadline. EPA granted an extension to August 2001 for preparation of an attainment demonstration that accounts for transport of ozone from nonattainment areas west of Baton Rouge in neighboring Texas. New control measures currently being considered include additional limits on VOC emissions from industrial sources and implementation of nitrogen oxides (NO_x) controls for industrial sources.

Federal Guidelines - All Federal actions are subject to the conformity requirements of section 176(c) of the Clean Air Act. Conformity determinations are required for general Federal actions where the total of direct and indirect emissions in a nonattainment area caused by the Federal action would equal or exceed specified thresholds. For a serious ozone nonattainment area the thresholds are 50 tons per year of either VOC or NO_x.

Areas where visibility is an important value are designated under the Clean Air Act as Prevention of Significant Deterioration (PSD) Class I areas. These include national wilderness areas and national parks that exceed 5,000 and 6,000 acres, respectively. The Breton National Wildlife Refuge (Breton Wilderness) located in the Gulf of Mexico is the nearest PSD Class I area to the project area.

3.4 BIOLOGICAL RESOURCES

3.4.1 Approach and Methodology

The construction and operation of the proposed rail line could affect biological resources in the vicinity of the project. This section describes the affected environment. Effects and mitigation measures are discussed in Section 4.4.

The analysis of biological resources included a review of existing maps, photos, reports, correspondence and a field survey. Activities conducted in this process include:

- C Analysis of the full list of special-status species for East Baton Rouge Parish obtained from the U.S. Fish and Wildlife Service (FWS) and the Louisiana Department of Wildlife and Fisheries (LDWF) (Louisiana Natural Heritage Program) , as well as a special database review for the area within one-half mile of each side of the preferred route.
- C Consultation with agency representatives from the U.S. Army Corps of Engineers, New Orleans District, LDWF, FWS, and the Louisiana Department of Environmental Quality (DEQ).
- C Field surveys of the project area and surroundings.
- C Review of engineering plans provided by IC.
- C Verification of the wetlands reconnaissance survey conducted by HDR Engineering Inc.⁹ (May 8, 2000).

Please refer to Section 6.0 Agency Consultation Coordination and Requested Information for more detailed information about agency consultation activities.

⁹HDR Engineering, Inc. is a consulting firm hired by IC to prepare technical studies related to the application for the proposed rail line construction and operation. SEA reviewed and verified the information contained in each of the studies submitted, and performed additional analysis as required.

3.4.2 Environmental Setting

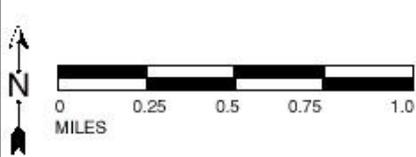
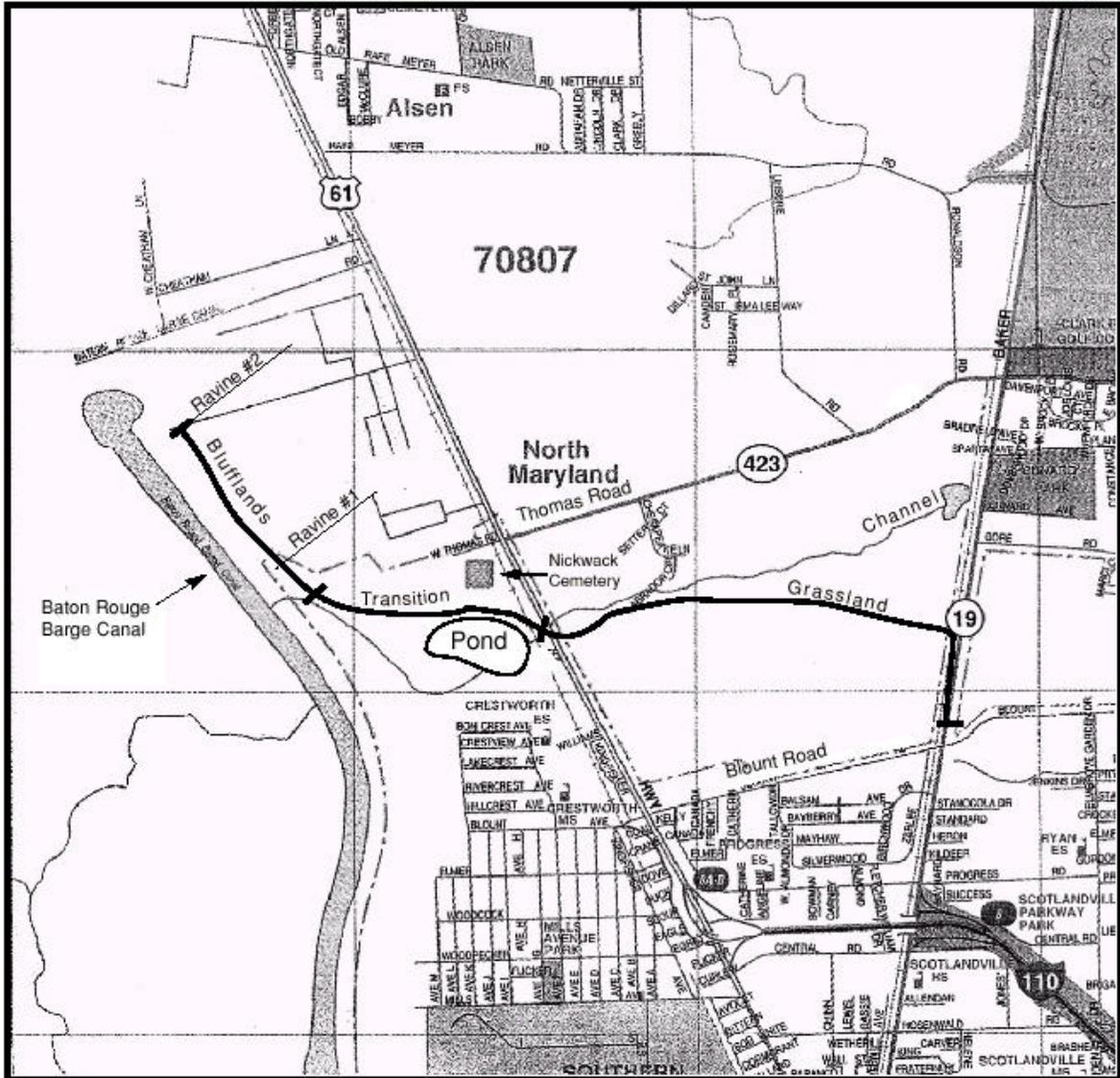
3.4.2.1 Vegetation

Habitat Types - Two basic habitat types occur along the proposed route: mixed hardwood blufflands and converted grassland. The blufflands are located in a narrow strip between the BRBC and the various chemical plants to the east. Grasslands, converted from a previous mixed hardwood type, form the primary vegetative type on the former tank farm property. A smaller, transition of both grassland and forest vegetation occurs in the area adjacent to the Ergon property. Figure 3-1 depicts the locations of the two habitat types including wetland features discussed in this section.

Blufflands - Blufflands occur in an approximate 1/4-mile wide, and 1/8-mile long strip between the BRBC on the west, and the chemical plants on the east. Two, 40 to 60 feet deep ravines have formed in this area created by the rapid flow of stormwater and industrial process waters through this area toward the BRBC. Predominant overstory vegetation is a mixture of hardwood species such as red maple (*Acer rubrum*), water oak (*Quercus phellos*), live oak (*Quercus virginiana*) northern red oak (*Quercus rubra*), and Sycamore (*Plantanus occidentalis*). Predominant midstory/ understory species consist of sweet gum (*Liquidamber styraciflua*), American holly (*Ilex opaca*), greenbriar (*Smilax spp.*), wild grape (*Vitis spp.*), and poison ivy (*Toxicodendron radicans*).

The overstory of mixed hardwood has been previously disturbed by logging and roading. This area has a well-developed overstory and midstory approximately 40-50 years old with older, approximately 60-80 year old trees scattered within the stand. There are two ravines within this area. Both of these ravines appear stable with little, or no active downcutting. The southern ravine is approximately eight feet wide at the Ordinary High Water Mark (OHWM)¹⁰, and the northern ravine is approximately 10-feet wide at the OHWM. This area as a whole, while providing potential wildlife cover and nesting habitat, is probably most important, from a habitat standpoint, in maintaining a riparian corridor for wildlife movement along this side of the BRBC. Common species observed either by site or sign were white-tailed deer (*Odocoileus virginianus*), eastern cottontail (*Sylvilagus floridanus*), cattle egret (*Bubulcus ibis*), red-tailed hawk (*Buteo jamaicensis*), and Carolina chickadee (*Parus carolinensis*).

¹⁰OHWM is an indicator of the high water level that occurs in a creek on a regular (at least annual) basis. It is indicated by a change in vegetative character and often used to define the width and depth of a stream or creek. OHWM may not be equivalent to the area defined as waters of the U.S. by the U.S. Army Corps of Engineers.



East Baton Rouge Parish, Louisiana



Figure 3-1
Habitat Type and Wetland
Feature Map

STB Finance Docket No. 33877

Grasslands - The grassland area was converted from mixed hardwood forest in the early 1900's for use as a tank farm. While the tanks have been removed, the area is still mowed continuously, maintaining it in the grassland stage with a few scattered hardwood species such as northern red oak and sycamore. Predominant grassland species are Bermuda grass (*Cynodon dactylon*), little bluestem (*Andropogon scoparius*), and bull thistle (*Cirsium vulgare*). An approximate 10-foot wide drainage channel winds through the northern part of the tank farm property. Vegetation along the channel consists of predominately hydrophytic species such as swamp rose (*Rosa palustris*), blackberry (*Ribes spp.*), inkberry (*Ilex glabra*) sandpaper vervain (*Verbena scabra*), and broomsedge (*Andropogon virginicus*). The drainage channel contains a weir at the western end of the tank farm property near U.S. Highway 61. The weir ponds water and acts to meter flow toward a culvert which carries water beneath U.S. Highway 61. The proposed route would cross the channel just west of the weir and east of U.S. Highway 61.

Regulatory Requirements - The U.S. Army Corps of Engineers (Corps) issues a permit for any discharge of dredged or fill material into waters of the U.S. and or wetlands in accordance with Section 404 of the Clean Water Act. The two ravines located in the bluffland area and the drainage channel that crosses the former tank farm property qualify as Waters of the U.S. and are under the authority of the Corps.

The Corps offers two types of permits relative to these activities, the Nationwide Permit which is a streamlined permitting process and an individual 404 permit. Because the cumulative length of the fill for crossing the drainage channel on the former tank farm property and the two ravines appears to exceed 200 linear feet, IC has filed an application with the Corps for an individual 404 permit.

3.4.2.2 Wildlife

As mentioned above, the project area is defined by two primary habitat types: blufflands and grasslands. The blufflands provide habitat for a variety of wildlife species. Common species observed either by site or sign were white-tailed deer (*Odocoileus virginianus*), eastern cottontail (*Sylvilagus floridanus*), cattle egret (*Bubulcus ibis*), red-tailed hawk (*Buteo jamaicensis*), and Carolina chickadee (*Parus carolinensis*).

The grasslands provide foraging habitat for a variety of common birds such as killdeer (*Charadrius vociferus*), mourning dove (*Zenaida macroura*), eastern meadowlark (*Sturnella magna*), and American kestrel (*Falco sparverius*). The drainage channel is being used by wading birds such as the little blue heron (*Egretta caerulea*), and great egret (*Casmerodius albus*). Beaver (*Castor canadensis*) also inhabit the channel.

3.4.2.3 Endangered, Threatened and Rare Species

In order to determine the potential for special-status species to occur in an area along the proposed rail line, SEA obtained a list of all special-status species known to occur within East Baton Rouge Parish from the FWS and LDWF. To further refine the analysis, SEA also requested from the LDWF a list

of species with documented occurrence within the general area. This general project area search did not yield any documented occurrence of any special-status-species. SEA then analyzed the list of special status species known to occur in the wider East Baton Rouge Parish area to determine if any of the species occupied habitats similar to those along the proposed rail line. A comparison of species and habitat requirements is shown in Table 3-1 *Louisiana Dept. Of Wildlife and Fisheries Rare, Threatened, and Endangered Species List - East Baton Rouge Parish* and Table 3-2 *U.S. Fish and Wildlife Service Threatened, and Endangered Species List - East Baton Rouge Parish*.

During SEA's field reconnaissance on January 11 and 12, 2001, SEA attempted to identify any species that might occur within the habitats along the proposed rail line. No special-status species were observed in these areas during this survey. A complete listing of species observed during the survey is shown in Table 3-3 *Wildlife & Plants - Observed on the Project Area*.

3.4.2.4 National and State Parks

Consultation with the FWS and LDWF indicated that no natural features, federal or state parks, refuges, scenic streams, or wildlife areas are in the project area.

State Common Name	State Scientific Name	Habitat Requirements	Potential for	Detected
Alabama Shad	Alosa Alabamae	Mississippi River	No habitat within APE	No
Bald Eagle	Haliaeetus Leucocephalus	Forests near water	Possible winter visitor	No
Bottonland Hardwood	Bottonland Hardwood Forest	Bottonland Hardwood Forest	No habitat within APE	No
Cypress-Tupelo Swamp	Cypress-Tupelo Swamp	Tupelo Swamp	No habitat within APE	No
Dwarf Filmy Fern	Trichomanes Petersii	Cliff Habitat	No habitat within APE	No
Eastern Glass Lizard	Ophisaurus Ventralis	Pinewoods in E. EBR Parish	Outside of range	No
Eastern Harvest Mouse	Reithrodontomys Humulis	Fields, broom sedge areas	Possible	No
Elliott Sida	Sida Elliottii	Mixed hardwood forest	Possible	No
Four-Toed Salamander	Hemidactylium Scutatum	Sphagnum bogs in pine	No habitat within APE	No
Herbertia	Herbertia Lahue SSP Caerulea	Mixed hardwood forest	Possible	No
Hybrid Wood Fern	Dryopteris X Australis	Mixed hardwood forest	Possible	No
Long-Tailed Weasel	Mustela Frenata	Openings and forest areas	Possible	No
Low Erythodes	Platythelys Querceticola	Mixed hardwood forest	Possible	No
National Champion Tree	National Champion Tree			No
Powdery Thalia	Thalia Dealbata	Mixed hardwood forest	Possible	No
Prairie Terrace Loess	Prairie Terrace Loess Forest	Prairie	No habitat within APE	No
Rainbow Snake	Farancia Erytrogramma	Swamps, slow streams	No habitat within APE	No
Rayed Creekshell	Anadontoides Radiatus	Rivers and streams	No habitat within APE	No
Silky Camellia	Stewartia Malacodendron	Mixed hardwood forest	Possible	No
Southeastern Shrew	Sorex Longirostris	Moist areas in fields	Possible	No
Southern Hickorynut	Obovaria Jacksoniana	Mixed hardwood forest	Possible	No
Southern Pocketbook	Lampsilis Ornata	Mixed hardwood forest	Possible	No
Southern Shield Wood-	Dryopteris Ludoviciana	Mixed hardwood forest	Possible	No
Spruce Pine-Hardwood	Spruce Pine-Hardwood Mesic	Spruce pine hardwood forest	No habitat within APE	No
Square-Stemmed Monkey	Mimulus Ringens	Wet meadows & streambanks	Possible	No
State Champion Tree	State Champion			No
Sweetgum-Water Oak	Sweetgum-Water Oak	Bottonland forest	No habitat within APE	No
Wolf Spikerush	Eleocharis Wolfii	Marsh and swamps	Possible	No
Inflated Heelsplitter	Potamilus Inflatus	Limited to Amite River	Outside of range	No
Pallid Sturgeon	Scaphirhynchus Albus	Mississippi River	No habitat within APE	No
West Indian Manatee	Trichechus Manatus	Coastal area of rivers	No habitat within APE	No

State Common Name	State Scientific Name	Habitat Requirements	Potential for	Detected
Inflated Heelsplitter	Potamilus Inflatus	Limited to Amite River	Outside of range	No
Gulf Sturgeon	Acipenser oxyrhynchus	Mississippi River	No habitat within APE	No
Pallid Sturgeon	Scaphirhynchus Albus	Mississippi River	No habitat within APE	No
West Indian Manatee	Trichechus Manatus	Coastal area of rivers	No habitat within APE	No

Table 3-3

Wildlife and Plants - Observed on the Project Area

Common Name	Scientific Name	Grassland	Blufflands	Transition
Red-tailed hawk	<i>Buteo jamaicensis</i>	X	X	
American kestrel	<i>Falco sparverius</i>	X		
Mourning dove	<i>Zenaida macroura</i>	X		
Killdeer	<i>Charadrius vociferus</i>	X		
Great egret	<i>Casmerodius albus</i>	X		
Eastern meadow lark	<i>Sturnella magna</i>	X		
Loggerhead shrike	<i>Lanius ludovicianus</i>	X		
Cardinal	<i>Cardinalis cardinalis</i>			X
American crow	<i>Corvus brachyrhynchos</i>	X		
Song sparrow	<i>Melospiza melodia</i>	X		
Cattle egret	<i>Bubulcus ibis</i>		X	
Carolina chickadee	<i>Parus carolinensis</i>			X
Beaver	<i>Castor canadensis</i>	X		
White-tailed deer	<i>Odocoileus virginianus</i>		X	
Eastern cottontail	<i>Sylvilagus floridanus</i>		X	
Water oak	<i>Quercus phellos</i>		X	
Northern red oak	<i>Quercus rubra</i>		X	
Sweetgum	<i>Liquidambar styraciflua</i>		X	
Sycamore	<i>Platanus occidentalis</i>	X	X	
Poison oak	<i>Toxicodendron radicans</i>		X	
Resurrection fern	<i>Polypodium polypodioides</i>		X	
Southern red cedar	<i>Juniperus silicicola</i>			X
Saw-palmetto	<i>Serenoa repens</i>		X	
Giant cane	<i>Arundinaria gigantea</i>			X
American holly	<i>Ilex opaca</i>		X	
Greenbriar	<i>Smilax spp.</i>		X	
Wild grape	<i>Vitis spp.</i>		X	
Red maple	<i>Acer rubrum</i>		X	
Bald cypress	<i>Taxodium distichum</i>		X	
Swamp magnolia	<i>Magnolia virginiana</i>		X	
Narrow-leafed cattail	<i>Typha augustifolia</i>	XC*		
Broomsedge	<i>Andropogon virginicus</i>	XC		
Foxtail grass	<i>Setaria genitularia</i>	XC		
Sandpaper vervain	<i>Verbena scabra</i>	XC		
Willow	<i>Salix spp.</i>	XC		
Burmuda grass	<i>Cynodon dactylon</i>	X		
Little bluestem	<i>Andropogon scoparius</i>	X		
Maidencane	<i>Panicum hemitomon</i>	XC		
Inkberry	<i>Ilex glabra</i>	XC		
Swamp rose	<i>Rosa palustris</i>	XC		
Blackberry	<i>Ribes spp.</i>	XC		
Bull thistle	<i>Cirsium vulgare</i>	X		

*XC- Growing with the channel in the grassland type

3.5 NOISE

3.5.1 Approach and Methodology

The construction and operation of the proposed rail line could have an effect on local ambient noise levels, and on noise sensitive land uses such as residences and schools in the vicinity of the proposed rail line. SEA analyzed the proposed rail line in terms of the Board's adopted noise regulations specified at 49 CFR 1105.7. This section presents SEA's research on the existing environment in the area of the proposed rail line. All sound levels presented in this EA are A-weighted unless otherwise indicated (See Appendix 3 for a discussion of the fundamental concepts of environmental noise).

Environmental effects and mitigation measures are presented in section 4.5.

3.5.2 Environmental Setting

The proposed rail line alignment would depart from the existing IC Maryland siding in the vicinity of the Exxon Mobil Corporation former tank farm property¹¹ and head west. The proposed rail line would cross the former tank farm property in a westerly direction toward U.S. Highway 61. The proposed rail line would cross U.S. Highway 61 at-grade approximately 1,200 feet south of Thomas Road. The proposed rail line would also cross (at-grade) an existing KCS rail line (the KCS rail line is a single track in this area). Continuing west, the proposed rail line would pass to the south and west of the Baton Rouge Police Firing Range and Ergon Oil properties and across a portion of the City-Parish of East Baton Rouge Devil's Swamp Landfill, which is now closed. The proposed rail line would then turn north and follow the Greater Baton Rouge Port Commission property along the east side of the Baton Rouge Barge Canal before connecting with the ExxonMobil BRPO property at its western boundary.

Existing land uses around the proposed alignment are primarily residential and industrial. Residential neighborhoods are located to the north and south of the project area. The closest residential area to the proposed rail line is the Crestworth neighborhood, located 1300 feet to the south. Other residential neighborhoods in the project vicinity include University Place, Park Vista, Jenkins Place, Pyrcce, Kingston Estates, Holiday Acres, Cunnard Place, and St. Irma Lee.

3.5.2.1 Acoustical Criteria

SEA's established noise regulations are based on EPA and the U.S. Department of Housing and Urban Development's noise guidelines. The regulations express average sound levels obtained over a 24 hour period, with an increased sensitivity for night-time noises, when sleep may be disrupted and when the public expects to be able to enjoy indoor and outdoor settings with reduced noise levels. To account for

¹¹ The oil storage tanks were removed from this property in the late 1990's. The property is currently vacant with the exception of five storage tanks that were retained along the eastern boundary of the property. The storage tanks remaining on the site are currently empty.

night-time sensitivity the guidelines are expressed in “day-night average sound levels”(DNL), and reflect a 10 dB noise penalty for sounds measured between 10 p.m. and 7 a.m. SEA contacted local agencies and determined that the state has not adopted any acoustical criteria for this type of project. A list of locations where measurements were taken and the sound levels at each such location is shown in Table 3-4.

3.5.2.2 Existing Noise Levels

SEA measured the existing noise levels in areas surrounding the proposed rail line on April 5 and 6, 2001. Noise measurements were taken at noise-sensitive land uses such as residences and schools in the surrounding areas. The results of the noise measurements are presented in Table 3-4. The major source of noise in the surrounding communities is traffic on Highways 61 and 19 and train traffic on the existing IC and KCS rail lines in the area. Airplane flyovers are also audible within the project area. KCS currently crosses U.S. Highway 61 north of Thomas Road and trains are required to sound their horns when traveling across this existing at-grade crossing contributing to the existing noise levels.

Table 3-4 Noise Measurement Results - April 5-6, 2001

Site	Location	Date/Time	A-Weighted Sound Level (dB)	
			Leq ¹²	DNL
1	Crestworth Elementary School, north side near play area	April 5-6, 2001- 24 hours	--	62
2	Bon Crest Avenue at Ave K, 50 ft from roadway centerline	April 6, 2001- 4:45pm - 5:00pm	53	53*
3	Williams Street @ U.S. Highway 61	April 6, 2001- 4:15pm - 4:30pm	62	65*
4	St. Irma Lee Way	April 6, 2001- 3:30pm - 3:45pm	53	58*
5	Camphor Drive, one block south of Blount Road	April 5-6, 2001 - 24 hours	--	60*
6	Zerke Street, 75 ft south of Blount Road	April 6, 2001- 5:30pm - 5:45pm	61	66*
7	Gore Road, 200 ft east of Highway 19	April 5, 2001- 5:45pm - 6:00pm	67	71*
7b	Gore Road, 450 ft east of Highway 19	April 5, 2001- 6:05pm - 6:10pm	61	65*

* Estimate based on simultaneous measurement at 24 hour monitor location.

¹² Leq refers to the average sound level at a receiver location. See Appendix 3 for additional discussion of the fundamental concepts of environmental noise.

3.6 CULTURAL RESOURCES

Cultural resources is a broad, general term relating to any property that is the location of past human activity, occupation, or use. Cultural resources are identifiable through field inventory, historic documentation, or oral evidence. The term includes archaeological sites, historic sites, or places with important public and scientific uses, and could include definite locations of traditional cultural or religious importance to specified social and/or cultural groups.

3.6.1 Approach and Methodology

This section presents SEA's examination of cultural resources within the area of the proposed rail line, including prehistoric and historic resources. In order to determine the potential effect of the project, SEA conducted a literature review of known cultural sites in the project vicinity and consulted with the Louisiana State Office of Historic Preservation. Based on the results of these activities, no further site reconnaissance was warranted. The results of the analysis are summarized in this section.

3.6.2 Environmental Setting

The Baton Rouge region is known to contain scores of significant historic and prehistoric sites. To identify any known historic or prehistoric sites in the project vicinity, SEA consulted with the Louisiana State Historic Preservation Officer (LA SHPO) to determine if there were any known cultural resources in the project area that could be adversely affected by the proposed rail line. The LA SHPO indicated that no known archaeological sites or standing historic structures in the area are listed on or determined eligible for listing on the National Register of Historic Places and that the undertaking would not affect any known archaeological or historic properties¹³.

In light of the fact that the previous land uses in the project area were primarily heavy industry, and that native soils along the preferred rail route have been previously graded and filled, SEA determined that an intensive survey of the area by an archaeologist was not warranted.

The preferred rail alternative does not pass in the immediate vicinity of any residential structures that would require assessment for architectural significance. The Nickwack Cemetery is located approximately 300 feet from the proposed route; however, SEA found no evidence that it is a significant historic resource on a national, regional or local level. Furthermore, the cemetery's

¹³ The LA SHPO was consulted twice relative to the proposed rail line. The first consultation was conducted by IC who received a letter from G. Hobby of that office, dated May 11, 2000. SEA sent a second letter to the LA SHPO on January 12, 2001, with current maps of the preferred alignment and a request for an additional review of state files to ensure that the no significant resources exist along the preferred alternative. The LA SHPO replied on February 23, 2001, indicating that no known archaeological sites or historic properties would be affected by the undertaking.

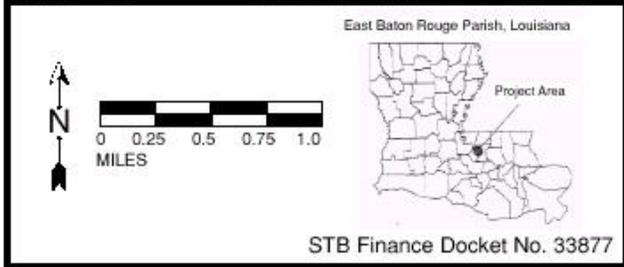
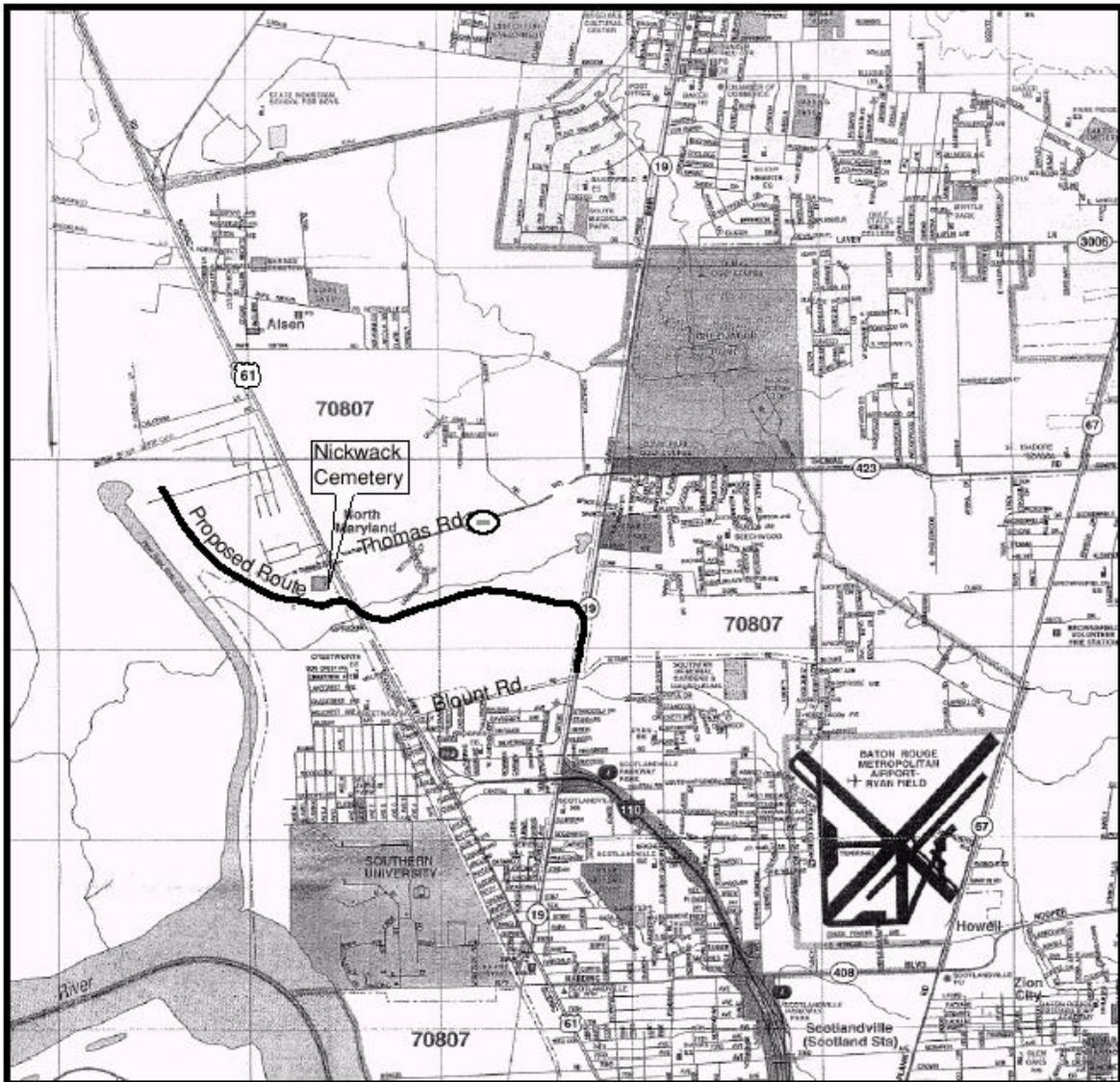


Figure 3-2
Nickwack Cemetery
Location Map

current state of disrepair would likely preclude further consideration of its significance in terms of National Register eligibility. Figure 3-2 depicts the existing Nickwack Cemetery in relation to the proposed rail line.

3.7 HAZARDOUS MATERIALS/WASTE SITES

3.7.1 Approach and Methodology

SEA analyzed the potential effect of hazardous materials and hazardous waste sites on the proposed project. The analysis included a review of historical land use information, regulatory agency files and databases, interviews, and a visual site reconnaissance, in accordance with American Society for Testing and Materials (ASTM) Standard E1527-00, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process." This section presents a summary of the research and findings of SEA's analysis.

3.7.2 Environmental Setting

3.7.2.1 Historical Land Uses

The Phase I Environmental Site Assessment (ESA) evaluated historical land uses associated with hazardous materials through a review of available land use information, including historical aerial photographs and topographic maps from 1963 through 1999. The area surrounding the project alignment has been used for industrial land uses for as long as historical records have been kept. Figure 3-3 depicts the location of the properties crossed by the proposed rail line. These properties are discussed in more detail below.

The Exxon Mobil Corporation former tank farm property was developed in the 1910s for the storage of crude oil in aboveground tanks. The site operated through most of the 20th Century until 1995 when all but five of the tanks were removed by its current owner, Exxon Mobil Corporation. The ExxonMobil Chemical Baton Rouge Polyolefins (BRPO) facility, which would be served by the proposed rail line, was founded in 1955 and continues to operate. The LA Chemicals facility and the Deltech facility have been active since at least 1963, the date of the first available topographic map. The ExxonMobil Chemical Baton Rouge Plastics Plant (BRPP) facility was constructed between 1963 and 1970, near the eastern terminus of the proposed alignment. Between 1970 and 1978, the following development took place near the proposed rail line: the Ergon facility was constructed, several buildings and lagoons were constructed for the Rollins Environmental/Safety Kleen facility, and eight lagoons were constructed at the LA Chemical facility. All eight lagoons were filled in between 1989 and 1999 and are no longer visible. The Devil's Swamp Landfill operated from the 1970s to the early 1990s.

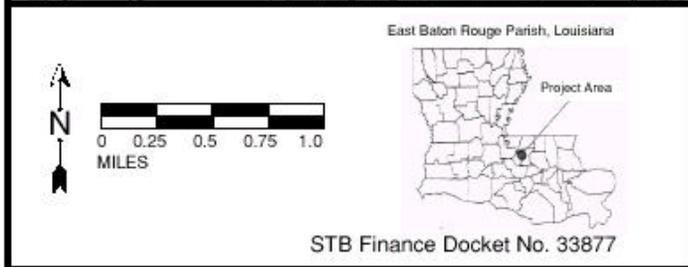
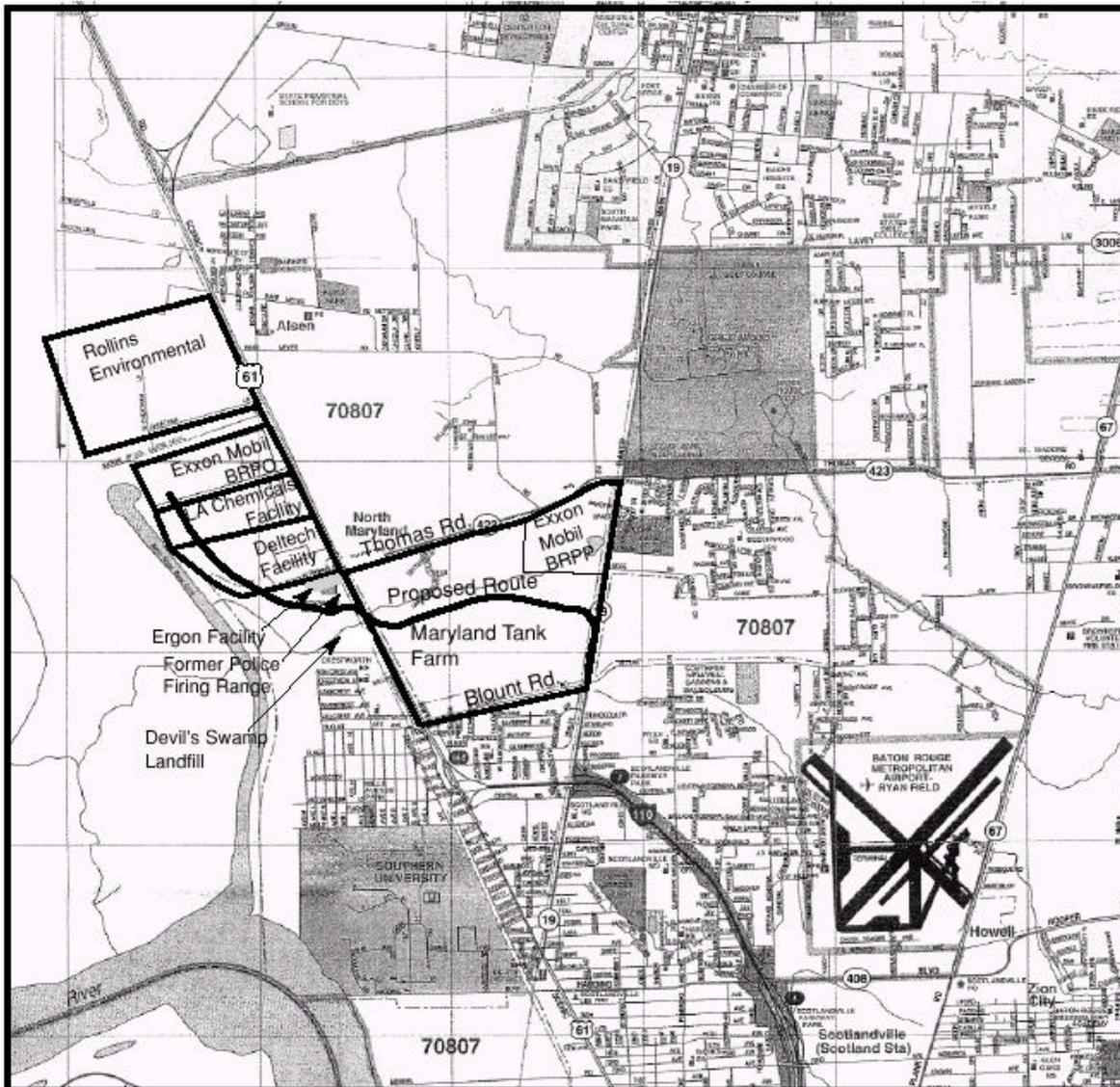


Figure 3-3
Industrial Land Use
Site Map

The historical land uses listed above could have resulted in releases of hazardous materials. Releases from these properties, including aboveground crude oil storage tanks and pipelines, petrochemical facilities, and waste lagoons, could potentially affect soils near the alignment. Potential contaminants of concern associated with historical land uses include petroleum hydrocarbons, volatile organic compounds (VOCs), and semi-volatile organic compounds.

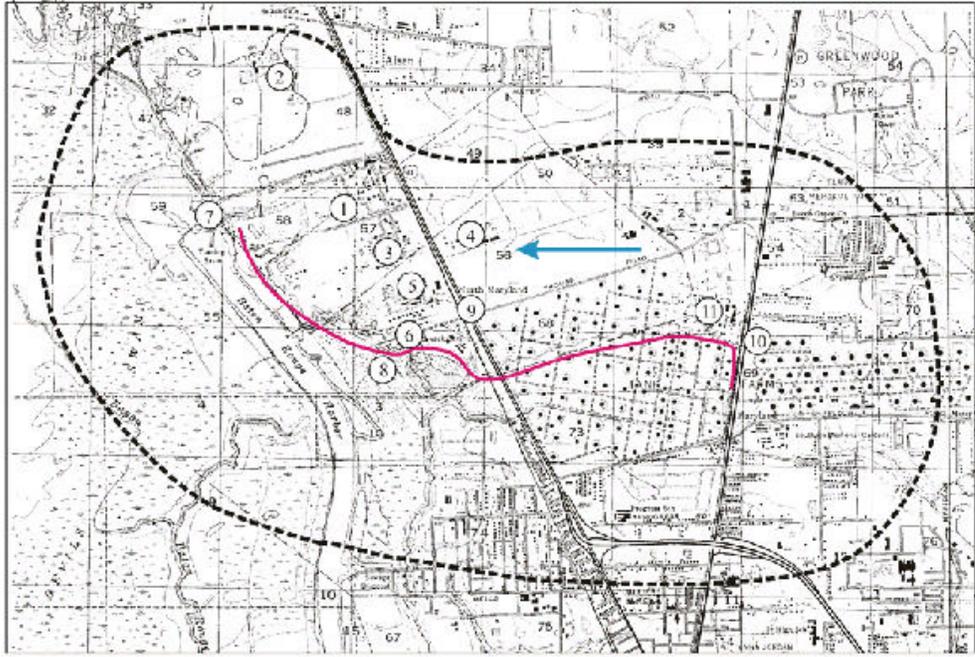
3.7.2.2 Known Hazardous Waste Sites

The Phase I Site Assessment included a review of Federal, state, and local regulatory agency databases pertaining to hazardous materials use or releases on properties within one mile from the proposed rail line (EDR, 2001). Eleven sites within one mile of the alignment were identified. The site locations are shown on Figure 3-4; details for each of the sites are shown in Table 3-5.

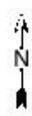
Based on available information on site status and location, the Phase I Site Assessment concluded that none of the reported hazardous material releases identified in the review of environmental records and databases would likely affect construction of the proposed project.

3.7.2.3 Current Site Conditions

SEA performed a site reconnaissance of the proposed rail line construction limits as part of the Phase I Site Assessment on October 13, 2000. The proposed rail line would cross the former tank farm property, U.S. Highway 61, the KCS rail line, the Baton Rouge Police Department firing range (which is scheduled to be closed), a portion of the now-closed Devil's Swamp Landfill, and undeveloped land adjacent to several petrochemical facilities. The alignment is generally level, except for the western portion, which would cross two ravines along a bluff near the Baton Rouge Barge Canal. No evidence of current or historical hazardous material releases, such as stained soil, stressed vegetation, or hazardous materials or waste storage, was noted within the construction limits of the proposed rail line during the site reconnaissance.



Note: Numbers inside circles denote site numbers; see Table 1 for the names, addresses, and status.
 Source: EDR, 2001.



East Baton Rouge Parish, Louisiana
 STB Finance Docket No. 33877

Figure 3-4
 Hazardous Material Sites
 Sites on Regulatory lists within
 one mile of the proposed
 alignment

① Hazardous Material Sites

Table 3-5: SITES STORING, USING, OR DISPOSING OF HAZARDOUS MATERIALS WITHIN ONE MILE OF THE PROJECT AREA			
No.	Firm Name/Address	List	Status
1	Exxon Mobil Chemical Co BRPO Plant	TRIS	No record of CERCLA or RCRA subsurface investigations in environmental database report.
2	Safety Kleen Baton Rouge 13351 Scenic Highway Rollins Environmental Service 13351 Scenic Highway	CORRACTS, CERCLIS, LQG, TSD, RAATS HAZNET	CERCLA investigation conducted in 1979-1980. No further action required at site. 25 hazardous waste regulation violations reported at site from 1987 to 1997; compliance reported for 22 violations. Several manifests on file for disposal of hazardous materials.
3	USS Chemical 12573 Scenic Highway	SHWS	No additional information available in environmental database report
	LA Polymers Sales Inc. 12573 Scenic Highway	CERCLIS, SQG, TRIS, TSCA, UST	RCRA investigation conducted at site from 1979 to 1985. Site contains three surface impoundments storing effluent treatment plant sludge and four to five sludge drying lagoons. One low priority hazardous waste violation reported in March 1996; compliance achieved in December 1996. One 500-gallon gasoline UST reported at site; tank is permanently out of use.
4	EMPC Picco Meter 12480 Scenic Highway Exxon Mobil Resin Finishing Plant 12480 Scenic Highway	SQG LQG, TRIS	No hazardous waste violations reported. One low priority hazardous waste violation reported in 1994; compliance reported.
5	Deltech/American Hoechst Corp. 11911 Scenic Highway	CORRACTS, CERCLIS, LQG, TRIS, TSD, UST, SHWS	RCRA investigation conducted in 1989-1990. No further action required at site. Six low priority hazardous waste regulation violations reported from 1988-1994; compliance reported for all violations. One 350-gallon gasoline UST reported at site.
6	Ergon Oil U.S. Highway 61 and Thomas Road	SQG	Four low priority hazardous waste violations reported at site in May 1993; compliance achieved in November 1993.

7	Baton Rouge Barge Terminal Route 5 Box 45	LUST, UST	Release of gasoline reported in 1990. 0.8-inch of free product noted from groundwater sample. Remediation completed and case closed in 1993. One 2,000-gallon gasoline UST reported at site; UST is permanently out of use.
8	Devil's Swamp Sanitary Landfill U.S. Highway 61 and Thomas Road	CERCLIS	CERCLIS investigation conducted 1979-1980; site status is low.
9	11351 Scenic Highway	ERNS	No additional information available in environmental database report
10	PEL State #47 10888 Scotland-Baker Road	UST	Two 8,000-gallon USTs reported in use at site.
11	ExxonMobil Chemical BRPP Plant 11675 Scotland-Zachary Road	CORRACTS, LQG, TRIS, TSD, UST	RCRA Corrective Action dated 10/31/92; no further action required. Disposes of ignitable hazardous waste, lead, chloroform, and nonhalogenated solvents. Facility burns hazardous waste fuel using an industrial boiler under permit. Two, 2,000-gallon diesel tanks reported at site; tanks are permanently out of use.

Source: EDR, 2000.

- Notes:
- CERCLIS = U.S. EPA list of known or suspected hazardous material sites.
 - CORRACTS = U.S. EPA database of RCRA corrective action sites.
 - ERNS = U.S. EPA Emergency Response Notification System for hazardous material incidents.
 - FINDS = U.S. EPA Facility Index System of facilities using or generating hazardous materials.
 - HAZNET = List of hazardous waste generators based on California EPA manifest data.
 - LADEQ = Louisiana Department of Environmental Quality
 - LQG = U.S. EPA RCRA-registered large-quantity hazardous waste generators, generating more than 1,000 kg of hazardous waste, or more than 1 kg of acutely hazardous waste, per month.
 - LUST = LADEQ list of leaking underground storage tanks
 - RAATS = U.S. EPA list of RCRA Administrative Action sites (updates to list discontinued in 1995).
 - SHWS = LADEQ list of known or suspected hazardous material sites.
 - SQG = U.S. EPA RCRA-registered small-quantity hazardous waste generators, generating at least 100 kg, but less than 1,000 kg, of non-acutely hazardous waste per month.
 - TSCA = U.S. EPA list of TSCA-regulated sites.
 - TRIS = U.S. EPA Toxic Chemical Release Inventory System
 - TSD = U.S. EPA list of permitted hazardous waste treatment, storage, and disposal facilities.
 - UST = LADEQ list of registered underground storage tanks.

See Figure ES-1 for project location.

3.8 TRAFFIC SAFETY

3.8.1 Approach and Methodology

The construction and operation of the proposed rail line could affect the traffic flow and traffic safety at the at-grade crossing of U.S. Highway 61. To determine whether the proposed construction and operation would substantially affect traffic flow and safety, SEA evaluated the proposed rail line in terms of the U.S. Department of Transportation Guidance on Traffic Control at Highway-Rail Grade Crossing¹⁴ for guidance on the appropriateness of the proposed at-grade crossing, and SEA calculation of the estimated vehicular delay at the highway/rail at-grade crossing. Effects and mitigation measures are discussed in Section 4.7.

The analysis of traffic safety included a review of:

- Ⓒ Existing and projected traffic volumes for U.S. Highway 61.
- Ⓒ Historical accident data for U.S. Highway 61.
- Ⓒ Site Inspection.
- Ⓒ Consultation with Louisiana Department of Transportation and Development (LA DOTD)¹⁵.
- Ⓒ Review of Federal Highway Administration (FHWA), FRA and LA DOTD guidelines and regulations related to at-grade railroad crossings.

3.8.2 Environmental Setting

The proposed rail line would cross U.S. Highway 61¹⁶ at-grade at an acute angle of approximately 58 degrees about 1,200 feet south of Thomas Road.

U.S. Highway 61 is a four-lane divided highway on the National Highway System and is classified as a principal arterial. The location of the proposed rail crossing of U.S. Highway 61 is near the border of the urbanized area of East Baton Rouge Parish and is classified by the LA DOTD as an urban principal arterial. U.S. Highway 61 has numerous driveways and intersections. The posted speed limit in the vicinity of the proposed rail crossing is 50 miles per hour.

The cross section of U.S. Highway 61 includes paved outside shoulders and a grassy median. In

¹⁴ Draft Final Report of the Technical Working Group of the U.S. DOT, Guidance on Traffic Control at Highway-Rail Grade Crossings, January 2001. This document was obtained from the Louisiana Department of Transportation and Development as part of the agency consultation process.

¹⁵SEA met with the LA DOTD on March 5, 2001 to discuss traffic safety issues, and design requirements for the proposed at-grade crossing of U.S. Highway 61.

¹⁶ U.S. Highway 61 is known locally as Scenic Highway 61.

general, the existing pavement is deteriorated with the top layer of asphalt worn and the shoulders uneven with potholes. Pavement markings are worn. There is an existing KCS rail crossing of U.S. Highway 61 approximately 1,200 feet north of Thomas Road, or less than 0.5 miles from the proposed rail crossing. The KCS rail crossing is controlled by an active flashing-light signal. The required painted pavement marking for this crossing appeared to be worn and not visible based upon SEA's field observation on January 11, 2001.

LA DOTD operates a traffic monitoring station (station 208581) on U.S. Highway 61 at the State Route 964 intersection in Baker (north of the proposed IC at-grade rail crossing of U.S. Highway 61). Table 3-6 provides a summary of the LA DOTD counts for this location.

Table 3-6 Louisiana Department of Transportation and Development 24-hour traffic Counts North of Thomas Road (station 208581)	
Year of Count	Average Daily Traffic (ADT)
1999	18,593
1996	17,332
1993	17,308
1990	14,555
1987	14,824
1986	9,534
1985	16,502
1984	15,430
1983	11,271
1982	11,625
1981	12,000
1980	11,790

The ADT data for U.S. Highway 61 illustrates a general increase in daily traffic volume since 1990. The data reported by the LA DOTD represents raw count data that has not been factored to represent average annual daily traffic (AADT) which is the preferred traffic volume for use in vehicle delay analysis. The ADT data may not necessarily reflect day of the week and seasonal variations in traffic. The LA DOTD does not maintain factors to correct the ADT data to AADT.

Neel-Schaffer, Inc., a traffic consultant engineer retained by IC collected traffic counts on U.S. Highway 61 south of Thomas Road for a period of eight days in January 2001 including weekends and weekdays. Table 3-7 provides a summary of these traffic counts.

Table 3-7
Traffic Counts on U.S. Highway 61 south of Thomas Road
(collected by IC)

Hour	Average Weekend	Average Weekday	Average Daily
1:00	167	142	154
2:00	123	83	103
3:00	91	73	82
4:00	81	127	104
5:00	191	294	242
6:00	301	808	554
7:00	333	1,604	969
8:00	318	1,787	1,052
9:00	447	1,357	902
10:00	740	1,157	948
11:00	809	1,182	995
12:00	865	1,204	1,034
13:00	921	1,199	1,060
14:00	922	1,250	1,086
15:00	931	1,345	1,138
16:00	953	1,739	1,346
17:00	1,019	1,990	1,504
18:00	1,023	2,041	1,532
19:00	912	1,327	1,120
20:00	734	791	762
21:00	509	597	553
22:00	381	466	423
23:00	297	361	329
0:00	161	224	193
Total	13,227	23,142	18,185

This recent data of 23,142 ADT was used to calculate vehicle delay at the proposed at-grade crossing (see Section 4.8). Based upon 1,400 passenger cars per hour per lane threshold for level of service C¹⁷ for multilane highways with a free flow speed of 50 miles per hour, U.S. Highway 61 is operating at level of service C or better based on the most recent traffic data. Based on the January 22, 2001 data collected by IC, the highest weekday peak hour observed was traveling northbound between 6 PM and 7 PM. The traffic volume during this period was observed to be 1405 vehicles in two lanes. This is well

¹⁷Level of Service (LOS) is a grading system for roadways, with a rating scale from LOS A, indicating free-flow traffic conditions with little or no delay; to LOS C, representing stable flow conditions with traffic volumes well within design capacity, resulting in minimal vehicle delays; to LOS F, representing jammed conditions where traffic flows exceed design capacity, resulting in long queues and delays.

below the 1,400 passenger cars per hour per lane threshold for level of service C.

SEA obtained from LA DOTD traffic accident records for years 1994 through 1998 for U.S. Highway 61 between Blount Road on the south to Rafe Meyer Road on the north. The Blount Road intersection with U.S. Highway 61 is on the LA DOTD list of high accident locations, having an accident rate at least twice the statewide average for this type of roadway in 1997. This intersection was the fifteenth worst intersection in Louisiana. The following table summarizes this data.

Table 3-8		
LA DOTD Accident Data for U.S. Highway 61		
Location	Year	Number of Accidents
Between Blount and Thomas (0.94 miles)	1994	26
	1995	19
	1996	24
	1997	26
	1998	21
Between Thomas and Rafe Myer (1.56 miles)	1994	18
	1995	13
	1996	11
	1997	18
	1998	14

LA DOTD’s approved Highway Program for fiscal year 2000-2001 does not include any roadway or safety improvements to the portion of U.S. Highway 61 between Blount and Rafe Meyer.

The City of Baton Rouge proposes to reconstruct Blount Road from U.S. Highway 61 eastward towards Route 19. This project involves widening and channelization but does not include safety improvements related to the accidents along U.S. Highway 61¹⁸.

3.8.2.1 Federal and State Regulations Regarding At-Grade Rail Crossings

The FHWA and FRA regulate safety at highway/rail at-grade crossings under the Federal Railroad Safety Act (FRSA) and the Highway Safety Act (HSA). The HSA governs the distribution of funds to states for the elimination of hazards at highway/rail at-grade crossings. The U.S. Department of Transportation (U.S. DOT) has promulgated a number of regulations addressing highway/rail at-grade crossing safety and the funding available for the installation and improvement of warning devices. All warning devices installed at crossings must comply with the FHWA’s “Manual on Uniform Traffic

¹⁸ SEA interview with Ralph Ellis, Design Engineer with the Department of Public Works, City of Baton Rouge on January 11, 2001.

Control Devices” (MUTCD) (23 CFR Part 646.214(b)(1)). This manual provides standards for the types of warning devices that must be installed at all highway/rail at-grade crossings. Under the FRA’s railroad safety responsibilities, it has issued regulations that impose minimum standards for highway/rail at-grade crossings (49 CFR Parts 234-36). The FRA maintains information for each highway/rail at-grade crossing, based on information provided by the states and the railroads. The FRA and the FHWA coordinate research efforts related to grade crossing accidents and solutions to grade crossing problems.

According to the U.S. DOT’s “Railroad-Highway Grade Crossing Handbook” (FHWA-TS-86-215, 2d. Ed., 1988), “jurisdiction over highway/rail grade crossings resides primarily with the states.” The states perform on-site inspections and order safety improvements. The U.S. DOT maintains oversight and approval of state determinations.

3.9 HAZARDOUS MATERIALS TRANSPORT SAFETY

3.9.1 Approach and Methodology

SEA evaluated the proposed rail line to determine whether the proposed construction and operation would substantially affect hazardous material transport safety. This section describes the affected environment. Effects and mitigation measures are discussed in Section 4.3.

The analysis of hazardous materials transport safety included a review of:

- Ⓒ Existing hazardous materials car load traffic on local rail lines.
- Ⓒ The distance hazardous materials would travel over rail lines in Louisiana before reaching the BRPO plant.
- Ⓒ Increase in hazardous materials carloads anticipated to move over the proposed rail line.
- Ⓒ Review of down line track conditions.

3.9.2 Environmental Setting

It is estimated that the proposed rail line would be used by one 35-car train per day, round trip, 7 days per week, to bring empty rail cars to the ExxonMobil BRPO facility and take rail cars with plastic pellets (i.e., non-hazardous materials) from the facility. In addition, approximately 15 cars of hexene and isobutane, which are designated hazardous materials, would be brought to the facility each month by IC and KCS. These chemicals originate outside the Baton Rouge area and, if transported by IC, would be transported to the ExxonMobil BRPO facility as part of its daily trips to the facility (i.e., they would not result in additional train trips).

3.10 SOCIOECONOMIC & ENVIRONMENTAL JUSTICE

3.10.1 Approach and Methodology

Environmental justice analysis is a requirement for all Federal agency actions, imposed by Executive Order No. 12898. Executive Order No. 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, directs individual Federal agencies to develop approaches that address environmental justice concerns in their programs, policies, and procedures. Although the Order does not require independent agencies such as the Board to conduct environmental justice analyses, SEA conducted an environmental justice analysis of the proposed IC rail extension for the following reasons:

- C The Executive Order requested that independent agencies comply with the Order, particularly during the National Environmental Policy Act (NEPA) process.
- C The U.S. DOT Order, the Council on Environmental Quality (CEQ) guidance, and the U.S. Environmental Protection Agency (EPA) guidance on environmental justice emphasize addressing environmental justice concerns in the NEPA context.
- C The Board is responsible for ensuring that the proposed IC rail extension is consistent with the public interest.

Executive Order No. 12898 directs Federal agencies to identify and address, as appropriate, disproportionately high and adverse impacts to minority and low-income populations (environmental justice populations) with respect to human health and the environment. In summary, the Order directs Federal agencies to conform to existing laws to ensure that their actions:

- C Do not discriminate on the basis of race, color, or national origin.
- C Identify and address disproportionately high and adverse health or environmental effects of their actions on minority and low-income populations.
- C Provide opportunities for community input in the NEPA process, including input on potential effects and mitigation measures.

SEA evaluated the potential effects of the construction and operation of the proposed rail line to ensure that potential environmental and health effects would not be borne disproportionately by minority and low-income¹⁹ populations (environmental justice populations). To conduct the analysis, SEA identified environmental justice populations within a two-mile radius of the proposed rail line. SEA then compared the occurrence of environmental effects between the identified environmental justice communities and other communities in the vicinity, to determine if the effects would be disproportionately borne by minority and low-income populations.

¹⁹Low-income is defined as persons/households with an annual income at or below the poverty line as defined by the U.S. Census.

SEA defines an environmental justice population as one where the percentage of minority or low-income population in a census block group exceeds 50%, or is at least 10% greater than the percentage of minority or low-income population in the county as a whole. SEA examined all population groups within a two-mile radius of the proposed rail line, using 1990 census data to identify block groups that meet or exceed the environmental justice thresholds. Figure 3-5 depicts the two-mile radius study area identified for the environmental justice analysis.

3.10.2 Environmental Setting

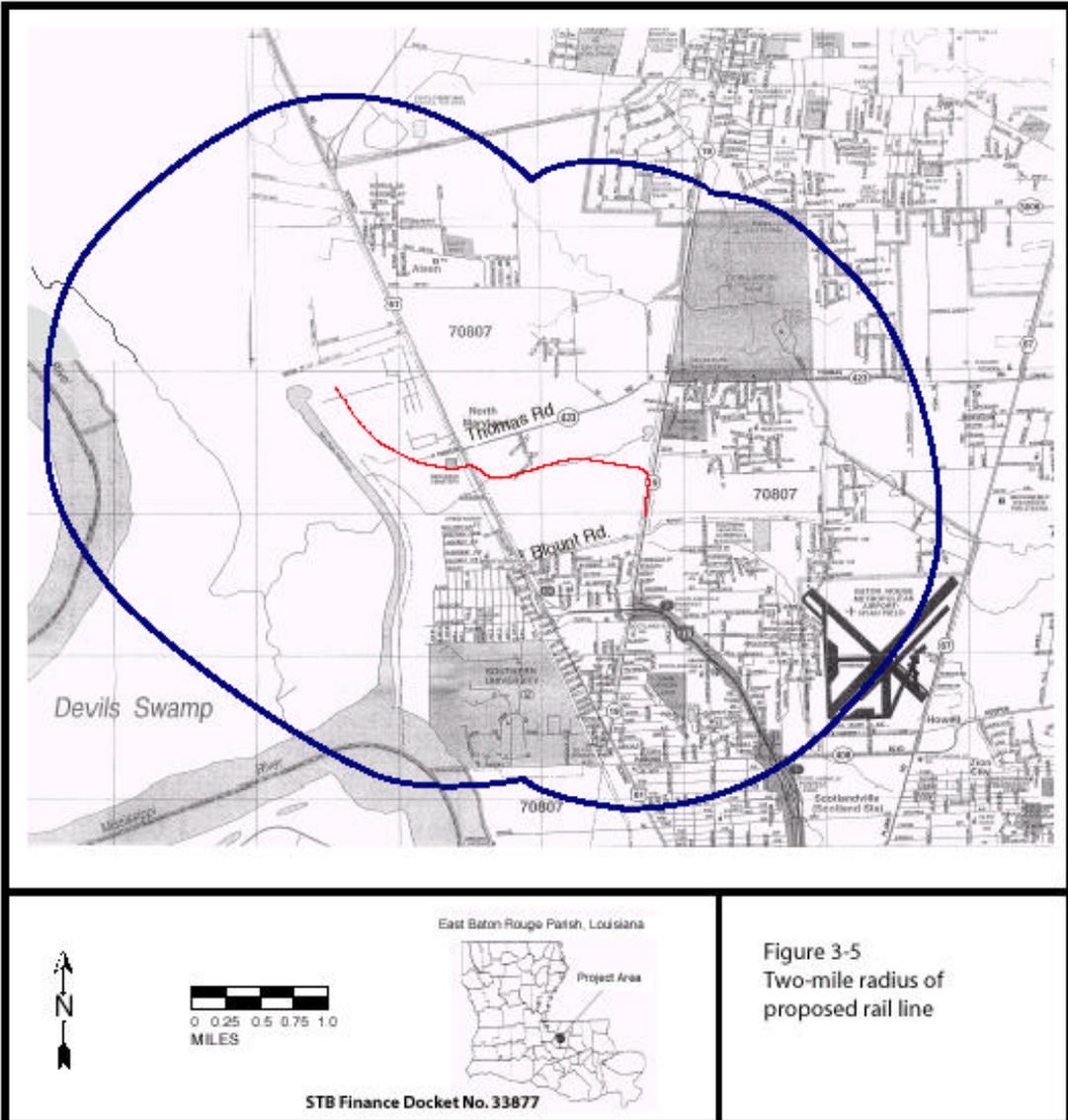
The City of Baton Rouge is a major transportation center that is served by three interstate freeways, three railroads, a metropolitan airport and the 5th largest inland port in the nation. The total area within the City of Baton Rouge (East and West Baton Rouge Parishes) consists of 648 square miles. The total area of East Baton Rouge Parish is 456 square miles.

The City of Baton Rouge has experienced a slow growth rate (Table 3-9), except for the period between 1980 to 1990. The African American, Latino and other racial minority populations at both city and parish levels have seen a substantial increase, while the white populations has declined overall. (Table 3-10)

Table 3-9 Population Characteristics				
	1970	1980	1990	2000
East Baton Rouge Parish	285,167	366,191	381,432	412,852
West Baton Rouge Parish	16,864	19,086	19,419	21,601
City of Baton Rouge	165,963	220,394	219,531	227,818

Table 3-10 Population by Race									
City of Baton Rouge				East Baton Rouge Parish			West Baton Rouge Parish		
Origin	1990	2000	%Change	1990	2000	%Change	1990	2000	%Change
White	115,914	104,117	-10%	236,784	231,886	-2%	12,170	13,561	+11%
African-American	96,114	113,953	+19%	132,674	165,526	+25%	6,972	7,666	+10%
Other	4,041	5,829	+44%	6,110	8,077	+32%	97	61	-63%
Hispanic Origin	3,462	3,918	+13%	5,864	7,363	+26%	180	313	+74%
Total	219,531	227,818	+4%	381,432	412,852	+8%	19,419	21,601	+11%

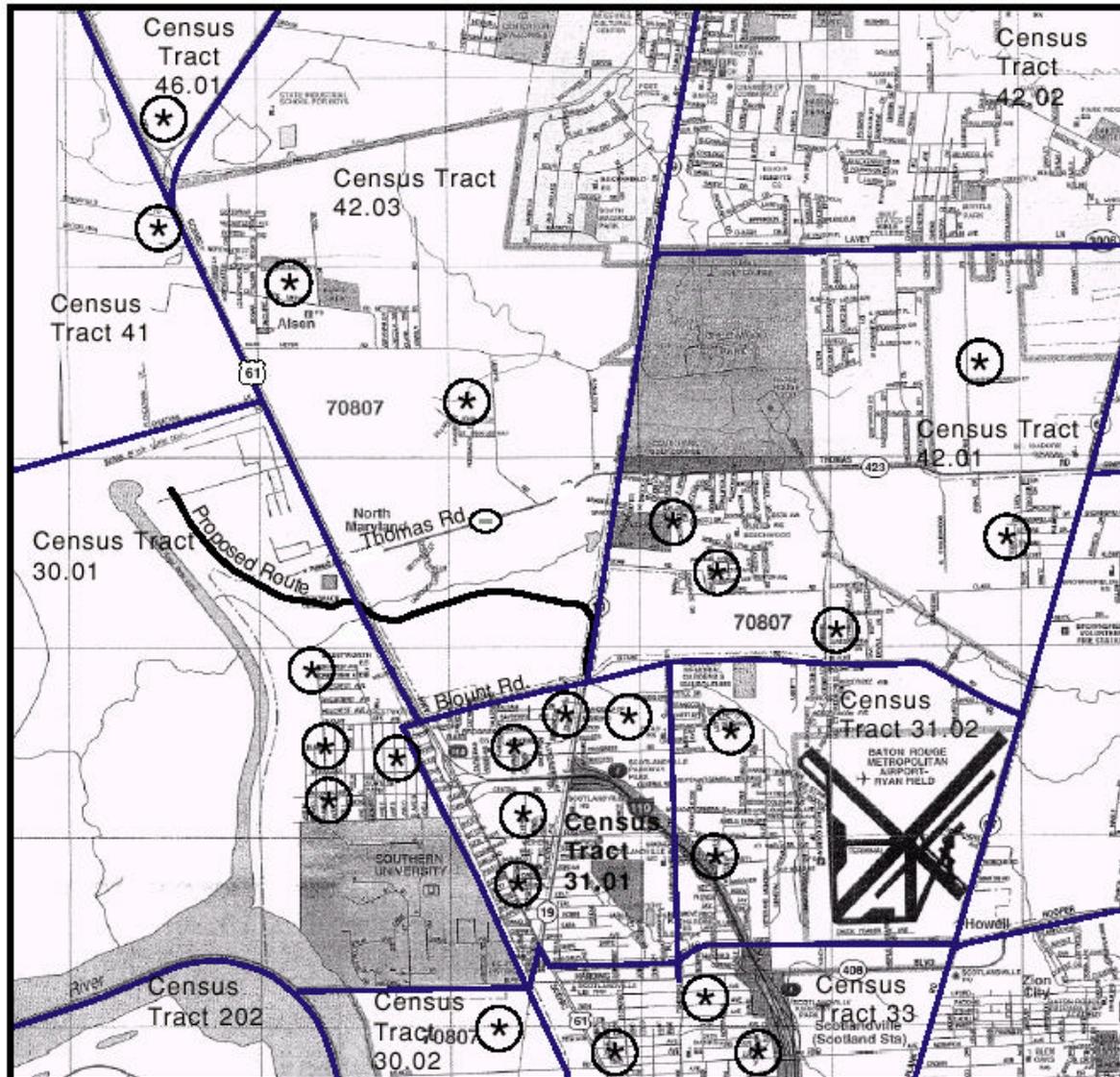
U.S. Bureau of the Census



3.10.3 Environmental Justice Communities

Appendix 1 depicts the census data for East Baton Rouge Parish. According to the 1990 census, low income families comprise 19% of the County population, while the African American population comprise 34.7%. As stated in Executive Order No. 12898, a local population that exceeds the Parish statistic by 10% or more qualifies as an environmental justice community. Therefore, any block group population having at least 29% low-income or 44.7% African American composition would be considered an environmental justice community.

Of the 31 block groups within the 2-mile radius of the proposed rail line, SEA identified 24 block groups where the population would be considered as an environmental justice community. Figure 3-6 shows the locations of block groups meeting the environmental justice population criteria and the local census tract boundaries. Appendix 1 contains more detailed population information for the block groups within the 2-mile radius study area.



	<p>East Baton Rouge Parish, Louisiana</p> <p>Project Area</p>	<p>Figure 3-6 Environmental Justice Populations and Census Tract Boundaries</p> <p> = Block Groups identified as environmental justice communities</p>
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4.0 ENVIRONMENTAL IMPACTS OF PROPOSED PROJECT

This section contains SEA's analysis of the potential environmental impacts associated with the construction and operation of IC's proposed rail line. SEA's analysis included conducting site visits, consulting with other Federal, state and local agencies, reviewing existing published documents and reports, and conducting technical analyses where warranted.

4.1 GEOLOGY, SOILS AND CLIMATE

SEA analyzed the potential effects of the construction and operation of the proposed rail line on geology, soils and climate. This section provides a summary of SEA's conclusions and recommended mitigation measures.

4.1.1 Significance Criteria

SEA determined that a significant geology, soils or climate impact would occur if the proposed rail line would result in the following:

- C Expose people or property to severe landsliding or worsen an existing landslide.
- C Result in substantial amounts of erosion or loss of topsoil.
- C Result in a substantial change in climate such as temperature or humidity.

4.1.2 Geologic Impacts

Construction of the proposed rail line would require grading of existing soils as well as cut and fill along the western end of the rail line to cross two ravines. However, none of the areas along the proposed rail line appear to be subject to landsliding. The two ravines, which the proposed rail line would cross, appear to have relatively stable banks. As a result, SEA determined that construction and operation of the proposed rail line would not expose people or property to severe landsliding or affect existing landslide areas. As a result, SEA concludes that construction and operation of the proposed rail line would result in an insignificant effect on geologic resources and that no mitigation measures are necessary.

4.1.3 Soil Impacts

Impact: Construction of the proposed rail line would require grading, cut and fill activities to construct the rail bed and track. The bulk of the grading activities would occur at the western end of the proposed rail line to construct crossings of two ravines. This construction could result in some erosion and loss of existing topsoil.

Recommended Mitigation: All graded areas should be re-vegetated to provide slope stability, reduce erosion and provide replacement of some of the habitat value lost due to construction activities.

4.1.4 Climatic Impacts

Construction and operation of the proposed rail line would not affect the climate of the project area. Construction activities would utilize typical construction equipment (diesel tractors, scrapers, trucks, etc.) that would not create any increase in temperature or humidity. Operation of the proposed rail line would involve one train per day (one train into the BRPO Plant and one train out of the BRPO Plant) per day. This level of train traffic would not increase temperatures or humidity of the area. As a result, SEA concludes that construction and operation of the proposed rail line would not impact the local climate and that no mitigation measures are necessary.

4.2 SURFACE AND GROUNDWATER

SEA analyzed the potential effects of the construction and operation of the proposed rail line on surface and groundwater. Please see Section 4.4.3, Waters of the U.S., for a discussion of impacts, conclusions, and recommended mitigation measures for impacts to Surface Water.

The closest groundwater is 200-feet below the surface. Construction activities would not require deep excavation. As a result, SEA concludes that construction and operation of the proposed rail line would have no affect on groundwater and that no mitigation measures are necessary.

The proposed rail line is not located within the 100-year floodplain of the Mississippi River nor is it within the 500-year floodplain as mapped by FEMA. As a result, SEA concludes that construction and operation of the proposed rail line would have no affect on local floodplains.

4.3 AIR QUALITY

SEA analyzed the potential effects of the construction and operation of the proposed rail line on air quality. This section provides a summary of SEA's conclusions and recommended mitigation measures.

4.3.1 Significance Criteria

SEA determined that a significant air quality impact would occur if the construction and/or operation of the proposed rail line would result in an exceedence of Federal or State air quality standards.

For the Baton Rouge area this would be the generation of 50 tons per year or more of either VOC or

NO_x.

4.3.2 Construction Impacts

Construction of the proposed rail line would require delivery and placement of ballast rock and steel rails. The project would import 80,000 cubic yards of fill to create the rail bed and creek crossings. Construction would be accomplished using heavy-duty construction equipment and vehicles that would generate sources of ozone precursor emissions. Table 4-1 shows estimated emissions of ozone precursors from equipment and vehicles over the 3-4 month construction period. These emissions are well below the 50 ton/year Federal threshold described in Section 3.3.

Table 4-1: Construction Period Exhaust Emissions, Tons/Year²⁰

Source	VOC	NO _x
Trucks	0.12	2.87
Bulldozers	0.08	0.87
Scrapers	0.17	2.64
Loaders	0.35	0.36
Motor Graders	0.03	0.49
Water Truck	0.05	0.58
Total	0.80	7.81
Conformity Threshold	50.0	50.0

Impact: Unloading of materials, excavation and movement of fill and vehicle/equipment usage would cause a temporary increase in particulate dust and other pollutants near the construction site for the duration of construction. However, after construction is over, dust and other pollutants should return to existing levels. Most of the railway alignment is quite distant from sensitive receptors, but there are homes near the southern end of the alignment south of Blount Road. Construction activities would have the potential to create a temporary nuisance under certain weather conditions due to fugitive dust emissions.

Recommended Mitigation Measures: Dust control measures should be implemented during all phases of project construction. Recommended measures include:

- Use of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land.

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Annual emissions calculated assuming a 4-month construction period, 4.3 weeks per month and 5 days per week. Assumes 2 bulldozers, scrapers, loaders, motor grader and off-road trucks operating 8 hours/day each and 1 water truck operating 8 hours per day. Emission factors were taken from EPA's AP-42 *Compilation of Air Pollutant Emission Factors Volume II: Mobile Sources*, Fourth Edition, September 1985.

- Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dust.
- Open-bodied trucks transporting materials likely to give rise to airborne dust shall be covered at all times while in motion.
- The prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or other means.

4.3.3 Operational Impacts

Operation of the proposed rail line would result in an increase of one train per day, round trip (one into the BRPO plant and one out of the BRPO plant) on the proposed rail line. The proposed action would not affect any Class I areas designated under the Clean Air Act²¹, nor would it involve the transportation of ozone-depleting materials. The project would not result in increases in rail yard activity, rail traffic or truck traffic above the thresholds established in the Board’s environmental regulations at 49 CFR 1105.7(5)(ii).

Operation of the proposed rail line would, however, affect a nonattainment area by increasing train activity within the Baton Rouge Nonattainment Area. Emissions from new train activity have been estimated to allow comparison with the conformity determination thresholds discussed in Section 3.3. Table 4-2 shows the annual projected emissions of ozone precursors resulting from the additional locomotive activity associated with the proposed rail line in the nonattainment area. The projected emissions are well below the 50 ton/year threshold that would require a conformity determination pursuant to Section 176(c) of the Clean Air Act. As a result, SEA concludes that operation of the proposed rail line would result in an insignificant impact on air quality and that no mitigation measures are necessary.

Table 4-2: Operational Emissions, in Tons/Year²²

	ROG ²³	NO _x
Additional Train Emissions	2.16	8.51
Conformity Threshold	50.0	50.0

²¹The nearest Class I area is the Breton National Wildlife Refuge (Breton Wilderness) location in the Gulf of Mexico.

²²Based on projected additional train ton-miles assuming 15 miles travel distance to the boundary of the Baton Rouge Nonattainment Area air district and fuel usage of 2.0 gallons per 1000 ton-miles. Emission factors were taken from EPA’s AP-42 *Compilation of Air Pollutant Emission Factors Volume II: Mobile Sources*, Fourth Edition, September 1985.

²³ROG - Reactive Organic Gases. These gasses are one of the precursors to the formation of atmospheric ozone.

4.4 BIOLOGICAL RESOURCES

SEA analyzed the potential effects of the construction and operation of the proposed rail line on biological resources. This section provides a summary of SEA's conclusions and recommended mitigation measures.

4.4.1 Significance Criteria

SEA determined that a significant biological impact would occur if the construction and/or operation of the proposed rail line would result in:

- C the filling of Waters of the U.S. under Corps jurisdiction.
- C affect endangered or threatened plant or animal species.
- C affect important habitat areas.

4.4.2 Biological Resources

An approximate 50-foot wide construction limit would be required for project work plus construction of a temporary access road within the grassland area. Little vegetation disturbance would be required in this area due to the relatively flat topography and the absence of woody vegetation.

Impact: Considerable vegetation would need to be removed in order to construct the planned cut and fill to cross the ravines. Due to the steep topography in the bluffs, an approximate 100-foot construction area will be required to accommodate the proposed work and the temporary access road. Considerable vegetation would need to be removed in order to construct the planned cut and fill to cross the ravines discussed in Section 3.4.

Recommended Mitigation Measure: All graded areas should be revegetated to provide slope stability and replace some of the habitat value lost due to construction activities.

Impact: Many of the birds occurring in the area are migratory species that nest in the area. The Federal Migratory Bird Treaty Act of 1918, provides protection for these species. Under the Act, it is unlawful to "take" any of these species (with the exception of waterfowl within hunting seasons). Besides prohibiting hunting, shooting and killing of these species, "take" is also interpreted to include a prohibition against harassing or disturbing birds during nesting season to an extent that causes them to abandon the nest, or leave the nest long enough for the eggs to addle or the young to die. Removal of vegetation for channel or ravine crossings could disturb migratory birds if carried out during nesting seasons.

- C **Recommended Mitigation Measure:** Because birds protected under the Federal Migratory Bird Treaty Act may nest in the project area, all clearing activities shall be planned to avoid the nesting season (no clearing activities shall occur between August 1 and December 31). If it is not possible to avoid the nesting season, IC shall conduct nest surveys prior to construction to determine if nesting is occurring within, or adjacent to the construction area. If active nests are found, IC shall

postpone activities within 250 feet of the nest until the young have fledged.

4.4.3 Waters of the United States

Impact: The proposed rail line would disturb Waters of the U.S. as defined by the Corps. The proposed rail line would cross three ravines: the drainage channel on the tank farm area, and two creeks in the blufflands area. The crossing of the channel on the former tank farm property would be accomplished with a corrugated pipe that is backfilled to top of grade. This activity would impact approximately 10-foot of channel. For the two creek crossings, the 2:1 backfill for the northern ravine will impact approximately 5,145 sf of the creek. Backfill for the southern ravine crossing will impact approximately 1,145 sf of creek area. The total area of impact would be approximately 0.158 acres. The three ravines have been determined to contain waters of the U.S. as defined by the Corps., and will require review and permitting by that agency. As a result, the Corps will make the final determination regarding the amount of waters of the U.S. that will be impacted by the rail line construction.

Recommended Mitigation Measures: IC shall coordinate with the Corps to obtain all required permits for any discharge of fill material placed in waters of the U.S. under the Corps jurisdiction.

4.4.4 Endangered, Threatened and Rare Species

SEA conducted visual surveys of the proposed rail line and surrounding areas for indications of the presence of any endangered, threatened or rare species as identified by the FWS and LDWF. These surveys were conducted on January 11 and 12, 2000. The surveys did not identify any endangered, threatened or rare species within the project area. Therefore, SEA concludes that the construction and operation of the proposed rail line would not affect any threatened or endangered species, and that no mitigation measures are necessary.

4.5 NOISE

4.5.1 Significance Criteria

According to the Board's thresholds, a proposed rail line has the potential to affect noise-sensitive land uses if it generates a day-night average sound level (DNL) in excess of 65 dB²⁴. A proposed rail line would also have the potential to affect noise sensitive land uses if it causes the existing noise level at a noise sensitive land use to increase by 3 dB or more. An increase of less than 3 dB is considered barely perceptible to the human ear.

4.5.2 Noise Increase from Proposed Rail Line

The proposed rail line would be located in an area of East Baton Rouge that already experiences train traffic noise from existing rail operations on both IC and KCS rail lines in the area. However, the proposed rail line would result in an increase in rail operations (one train per day, round trip - one train into the plant and one train out of the BRPO plant). As a result, SEA evaluated the effect of the proposed rail line in accordance with the Board's environmental thresholds.

4.5.2.1 Areas within the DNL 65dB Noise Contour

SEA conducted noise modeling to determine the area that would be affected by the construction and operation of the proposed rail line, and shown in Figure 4-1. The DNL 65 dB noise contour created by the operation of the proposed rail line (representing a 24-hour day-night average), would extend 227 feet from the rail bed at the proposed grade crossing of U.S. Highway 61, and would extend 23 feet from the rail bed elsewhere. No noise-sensitive land uses are located within the DNL 65 dB contour of the proposed rail line.

The DNL 65 dB noise contour is significantly broader at the proposed grade crossing because as a safety measure the FRA requires trains to sound their horns to announce their approach to a crossing.

At the time of the horn blast, the sound level at that instant can reach maximum noise levels of 104 dB at 100 feet. This corresponds to a maximum noise level of 78 dB at the nearest residential receiver during a horn blast. A horn noise level of 78 dB would be clearly audible at nearby residences. Because FRA requires horn blasts for safety reasons, the instantaneous noise increase due to the horn blast is not considered a significant impact, and therefore is not subject to mitigation.

²⁴See Appendix 3 for a discussion of the fundamental concepts of environmental noise.

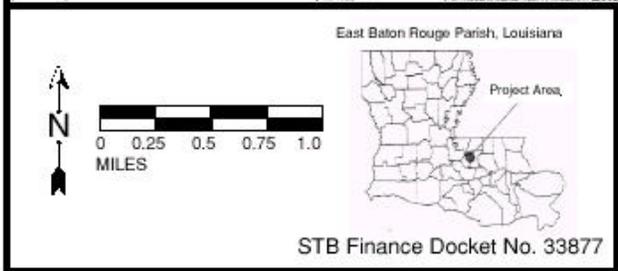
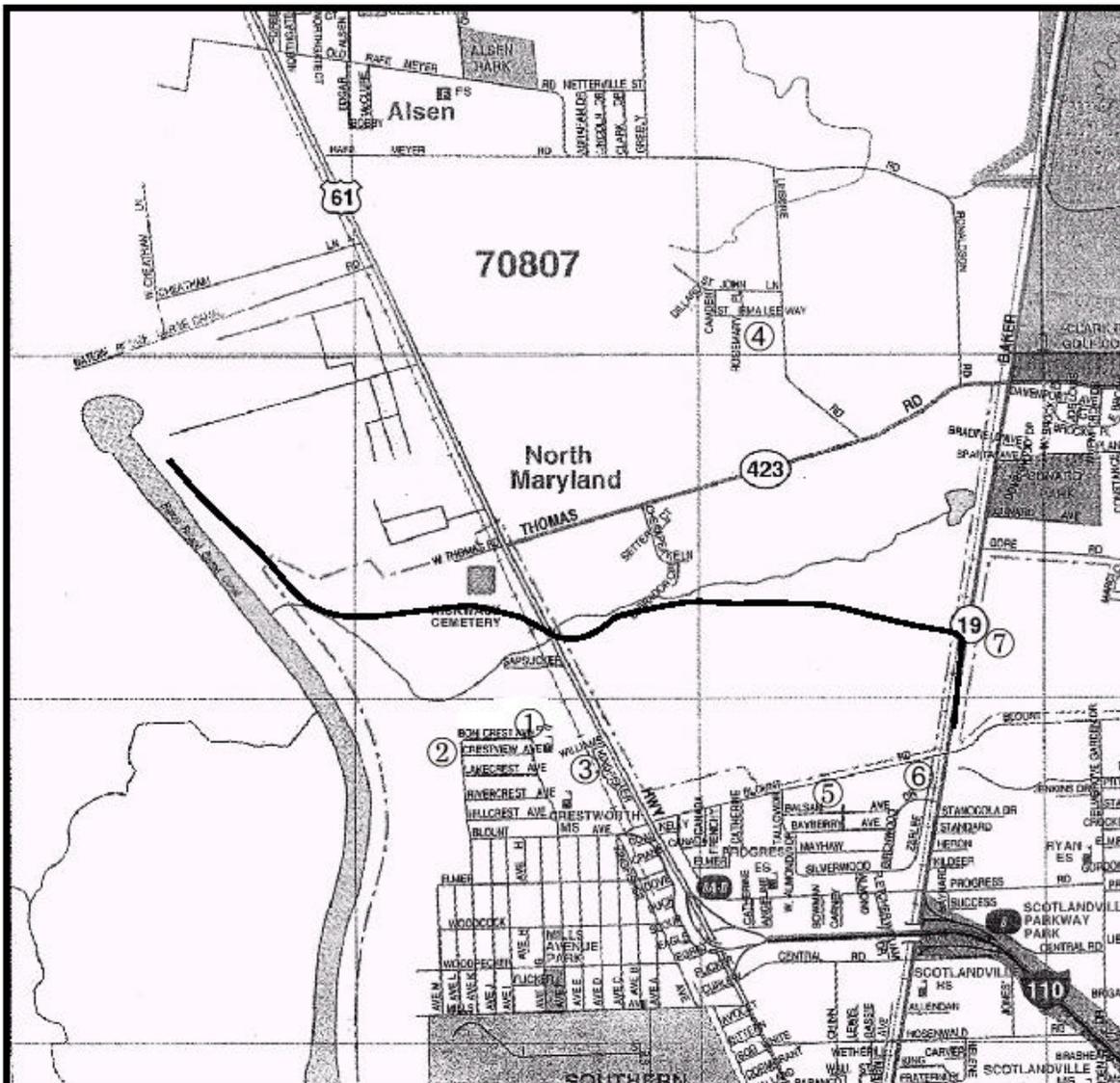
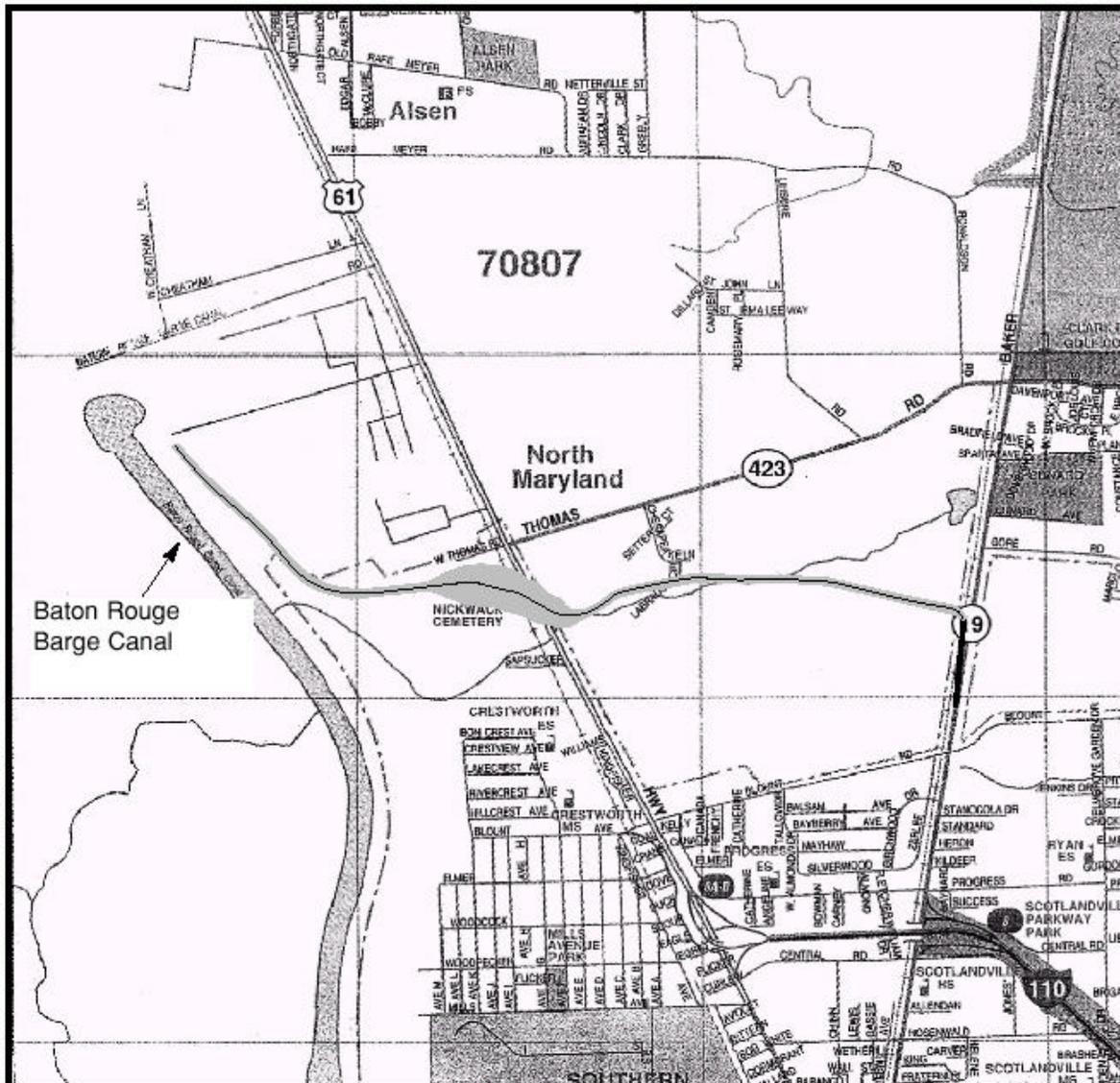


Figure 4-1
Noise Measurement Location Map

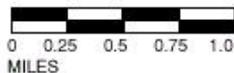
① Noise Measurement Location

4.5.2.2 Areas Affected by a 3 dB Increase in Noise

The noise contour representing those locations where an increase of 3 dB or more would be experienced is shown in Figure 4-2. The 3 dB contour extends 99 feet from the center of the right-of-way and 579 feet from the proposed grade crossing. The project area is considered “light suburban,” which assumes that there is sufficient vegetation and topographic features (trees or soft ground) to provide some noise attenuation for distant receivers. The designation “light suburban” corresponds to a DNL of 55dB. This is consistent with the measured noise levels that range from a DNL of 53 dB to 71 dB (See Section 3.5.2.2 and Table 3-4). As discussed in Section 3.5, the closest residences are located about 300 feet from the right-of-way (near Blount Road), and 1,300 feet from the grade crossing. Therefore, no noise-sensitive land uses would experience a 3 dB increase. As a result, SEA concludes that operation of the proposed rail line would result in an insignificant impact on noise levels and that no mitigation is necessary.



Baton Rouge
Barge Canal



East Baton Rouge Parish, Louisiana



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Figure 4-2
3dB Increase Contour Map

Shaded area exposed to an
increase of 3 dB or more

4.6 CULTURAL RESOURCES

SEA analyzed the potential effects of the construction and operation of the proposed rail line on cultural resources. This section provides a summary of SEA's conclusions and recommended mitigation measures.

4.6.1 Significance Criteria

Previous land uses in the area have precluded the possibility that surface expression of cultural sites or features would be present. Therefore, SEA determined that an intensive survey for such resources by qualified archaeologists was not warranted. In addition, the proposed rail line would not result in the displacement or demolition of any structures and therefore would have no potential impact on historic architectural resources.

SEA also consulted with the Louisiana State Historic Preservation Officer (LA SHPO) to determine if there were any known cultural resources in the project area that could be adversely affected by the proposed rail line. The LA SHPO indicated that no known archaeological sites or standing historic structures in the area are listed on or determined eligible for listing on the National Register of Historic Places and that the undertaking would not affect any known archaeological or historic properties²⁵.

Impact: While SEA's analysis indicates that the potential to encounter historic or prehistoric archaeological resources during construction of the proposed rail line is low, there is the potential that construction activities could encounter a previously unknown resource. If this were to occur, it could constitute a significant impact unless properly mitigated.

Recommended Mitigation Measures: Should any previously undiscovered historic or prehistoric resources be found during construction, work shall stop, in accordance with the regulations implementing the National Historic Preservation Act at 36 CFR 800, until such time that the resource can be evaluated by a qualified archaeologist and appropriate mitigative action taken as determined necessary by SEA and the LA SHPO.

²⁵ The LA SHPO was consulted twice relative to the project. The first consultation was conducted by IC who received a letter from G. Hobby of that office, dated May 11, 2000. SEA sent a second letter to the LA SHPO on January 12, 2001, with current maps of the preferred alignment and a request for an additional review of state files to ensure that no significant resources exist along the preferred alternative. The LA SHPO replied on February 23, 2001 indicating that no known archaeological sites or historic properties would be affected by the undertaking.

4.7 HAZARDOUS MATERIALS/WASTE SITES

SEA analyzed the potential effects of hazardous materials and waste sites on the construction and operation of the proposed rail line. This section provides a summary of SEA's conclusions and recommended mitigation measures.

4.7.1 Significance Criteria

SEA determined that a significant impact related to hazardous materials would occur if the construction and/or operation of the proposed rail line would result in a substantial increase in the use of hazardous materials or the generation of hazardous wastes or if the project would create a potential public health hazard involving the use, production, or disposal of materials which pose a hazard to people or animal or plant populations in the project vicinity.

Impact: The Phase 1 Environmental Site Assessment identified eleven documented sites within one mile of the proposed rail line. Based on available information on site status and location, none of the reported hazardous material releases identified in the review of environmental records and databases would likely affect construction of the proposed project. However, construction workers could be exposed to hazardous materials potentially present in site soils as a result of undocumented releases near former industrial land uses in or adjacent to the proposed right-of-way, particularly as it crosses the former tank farm property.

The proposed rail line is located in a historically industrial area. Most of the industrial facilities have been in place at least since the early 1960s, before most of the laws and regulations regarding hazardous waste generation and disposal were in force. Although none of the documented releases of hazardous materials near the proposed rail line would be likely to affect construction of the proposed project, undocumented releases from historical industrial operations could potentially have affected soils in the vicinity of the proposed alignment. The most likely contaminants of concern from undocumented releases would be petroleum hydrocarbons, volatile organic compounds (VOCs), and semi-volatile organic compounds SVOCs. Soils could potentially contain these contaminants at concentrations that could pose a health risk for construction workers during construction.

Recommended Mitigation Measures: In order to ensure the safety of construction workers during the construction period, IC shall implement one of the following measures:

- a. IC shall hire a qualified environmental professional to prepare a site-specific Health and Safety Plan (HSP) to ensure construction worker health and safety during the period that construction workers may have direct or indirect contact with site soils. The HSP shall include procedures for air monitoring, action levels, and procedures to protect worker health and safety if potentially hazardous concentrations of contaminants are encountered during construction.
- b. IC shall perform a soil investigation along the alignment to determine whether soils that would be

disturbed during construction contain concentrations of hazardous materials that could affect construction worker health and safety. The investigation shall be performed by a qualified environmental professional. A minimum of eight soil samples from soils to be disturbed during construction shall be collected and analyzed for total extractable hydrocarbons (THE), VOCs, and SVOCs. Analytical data shall be provided to the construction contractor(s) for incorporation in their site health and safety and/or hazard communication plans.

Impact: Construction workers could potentially be exposed to hazardous materials present in fill material imported to the site. The source for fill material for the project is unknown. Potential sources of fill material include petroleum-affected soils stockpiled at the BRPO Facility, near the western end of the alignment. ExxonMobil Chemical Company has been issued a beneficial reuse permit from the LA Department of Environmental Quality (LA DEQ) to reuse non-hazardous petroleum-affected soils on their properties. The petroleum-affected soils are tested to ensure that they do not exceed the Resource Conservation and Recovery Act (RCRA) hazardous waste thresholds. The soils are then mixed with concrete aggregate and asphalt emulsion to produce material with appropriate engineering properties. Typically, the mix contains approximately 39 percent crushed concrete, 59 percent recycled soils, and 2 percent asphalt emulsion. The mix is tested by LA DEQ on a quarterly basis to ensure that RCRA hazardous waste thresholds are not exceeded.

Recommended Mitigation Measures: Fill materials to be imported from areas where contamination is known or suspected to be present shall be tested for contaminants of concern to determine whether these materials contain concentrations of hazardous materials that could affect construction worker health and safety. The testing shall be performed by a qualified environmental professional. Analytical data shall be provided to construction contractor(s) for incorporation in their site health and safety and/or hazard communication plans.

Impact: Construction of the project could potentially interfere with proposed post-closure activities at the City-Parish of East Baton Rouge Devil's Swamp Landfill, (closed in the early 1990s.) The proposed rail alignment will cross a portion of the landfill at grade and no excavation in this area is proposed. If excavation were to occur, it could potentially penetrate the existing landfill cap material. The final closure inspection for the Landfill occurred on 6 October 1995, and at that time conditions at the landfill were classified as acceptable. The City-Parish of East Baton Rouge plans to install a methane gas dispersal system and a leachate collection system at the former landfill, but these systems have not yet been installed. Depending on the proposed plans and schedule for these improvements, the construction of the rail alignment may interfere with the proposed methane gas dispersal system and the leachate collection system.

Recommended Mitigation Measures: Construction plans shall be coordinated with the East Baton Rouge Parish Environmental Section to ensure that construction of the proposed project would not affect future installation of the methane gas dispersal/leachate collection systems at the Devil's Swamp Landfill.

4.8 TRAFFIC SAFETY

4.8.1 Significance Criteria

SEA analyzed the potential impact of the proposed rail crossing on U.S. Highway 61 with respect to the appropriateness of IC's proposed at-grade crossing, and the impact of the crossing on vehicular delays for traffic along U.S. Highway 61. This analysis included consultation with the LA DOTD and review of U.S. DOT, FHWA and FRA guidelines and regulations pertaining to at-grade railroad crossings. Site visits by SEA's traffic engineer were also conducted to obtain information about existing traffic conditions and the design of U.S. Highway 61 and surrounding roads. In addition, LA DOTD provided SEA with existing and projected traffic volume information for U.S. Highway 61 as well as historical accident data for the relevant stretches of U.S. Highway 61.

SEA utilized the information gathered to determine if a significant impact to traffic safety would occur from operation of the at-grade crossing. SEA's criteria for determining if an at-grade crossing would result in a significant traffic safety impact are:

- C If train operations would result in an average 30-second increase in vehicle delay or
- C If train operations and automobile traffic volumes would meet any of the FHWA or FRA criteria warranting a grade-separated crossing.

4.8.2 Safety Impacts of Proposed Grade Crossing

ExxonMobil Chemical Company and IC have agreed that IC would serve the BRPO plant only between the hours of 12:00 midnight and 5:00 am. The BRPO plant generates an average of approximately 35 carloads of outbound plastic pellets per day. The plant also receives approximately 15 tank cars per month of solvents used in the manufacturing process. IC would run one train in each direction per day and each train could have on the average thirty-five cars. KCS is presently serving the plant during daytime hours and is expected to continue to serve the plant.

The recommended advice of the U.S. DOT Technical Working Group on traffic control at highway-rail grade crossings²⁶ is to provide active devices with automatic gates as an option based upon economic considerations and when one or more of the following conditions exist:

1. All crossings on the National Highway System, or primary arterials not otherwise grade separated;

²⁶ Draft Final Report of the Technical Working Group of the U.S. DOT, Guidance on Traffic Control at Highway-Rail Grade Crossings, January 2001. This document was obtained from the LA DOTD as part of SEA's consultation process.

2. Multiple tracks exist at or in the immediate crossing vicinity where the presence of a moving or standing train on one track effectively reduces the clearing sight distance below the minimum relative to a train approaching the crossing on an adjacent track;
3. An average of 20 or more trains per day;
4. Posted highway speed exceeds 64 kilometers per hour (40 mph) in urban areas, or exceeds 88 kilometers per hour (55 mph) in rural areas.
5. AADT exceeds 2,000 in urban areas, or 500 in rural areas;
6. Multiple lanes of traffic in the same direction of travel (usually this will include cantilevered signals);
7. The crossing exposure (the product of the number of trains per day and AADT) exceeds 5,000 in urban areas, or 4,000 in rural areas;
8. In close proximity to schools, industrial plants or commercial areas where there is substantially higher usage by school buses, heavy trucks or trucks carrying dangerous or hazardous materials;
9. The expected accident frequency as calculated by the U.S. DOT Accident Prediction formula, including 5-year accident history, exceeds 0.075;
10. An engineering study indicates that the absence of active devices would result in the highway facility performing at a level of service below Level C; or
11. As otherwise recommended by an engineering study or diagnostic team.

The proposed IC rail crossing of U.S. Highway 61 meets criteria 1, 2, 4, 5, 6, 7, and 8 indicating that the rail crossing should include active warning devices. The rail crossing as proposed by IC includes active warning devices, flashing lights on overhead cantilevered structures, but does not include automatic gates. The reason IC has not included automatic gates is that the physical configuration of U.S. Highway 61 with shoulders and median makes automatic gates difficult to design to be effective. After reviewing the existing roadway design, SEA also concluded that providing automatic gates would be difficult and may not improve overall safety of the proposed at-grade crossing.

LA DOTD raised the concern that the proposed at-grade crossing should be required to be grade separated. In response, SEA evaluated the proposed at-grade crossing in relation to the U.S. DOT criteria for requirement of a grade separation. SEA concluded that construction of a grade separation is not warranted because the proposed location and operational characteristics of the proposed rail crossing would not meet any of the U.S. DOT criteria as outlined below. The U.S. DOT guidance suggests that highway-rail grade crossings should be considered for grade separation or otherwise eliminated across the railroad right-of-way whenever one or more of the following conditions exist:

- C The highway is a part of the designated Interstate Highway System;
- C The highway is otherwise designed to have full controlled access;
- C The posted highway speed equals or exceeds 113 kmph (70 mph);
- C AADT exceeds 100,000 in urban areas or 50,000 in rural areas;
- C Maximum authorized train speed exceeds 177 kmph (110 mph);
- C An average of 150 or more trains per day or 300 MGT per year;
- C An average of 75 or more passenger trains per day in urban areas or 30 or more passenger trains per day in rural areas;
- C Crossing exposure (the product of the number of trains per day and AADT) exceed 1,000,000 in urban areas or 250,000 in rural areas; or
- C Passenger train crossing exposure (the product of the number of passenger trains per day and AADT) exceeds 800,000 in urban areas or 200,000 in rural areas.
- C The expected accident frequency for active devices with gates, as calculated by the U.S. DOT Accident Prediction Formula including 5-year history, exceeds 0.5;
- C Vehicle delay exceeds 40 vehicle hours per day.

Considering U.S. DOT's criteria, SEA concluded that a grade separation is not warranted at this location for the following reasons:

1. U.S. Highway 61 is not designated on the Interstate Highway System and does not have fully controlled access;
2. The posted highway speed in the section is 50 mph and the ADT is less than 25,000 vehicles per day;
3. Only one freight train, round trip, is expected to use the track on a daily basis and will operate at low speeds, during night-time hours;
4. The proposed rail crossing would be a new crossing and there is no accident history to calculate the expected accident frequency; and,

5. Vehicle delays are under 40 vehicle hours per day as shown in a following section.

Based on the analysis conducted to date, consultation with LA DOTD, site visits, and review of relevant Federal guidelines, SEA believes that IC's proposed active signalized rail crossing with flashing lights on cantilevered overhead structures would be consistent with established safety guidelines.

4.8.2 Vehicle Delay

During rail operations, the new grade crossing would result in motorist delays on U.S. Highway 61 due to the train blocking the grade crossing two times each night. SEA determined the time that the crossing would be blocked per train crossing event. This time included the time for the train to pass along with time for the overhead cantilevered warning device to engage. Because train passing time is dependent on train speed and the train would be operating at ten miles per hour, SEA used ten miles per hour for the calculation. Blocked crossing time per train was calculated to be 3.2 minutes for a 35-car train.

SEA uses a 24-hour average time of delay to evaluate increases in traffic delay caused by a project. SEA determined that the average increase in vehicle delay would be 1.27 seconds per vehicle over a 24-hour period, and the level of service of U.S. Highway 61 would not change as a result of the proposed at-grade crossing. The actual delay may be much less than calculated since the train operation is projected to be between the hours of midnight and 5:00 am. These measures of delay indicate that the proposed crossing is not expected to degrade the operation of U.S. Highway 61.

The detailed calculations of vehicular delay are included in Appendix 2.

4.8.3 Traffic Safety Analysis Conclusion

Based on its analysis, SEA concludes that the proposed grade crossing would not result in a significant impact on traffic safety, and that further mitigation, such as a grade separation, is not warranted.

The IC and LA DOTD are currently consulting regarding the design of the rail crossing and specific active warning devices to be installed at this location²⁷. LA DOTD has preliminarily indicated that flashing-light signals on an overhead structure or cantilevered supports (i.e., the structure would support the flashing lights over the highway), pavement markings, and advance warning signs in accordance with the Manual on Uniform Traffic Control Devices would be appropriate for this location based on the number of trains (one train per day) and hours of operation (12:00 midnight to 5:00 am).

²⁷IC has submitted an application to the LA DOTD for approval of the proposed rail crossing of U.S. Highway 61. LA DOTD is currently reviewing the application and ongoing consultation between IC and LA DOTD continues regarding the specific design of active warning devices.

4.9 HAZARDOUS MATERIALS TRANSPORT SAFETY

4.9.1 Significance Criteria

SEA determined that a significant impact would occur if the construction and/or operation of the proposed rail line would result in:

- C increases in transport of hazardous materials on rail segments substantial enough to warrant additional measures to improve safety and protect human health.
- C increased risk of a hazardous materials release along IC mainlines.
- C increased risk of a hazardous materials release along the proposed rail line.
- C increases in handling of hazardous materials during switching operations at rail yards substantial enough to warrant additional measures to improve safety and protect human health.

The following analysis utilizes rail traffic information provided by IC.

4.9.2 Key Route/Major Key Route Identification

If a rail segment did not previously warrant a “Key Route designation,”²⁸ but was given the designation because of an increase in volume and/or the number of hazardous materials rail cars, or the rail segment would exceed 20,000 annual carloads after the addition of the rail line, it may be considered a potentially significant impact.

The only rail segments that would carry additional carloads of hazardous materials as a result of the proposed rail line are the segments between Geismar, LA and Baton Rouge, LA; and between Baton Rouge, LA and the proposed rail line. It is estimated that the segment between Geismar and Baton Rouge carries approximately 22,630 hazardous carloads per year prior to the addition of the proposed rail line, and is thus considered a Major Key Route.²⁹ The rail segment between Baton Rouge and the

²⁸ The Association of American Railroads (AAR) defines a “Key Route” as a railroad segment that carries more than 10,000 carloads of hazardous materials [or a combination of 4,000 car loadings of poison inhalation hazard (Hazard Zone A or B), flammable gas, Class 1.1 or 1.2 explosives (Class A), and environmentally sensitive chemicals] over a period of 1 year. Key Routes receive special treatment by railroads.

²⁹ A Major Key Route is a term developed by SEA to identify rail line segments where the volume of hazardous materials transported would double and exceed 20,000 carloads per year and thus warrant greater safety

proposed rail line carries approximately 468 annual carloads of hazardous materials prior to the addition of the proposed rail line. Thus, the additional 180 annual carloads (15 carloads per month times 12 months) resulting from the addition of the proposed rail line would not change the Key Route designations of either of these segments.

4.9.3 Hazardous Materials Releases along Mainline Tracks

Increases in rail activity resulting from the addition of the proposed rail line may increase the likelihood of an accidental release of hazardous materials. SEA identified and analyzed rail line segments that would experience increased hazardous materials transport and handling activity as a result of the proposed rail line

The analysis shows that there is no difference between the estimates of release frequency before and after the addition of the proposed rail line for either affected segment (i.e., Geismar to Baton Rouge, and Baton Rouge to proposed rail line). Estimations show that there would be one release per track-mile on the Geismar to Baton Rouge segment every 273 years both before and after the addition of the proposed rail line. Likewise, there would be one release per track-mile on the segment between Baton Rouge and the proposed rail line every 8,326 years both before and after the addition of the proposed rail line. The only variable that changes with the addition of the proposed rail line is the number of hazardous materials carloads per train, as the total number of annual trains stays the same. Therefore, the increase in hazardous materials releases along mainline tracks associated with the proposed rail line would not be significant.

SEA concludes that in the unlikely event of a release, it is highly unlikely that it would have significant consequences. The two types of chemicals (hexane and isobutane) that would be shipped to the Exxon BPRO facility over the proposed rail line can cause eye irritation and burning, as well as dizziness, but acute (i.e., short-term) exposure to these chemicals is not known to cause long-term or fatal effects.

In addition, it is important to consider that the increased traffic on these IC segments could potentially represent a similar decrease in traffic on the KCS rail lines that currently deliver these hazardous materials to the Exxon BPRO facility. This new service would allow the facility to split the current rail traffic between KCS and IC; that is, a portion of the rail traffic currently traveling over the KCS line would move over the IC line.

This switch would not increase the likelihood of a significant consequence in the event of a release, as the KCS and IC lines run nearly parallel for significant portions of these segments and both come within the same minimum distance to residences (less than 100 feet) at different points between Baton Rouge and the Exxon BPRO facility.

4.9.4 Hazardous Materials Releases along the Proposed Line

measures than Key Routes.

Increases in rail activity from the addition of the proposed rail line were evaluated to determine whether the likelihood of an accidental release of hazardous materials along the proposed rail line would increase. Based on statistics derived from historical data on hazardous materials releases, SEA estimated that there would be one release per track-mile every 16,606 years on the proposed rail line. In the unlikely event of an accident on the proposed rail line, SEA concluded that it is highly unlikely this accident would result in a release of hazardous materials. This is because the traffic on the proposed rail line would not exceed 10 miles per hour and the tank cars transporting the chemicals are required to be able to withstand impacts of 18 miles per hour without rupturing pursuant to Federal regulations governing the rail movement of hazardous materials (49 CFR 179.16). In the event of an accident on the proposed rail line, SEA concludes that it is unlikely this accident would result in a release of hazardous materials, and no mitigation measures in addition to emergency response procedures already required by state and Federal laws are necessary.

4.9.5 Hazardous Materials Releases at Train Yards

The IC Baton Rouge Rail Yard is located approximately 4.5 miles south of the proposed rail line. In evaluating the hazardous materials activity for the Baton Rouge rail yard, SEA also considered the frequency of release and the likely impact of any release to determine whether the projected change in hazardous materials volumes was taken into consideration.

It was estimated that there could be one hazardous materials release every 112 years prior to constructing the proposed rail line and one hazardous materials release every 111 years after the proposed rail line is constructed. SEA concluded that this change would not represent a significant increase in release frequency, and that no mitigation measures in addition to emergency response procedures already required by state and Federal laws are necessary.

Although the estimated release frequency does increase slightly, this increase is not statistically significant and thus the increased potential of a release at the Baton Rouge rail yard is also not significant. Furthermore, historical data for IC's rail yard operations indicate that even when releases occur, they are typically small and have a minor, localized impact, and yard personnel trained to respond to emergencies would quickly detect and respond to accidents, further minimizing potential impacts.

4.10 SOCIOECONOMIC & ENVIRONMENTAL JUSTICE

SEA analyzed the potential effects of the construction and operation of the proposed rail line, to determine if any environmental justice communities identified in Section 3.10 would be disproportionately affected.

SEA's analysis has found that construction and operation of the proposed rail line would not result in

substantial impacts on the communities nearest the proposed rail line. Construction and operation of the proposed rail line would not result in a substantial increase in noise levels, worsening of air quality, exposure to hazardous materials, or other possible environmental impacts. SEA concludes that since the proposed rail line would not result in substantial impacts on the surrounding communities, no disproportionate impact on environmental justice communities would occur as a result of the proposed rail line.

5.0 SECTION OF ENVIRONMENTAL ANALYSIS

RECOMMENDATIONS FOR MITIGATION

AND REQUEST FOR COMMENTS

Based on SEA's environmental analysis of the project and the comments received from the various parties consulted prior to and during the preparation of this EA, SEA recommends that, if the Board approves IC's construction and operation of the proposed rail line, such approval be subject to the following mitigation measures which are identified below by general impact category:

5.1 Soils

IC shall re-vegetate all graded areas to provide slope stability, reduce erosion and provide replacement of some of the habitat value lost due to construction activities.

5.2 Air Quality

IC shall implement dust control measures during all phases of project construction. Recommended measures include:

- Use of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land.
- Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dust.
- Open-bodied trucks transporting materials likely to give rise to airborne dust shall be covered at all times while in motion.
- The prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or other means.
-

5.3 Biology

IC shall coordinate with the U.S. Army Corps of Engineers, LA field office, to obtain all required permits for disturbance of Waters of the U.S.

IC shall revegetate all graded areas to provide slope stability and replace some of the habitat value lost

due to construction activities. (Same mitigation measure as listed under Soils)

Because birds protected under the Federal Migratory Bird Treaty Act may nest in the project area, all clearing activities shall be planned to avoid the nesting season (no clearing activities shall occur between August 1 and December 31). If it is not possible to avoid the nesting season, nest surveys shall be conducted prior to construction to determine if nesting is occurring within, or adjacent to the construction area. If active nests are found, IC shall postpone activities within 250 feet of the nest until the young have fledged.

5.4 Cultural Resources

Should any previously undiscovered historic or prehistoric resources be found during construction, IC shall stop work, in accordance with the regulation implementing the National Historic Preservation Act at 36 CFR 800, until such time that the resource can be evaluated by a qualified archaeologist and appropriate mitigative action taken as determined necessary by SEA and the LA SHPO.

5.5 Hazardous Materials/Waste Sites

In order to ensure the safety of construction workers during the construction period, IC shall implement one of the following measures:

- C IC shall hire a qualified environmental professional to prepare a site-specific Health and Safety Plan (HSP) to ensure construction worker health and safety during the period that construction workers may have direct or indirect contact with site soils. The HSP shall include procedures for air monitoring, action levels, and procedures to protect worker health and safety if potentially hazardous concentrations of contaminants are encountered during construction.
- C IC shall perform a soil investigation along the alignment to determine whether soils that would be disturbed during construction contain concentrations of hazardous materials that could affect construction worker health and safety. The investigation shall be performed by a qualified environmental professional. A minimum of eight soil samples from soils to be disturbed during construction shall be collected and analyzed for total extractable hydrocarbons THE, VOCs, and SVOCs. Analytical data shall be provided to the construction contractor(s) for incorporation in their site health and safety and/or hazard communication plans.

IC shall test fill materials to be imported from areas where contamination is known or suspected to be present for contaminants of concern to determine whether these materials contain concentrations of hazardous materials that could affect construction worker health and safety. The testing shall be performed by a qualified environmental professional. Analytical data shall be provided to construction contractor(s) for incorporation in their site health and safety and/or hazard communication plans.

IC shall coordinate construction plans with the East Baton Rouge Parish Environmental Section to ensure that construction of the proposed project would not affect future installation of the methane gas dispersal/leachate collection systems at the Devil's Swamp Landfill.

5.6 Conclusion

In this EA, SEA considers the potential environmental impacts of IC's proposed rail line construction and operation of a 3.2 mile rail line in East Baton Rouge Parish, Louisiana. The proposed rail line would connect IC's Maryland Industrial Lead Branch line (sometimes referred to as IC's "Zee line") with the Baton Rouge Polyolefins ("BRPO") plant owned and operated by ExxonMobil Chemical Company.

SEA consulted with Federal, state, and local agencies and the IC, conducted site visits to the project area and surroundings, reviewed relevant published reports and literature, and conducted detailed technical analyses. SEA's evaluation covered a wide range of possible impacts to both the human and natural environmental including:

- C Soils, geology and climate,
- C Surface and groundwater,
- C Air quality,
- C Biological resources,
- C Noise,
- C Cultural resources,
- C Hazardous materials and waste sites,
- C Traffic safety,
- C Hazardous materials transport safety,
- C Socioeconomic and environmental justice concerns.

SEA concluded that construction of the proposed rail line could result in some potential impacts in specific areas and recommended appropriate mitigation. These impact areas include:

- C Soil impacts due to grading activities during construction of the rail line.
- C Air quality impacts from dust generated by construction activities.
- C Biological resource impacts from construction activities across ravines and clearing activities
- C Cultural resource impacts if unknown archaeological resources are encountered during construction.
- C Hazardous materials impacts due to possible soil contamination that could be disturbed during construction.

The EA also specifies SEA's recommended mitigation measures which would reduce or avoid the potential impacts of construction of the proposed rail line. The mitigation measures are commonly implemented to reduce rail construction impacts.

Based on its analysis, SEA concluded that operation of the rail line would not result in any potential

environmental impacts, and that no mitigation measures were necessary.

Based on the information collected and the analysis conducted to date, and subject to the recommended mitigation measures, SEA preliminarily concludes that, as currently proposed, construction and operation of IC proposed rail line would not significantly affect the quality of the natural or human environment, provided the recommended mitigation measures set forth in this section are implemented. Therefore, the preparation of an environmental impact statement is unnecessary in this proceeding.

5.7 Request for Comments

SEA specifically invites comments on all aspects of this EA, including the scope and adequacy of the recommended mitigation as well as any other reasonable alternatives. SEA will consider all comments received in response to the EA in making its final recommendations to the Board. The Board will consider SEA's final recommendations and the environmental comments in making its final decision in this proceeding.

Distribution and notification of the availability of the EA has been done in accordance with the requirements of the National Environmental Policy Act (NEPA) and the Council on Environmental Quality's Regulations for Implementing NEPA. SEA has taken additional steps to ensure that all interested parties are notified of the availability of the EA and afforded the opportunity to review and provide comments on the analysis and recommended mitigation measures in the EA.

Distribution and notification of the availability of the EA has included the following:

- C Distribution and/or notification of the EA to parties on the Board's Service List for this proceeding (including IC, all parties requesting to be on the Service List, U.S. Senators representing Louisiana, U.S. Congresspersons representing the project area, State senators and congresspersons representing the project area and Federal, state and local agencies with an interest in the project.)
- C Placing three (3) copies of the EA in the following local, publically accessible locations:
 1. Crestworth Middle School Library;
 2. East Baton Rouge Public Library (Scotlandville Branch);
 3. 2031 Central Road, Suite 19 - Councilman Addison's Office.
- C Publication of a notice of the availability of the EA in the Federal Register and in The Advocate newspaper which is a newspaper of general circulation in the project area.
- C Mailing a notice of the availability of the EA to all residents and property owners within 1,500 feet of the proposed rail line construction, attendees at community workshops held by IC, and homeowner and neighborhood group representatives in the project area.

If you wish to file comments or questions regarding this EA, send an original and 10 copies to: Section of Environmental Analysis, Surface Transportation Board, 1925 K Street NW, Washington, DC 20423, to the attention of Dana White, telephone 202-565-1552. Please refer to Finance Docket No. 33877 in all correspondence addressed to the Board.

Date made available to the public: July 20, 2001

Comment due date: August 20, 2001

6.0 AGENCY CONSULTATION, COORDINATION AND REQUESTED INFORMATION

SEA consulted with various Federal, state and local agencies seeking their comments on the construction and operation of the proposed rail line. This chapter summarizes the consultation efforts and comments received to date by topic area.

6.1 Air Quality

Louisiana Department of Environmental Quality (LA DEQ)
Robert Hannah
Administrator of Environmental Planning Division
Date: 2/12/01

Comments: Contacted to verify attainment status and ascertain current air quality planning programs.

6.2 Biology

U.S. Army Corps of Engineers, New Orleans District
John Bruza, Section Chief
Date: 1/4/01

Comments: The Corps Section Chief has determined that the Corps will take jurisdiction over the waters affected by the project. Also, the project would most likely require a Nationwide Permit 14 if the impact acreage is under 1/3 of an acre, and an individual permit if the impact exceeds 1/3 of an acre because the New Orleans District counts only the area of fill below the Ordinary High Water Mark for the impact of a linear crossing and not piping. Along with its permit application, IC must submit a preliminary wetland delineation of Waters of the U.S. and request verification by the Corps.

U.S. Army Corps of Engineers
Furcy Zeringue, Regulations Specialist

Date:1/4/01

Comments: Contacted to confirm that the Corps would take jurisdiction over the waters affected by the project.

U.S. Army Corps of Engineers

Larry Weisetape, Supervisor of Certifications

Date: 1/11/01

Comments: Contacted to request information regarding the water quality certification/waiver process for LA CWA, Section 401 compliance. LA DEQ has coordinated with the Corps to waive certification for all Nationwide Permits. Therefore, unless an individual permit is required a separate water quality certification is not required. LA DEQ has requested that IC send LA DEQ a copy of the Nationwide Permit application be sent to them at the time it is submitted to the Corps.

LA DEQ

Chris Means, Permit Specialist

Date: 1/11/01

Comments: A stormwater discharge permit is only required if ground disturbance exceeds five acres. If so, a Stormwater Pollution Prevention Plan (SWPPP) must be submitted for approval. The cost is \$200.00 and the permit is deemed to be in effect 48 hours after submitted to LA DEQ.

U.S. Fish & Wildlife Service (FWS)

Bridget Decoteau, Listing Specialist

Date: 12/12/00

Comments: Contacted to request information regarding the FWS list of special-status species known to occur in East Baton Rouge Parish.

LA Department of Wildlife & Fisheries (LA DWF)

M.B. Watson, Listing Specialist

Date: 12/12/00

Comments: Contacted to request information regarding the Natural Heritage Database list of species known to occur in East Baton Rouge Parish, as the previous request by HDR did not include the preferred alternative route.

LA Department of Wildlife & Fisheries (LA FWS)

Gary Lester, Coordinator

Date: 1/17/01

Comments: Contacted to request information regarding habitat requirements for several endemic species that did not appear in local reference books. A letter was sent to the data manager to search for the information and an LDWF publication *ATLAS of Vascular Flora of Louisiana* was ordered.

6.3 Noise

City of Baton Rouge/Parish of East Baton Rouge

Jerome Klier, Deputy Director of Public Works

Date: 4/06/01

Comments: The City's Municipal Code does address nuisance noise but it is not intended to be applied to new rail projects and would not be applied to this type of project.

LA DEQ

Department of Environmental Quality

Date: 4/05/01

Comments: Louisiana has not adopted any acoustical criteria for this type of project.

6.4 Traffic Safety

Louisiana Department of Transportation and Development (LA DOTD)

Blaise Carriere, Deputy Secretary

Bill Schrewsberry, Highway/Rail Safety Engineer

Date: 3/05/01

Comments: Meeting to discuss traffic safety issues and crossing design for the proposed at-grade crossing of U.S. Highway 61. Received information about LA DOTD permit process for at-grade crossings and information about existing traffic and safety conditions on U.S. Highway 61 in the project area.

6.5 Cultural Resources

Louisiana State Historic Preservation District (LA SHPO)

Louisiana State Historic Preservation Officer

Ms. Gerri Hobdy

Date: 1/ 12/01

Comments: Letter sent to the LA SHPO requesting information regarding possible cultural resources within the project areas.

6.6 Hazardous Materials/Waste Sites

LA DEQ Remediation Services Division

Tom Stafford

Date: 3/2001

Comments: Contacted to request information regarding Devil's Swamp Landfill. He confirmed that there were no outstanding hazardous materials issues related to the Landfill.

7.0 REPORT PREPARATION PERSONNEL

This report has been prepared by:

SURFACE TRANSPORTATION BOARD

SECTION OF ENVIRONMENTAL ANALYSIS

DANA G. WHITE, PROJECT LEADER

VICTORIA RUTSON, ACTING CHIEF

Employees of the Third-Party Contractor:

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Kay Wilson, Principal in Charge

Scott Steinwert, Project Manager

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Subconsultants to Public Affairs Management:

Baseline Environmental Consulting

Todd Taylor, *Hazardous Materials Analysis*

Charles Salter Associates

Alan Rosen, *Noise Analysis*

Don Ballanti

Don Ballanti, *Air Quality*

ICF Consulting

Alan Summerville, *Hazardous Materials Transport and Safety Analysis*

Gary Erenrich, *Transportation/Circulation Analysis*

RCL Consulting

Randy Long, *Biological Analysis*

William Self Associates

Bill Self, *Cultural Resources*

Appendix 1 - Minority and low income block groups within 2 miles of the preferred IC rail extension

Tract	Block Group	Persons	Below Poverty Level (%)	Blacks (%)	Native American (%)	Asian & Pacific Islander (%)	Other (percent)
E. Baton Rouge Parish		381432	19	34.7	0.02	1.3	0.03
Threshold for environmental justice concerns			29	44.7	10.02	11.3	10.03
30.01	1	744	29.3	100.0	0	0	0
30.01	2	0	0	0	0	0	0
30.01	3	1339	58.7	98.8	0.8	0	0
30.01	4	1112	34.2	100.0	0	0	0
30.01	5	2832	7.8	99.5	0.	0	0
30.02	1	600	37.0	94.5	0	0	0
31.01	1	1284	56.1	100.0	0	0	0
31.01	2	767	49.9	100.0	0	0	0
31.01	3	1026	48.1	100.0	0	0	0
31.01	4	757	54.4	100.0	0	0	0
31.01	5	1395	48.3	100.0	0	0	0
31.02	1	762	16.1	77.7	0	0	0
31.02	2	2131	22.8	93.0	0	0	0
33	1	1001	26.0	96.3	0	0	0.7
33	2	997	21.6	97.8	0	0	0
33	3	933	52.3	100.0	0	0	0
41	1	386	23.3	71.2	0	0	0
42.01	1	999	30.2	53.8	0	0	0
42.01	2	1397	14.2	67.3	0	0	0
42.01	3	1424	39.9	100.0	0	0	0
42.01	4	566	3.1	11.5	0	0	0
42.01	6	921	45.4	100.0	0	0	0
42.01	7	276	21	57.6	0	0	0
42.02	8	1421	4.2	8.7	0	0	0.6
42.03	1	212	7.5	0	5.7	0	0
42.03	2	1252	15.6	67.8	0.7	0	0
42.03	3	1331	16.9	18.6	1.7	0	0
42.03	4	1068	30.2	100.0	0	0	0
46.01	5	927	4.6	58.9	0	0	0

Bold numbers indicate environmental justice communities

<i>Tract</i>	<i>Block Group</i>	<i>Persons</i>	<i>Below Poverty Level (%)</i>	<i>Blacks (%)</i>	<i>Native American (%)</i>	<i>Asian & Pacific Islander (%)</i>	<i>Other (percent)</i>
<i>W. Baton Rouge Parish</i>		19419	20	36.0	0.04	0.01	0.03
<i>Threshold for environmental justice concerns</i>			30	46.0	10.04	10.01	10.03
<i>202</i>	2	1275	23.9	21.6	0	2.5	0
<i>203</i>	1	1004	16.0	30.9	0	0	0

Appendix 2 - Vehicle Delay Calculations

The use of the proposed rail crossing would cause the slight delay for vehicles using U.S. Highway 61. Vehicle delay is calculated using the following equations:

Blocked Crossing Time (Dc)³⁰

$$Dc = \frac{L}{V \times 88} \quad \text{Formula without gates}$$

L = Length of train 88 = 1 mph = 88 ft/min

$$L = 70' + (65' \times 35 \text{ cars}) = 2345'$$

V = 10 mph

$$Dc = \frac{2345'}{10 \times 88} = 2.7 \text{ minutes w/o gate}$$

Crossing Delay per Stopped Vehicle (Da) – This is the average amount of time that a vehicle will be delayed at a highway/rail grade crossing as a result of a single train event.

³⁰ Equation developed by Stanford Research Institute for the Federal Railroad Administration and the Federal Highway Administration, August 1974.

$$D_a = D_c \times \left(\frac{S_c}{2} \right) \left(\frac{S_c - S_q}{S_c} \right)$$

S_c = Vehicle departure rate, per minute per lane

(default – 1400 vehicles/hr/lane = 23.3 vehicles/minute/lane)

S_q = Average arrival rate of traffic in vehicles per minute per lane.

$$S_q = 23,142 \text{ vehicles}/24 \text{ hours} = 764 \text{ vehicles}/\text{hr}/4 \text{ lanes} = 191 \text{ veh}/\text{hr}/\text{lane} = 3.2 \text{ veh}/\text{minute}/\text{lane}$$

2 = account for vehicles that don't experience delay for entire time that train blocks crossing

$$D_a = 2.7 \left(\frac{23.3}{2} \right) \left(\frac{23.3 - 3.2}{23.3} \right) = 1.6 \text{ minutes}/\text{vehicle}/\text{lane}$$

Number of Vehicles Delayed per Day (Td)

$$T_d = \left(\frac{D_c}{1440} \right) \times N \times \text{ADT}$$

1440 = minutes per day

N = number trains per day

ADT = average daily traffic volume

$$Td = \left(\frac{2.7}{1440} \right) \times 2 \times 23,142 = 87 \text{ vehicles/day}$$

Total Daily Vehicular Delay

87 vehicles/ day x 1.6 minutes per vehicle = 139 total vehicular delay per day = 2.3 hours of total vehicular delay per day. The actual delay may be much less than calculated since the train operation is projected to be between the hours of midnight and 5:00 am.

The 2.3 hours of total delay is not expected to degrade the operation of U.S. Highway 61.

Appendix 3-Typical Noise Levels in the Environment

(available through the Section of Environmental Analysis, Surface Transportation Board, 1925 K Street,NW, Washington, DC 20423).