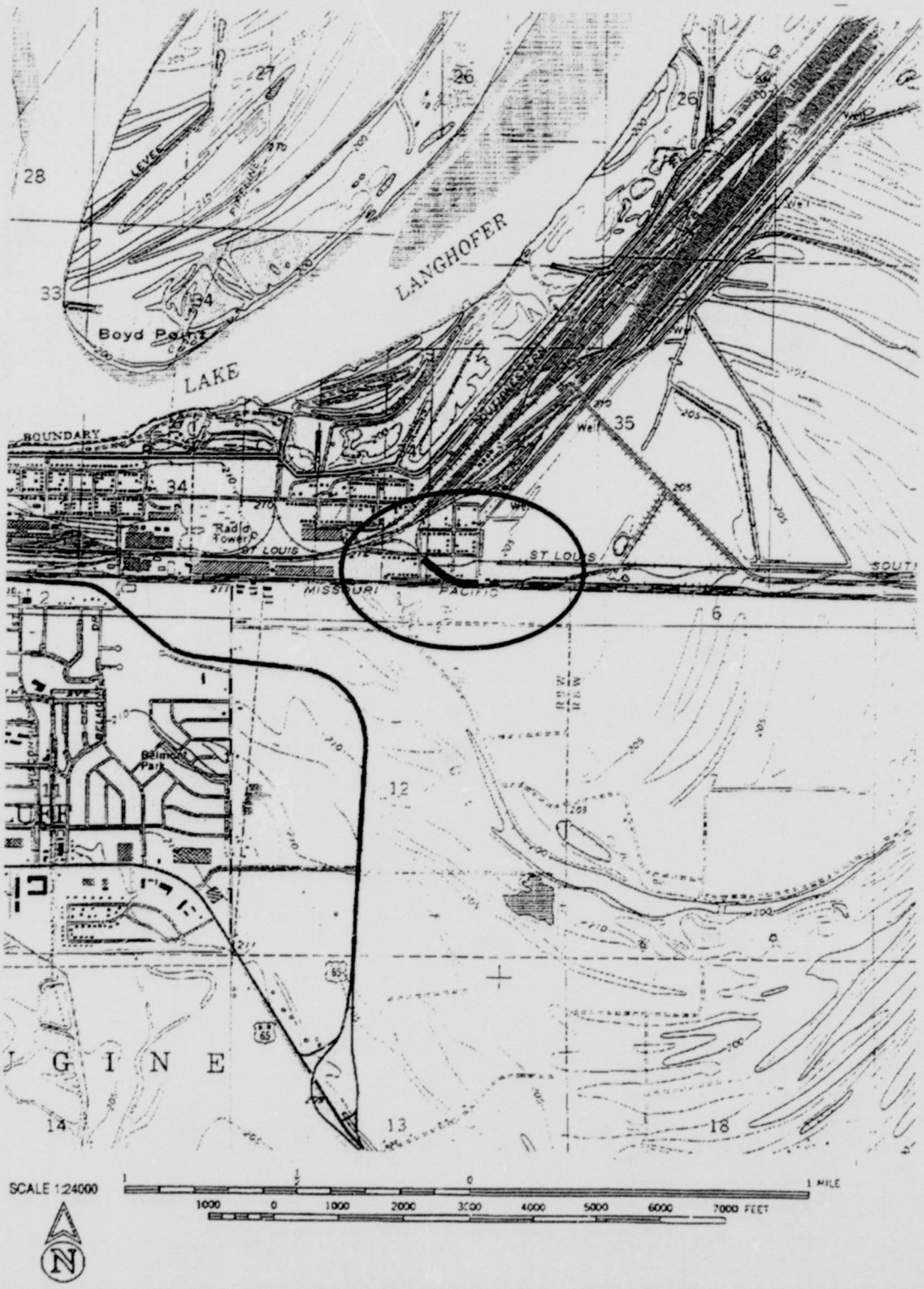


UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

PINE BLUFF (EAST), ARKANSAS

ENVIRONMENTAL ASSESSMENT

Air Quality

The proposed construction site is located in AQCR 16: Central Arkansas. This AQCR is currently categorized as being in attainment with the NAAQS for all pollutants. Construction-related activities would not adversely affect the ambient air quality as a result of the proposed construction and operation.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, industrial, and vehicular traffic are the primary sources of noise in the area of the proposed rail line construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet).

The current level of train traffic on the UP Monroe subdivision main line (13 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 140 feet without horns (420 feet with horns). The current level of traffic operating on the SP Pine Bluff main line (23 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 225 feet without horns (630 feet with horns). About 10 residences would be within 300 feet of the new track as a result of the proposed merger; currently these residences are located about 400 to 500 feet from the existing east-west track.

Historic and Cultural Resources

The proposed connection would require acquisition of three or four small building lots, each containing a small house. The houses would be demolished and a 650-foot connecting track would be installed onto the SP line from the UP line. These houses are all of a similar late 19th century indigenous vernacular design. The site was developed in conjunction with the railroad in the 19th century. SEA does not believe the structures meet National Register criteria. Consolation with the Arkansas SHPO has been initiated to confirm these findings.

SEA's initial consultations with the Arkansas SHPO determined that no documented

archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by a SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities.

Transportation and Safety

The existing ground transportation network consists of the UP and SP rail lines that intersect one another in northeast Pine Bluff. U.S. 65 is the primary highway in the vicinity of the project site. Access to the rail construction area would be on local roads.

According to the UP/SP, no known hazardous waste sites exist at the proposed construction site.

2.3.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. It is compatible with surrounding land uses, complies with applicable zoning ordinances and development regulations, and is consistent with community planning. No conversion of prime farmland is necessary to complete construction of this connection, nor would any construction activities occur in a designated coastal zone.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area.

The proposed construction project also would not have any adverse impacts on surface water resources or wetlands. This finding is based on the relatively large distance from the project site to surface water receptors and the localized flow of stormwater runoff. Additionally, the project would not encroach upon the 100-year floodplain.

UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction would not involve excavation from or the

placement of dredged or fill material into the "waters of the United States," including designated wetlands. Therefore, authorization under Section 404 of the Clean Water Act would not be required. Additionally, an NPDES stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. The proposed action would have no adverse impacts to native plant communities. The proposed rail line construction site is located along an existing rail corridor where most of the area is covered by gravel and sparse vegetation. However, after construction UP/SP would use Best Management Practices (BMPs) to encourage regrowth in disturbed areas and would stabilize disturbed soils.

Wildlife. No adverse impacts to wildlife populations are anticipated, since the existing habitat on the proposed construction site is of low quality.

Threatened and Endangered Species. Based on SEA's consultation with USFWS and AGFC, no threatened or endangered species would be affected by the project.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse impact is expected since there are no known state or federally designated parks, preserves, refuges, or sanctuaries in the vicinity of the proposed construction site.

Air Quality

Construction impacts to air quality would be related to fugitive dust emissions around the construction site and vehicle emissions from construction equipment and employee traffic.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 16 is an air quality attainment area. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation, and watering the site.

Vehicle Emissions During Construction. There would be two types of estimated emissions associated with vehicular traffic during the construction: (1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force

for construction at the site would be 15 employees for 10 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 300. This relatively small number of trips for the short duration of the construction would not be sufficient to adversely affect air quality. In addition, due to the small scope of construction activities (only 1,000 cubic yards of earthwork are required), air quality impacts from construction equipment would be minimal, and would not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail construction would not introduce new rail traffic on the associated line segments but, rather, provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction would not have the potential to seriously degrade the air quality in AQCR 16, nor would it result in any exceedances of the NAAQS.

Noise

UP/SP estimate two train movements per day on the proposed rail line connection. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 43 feet without horns and 146 feet with horns.

The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of both existing rail lines. Approximately 15 homes could fall within the L_{dn} 65 noise contour as a result of horn noise at the grade crossing after the proposed merger. The increase in noise level at these homes could be in excess of 3 dBA. The close proximity of the residences to the track at the street crossing suggests that some of these residences could be exposed to perceptible ground vibration.

Historic and Cultural Resources

No known historic resources are located in the vicinity of the proposed construction site. Consultation with the Arkansas SHPO has been initiated, seeking concurrence in this determination. Based on SEA's initial consultations with the Arkansas SHPO, no known or documented archaeological sites exist at the proposed construction site. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction.

Transportation and Safety

The proposed rail line construction project would improve rail access to Pine Bluff and enhance the efficiency of UP/SP operations. It would not require new grade crossings of any roads and therefore would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

2.3.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 2.3.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed and operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection could cause additional fuel consumption and increase emissions impacts.

2.3.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed

merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Agency comments regarding the proposed construction projects are summarized below:

- Natural Resources Conservation Service noted that they did not anticipate project would adversely impact prime farmlands or erosion rates.

- Arkansas Department of Pollution Control and Ecology provided state water quality standards and ecologically sensitive water bodies, and referred SEA to the Natural Heritage Commission for information about state species of special concern.

- Arkansas Soil & Water Conservation Commission recommended that proper measures be taken during construction to minimize potential stream and wetland impacts and that review of final construction plans should be completed by appropriate state and city agencies.

- Arkansas Department of Transportation (DOT) recommended that the final plans be reviewed by DOT.

- The Office of Jefferson County Judge reports no environmental objections to the project.

2.3.7 Suggested Mitigation Measures

Mitigation measures suggested by the various parties consulted in the process of preparing this EA for the proposed merger are summarized below. (See **Volume 5**, Appendices D and E, for agency consultation lists.)

- The Arkansas Soil & Water Conservation Commission recommended that proper measures be taken during construction to minimize potential stream and wetland

impacts and that review of final construction plans be completed by appropriate state and city agencies. It also noted that off-site wetland mitigation should be considered, if wetland areas are affected.

- The Arkansas Department of Transportation (DOT) recommended that the final plans be reviewed by DOT.

2.3.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Pine Bluff (East) construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for

application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Arkansas SHPO.

2. UP/SP shall retain their interest in and take no steps to alter the three or four small houses on the building lots to be acquired until the Section 106 process of the National Historic Preservation Act (16 U.S.C. 470f., as amended) has been completed for these properties.

Safety

1. UP/SP shall consult with Arkansas Department of Pollution Control and Ecology if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport all hazardous material in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in their Emergency Response Plans.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

3. Prior to construction, UP/SP shall provide final plans to the Arkansas DOT and

appropriate local agencies for review.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

2.4 Pine Bluff (West)

Pine Bluff is located in Jefferson County, 42 miles southeast of Little Rock. Existing rail lines in the area include the UP Monroe and SP Pine Bluff subdivision mainlines.

2.4.1 Proposed Action

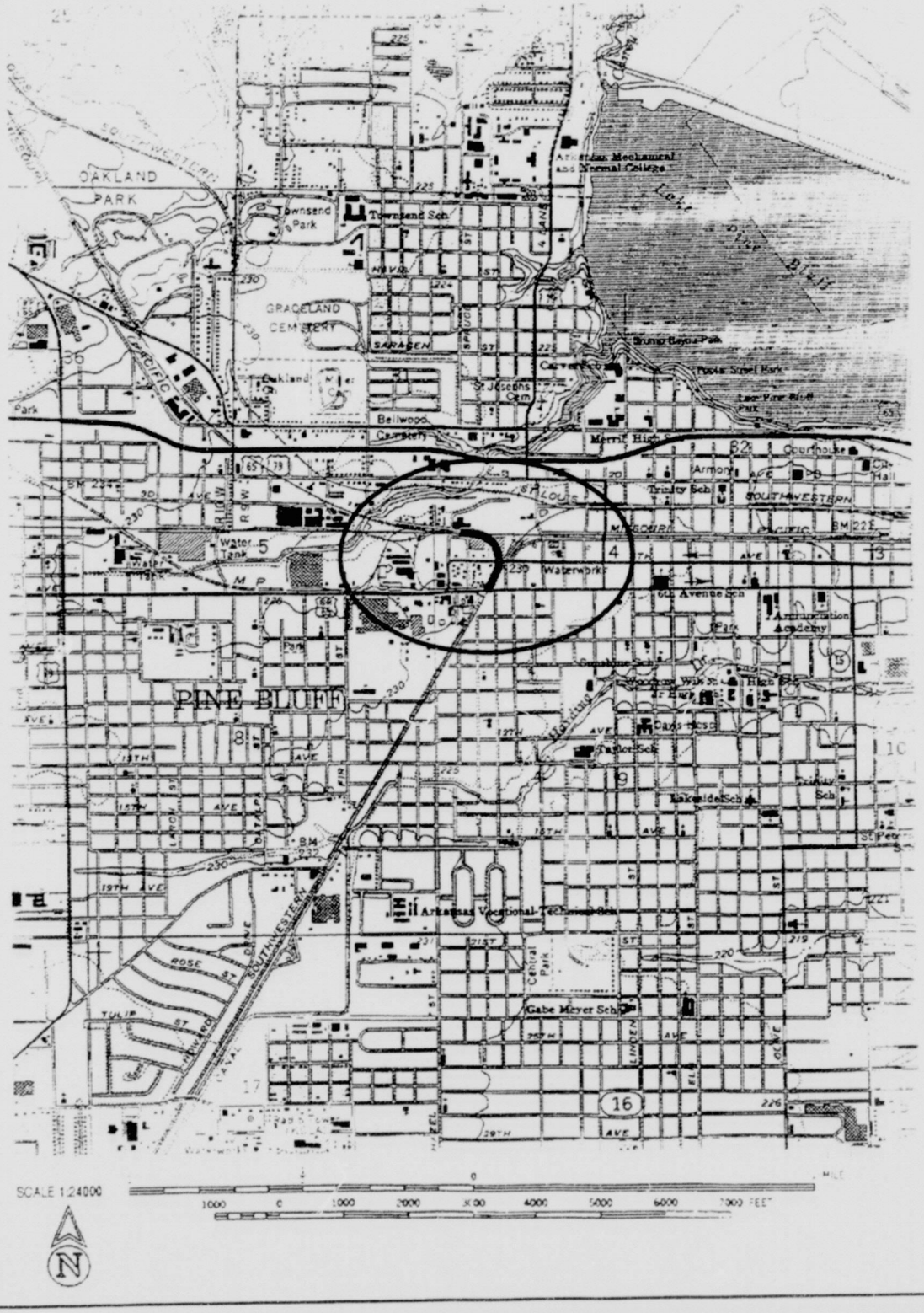
This connection (west) would permit the operation of trains between the UP Monroe subdivision mainline north to Little Rock and the SP Pine Bluff subdivision south to Shreveport, Louisiana (see Figure 2-4). It includes the construction of approximately 900 feet of new rail line and the installation of power-operated turnouts on both mainlines. Acquisition of about 0.5 acre of new right-of-way would be required

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 15 people over a period of 14 days. The construction would require approximately 1,500 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following estimated changes along existing rail lines:



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

PINE BLUFF (WEST), ARKANSAS

ENVIRONMENTAL ASSESSMENT

- Traffic on the UP Monroe line would increase from 13 to 17 trains per day, and the annual gross tons would increase from 37 to 46 million tons (a 24 percent increase).

- Traffic on the SP Pine Bluff line would increase from 21 to 28 trains per day, and the annual gross tons would increase from 29 to 46 million tons (a 57 percent increase).

- Traffic on the new common point connection would consist of two daily El Dorado locals (one each way) and seasonal movements of logs or stones during construction season.

2.4.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line connection. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and SP rights-of-way. There are no construction, operational, or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP and SP rail lines. However, access between the two lines would be limited to existing interchanges or terminals.

2.4.3 Existing Environment

Land Use

The proposed construction would occur in an area with existing railroad and other transportation uses. Other existing land uses surrounding the proposed construction site include residential, industrial, and commercial. The area is currently zoned industrial and railroad development is allowed. The proposed construction activities would occur in an area of prime farmland. The line proposed for construction is not within a designated coastal zone.

Water Resources

The proposed common point connection is located near the center of Pine Bluff in an area of existing rail lines. No creeks or lakes are immediately adjacent to the construction site. Brump Bayou, an intermittent stream, is located 660 feet to the north of the site and flows to the northeast

into Lake Pine Bluff. National Wetland Inventory (NWI) maps were not available for the proposed construction site; no sites were identified by SEA's third party contractor in the field. The proposed site is not located within a 100-year floodplain.

Biological Resources

Vegetation. Because the site is within the center of industrialized Pine Bluff, most of the vegetation has been disturbed by rail activity and urbanization. Vegetation within and adjacent to the proposed site consists of ruderal weeds, shortgrass prairie, and scattered trees.

Wildlife. Because the existing plant and wildlife communities in the area of the proposed rail line construction project have been affected by continued railroad, industrial, and residential land use, it is unlikely that the project area supports important native plant and animal communities. Almost the entire proposed connection area consists of a graveled area along the right-of-way. Although the intermittent stream may support some wetland and temporary aquatic habitats, it runs through a developed area. Wildlife species on or near the site are tolerant of urban and industrial conditions.

Threatened and Endangered Species. SEA consulted USFWS regarding threatened and endangered species in the area of the proposed rail line construction at Pine Bluff (West). The USFWS staff indicated no listed threatened or endangered species that could potentially occur in Jefferson County. SEA also consulted AGFC, which indicated no species of special concern and no objections to the project.

Parks, Forest Preserves, Refuges, and Sanctuaries. There are no known state or federally designated parks, preserves, refuges or sanctuaries in the vicinity of the proposed construction site

Air Quality

The proposed construction site is located in Air Quality Control Region (AQCR) 16: Central Arkansas. This AQCR is currently categorized as being in attainment with the National Ambient Air Quality Standards (NAAQS) for all pollutants. Construction-related activities would not adversely affect the ambient air quality as a result of the proposed construction and operation.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA

or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, industrial, and vehicular traffic are the primary sources of noise in the area of the proposed rail line construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet).

The current level of train traffic on the UP Monroe subdivision main line (13 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 150 feet without horns (420 feet with horns). The current level of traffic operating on the SP Pine Bluff main line (21 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 200 feet without horns (600 feet with horns).

Historic and Cultural Resources

The proposed construction project would require acquisition of two building lots and the demolition of a medium-size masonry block building of indeterminate age and no architectural significance. SEA does not believe these structures would meet National Register criteria. No historic or cultural resources have been identified in the vicinity of the proposed construction site. Consultation with the Arkansas SHPO has been initiated to confirm these findings.

SEA's initial consultations with the Arkansas SHPO determined that no documented archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by a SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities.

Transportation and Safety

The proposed construction project is located in the north-central portion of Pine Bluff. U.S. 65 is the primary highway in the vicinity of the project site. Major local streets in the project vicinity include 5th and 6th Avenues. Access to the construction site would be via local roads.

According to the UP/SP, no known hazardous waste sites exist at the proposed construction site.

2.4.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. It is compatible with surrounding land uses, complies with applicable zoning ordinances and development regulations, and is consistent with community planning. No conversion of prime farmland is necessary to complete construction of this connection, nor would any construction activities occur in a designated coastal zone.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area.

The proposed construction project would also not have any adverse impacts on surface water resources or wetlands. This finding is based on the relatively large distance from the project site to surface water receptors and the localized flow of stormwater runoff. Additionally, the project would not encroach upon the 100-year floodplain.

UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction would not involve excavation from or the placement of dredged or fill material into the "waters of the United States," including designated wetlands. Therefore, authorization under Section 404 of the Clean Water Act would not be required. Additionally, an NPDES stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. The proposed action would have no adverse impacts to native plant communities. The proposed rail line construction site is located along an existing rail corridor where most of the area is covered by gravel and sparse vegetation. However, after construction UP/SP would use Best Management Practices (BMPs) to encourage regrowth in disturbed areas and would stabilize disturbed soils.

Wildlife. No adverse impacts to wildlife populations are anticipated, since the existing habitat on the proposed construction site is of low quality.

Threatened and Endangered Species. Based on SEA's consultation with USFWS and AGFC, no threatened or endangered species would be affected by the project.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse impact is expected since there are no known state or federally designated parks, preserves, refuges, or sanctuaries in the vicinity of the proposed construction site.

Air Quality

Impacts on air quality in Pine Bluff could result from increased emissions during project construction as well as increased train traffic when the proposed project is completed and becomes operational. Potential impacts from construction and operations are described below.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 16 is an air quality attainment area. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation, and watering the site.

Vehicle Emissions During Construction. There would be two types of estimated emissions associated with vehicular traffic during the construction: 1) particulate emissions from vehicles moving over the roads, and 2) emissions from construction equipment. The estimated labor force for construction at the site would be 15 employees for 14 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 420. This relatively small number of trips for the short duration of the construction would not be sufficient to adversely affect air quality. In addition, due to the small scope of construction activities (only 1,500 cubic yards of earthwork are required), air quality impacts from construction equipment would be minimal, and would not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail construction would not introduce new rail traffic on the associated line segments, but rather provide shorter trip lengths for trains using the common point connection. The

reduced travel times and trip lengths would also result in reduced emissions. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction would not have the potential to seriously degrade the air quality in AQCR 16, nor would it result in any exceedances of the NAAQS.

Noise

UP/SP estimate two train movements per day on the proposed rail line construction. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 43 feet without horns. The distance would be 146 with horns, but horns would not likely be used along the proposed connection because no roadway grade crossings are planned on the connection.

The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of both existing rail lines.

Historic and Cultural Resources

The proposed connection would not affect historic or cultural resources. Consultation has been initiated with the Arkansas SHPO, seeking concurrence in this determination. Based on SEA's initial consultations with the Arkansas SHPO, no known or documented archaeological sites exist at the proposed construction site. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction.

Transportation and Safety

The proposed rail line construction project would improve rail access to Pine Bluff and enhance the efficiency of UP/SP operations. It would not require new grade crossings of any roads and therefore would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not

promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

2.4.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 2.4.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed and operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the proposed merger is approved, the absence of this rail line connection could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection could cause additional fuel consumption and increase emissions impacts.

2.4.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Agency comments regarding the proposed construction projects are summarized below:

- Natural Resources Conservation Service noted that they did not anticipate

project would adversely impact prime farmlands or erosion rates.

- Arkansas Department of Pollution Control and Ecology provided state water quality standards and ecologically sensitive water bodies, and referred SEA to the Natural Heritage Commission for information about state species of special concern.

- Arkansas Soil & Water Conservation Commission recommended that proper measures be taken during construction to minimize potential stream and wetland impacts and that review of final construction plans be completed by appropriate state and city agencies.

- Arkansas Department of Transportation recommended that final plans be reviewed by DOT.

- The Office of Jefferson County Judge reports no environmental objections to the project.

2.4.7 Suggested Mitigation Measures

Mitigation measures suggested by the various parties consulted in the process of preparing this EA for the proposed merger are summarized below. (See **Volume 5**, Appendices D and E, for agency consultation lists.)

- The Arkansas Soil & Water Conservation Commission recommended that proper measures be taken during construction to minimize potential stream and wetland impacts and that review of final construction plans be completed by appropriate state and city agencies. It also noted that off-site wetland mitigation should be considered, if wetlands are affected.

- The Arkansas Department of Transportation (DOT) recommended that the final plans be reviewed by DOT.

2.4.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Pine Bluff (West) construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Arkansas SHPO.

Safety

1. UP/SP shall consult with Arkansas Department of Pollution Control and Ecology if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport all hazardous material in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in their Emergency Response Plans.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

3. Prior to construction, UP/SP shall provide final plans to the Arkansas DOT and appropriate local agencies for review.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

2.5 Texarkana

Texarkana is located in Miller County, 133 miles southwest of Little Rock, on the Texas state line. Existing rail lines in the area include the UP Dallas and SP Pine Bluff subdivision mainlines.

2.5.1 Proposed Action

The proposed action at Texarkana would involve the construction and operation of a new connection between the UP and SP lines to permit operation of trains between Pine Bluff, Arkansas (SP) and Longview, Texas (UP) (see Figure 2-5). This connection would include two new power-operated turnouts, approximately 2,500 feet of new rail line, and would require acquisition of approximately 0.5 acre of new right-of-way.

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 20 people over a period of 22 days. The construction would require approximately 1,500 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following estimated changes along existing rail lines:

- Traffic on the UP Dallas subdivision mainline would decrease from 33 to 24 trains per day, and the annual gross tons would decrease from 57 to 47 million tons (a 17 percent decrease).

- Traffic on the SP Pine Bluff subdivision mainline would increase from 12 to 15 trains per day, and the annual gross tons would increase from 32 to 44 million tons (a 29 percent increase).

- Traffic on the new common point connection would include 11 to 14 trains per day.

2.5.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line connection. The proposed construction project would be the most direct connection between the existing rail lines



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

TEXARKANA, ARKANSAS

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and would minimize the use of new land outside the UP and SP rights-of-way. There are no construction, operational, or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP and SP rail lines. However, access between the two lines would be limited to existing interchanges and terminals.

2.5.3 Existing Environment

Land Use

The proposed construction would occur in an area with existing railroad and other transportation land uses. Other land uses surrounding the proposed site include residential, commercial, and industrial along the west end of the rail line. An area of deciduous forest land is located to the east of the rail line. The zoning designation is industrial and railroad development is allowed. The project occurs in an area of prime farmland. The line proposed for construction is not within a designated coastal zone.

Water Resources

The proposed construction site is adjacent to an existing rail yard and intermodal facility. Days Creek, a perennial stream, flows to the south beyond the western end of the site. Nix Creek, a perennial stream, crosses the rail line beyond the eastern end of the site, then turns westward south of the site and joins Days Creek. A small cooling pond is located immediately south of the proposed construction. National Wetland Inventory (NWI) maps indicate the same wetland types for both Days and Nix Creeks--riverine, lower perennial, open water, permanently flooded (R2OWH). The western end of the proposed site is located near the 100-year floodplain.

Biological Resources

Vegetation. Because the site is located within the City of Texarkana, within the vicinity of existing rail yards, most of the vegetation has been disturbed by rail activity and urbanization. Vegetation within the proposed site is ruderal, as is the adjacent vegetation cover. Some remnant deciduous forest exists adjacent to the south and east of the rail corridor.

Wildlife. Because the existing plant and wildlife communities in the area of the proposed rail line construction project have been affected by continued railroad, industrial, and residential land

use, it is unlikely that the project area supports important native plant and animal communities. Almost the entire proposed connection area consists of a graveled area along the right-of-way. Although the perennial stream may support some wetland and temporary aquatic habitats, it runs through a developed area. Wildlife species on or near the site are tolerant of urban and industrial conditions.

Threatened and Endangered Species. SEA consulted USFWS threatened and endangered species in the area of the proposed rail line construction at Texarkana. The USFWS staff indicated no listed threatened or endangered species that could potentially occur in Miller County. Sea also consulted AGFC, which indicated no species of special concern and no objections to the project.

Parks, Forest Preserves, Refuges, and Sanctuaries. There are no known state or federally designated parks, preserves, refuges, or sanctuaries in the vicinity of the proposed construction site.

Air Quality

The proposed construction site is located in AQCR 22: Shreveport-Texarkana-Tyler. This AQCR is currently categorized as being in attainment with the NAAQS for all pollutants. Construction-related activities would not adversely affect the ambient air quality as a result of the proposed construction and operation.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, industrial, and vehicular traffic are the primary sources of noise in the area of the proposed rail line construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet).

The current level of train traffic on the UP Dallas subdivision mainline (33 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 285 feet without horns (775 feet with horns). The current level of traffic operating on the SP Pine Bluff rail line (12

trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 140 feet without horns (420 feet with horns).

The proposed construction area is surrounded by existing rail yard tracks, commercial, and mixed urban land use. No noise sensitive receivers have been identified.

Historic and Cultural Resources

The railroad passenger station for Texarkana is listed on the National Register of Historic Places. The Texarkana station would not be affected by any of the proposed construction. Aerial photographs from the early 1970s indicate the presence of several potentially historic railroad structures within the combined UP and SP yards south of the station. Recent aerial photos indicate that these structures have been demolished. The proposed connection would be constructed within previously disturbed areas of the yard. Consultation has been initiated with the Arkansas SHPO to confirm these findings.

SEA's initial consultations with the Arkansas SHPO determined that no documented archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by the SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities.

Transportation and Safety

The existing rail transportation network consists of the UP and SP rail lines that intersect one another in Texarkana. The proposed construction project is located in south-central Texarkana, along the Texas-Arkansas border. Roadways near the proposed construction site are predominantly local roads. Major highways serving the project area include U.S. Highway 59 and, a few miles north, Interstate 30. The proposed connection would not require any at-grade crossings of local roads.

According to the UP/SP, no known hazardous waste sites exist at the proposed construction site.

2.5.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. It is compatible with surrounding land uses, complies with applicable zoning ordinances and/or development regulations, and is consistent with community planning. No conversion of prime

farmland is necessary to complete construction of this connection, nor would any construction activities occur in a designated coastal zone.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area.

The proposed construction project would also not have any adverse impacts on the two small surface wetlands. This finding is based on the relatively large distance from the project site to surface water receptors and the localized flow of stormwater runoff. Additionally, the project would not encroach upon the 100-year floodplain.

UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction would not involve excavation from or the placement of dredged or fill material into the "waters of the United States," including designated wetlands. Therefore, authorization under Section 404 of the Clean Water Act would not be required. Additionally, an NPDES stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. The proposed action would have no adverse impacts to native plant communities. The proposed rail line construction site is located along an existing rail corridor where most of the area is covered by gravel and sparse vegetation. However, after construction UP/SP would use Best Management Practices (BMPs) to encourage regrowth in disturbed areas and would stabilize disturbed soils.

Wildlife. No adverse impacts to wildlife populations are anticipated, since the existing habitat on the proposed construction site is of low quality.

Threatened and Endangered Species. Based on SEA's consultation with USFWS and AGFC, no threatened or endangered species would be affected by the project.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse impact is expected since there are no known state or federally designated parks, preserves, refuges, or sanctuaries in the vicinity of the proposed construction site.

Air Quality

Impacts on air quality in Texarkana could result from increased emissions during project construction as well as increased train traffic when the proposed project is completed and becomes operational. Potential impacts from construction and operations are described below.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 22 is an air quality attainment area. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation, and watering the site.

Vehicle Emissions During Construction. There would also be two types of estimated emissions associated with vehicular traffic during the construction: (1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 20 employees for 22 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 880. This relatively small number of trips for the short duration of the construction would not be sufficient to adversely affect air quality. In addition, due to the small scope of construction activities (only 1,500 cubic yards of earthwork are required), air quality impacts from construction equipment would be minimal, and would not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail construction would not introduce new rail traffic on the associated line segments but, rather, provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction would not have the potential to seriously degrade the air quality in AQCR 22, nor would it result in any exceedances of the NAAQS. Changes to air quality at the Texarkana intermodal facility are discussed in **Volume 2**.

Noise

UP/SP estimate 11 to 14 train movements per day on the proposed rail line connection. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 150 feet without horns. The distance would be 430 feet with horns, but horns would not likely be used along the proposed connection because there are no grade crossings.

The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of both existing rail lines. There are no sensitive receptors in the immediate vicinity of the proposed project. No noise impacts are expected from the proposed construction project.

Historic and Cultural Resources

There are no known historic or cultural resources in the immediate vicinity of the project that would be affected by the proposed construction project. Consultation has been initiated with the Arkansas SHPO, seeking concurrence in this determination.

Based on SEA's initial consultations with the Arkansas SHPO, no known or documented archaeological sites exist at the proposed construction site. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction.

Transportation and Safety

The proposed rail line construction project would improve rail access to Texarkana and enhance the efficiency of UP/SP operations. It would not require new grade crossings of any roads and therefore would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or life span of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

2.5.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 2.5.2, SEA identified no feasible alternatives to the proposed rail line construction project . The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed and operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection would result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that would result without the new connection would cause additional fuel consumption and increase emissions impacts.

2.5.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packets shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contracted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Agency comments regarding the proposed construction project are summarized below:

- Natural Resources Conservation Service noted they did not anticipate the project would adversely impact farmlands or erosion rates.

- Arkansas Department of Pollution Control and Ecology provided state water

quality standards and ecologically sensitive water bodies, and referred SEA to the Natural Heritage Commission for information about state species of special concern.

- Arkansas Soil & Water Conservation Commission recommended that proper measures be taken during construction to minimize potential stream and wetland impacts and that review of final construction plans be completed by appropriate state and city agencies.

- Arkansas Department of Transportation recommended that final plans should be reviewed by DOT.

2.5.7 Suggested Mitigation

Mitigation measures suggested by the various parties consulted in the process of preparing the EA for the proposed merger are summarized below (see **Volume 5**, Appendices D and E for agency consultation lists).

- Arkansas Soil & Water Conservation Commission recommended that proper measures be taken during construction to minimize potential stream and wetland impacts and that review of final construction plans be completed by appropriate state and city agencies. It also noted that off-site wetland mitigation should be considered, if wetlands are affected.

- The Arkansas Department of Transportation (DOT) recommended that the final plans be reviewed by DOT.

2.5.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Texarkana construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

3. UP/SP shall restrict mechanized equipment to upland areas to complete construction activities. UP/SP shall obtain and comply with all applicable permits for any construction activity within streams or wetlands. Also, UP/SP shall submit their final construction plans to appropriate state and local agencies for review.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Arkansas SHPO.

Safety

1. UP/SP shall consult with Arkansas Department of Pollution Control and Ecology if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport all hazardous material in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in their Emergency Response Plans.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

3. Prior to construction, UP/SP shall provide final plans to the Arkansas DOT and appropriate local agencies for review.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

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CHAPTER 3.0
CALIFORNIA

This chapter analyzes the potential environmental impacts associated with the proposed rail line construction projects in new rights-of-way in California that UP/SP have identified in connection with the proposed merger. These proposed rail line construction projects and their lengths are:

- West Colton, California (two connections) - 1,150 feet and 6,000 feet.
- Lathrop, California - 3,000 feet.
- Stockton, California - 1,500 feet.

A detailed description of each of these proposed construction projects, including alternative actions considered, the existing environment, the potential environmental impacts, and recommended mitigation measures, is provided below.

3.1 West Colton (East to SP)

West Colton is located in San Bernardino County, 45 miles east of Los Angeles. Existing rail lines in the area include the Santa Fe mainline and the SP Yuma subdivision east line.

3.1.1 Proposed Action

The proposed action at West Colton involves the construction and operation of two new connections at the rail crossing between the UP/Santa Fe mainline and SP Yuma subdivision east line at Colton (see Figure 3-1). The first connection would allow trains from Los Angeles off the UP/Santa Fe tracks to operate east towards Yuma on the SP line. The project requires the construction of approximately 1,150 feet of new rail line, the installation of two power-operated turnouts, additional connecting track and grading. An acre of new right-of-way would be acquired to construct this connection.

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 15 people over a period of 22 days. The construction would require approximately 6,800 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes in Traffic

- Traffic on the UP/Santa Fe mainline would decrease from 22 to 18 trains per day, and the annual gross tons would remain the same (35 million gross tons).

- Traffic on the SP line would increase from 28 to 39 trains per day, and the annual gross tons would increase from 59 to 73 million tons (a 24 percent increase).

- This connection is intended to allow traffic to move from mainline to mainline, bypassing the yard, if disused, at the discretion of the dispatcher. Consequently, the number of movements using the new line would vary.

3.1.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line connection. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and SP rights-of-way. There are no construction, operational, or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP and SP rail lines. However, access between the two lines would be limited to existing interchanges or terminals.

3.1.3 Existing Environment

Land Use

Land uses adjacent to the proposed construction site include residential, rail, highway, mineral mining, and industrial. The area surrounding the site is currently zoned for residential use, though it includes existing operational rail lines and is adjacent to the San Bernardino Freeway. The proposed construction would not occur on prime farmland nor is it subject to a coastal zone management plan.

Water Resources

There are no surface waters or wetlands at the site of the proposed rail line construction in West Colton. Within the project area, the prevailing stormwater flow is from north to south towards



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NEW RAIL LINE CONSTRUCTION

WEST COLTON, CALIFORNIA

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the Santa Ana River. The proposed site is not located within the 100-year floodplain.

Biological Resources

The plant and wildlife communities that presently exist in the area of the proposed action have been affected by continued land disturbances; therefore, it is unlikely that the project area for the new construction supports important native plant and animal communities.

Vegetation. The site is within an industrialized section of San Bernardino County, where much of the area has been disturbed by rail activity and urbanization. Vegetation at the West Colton site is composed primarily of ruderal weed species; the adjacent area has been developed into various urban uses.

Wildlife. The proposed project area provides very limited habitat for wildlife. Almost the entire proposed connection area consists of a graveled area along the right-of-way. Only those species adapted to such urban or industrial sites are expected to be present.

Threatened and Endangered Species. SEA consulted the U.S. Fish and Wildlife Service (USFWS) regarding threatened and endangered species in the area of the proposed rail line construction at the West Colton (East to SP) site. The USFWS staff indicated that only one Federally-listed threatened or endangered species could potentially occur in the vicinity of the proposed construction. This species is the endangered Delhi sands flower-loving fly (*Raphiomidas terminatus abdominalis*). No occurrences of these species are known or recorded on or near the project site. Field observations on site also indicated no occurrences of these species. There is no critical habitat known or recorded in the vicinity of the proposed construction.

Parks, Forest Preserves, Refuges, and Sanctuaries. No public lands (federal, state, or municipal parks, refuges, or management areas) or non-profit managed areas (nature preserves, registered natural areas) occur in the vicinity of the proposed rail line construction site.

Air Quality

The proposed construction site is located in Air Quality Control Region (AQCR) 24: Metropolitan Los Angeles. This AQCR is currently non-attainment for the following pollutants: NO_x, particulate matter, CO, and ozone. For all other National Ambient Air Quality Standards (NAAQS) pollutants, this AQCR is considered an attainment area.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be

conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, industrial, and vehicular traffic are the primary sources of noise in the area of the proposed rail line construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet).

The current level of train traffic on the UP/Santa Fe mainline (22 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 200 feet without horns (600 feet with horns). The current level of traffic operating on the SP Yuma east line (28 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 250 feet without horns (700 feet with horns).

Historic and Cultural Resources

Based on SEA's review of National Register of Historic Places (NRHP) listings and consultations with the California State Historic Preservation Officer (SHPO), no known historic properties were identified at this construction location. Consultation has been initiated with the California State Historic Preservation Officer (SHPO) to confirm this finding.

SEA's initial consultations with the California SHPO determined that no documented archaeological sites have been identified at the proposed construction site. This was confirmed by an archaeological record search conducted by SEA at the San Bernardino County Regional Information Center. However, as part of the Section 106 consultation process, site-specific field surveys could be required by a SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities.

Transportation and Safety

The existing ground transportation network consists of the Santa Fe and SP rail lines that intersect one another near West Colton. The proposed construction project is located just south of I-10 between South 5th and 6th Streets. Access to the rail construction area would be on local roads. The proposed rail line construction would not require at-grade crossings of any local roads.

SEA's review of the VISTA database and UP safety records indicate there are no known

hazardous waste sites exist at the proposed construction site.

3.1.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. Although the connection is not consistent with the site's currently zoning classification, it would occur in an area which contains existing rail lines and a major interstate highway. No conversion of prime farmland is necessary to complete construction of this connection, nor would any construction activities be subject to a coastal zone management plan.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area.

The proposed construction project also would not have any adverse impacts on the Santa Ana River. This finding is based on the relatively large distance from the project site to the river and the localized flow of stormwater runoff. Additionally, the project would not encroach upon the 100-year floodplain.

UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction would not involve excavation from or the placement of dredged or fill material into the "waters of the United States," including designated wetlands. Therefore, authorization under Section 404 of the Clean Water Act would not be required. Additionally, a National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. The proposed action would have no adverse impacts to native plant communities. The proposed rail line construction site is located along an existing rail corridor where most of the area is covered by gravel and sparse vegetation. However, after construction UP/SP would use

Best Management Practices (BMPs) to encourage regrowth in disturbed areas and would stabilize disturbed soils.

Wildlife. No adverse impacts to wildlife populations are anticipated, since the existing habitat on the proposed construction site is of low quality. Some incidental deaths of small animals may occur during construction and operation of the proposed track.

Threatened and Endangered Species. Although USFWS has indicated that a federally listed endangered species (Delhi sands flower-loving fly) could potentially occur in the area of the proposed construction, no effects on this insect or its critical habitat are anticipated. This determination is based on the lack of any recorded occurrences at or near the project site, the lack of any critical or suitable habitat at the project site, and the lack of any observations of occurrences of such species during site visits.

Parks, Forest Preserves, Refuges, and Sanctuaries. No public lands (Federal, state, or municipal parks, refuges, or management areas) or non-profit managed areas (nature preserves, registry natural areas) occur in the vicinity of the proposed rail line construction site; therefore, none would be affected.

Air Quality

Impacts on air quality could result from increased emissions during project construction as well as increased train traffic when the proposed project is completed and becomes operational. Potential impacts from construction and operations are described below.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 24 is an air quality nonattainment area. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of estimated emissions associated with vehicular traffic during the construction: 1) particulate emissions from vehicles moving over the roads, and 2) emissions from construction equipment. The estimated labor force for construction at the site would be 15 employees for 22 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 660. This relatively small number of trips for the short duration of the construction would not be sufficient to adversely affect air quality. In addition, due

to the small scope of construction activities (only 6,800 cubic yards of earthwork are required), air quality impacts from construction equipment would be minimal, and would not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail line construction would not introduce new rail traffic on the associated line segments, but rather provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore SEA concludes that the air emissions resulting from the operation of the proposed new construction itself would not have the potential to seriously degrade the air quality in AQCR 24, nor would it result in any exceedances of the NAAQS. Changes to air quality in AQCR 24 resulting from the increase in activity on the West Colton to Yuma, Arizona rail segment are discussed in **Volume 2.**

Noise

UP/SP estimate three train movements per day on the proposed rail line connection. The anticipated train traffic could generate an L_{dn} of 65 dBA at approximately 500 feet without horns. The distance would be 1,100 with horns, but horns would not likely be used along the proposed connection because there are no grade crossings. The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of both existing rail lines. Therefore, no noise impacts are expected.

Historic and Cultural Resources

Because no known historic properties were identified at this location, no discernible effects are associated with this construction project. Consultation has been initiated with the California SHPO, seeking concurrence in this determination.

Based on initial consultations with the SHPO in California, no known or documented archaeological sites exist at the proposed construction site. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction.

Transportation and Safety

The proposed rail line construction project would improve rail access to West Colton and enhance the efficiency of UP/SP operations. It would not require new grade crossings of any roads

and therefore would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

3.1.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 3.1.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed and operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection would result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that would result without the new connection would cause additional fuel consumption and increase emissions impacts.

3.1.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these

agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. However, no comments were received by the various parties consulted regarding this proposed construction project.

3.1.7 Suggested Mitigation

No mitigation measures were suggested for the proposed construction project by the various parties consulted in the process of preparing the EA (See **Volume 5**, Appendices D and E, for agency consultation lists.

3.1.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed West Colton (East to SP) construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the California SHPO.

Safety

1. UP/SP shall consult with the California Conservation Department, Environmental Protection Division, if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport all hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in their Emergency Response Plan.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions

during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

3.2 West Colton (West to UP)

West Colton is located in San Bernardino County, 45 miles east of Los Angeles. Existing rail lines in the area include the Santa Fe mainline and the SP Yuma subdivision East line.

3.2.1 Proposed Action

The second connection proposed at West Colton would allow eastbound trains off the SP tracks to operate west on the UP line (see Figure 3-2). Approximately 6,000 feet of new rail line would be constructed and an upgraded power-operated turnout installed. Approximately 2 acres of new right-of-way would be required to complete the connection.

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 20 people over a period of 63 days. The construction would require approximately 14,700 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following changes along existing rail lines:



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

WEST COLTON, CALIFORNIA

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- Traffic on the UP/Santa Fe mainline would decrease from 22 to 18 trains per day, and the annual gross tons would remain the same (35 million gross tons).

- Traffic on the SP Yuma east line would increase from 28 to 39 trains per day, and the annual gross tons would increase from 59 to 73 million tons (a 24 percent increase).

- Traffic on the new common point connection includes 2-3 trains per day.

3.2.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line connection. The proposed rail line construction project would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and SP rights-of-way. There are no construction, operational or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP and SP rail lines. However, access between the two lines would be limited to existing interchanges and terminals.

3.2.3 Existing Environment

Land Use

The proposed construction would occur in an area with existing railroad and transportation land uses. Other land uses adjacent to the proposed construction site include residential, mineral mining and industrial. The area surrounding the site is currently zoned for residential use, though it includes existing operational rail lines and is adjacent to the San Bernardino Freeway. The proposed construction would not occur on prime farmland or within a designated coastal zone.

Water Resources

There are no surface waters or wetlands at the site of the proposed rail line construction in West Colton. Within the project area, the prevailing stormwater flow is from north to south towards the Santa Ana River, which the National Wetlands Inventory (NWI) mapping of the project area classifies as Riverine, Intermittent, Streambed, Intermittently Flooded (R4SBJ). The proposed site is not located within the 100-year floodplain.

Biological Resources

The proposed site is currently used for transportation purposes. The surrounding area is composed of shrub and brush rangeland and unvegetated sandy areas. Because the plant and wildlife communities that presently exist in the area of the proposed action have been affected by continued land disturbances, it is unlikely that the project area for the new construction supports important native plant and animal communities.

Vegetation. Because the site is within an industrialized section of San Bernardino County, much of the area has been disturbed by rail activity and urbanization. The vegetation at the proposed construction site is composed primarily of ruderal species; the adjacent area has been developed with various urban uses.

Wildlife. Because the existing plant and wildlife communities in the area of the proposed rail line construction project have been affected by continued railroad, industrial, and residential land use, it is unlikely that the project area supports important native plant and animal communities. Although the intermittent stream may support some wetland and temporary aquatic habitats, it runs through a developed area. Due to existing urbanization in the surrounding area, there do not appear to be any substantial wildlife populations present in the proposed project area.

Threatened and Endangered Species. The U.S. Fish and Wildlife Service (USFWS) was consulted regarding threatened and endangered species in the area of the proposed rail line construction at the West Colton (West to UP) site. The USFWS staff indicated that only one Federally-listed threatened or endangered species could potentially occur in the vicinity of the proposed construction. This species is the endangered Delhi sands flower-loving fly (*Raphiomidas terminatus abdominalis*). No occurrences of these species are known or recorded on or near the project site. Field observations on site also indicated no occurrences of these species. There is no critical habitat known or recorded in the vicinity of the proposed construction.

Parks, Forest Preserves, Refuges, and Sanctuaries. No public lands (federal, state, or municipal parks, refuges, or management areas) or non-profit managed areas (nature preserves, registry natural areas) occur in the vicinity of the proposed rail line construction.

Air Quality

The proposed construction site is located in Air Quality Control Region (AQCR) 24: Metropolitan Los Angeles. This AQCR is currently non-attainment for the following pollutants: NO_x, particulate matter, CO, and ozone. For all other National Ambient Air Quality Standards (NAAQS) pollutants, this AQCR is considered an attainment area.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, industrial, and vehicular traffic are the primary sources of noise in the area of the proposed rail line construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet).

The current level of train traffic on the UP/Santa Fe mainline (22 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 200 feet without horns (600 feet with horns). The current level of traffic operating on the SP Yuma east line (28 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 250 feet without horns (700 feet with horns).

Historic and Cultural Resources

SEA's review of NRHP listings indicated that no known historic properties were identified at this construction location. An archaeological record search was conducted for the proposed construction site at the San Bernardino County Regional Information Center. A field survey has been conducted by SEA's third party consultant for the proposed construction site; no historic resources were discovered during that survey. Consultation has been initiated with the California SHPO to confirm this finding.

Initial consultations with the California SHPO determined that no documented archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by a SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities.

Transportation and Safety

The existing ground transportation network consists of the Santa Fe and SP rail lines that intersect one another near West Colton. The proposed construction project is located just south of I-10 between South 5th and 6th Streets. Access to the rail construction area would be on local

roads. The proposed rail line construction would not require at-grade crossings of any local roads.

According to UP/SP, no known hazardous waste sites exist at the proposed construction site.

3.2.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. Although the connection is not consistent with the site's current zoning classification, it would occur in an area which contains existing transportation corridors, including rail lines and a major interstate highway. No conversion of prime farmland is necessary to complete construction of this connection, nor would any construction activities disrupt a designated coastal zone.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area.

The proposed construction project would also not have any adverse impacts on surface water resources or wetlands. This finding is based on the relatively large distance from the project site to surface water receptors and the localized flow of stormwater runoff. Additionally, the project would not encroach upon the 100-year floodplain.

UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction would not involve excavation from or the placement of dredged or fill material into the "waters of the United States," including designated wetlands. Therefore, authorization under Section 404 of the Clean Water Act would not be required. Additionally, a National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. The proposed action would have no adverse impacts to native plant communities.

The proposed rail line construction site is located along an existing rail corridor where most of the area is covered by gravel and sparse vegetation. However, after construction UP/SP would use Best Management Practices (BMPs) to encourage regrowth in disturbed areas and would stabilize disturbed soils.

Wildlife. No adverse impacts to wildlife populations are anticipated, since the existing habitat on the proposed construction site is of low quality. Some incidental deaths of small animals may occur during construction and operation of the proposed track.

Threatened and Endangered Species. Although the U.S. Fish and Wildlife has indicated that a Federally-listed endangered species could potentially occur in the area of the proposed construction, no effects on this species or its critical habitat are anticipated. This determination is based on the lack of any recorded occurrences at or near the project site, the lack of any critical or suitable habitat at the project site, and the lack of any observations of occurrences of such species during site visits.

Parks, Forest Preserves, Refuges, and Sanctuaries. No public lands (federal, state, or municipal parks, refuges, or management areas) or non-profit managed areas (nature preserves, registry natural areas) occur in the vicinity of the proposed rail line construction site; therefore, none would be affected.

Air Quality

Impacts on air quality could result from increased emissions during project construction as well as increased train traffic when the proposed project is completed and becomes operational. Potential impacts from construction and operations are described below.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 24 is an air quality nonattainment area. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of estimated emissions associated with vehicular traffic during the construction: (1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 20 employees for 63 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total

number of employee trips required would be 2520. This relatively small number of trips for the short duration of the construction would not be sufficient to adversely affect air quality. In addition, due to the limited scope of construction activities (only 14,700 cubic yards of earthwork are required), air quality impacts from construction equipment would be minimal, and would not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail line construction would not introduce new rail traffic on the associated line segments, but rather provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore SEA concludes that the air emissions resulting from the operation of the proposed new construction itself would not have the potential to seriously degrade the air quality in AQCR 24, nor would it result in any exceedances of the NAAQS. Changes to air quality in AQCR 24 resulting from the increase in activity on the West Colton to Yuma, Arizona rail segment are discussed in **Volume 2**.

Noise

UP/SP estimate two to three local train movements per day on the proposed rail line connection. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 55 feet without horns. The distance would be 190 with horns, but horns would not likely be used along the proposed connection because there are no roadway grade crossings. The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of both existing rail lines. Therefore no noise impacts are expected.

Historic and Cultural Resources

Based on SEA's review of NRHP listings and consultations with the California SHPO, no known historic properties were identified at this construction location and no impacts would occur. Consultation has been initiated with the California SHPO, seeking concurrence in this determination.

SEA's initial consultations with the California SHPO determined that no documented archaeological sites have been identified at the proposed construction site. This was confirmed by an archaeological record search conducted by SEA at the San Bernardino County Regional Information Center. However, as part of the Section 106 consultation process, site-specific field surveys could be required by a SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities.

Transportation and Safety

The proposed rail line construction project would improve rail access to West Colton and enhance the efficiency of UP/SP operations. It would not require new grade crossings of any roads and therefore would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

3.2.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 3.2.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed and operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection would result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that would result without the new connection would cause additional fuel consumption and increase emissions impacts.

3.2.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed

merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. However, no comments were received by the various parties consulted regarding this proposed construction project.

3.2.7 Suggested Mitigation

No mitigation measures were suggested for the proposed construction project by the various parties consulted in the process of preparing the EA (See **Volume 5**, Appendices D and E for agency consultation lists).

3.2.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed West Colton (West to UP) construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the California SHPO.

Safety

1. UP/SP shall consult with the California Conservation Department, Environmental Protection Division, if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport all hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in their Emergency Response Plan.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

3.3 Lathrop

Lathrop is located in San Joaquin County, 60 miles east of San Francisco. Existing rail lines in the area include the UP Canyon and SP San Joaquin subdivision mainlines, the UP Altamont route to Oakland, and the SP San Joaquin route to Bakersfield.

3.3.1 *Proposed Action*

The proposed action at Lathrop would involve the construction and operation of a new connection between the UP Canyon subdivision mainline and the SP San Joaquin subdivision mainline (see Figure 3-3). Approximately 2,990 feet of new rail line would be added. Approximately 1 acre of new right-of-way would be required.

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 20 people over a period of 48 days. The construction would require approximately 23,200 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local

sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following changes along existing rail lines:

- Traffic on the UP Canyon subdivision would increase from 12 to 14 trains per day, and the annual gross tons would remain the same (14 million gross tons).
- Traffic on the SP San Joaquin line would increase from 13 to 15 trains per day, and the annual gross tons would increase from 38 to 52 million tons (a 38 percent increase).
- Traffic on the new common point connection would be four trains per day.

3.3.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line construction project. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and SP rights-of-way. There are no construction, operational or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP and SP rail lines. However, access between the two lines would be limited to existing interchanges or terminals.

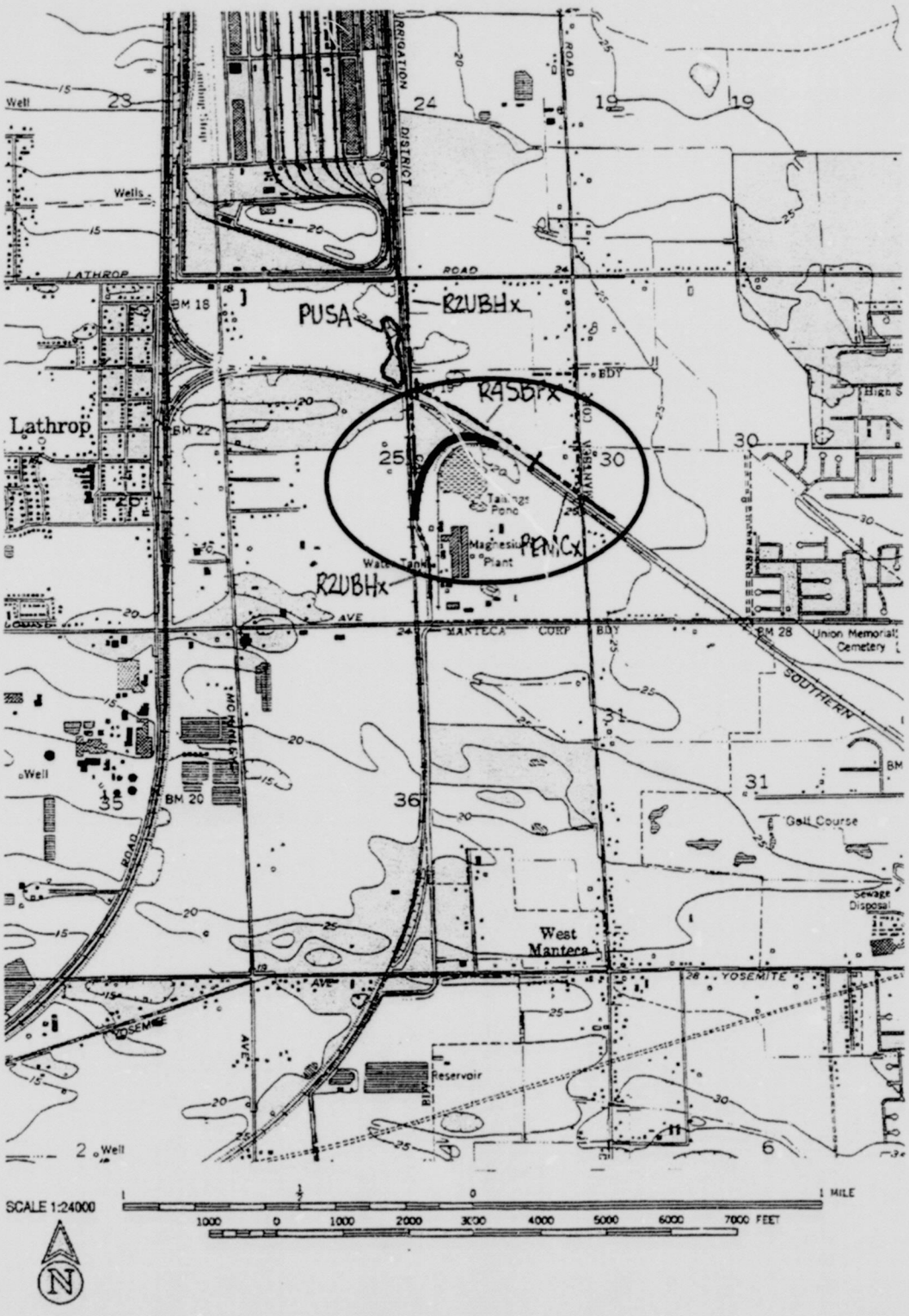
3.3.3 Existing Environment

Land Use

Land uses surrounding the proposed site include industrial, cropland, and pasture. The proposed construction would not occur on prime farmland or within a designated coastal zone.

Water Resources

The surface waters at the site of the proposed rail line construction consist of an irrigation canal operated by the South San Joaquin Irrigation District and a ditch. The canal lies along the



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

LATHROP, CALIFORNIA

ENVIRONMENTAL ASSESSMENT

east side of the UP and the ditch lies along the north side of the SP. The prevailing stormwater flow is from east to west toward the San Joaquin River, located approximately 3 miles west of the project site. National Wetland Inventory (NWI) mapping of the project area classifies the canal as Riverine Lower Perennial, Unconsolidated Bottom, Non-tidal, Permanently Flooded, Excavated (R2UBHx). Beginning at the canal, approximately 2,100 linear feet of the ditch along the north side of the existing SP rail line is classified as Riverine, Intermittent, Streambed, Non-tidal, Semipermanently Flooded, Excavated (R4SBFx). It then changes to Palustrine Emergent, Non-tidal, Seasonally Flooded, Excavated (PEMCx). The proposed construction site is not located within a 100-year floodplain.

Biological Resources

Vegetation. The vegetation at the site is composed primarily of ruderal weed species; the adjacent area is mostly non-native grassland. Because the area of the proposed construction has been affected by continued agricultural, railroad and industrial land uses, it is unlikely that it supports important native plant communities.

Wildlife. Because the existing plant and wildlife communities in the area of the proposed rail line construction project have been affected by continued railroad, industrial, and agricultural land use, it is unlikely that the project area supports important native animal communities. Almost the entire proposed connection area consists of a graveled area along the right-of-way. Although the canal stream may support some wetland and temporary aquatic habitats, it runs through a developed area. The wildlife species in the area consist of those small mammals and birds one would expect in agricultural and urbanizing areas (e.g., starling, cowbird, moles, mice, etc.).

Threatened and Endangered Species. USFWS was consulted regarding threatened and endangered species in the area of the proposed rail line construction at Lathrop. The USFWS staff indicated that two listed threatened or endangered species could potentially occur in the vicinity of the proposed construction. These species include the state-threatened Swainson's hawk (*Buteo swainsoni*) and the federally endangered California Tiger Salamander (*Ambystoma californiense*). No occurrences of these species are known or recorded on or near the project site. Field observations on site also indicated no occurrences of these species. There is no critical habitat known or recorded in the vicinity of the proposed construction.

Parks, Forest Preserves, Refuges, and Sanctuaries. No public lands (Federal, state, or municipal parks, refuges, or management areas) or non-profit managed areas (nature preserves, registry natural areas) occur in the vicinity of the proposed rail line construction site.

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Air Quality

The proposed construction site is located in Air Quality Control Region (AQCR) 31: San Joaquin Valley. This AQCR is currently nonattainment for the following pollutants: NO_x, particulate matter, CO, and ozone. For all other National Ambient Air Quality Standards (NAAQS) pollutants, this AQCR is considered an attainment area.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, industrial, and vehicular traffic are the primary sources of noise in the area of the proposed rail line construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet).

The current level of train traffic on the UP Canyon subdivision mainline (12 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 14 feet without horns (420 feet with horns). The current level of traffic operating on the SP San Joaquin mainline (13 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 150 feet without horns (440 feet with horns).

An industrial area is located southeast of the site, and cropland to the northwest. No noise sensitive receivers have been identified.

Historic and Cultural Resources

SEA's review of NRHP listings indicate that no known historic properties occur at this construction location. However, the former Sharpe Army Depot, more than 50 years old and potentially eligible for listing on the NRHP, is immediately adjacent to the siding. Consultation has been initiated with the California SHPO regarding this property.

Initial consultations with the California SHPO determined that no documented archaeological sites have been identified at the proposed construction site. However, as part of the Section 106

consultation process, site-specific field surveys could be required by a SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities.

Transportation and Safety

The existing rail transportation network consists of several UP and SP rail lines that intersect one another near Lathrop

The proposed construction project is located between the UP Canyon subdivision and the SP San Joaquin subdivision mainlines, with East Lathrop Road 1/2 mile to the north, South Airport Way 1/4 mile to the east, East Louise Avenue 1/2 mile to the south, and South McKinley 1/2 mile to the west. Access to the rail construction area would be on local roads. No new grade crossings would be required.

SEA's review of the VISTA database and UP safety records indicate that no known hazardous waste sites exist at the proposed construction site. A magnesium plant and associated tailings pond are adjacent to the site and served by an adjacent spur line; this area has not been identified on the database as a hazardous waste site.

3.3.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. It is compatible with surrounding land uses and complies with all known zoning ordinances and/or development regulations. No conversion of prime farmland is necessary to complete construction of this connection, nor would any construction activities disrupt a designated coastal zone.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area.

The proposed construction project also would not have any adverse impacts on the adjacent irrigation canal or fringe wetlands. UP/SP construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the

proposed project would not affect water quality in the construction area. The proposed construction would not involve excavation from or the placement of dredged or fill material into the "waters of the United States," including designated wetlands. Therefore, authorization under Section 404 of the Clean Water Act would not be required. Additionally, a National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. The proposed action would have no adverse impacts to native plant communities. The proposed rail line construction site is located along an existing rail corridor where most of the area is covered by gravel and sparse vegetation. However, after construction UP/SP would use Best Management Practices (BMPs) to encourage regrowth in disturbed areas and would stabilize disturbed soils.

Wildlife. Minor habitat displacements could occur but would not be expected to adversely diminish wildlife resources in the project area. No adverse impacts to wildlife populations are anticipated, since the existing habitat on the proposed construction site is of low quality.

Threatened and Endangered Species. Although the U.S. Fish and Wildlife has indicated that two listed threatened or endangered species could potentially occur in the area of the proposed construction, no effects on these species or their critical habitat are anticipated. This determination is based on the lack of any recorded occurrences at or near the project site, the lack of any critical or suitable habitat at the project site, and the lack of any observations of occurrences of such species during site visits.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, forests, refuges, or sanctuaries occur within the project area; therefore, none would be affected.

Air Quality

Impacts on air quality in Lathrop could result from increased emissions during project construction as well as increased train traffic when the proposed project is completed and becomes operational. Potential impacts from construction and operations are described below.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 31 is an air quality nonattainment area. However, the small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality

of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of estimated emissions associated with vehicular traffic during the construction: 1) particulate emissions from vehicles moving over the roads, and 2) emissions from construction equipment. The estimated labor force for construction at the site would be 20 employees for 48 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 1,920. This number of trips for the short duration of the construction would not be sufficient to adversely affect air quality. In addition, 23,200 cubic yards of earthwork are required. Air quality impacts from construction equipment could cause temporary increases in emissions levels, but should not cause any violations to the NAAQS.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail line construction would not introduce new rail traffic on the associated line segments, but rather provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore SEA concludes that the air emissions resulting from the operation of the proposed new construction itself would not have the potential to seriously degrade the air quality in AQCR 31, nor would it result in any exceedances of the NAAQS. Changes to air quality in AQCR 31 resulting from the Lathrop intermodal facility are discussed in **Volume 2**.

Noise

UP/SP estimate four train movements per day on the proposed rail line connection. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 70 feet without horns. The distance would be 225 feet with horns, but horns would not likely be used along the proposed connection because there are no roadway grade crossings. The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of both existing rail lines. There are no sensitive receptors in the immediate vicinity of the proposed project; therefore, no noise impacts are expected.

Historic and Cultural Resources

Consultation has been initiated with the California SHPO to determine the potential eligibility of and impacts to the former Sharpe Army Depot.

SEA's initial Section 106 consultations also indicated no known or documented archaeological sites exist at the proposed construction site. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction.

Transportation and Safety

The proposed rail line construction project would improve rail access to Lathrop and enhance the efficiency of UP/SP operations. It would not require new grade crossings of any roads and therefore would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

3.3.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 3.3.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed and operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection would result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that would result without the new connection would cause additional fuel consumption and increase emissions impacts.

3.3.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. However, no comments were received by the various parties consulted regarding this proposed construction project.

3.3.7 Suggested Mitigation

No mitigation measures were suggested for the proposed construction project by the various parties consulted in the process of preparing the EA for the proposed merger. (See **Volume 5**, Appendices D and E for agency consultation lists).

3.3.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Lathrop construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. UP/SP shall take no steps to alter the Sharpe Army Depot, until the Section 106 process of the National Historic Preservation Act (16 U.S.C. 470f., as amended) has been completed for this property.

2. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the California SHPO.

Safety

1. UP/SP shall consult with the California Conservation Department, Environmental

Protection Division, if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport all hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in their Emergency Response Plan.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

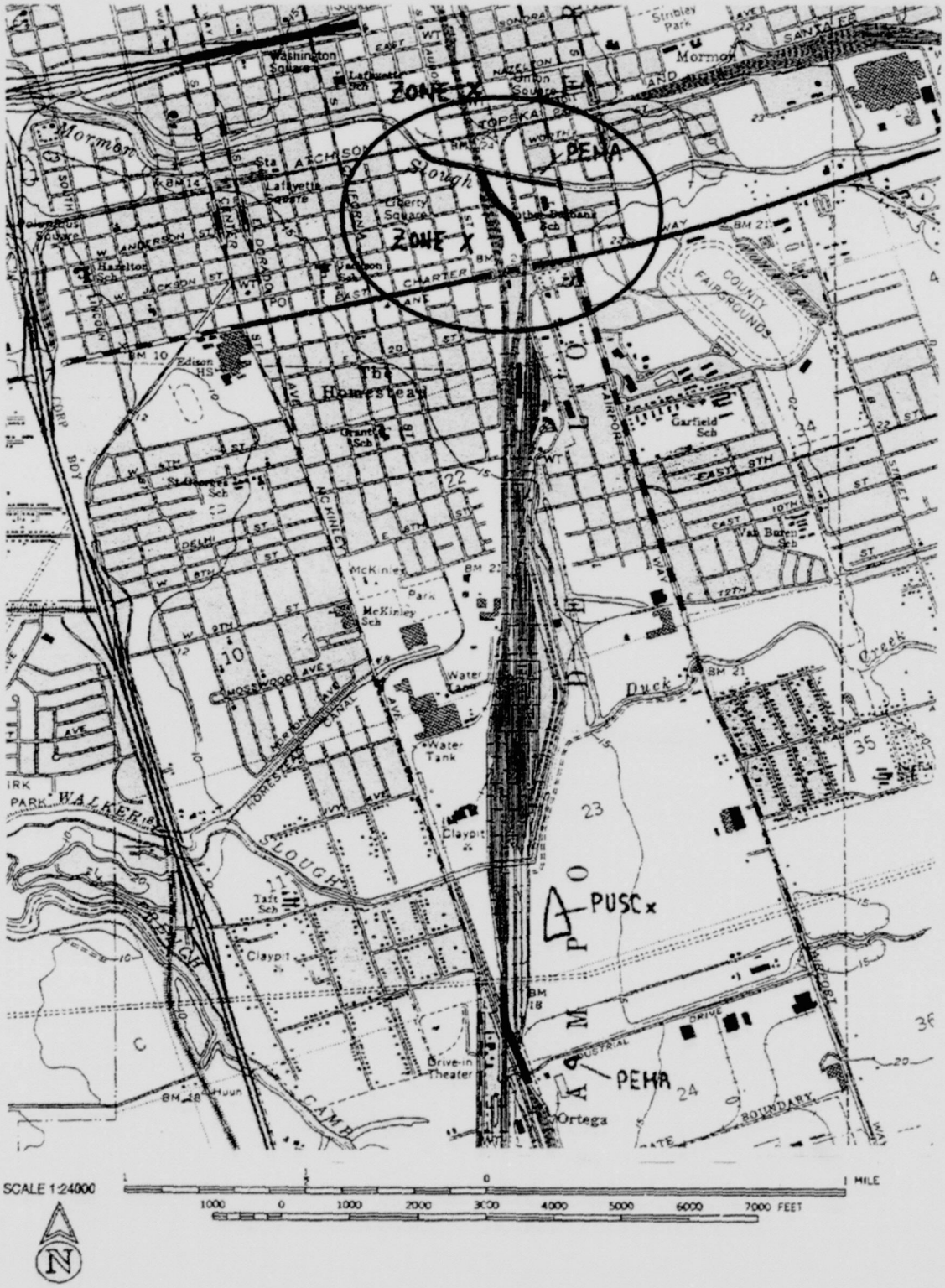
1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

3.4 Stockton

Stockton is located in San Joaquin County, 60 miles east of San Francisco. Existing rail lines in the area include the UP Canyon subdivision mainline, the SP San Joaquin subdivision Fresno line, and the SP mainline to El Pinal.



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

STOCKTON, CALIFORNIA

ENVIRONMENTAL ASSESSMENT

3.4.1 Proposed Action

A new connection is proposed from the SP mainline to the UP Stockton yard (see Figure 3-4). The connection, which would extend from the north side of the yard to the SP mainline to El Pinal, allows yard operations for both railroads to be consolidated at the existing UP yard. Approximately 0.5 acres of new right-of-way are required to construct 1,500 feet of new rail line. This connection would be planned to allow sufficient capacity for future commuter rail service on a third mainline track between El Pinal and the north end of the Stockton yard. Figure 3-4 also indicates a connection at the south end of the UP Stockton yard. This connection was not studied because it falls within the UP/SP right-of-way.

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 20 people over a period of 15 days. The construction would require approximately 3,300 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following changes along existing rail lines:

- Traffic on the UP line in Stockton would decrease from 18 to 13 trains per day, and the annual gross tons would decrease from 24 to 14 million tons (a 42 percent decrease).
- Traffic on the SP El Pinal line would increase from 13 to 15 trains per day, and the annual gross tons would increase from 38 to 52 million tons (a 38 percent increase).
- Traffic on the new common point connection would be 14 manifest trains per day.

3.4.2 Alternative Actions Considered

SEA identified no feasible alternatives to the proposed rail line construction project. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and SP rights-of-way. There are no construction, operational or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP and SP rail lines. However, access between the two lines would be limited to existing interchanges or terminals.

3.4.3 Existing Environment

Land Use

Existing land uses surrounding the proposed construction site include educational, commercial and manufacturing activities. The proposed construction would not occur on prime farmland nor is the site subject to any coastal zone management plans.

Water Resources

Surface waters at the site of the proposed construction include a ditch that drains into an unnamed tributary of French Camp Slough, a channelized intermittent section of Walker Slough, and a channelized intermittent section of Mormon Slough. These all drain westward toward the San Joaquin River. Storm water drainage is generally from east to west. National Wetland Inventory (NWI) mapping of the proposed construction area indicates that several wetlands are located nearby. Associated with the ditch are Palustrine Emergent, Non-tidal, Seasonally Flooded, Excavated (PEMCx) wetlands. Associated with Walker Slough are Palustrine Emergent, Non-tidal, Temporarily Flooded (PEMT) and Palustrine Emergent, Non-tidal, Semipermanently Flooded (PEMF) wetlands. Associated with Mormon Slough are Palustrine Emergent, Non-tidal, Temporarily Flooded (PEMA) wetlands. FEMA maps for the area show the southern portion of the project area is partially within a 100-year floodplain.

Biological Resources

Vegetation. Plant communities that presently exist in the area of the proposed construction have been affected by previous railroad development and operations; it is unlikely that the site supports important native plant communities. Vegetation at the site between the existing rail line is sparse and composed primarily of ruderal species; the adjacent area has been developed.

Wildlife. Wildlife in the area between the existing rail lines is expected to be very limited, with only transient appearances of some birds and small mammals. Much of the proposed connection area consists of a graveled area along the right-of-way. Although the nearby wetlands may support some wetland and temporary aquatic habitats, it is located in an urbanized area.

Threatened and Endangered Species. The U.S. Fish and Wildlife Service (USFWS) and the California Natural Heritage Program (CNHP) were consulted regarding threatened and endangered species in the area of the proposed rail line construction at Stockton. The USFWS and CNHP staff indicated that two listed threatened species could potentially occur in the vicinity of the proposed construction. These species include the state-threatened Swainson's hawk (*Buteo swainsoni*) and the federally threatened giant garter snake (*Thamnophis gigas*). No occurrences of these species are known or recorded on or near the project site. Field observations on site also indicated no occurrences of these species. There is no critical habitat known or recorded in the vicinity of the proposed construction.

Parks, Forest Preserves, Refuges, and Sanctuaries. No public lands (federal, state, or municipal parks, refuges, or management areas) or non-profit managed areas (nature preserves, registry natural areas) occur in the vicinity of the proposed rail line construction site.

Air Quality

The proposed construction site is located in Air Quality Control Region (AQCR) 31: San Joaquin Valley. This AQCR is currently nonattainment for the following pollutants: NO_x, particulate matter, CO, and ozone. For all other National Ambient Air Quality Standards (NAAQS) pollutants, this AQCR is considered an attainment area.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, industrial, and vehicular traffic are the primary sources of noise in the area of the proposed rail line construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet).

The current level of train traffic on the UP rail line (18 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 200 feet without horns (500 feet with horns). The current level of traffic operating on the SP mainline (13 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 150 feet without horns (440 feet

with horns).

A school (Luther Burbank) is located about 300 feet east of the construction site north of Charter Way. A residential area is located west of the construction zone, but is separated from the construction zone by existing rail facilities.

Historic and Cultural Resources

SEA's review of NRHP listings indicate that no known historic properties were identified at this construction location. Consultation has been initiated with the California SHPO to confirm this finding.

Initial consultations with the California SHPO determined that no documented archaeological sites have been identified at the proposed construction site. An archaeological record search conducted by SEA's third party consultant at the Central California Regional Information Center did not identify any recorded sites. However, as part of the Section 106 consultation process, site-specific field surveys could be required by a SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities.

Transportation and Safety

The proposed construction project is located between the UP Canyon subdivision mainline and the SP San Joaquin subdivision Fresno line at the north end of the UP Stockton yard, one block north of East Charter Way and two blocks west of South Airport Way. Access to the construction site would be via local roads and the UP Stockton yard. No new grade crossings are planned.

SEA's review of the VISTA database and UP safety records indicate that no known hazardous waste sites exist at the proposed construction site.

3.4.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. The new rail line connection would cross an abandoned field between two active rail lines. It is compatible with surrounding land uses, complies with applicable zoning ordinances and/or development regulations, and is consistent with the community's comprehensive (or land use) plan. No conversion of prime farmland is necessary to complete construction of this connection, nor would any construction activities disrupt a designated coastal zone.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area.

The proposed construction project would also not have any adverse impacts on Mormon Slough or wetlands. The new connector would tie into the existing rail line before crossing the slough. UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction would not involve excavation from or the placement of dredged or fill material into the "waters of the United States," including designated wetlands. Therefore, authorization under Section 404 of the Clean Water Act would not be required. Additionally, a National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. The proposed action would have no adverse impacts to native plant communities. The proposed rail line construction site is located along an existing rail corridor where most of the area is covered by gravel and sparse vegetation. However, after construction UP/SP would use Best Management Practices (BMPs) to encourage regrowth in disturbed areas and would stabilize disturbed soils.

Wildlife. No adverse impacts to wildlife populations are anticipated, since the existing habitat on the proposed construction site is of low quality. Incidental deaths of small animals may occur during construction and operation of the proposed connection.

Threatened and Endangered Species. Although the USFWS and the CNHP have indicated that two listed threatened or endangered species could potentially occur in the area of the proposed construction, no effects on these species or their critical habitat are anticipated. This determination is based on the lack of any recorded occurrences at or near the project site, the lack of any critical or suitable habitat at the project site, and the lack of any observations of occurrences of such species during site visits.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, forest preserves, refuges,

or sanctuaries occur within the project area therefore, none would be affected by the proposed project.

Air Quality

Impacts on air quality in Stockton could result from increased emissions during project construction as well as increased train traffic when the proposed project is completed and becomes operational. Potential impacts from construction and operations are described below.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 31 is an air quality nonattainment area. However, the small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of estimated emissions associated with vehicular traffic during the construction:(1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 20 employees for 15 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 600. This small number of trips for the short duration of the construction would not be sufficient to adversely affect air quality. In addition, 3,300 cubic yards of earthwork are required. Air quality impacts from construction equipment could cause temporary increases in emissions levels.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail line construction would not introduce new rail traffic on the associated line segments, but rather provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore SEA concludes that the air emissions resulting from the operation of the proposed new construction itself would not have the potential to seriously degrade the air quality in AQCR 31, nor would it result in any exceedances of the NAAQS. Changes to air quality in AQCR 31 resulting from other operational changes are discussed in **Volume 2**.

Noise

UP/SP estimate 14 train movements per day would occur on the proposed rail line connection. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 160 feet without horns. The distance would be 440 feet with horns, but horns would not likely be used along the proposed connection because roadway grade crossings would not be crossed.

The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of the two parallel rail lines. There is potential for wheel squeal noise produced by trains using the connection, due to track curvature. Luther Burbank school and the residential area located to the west may be exposed to this squeal noise. Wheel squeal maximum noise levels at the school may be as high as 70 to 80 dBA. This potential noise source would be mitigated by installing rail lubricants.

Historic and Cultural Resources

SEA's review of NRHP listings indicate there are no known historic properties at this location; therefore no adverse effects are associated with this construction project. Consultation has been initiated with the California SHPO, seeking concurrence in this determination.

Based on initial consultations with the SHPO in California, no known or documented archaeological sites exist at the proposed construction site. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction.

Transportation and Safety

The proposed rail line construction project would improve rail access to Stockton and enhance the efficiency of UP/SP operations. It would not require new grade crossings of any roads and therefore would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are

expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

3.4.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 3.4.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed or operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection would result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that would result without the new connection would cause additional fuel consumption and increase emissions impacts.

3.4.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. However, no comments were received by the various parties consulted regarding this proposed construction project.

3.4.7 Suggested Mitigation

No mitigation measures were suggested for the proposed construction project by the various parties consulted in the process of preparing the EA (See **Volume 5**, Appendices D and E, for agency consultation lists).

3.4.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Stockton construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such

application to the extent necessary for rail operations.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the California SHPO.

Safety

1. UP/SP shall consult with the California Conservation Department, Environmental Protection Division, if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport all hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in their Emergency Response Plan.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

2. UP/SP shall monitor noise resulting from train operations over the connection and implement mitigation measures to control excessive wheel squeal.

CHAPTER 4.0
COLORADO

This chapter analyzes the potential environmental impacts associated with the proposed rail line construction projects in new rights-of-way in Colorado that UP/SP have identified in connection with the proposed merger. These proposed rail line construction projects and their lengths are:

- Denver, Colorado (two connections) - 3,650 feet and 5,000 feet.

A detailed description of each of these proposed construction projects, including alternative actions considered, the existing environment, the potential environmental impacts, and recommended mitigation measures, is provided below.

4.1 Denver (North Yard)

Denver is located in Denver County. Existing rail lines in the area include the SP subdivision 1-A, the SP Belt line, the UP Greeley subdivision mainline, the SP Moffat line, and the UP lines to Cheyenne, Wyoming and Salina, Kansas.

4.1.1 Proposed Action

UP/SP propose construction of a new connection from the SP Moffat mainline to SP Belt Line at North Yard (see figure 4-1). The connection includes the installation of power-operated turnouts on both the SP Belt line and construction of approximately 3,650 feet of new rail line. This connection is necessary to manage the movement of trains between the SP Moffat line and UP lines to Cheyenne, Wyoming and Salina, Kansas. Acquisition of approximately one acre of new right-of-way and site grading would be required.

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 20 people over a period of 48 days. The construction would require approximately 18,700 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following changes along existing rail lines:

- Traffic on the SP Moffatt line would increase from 11 to 14 trains per day, and the annual gross tons would increase/decrease from 22 to 33 million tons (a 50 percent increase).

- Traffic on the new common point connection would consist of four trains per day.

4.1.2 Alternative Actions Considered

SEA no other feasible alternatives to the proposed rail line connection. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and SP rights-of-way. There are no construction, operational or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

A "no-action" alternative was considered by the SEA. With this alternative, current operations would continue to move over existing UP and SP rail lines. However, access between the two lines would be limited to existing interchanges or terminals.

4.1.3 Existing Environment

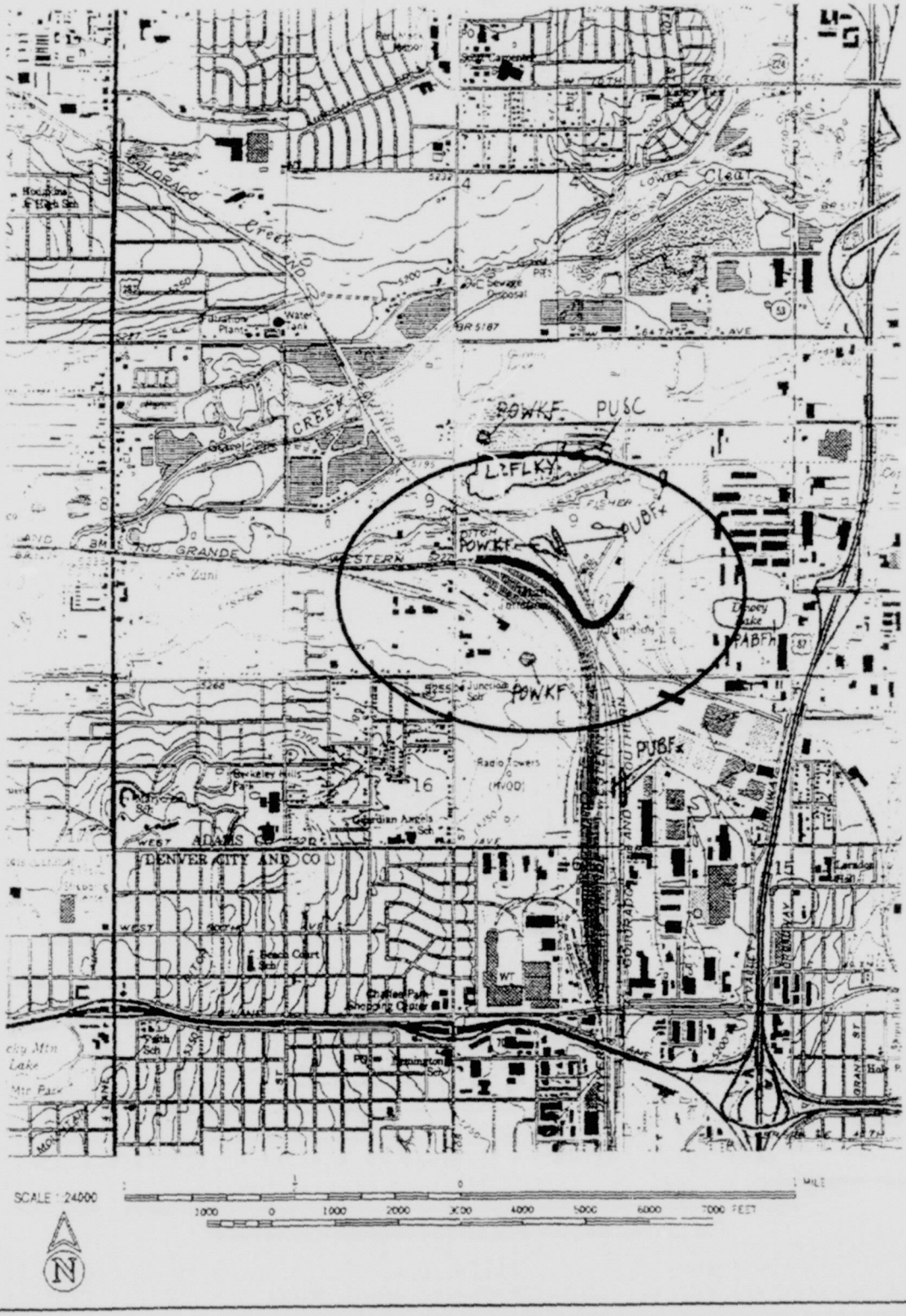
Land Use

Industrial and rail-related land uses are adjacent to the proposed construction site. The proposed construction would not occur on prime farmland or within a designated coastal zone.

Water Resources

The proposed new rail line would cross a small depression (100 feet wide) located about 25 feet from the existing rail corridor. The depression includes wetland and riparian vegetation, with a 900-square foot pond. Wetland plant species within the depression include cottonwood, peach-leaf willow, and sandbar willow. The willow and cottonwood surround a cattail marsh within the pond. The proposed rail construction would also cross two dry drainage ditches. The ditches are approximately 40 feet wide and include wetland and riparian vegetation. Plant species observed in the ditches include cottonwood, peach-leaf willow, and sandbar willow.

Three ponds are shown within the project area on the National Wetland Inventory (NWI) map for the Arvada, Colorado quadrangle. They are located about 200 feet north of the proposed rail alignment. The NWI map describes these wetlands as: Palustrine, Unconsolidated Bottom, Semi-



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

SP DENVER, COLORADO

ENVIRONMENTAL ASSESSMENT

permanently Flooded and Excavated (PUBFx); and Palustrine, Open Water, Artificially Flooded and Semi-permanently Flooded (POWKF). The NWI map also locates a pond 1,000 feet south of the proposed rail construction project. It is described as Palustrine, Open Water, Artificially Flooded and Semi-permanently Flooded (POWKF). Fisher Ditch lies approximately 500 feet north of the western end of the proposed connection and runs parallel to the new rail alignment. The site is not located within a 100-year floodplain.

Biological Resources

Vegetation. Except for the wetland and riparian plant communities described in the previous section, the proposed rail construction site is barren and has been disturbed by rail and industrial uses. Ruderal grasslands consisting of cheatgrass, crested wheat grass, intermediate wheatgrass, thistle, tumbleweed, mustard, and Chinese elm trees were observed on the site.

Wildlife. Wildlife species likely to be on the proposed construction site are tolerant of urban conditions and industrial, and railroad activities. Observed species include magpies and blackbirds in the cattail marsh. Other possible species to inhabit this site include raccoon, skunk, ground squirrels, and other small mammals and birds.

Threatened and Endangered Species. The U.S. Fish and Wildlife Service (USFWS) was consulted regarding threatened and endangered species in the area of the proposed rail line construction at Denver. The USFWS staff provided a list of state- and federally-listed threatened or endangered species that potentially occur within Adams County. No occurrences of these species are known or recorded on or near the project site. Field observations on site also indicated no occurrences of these species. Since there is no suitable habitat for these species, they would not be expected to occur on the proposed construction site. In addition, there is no critical habitat known or recorded in the vicinity of the proposed construction.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks or other public lands are located near the proposed construction site.

Air Quality

The proposed construction site is located in Air Quality Control Region (AQCR) 36: Metropolitan Denver. This AQCR is currently non-attainment for particulate matter and CO. For all other National Ambient Air Quality Standards (NAAQS) pollutants, this AQCR is considered an attainment area.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, industrial, and vehicular traffic are the primary sources of noise in the area of the proposed rail line construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet).

The current level of traffic operating on the SP rail line (11 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 130 feet without horns (400 feet with horns).

No sensitive noise receptors were identified in the industrial areas surrounding the rail line by SEA's third party consultant .

Historic and Cultural Resources

SEA's survey of the project site identified a potentially historic water tower in the North Yard. Records indicate the tower was constructed about 1930. UP/SP report the proposed construction project was designed to avoid alteration of this structure. Consultation has been initiated with the Colorado State Historic Preservation Officer (SHPO) regarding National Register eligibility of the structure.

SEA's initial consultations with the Colorado State Historic Preservation Officer (SHPO) determined that no documented archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by the SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities.

Transportation and Safety

The existing rail transportation network consists of the various UP and SP rail lines that intersect in Denver. The proposed construction project is located in northwest Denver. Roadways

near the proposed construction site are predominantly local streets. Major highways serving the project area include I-25 and I-70. Access to the construction site would be via local roads and North yard. No new grade crossings are planned as part of the proposed construction.

According to UP/SP, no known hazardous waste sites exist at the proposed construction site.

4.1.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. It is compatible with surrounding railroad and industrial land uses, complies with applicable zoning ordinances and/or development regulations, and is consistent with the community's comprehensive (or land use) plan. No conversion of prime farmland is necessary to complete construction of this connection, nor would any construction activities be subject to a coastal zone management plan.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not significantly alter stormwater drainage and infiltration patterns in the area.

The proposed construction project would also not have any adverse impacts on the ponds, ditches or wetlands on the project site. UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction would not involve excavation from or the placement of dredged or fill material into the "waters of the United States," including designated wetlands. Therefore, authorization under Section 404 of the Clean Water Act would not be required. Additionally, a National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than five acres.

Biological Resources

Vegetation. The proposed action would have no adverse impacts to native plant communities. The proposed rail line construction site in an existing rail yard, where most of the

area is covered by gravel and sparse vegetation. However, after construction UP/SP would use Best Management Practices (BMPs) to encourage regrowth in disturbed areas and would stabilize disturbed soils.

Wildlife. No adverse impacts to wildlife populations are anticipated, since the existing habitat on the proposed construction site is of low quality.

Threatened and Endangered Species. Based on consultation with the U.S. Fish and Wildlife Service and field observations at the Denver site, there is no suitable habitat for any of the listed threatened or endangered species in the proposed construction area. Since, none of these species would be expected to occur on the site, there would be no effects on these species by the proposed construction activities.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse affect is expected since there are no known national or state parks or forests, nor wildlife refuges or sanctuaries in the vicinity of the proposed construction site.

Air Quality

Impacts on air quality in Denver could potentially result from increased emissions during project construction as well as increased train traffic when the proposed project is completed and becomes operational. Potential impacts from construction and operations are described below.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 36 is an air quality nonattainment area. The small amount of fugitive dust emissions due to construction would have no significant impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of estimated emissions associated with vehicular traffic during the construction: (1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 20 employees for 48 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 1,920. This small number of trips for the short duration of the construction would not be sufficient to adversely affect air quality. In addition 18,700 cubic yards of earthwork are required. The temporary increases in emissions from this earthwork would not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail line construction would not introduce new rail traffic on the associated line segments, but rather provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore SEA concludes that the air emissions resulting from the operation of the proposed new construction itself would not have the potential to seriously degrade the air quality in AQCR 36, nor would it result in any exceedances of the NAAQS. Changes to air quality from increased activity on rail segments in Denver, at Denver intermodal facilities, and Denver rail yards are discussed in **Volume 2**.

Noise

UP/SP estimate four train movements per day on the proposed rail line connection. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 70 feet without horns. The distance would be 225 feet with horns, but horns would not likely be used along the proposed connection because no roadway grade crossings would be crossed. The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of existing rail lines. Therefore, no noise impacts are expected from this construction project.

Historic and Cultural Resources

Since the only known historic resource identified at this location would be avoided, SEA concludes there are no discernible adverse effects associated with this construction project. Consultation has been initiated with the Colorado SHPO, seeking concurrence with this determination.

Based on SEA's initial consultations with the Colorado SHPO, no known or documented archaeological sites exist at the proposed construction site. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction.

Transportation and Safety

The proposed rail line construction project would improve rail access to Denver and enhance the efficiency of UP/SP operations. It would not require new grade crossings of any roads and therefore, not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts

would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a significant spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

4.1.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 4.1.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed or operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection could cause additional fuel consumption and increase emissions impacts.

4.1.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all

responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Agency comments regarding the proposed construction projects are summarized below:

- Natural Resources Conservation Service stated that proposed construction project had no apparent impact on prime farmland or farmland of statewide importance.

- U.S. Army Corps of Engineers, Omaha District states that if construction involves any work in the water of the U.S. a 404 permit may be necessary. The design of the proposed project should ensure that the project is in compliance with flood plain management criteria for the City of Denver and the State of Colorado. At a minimum, the project design should ensure that the 100-year flood water surface elevation of any stream affected is not increased more than one foot relative to pre-project conditions.

- U.S. Fish and Wildlife Service, Colorado Field Office provided a list of threatened and endangered species by county.

- City and County of Denver voiced no concerns regarding the proposed construction project. Reference was provided to an EA on Airtrain planned for UP right-of-way between downtown and Denver International Airport.

4.1.7 Suggested Mitigation

This section highlights the mitigation measures that various parties, consulted in the process of preparing the EA for the proposed merger, have requested:

- U.S. Army Corps of Engineers, Omaha District noted that project design should comply with flood plain management criteria for the City of Denver and the State of Colorado. At a minimum, the project design should ensure that the 100-year flood water surface elevation of any stream affected is not increased more than 1 foot relative to pre-project conditions.

4.1.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose

in any final decision approving the proposed Denver (North Yard) construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

3. In and near the wetland areas, UP/SP shall restrict mechanized equipment to the area required to complete construction activities.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. UP/SP shall retain their interest in and take no steps to alter the North Yard water tower, until the Section 106 process of the National Historic Preservation Act (16 U.S.C. 470f., as amended) has been completed for this property.

2. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Arkansas SHPO.

Safety

1. UP/SP shall consult with the Colorado Department of Public Health and Environment if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport all hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in their Emergency Response Plan.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

4.2 Denver

Denver is located in Denver County. Existing rail lines in the area include the SP Belt and SP Moffat lines, the SP subdivision 1-A, the UP Greeley subdivision mainline, and the UP lines to Cheyenne, Wyoming and Salina, Kansas.

4.2.1 Proposed Action

Construction of a second new connection in the Denver area is proposed. This connection, between the UP Greeley Mainline and SP Belt Line, also includes a siding extension (see Figure 4-2). Approximately 5,000 feet of new rail line would be construction; two acres of new right-of-way and grading of the site would be required to complete the connection.

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 20 people over a period of 83 days. The construction would require approximately 41,000 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following changes along existing rail lines:

- Traffic on the UP Greeley main line would increase from 10 to 15 trains per day, and the annual gross tons would increase from 21 to 38 million tons (a 79 percent increase).

- Traffic on the SP Belt line would increase from 11 to 14 trains per day, and the annual gross tons would increase from 22 to 33 million tons (a 50 percent increase).

- Traffic on the new common point connection would consist of 4 trains per day.

4.2.2 Alternative Actions Considered

SEA identified no feasible alternatives to the proposed rail line construction project. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and SP rights-of-way. There are no construction,

operational or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

A "no-action" alternative was considered by the SEA. With this alternative, current operations would continue to move over existing UP and SP rail lines. However, access between the two lines would be limited to existing interchanges or terminals.

4.2.3 Existing Environment

Land Use

The area surrounding the proposed site includes primarily industrial land uses, with one small area of residential and mixed urban land use. The proposed construction would in an area of cropland, but not prime farmland. The line proposed for construction is not within a designated coastal zone.

Water Resources

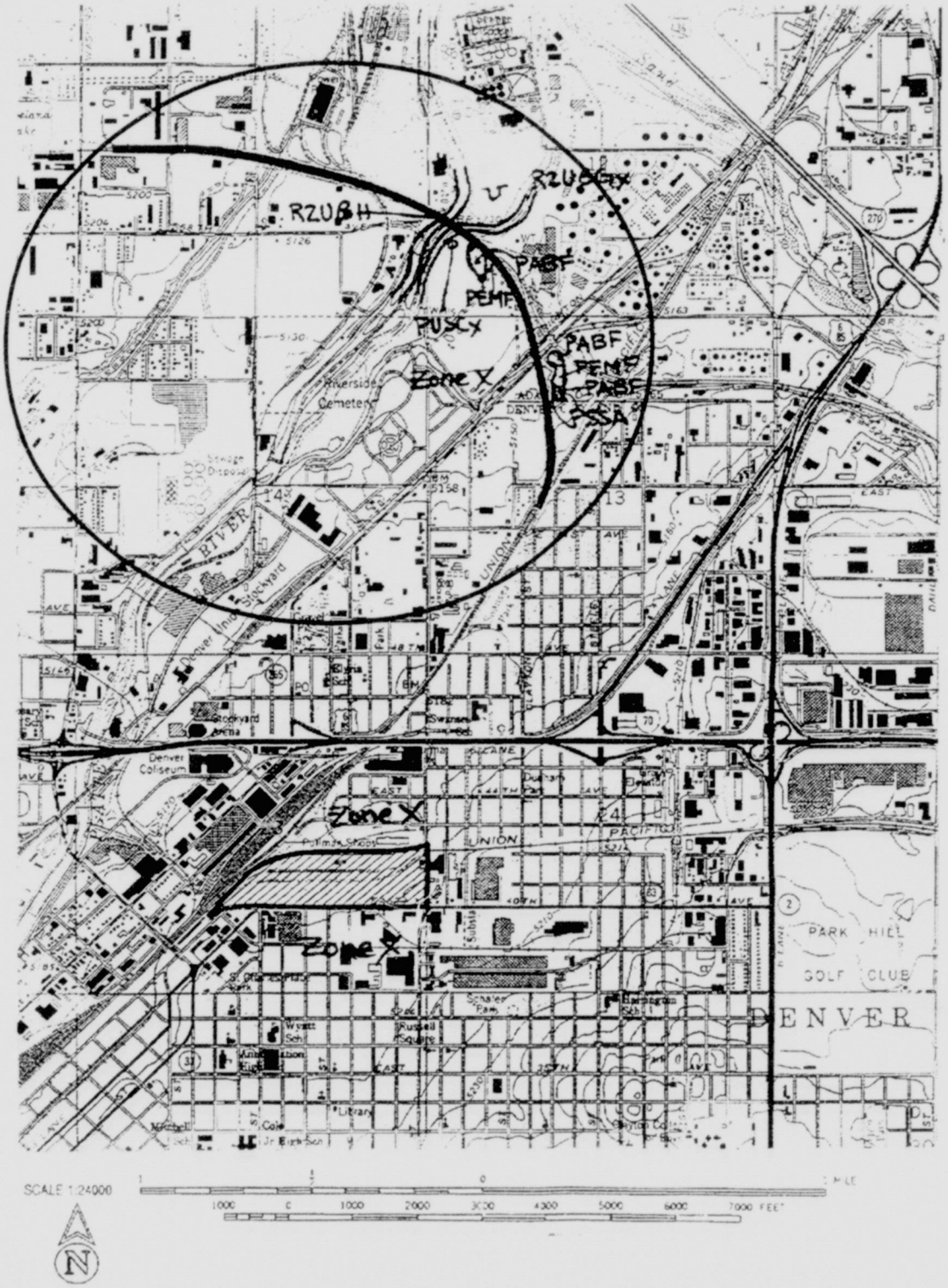
The proposed rail siding extension and connection between the UP and SP main lines would cross the South Platte River and one irrigation ditch east of the river. The boundary of the South Platte River 100-year floodplain follows the east bank of the South Platte River for the length of this project area. The west-side boundary spills into industrial areas to a distance of 1/2-mile from the riverbank. The proposed rail siding extension would cross over the 100-year floodplain by bridge from 200 feet west of York Street to the east bank of the South Platte. On the west side of the South Platte, approximately 2,000 feet of the rail line embankment is edged on both sides by floodplain. East of the river, the 100-year floodplain abuts the rail line embankment.

Wetlands next to the proposed rail siding extension are located along the South Platte River and between the river and the UP main line. Wetlands shown on the National Wetland Inventory (NWI) map for the Commerce City quadrangle are described below:

- Along the banks of the South Platte River, wetlands are described as Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded (R2UBH).

- Along the irrigation ditch, wetlands are described as Riverine, Lower Perennial, Unconsolidated Bottom, Intermittently Exposed, Excavated (R2UBGx).

- Isolated wetlands between the river and Brighton Boulevard are described as:



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Palustrine, Aquatic Bed, Semi-permanently Flooded (PABF); Palustrine, Unconsolidated Shore, Seasonally Flooded, Excavated (PUSCx); and Palustrine, Emergent, Semi-permanently Flooded (PEMF).

- East of Brighton Boulevard, isolated wetlands are described as: Palustrine, Aquatic Bed, and Semi-permanently Flooded (PABF); Palustrine, Emergent, and Semi-permanently Flooded (PEMF); and Palustrine, Scrub Shrub, and Temporarily Flooded (PSSA).

Biological Resources

Vegetation. Vegetation types on the upland areas along the proposed construction site are ruderal. Little native vegetation exists in upland areas. Although much of the river bank has been disturbed, native riparian plant communities can be found where there is moisture and soil, and flooding impacts are not severe. Riparian habitat borders the river and ditches. Plant species typical to riparian habitat include plains cottonwood, sandbar willow, peach-leaf willow, box elder, and Siberian elm. Wetland vegetation is located next to the river, along the irrigation ditch, and in depressions. Wetland species include cottonwood, cattail, peach-leaf and sandbar willow, and mixed species of sedges and bulrushes.

Wildlife. Wildlife inhabiting the proposed rail construction site is tolerant of urban conditions. Typical species to be found along the rivers, ditches, ponds, and wetlands include duck, geese, muskrat, beaver, mule deer, raccoon, fox, skunk, rat, and squirrel. All of these species except beaver, muskrat, and waterfowl can be found less frequently in upland sites.

Threatened and Endangered Species. SEA consulted USFWS regarding threatened and endangered species in the area of the proposed rail line construction at Denver. The USFWS staff provided a list of state- and federally-listed threatened or endangered species that potentially occur within Adams County. No occurrences of these species are known or recorded on or near the project site. Field observations on site also indicated no occurrences of these species. Since there is no suitable habitat for these species, they would not be expected to occur on the proposed construction site. In addition, there is no critical habitat known or recorded in the vicinity of the proposed construction.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks or other public lands are located near the proposed construction site.

Air Quality

The proposed construction site is located in AQCR 36: Metropolitan Denver. This AQCR is

currently nonattainment for particulate matter and CO. For all other NAAQS pollutants, this AQCR is considered an attainment area.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, industrial, and vehicular traffic are the primary sources of noise in the area of the proposed rail line construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet).

The current level of train traffic on the UP Greeley main line (10 trains per day) generates an estimated Ldn noise level of 65 dBA at a distance of approximately 120 feet without horns (380 feet with horns). The current level of traffic operating on the SP Belt line (11 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 130 feet without horns (400 feet with horns).

A noise-sensitive residential area is located east of the Union Pacific line at the turnout. Mixed urban use is located to the west of the proposed connection, south of Brighton Blvd. Cropland and industrial areas border the remaining sections of the connector, in which area no noise sensitive land uses were identified. Existing noise levels are low except in the vicinity of the Union Pacific tracks and Brighton Blvd.

Historic and Cultural Resources

SEA's initial consultations with the Colorado SHPO determined that no documented historic archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by the SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities.

Transportation and Safety

The existing rail transportation network consists of a number of UP and SP rail lines that intersect in Denver. This project is located in east-central Denver. I-70 is located one mile south of the project site. Access to the proposed construction would be on local roads. No new grade crossings are proposed as part of this construction.

SEA's review of the VISTA database and UP safety records indicate no known hazardous waste sites exist at the proposed construction site.

4.2.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection in an industrial area. It is compatible with surrounding land uses and complies with all known zoning ordinances and/or development regulations. No conversion of prime farmland is necessary to complete construction of this connection, nor would any construction activities disrupt a designated coastal zone.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not significantly alter stormwater drainage and infiltration patterns in the area.

The proposed construction project would also not have any adverse impacts on surface water resources or wetlands. Widening of the bridge across the South Platte River would require some minor placement of fill in the waterway for new substructure. In addition, small amounts of fill may be required in the wetlands adjacent to the existing rail corridor to extend the rail siding between UP Greeley mainline and the SP Belt line. These construction activities would require a Section 404 permit. Coordination with the U.S. Army Corps of Engineers would be undertaken to verify boundaries of jurisdictional waters and requirements for Section 404 permitting. The U.S. Army Corps of Engineers stated that the project must comply with the floodplain management criteria for the City of Denver Urban Drainage and Flood Control District, and the State of Colorado. At a minimum, the project design should not increase the 100-year water surface elevation of any affected waterway more than 1 foot relative to pre-project conditions. Impacts to the 100-year floodplain are not anticipated, since the project design would be in compliance with all applicable criteria and conditions for floodplain management.

UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not have an adverse effect on water quality in the construction area. A National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than five acres.

Biological Resources

Vegetation. Disturbance to the existing ruderal vegetation in the upland areas within the proposed construction site would not present an adverse impact. Impacts to riparian vegetation along the river and ditches are expected to be temporary.

Wildlife. The proposed connection would have only impacts to upland and riparian habitats. No permanent adverse impacts to wildlife habitat and wildlife populations are expected from the proposed construction.

Threatened and Endangered Species. Based on consultation with USFWS and field observations at the Denver site, there is no suitable habitat for any of the listed threatened or endangered species in the proposed construction area. Since, none of these species would be expected to occur on the site, there would be no effects on these species by the proposed construction activities.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse affect is expected since there are no known national or state parks or forests, or wildlife refuges or sanctuaries in the vicinity of the proposed construction site.

Air Quality

Impacts on air quality in Denver could potentially result from increased emissions during project construction as well as increased train traffic when the proposed project is completed and becomes operational. Potential impacts from construction and operations are described below.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 36 is an air quality nonattainment area. The small amount of fugitive dust emissions due to construction would have no significant impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation and

watering the site.

Vehicle Emissions During Construction. There would also be two types of estimated emissions associated with vehicular traffic during the construction: (1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 20 employees for 83 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 3,320. This number of trips for the limited duration of the construction would not be sufficient to adversely affect long-term air quality. In addition 41,000 cubic yards of earthwork are required. The temporary increases in emissions from grading and other earthwork would not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail line construction would not introduce new rail traffic on the associated line segments but rather provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction itself would not have the potential to seriously degrade the air quality in AQCR 36, nor would it result in any exceedances of the NAAQS. Changes to air quality from increased activity on rail segments in Denver, at Denver intermodal facilities, and Denver rail yards are discussed in **Volume 2**.

Noise

UP/SP estimate four train movements per day on the proposed rail line connection. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 70 feet without horns. The distance would be 225 feet with horns, but horns would not likely be used along the proposed connection because there are no grade crossings.

The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of the existing rail lines. Therefore, no noise impacts are expected from this construction.

Historic and Cultural Resources

SEA's review of NRHP listings indicate there are no known historic properties at this location; therefore, no adverse effects are associated with this construction project. Consultation has been initiated with the Colorado SHPO, seeking concurrence in this determination.

Based on SEA's initial consultations with the Colorado SHPO, no known or documented archaeological sites exist at the proposed construction site. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction.

Transportation and Safety

The proposed rail line construction project would improve rail access to Denver and enhance the efficiency of UP/SP operations. It would not require new grade crossings of any roads and therefore, not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a significant spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

4.2.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 4.2.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed or operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection would result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that would result without the new connection would cause additional fuel consumption and increase emissions impacts.

4.2.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Agency comments regarding the proposed construction projects are summarized below:

- Natural Resources Conservation Service stated that the proposed construction project has no apparent impact on prime farmland or farmland of statewide importance.

- U.S. Army Corps of Engineers, Omaha District states that if construction involves any work in the water of the U.S. a 404 permit may be necessary. The design of the proposed project should ensure that the project is in compliance with flood plain management criteria for the City of Denver and the State of Colorado. At a minimum, the project design should ensure that the 100-year flood water surface elevation of any stream affected is not increased more than 1 foot relative to pre-project conditions.

- U.S Fish and Wildlife Service, Colorado Field Office provided a list of threatened and endangered species by county.

- City and County of Denver voiced no concerns regarding this construction project. Reference was provided to an EA on Airtrain planned for UP right-of-way between downtown and DIA.

4.2.7 Suggested Mitigation

This section highlights the mitigation measures that various parties, consulted in the process of preparing the EA for the proposed merger, have requested:

- U.S. Army Corps of Engineers, Omaha District noted that project design should comply with flood plain management criteria for the City of Denver and the State of Colorado. At a minimum, the project design should ensure that the 100-year flood water surface elevation of any stream affected is not increased more than 1 foot relative to pre-project conditions.

4.2.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Denver construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to

provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

3. Prior to conducting construction activity, UP/SP shall consult with the U.S. Army Corps of Engineers and obtain and comply with any permits required under Section 404 of the Clean Water Act, 33 U.S.C. 1344.

4. In and near the South Platte River and associated wetland areas, UP/SP shall restrict mechanized equipment to the area required to complete construction activities.

5. UP/SP shall perform hydrologic and hydraulic analyses for any modifications to the South Platte River bridge, to ensure the changes would have no effect on the 100-year floodplain.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the California SHPO.

Safety

1. UP/SP shall consult with the Colorado Department of Public Health and Environment if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport all hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response

procedures outlined in their Emergency Response Plan.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

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CHAPTER 5.0
ILLINOIS

This chapter analyzes the potential environmental impacts associated with the proposed rail line construction projects in new rights-of-way in Illinois that UP/SP have identified in connection with the proposed merger. These proposed rail line construction projects and their lengths are:

- Girard, Illinois - 3,100 feet.
- Salem, Illinois - 4,600 feet.

A detailed description of each of these proposed construction projects, including alternative actions considered, the existing environment, the potential environmental impacts, and recommended mitigation measures, is provided below.

5.1 Girard

Girard is located in Macoupin County, 60 miles northeast of St. Louis, Missouri on Highway 4. Existing rail lines in the area include the UP Madison subdivision mainline and the SP Springfield subdivision Wilmington line.

5.1.1 Proposed Action

The proposed action at Girard would involve the construction and operation of a new connection between the UP and SP tracks (see Figure 5-1). This new construction would permit the routing of mainline traffic from St. Louis, Missouri to Peoria, Illinois and points north. The design includes a new power-generated turnout, approximately 3,100 feet of new rail line construction, relocation of approximately 1,500 feet of existing rail, and would require acquisition of approximately 12 acres of new right-of-way.

Construction Requirements

Construction of the new rail line connection would require a labor force of 20 people over a period of 88 days. The construction would require approximately 60,000 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following changes along existing

rail lines:

- Traffic on the UP Madison subdivision line would decrease from 7 to 2 trains per day, and the annual gross tons would decrease from 10 to 4 million tons (a 57 percent decrease).

- Traffic on the SP Springfield line would remain the same, at 12 trains per day, and the annual gross tons would increase from 11 to 16 million tons (a 43 percent increase).

- Traffic on the new common point connection would consists of two bulk unit trains per day.

5.1.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the rail line connection. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and SP rights-of-way. There are no construction, operational, or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP and SP rail lines; however, access between the two lines would be limited to existing interchanges or terminals.

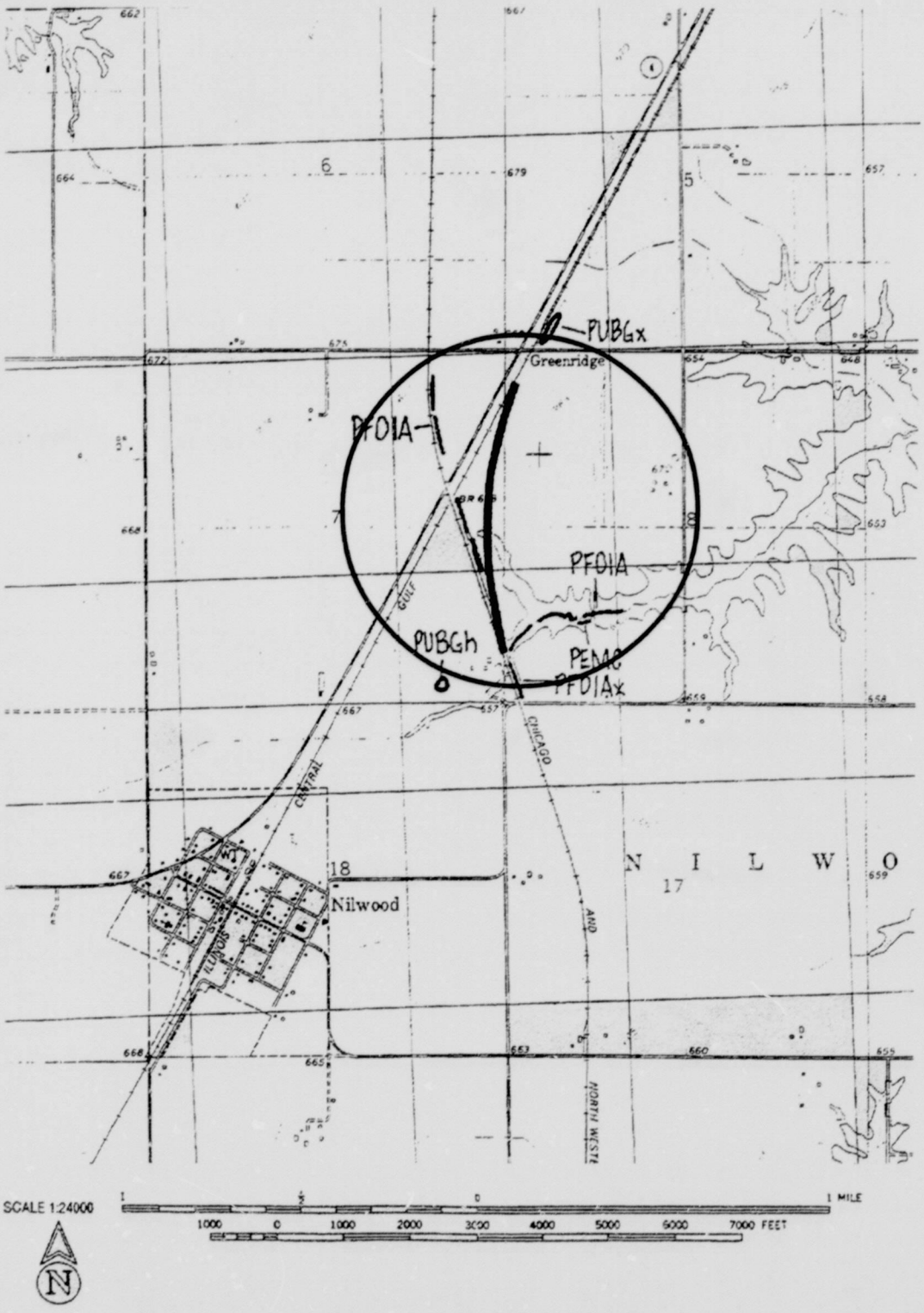
5.1.3 Existing Environment

Land Use

The proposed construction would occur within an area already dominated by rail use. The area surrounding the proposed site is used entirely for agricultural purposes for cropland and pasture. The site is currently zoned for agricultural use; railroad development is allowed in the area. This is an area of prime farmland. The line proposed for construction is not within a designated coastal zone.

Water Resources

National Wetland Inventory (NWI) maps indicate that the proposed construction crosses an



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

GIRARD, ILLINOIS

ENVIRONMENTAL ASSESSMENT

intermittent segment of an unnamed tributary to Shearles Branch. Forested and emergent wetlands occur adjacent to the existing UP right-of-way. The proposed construction site is not located within a 100-year floodplain.

Biological Resources

Vegetation. Because the site is within an agricultural area, much of the site has been disturbed by rail activity and agricultural operations. The vegetation at the Girard site is composed primarily of mixed-grass prairie, wetlands, and ruderal weed species.

Wildlife. Because the plant and wildlife communities in the area of the proposed rail line construction project have been affected by continued agriculture and transportation land use, SEA concludes that it is unlikely that the project area supports important native plant and animal communities.

Threatened and Endangered Species. SEA consulted the U.S. Fish and Wildlife Service (USFWS) regarding threatened and endangered species in the area of the proposed rail line construction at Girard. The USFWS staff indicated that two federally listed threatened or endangered species could potentially occur in the vicinity of the proposed construction. These species include the endangered Indiana bat (*Myotis sodalis*) and the threatened eastern prairie fringed orchid (*Platanthera leucophaea*). No occurrences of these species are known or recorded on or near the project site. Field observations on site also indicated no occurrences of these species. There is no critical habitat known or recorded in the vicinity of the proposed construction.

SEA also consulted the Natural Resources Conservation Service (NRCS) and the Illinois Resource Conservation Office (IRCO) regarding listed threatened or endangered species in the area of the proposed rail line construction at Girard. The NRCS and IRCO staff indicated that the state-threatened Pondhorn mussel (*Uniomerus tetralasmus*) has been recorded at a site approximately five miles to the northwest of the project area in the east fork of Otter Creek. Field observations on site indicated no occurrences of these species. There is no critical habitat known or recorded in the vicinity of the proposed construction.

Parks, Forest Preserves, Refuges, and Sanctuaries. No public lands (Federal, state, or municipal parks, refuges, or management areas) or nonprofit managed areas (nature preserves, registry natural areas) are located in the immediate vicinity of the proposed construction site.

Air Quality

The proposed construction site is located in Air Quality Control Region (AQCR) 75: West-Central Illinois. This AQCR is currently categorized as being in attainment with the National

Ambient Air Quality Standards (NAAQS) for all pollutants. Construction-related activities would not adversely affect the ambient air as a result of the proposed construction and operation.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, industrial, and vehicular traffic are the primary sources of noise in the area of the proposed rail line construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet).

The current level of train traffic on the UP Madison subdivision (7 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 140 feet without horns (420 feet with horns). The current level of traffic operating on the SP Springfield rail line (12 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 140 feet without horns (420 feet with horns).

The area is bordered by cropland. No noise-sensitive receivers have been identified.

Historic and Cultural Resources

The former Chicago and North Western Railway through-truss bridge over the SP Springfield line may be eligible for inclusion in the National Register of Historic Places (NRHP). However, it is outside the immediate project area where the new construction project is proposed. SEA concludes that the truss bridge would not be affected. No other historic or cultural resources have been identified within the vicinity of the proposed construction site. Consultation has been initiated with the Illinois State Historic Preservation Officer (SHPO) to confirm this finding.

Initial consultations with the Illinois SHPO determined that no documented archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by the SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities.

Transportation and Safety

The existing Girard transportation network consists of the UP and SP rail lines that intersect one another at Girard and State Highway 4, immediately west of the project site. Access to the rail construction area would be from State Highway 4 and local roads. No new grade crossings would be constructed.

According to UP/SP, no known hazardous waste sites exist at the proposed construction site.

5.1.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. It is compatible with surrounding land uses, complies with applicable zoning ordinances and development regulations, and is consistent with community planning. Part of the new railroad right-of-way would include prime farmland as identified by the NRCS. Under SEA's mitigation measures, UP/SP would be required to consult with the NRCS for their recommendations to reduce impacts to these soils. Construction activities would not occur in a designated coastal zone.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. The project design would not alter stormwater drainage and infiltration patterns in the area.

The proposed construction project could have minor adverse impacts on the small wetlands adjacent to the UP rail line. The project would not encroach upon the 100-year floodplain.

UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction could involve excavation from or the placement of dredged or fill material into "waters of the United States," including designated wetlands. Therefore, authorization under Section 404 of the Clean Water Act could be required. Additionally, a National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit could be required pursuant to Section 402 of the Clean Water Act because more than 5 acres of the total land area would be disturbed by the proposed construction.

Biological Resources

Vegetation. The proposed action would have no adverse impacts to native plant communities. The proposed rail line construction site is located along an existing rail corridor where most of the area is covered by agricultural vegetation. After construction, UP/SP would use Best Management Practices (BMPs) to encourage regrowth of vegetation in disturbed areas and to stabilize disturbed soils.

Wildlife. No adverse impacts to wildlife populations are anticipated, since the existing habitat on the proposed construction site is of low quality. The plant and animal communities in the area adjacent to the proposed rail line construction project have been affected by the present agricultural use. Since agricultural communities are not composed of native ecosystems, wildlife resources are not expected to be adversely affected in the project area.

Threatened and Endangered Species. Although USFWS has indicated that two federally listed threatened or endangered species could potentially occur in the area of the proposed construction and the NRCS and the IRCO have indicated that there is an historical record of a state-threatened species in the area, no effects on these species or their critical habitat are anticipated. This determination is based on the lack of any recorded occurrences at or near the project site, the lack of any critical or suitable habitat at the project site, and the lack of any observations of occurrences of such species during site visits.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse impact is expected since there are no known state or federally designated parks, preserves, refuges, or sanctuaries in the vicinity of the proposed construction.

Air Quality

Impacts on air quality in Girard could result from increased emissions during project construction as well as increased train traffic when the proposed project is completed and becomes operational. Potential impacts from construction and operations are described below.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 75 is an air quality attainment area. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation, and watering the site.

Vehicle Emissions During Construction. There would be two types of emissions associated with vehicular traffic during the construction:(1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 20 employees for 88 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 3,520. This number of trips for the duration of the construction should not be sufficient to adversely affect long-term air quality. Increases in emissions from construction equipment would be temporary and should not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail line construction would not introduce new rail traffic on the associated line segments, but rather provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction would not have the potential to seriously degrade the air quality in AQCR 75, nor would it result in any exceedances of the NAAQS.

Noise

UP/SP estimate two train movements per day on the proposed rail line connection. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 43 feet without horns. The distance would be 146 feet with horns, but horns would not likely be used along the proposed connection because highway grade crossings would not be crossed.

The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of both existing rail lines. There are no sensitive receptors in the immediate vicinity of the proposed project. No significant noise impacts are expected.

Historic and Cultural Resources

The proposed construction would not affect any known historic or cultural resources. Consultation has been initiated with the Illinois SHPO, seeking concurrence in this determination.

Based on SEA's initial consultations with the Illinois SHPO, no known or documented archaeological sites exist at the proposed construction site. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of

archaeological sites during the construction.

Transportation and Safety

The proposed rail line construction project would improve rail access to and through Girard and enhance the efficiency of UP/SP operations. It would not require new grade crossings and therefore would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

5.1.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 5.1.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction would provide the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection could cause additional fuel consumption and increase emissions impacts.

5.1.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which

are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Agency comments regarding the proposed construction projects are summarized below:

- The Natural Resources Conservation Service stated that new rail line constructions outside right-of-way would probably require acquisition of agricultural land and that the Farmland Protection Act requires consideration of alternative actions to lessen adverse effects if farmland is converted to nonagricultural uses.

- U.S. Environmental Protection Agency noted no objections.

- Macoupin County stated that the proposed project would have no adverse environmental effect on the citizens or property.

5.1.7 Suggested Mitigation

This section highlights the mitigation measures that various parties, consulted in the process of preparing the EA for the proposed merger have requested:

- The Natural Resources Conservation Service should be consulted to minimize impacts to prime farmland soils.

5.1.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Girard construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider

SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. UP/SP shall consult with the District Soil Scientist of the U.S. Department of Agriculture, Natural Resources Conservation Service, for recommendations to reduce impacts to prime farmland soils.

5. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

3. UP/SP shall restrict mechanized equipment to upland areas to minimize disturbance of wetlands.

4. Prior to construction, UP/SP shall consult with the U.S. Army Corps of Engineers and obtain and comply with any permits required under Section 404 of the Clean

Water Act (33 U.S.C. 1344).

5. UP/SP shall obtain a National Pollutant Discharge and Elimination System (NPDES) permit before beginning construction activities.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Illinois SHPO.

Safety

1. UP/SP shall consult with the Illinois Department of Natural Resources if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport all hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in their Emergency Response Plans.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during

construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

5.2 Salem

Salem is located in Marion County, 65 miles east of St. Louis, Missouri. Existing rail lines in the area include the UP Chicago subdivision mainline and the CSX mainline.

5.2.1 Proposed Action

The proposed action at Salem would involve the construction and operation of a new connection between the UP and the CSX tracks (see Figure 5-2). This connection would provide additional capacity to handle the increased traffic anticipated between the UP/SP, Conrail, and CSX lines. This new construction would permit the routing of mainline traffic between the CSX east line and the UP south line. The design includes two new power-operated mainline switches, approximately 4,600 feet of new rail line construction, and would require acquisition of approximately one acre of new right-of-way.

Construction Requirements

Construction of the new rail line connection would require a labor force of 20 people over a period of 77 days. The construction would require approximately 38,000 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following changes along existing rail lines:

- Traffic on the UP to CSX line would increase from 15 to 18 trains per day, and the annual gross tons would increase from 15 to 22 million tons (a 49 percent increase).

- Traffic on the UP to Benton line would increase from 18 to 25 trains per day, and the annual gross tons per mile would increase from 32 to 53 tons (a 64 percent increase).

- Traffic on the new common point connection would consist of two trains per day.

5.2.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the rail line connection. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and CSX rights-of-way. There are no construction, operational or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP and CSX rail lines. However, access between the two lines would be limited to existing interchanges or terminals.

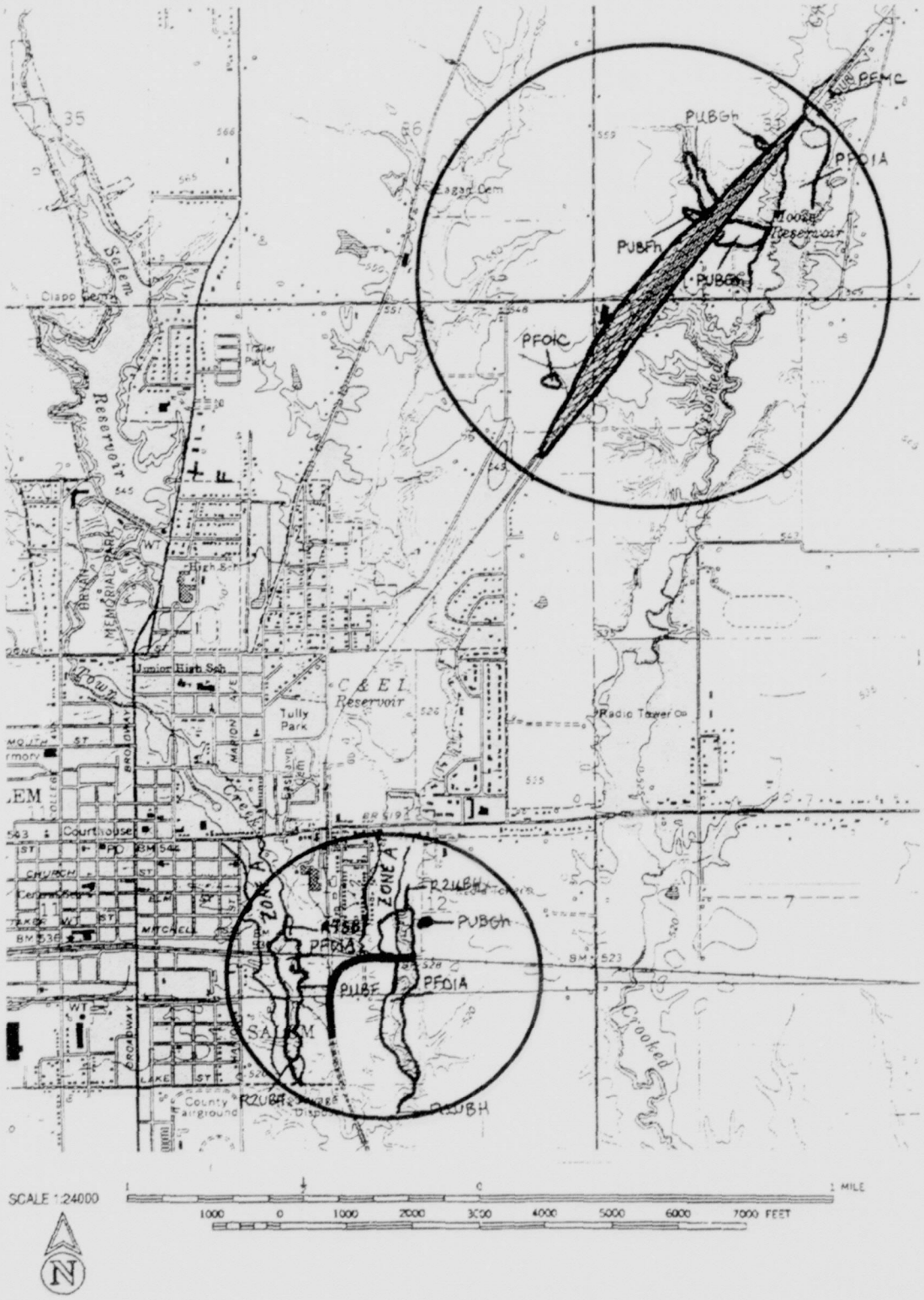
5.2.3 Existing Environment

Land Use

The proposed construction would occur within an area already dominated by rail use. Other land uses surrounding the proposed site include agriculture use to the east of the connection and residential use to the west and north of the connection. The site is currently zoned for future industrial development; railroad development is allowed in the area. This is an area of prime farmland. The property to be acquired is primarily from a local landfill. The line proposed for construction is not within a designated coastal zone.

Water Resources

The proposed construction crosses a perennial stream that is an unnamed tributary of Town Creek. A forested wetland complex occurs at and downstream of the existing CSX crossing of the stream. A portion of the proposed construction site is located within the 100-year floodplain associated with an unnamed tributary to Town Creek.



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

SALEM, ILLINOIS

ENVIRONMENTAL ASSESSMENT

Biological Resources

Vegetation. Vegetation is composed primarily of mixed-grass prairie, wetland, and ruderal weed species. Because the site is within an existing agricultural and residential area, much of the site has been disturbed by previous rail activity and other local land uses.

Wildlife. Because plant and wildlife communities in the area of the proposed rail line construction project have been affected by continued agricultural, transportation, and residential land uses, it is unlikely that the project area supports important native plant and animal communities.

Threatened and Endangered Species. SEA consulted USFWS regarding threatened and endangered species in the area of the proposed rail line construction at Salem. The USFWS staff indicated that the endangered Indiana bat (*Myotis sodalis*) could potentially occur in the vicinity of the proposed construction. No occurrences of the bat are known or recorded on or near the project site. Field observations on site also indicated no occurrences of the bat. There is no critical habitat known or recorded in the vicinity of the proposed construction.

Parks, Forest Preserves, Refuges, and Sanctuaries. No public lands or non-profit managed areas are located in the immediate vicinity of the proposed construction site. No city parks are within one-half mile of the proposed project.

Air Quality

The proposed construction site is located in AQCR 74: Southeast Illinois. This AQCR is currently categorized as being in attainment with the NAAQS for all pollutants. Construction-related activities would not adversely affect the ambient air quality as a result of the proposed construction and operation.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, agricultural, and vehicular traffic are the primary sources of noise in the area of the proposed rail line construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet). The current level of train traffic on the UP Benton subdivision rail line (18 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 250 feet without horns (570 feet with horns). The current level of traffic operating on the UP/CSX connection (15 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 160 feet without horns (500 feet with horns).

Some noise-sensitive residential areas are located north and west of the construction site. Currently, without a connection, railroad noise is limited to through trains.

Historic and Cultural Resources

Based on SEA's consultations with the Illinois SHPO and review of NRHP listings, no historic or cultural resources have been identified in the vicinity of the proposed construction site. Most new trackage would be in the existing right-of-way or land acquired from a local landfill. Consultation has been initiated with the Illinois SHPO to confirm this finding.

SEA's initial consultations with the Illinois SHPO determined that no documented archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by the SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities.

Transportation and Safety

The existing Salem transportation network consists of the UP and CSX rail lines that intersect one another at Salem and U.S. Highway 50. Access to the rail line construction area would be from U.S. Highway 50, as well as local roads. No new grade crossings would be constructed.

According to UP/SP, no known hazardous waste sites exist at the proposed construction site.

5.2.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. It is compatible with surrounding land uses, complies with applicable zoning ordinances and development regulations, and is consistent with community planning. No conversion of prime farmland would be necessary to complete construction of this connection, nor would any

construction activities occur in designated coastal zone.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not adversely alter stormwater drainage and infiltration patterns in the area.

The proposed construction project could have minor adverse impacts on the small forested wetlands located adjacent to the CSX crossing at the perennial stream. The project would not encroach upon the 100-year floodplain.

UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction may involve discharge of fill material into "waters of the United States," including designated wetlands. Therefore, authorization under Section 404 of the Clean Water Act could be required. A National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because less than 5 acres of total land area would be disturbed.

Biological Resources

Vegetation. The proposed action would have no adverse impacts to native plant communities. The proposed rail line construction site is located along an existing rail corridor where most of the area is covered by agricultural vegetation. After construction, UP/SP would use Best Management Practices (BMPs) to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Wildlife. No adverse impacts to wildlife populations are anticipated, since the existing habitat on the proposed construction site is of low quality.

Threatened and Endangered Species. Although USFWS has indicated that the federally listed endangered Indiana bat could potentially occur in the area of the proposed construction, no effects on this species or its critical habitat are anticipated. This determination is based on the lack of any recorded occurrences at or near the project site, the lack of any critical or suitable habitat at the project site, and the lack of any observations of occurrences of the bat during site visits.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse impact is expected since there are no known state or federally designated parks, preserves, refuges, or sanctuaries in the vicinity of the proposed construction. City parks would not be affected because they are more than one-half mile away from the proposed construction site.

Air Quality

Impacts on air quality in Salem could result from increased emissions during project construction as well as increased train traffic when the proposed project is completed and becomes operational. Potential impacts from construction and operations are described below.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 74 is an air quality attainment area. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation, and watering the site.

Vehicle Emissions During Construction. There would be two types of emissions associated with vehicular traffic during the construction:(1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 20 employees for 77 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 3,080. This number of trips for the duration of the construction should not be sufficient to adversely affect the region's air quality. In addition, although 38,000 cubic yards of earthwork are required, air quality impacts from construction equipment should be minimal, and should not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail line construction would not introduce new rail traffic on the associated line segments, but rather provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction would not have the potential to seriously degrade the air quality in AQCR 74, nor would it result in any exceedances of the NAAQS.

Noise

UP/SP estimate two train movements per day on the proposed rail line connection. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 43 feet without horns. The distance would be 146 feet with horns, but horns would not likely be used along the proposed connection because roadway grade crossings would not be crossed.

The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of both existing rail lines. There are no sensitive receptors in the immediate vicinity of the proposed project. Therefore, no detailed noise impact analysis is warranted. In conclusion, no significant noise impacts are associated with this construction project.

Some wheel squeal is expected from trains negotiating the new curved connection. The wheel squeal noise would be clearly audible in the residential communities located within 400 feet of the tracks, reaching a maximum level of 70 to 80 dBA. SEA's recommended use of rail lubricants at the connection would mitigate these potential elevated noise levels.

Historic and Cultural Resources

There are no historic resources within the project area. The proposed connection would not affect historic resources. Consultation has been initiated with the Illinois SHPO, seeking concurrence in this determination.

Based on SEA's initial consultations with the SHPO in Illinois, no known or documented archaeological sites exist at the proposed construction site. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction.

Transportation and Safety

The proposed rail line construction project would improve rail access to and through Salem and enhance the efficiency of UP/SP operations. It would not require new grade crossings and therefore would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

5.2.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 5.2.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and CSX rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed or operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection could cause additional fuel consumption and increase emissions impacts.

5.2.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted

additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Agency comments regarding the proposed construction projects are summarized below:

- The Natural Resources Conservation Service stated that new rail line constructions outside the right-of-way could require acquisition of agricultural land and that the Farmland Protection Act requires consideration of alternative actions to lessen adverse effects if farmland is converted to nonagricultural uses.

- U.S. Environmental Protection Agency noted no objections.

5.2.7 Suggested Mitigation

No mitigation measures were suggested for the proposed construction project by the various parties consulted in the process of preparing the EA.

5.2.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Salem construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

3. UP/SP shall restrict mechanized equipment to upland areas to minimize disturbance to streams and wetlands.

4. Prior to construction, UP/SP shall consult with the U.S. Army Corps of Engineers and obtain and comply with any permits required under Sections 402 and 404 of the Clean Water Act (33 U.S.C. 1344).

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Illinois SHPO.

Safety

1. UP/SP shall consult with the Illinois Department of Natural Resources if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport all hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in their Emergency Response Plans.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

2. UP/SP shall control wheel squeal on curved track sections through use of rail lubricants.

CHAPTER 6.0
KANSAS

This chapter analyzes the potential environmental impacts associated with the proposed rail line construction project in new right-of-way in Kansas that UP/SP have identified in connection with the proposed merger. This proposed rail line construction project and its length is:

- Hope, Kansas - 2,200 feet.

A detailed description of this proposed construction project, including alternative actions considered, the existing environment, the potential environmental impacts, and recommended mitigation measures, is provided below.

6.1 Hope

Hope is located in Dickinson County, 70 miles north of Wichita. Existing rail lines in the area include the UP Hoisington subdivision mainline and a BN/Santa Fe line.

6.1.1 Proposed Action

The proposed action at Hope would involve the construction and operation of a new connection between the UP and BN/Santa Fe tracks (see Figure 6-1). This is necessitated by the abandonment of the UP Hope to Bridgeport line. This connection would permit through train movement between the SP Herington yard and the Salina, Kansas area. The design includes two power-operated turnouts, approximately 2,200 feet of new rail line, and would require acquisition of approximately ten acres of new right-of-way.

Construction Requirements

UP estimates construction of the new rail line connection would require a labor force of 20 people over a period of 34 days. The construction would require approximately 15,000 cubic yardsof earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in no changes in traffic along the existing rail lines.

- Traffic on the new connection would include two trains per week.

6.1.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and BN/Santa Fe rights-of-way. There are no construction, operational, or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP and BN/Santa Fe rail lines. However, access between the two lines would be limited to existing interchanges or terminals.

6.1.3 Existing Environment

Land Use

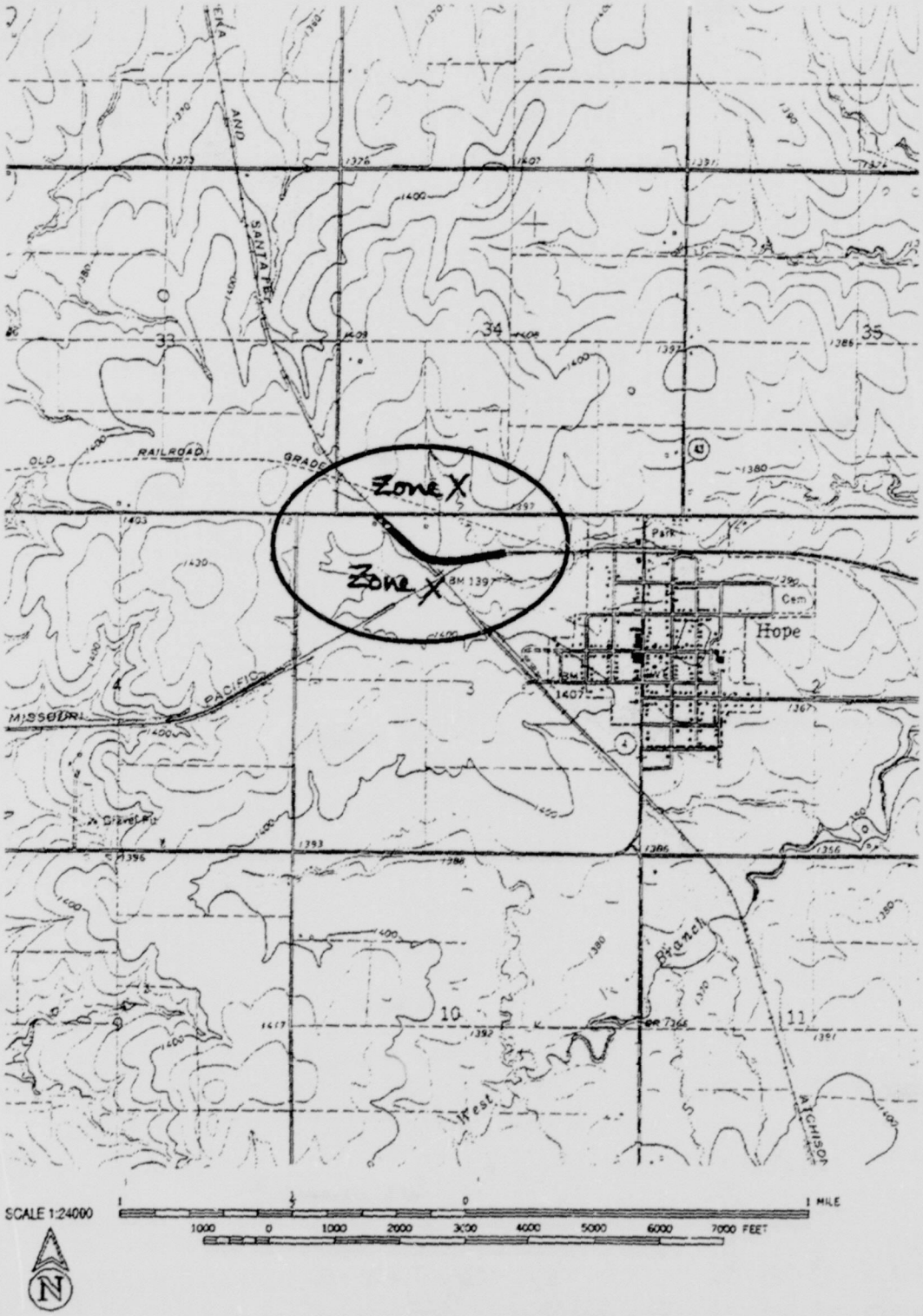
The proposed construction would occur within an area already dominated by rail use. The surrounding land is entirely used for agricultural purposes such as cropland and pasture. There is no formal zoning designation for this rural area. This is an area of prime farmland. The line proposed for construction is not within a designated coastal zone.

Water Resources

The proposed new rail connection would cross two intermittent streams that are south-flowing tributaries to the West Branch of Lyon Creek. A small area (5,000 square feet) of riparian trees and shrubs occurs approximately 300 feet north of the UP rail line along one intermittent stream. National Wetlands Inventory (NWI) maps were not available for this site; an on-site survey did not reveal any wetlands. The proposed site is not located within the 100-year floodplain.

Biological Resources

Vegetation. The vegetation within the proposed rail connection construction area consists of mixed-grass prairie. According to the USDA Natural Resources Conservation Service (NRCS) Soil Survey of Dickinson County, characteristic prairie grass species found in clay upland soils and the loamy lowlands along drainages include Big bluestem, Western wheatgrass, Switchgrass, Little bluestem, Indiangrass, Sidoats grama, and Tall dropseed. Soil types include Hobbs silt loam within



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

HOPE, KANSAS

ENVIRONMENTAL ASSESSMENT

the two intermittent streams and Irwin silty clay loam in the uplands. Vegetation next to the existing rail line are ruderal weeds since the right-of-way has been disturbed by past rail construction and current rail activities. A small patch of stream-side trees and shrubs occurs north of the UP rail line along one of the intermittent streams.

Wildlife. The proposed project area provides very limited habitat for wildlife. Almost the entire area of the proposed connection consists of agricultural and railroad right-of-way. Only those species adapted to such agricultural or industrial sites are expected to be present.

Threatened and Endangered Species. SEA consulted U.S. Fish and Wildlife Service (USFWS) regarding threatened and endangered species in the area of the proposed rail line construction at Hope. The USFWS staff indicated that no listed threatened or endangered species are known to occur in the vicinity of the proposed construction project.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, preserves, refuges, or sanctuaries are located in the immediate vicinity of the proposed construction site.

Air Quality

The proposed construction site is located in Air Quality Control Region (AQCR) 96: North Central Kansas. This AQCR is currently categorized as being in attainment with the National Ambient Air Quality Standards (NAAQS) for all pollutants.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, industrial, and vehicular traffic are the primary sources of noise in the area of the proposed rail line construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet).

The current level of train traffic on the UP rail lines (10 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 100 feet without horns (330 feet with horns).

The area of the proposed construction is surrounded by cropland. No noise-sensitive receivers have been identified.

Historic and Cultural Resources

Based on SEA's review of National Register of Historic Places listings, no historic or cultural resources have been identified within the new construction project. Consultation has been initiated with the Kansas SHPO to confirm this finding.

SEA's initial consultations with the Kansas SHPO determined that no documented historic or archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by a SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities.

Transportation and Safety

The existing ground transportation network consists of the UP and BN/Sante Fe rail lines that intersect one another in Hope. Hope can be reached by State Highway 4 and 43. Access to the rail construction area would be on these roads.

SEA's review of the VISTA database and UP safety records indicate there are no known hazardous waste sites at the proposed construction site.

6.1.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. It is compatible with surrounding land uses and would not require the conversion of prime farmland to non-agricultural uses. Construction activities would not subject to a coastal zone management plan.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area.

The proposed construction project would also not have any adverse impacts on the two intermittent streams which would be crossed by the new the rail line. Additionally, the project would not encroach upon the 100-year floodplain. UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction may involve discharge of fill material into "waters of the United States." Therefore, authorization under Section 404 of the Clean Water Act would be required, probably under Nationwide Permit 26 (Headwaters Discharges). Additionally, a National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit could be required pursuant to Section 402 of the Clean Water Act because more than 5 acres of total land area would be disturbed.

Biological Resources

Vegetation. The proposed action would have no adverse impacts to native plant communities. The proposed rail line construction site is located along an existing rail corridor where most of the area is covered by agricultural and sparse vegetation. After construction, UP/SP would use Best Management Practices (BMPs) to encourage regrowth in disturbed areas and would stabilize disturbed soils.

Wildlife. No adverse impacts to wildlife populations are anticipated, since the existing habitat on the proposed construction site is of low quality. Some incidental deaths of small animals may occur during construction and operation of the proposed track.

Threatened and Endangered Species USFWS has reported that the proposed construction would have no impact on threatened or endangered species.

Parks, Forest Preserves, Refuges and Sanctuaries. No adverse impact is expected since there are no known state or federally designated parks, preserves, refuges, or sanctuaries in the vicinity of the proposed construction.

Air Quality

Impacts on air quality in Hope could result from increased emissions during project construction as well as increased train traffic when the proposed project is completed and becomes operational. Potential impacts from construction and operations are described below.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed

above, AQCR 96 is an air quality attainment area. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of estimated emissions associated with vehicular traffic during the construction: (1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 20 employees for 34 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 1,360. This number of trips for the short duration of the construction would not be sufficient to adversely affect air quality. In addition, 15,000 cubic yards of earthwork would be moved as part of the construction process. Increased emissions from construction equipment would be temporary, and would not adversely impact the area's long-term air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5).

The minor increase in rail activity does not meet the Board's analysis threshold for air quality limits. The new rail line construction would not introduce new rail traffic on the associated line segments, but rather provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction itself would not have the potential to seriously degrade the air quality in AQCR 96, nor would it result in any exceedances of the NAAQS. Changes to air quality in AQCR 96 resulting from the increase in activity on the Herington to Salina, Kansas rail segment are discussed in **Volume 2**.

Noise

UP/SP estimate two train movements per day on the proposed rail line connection. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 43 feet without horns. The distance would be 146 with horns, but horns would not likely be used along the proposed connection because there are no highway grade crossings. The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of both existing rail lines. There are no sensitive receptors in the immediate vicinity of the proposed project. No noise impacts are expected from the proposed construction project.

Historic and Cultural Resources

No known historic or cultural resources were identified within the project area. No discernible effects on historic or cultural resources are associated with this construction project. Consultation has been initiated with the Kansas SHPO, seeking concurrence in this determination.

Based on SEA's initial consultations with the SHPO in Kansas, no known or documented archaeological sites exist at the proposed construction site. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction.

Transportation and Safety

The proposed rail line construction project would improve rail access to and through Hope and enhance the efficiency of UP/SP operations. It would not require new grade crossings and, therefore, would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

6.1.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 6.1.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed. Therefore, land use and other environmental conditions that currently exist at the

proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection could cause additional fuel consumption and increase emissions impacts.

6.1.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Agency comments regarding the proposed construction projects are summarized below:

- Natural Resources Conservation Service states that the proposed construction project has no effect on prime farmlands.

- Fish and Wildlife Service concludes there should be no adverse impacts to fish and wildlife resources, including threatened and endangered species.

6.1.7 Suggested Mitigation

No mitigation measures were suggested for the proposed construction project by the various parties consulted in the process of preparing the EA for the proposed merger (See **Volume 5**, Appendices D and E, for agency consultation lists).

6.1.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose

in any final decision approving the proposed Hope construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

3. Prior to conducting construction activity, UP/SP shall consult with the U.S. Army Corps of Engineers and obtain and comply with any permits required under Sections 402 and 404 of the Clean Water Act, 33 U.S.C. 1344.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed

areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Kansas SHPO.

Safety

1. UP/SP shall consult with the Kansas Department of Health and Environment if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport all hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in their Emergency Response Plans.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

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CHAPTER 7.0
LOUISIANA

This chapter analyzes the potential environmental impacts associated with the proposed rail line construction projects in new rights-of-way in Louisiana that UP/SP have identified in connection with the proposed merger. These proposed rail line construction projects and their lengths are:

- Kinder, Louisiana - 1,750 feet.
- Shreveport, Louisiana - 1,560 feet.

A detailed description of each of these proposed construction projects, including alternative actions considered, the existing environment, the potential environmental impacts, and recommended mitigation measures, is provided below.

7.1 Kinder

Kinder is located in Allen Parish, 100 miles west of Baton Rouge. Existing rail lines in the area include the UP Lake Charles and Beaumont subdivision mainlines.

7.1.1 Proposed Action

The proposed action at Kinder involves the construction and operation of a new connection between the UP Lake Charles subdivision mainline and the UP Beaumont subdivision mainline (see Figure 7-1). This connection would facilitate train movements between Livonia, Louisiana and Beaumont, Texas. Construction of this connection would require acquisition of approximately 0.5 acre of new right-of-way, 1,750 feet of new rail line and installation of two power-operated (30 mph) mainline turnouts.

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 20 people over a period of 17 days. The construction would require approximately 3,100 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following changes along existing rail lines:

Traffic on the UP Lake Charles line would increase from 7 to 8 trains per day.

- Traffic on the UP Beaumont line would remain at 3 trains per day.
- Traffic on the new construction would include 4 trains per day.

7.1.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line connection. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and SP rights-of-way. There are no construction, operational or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP and SP rail lines. However, access between the two lines would be limited to existing interchanges or terminals.

7.1.3 Existing Environment

Land Use

The proposed construction would occur at the junction of the existing rail lines. Although residential and commercial land uses surround the proposed construction site, these land uses developed after the railroad was introduced to the area. There are no formal land use policies or zoning designations for the area. The proposed construction would not occur on prime farmland. The line proposed for construction is not within a designated coastal zone.

Water Resources

Water resources in the area of the proposed action are limited to one man-made ditch which flows under the current mainline. The National Wetland Inventory (NWI) map identifies a small riverine wetland along a portion of the ditch. The new rail connection would cross this ditch. The proposed construction site and existing rail lines are outside the 100-year floodplain. Soils are poorly drained and water runs from the flat ground surface at a very slow rate. Ground water levels are often close to the surface or within 1.5 feet of the surface.



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

KINDER, LOUISIANA

ENVIRONMENTAL ASSESSMENT

Biological Resources

Vegetation. Vegetation on site is described as ruderal weeds and the site is surrounded by residential and commercial land uses. According to the soils survey, Allen Parish was originally forested, but much of the mixed deciduous forest was removed when Kinder and the two railways were established.

Wildlife. Because much of the area around Kinder is used agriculturally for rice production, there are high populations of ducks and geese, both native and migratory. In addition, species such as quail and rabbit that thrive in agricultural areas are also high. Areas of mixed hardwood and pine forests also provide habitat for white-tailed deer. Because the construction project is within the Town of Kinder, it is unlikely that much wildlife would be found in the immediate project area.

Threatened and Endangered Species. The U.S. Fish and Wildlife Service has identified one Federally-listed threatened or endangered species that potentially occurs within the vicinity of Kinder. This species is the red-cockaded woodpecker *(Picoides borealis)*. However, since the red-cockaded woodpecker's habitat is limited to old growth pine forests and the proposed construction site is within town limits on a disturbed site with ruderal vegetation, this species is not expected to occur at the Kinder site. There is no critical habitat known or recorded in the vicinity of the proposed construction.

Parks, Forest Preserves, Refuges, and Sanctuaries. There are no known national or state parks, preserves, or wildlife refuges or sanctuaries in the vicinity of the proposed construction site.

Air Quality

The proposed construction site is located in Air Quality Control Region (AQCR) 106: Southern Louisiana - Southeast Texas. This AQCR is currently non-attainment for ozone. For all other National Ambient Air Quality Standards (NAAQS) pollutants, this AQCR is considered an attainment area.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the

projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, industrial, and vehicular traffic are the primary sources of noise in the area of the proposed rail line construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet).

The current level of train traffic on the UP Lake Charles rail line (7 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 100 feet without horns (330 feet with horns). The current level of train traffic on the UP Beaumont rail line (3 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 55 feet without horns (195 feet with horns).

Historic and Cultural Resources

Based on SEA's initial consultations with the Louisiana State Historic Preservation Officer (SHPO), it was determined that no documented historic structures or archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by the SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities. Consultation has been initiated with the Louisiana SHPO to confirm this finding.

Transportation and Safety

The existing rail network consists of two UP lines that intersect in Kinder and can be reached by U.S. 165, U.S. 190, and several local roads. Access to the proposed construction site would be on local roads.

SEA's review of the VISTA database and UP safety records indicate that no known hazardous waste sites exist at the proposed construction site.

7.1.4 Potential Environmental Impacts of Proposed Action

Land Use

The proposed connection occurs at the junction of two existing railways. No adverse land use impacts are expected from the construction of the proposed connection. It is compatible with surrounding land uses and would not require the conversion of prime farmland to complete construction of this connection. The proposed site is not subject to any designated coastal zone management plans.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited infiltration of groundwater in the area. UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. Coordination with the U.S. Army Corps of Engineers would be required to verify wetland boundaries and Section 404 permitting requirements. All drainage structures would be designed to maintain existing flows for the Kinder Ditch, there would be no known adverse impact to the 100-year floodplain adjacent to the proposed rail construction project. Additionally, a National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. Construction of the new rail connection would require removal of existing ruderal vegetation. New track and ballast would permanently replace existing vegetated areas.

Wildlife. Since wildlife habitat on the proposed construction site is minimal and of low quality, this project is not expected to have an adverse impact on the existing animal population. Wildlife on the site is tolerant of urban conditions and would move to open lands adjacent to the site.

Threatened and Endangered Species. Based on SEA's consultations with USFWS, there are no known federally listed, proposed, or candidate species in the project area. Also, according to the Louisiana Department of Wildlife, there are no known state Species of Concern in this project area.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse impact is expected, since there are no known national or state parks or preserves, wildlife refuges, or sanctuaries in the vicinity of the proposed construction site.

Air Quality

Impacts on air quality in Kinder could result from increased emissions during project construction as well as from increased train traffic when the proposed project is completed and becomes operational. Potential impacts from construction and operations are described below.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 106 is an air quality attainment area except for ozone. The small amount of fugitive dust emissions due to construction would have no adverse impact on ozone levels due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of emissions associated with vehicular traffic during the construction: (1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 20 employees for 17 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 680. This relatively small number of trips for the short duration of the construction would not be sufficient to adversely affect air quality. In addition, due to the small scope of construction activities (only 3,100 cubic yards of earthwork are required), air quality impacts from construction equipment would be minimal, and would not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail line construction would not introduce new rail traffic on the associated line segments, but rather would provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction itself would not have the potential to seriously degrade the air quality of AQCR 106, nor would it result in any exceedances of the NAAQS.

Noise

UP/SP estimate 4 train movements per day on the proposed rail line construction. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 70 feet without horns. The distance would be 225 feet with horns, but horns would not likely be used along the proposed connection because no grade crossings would be crossed.

The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of both existing rail lines. Wheel squeal noise could occur from trains using the new connection, although the squeal would be lower than that now produced by the existing connection

in the northeast quadrant of the crossing, due to the smaller curvature of the connection and larger distances between the noise source and receptors.

Historic and Cultural Resources

Based on SEA's initial consultations with the Louisiana SHPO, no known or documented historic structures or archaeological sites exist at the proposed construction site; thus, there would be no impacts to such resources. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction. Consultation has been initiated with the Louisiana SHPO, seeking concurrence in this determination.

Transportation and Safety

The proposed rail line construction project would improve rail access to Kinder and enhance the efficiency of UP/SP operations. It would not require new grade crossings and therefore would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

7.1.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 7.1.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP right-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection could cause additional fuel consumption and increase emissions impacts.

7.1.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Agency comments regarding the proposed construction projects are summarized below:

- The U.S. Army Corps of Engineers noted the possible need for Section 404 permits.

- The Natural Resources Conservation Service stated that precaution should be taken for lines that would be used for transport of hazardous waste or materials. The NRCS also noted that any proposed construction should consider drainage and flooding impacts; that it appears that some wetlands would be affected; and that new rail line connections that would require construction outside of the existing right-of-way would have the potential to convert important farmland to nonagricultural uses.

- The Louisiana Department of Environmental Quality (DEQ), noted that air quality problems during construction activities could result from unauthorized open burning,

grading, trucking or other activities which generate particulate. The DEQ recommended that crossing of wetlands and water bodies should be minimized. Also, water quality problems could result from construction and operations activities, or the use of contaminated fill materials during construction.

- The Louisiana Department of Transportation and Development stated the proposed merger did not conflict with the Statewide Transportation Plan.

7.1.7 Suggested Mitigation

This section highlights the mitigation measures that various parties, consulted in the process of preparing the EA for the proposed merger, have requested:

- The Louisiana Department of Environmental Quality recommended that any crossing of wetlands or water bodies be minimized.

7.1.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Kinder construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

3. In and near the areas of Kinder Ditch and the fringe wetlands, UP/SP shall restrict mechanized equipment to the area required to complete construction activities.

4. Prior to conducting construction activity, UP/SP shall consult with the U.S. Army Corps of Engineers and obtain and comply with any permits required under Section 404 of the Clean Water Act, 33 U.S.C. 1344.

5. UP/SP shall design all drainage structures to maintain existing flows for the Kinder Ditch.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Louisiana SHPO.

Safety

1. UP/SP shall consult with the Louisiana Department of Environmental Quality if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport all hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in its Emergency Response Plan.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

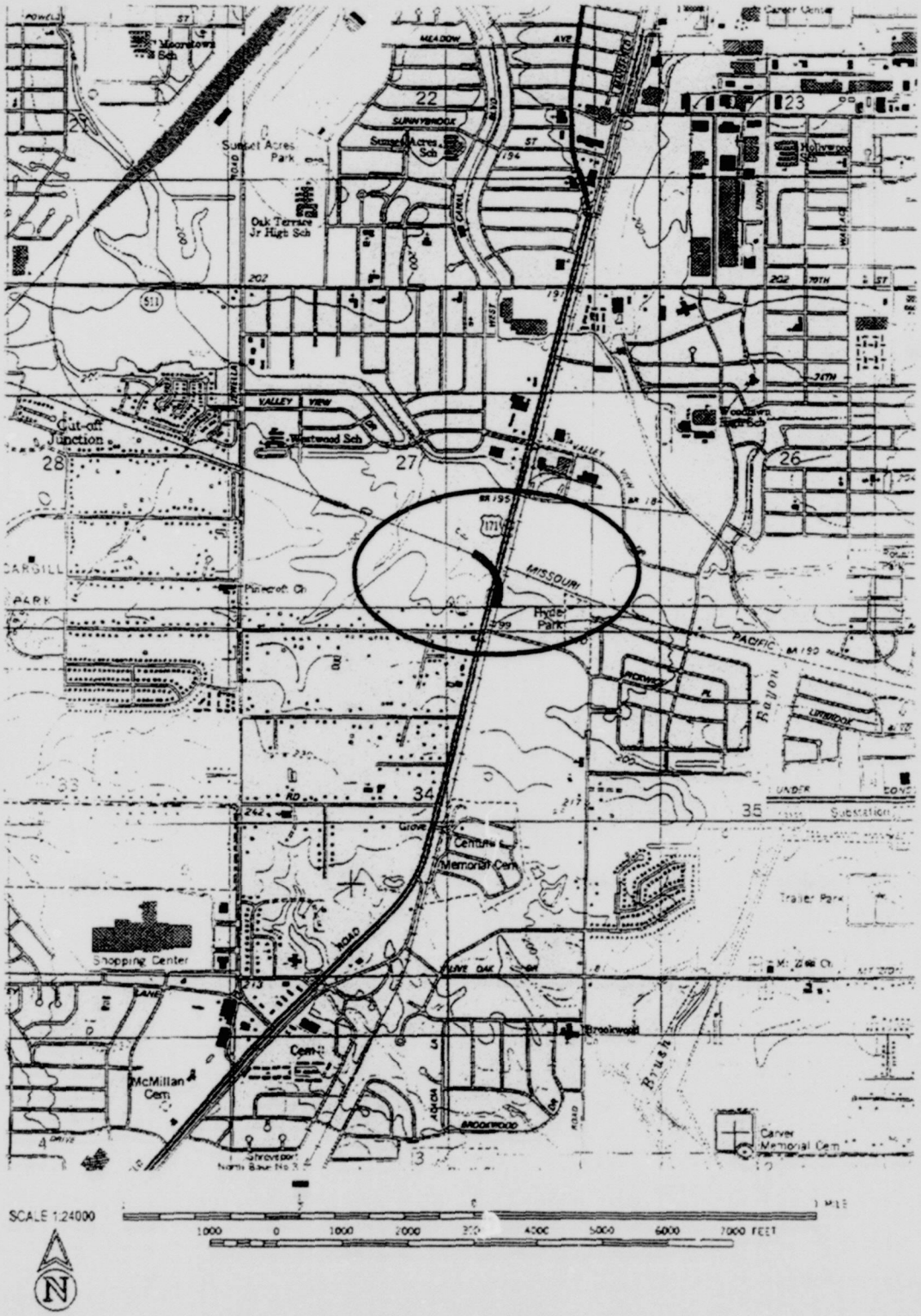
1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

7.2 Shreveport

Shreveport is located in Caddo Parish, 20 miles east of the Texas state line. Existing rail lines in the area include the SP mainline to Houston and the UP Reisor and SP Lufkin subdivision mainlines.

7.2.1 Proposed Action

A new connection at Shreveport is planned as part of the proposed merger (see Figure 7-2). This connection between the UP Reisor Subdivision mainline and the SP Lufkin Subdivision mainline is needed to manage the movement of trains between the UP's Shreveport yard and the



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

SHREVEPORT, LOUISIANA

ENVIRONMENTAL ASSESSMENT

SP mainline south to Houston. Approximately 1,560 feet of new rail line would be constructed and two new power-operated turnouts would be installed. Construction of the connection would also require the acquisition of three acres of right-of-way and the relocation of a U.S. Highway 171 overpass pier.

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 20 people over a period of 16 days. The construction would require approximately 3,700 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following changes along existing rail lines:

- Traffic on the UP Reisor line would remain at six trains per day.
- Traffic on the SP Lufkin line would increase from 8 to 12 trains per day.
- Traffic on the new common point connection would include 2 trains per day.

7.2.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line connection. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and SP rights-of-way. There are no construction, operational or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP and SP rail lines. However, access between the two lines would be limited to existing interchanges or terminals.

7.2.3 Existing Environment

Land Use

The proposed construction would occur in an area of a rail-highway transportation corridor. Surrounding the railroad and highway rights-of-way are deciduous and evergreen forests. Some residential development is located south and west of the proposed connection. There is no formal zoning designation for this area. The proposed connection would not occur on prime farmland. The line proposed for construction is not within a designated coastal zone.

Water Resources

There are two water features within the proposed construction site: a small pond (less than 2 acres) is directly south of the proposed rail connection, and an intermittent stream is crossed by one of the rail mainlines at the west end of the rail connection. There are no known 100-year floodplains within the project site. The USDA soil survey for Caddo Parish states that human-made and natural levees protect most of the alluvial plain from flooding. The proposed construction site is located on an upland terrace, east and south of a drainageway flowing southwest toward the Brush Bayou. National Wetland Inventory (NWI) maps indicate that no known wetlands occur on the proposed construction site.

Biological Resources

Vegetation. The vegetation on the proposed construction site is mostly native deciduous and evergreen forest. The main soil types are Guyton-Messer Complex and Gore silt loam: poor to moderately drained acidic soils with low fertility, slow percolation, and a groundwater table ranging between 1.5 feet and the ground surface. According to the soil survey, these soils are best suited for woodland production. Typical woodland species for these soils include loblolly pine, shortleaf pine, slash pine, sweetgum, green ash, southern red oak, and water oak. Areas next to the Highway 171 and northeast quadrant of the rail crossing are open fields with ruderal vegetation.

Wildlife. Because the existing plant and wildlife communities in the area of the proposed rail line construction project have been affected by continued railroad, industrial, and residential land use, it is unlikely that the project area supports important native plant and animal communities. The forested areas may provide some food and cover for wildlife.

Threatened and Endangered Species. The U.S. Fish and Wildlife Service and the Louisiana Department of Wildlife (LDW), Shreveport office, reported that there are no state- or Federally-listed threatened or endangered species or federally-designated critical habitats within or adjacent to the project site.

Parks, Forest Preserves, Refuges, and Sanctuaries. There are no known state or Federal parks, preserves, refuges, or sanctuaries near the proposed construction site. Hyde Park, a municipal park, is located immediately southeast of the proposed construction site.

Air Quality

The proposed construction site is located in AQCR 22: Shreveport - Texarkana - Tyler. This AQCR is currently categorized as being in attainment with the NAAQS for all pollutants.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, industrial, and vehicular traffic are the primary sources of noise in the area of the proposed rail line construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet).

The current level of train traffic on the UP Reisor rail line (six trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 90 feet without horns (285 feet with horns). The current level of train traffic on the SP Lufkin rail line (eight trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 70 feet without horns (225 feet with horns).

Historic and Cultural Resources

SEA's initial consultations with the Louisiana SHPO determined that no documented historic structures or archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by the SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities. Consultation has been initiated with the Louisiana SHPO to confirm this finding.

Transportation and Safety

The existing rail network includes UP and SP tracks that intersect in the Shreveport area. The proposed construction project is located southwest of Shreveport. U.S. Highway 171 is adjacent to the rail line; I-220 is one mile south of the project. Access to the construction site would be via local roads or rail vehicles. The proposed connection would be grade separated at U.S. 171 and would not require at-grade crossings of any local roads.

SEA's review of the VISTA database and UP safety reports indicate that no known hazardous waste sites exist at the proposed construction site.

7.2.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. The connection would take place within an existing transportation corridor and is compatible with existing land uses. No conversion of prime farmland is necessary to complete construction of this connection, nor is the site subject to any coastal zone management plans.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not adversely alter stormwater drainage and infiltration patterns in the area.

UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction would not involve excavation from or the placement of dredged or fill material into the "waters of the United States," including designated wetlands. The construction of the new rail connection and relocated highway pier could adversely impact the small pond located close to the proposed alignment and an extension of the existing drainage structure for the stream crossing may be required at the west end of the connection. Coordination with the U.S. Army Corps of Engineers would be required to verify "waters of the United States" boundaries and Section 404 permitting requirements for these construction activities. Additionally, an NPDES stormwater discharge permit would not be required pursuant

to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. Construction of new track, highway piers and access construction roads would require clearing the ground of existing evergreen and deciduous forest. The loss of forest vegetation would slightly reduce the area of wildlife habitat, and temporarily increase the potential for soil erosion.

Wildlife. Wildlife would not be adversely effected since the proposed project corridor is within an urban setting which includes two rail mainlines and an interstate highway. The habitat area would be reduced but not fragmented; only a small percent of the existing forest would be removed by the proposed construction.

Threatened and Endangered Species. Based on consultation with the USFWS and the LDW, SEA determined that there would be no adverse impacts to federally- or state-listed species or their critical habitat within the project area.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse impact is expected to parks, preserves, refuges, or sanctuaries. Hyde Park is the only local park close to the project site and it would be buffered from project construction and operations by the existing evergreen forest.

Air Quality

Impacts on air quality in Shreveport could result from increased emissions during project construction as well as increased train traffic when the proposed project is completed and becomes operational. Potential impacts from construction and operations are described below.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 22 is an air quality attainment area. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of emissions associated with vehicular traffic during the construction: (1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force

for construction at the site would be 20 employees for 16 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 640. This relatively small number of trips for the short duration of the construction would not be sufficient to adversely affect air quality. In addition, due to the small scope of construction activities (only 3,700 cubic yards of earthwork are required), air quality impacts from construction equipment would be minimal, and would not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail line construction would not introduce new rail traffic on the associated line segments, but rather would provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction itself would not have the potential to seriously degrade the air quality of AQCR 22, nor would it result in any exceedances of the NAAQS.

Noise

UP/SP estimate two train movements per day on the proposed rail line construction. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 70 feet without horns. The distance would be 225 feet with horns, but horns would not likely be used along the proposed connection because no grade crossings would be involved. The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of both existing rail lines. However, wheel squeal noise could occur from trains negotiating the curve. The squeal could be objectionable to residents, though the majority of the curve is at a distance in excess of 1,000 feet from the residents, where the maximum sound level should be about 60 to 70 dBA. At the nearest residents, 500 feet from the curve, maximum noise levels should be about 68 to 78 dBA. This intermittent noise source would be eliminated through UP/SP's use of rail lubricators.

Historic and Cultural Resources

Based on SEA's initial consultations with the SHPO in Louisiana, no known or documented historic structures or archaeological sites exist at the proposed construction site; thus, there would be no impacts to such resources. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites

during the construction. Consultation has been initiated with the Louisiana SHPO, seeking concurrence in this determination.

Transportation and Safety

The proposed rail line construction project would improve rail access to Shreveport and enhance the efficiency of UP/SP operations. It would not require new grade crossings and therefore would not cause any delays or disruptions of motor vehicle traffic. To minimize potential impacts to highway traffic, UP/SP would coordinate construction with the Louisiana Department of Transportation and the Federal Highway Administration during replacement of the I-71 pier. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

7.2.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 7.2.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection could cause additional fuel consumption and increase emissions impacts.

7.2.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related abandonment and construction projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Agency comments regarding the proposed construction projects are summarized below:

- The U.S. Army Corps of Engineers noted there was a possible need for permits.

- The Natural Resources Conservation Service stated that precaution should be taken for lines that would be used for transport of hazardous waste or materials. The Service also noted that any proposed construction should consider drainage and flooding impacts and that new rail line connects that would require construction outside of the existing right-of-way would have the potential to convert important farmland to nonagricultural uses.

- The Louisiana Department of Environmental Quality noted that air quality problems during construction activities could result from unauthorized open burning, grading, trucking or other activities which generate particulate. Also, water quality problems could result from construction and operations activities, or the use of contaminated fill materials during construction.

- The Louisiana Department of Transportation and Development stated that the proposed merger did not conflict with the Statewide Transportation Plan, and requested that the relocation of the U.S. Highway 171 overpass pier be closely coordinated with the Department and the Louisiana Division of the Federal Highway Administration.

7.2.7 Suggested Mitigation

This section highlights the mitigation measures that various parties, consulted in the process of preparing the EA for the proposed merger, have requested:

- The Louisiana Department of Transportation and Development requested that the relocation of the U.S. Highway 171 overpass pier be closely coordinated with the Department and the Louisiana Division of the Federal Highway Administration.

7.2.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Shreveport construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope

to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

3. Prior to conducting construction activity, UP/SP shall consult with the U.S. Army Corps of Engineers and obtain and comply with any permits required under Section 404 of the Clean Water Act, 33 U.S.C. 1344.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Louisiana SHPO.

Safety

1. UP/SP shall consult with the Louisiana Department of Environmental Quality if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport all hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in its Emergency Response Plan.

Transportation

1. UP/SP shall coordinate the design and construction of the U.S. Highway I-71 overpass pier replacement with the Louisiana Department of Transportation and the Louisiana Division of the Federal Highway Administration.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

3. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

2. UP/SP shall use rail lubricants to reduce wheel squeal generated by trains on the curved section of the connection.

CHAPTER 8.0
MISSOURI

This chapter analyzes the potential environmental impacts associated with the proposed rail line construction projects in new rights-of-way in Missouri that UP/SP have identified in connection with the proposed merger. These proposed rail line construction projects and their lengths are:

- Dexter, Missouri - 8,900 feet.
- Paront, Missouri - 8,600 feet.

A detailed description of each of these proposed construction projects, including alternative actions considered, the existing environment, the potential environmental impacts, and recommended mitigation measures, is provided below.

8.1 Dexter

Dexter is located in Stoddard County, 130 miles south of St. Louis on Highway 25. Existing rail lines in the area include the UP Chester subdivision.

8.1.1 Proposed Action

The proposed action at Dexter involves the construction and operation of a 8,900-foot extension to an existing siding at MP 189.9 on UP's Chester subdivision (see Figure 8-1). This extension provides additional storage capacity which would facilitate more efficient mainline operations in this corridor. The design would require acquisition of approximately one acre of new right-of-way.

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 20 people over a period of 82 days. The construction would require approximately 11,000 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following estimated changes along existing rail lines:

- Traffic on the UP Chester subdivision would decrease from 28 to 17 trains per day.

- The new storage siding would be used by existing traffic on an as-needed basis.

8.1.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line connection. The proposed siding extension would minimize the use of new land outside the UP right-of-way. There are no construction, operational or environmental features that would make another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP rail lines. However, storage capacity at Dexter would be limited to the length of the existing siding.

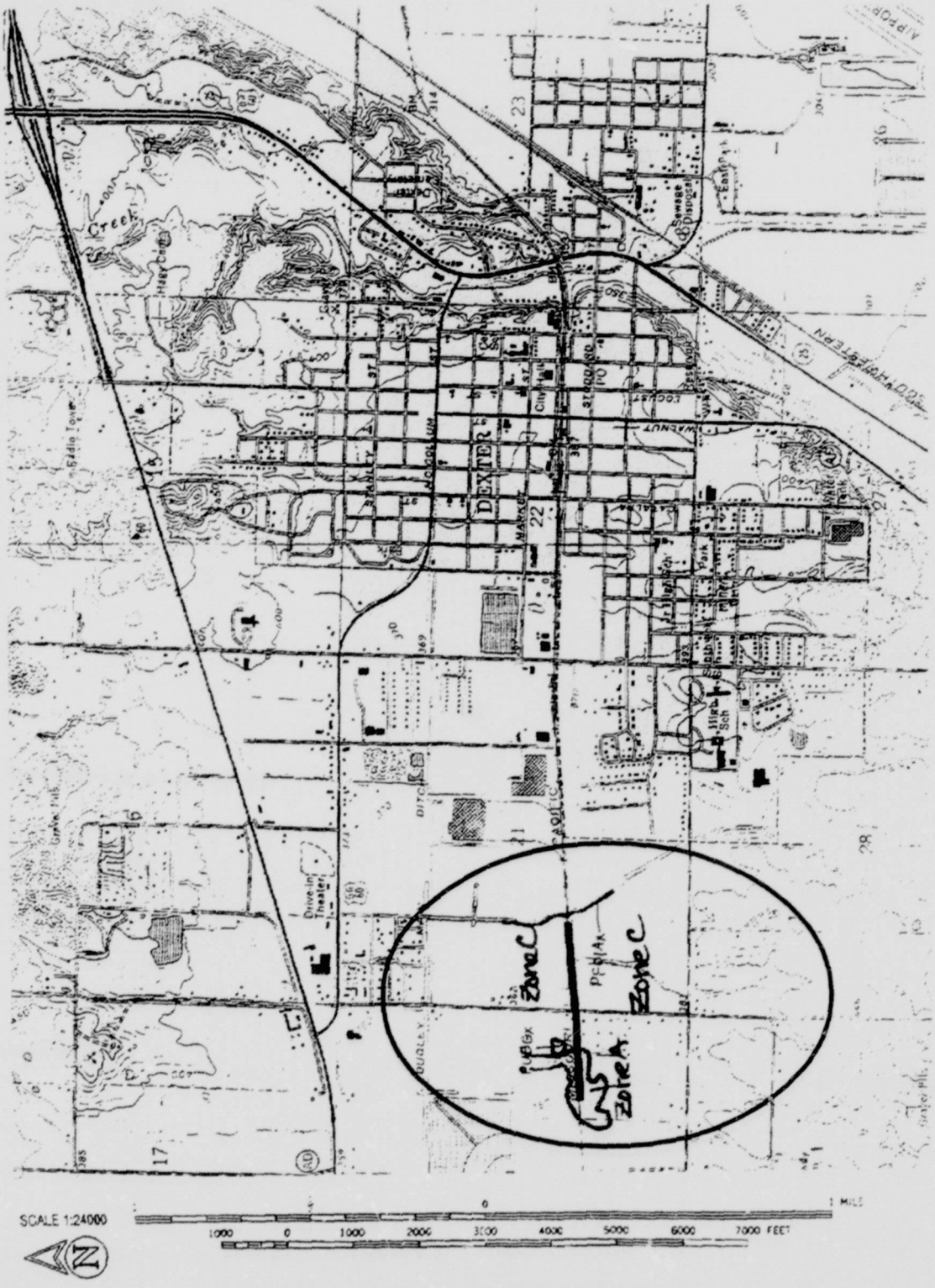
8.1.3 Existing Environment

Land Use

The proposed construction would occur within an area already dominated by rail use. Other land uses surrounding the site include residential, agricultural, and forested wetlands along the western portion of this segment. Because of its rural location, the area has no zoning designation. The project occurs in an area of prime farmland. The line proposed for construction is not located in a designated coastal zone.

Water Resources

Two pairs of intermittent streams that flow north from the hills southwest of Dexter meet at the UP Chester mainline. Each pair joins to form one drainage crossing and stream under the rail line. The two streams flow north from the rail line to the Dudley Main Ditch via excavated ditches. The westerly stream for each pair parallels the south side of the rail line as it flows east to join each easterly stream. The length of the west stream adjacent to the rail line is 700 feet. The length of the east stream next to the rail line is 800 feet. A narrow band of wetland occurs at the south end of the proposed construction site. Another small wetland is located north of the UP mainline. At the west end of the proposed siding extension, approximately 1,000 linear feet of the rail line is



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

DEXTER, MISSOURI

ENVIRONMENTAL ASSESSMENT

within a 100-year floodplain. The east stream has a narrow 100-year floodplain as it passes under the rail line.

Biological Resources

Vegetation. Open crop lands and grass pasture lands are the primary vegetation type adjacent to the proposed rail siding extension project. Corn, grain, sorghum, rice, soybeans, and wheat are the principal crops grown on the soil adjacent to the proposed construction site. The site itself has disturbed ruderal vegetation. Wetland and riparian vegetation can be found along the stream beds, ditches, and depressions.

Wildlife. Only 10 percent of the county around Dexter is currently woodland. The remainder of the county is in cultivation as cropland. The limited amount of woodland habitat and the large field size are major factors affecting the wildlife populations in the area. Species adapted to agricultural habitat such as quail, rabbit, blackbird, and crow are well represented. In addition, populations of muskrat, raccoon, opossum, mink, coyote, grey fox, beaver, and striped skunk have large populations in the county.

Threatened and Endangered Species. The U.S. Fish and Wildlife Service (USFWS) was consulted regarding threatened and endangered species in the area of the proposed rail line construction at Dexter. The USFWS staff indicated that no Federally-listed threatened or endangered species are known to occur in the vicinity of the proposed construction project.

Parks, Forest Preserves, Refuges, and Sanctuaries. Two urban parks in Dexter were identified by the Missouri Department of Natural Resources: Airport Park and Boon City Park. Neither is adjacent to the proposed construction site.

Air Quality

The proposed construction site is located in Air Quality Control Region (AQCR) 138: Southeast Missouri. This AQCR is currently categorized as being in attainment with the National Ambient Air Quality Standards (NAAQS) for all pollutants.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements,

and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, industrial, and vehicular traffic are the primary sources of noise in the area of the proposed rail line construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet).

The current level of train traffic on the UP Chester Subdivision rail line (28 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 250 feet without horns (700 feet with horns).

Historic and Cultural Resources

Based on SEA's consultations with the Missouri SHPO and review of NRHP listings, no historic or cultural resources have been identified in the vicinity of the proposed construction site. Consultation has been initiated with the Missouri State Historic Preservation Officer (SHPO) to confirm this finding.

Initial consultations with Missouri's SHPO determined that no documented archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by a SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities.

Transportation and Safety

Dexter can be reached by U S. 60 and Business Route 60, located less than a mile north of the site. The existing ground transportation network consists of the UP rail line at Dexter and State Highway 25, located about 1.5 miles east of the project site. Access to the rail construction area would be on these local roads.

SEA's review of the VISTA database and UP safety records indicate no known hazardous waste sites exist at the proposed construction site.

8.1.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. The storage siding would be constructed immediately south of the existing railroad mainline. Thus,

it would be compatible with surrounding land uses and would not require the conversion of prime farmland to non-agricultural uses. Construction activities would not disrupt a designated coastal zone.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area. Therefore there should be no impact to the 100-year floodplain.

The proposed construction project would have only minor impacts on the small intermittent streams which parallel the rail line. UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not adversely affect water quality in the construction area.

The proposed construction would involve minor encroachment on two wetland areas. Therefore, authorization under Section 404 of the Clean Water Act would be required.

A National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. The proposed action would have no adverse impacts on native plant communities. The proposed rail line construction site is located along an existing rail corridor where most of the area is covered by agricultural, urban, and sparse vegetation. However, after construction UP/SP would use Best Management Practices (BMPs) to encourage regrowth in disturbed areas and would stabilize disturbed soils.

Wildlife. No adverse impacts to wildlife populations are anticipated, since the existing habitat on the proposed construction site is of low quality.

Threatened and Endangered Species. Based on consultations with USFWS there are no adverse impacts to federally or state listed threatened or endangered species present within the project area.

Parks, Forest Preserves, Refuges and Sanctuaries. No adverse impact is expected since there are no known state or federally designated parks, preserves, refuges, or sanctuaries in the vicinity of the proposed construction.

Air Quality

Impacts on air quality in Dexter could result from increased emissions during project construction as described below. There would be no operational effects once the storage siding has been constructed.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 138 is an air quality attainment area. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, UP/SP would be required to follow good construction practices, including dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of estimated emissions associated with vehicular traffic during the construction:(1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 20 employees for 82 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 3,280. This number of trips for the duration of the construction should not be sufficient to adversely affect regional air quality. In addition, despite the scope of construction activities (11,000 cubic yards of earthwork are required), emissions from construction equipment would be minimal would not adversely impact the area's long-term air quality.

Estimated Emissions From Operations. The new siding would be used for storage to allow more efficient mainline operations. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction would not have the potential to seriously degrade the air quality in AQCR 138, nor would it result in any exceedances of the NAAQS.

Noise

UP/SP estimate 17 train movements per day on the rail line where the proposed siding extension would be constructed. The number of trains using the siding each day would vary with operational conditions. The idling locomotive noise would raise ambient noise levels between train passbys, however, there are no sensitive receptors that could be affected.

Historic and Cultural Resources

SEA's review of NRHP listings indicate there are no known historic properties at this location; therefore, no adverse effects are associated with this construction project. Consultation has been initiated with the Missouri SHPO, seeking concurrence in this determination.

Based on SEA's initial consultations with the SHPO in Missouri, no known or documented archaeological sites exist at the proposed construction site. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction.

Transportation and Safety

The proposed storage siding would improve rail access to and through Dexter and enhance the efficiency of UP/SP operations. It would modify one grade crossing but would not require new grade crossings and therefore, would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches should retain the contaminated runoff.

8.1.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 8.1.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction would involve the use of minimal land outside the UP right-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line siding would not be constructed and operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this siding could result in less efficient rail service. The capacity constraints, delays,

and slower operating speeds that could result without the siding extension could cause additional fuel consumption and increase emissions impacts.

8.1.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. All correspondence and responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Agency comments regarding the proposed construction projects are summarized below:

- U.S. Army Corps of Engineers, Memphis District, states that permit requirements for construction of new rail line connections outside existing rights-of-way would be considered on a case-by-case basis. A portion of the proposed rail line construction near Dexter is in a 100-year floodplain.

- Department of Natural Resources provided a list of parks within a quarter mile of the railroad track that have utilized federal grant funds through the Land and Water Conservation Fund program.

8.1.7 Suggested Mitigation

No mitigation measures were suggested for the proposed construction project by the various parties consulted in the process of preparing the EA (See **Volume 5**, Appendices D and E, for agency consultation lists).

8.1.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Dexter construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed siding.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. Prior to conducting construction activity, UP/SP shall consult with the U.S. Army Corps of Engineers and obtain and comply with any permits required under Section 404 of the Clean Water Act, 33 U.S.C. 1344.

2. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the siding is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

3. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

4. In and near the two small wetland areas, UP/SP shall restrict mechanized equipment to the area required to complete construction activities.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Missouri SHPO.

Safety

1. UP/SP shall consult with the Missouri Department of Natural Resources, Environmental Quality Division, if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport all hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in its Emergency Response Plan.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during

construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

8.2 Paront

Paront is located in Stoddard County, near Dexter, about 1 mile north of U.S. 60. Existing rail lines in the area include the SP Pine Bluff subdivision.

8.2.1 Proposed Action

The proposed action at Paront would involve the construction and operation of an 8,600-foot extension to an existing siding at MP 47.1 on SP's Pine Bluff subdivision (see Figure 8-2). This extension would provide additional storage capacity, which would facilitate more efficient mainline operations in this corridor. The design would require the acquisition of approximately two acres of new right-of-way.

Construction Requirements

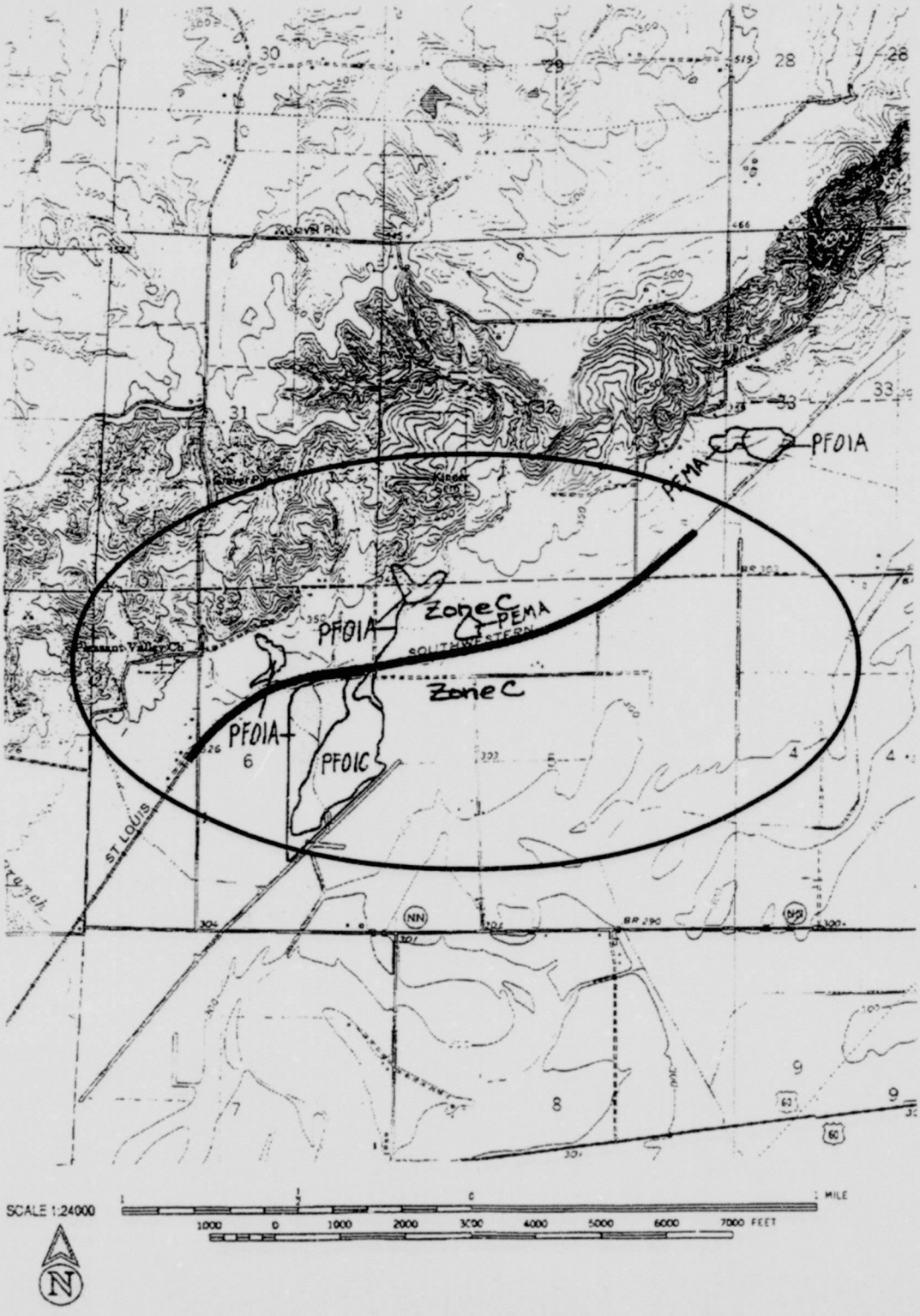
UP/SP estimate that construction of the new rail line connection would require a labor force of 20 people over a period of 129 days. The construction would require approximately 57,200 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following changes along the existing SP rail line:

- Traffic on the SP line would decrease from 45 to 39 trains per day, and the annual gross tons would increase from 83 to 84 million tons (a one percent increase).

- The new storage siding could be used by existing traffic in an as-needed basis.



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

PARONT, MISSOURI

ENVIRONMENTAL ASSESSMENT

8.2.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line construction. The proposed siding extension would minimize the use of new land outside the SP right-of-way. There are no construction, operational, or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing SP rail lines. However, storage capacity at Paront would be limited to the length of the existing siding.

8.2.3 Existing Environment

Land Use

The proposed construction would occur within an area already dominated by rail use. Other land uses surrounding the site include agricultural, wetlands, and limited residential. Because of its rural location, the area has no zoning designation. The project occurs in an area of prime farmland. The line proposed for construction is not located in a designated coastal zone.

Water Resources

The proposed rail siding extension is located at the base of Crowley's Ridge, east of the City of Dexter. The proposed construction site would cross three permanent and intermittent creeks flowing south from the hills. The creeks flow parallel to the rail line embankment before crossing under the track through three drainage structures. The length of each creek flowing parallel to the rail line ranges between 200 and 1,000 feet. Two man-made ditches intercept waters from the creeks at a confluence 2,000 feet south of the rail line. Three types of wetlands are found at eight locations north and south of the rail line. Forested wetlands cover approximately 65 acres south of the rail line, and about 15 acres on three sites north of the rail line and next to the creeks. Wetlands with emergent vegetation are located in two places north of the rail line, covering about 6 acres. The proposed construction project is outside of the 100-year floodplain.

Biological Resources

Vegetation. Forested and non-forested wetlands, and crop and pasture land edge the north and south sides of the proposed construction site. Wetland vegetation is relatively undisturbed, except for agricultural practices.

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Wildlife. The Crowley's Ridge area around Paront provides the best wildlife habitat in Stoddard County. Much of the remaining land in the county lacks the diversity, interspersion, and edge necessary to maintain large populations of wildlife. The Crowley's Ridge area has the highest amount of woodland remaining (29 percent) in the county. Deer, wild turkey, and squirrel populations are rated good to excellent for this delta county, but poor compared to the rest of the state of Missouri. There is also a small resident population of woodcock in the area; annual migratory flights increase the numbers of this gamebird each fall.

Threatened and Endangered Species. USFWS was consulted regarding threatened and endangered species in the area of the proposed rail line construction at Paront. The USFWS staff indicated that no Federally-listed threatened or endangered species are known to occur in the vicinity of the proposed construction project. The USFWS also reports that there are no federally-designated critical habitats near the proposed construction site.

The Missouri Department of Conservation (MDC) was also consulted regarding state-listed threatened or endangered species in the area of the proposed rail line construction at Paront. The MDC staff indicated that this area has some of the greatest diversity of state-listed plants in all of Missouri; specifically, 18 state-listed threatened or endangered plant species could potentially occur in the vicinity of the proposed construction.

In addition, the MDC reported that the state-endangered gold-striped darter (*Etheostoma parvipinne*) occurs within the proposed construction area; specifically, the south-flowing streams from Crowley's Ridge (north of the proposed project site) are the only known waterways where this fish exists in Missouri.

Parks, Forests Preserves, Refuges, and Sanctuaries. No parks, preserves, refuges, or sanctuaries are located in the immediate vicinity of the proposed construction site.

Air Quality

The proposed construction site is located in Air Quality Control Region (AQCR) 138: Southeast Missouri. This AQCR is currently categorized as being in attainment with the National Ambient Air Quality Standards (NAAQS) for all pollutants. Construction-related activities would not adversely affect the ambient air as a result of the proposed construction and operation.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase

in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

The current level of train traffic on the SP Pine Bluff Subdivision rail line (45 trains per day) generates an estimated Ldn noise level of 65 dBA at a distance of approximately 350 feet without horns (900 feet with horns).

There are eight residences near the proposed siding location. These are within 300 feet of the extreme southwest end of the siding. The Pleasant Valley Church is located approximately 2,000 feet north of the existing mainline. Existing noise in the area is limited to through trains, including horn noise produced by trains approaching the grade crossing located at the south end of the siding. Auto traffic noise is assumed to be small.

Historic and Cultural Resources

Based on SEA's consultations with the Missouri SHPO and review of the NRHP listings, no historic or cultural resources have been identified in the vicinity of the proposed construction project.

SEA's initial consultations with Missouri's SHPO determined that no documented archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by a SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities.

Transportation and Safety

The existing ground transportation network consists of the SP rail line, U.S. Highway 60, located 1 mile south of the site, and State Highway 25, located about 1 5 miles west of the project site. Paront can be reached by U.S. Highway 60, State Highway 25, and several other local roads. Access to the rail line construction area would be on these local roads. No new grade crossings are needed for the proposed siding extension.

SEA's review of the VISTA database and UP safety records indicate no known hazardous waste sites exist at the proposed construction site.

8.2.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed siding. Construction activities would not disrupt a designated coastal zone. The 8,600-foot extension would be immediately adjacent to the existing SP mainline. Right-of-way acquisition would not require conversion of any prime farmland to non-agricultural use.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area.

The proposed construction project would also not have any adverse impacts on the small intermittent stream which parallels the rail line nor adjacent wetlands. UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction may involve excavation from or the placement of dredged or fill material into the "waters of the United States," including designated wetlands. Therefore, authorization under Section 404 of the Clean Water Act would be required. A National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. No adverse impacts to vegetative communities are expected. The existing trackbed would be widened approximately 15 feet to accommodate the new siding. Existing vegetation would be removed and the land graded to create new sub-grade. Following construction, slopes along the trackbed would be revegetated.

Wildlife. No adverse impacts to wildlife populations are anticipated, although the existing habitat along the proposed construction site is of relatively high quality.

Threatened and Endangered Species. Alterations to the stream's crossing under the proposed rail construction would temporarily disturb the habitat of the state-endangered gold-striped darter. Since this species is most affected during breeding times, construction practices that disturb creek flows or increase creek turbidity should be avoided during breeding season. UP/SP would coordinate with the MDC prior to final design and construction of the project to avoid adverse impacts to the gold-striped darter.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse impact is expected since there are no known state or federally designated parks, preserves, refuges, or sanctuaries in the vicinity of the proposed construction.

Air Quality

Impacts on air quality in Paront could result from increased emissions during project construction as described below. There would be no operational effects once the storage siding has been constructed.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 138 is an air quality attainment area. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, UP/SP would be required to follow good construction practices, including dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of emissions associated with vehicular traffic during the construction:(1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 20 employees for 129 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 5,160. This number of trips for the duration of the construction should not adversely affect regional air quality. In addition, despite the scope of construction activities (57,200 cubic yards of earthwork are required), air quality impacts from construction equipment would be minimal, and would not adversely impact the area's air quality.

Estimated Emissions From Operations. The new siding would be used for storage to allow more efficient mainline operations. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction would not have the potential to seriously degrade the air quality in AQCR 138, nor would it result in any exceedances of the NAAQS.

Noise

The number of trains using this siding each day would vary with operational conditions. Extension of the siding may introduce noise into the residences from idling locomotives at the extreme southwestern end of the project. Noise from idling locomotives would increase noise levels between train passbys, though the change in L_{dn} would be less than 2 dBA. Construction noise would be audible to residents located at the southwestern end of the site. No impacts are expected at the Pleasant Valley Church.

Historic and Cultural Resources

SEA's review of NRHP listings indicate there are no known historic properties at this location; therefore, no adverse effects are associated with this construction project. Consultation has been initiated with the Missouri SHPO seeking concurrence in this determination.

Based on initial consultations with the SHPO in Missouri, no known or documented archaeological sites exist at the proposed construction site. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction.

Transportation and Safety

The proposed rail line construction project would improve rail access through Paront and enhance the efficiency of UP/SP operations. It would modify one grade crossing but would not require new grade crossings of any roads and therefore would not cause any delays or disruptions. Other transportation impacts could result in potential deterioration of local roads due increase motor vehicle traffic. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

8.2.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 8.2.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed siding extension would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line siding extension would not be constructed. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection could cause additional fuel consumption and increase emissions impacts.

8.2.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Agency comments regarding the proposed construction projects are summarized below:

- U.S. Army Corps of Engineers, Memphis District, stated that permit requirements for construction of new rail line connections outside existing rights-of-way would be considered on a case-by-case basis.

- U.S. Fish and Wildlife Service stated that no federally-listed threatened or endangered species or designated or proposed critical habitat occur within the project area.

- Missouri Department of Natural Resources provided a list of parks within a quarter mile of the railroad track that have utilized federal grant funds through the Land and Water Conservation Fund program.

8.2.7 Suggested Mitigation

No mitigation measures were suggested for the proposed construction project by the various parties consulted in the process of preparing the EA (See **Volume 5**, Appendices D and E, for agency consultation lists).

8.2.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Paront construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw

mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

3. In and near the wetland areas, UP/SP shall restrict mechanized equipment to the upland areas to complete construction activities.

4. Prior to conducting construction activity, UP/SP shall consult with the U.S. Army Corps of Engineers and obtain and comply with permits required under Section 404 of the Clean Water Act, 33 U.S.C. 1344.

Biological Resources

1. UP/SP shall coordinate with the Missouri Department of Conservation prior to final design of the project to avoid adverse impacts to the state-endangered gold-striped darter. UP/SP shall not conduct in-stream construction activities during the breeding season of this species.

2. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Missouri SHPO.

Safety

1. UP/SP shall consult with the Missouri Department of Natural Resources, Environmental Quality Division, if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport all hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR parts 171 to 179).

3. In case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in its Emergency Response Plan.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

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CHAPTER 9.0
TEXAS

This chapter analyzes the potential environmental impacts associated with the proposed rail line construction projects in new rights-of-way in Texas that UP/SP have identified in connection with the proposed merger. These proposed rail line construction projects and their lengths are:

- West Point, Texas - 1,900 feet.
- Houston, Texas (three connections) - 1,400 feet, 1,000 feet, and 1,650 feet.
- Fort Worth, Texas (two connections) - 1,180 feet and 800 feet.
- Carrollton, Texas - 3,660 feet.

A detailed description of each of these proposed construction projects, including alternative actions considered, the existing environment, the potential environmental impacts, and recommended mitigation measures, is provided below.

9.1 West Point

West Point is located in Lynn County, 145 miles south of Amarillo. Existing rail lines in the area include the UP Houston subdivision mainline and the SP Ennis subdivision Flatonia line.

9.1.1 Proposed Action

The proposed action at West Point involves the construction and operation of a new connection between the UP Houston subdivision mainline and the SP Ennis subdivision Flatonia line (see Figure 9-1). This connection would be used by mainline trains operating between Hearne, Houston and Halsted. Construction of the 1,900 feet of new rail line would require the acquisition of approximately 0.5 acres of new right-of-way. Installation of two power-operated turnouts is also necessary to operate the new connection.

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 20 people over a period of 19 days. The construction would require approximately 3,500 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following changes along existing rail lines:

- Traffic on the UP Houston subdivision mainline would remain the same (9 trains per day), and the annual gross tons would increase from 12 to 13 million tons (a 9 percent increase).

- Traffic on the SP Ennis subdivision Flatonia line would decrease from 13 to 10 trains per day, and the annual gross tons would increase from 22 to 33 million tons (a 51 percent increase).

- Traffic on the new common point connection would be three bulk unit trains per day.

9.1.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line connection. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and SP rights-of-way. There are no construction, operational or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

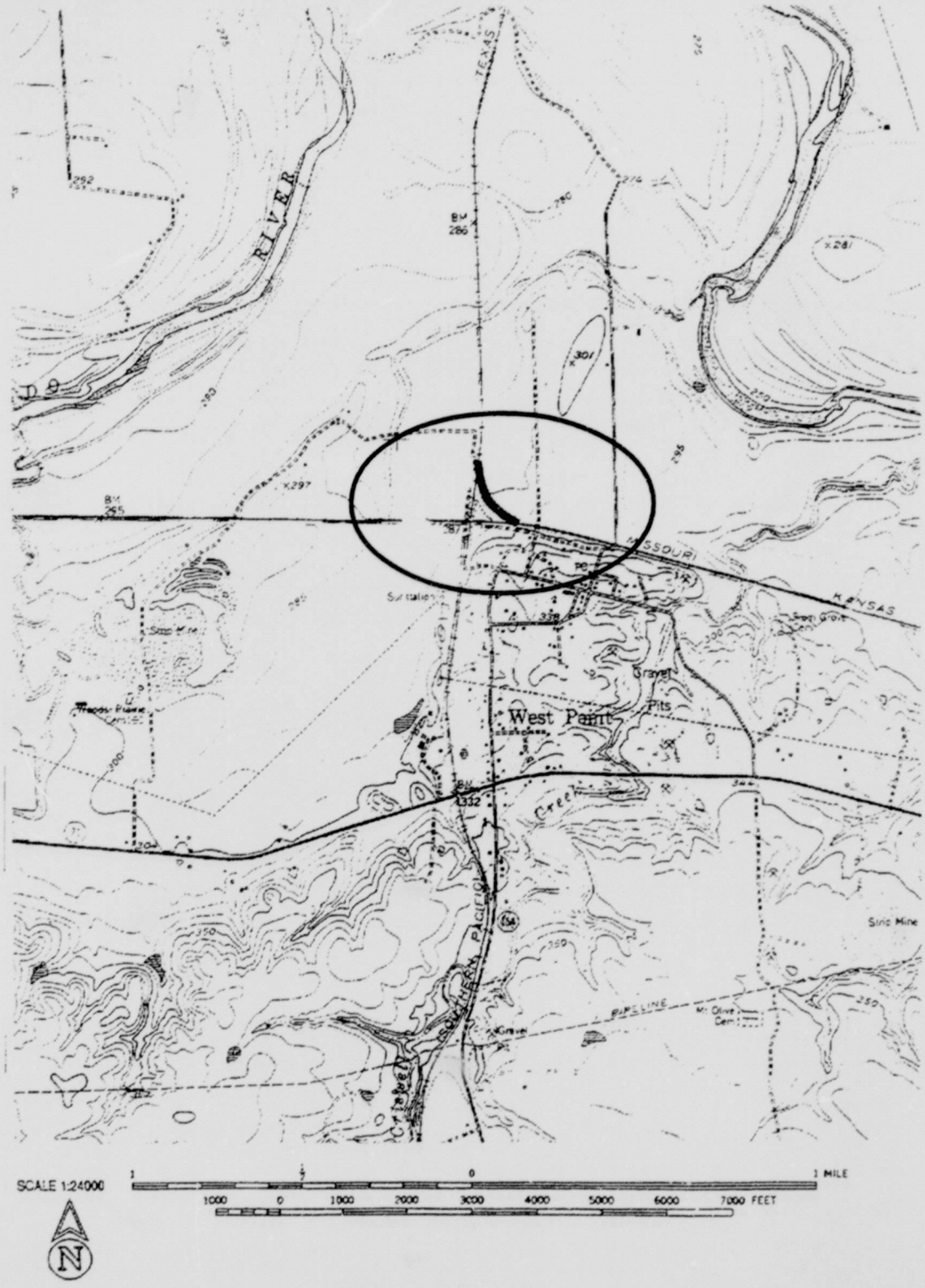
No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP and SP rail lines. However, access between the two lines would be limited to existing interchanges or terminals.

9.1.3 Existing Environment

Land Use

There is no formal zoning or any long-term land use plans to guide future development. The proposed construction would occur within an area immediately adjacent to existing rail uses. Other land uses surrounding the proposed site include cropland and pasture and residential uses. Cropland and pasture are found in all quadrants of the intersection of the two existing rail lines except the southeast quadrant. The southeast quadrant has residential uses associated with the community of West Point.



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

WEST POINT, TEXAS

ENVIRONMENTAL ASSESSMENT

Water Resources

The proposed project is within the 100-year floodplain of the Colorado River. The floodplain boundaries run along the west side of the SP rail line (south of the connection) and along the north side of the UP rail line. The existing rail line crossing is within the floodplain. National Wetlands Inventory (NWI) maps were not available for this site. On-site observations did not indicate the presence of wetlands.

Biological Resources

Vegetation. Existing vegetation, within and adjacent to the proposed construction site, is typically ruderal weeds, having been disturbed by past rail construction and current rail activities. Crop and pasture lands surround the proposed construction site. Pasture lands northeast of the cross-over are dominated by hackberry, elms and a mixture of grasses. Croplands west of the cross-over are cultivated for corn and grain sorghum.

Wildlife. The scrub-shrub vegetation within the pasture lands provide good habitat for deer, small mammals and birds.

Threatened and Endangered Species. SEA consulted the U.S. Fish and Wildlife Service (USFWS) regarding threatened and endangered species in the area of the proposed rail line construction at West Point. The USFWS staff indicated that no Federally-listed threatened or endangered species are known to occur in the vicinity of the proposed construction project

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, forest preserves, refuges, or sanctuaries are located in the vicinity of the proposed construction site.

Air Quality

The proposed construction site is located in Air Quality Control Region (AQCR) 212: Austin-Waco. This AQCR is currently categorized as being in attainment with the National Ambient Air Quality Standards (NAAQS) for all pollutants. Construction-related activities would not adversely affect the ambient air as a result of the proposed construction and operation.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA

or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail and vehicular traffic are the primary sources of noise in the area of the proposed construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet). A residential area is located in the southeast quadrant, away from the construction site. The closest residence is 200 feet from the southeast end of the connection. Existing noise in the area includes wheel/rail and locomotive noise from through trains, and horn noise from eastbound trains on the UP Houston subdivision mainline approaching the grade crossing. Westbound trains would stop sounding horns at the grade crossing, prior to passing the residential community. Between trains, the existing noise levels should be very low, considering the rural nature of the area.

The current level of train traffic on the UP Houston subdivision mainline (9 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 110 feet without horns (340 feet with horns). The current level of traffic on the SP Ennis subdivision Flatonia line (13 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 150 feet without horns (440 feet with horns).

Historic and Cultural Resources

Based on SEA's review of National Register of Historic Places (NRHP) listings and consultations with the Texas State Historic Preservation Officer (SHPO), it was determined that no documented historic or archaeological sites have been identified at the proposed construction site. One recorded archaeological site (41FY46) was identified near the construction area but would not be affected by this activity. It was not, therefore, evaluated for eligibility for listing on the National Register of Historic Places (NRHP). As part of the Section 106 consultation process, site-specific field surveys could be required by the SHPO to verify that, no unknown archaeological resources would be disturbed or destroyed by construction activities. Consultation has been initiated with the Texas SHPO to confirm this finding.

Transportation and Safety

The existing ground transportation network consists of the UP and SP rail lines that intersect just north of West Point and a few roads immediately adjacent to the project site. State Routes 71 and 154 are the primary highways in the project vicinity. Access to the construction site would be via rail or local roads.

SEA's review of the VISTA database and UP safety records indicate there are no known hazardous waste sites at the proposed construction site.

9.1.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. It is compatible with surrounding land uses and complies with applicable zoning ordinances and/or development regulations. No conversion of prime farmland is necessary to complete construction of this connection, nor is the proposed site subject to any coastal zone management plans.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area and would have no effect on the 100-year floodplain (associated with the Colorado River).

UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction would not involve excavation from or the placement of dredged or fill material into the "waters of the United States," including designated wetlands. Therefore, authorization under Section 404 of the Clean Water Act would not be required. Additionally, a National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. Minor impacts to the area's resource of natural vegetation are expected by the loss of pasture land resulting from the construction of the new rail connection. However, after construction, UP/SP would use Best Management Practices (BMPs) to encourage regrowth of pasture land vegetation removed or displaced during construction and would stabilize disturbed soils.

Wildlife. No adverse impacts to wildlife populations are anticipated. The area of pasture land

vegetation lost to construction is minor relative to the area of adjacent pasture land available to wildlife.

Threatened and Endangered Species. Based on SEA's consultation with USFWS, there are no known federally listed threatened or endangered species potentially occurring in the proposed construction area. Consequently, there would be no effects on such species.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse impact is anticipated since there are no state or federally designated parks, forest preserves, refuges or sanctuaries in the vicinity of proposed construction.

Air Quality

Impacts on air quality in West Point could result from increased emissions during project construction. Construction impacts to air quality would be related to fugitive dust emissions around the construction site and vehicle emissions from construction equipment and employee traffic.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 212 is an air quality attainment area. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, UP/SP would be required to follow good construction practices including dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of estimated emissions associated with vehicular traffic during the construction: (1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 20 employees for 19 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 760. This number of trips for the short duration of the construction would not be sufficient to adversely affect air quality. In addition, due to the small scope of construction activities (only 3,500 cubic yards of earthwork are required), air quality impacts from construction equipment would be minimal, and would not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail line construction would not introduce new rail traffic on the associated

line segments, but rather provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction would not have the potential to seriously degrade the air quality in AQCR 212 nor would it result in any exceedances of the NAAQS.

Noise

UP/SP estimate three train movements per day on the proposed rail line connection. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 50 feet without horns. The distance would be 185 feet with horns, but horns would not likely be used along the proposed connection because there are no grade crossings. Wheel squeal is expected from trains negotiating the 6-degree curve. Maximum squeal noise levels are expected to be about 70 to 80 dBA at the nearest residences; however, the L_{dn} is not likely to change substantially in the residential area. The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of both existing rail lines.

Historic and Cultural Resources

Based on SEA's initial consultations with the SHPO in Texas, no known or documented historic or archaeological sites exist at the proposed construction site. Recorded archaeological site 41FY46, near the site, would not be affected by construction. Thus, no adverse effects upon historic properties are anticipated as a result of this construction project. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction. Consultation has been initiated with the Texas SHPO, seeking concurrence in this determination.

Transportation and Safety

The proposed rail line construction project would improve rail access to and through West Point and enhance the efficiency of UP/SP operations. It would not require new grade crossings of any roads and therefore would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small.

However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

9.1.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 9.1.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way. The impacts from almost any other alternative would likely be greater than the proposed rail line construction.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed or operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection could cause additional fuel consumption and increase emissions impacts.

9.1.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Comments

received from the various parties consulted regarding this proposed construction project were:

- U.S. Fish and Wildlife Service noted that all machinery and petroleum products should be stored outside the floodplain area during construction.

- U.S. Environmental Protection Agency, Region 6, noted general scoping items that should be included in the Environmental Assessment (EA), but did not comment on any specific impacts.

9.1.7 Suggested Mitigation

This section highlights the mitigation measures that various parties, consulted in the process of preparing the EA for the proposed merger, have requested:

- U.S. Fish and Wildlife Service requests that all machinery and petroleum products be stored outside the 100-year floodplain.

9.1.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed West Point construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall store all construction machinery, petroleum products, and other hazardous materials outside the area of the 100-year floodplain.

3. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Texas SHPO.

Safety

1. UP/SP shall consult with the Texas Natural Resource Conservation Commission if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in their Emergency Response Plans.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

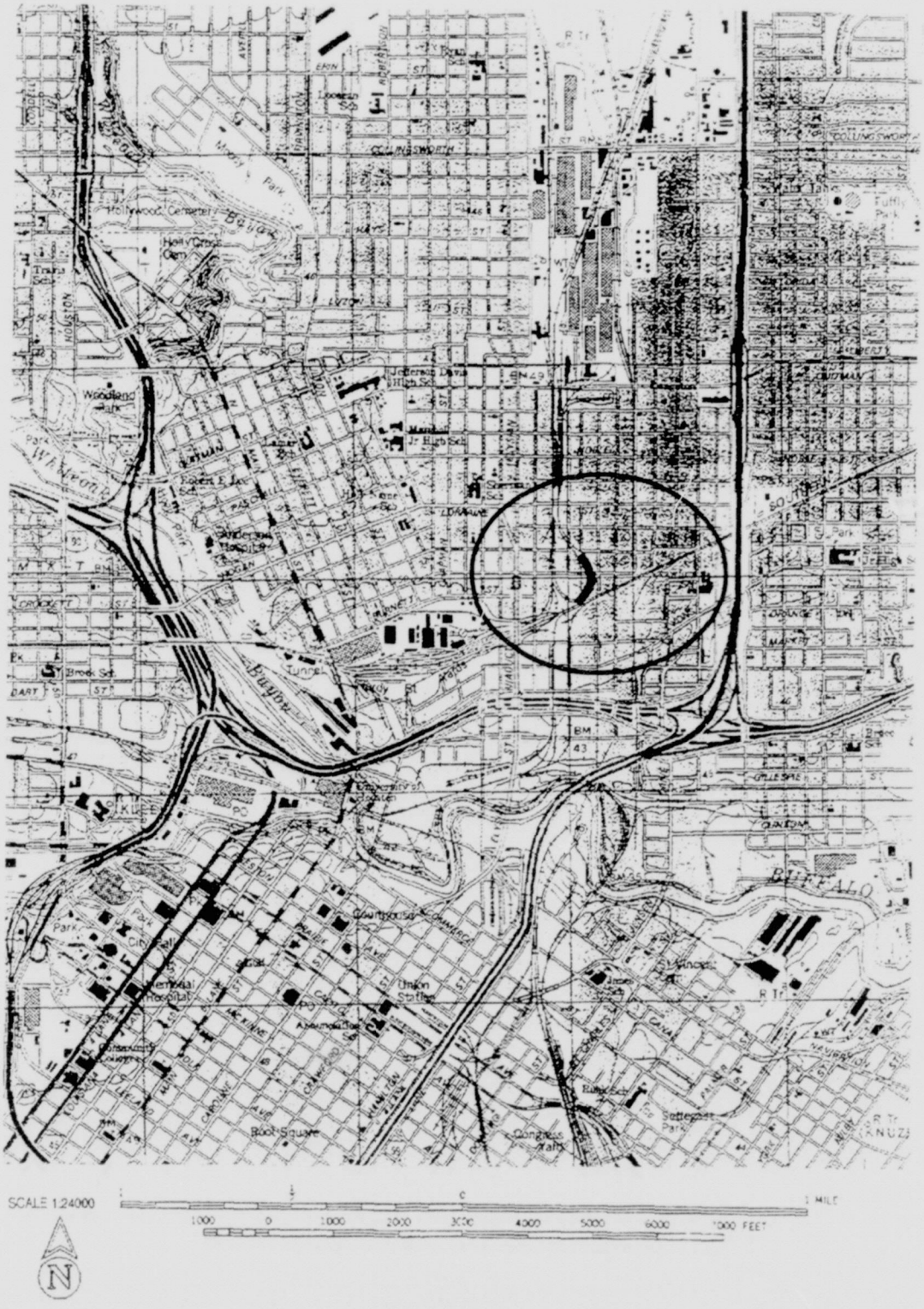
1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

9.2 Houston (Tower 26)

Houston is located in Harris County. Existing rail lines in the area include the UP and HB&T mainlines. The proposed rail construction site is located within an urbanized area of northeastern Houston.

9.2.1 Proposed Action

The proposed action involves the construction and operation of a new connection to allow eastbound-westbound trains to bypass the Englewood yard. This new connection is proposed in the northwest quadrant of the SP/ HB&T rail crossing in Houston (see Figure 9-2). This connection would replace an existing lower-speed connection just west of Tower 26. Construction of approximately 1,400 feet of new rail line would require the acquisition of approximately 2 acres of new right-of-way. Installation of two new power-operated turnouts is also necessary to operate the new connection.



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

HOUSTON, TEXAS

ENVIRONMENTAL ASSESSMENT

Construction Requirements

Construction of the new rail line connection would require a labor force of 15 people over a period of 21 days. The construction would require approximately 2,300 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following changes along existing rail lines:

- Traffic on the UP mainline would decrease from 29 to 27 trains per day, and the annual gross tons would decrease from 53 to 52 million tons (a 1 percent decrease).

- Traffic on the new common point connection would be two trains per day.

9.2.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line connection. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and HB&T rights-of-way. There are no construction, operational or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP and HB&T rail lines. However, access between the two lines would be limited to the existing lower-speed connection.

9.2.3 Existing Environment

Land Use

The proposed connection would be constructed in an existing transportation corridor located in an urbanized area. Surrounding land uses include residential, industrial, and commercial complexes. There are no formal land use policies or zoning designations for the area. The connection would not be constructed in an area of prime farmland. The line proposed for construction is not within a designated coastal zone.

Water Resources

National Wetland Inventory (NWI) maps indicate that there are no wetlands within or adjacent to the proposed construction site. The proposed site is not located within the 100-year floodplain.

Biological Resources

Vegetation. Existing vegetation within and adjacent to the proposed construction site is typically ruderal weeds, having been disturbed by past construction. An open field west of the existing rail yard has a mixed species of weedy grasses and forbs.

Wildlife. Wildlife habitat on the proposed rail construction site is of poor quality. Wildlife species are likely to be rodents tolerant of urban and disturbed conditions.

Threatened and Endangered Species. SEA consulted USFWS and the Texas Department of Parks and Wildlife (TPW) regarding threatened and endangered species in the area of the proposed rail line construction at Houston (Tower 26). The USFWS and TPW staff indicated that no suitable habitat exists in the vicinity of the proposed construction project for any state- or federally-listed threatened or endangered species

Parks, Forest Preserves, Refuges, and Sanctuaries. No known state or federally-designated parks, forest preserves, refuges or sanctuaries are located in the vicinity of the proposed construction site. Municipal parks near to the site include Woodland Park, Finnegan Park, Hogg Park, and Gregg Park.

Air Quality

The proposed construction site is located in AQCR 216: Metropolitan Houston-Galveston. This AQCR is currently in non-attainment for ozone. For all other NAAQS pollutants, this AQCR is considered an attainment area.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also

presented in **Volume 2**.

Rail, industrial and vehicular traffic are the primary sources of noise in the area of the proposed rail line construction. Given the existing activities in the area, passby noise levels are approximately to be just under 100 dBA (diesel locomotive at 50 feet). Noise-sensitive residential areas are located on the eastern and western sides of the construction zone. On the eastern side, residences border the proposed connection route. Existing noise in the bordering neighborhood includes noise from the railroad through trains. Wheel squeal may occasionally occur on some of the curved tracks located near these residential neighborhoods.

The current level of train traffic on the UP mainline (29 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 225 feet without horns (640 feet with horns).

Historic and Cultural Resources

Based on SEA's review of NRHP listings and consultations with the Texas SHPO, it was determined that no documented historic or archaeological sites have been identified at the proposed construction site. An abandoned railroad warehouse appearing to have been built in 1931 would be acquired and demolished. The warehouse, however, does not appear to meet NRHP criteria. As part of the Section 106 consultation process, site-specific field surveys could be required by the SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities. Consultation has been initiated with the Texas SHPO to confirm this finding.

Transportation and Safety

The proposed construction project is located in central Houston. The existing ground transportation network includes the UP and HB&T mainlines and the Englewood railyard. Roadways near the proposed construction site are predominantly local streets. Major highways in the project vicinity include I-10 and I-45. Access to the construction site would be via rail or local streets.

SEA's review of the VISTA database and UP safety records indicate that no known hazardous waste sites exist at the proposed construction site.

9.2.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. It is consistent with surrounding land uses and complies with applicable zoning ordinances and/or development regulations. No conversion of prime farmland is necessary to complete construction of this connection, nor is the proposed site subject to any coastal zone management plans.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater, given the small size of the project and limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require limited earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area. The proposed construction project also would not have any impacts on surface water resources or wetlands. Additionally, the project would not encroach upon the 100-year floodplain.

UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction would not involve excavation from or the placement of dredged or fill material into the "waters of the United States," including designated wetlands. Therefore, authorization under Section 404 of the Clean Water Act would not be required. Additionally, an NPDES stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. No adverse impact to vegetation is anticipated due to the disturbed condition of the site. However, after construction UP/SP would use Best Management Practices (BMPs) to encourage regrowth in disturbed areas and would stabilize disturbed soils.

Wildlife. No adverse impact to wildlife populations are expected, since wildlife habitat is of poor quality.

Threatened and Endangered Species. USFWS) and TPW have indicated that suitable habitat does not exist for threatened and endangered species in the area of the proposed rail line

construction at Houston (Tower 26). Therefore, since there are no recorded occurrences at or near the project site and no observations of occurrences of such species were made during site visits, no effects on these species or their critical habitat are anticipated.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse impact is anticipated since there are no state or federally designated parks, forest preserves, refuges, or sanctuaries adjacent to the proposed construction.

Air Quality

Temporary impacts on air quality in Houston could result from increased emissions during project construction. Construction impacts to air quality would be related to fugitive dust emissions around the construction site and vehicle emissions from construction equipment and employee traffic.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 216 is an air quality nonattainment area for ozone. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of estimated emissions associated with vehicular traffic during the construction: (1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 15 employees for 21 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 630. This relatively small number of trips for the short duration of the construction would not be sufficient to adversely affect air quality. In addition, due to the small scope of construction activities (only 2,300 cubic yards of earthwork are required), air quality impacts from construction equipment would be minimal, and would not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). Houston (Tower 26) is located adjacent to the Englewood yard, however, the new connection would replace an existing lower-speed connection. The change in train movements over the connection would not meet the Board's specified thresholds for air quality analysis.

Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction would not have the potential to seriously degrade the air quality in AQCR 216, nor would it result in any additional exceedances of the NAAQS.

Noise

UP/SP estimate two train movements per day on the proposed rail line connection. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 39 feet. Use of horns at grade crossings would extend the 65 dBA level to 191 feet.

The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of both existing rail lines. Wheel squeal noise is expected from trains negotiating the 9.5 degree curve, and such noise would be about 85 to 95 dBA at the nearest residences on the eastern side. The addition of the connection on newly acquired land is expected to bring train traffic closer to these residences, thus increasing railroad train noise in the area. Construction noise would be audible in the neighboring residential area on the eastern side.

Historic and Cultural Resources

Based on SEA's initial consultations with the Texas SHPO, no known or documented historic or archaeological sites exist at the proposed construction site. Thus, no adverse effects to historic properties are anticipated with this construction project. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction. Consultation has been initiated with the Texas SHPO, seeking concurrence in this determination.

Transportation and Safety

The proposed rail line construction project would permit bypass of Englewood Yard and enhance the efficiency of UP/SP operations. It would require one new grade crossing and therefore could cause minor delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small.

However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

9.2.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 9.2.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed connection is the most direct rail line connection and would involve the use of minimal land outside the UP and HB&T rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed or operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection could cause additional fuel consumption and increase emissions impacts.

9.2.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Comments received from the various parties consulted regarding this proposed construction project are

summarized below:

- U.S. Environmental Protection Agency, Region 6, noted general scoping items that should be included in the Environmental Assessment (EA), but did not comment on any specific impacts.

9.2.7 Suggested Mitigation

No mitigation measures were suggested for the proposed construction project by the various parties consulted in the process of preparing the EA. (See **Volume 5**, Appendices D and E, for agency consultation lists).

9.2.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Houston (Tower 26) construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the

track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Texas SHPO.

Safety

1. UP/SP shall consult with the Texas Natural Resource Conservation Commission if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 173).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in their Emergency Response Plans.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

2. UP/SP shall monitor noise resulting from train operations over the new connection and implement mitigation measures to control excessive wheel squeal.

9.3 Houston (Tower 87)

Houston is located in Harris County. Existing rail lines in the area include the SP and HB&T mainlines. The proposed rail construction site is located within an industrial area of northeastern Houston.

9.3.1 Proposed Action

The proposed action involves the construction and operation of a new connection between the SP and the HB&T mainlines at Tower 87 in Houston to allow the movement of locomotives between the SP Englewood yard and the UP Settegast yard to the north (see Figure 9-3). This connection requires the acquisition of approximately 2 acres of new right-of-way, construction of 1,000 feet of new rail line, and installation of two power-operated turnouts.

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 15 people over a period of 16 days. The construction would require approximately 3,000 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed construction would result in no changes in rail traffic along existing rail lines. The new connection would be used to transfer locomotives between existing UP and SP rail yards. The number of locomotives using this connection would vary.

9.3.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line connection. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the SP and HB&T rights-of-way. There are no construction, operational or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing SP and HB&T rail lines. However, access between SP Englewood yard and the UP Stettegast yard would be limited to existing interchanges or terminals.

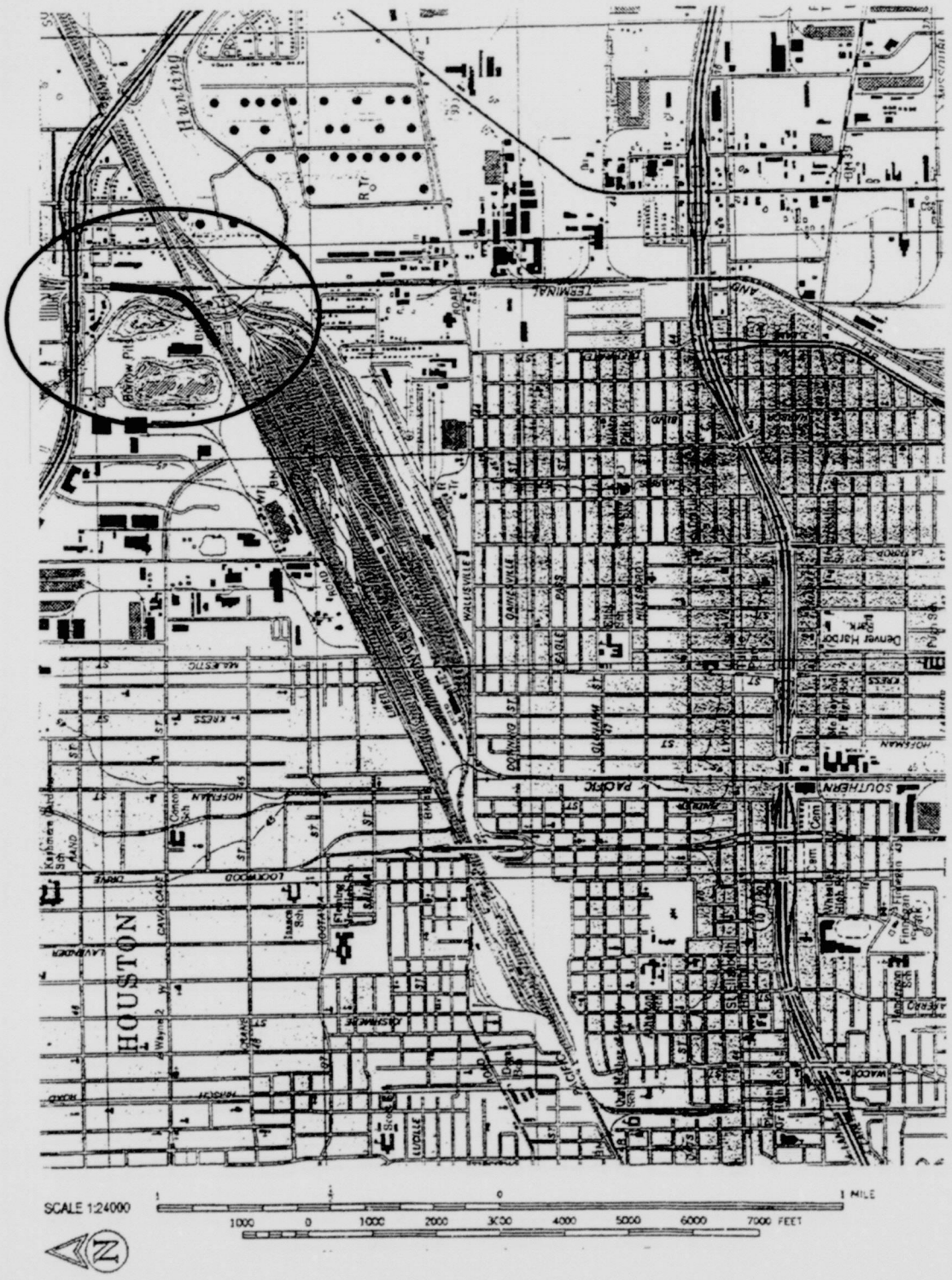
9.3.3 Existing Environment

Land Use

The proposed connection would be constructed in an existing transportation corridor located in an urbanized area. Surrounding land uses include industrial complexes and railroad facilities. There are no formal land use policies or zoning designations for the area. The connection would not be constructed in an area of prime farmland. The line proposed for construction is not within a designated coastal zone.

Water Resources

Hunting Bayou is located on the proposed rail construction site. The width of Hunting Bayou is about 15 feet. The segment of bayou passing through the rail yard is channelized and contains water through most of the year. Two borrow ponds represent the only other water bodies on the rail site. National Wetland Inventory (NWI) maps were not available; however, an on-site investigation identified fringes of wetland vegetation along Hunting Bayou in the project area. The proposed site is located within the 100-year floodplain.



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

HOUSTON, TEXAS

ENVIRONMENTAL ASSESSMENT

Biological Resources

Vegetation. Existing vegetation within and adjacent to this proposed construction site has been severely modified. Riparian trees and shrubs are located along Hunting Bayou. Riparian species include cottonwood and willows. Vegetation within open areas on and adjacent to the project site includes saltgrass, sea myrtle, mixed forbs and grasses, and some trees.

Wildlife. Wildlife habitat on the proposed rail construction site is of poor to low quality. Wildlife species are likely to be small mammals and birds tolerant of urban and disturbed conditions.

Threatened and Endangered Species. SEA consulted USFWS and TPW regarding threatened and endangered species in the area of the proposed rail line construction at Houston (Tower 87). The USFWS and TPW staff indicated that no suitable habitat exists in the vicinity of the proposed construction project for any state- or federally-listed threatened or endangered species.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, forest preserves, refuges or sanctuaries are located in the vicinity of the proposed construction site. Municipal parks near to the site include Hutchinson Park, Neito Park, and Liberty Park.

Air Quality

The proposed construction site is located in AQCR 216: Metropolitan Houston-Galveston. This AQCR is currently in nonattainment for ozone. For all other NAAQS pollutants, this AQCR is considered an attainment area.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet). The closest residence

is 200 feet from the southeast end of the connection. The area is adjacent to industrial land uses, transportation corridors, and gravel or borrow pits. No noise sensitive receivers have been identified. Existing noise is produced by rail yard operations and through trains.

Historic and Cultural Resources

Based on SEA's review of NRHP listings and consultations with the Texas SHPO, it was determined that no documented historic or archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by the SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities. Consultation has been initiated with the Texas SHPO to confirm this finding.

Transportation and Safety

The proposed construction project is located in central Houston. Existing rail lines include the SP and HB&T mainlines and the SP Englewood yard. There are no roadways in the immediate vicinity of the project. Interstate 610, immediately north and east, is the nearest major highway in the project area. Access to the construction site would be via the SP Englewood yard.

SEA's review of the VISTA database and SP safety records indicate there are no known hazardous waste sites at the proposed construction site

9.3.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. It is consistent with surrounding land uses and complies with applicable zoning ordinances and/or development regulations. No conversion of prime farmland is necessary to complete construction of this connection, nor is the proposed site subject to any coastal zone management plans.

Water Resources

Minor impacts to Hunting Bayou and the borrow ponds would result from the construction of the new rail connection between the UP and SP rail yards. A new drainage structure would be constructed to allow Hunting Bayou to flow under the new rail corridor. Coordination with the U.S. Army Corps of Engineers would be required prior to construction to verify boundaries of Waters of the U.S. and Section 404 permitting requirements associated with this activity.

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area. The project would encroach upon the 100-year floodplain.

UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. An NPDES stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. Vegetation along Hunting Bayou and in the open areas around the proposed construction site would be removed within the new rail right-of-way. However, after construction, UP/SP would use Best Management Practices (BMPs) to encourage regrowth in disturbed areas and would stabilize disturbed soils.

Wildlife. No adverse impact to wildlife populations are anticipated, since wildlife habitat is of poor to low quality.

Threatened and Endangered Species. USFWS and TPW have indicated that suitable habitat does not exist for threatened and endangered species in the area of the proposed rail line construction at Houston (Tower 87). Therefore, since there are no recorded occurrences at or near the project site and no observations of occurrences of such species were made during site visits, no effects on these species or their critical habitat are anticipated.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse impact is anticipated since there are no state or federally designated parks, forest preserves, refuges or sanctuaries adjacent to the construction site.

Air Quality

Impacts on air quality in Houston could result from increased emissions during project construction. Construction impacts to air quality would be related to fugitive dust emissions around the construction site and vehicle emissions from construction equipment and employee traffic.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 216 is an air quality non-attainment area for ozone. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of estimated emissions associated with vehicular traffic during the construction: (1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 15 employees for 16 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 480. This relatively small number of trips for the short duration of the construction would not be sufficient to adversely affect air quality. In addition, due to the small scope of construction activities (only 3,000 cubic yards of earthwork are required), air quality impacts from construction equipment would be minimal, and would not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail line construction would not introduce new rail traffic on the associated line segments, but rather provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction would not have the potential to seriously degrade the air quality in AQCR 216, nor would it result in any additional exceedances of the NAAQS.

Noise

UP/SP has no estimate of projected train movements on the new rail line connection. It is to be used to shuttle locomotives between the Englewood yard and Settegast service facility. No noise-sensitive receptors are located near the proposed construction site; therefore, no noise impacts are expected.

Historic and Cultural Resources

Based on SEA's initial consultations with the Texas SHPO, no known or documented historic or archaeological sites exist at the proposed construction site. Thus, no adverse effects to historic

properties are anticipated with this construction project. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction. Consultation has been initiated with the Texas SHPO, seeking concurrence in this determination.

Transportation and Safety

The proposed rail line construction project would improve rail access and enhance the efficiency of UP/SP operations by facilitating the movement of locomotives between the SP Englewood yard and the UP Settegast yard. It would not require new grade crossings of any roads and therefore would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

9.3.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 9.3.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed or operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection could cause additional fuel consumption and increase emissions impacts.

9.3.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them of the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Comments received from the various parties consulted regarding this proposed construction project were:

- U.S. Fish and Wildlife Service noted that construction activities crossing streams, riparian areas or wetlands should be carefully designed and revegated to prevent erosion or loss of habitat. All machinery and petroleum products should be stored outside the floodplain area during construction.

- U.S. Environmental Protection Agency, Region 6, noted general scoping items that should be included in the Environmental Assessment (EA), but did not comment on any specific impacts.

9.3.7 Suggested Mitigation

This section highlights the mitigation measures that various parties, consulted in the process of preparing the EA for the proposed merger, have requested:

- U.S. Fish and Wildlife Service requests that all machinery and petroleum products be stored outside the 100-year floodplain.

9.3.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose

in any final decision approving the proposed Houston (Tower 87) construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

3. UP/SP shall store all construction equipment, petroleum products, and other hazardous materials outside the area of the 100-year floodplain.

4. Prior to construction activity, particularly with respect to the construction of a drainage structure at Hunting Bayou, UP/SP shall consult with the U.S. Army Corps of Engineers and obtain and comply with any permits required under Sections 402 and 404 of the Clean Water Act, 33 U.S.C. 1344.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Texas SHPO.

Safety

1. UP/SP shall consult with the Texas Natural Resource Conservation Commission if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in their Emergency Response Plans.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

9.4 Houston (SP to UP)

Houston is located in Harris County. Existing rail lines in the area include the SP and HB&T mainlines, and the SP Lufkin subdivision.

9.4.1 Proposed Action

The proposed action involves the construction and operation of a new connection in the northeast quadrant of the SP/HB&T crossing in Houston (see Figure 9-4). This connection would be used by trains running southbound on the SP Lufkin subdivision destined for the UP Settegast yard. Construction would require acquisition of approximately 1 acre of additional right-of-way, 1,650 feet of new track, and two power-operated turnouts.

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 20 people over a period of 27 days. The construction would require approximately 13,300 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

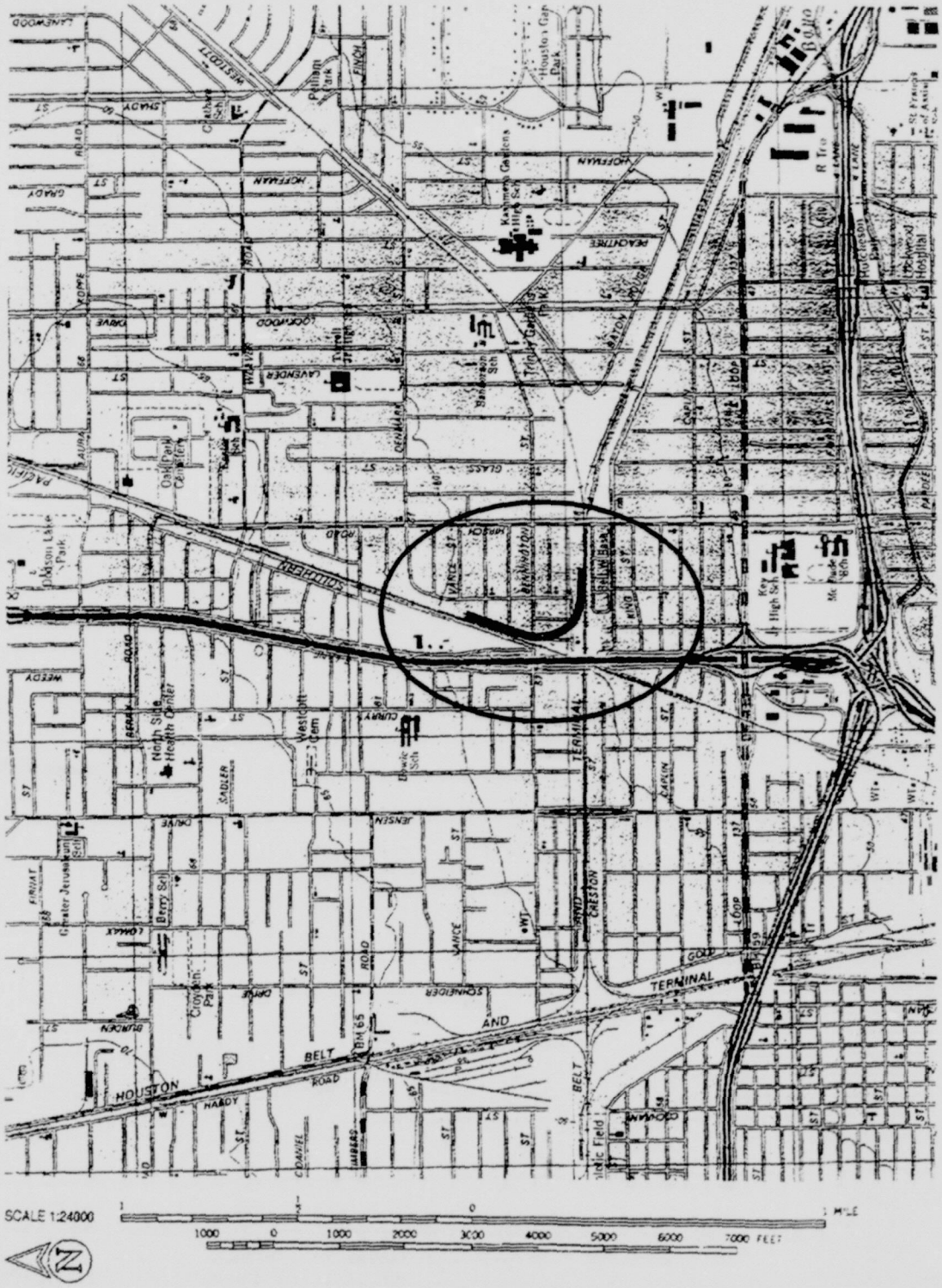
UP/SP state that the proposed merger would result in the following changes along existing rail lines:

- Traffic on the SP Lufkin line would increase from 9 to 12 trains per day, and the annual gross tons would decrease from 17 to 9 million tons (a 44 percent decrease).

- Traffic on the new common point connection would be 8 trains per day.

9.4.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line connection. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and SP rights-of-way. There are no construction, operational or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

HOUSTON, TEXAS

ENVIRONMENTAL ASSESSMENT

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP and SP rail lines. However, access between the two lines would be limited to existing interchanges or terminals.

9.4.3 Existing Environment

Land Use

The proposed connection would be constructed along an existing transportation corridor located in an urbanized area. Surrounding land uses include mixed urban development areas made up of commercial businesses, residential housing units, and industrial land uses. There are no formal land use policies or zoning designations for the area. The connection would not be constructed in an area of prime farmland. The line proposed for construction is not within a designated coastal zone.

Water Resources

A small drainage ditch parallels the SP mainline and Interstate 59 north of the HB&T rail crossing. National Wetland Inventory (NWI) maps were not available; site visits did not reveal any wetland vegetation. Due to urbanization, there is little vegetation in the area. The proposed site is not located within the 100-year floodplain.

Biological Resources

Vegetation. Existing vegetation within and adjacent to this proposed construction site has been severely modified due to development and urbanization. Vegetation observed to be scattered throughout the neighborhood include hackberry and coastal bermuda grass.

Wildlife. Wildlife habitat on the proposed rail construction site is of poor quality. Wildlife species are likely to be rodents tolerant of urban and disturbed conditions.

Threatened and Endangered Species. SEA consulted USFWS and TPW regarding threatened and endangered species in the area of the proposed rail line construction at Houston (SP to UP). The USFWS and TPW staff indicated that no suitable habitat exists in the vicinity of the proposed construction project for any state- or federally-listed threatened or endangered species.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, forest preserves, refuges or

sanctuaries are located in the vicinity of the proposed construction site. Municipal parks near to the site include Woodland Park, Finnegan Park, Hogg Park, and Gregg Park.

Air Quality

The proposed construction site is located in Air Quality Control Region (AQCR) 216 Metropolitan Houston-Gavelston. This AQCR is currently nonattainment for ozone. For all other National Ambient Air Quality Standards (NAAQS) pollutants, this AQCR is considered an attainment area.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, industrial, and vehicular traffic are the primary sources of noise in the area of the proposed construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet). The closest residence is 200 feet from the southeast end of the connection. The area through which the connection would pass consists of mixed urban land uses. Noise-sensitive residences are located northeast of the proposed connection.

The current level of train traffic on the SP Lufkin subdivision (9 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 120 feet without horns (360 feet with horns).

Historic and Cultural Resources

Based on SEA's review of NRHP listings and consultations with the Texas SHPO, it was determined that no documented historic or archaeological sites have been identified at the proposed construction site. Some houses and a church would be acquired and demolished. However, the buildings appear to have been built in the 1970s and do not meet the NRHP age criteria. As part of the Section 106 consultation process, site-specific field surveys could be required by the SHPO to verify that no archaeological resources would be disturbed or destroyed

by construction activities. Consultation has been initiated with the Texas SHPO to confirm this finding.

Transportation and Safety

The proposed construction project is located in central Houston. Existing rail lines include the SP and HB&T mainlines and the SP Lufkin subdivision. Roadways near the proposed construction site are predominantly local streets. Interstate 45 is located immediately west of the project site. Access to the construction site would be vial local roads.

SEA's review of the VISTA database and SP safety records indicate there are no known hazardous waste sites at the proposed construction site.

9.4.4 Potential Environmental Impacts of Proposed Action

Land Use

Impacts to adjacent land use patterns may occur from the construction of the proposed connection. UP/SP may need to acquire some private residences and a church. No conversion of prime farmland is necessary to complete construction of this project, nor is the proposed site subject to any coastal zone management plans.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area.

The proposed construction project also would not have any adverse impacts on surface water resources or wetlands. This finding is based on the relatively large distance from the project site to surface water receptors and the localized flow of stormwater runoff. Additionally, the project would not encroach upon the 100-year floodplain.

UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction would not involve excavation from or the placement of dredged or fill material into the "waters of the United States," including designated

wetlands. Therefore, authorization under Section 404 of the Clean Water Act would not be required. Additionally, an NPDES stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. No adverse impact to vegetation is anticipated due to the disturbed condition of the site. However, after construction, UP/SP would use Best Management Practices (BMPs) to encourage regrowth in disturbed areas and would stabilize disturbed soils.

Wildlife. No adverse impact to wildlife populations are anticipated, since wildlife habitat is of poor quality.

Threatened and Endangered Species. USFWS and TPW have indicated that suitable habitat does not exist for threatened and endangered species in the area of the proposed rail line construction at Houston (SP to UP). Therefore, since there are no recorded occurrences at or near the project site and no observations of occurrences of such species were made during site visits, no effects on these species or their critical habitat are anticipated.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse impact is anticipated since there are no state or federally designated parks, forest preserves, refuges or sanctuaries adjacent to the construction site.

Air Quality

Impacts on air quality in Houston could result from increased emissions during project construction as well as increased train traffic when the proposed project is completed and becomes operational. Construction impacts to air quality would be related to fugitive dust emissions around the construction site and vehicle emissions from construction equipment and employee traffic.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 216 is an air quality non-attainment area for ozone. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of estimated

emissions associated with vehicular traffic during the construction: (1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 20 employees for 27 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 1,080. This number of trips for the short duration of the construction would not be sufficient to adversely affect regional air quality. In addition, though 13,300 cubic yards of earthwork are required, emissions increases from construction equipment would be minimal, and would not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail line construction would not introduce new rail traffic on the associated line segments, but rather provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction would not seriously degrade the air quality in AQCR 216, nor would it result in any additional exceedances of the NAAQS.

Noise

UP/SP estimate eight train movements per day on the proposed rail line connection, which triggers the noise assessment threshold. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 110 feet without horns. The distance would be 340 feet with horns, but horns would not likely be used along the proposed connection because there are no grade crossings.

Wheel squeal noise produced by trains negotiating the 12.5 degree curve are expected to be about 85 to 95 dBA at 100 feet from the track in the mixed urban area located northeast of the connection. Operational noise levels in the northeast quadrant would also be higher than existing railroad noise levels due to the new connection.

Historic and Cultural Resources

Based on SEA's initial consultations with the Texas SHPO, no known or documented historic or archaeological sites exist at the proposed construction site. Thus, the proposed connection would not affect historic or cultural resources. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction. Consultation has been initiated with the Texas SHPO,

seeking concurrence in this determination.

Transportation and Safety

The proposed rail line construction project would improve rail access to Houston and enhance the efficiency of UP/SP operations. It would not require new grade crossings and therefore would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

9.4.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 9.4.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed or operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection could cause additional fuel consumption and increase emissions impacts.

9.4.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which

are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them of the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Comments received from the various parties consulted regarding this proposed construction project were:

- U.S. Environmental Protection Agency, Region 6, noted general scoping items that should be included in the Environmental Assessment (EA), but did not comment on any specific impacts.

9.4.7 Suggested Mitigation

No mitigation measures were suggested for the proposed construction project by the various parties consulted in the process of preparing the EA (See **Volume 5**, Appendices D and E, for agency consultation lists).

9.4.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Houston (SP to UP) construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with

state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Texas SHPO.

Safety

1. UP/SP shall consult with the Texas Natural Resource Conservation Commission if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in their Emergency Response Plans.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

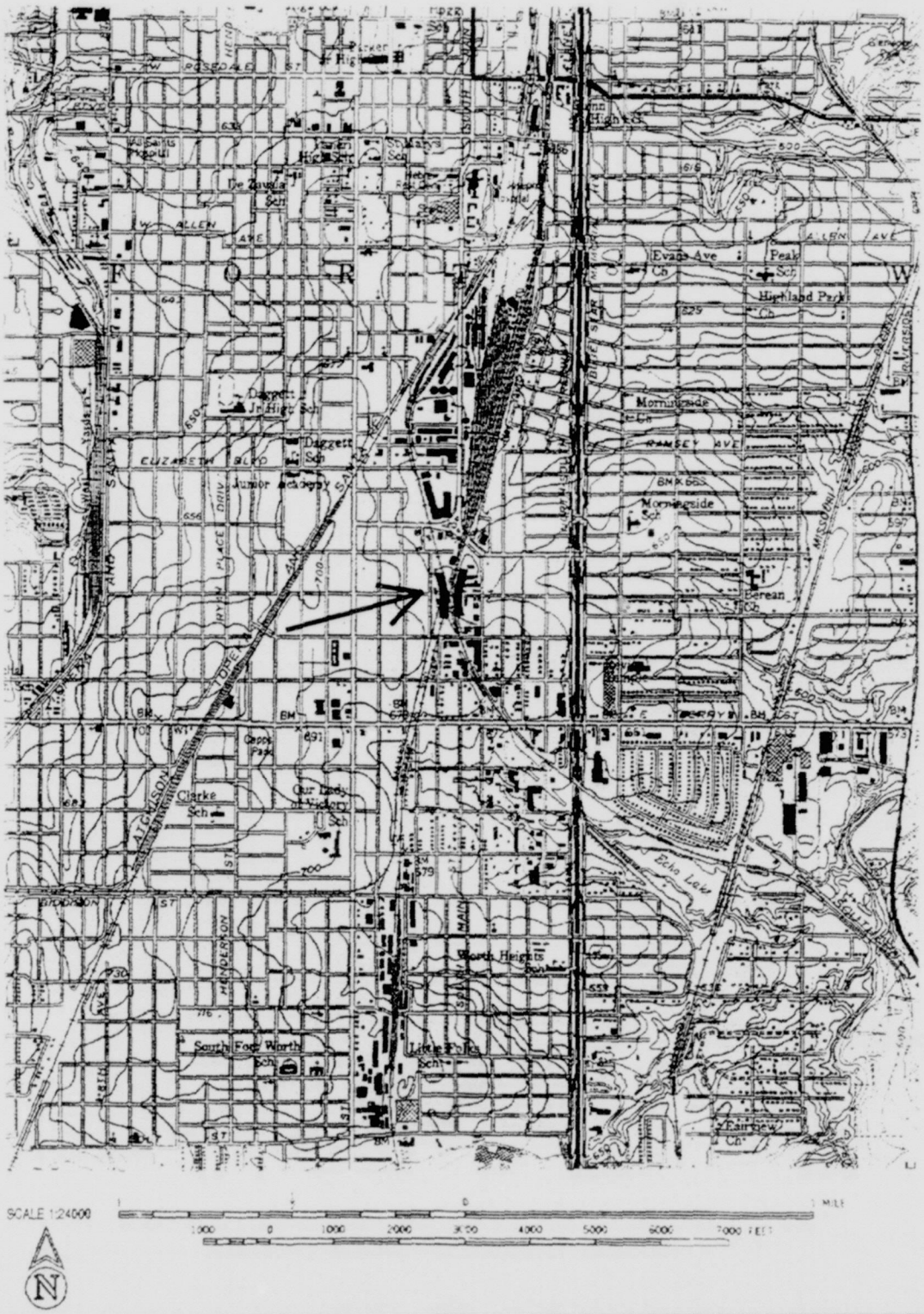
2. UP/SP shall monitor noise resulting from train operations over the new connection and implement mitigation measures to control excessive wheel squeal.

9.5 Fort Worth (Ney Yard)

Fort Worth is located in Tarrant County, 30 miles west of Dallas. Existing rail lines in the area include the SP branch line and the UP mainline running south to Waco, the UP Fort Worth subdivision mainline, and the SP Ennis subdivision Fort Worth branch.

9.5.1 Proposed Action

The proposed action involves the construction and operation of two new connections between the UP Fort Worth subdivision mainline and the SP Ennis subdivision branch line in Fort Worth, Texas. This section presents the first proposed connection. The second proposed



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

FORT WORTH, TEXAS

ENVIRONMENTAL ASSESSMENT

connection is presented in Section 9.6. The first connection (see Figure 9-5) would be located in the southwest quadrant of the existing SP/UP track crossing. Construction of a new connection would permit operation of trains between the SP branch line north of the crossing and the UP mainline running south to Waco. This connection would be used primarily by southbound trains bypassing the UP's Ney yard via the SP branch line north of the crossing. Two new power turnouts and approximately 1,180 feet of new rail line would be required. Acquisition of approximately 0.5 acre of additional right-of-way may also be necessary.

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 15 people over a period of 17 days. The construction would require approximately 700 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following changes along existing rail lines:

- Traffic on the UP line would decrease from 20 to 15 trains per day, and the annual gross tons would decrease from 56 to 49 million tons (a 12 percent decrease).

- Traffic on the new common point connection would be two trains per day.

9.5.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line construction. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and SP rights-of-way. There are no construction, operational or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP and SP rail lines. However, access between the two lines would be limited to existing interchanges or terminals.

9.5.3 Existing Environment

Land Use

The proposed connection would be constructed adjacent to an existing rail corridor in an area of mixed, urbanized land uses. Residential areas are located to the east and west of the proposed construction. The site is not located on prime farmland. The line proposed for construction is not within a designated coastal zone.

Water Resources

There are no major water resources within the project area. A minor drainage ditch was observed near the at-grade street crossing of East Morning Drive. National Wetland Inventory (NWI) maps were not available for this urban site; site visits did not reveal any wetland vegetation. The proposed site is not located within a 100-year floodplain.

Biological Resources

Vegetation. Existing native vegetation on the proposed rail construction site has been disturbed by urbanization and previous rail activities. Mixed forbs and grasses were observed on the project right-of-way. A large open field was observed to the west of the tracks, close to the rail crossover. Vegetation in the field and right-of-way is routinely mowed.

Wildlife. Wildlife habitat on the proposed rail construction site is of poor quality. Wildlife species are limited to small mammals or birds that are very tolerant of urban and disturbed conditions.

Threatened and Endangered Species. USFWS and TPW were consulted regarding threatened and endangered species in the area of the proposed rail line construction at Fort Worth (Ney Yard). The USFWS and TPW staff indicated that no suitable habitat exists in the vicinity of the proposed construction project for any state- or federally-listed threatened or endangered species. In addition, the TPW did not identify any state species of concern at the proposed construction site.

Parks, Forest Preserves, Refuges, and Sanctuaries. No state or federally-designated parks, forest preserves, refuges, or sanctuaries are located in the vicinity of the proposed construction site. Municipal parks close to the site include Glenwood Park, Sycamore Park, Rosemont Park, and Forest Park.

Air Quality

The proposed construction site is located in Air Quality Control Region (AQCR) 215: Metropolitan Dallas-Ft. Worth. This AQCR is currently in nonattainment for ozone and lead. For all other National Ambient Air Quality Standards (NAAQS) pollutants, this AQCR is considered an attainment area.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail, industrial, and vehicular traffic are the primary sources of noise in the area of the proposed construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet). A noise-sensitive residential area is located 100 feet west of the proposed connection, and mixed urban land uses are located on the eastern side. Existing noise includes noise from through trains and local street traffic. No sensitive receivers have been identified in the mixed urban land use area east of the site.

The current level of train traffic on the UP rail line (20 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 200 feet without horns (570 feet with horns).

Historic and Cultural Resources

Based on SEA's review of NRHP listings and consultations with the Texas SHPO, it was determined that no documented historic or archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by the SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities. Consultation has been initiated with the Texas SHPO to confirm this finding.

Transportation and Safety

The proposed construction project is located in south-central Fort Worth. Existing rail lines in the area include the SP branch line and the UP mainline running south to Waco, the UP Forth Worth subdivision mainline and the SP Ennis subdivision Fort Worth branch. Roadways near the proposed construction site are predominantly local streets. Interstate 35-West is located immediately east of the project site. Interstate 20 is located less than 3 miles south of the site. Access to the construction site would be via local roads and highways.

SEA's review of the VISTA data base on UP safety records indicate there are no known hazardous waste sites at the proposed construction site.

9.5.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. It is compatible with surrounding land uses and complies with applicable zoning ordinances and/or development regulations and is consistent with existing development in the area. No conversion of prime farmland is necessary to complete construction of this connection, nor is the proposed site subject to any coastal zone management plans.

Water Resources

The construction of the proposed connection would not have adverse impacts on groundwater resources. Given the small size of the project, construction would require relatively little earthwork and would not alter stormwater drainage or infiltration patterns in the area. The proposed construction project also would not have any adverse impacts on water resources or wetlands. Additionally, the project would not encroach upon the 100-year floodplain.

UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction would not involve excavation from or the placement of dredged or fill material into the "waters of the United States," including designated wetlands. Therefore, authorization under Section 404 of the Clean Water Act would not be required. Additionally, an NPDES stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. No adverse impact to vegetation is anticipated due to the disturbed condition of the site. However, after construction UP/SP would use Best Management Practices (BMPs) to encourage regrowth in disturbed areas and would stabilize disturbed soils.

Wildlife. No adverse impact to wildlife populations are anticipated, since wildlife habitat on the proposed construction site is of poor quality

Threatened and Endangered Species. USFWS and TPW indicated that suitable habitat does not exist for threatened and endangered species in the area of the proposed rail line construction at Fort Worth (Ney Yard). Therefore, since there are no recorded occurrences at or near the project site and no observations of occurrences of such species were made during site visits, no effects on these species or their critical habitat are anticipated.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse impact is anticipated since there are no state or federally designated parks, forest preserves, refuges or sanctuaries in the adjacent to the proposed construction site. Local parks in the area would not be affected by the construction activities.

Air Quality

Impacts on air quality in Fort Worth could result from increased emissions during project construction. Construction impacts to air quality would be related to fugitive dust emissions around the construction site and vehicle emissions from construction equipment and employee traffic.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 215 is an nonattainment area for ozone and lead. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of estimated emissions associated with vehicular traffic during the construction: (1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 15 employees for 17 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 510. This relatively small number of trips for the short

duration of the construction would not be sufficient to adversely affect air quality. In addition, due to the small scope of construction activities (only 700 cubic yards of earthwork are required), air quality impacts from construction equipment would be minimal, and would not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail line construction would not introduce new rail traffic on the associated line segments, but rather provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction would not have the potential to seriously degrade the air quality in AQCR 215, nor would it result in any additional exceedances of the NAAQS.

Noise

UP/SP estimate two train movements per day on the proposed rail line connection. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 43 feet without horns. This is within the existing L_{dn} 65 dBA contour generated by existing rail traffic. The distance would be 146 feet with horns, but horns would not likely be used along the proposed connection because there are no grade crossings.

Wheel squeal noise could occur from trains traversing the 3.5 degree curve; noise levels would be about 85 to 95 dBA at residences located adjacent to the western boundary of the site. If squeal noise occurs often, there may be an increase of L_{dn} by more than 3 dBA relative to existing conditions. Temporary increases in noise due to construction would cause minor increased noise levels in the residential area located to the west of the site.

Historic and Cultural Resources

Based on SEA's initial consultations with the Texas SHPO, no known or documented historic or archaeological sites exist at the proposed construction site. Thus, the proposed connection would not affect historic or cultural resources. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction. Consultation has been initiated with the Texas SHPO, seeking concurrence in this determination.

Transportation and Safety

The proposed rail line construction project would improve rail access to Fort Worth and enhance the efficiency of UP/SP operations. It would not require new grade crossings and therefore would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of an adverse spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

9.5.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 9.5.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed or operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection could cause additional fuel consumption and increase emissions impacts.

9.5.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed

merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them of the distribution to the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Comments received from the various parties consulted regarding this proposed construction project were:

- The U.S. Environmental Protection Agency, Region 6, noted general scoping items that should be included in the Environmental Assessment (EA), but did not comment on any specific impacts.

9.5.7 Suggested Mitigation

No mitigation measures were suggested for the construction project by the various parties consulted in the process of preparing the EA. (See **Volume 5**, Appendices D and E, for agency consultation lists).

9.5.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Fort Worth (Ney Yard) construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Texas SHPO.

Safety

1. UP/SP shall consult with the Texas Natural Resource Conservation Commission if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response

procedures outlined in their Emergency Response Plans.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

2. UP/SP shall monitor noise resulting from train operations over the new connection and implement mitigation measures to control excessive wheel squeal.

9.6 Fort Worth (UP to SP)

Fort Worth is located in Tarrant County, 30 miles west of Dallas. Existing rail lines in the area include the SP branch line and the UP main line running south to Waco, the UP Fort Worth subdivision mainline, and the SP Ennis subdivision Fort Worth branch.

9.6.1 Proposed Action

The proposed action involves the construction and operation of two new connections between the UP Fort Worth subdivision mainline and the SP Ennis subdivision branch line in Fort Worth, Texas. This section presents the second proposed connection. The first proposed connection is presented in Section 9.5. The second connection (see Figure 9-6) would be located

in the northeast quadrant of the existing SP/UP track crossing. Construction of a new connection would permit trains between the UP mainline and rail yard located north of the crossing and the SP branch line running south to Ennis. This connection would be used primarily by trains operating northbound from Hearne to Fort Worth and beyond. Two new power turnouts and approximately 800 feet of new rail line would be required. Acquisition of approximately 0.5 acre of additional right-of-way would be required.

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 15 people over a period of 12 days. The construction would require approximately 700 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed merger would result in the following changes along existing rail lines:

- Traffic on the UP Fort Worth subdivision would decrease from 15 to 9 trains per day, and the annual gross tons would decrease from 44 to 18 million tons (a 60 percent decrease).

- Traffic on the SP Ennis subdivision would increase from 7 to 8 trains per day, and the annual gross tons would increase from 12 to 14 million tons (a 12 percent increase).

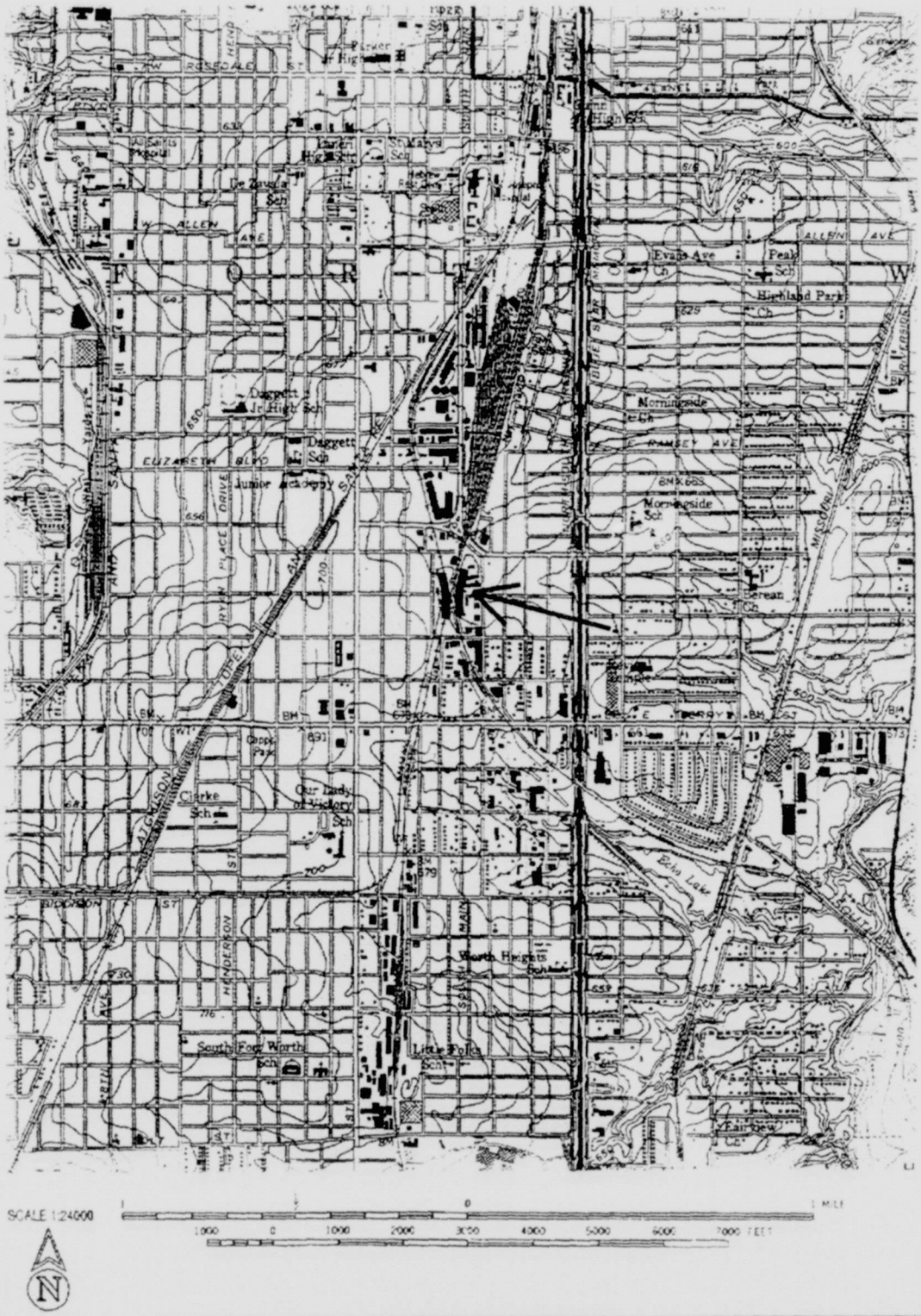
- Traffic on the new common point connection would be 8 trains per day.

9.6.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line construction. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and SP rights-of-way. There are no construction, operational or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

SEA considered a "no-action" alternative. With this alternative, current operations would continue to move over existing UP and SP rail lines. However, access between the two lines would



UP/SP RAILROAD MERGER

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be limited to existing interchanges or terminals.

9.6.3 Existing Environment

Land Use

The proposed connection would be constructed adjacent to an existing rail corridor in an area of mixed, urbanized land uses. Residential areas are located to the east and west of the proposed construction. The site is not located on prime farmland. The line proposed for construction is not within a designated coastal zone.

Water Resources

There are no major water resources within the project area. A minor drainage ditch was observed near the at-grade street crossing of East Morning Drive. National Wetland Inventory (NWI) maps were not available for this urban site; site visits did not reveal any wetland vegetation. The proposed site is not located within a 100-year floodplain.

Biological Resources

Vegetation. Existing native vegetation on the proposed rail construction site has been disturbed by urbanization and previous rail activities. Mixed forbs and grasses were observed on the project right-of-way. A large open field was observed to the west of the tracks, close to the rail cross-over. Vegetation in the field and right-of-way is routinely mowed.

Wildlife. Wildlife habitat on the proposed rail construction site is of poor quality. Wildlife species are limited to small mammals or birds that are very tolerant of urban and disturbed conditions.

Threatened and Endangered Species. USFWS and TPW were consulted regarding threatened and endangered species in the area of the proposed rail line construction at Fort Worth (UP to SP). The USFWS and TPW staff indicated that no suitable habitat exists in the vicinity of the proposed construction project for any state- or federally-listed threatened or endangered species. In addition, the TPW did not identify any state species of concern at the proposed construction site.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, forest preserves, refuges or sanctuaries are located in the vicinity of the proposed construction site. Municipal parks close to the site include Glenwood Park, Sycamore Park, Rosemont Park, and Forest Park.

Air Quality

The proposed construction site is located in Air Quality Control Region (AQCR) 215: Metropolitan Dallas-Fort Worth. This AQCR is currently in nonattainment for ozone and lead. For all other National Ambient Air Quality Standards (NAAQS) pollutants, this AQCR is considered an attainment area.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail and vehicular traffic are the primary sources of noise in the area of the proposed construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet). A noise-sensitive residential area is located 400 feet west of the proposed connection, and mixed urban land uses are located on the eastern side. Existing noise includes noise from through trains and local street traffic. No sensitive receivers have been identified in the mixed urban land use area east of the site.

The current level of train traffic on the UP Fort Worth line (15 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 160 feet without horns (500 feet with horns). The current level of traffic on the SP Ennis line (seven trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 100 feet without horns (320 feet with horns).

Historic and Cultural Resources

Based on SEA's review of NRHP listings and initial consultations with the Texas SHPO, it was determined that no documented historic structures or archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by the SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities. Consultation has been initiated with the Texas SHPO to confirm this finding.

Transportation and Safety

The proposed construction project is located in south-central Fort Worth. Existing rail lines in the area include the SP branch line and the UP main line running south to Waco, the UP Forth Worth subdivision main line, and the SP Ennis subdivision Fort Worth branch. Roadways near the proposed construction site are predominantly local streets. Interstate 35-West is located immediately east of the project site. Interstate 20 is located less than 3 miles south of the site. Access to the construction site would be via local roads.

SEA's review of the VISTA database and UP safety records indicate no known hazardous waste sites exist at the proposed construction site.

9.6.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. It is compatible with surrounding land uses and complies with applicable zoning ordinances and/or development regulations and is consistent with existing development in the area. No conversion of prime farmland is necessary to complete construction of this connection, nor is the proposed site subject to any coastal zone management plans.

Water Resources

The construction of the proposed connection would not have adverse impacts on groundwater resources. Given the small size of the project, construction would require relatively little earthwork and would not alter stormwater drainage or infiltration patterns in the area. The proposed construction project also would not have any adverse impacts on water resources or wetlands. Additionally, the project would not encroach upon the 100-year floodplain.

UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction would not involve excavation from or the placement of dredged or fill material into the "waters of the United States," including designated wetlands. Therefore, authorization under Section 404 of the Clean Water Act would not be required. Additionally, an NPDES stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. No adverse impact to vegetation is anticipated due to the disturbed condition of the site. However, after construction UP/SP would use Best Management Practices (BMPs) to encourage regrowth in disturbed areas and stabilize disturbed soils.

Wildlife. No adverse impact to wildlife populations are anticipated, since wildlife habitat on the proposed construction site is of poor quality

Threatened and Endangered Species. USFWS and TPW indicated that suitable habitat does not exist for threatened and endangered species in the area of the proposed rail line construction at Fort Worth (UP to SP). Therefore, since there are recorded occurrences at or near the project site and no observations of occurrences of such species were made during site visits, no effects on these species or their critical habitat are anticipated.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse impact is anticipated since there are no state or federally designated parks, forest preserves, refuges or sanctuaries adjacent to the proposed construction site. Local parks in the area would not be affected by the construction activities.

Air Quality

Impacts on air quality in Fort Worth could result from increased emissions during project construction as well as increased train traffic when the proposed project is completed. Construction impacts to air quality would be related to fugitive dust emissions around the construction site and vehicle emissions from construction equipment and employee traffic.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 215 is an nonattainment area for ozone and lead. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of estimated emissions associated with vehicular traffic during the construction: (1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 15 employees for 17 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total

number of employee trips required would be 510. This relatively small number of trips for the short duration of the construction would not be sufficient to adversely affect air quality. In addition, due to the small scope of construction activities (only 700 cubic yards of earthwork are required), air quality impacts from construction equipment would be minimal, and would not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail line construction would not introduce new rail traffic on the associated line segments, but rather provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction would not have the potential to seriously degrade the air quality in AQCR 215, nor would it result in any additional exceedances of the NAAQS.

Noise

UP/SP estimate eight train movements per day on the proposed rail line connection. The anticipated increase in train traffic along the proposed connection could generate an L_{dn} of 65 dBA at approximately 110 feet without horns. The distance would be 340 feet with horns, but horns would not likely be used along the proposed connection because grade crossings would not be crossed. The area of the proposed rail line construction project would be entirely within the L_{dn} 65 dBA noise contours of the existing rail lines.

Short-term increases in noise levels would be experienced at the nearest residences located west of the site. Train operations on the 5-degree curve would likely cause wheel squeal and could reach levels of 70 to 80 dBA at the nearest residences. UP/SP would be required under SEA's recommended mitigation to monitor and control these elevated noise levels.

Historic and Cultural Resources

Based on SEA's initial consultations with the Texas SHPO, no known or documented historic structures or archaeological sites exist at the proposed construction site. Thus, the proposed connection would not affect historic or cultural resources. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction. Consultation has been initiated with the Texas SHPO, seeking concurrence in this determination.

Transportation and Safety

The proposed rail line construction project would improve rail access to Fort Worth and enhance the efficiency of UP/SP operations. It would not require new grade crossings of any roads and therefore would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of an adverse spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

9.6.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 9.6.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed construction is the most direct rail line connection and would involve the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative were implemented, the proposed rail line connection would not be constructed or operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection could cause additional fuel consumption and increase emissions impacts.

9.6.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed

merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Comments received from the various parties consulted regarding this proposed construction project were:

- The U.S. Environmental Protection Agency, Region 6, noted general scoping items that should be included in the Environmental Assessment (EA), but did not comment on any specific impacts.

9.6.7 Suggested Mitigation

No mitigation measures were suggested for the construction project by the various parties consulted in the process of preparing the EA (See **Volume 5**, Appendices D and E, for agency consultation lists).

9.6.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Fort Worth (UP to SP) construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. The Board will consider SEA's recommendations and the environmental record in making its final decision. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Texas SHPO.

Safety

1. UP/SP shall consult with the Texas Natural Resource Conservation Commission if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response

procedures outlined in their Emergency Response Plans.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

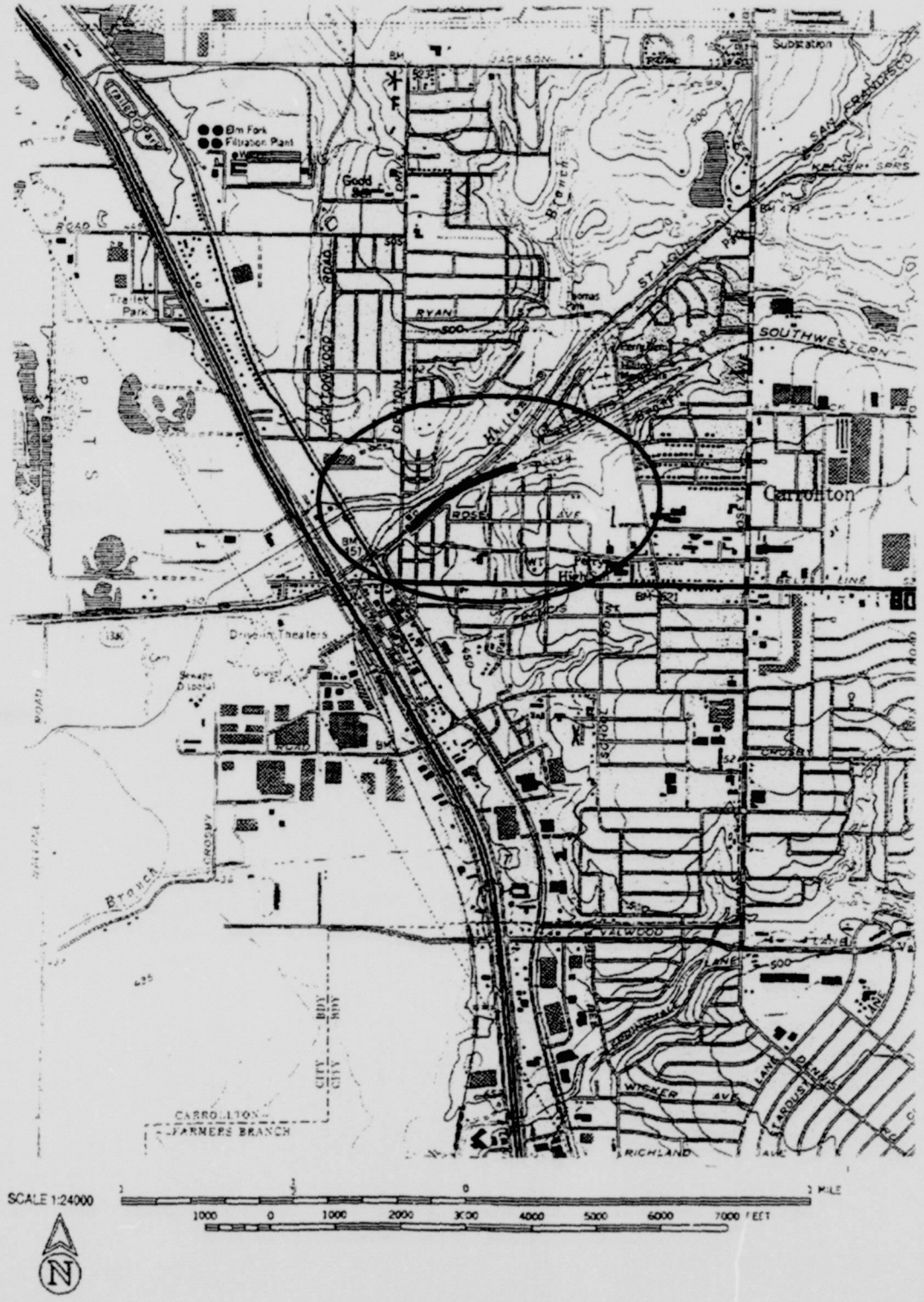
2. UP/SP shall monitor noise resulting from train operations over the new connection and implement appropriate mitigation measures to control excessive wheel squeal.

9.7 Carrollton

Carrollton is located in Dallas County, 10 miles north of Dallas. Existing rail lines in the area include the SP Commerce subdivision and the UP/Dart Denton branch.

9.7.1 Proposed Action

Construction of additional yard tracks at the SP Carrollton yard is proposed to manage the operations of local traffic of the consolidated UP/SP system. Approximately 3,660 feet of new rail line, including two yard tracks and one track extension, would be built (see Figure 9-7). Some additional (about 0.5 acre) right-of-way would be required.


Dfw Fork
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Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 20 people over a period of 32 days. The construction would require approximately 3,100 cubic yards of earthwork and may require borrow material. Borrow material would be obtained from local sources and hauled to the construction site by rail or truck.

Changes In Traffic

UP/SP state that the proposed construction merger would not result in changes to traffic on existing rail lines. Two switching lines, one from the UP Mockingbird Yard and one from the SP Miller Yard, currently serve the area north of Dallas. The new connections would allow these operations to be combined at the SP Miller Yard and provide additional capacity.

9.7.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line construction. The proposed rail line would be the most direct connection between the existing rail lines and would minimize the use of new land outside the UP and SP rights-of-way. There are no construction, operational or environmental features that would render another alignment of the proposed rail line more reasonable than the proposed location.

No-Action Alternative

A "no-action" alternative was considered by the SEA. With this alternative, current operations would continue to move over existing UP and SP rail lines. However, access between the two lines would be limited to existing interchanges or terminals.

9.7.3 Existing Environment

Land Use

The proposed track construction would occur in an area with existing rail lines, surrounded by urbanized residential land uses associated with the Carrollton community. Current zoning for the proposed construction sites allows railroad-related development. The construction would not occur in an area of prime farmland. The line proposed for construction is not within a designated coastal zone.

Water Resources

Hutton Branch, a channelized perennial stream, borders the site to the north. Perry Branch, an intermittent stream, flows toward the north across the eastern end of the site to join the Hutton Branch. A small 2-acre water impoundment is located immediately south of the rail corridor at the base of a hill covered with residential development. National Wetland Inventory (NWI) maps were not available for this urban site; site visits did not reveal any wetland vegetation. Portions of the proposed site are located within the 100-year floodplain.

Biological Resources

Vegetation. Existing vegetation around the rail corridor and adjacent to the southern residential neighborhood has been disturbed by rail activity and urbanization. Open grassy areas are dominated by weedy grass species such as coastal Bermuda grass. Forested areas along the south edge of the rail right-of-way include species such as American elm, cottonwood, post oak, and mulberry. The lands immediately north of the rail right-of-way and north of Hutton Branch, have open fields of mixed forbs and grasses. Soils are clayed, typical to bottom lands along drainages. Percolation is slow; shrink-swell potential is high.

Wildlife. Wildlife habitat on the proposed rail construction site is of fair to poor quality. Wildlife species on or near the site are tolerant of urban and industrial conditions.

Threatened and Endangered Species. SEA consulted USFWS and TPW regarding threatened and endangered species in the area of the proposed rail line construction at Carrollton. The USFWS and TPW staff indicated that no suitable habitat exists in the vicinity of the proposed construction project for any state- or federally-listed threatened or endangered species. In addition, the TPW records indicated there was no known occurrences of any sensitive species within the proposed project area.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, forest preserves, refuges or sanctuaries are located in the vicinity of the proposed construction site.

Air Quality

The proposed construction site is located in AQCR 215: Metropolitan Dallas-Fort Worth. This AQCR is currently non-attainment for ozone and lead. For all other NAAQS pollutants, this AQCR is considered an attainment area.

Noise

The Board's environmental rules at 49 CFR 1105.7(e) specify that noise studies must be conducted at rail line segments, rail yards, and intermodal facilities where activities exceed certain thresholds. Where noise studies are performed, adverse impacts are determined by an increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (L_{dn}) of 3 dBA or more, or where L_{dn} is 65 dBA or greater. A detailed explanation of noise levels, measurements, and thresholds is presented in **Volume 2** of this EA. The applicable impact criteria, as well as the projected noise levels and any noise-sensitive receptors located in the area of the project, are also presented in **Volume 2**.

Rail and vehicular traffic are the primary sources of noise in the area of the proposed construction. Given the existing activities in the area, passby noise levels would range from 65 dBA (automobile at 50 feet) to just under 100 dBA (diesel locomotive at 50 feet). Noise-sensitive residential areas are located on either side of the construction site. Approximately two blocks of residential street border the southern side of the proposed new construction. Existing noise includes through train noise and noise from yard operations.

Historic and Cultural Resources

Based on SEA's review of NRHP listings and initial consultations with the Texas SHPO, it was determined that no documented historic structures or archaeological sites have been identified at the proposed construction site. However, as part of the Section 106 consultation process, site-specific field surveys could be required by the SHPO to verify that no archaeological resources would be disturbed or destroyed by construction activities. Consultation has been initiated with the Texas SHPO to confirm this finding.

Transportation and Safety

The proposed construction project is located in west-central Carrollton. Existing rail lines in the area include the SP Commerce subdivision and the UP/Dart Denton branch. Roadways near the proposed construction site are predominantly local streets. Interstate 35-East is located immediately west of the project site. Access to the construction site would be via local roads.

According to UP/SP, no known hazardous waste sites exist at the proposed construction site.

9.7.4 Potential Environmental Impacts of Proposed Action

Land Use

No adverse land use impacts are expected from the construction of the proposed connection. The new rail yard tracks and siding extension are located adjacent to existing rail lines. It is compatible with surrounding land uses, complies with applicable zoning ordinances and/or development regulations, and is consistent with the community's comprehensive land use plan. No conversion of prime farmland is necessary to complete construction of this connection, nor is the proposed site subject to any coastal zone management plans.

Water Resources

The construction of the proposed rail line would not have adverse impacts on groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Furthermore, because construction of the rail line would require relatively little earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area. The proposed construction project would also not have any adverse impacts on the perennial or intermittent streams near the construction site.

UP/SP's construction specifications would incorporate provisions for environmental protection as required by jurisdictional agencies and Federal, state, and local permitting authorities, including appropriate measures for sedimentation and erosion control. Because all applicable Federal, state, and local water quality standards would be met, the proposed project would not affect water quality in the construction area. The proposed construction would not involve excavation from or the placement of dredged or fill material into the "waters of the United States," including designated wetlands. Therefore, authorization under Section 404 of the Clean Water Act would not be required. Additionally, a NPDES stormwater discharge permit would not be required pursuant to Section 402 of the Clean Water Act because the total land area to be disturbed is estimated to be less than 5 acres.

Biological Resources

Vegetation. No adverse impact to vegetation is anticipated due to the disturbed condition of the site. However, after construction UP/SP would use BMPs to encourage regrowth in disturbed areas and would stabilize disturbed soils.

Wildlife. No adverse impact to wildlife populations are anticipated, since wildlife habitat on the proposed construction site is of low quality.

Threatened and Endangered Species. USFWS and TPW have indicated that suitable habitat does not exist for threatened and endangered species in the area of the proposed rail line construction at Carrollton. Therefore, since there are no recorded occurrences at or near the project site and no observations of occurrences of such species were made during site visits, no effects on these species or their critical habitat are anticipated.

Parks, Forest Preserves, Refuges, and Sanctuaries. No adverse impact is anticipated since there are no state or federally designated parks, forest preserves, refuges or sanctuaries adjacent to the proposed construction site.

Air Quality

Impacts on air quality in Carrollton could result from increased emission during project construction as well as increased train traffic when the proposed project is completed and becomes operational. Construction impacts to air quality would be related to fugitive dust emissions around the construction site and vehicle emissions from construction equipment and employee traffic.

Fugitive Dust Emissions During Construction. Estimated emissions from construction are of a relatively short duration and would occur only during active construction at the site. As discussed above, AQCR 215 is currently nonattainment area for ozone and lead. The small amount of fugitive dust emissions due to construction would have no adverse impact on the attainment status or air quality of the area due to the short duration of construction activities. In addition, good construction practices would include dust control measures, such as stabilizing the surface, replanting vegetation and watering the site.

Vehicle Emissions During Construction. There would also be two types of estimated emissions associated with vehicular traffic during the construction: (1) particulate emissions from vehicles moving over the roads, and (2) emissions from construction equipment. The estimated labor force for construction at the site would be 20 employees for 32 days. Assuming that each employee makes two trips to the construction site per day (one arriving, one leaving), the total number of employee trips required would be 1,280. This number of trips for the short duration of the construction would not be sufficient to adversely affect air quality. In addition, due to the small scope of construction activities (only 3,100 cubic yards of earthwork are required), emissions increases from construction equipment would be minimal, and would not adversely impact the area's air quality.

Estimated Emissions From Operations. Rail operations can affect air quality through increased activity on rail line segments and increased activity in rail yards and intermodal facilities. The Board has specified threshold limits for increased activity of these rail operations in 49 CFR 1105.7(e) (5). The new rail line construction would not introduce new rail traffic on the associated

line segments, but rather provide shorter trip lengths for trains using the common point connection. The reduced travel times and trip lengths would also result in reduced emissions. Therefore, SEA concludes that the air emissions resulting from the operation of the proposed new construction would not have the potential to seriously degrade the air quality in AQCR 215, nor would it result in any additional exceedances of the NAAQS.

Noise

Noise from locomotives and yard operations on acquired right-of-way could produce higher levels of noise than now occurring in the residential area which borders the right-of-way. The increase would depend on the final alignment of the new track. UP/SP shall develop appropriate mitigation measures following final design. Increases in noise levels during construction would be temporary. UP/SP shall control construction noise from equipment through use of work hour controls and maintenance of muffler systems on all machinery.

Historic and Cultural Resources

Based on SEA's initial consultations with the SHPO in Texas, no known or documented archaeological sites exist at the proposed construction site. Thus, the proposed connector would not affect historic or cultural resources. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 consultation to address discovery and treatment of archaeological sites during the construction. Consultation has been initiated with the Texas SHPO, seeking concurrence in this determination.

Transportation and Safety

The proposed rail line construction project would improve rail access to Carrollton and enhance the efficiency of UP/SP operations. It would not require new grade crossings and therefore would not cause any delays or disruptions of motor vehicle traffic. Other transportation impacts would be limited to increased deterioration of public roads due to the transport of construction equipment. This impact is expected to be of short duration and is not likely to affect the viability or lifespan of the roads. Short-term disruptions of local vehicular traffic could occur during the construction period.

No hazardous waste sites were identified in the vicinity of the proposed construction site. The probability of a major spill of hazardous or toxic materials during construction is very small. However, in the unlikely event that such a spill occurs at the construction site, drainage ditches are expected to retain the contaminated runoff. In the very unlikely event of a large spill that is not promptly and properly cleaned up, there could be the potential for contaminants to seep into

underlying soils. Overall, the proposed rail line construction project would not be expected to increase the probability or consequences of hazardous waste contamination.

9.7.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 9.7.2, SEA identified no feasible alternatives to the proposed rail line construction project. The proposed rail line construction is the most direct rail line connection and involves the use of minimal land outside the UP and SP rights-of-way.

No-Action Alternative

If the no-action alternative was implemented, the proposed rail line connection would not be constructed or operated. Therefore, land use and other environmental conditions that currently exist at the proposed site would remain unchanged. However, if the merger is approved, the absence of this rail line connection could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection could cause additional fuel consumption and increase emissions impacts.

9.7.6 Summary of Agency Comments

In considering the potential environmental impacts of the proposed new rail line construction and operation planned as part of the proposed UP/SP merger, SEA sent consultation letters to various Federal, state, and local agencies on January 29, 1996. These letters, samples of which are included in **Volume 5**, Appendix D, Exhibits D-1 through D-9, provided early notification of this EA and requested information and comments on the effects to the environment of the proposed merger and related construction and abandonment projects. Each letter included a state information packet and maps that listed the specific merger-related proposals. A sample packet is shown in **Volume 5**, Appendix D, Exhibit D-10. SEA contacted agencies by telephone to alert them to the distribution of the consultation letter and to confirm its receipt. The Applicant also contacted these agencies in preparation of the Environmental Report which accompanied the merger application. That correspondence and all responses were reviewed, verified, and considered by SEA in the preparation of this EA.

All comments received (through mid March, 1996) in response to the January 29th letter are shown in **Volume 5**, Appendix E, Exhibits E-1 through E-11. As necessary, SEA conducted additional consultation with agencies as shown in **Volume 5**, Appendix E, Table E-1. Comments received from the various parties consulted regarding this proposed construction project were:

- The U.S. Environmental Protection Agency, Region 6, noted general scoping items that should be included in the Environmental Assessment (EA), but did not

comment on any specific impacts..

9.7.7 Suggested Mitigation

No mitigation measures were suggested for the proposed construction project by the various parties consulted in the process of preparing the EA (See **Volume 5**, Appendices D and E, for agency consultation lists).

9.7.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Carrollton construction project. SEA will consider all comments on the EA in making its final recommendation to the Board. SEA's recommended mitigation is as follows.

Land Use

1. UP/SP shall observe all applicable Federal, state, and local regulations regarding handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction of the proposed rail line.

2. UP/SP shall dispose of all materials that cannot be reused in accordance with state and local solid waste management regulations.

3. UP/SP shall restore any adjacent properties that are disturbed during construction activities to their pre-construction conditions.

4. Before undertaking any construction activities, UP/SP shall consult with any potentially affected American Indian Tribes.

Water Resources

1. UP/SP shall use Best Management Practices to control erosion, runoff, and surface instability during construction, including seeding, fiber mats, straw mulch, plastic liners, slope drains, and other erosion control devices. Once the track is constructed, UP/SP shall establish vegetation on the embankment slope to provide permanent cover and prevent potential erosion. If erosion develops, UP/SP shall take steps to develop other appropriate erosion control procedures.

2. UP/SP shall use only EPA-approved herbicides and qualified contractors for

application of right-of-way maintenance herbicides, and shall limit such application to the extent necessary for rail operations.

Biological Resources

1. UP/SP shall use Best Management Practices to encourage regrowth in disturbed areas and to stabilize disturbed soils.

Historic and Cultural Resources

1. If previously undiscovered archaeology remains are found during construction activities, UP/SP shall cease work in the area and immediately contact the Arkansas SHPO.

Safety

1. UP/SP shall consult with the Texas Natural Resource Conservation Commission if hazardous waste and/or materials are discovered at the site.

2. UP/SP shall transport hazardous materials in compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

3. In the case of a spill, UP/SP shall follow appropriate emergency response procedures outlined in their Emergency Response Plans.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during construction.

2. UP/SP shall restore roads disturbed during construction to conditions as required by state or local regulations.

Air Quality

1. UP/SP shall comply with all applicable Federal, state, and local regulations regarding the control of fugitive dust. Fugitive dust emissions created during construction shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment.

Noise

1. UP/SP shall control temporary noise from construction equipment through the use of work hour controls and maintenance of muffler systems on machinery.

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