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 right-of-way salvaging activities to pre-salvaging conditions.

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

Water Resources

1. UP/SP shall use appropriate technologies, such as silt screens, to minimize soil erosion during salvaging. UP/SP shall disturb the smallest area possible around streams and tributaries and shall revegetate disturbed areas immediately following salvage operations.

2. UP/SP shall assure that all culverts are clear from debris to avoid potential flooding and stream flow alteration, in accordance with Federal, state and local regulations.

3. UP/SP shall obtain all necessary Federal, state, and local permits if salvaging activities require the alteration of wetlands, ponds, lakes, streams, or rivers, or if these activities would cause soil or other materials to wash into these water resources. UP/SP shall use appropriate techniques to minimize impacts to water bodies and wetlands, such as positioning salvaging equipment on barges, matting, or skids.

Biological Resources

1. To further assess the potential occurrence of the five threatened and endangered species of plants and animals, UP/SP shall coordinate with USFWS and the Colorado Department of National Resources to determine if surveys in areas of potential disturbance due to salvage activities are needed and shall conduct any such surveys during an appropriate time of the year.

Historic and Cultural Resources

1. UP/SP shall retain their interest in and take no steps to alter the SP (D&RGW) mainline (and structures) and the Hanging Bridge and the Royal Gorge War Revetments until the Section 106 process of the National Historic Preservation

Act (16 USC 470f), as amended, has been completed.

2. If previously unknown archaeological remains are found during salvage operations, UP/SP shall cease work in the area and immediately contact the Colorado SHPO.

Safety

1. UP/SP shall consult with U.S. EPA Region VIII prior to conducting any salvage activity for the entire line. UP/SP, in consultation with EPA, shall develop a Risk Assessment and Remediation Plan. Also, UP/SP shall advise SEA of the results of its consultations and provide SEA with a copy of the EPA-approved mitigation plans.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during abandonment activities at and near grade crossings.

2. UP/SP shall restore roads disturbed during abandonment activities to their original condition.

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

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.

4.3 Towner to NA Junction

Docket No. AB-3 (Sub-No. 130) - Abandonment by UP
Docket No. AB-8 (Sub-No. 38) - Discontinuance of Service by DRGW

4.3.1 Proposed Action

The proposed merger includes the abandonment of a 122.4-mile UP rail line segment between Towner and North Avondale (NA) Junction, from MP 747.0 to 869.4 (see Figure 4-3) and discontinuance of service over the same line by DRGW. Towner is located in Kiowa County, approximately 135 miles east of Pueblo. NA Junction is located in Pueblo County, approximately 25 miles east of Pueblo. The proposed abandonment segment is part of the UP line between Pueblo and Herington, Kansas. Following the merger, through traffic currently using this line would be diverted to a more efficient east-west line.

Generally, on the line proposed for abandonment, UP/SP would remove the rails, ties, ballast, buildings, ancillary equipment (i.e., communications, signals), and grade crossings. Depending on the proposed adaptive reuse of the right-of-way, the bridges may or may not be removed. Most salvage and removal activities would occur within the existing right-of-way. The right-of-way would then be available, depending on the condition of the title held by the railroad, for conversion to alternative uses such as recreation, linear public utility transmission, local transportation corridor, expansion of adjacent uses, or in some instances, a combination of some or all of the above.

4.3.2 Alternative Action Considered

Alternatives to the proposed abandonment action include: (1) discontinuance of service with no abandonment; (2) continued operations by another carrier; and (3) the no action alternative (i.e., denial of the abandonment). Under each of these alternatives there would be no significant impact to the environment.

4.3.3 Existing Environment

Land Use

Land uses along most of this 122-mile long segment include a mixture of rangelands, croplands, and pasture. Over 45 percent of the land adjacent to the rail line is used for agricultural purposes, primarily for cattle production and grazing. Although the line extends through prime farmland, agricultural uses of the land have not been adversely affected by historical rail operations. The other predominant land use (comprising over 40 percent of the total) along the rail line is a mixture of rangelands: herbaceous, shrub and brush, and mixed. Although a number of small communities exist along the rail line, including Sheridan Lake, Brandon, Haswell, Eads,

Ordway, Olney Springs, and Sugar City, residential land uses account for only 3 percent of land adjacent to the line proposed for abandonment.

Water Resources

The proposed abandonment corridor crosses 36 streams, and is adjacent to one additional stream. Many of these streams have an intermittent flow. There are 20 canals, ditches, or culverts intercepted by, and another 7 located adjacent to, the rail corridor. National Wetland Inventory (NWI) maps indicate that more than 25 wetlands parcels are located within or adjacent to the existing right-of-way proposed for abandonment. Most of these wetlands are small, isolated palustrine systems (under 2 acres) or narrow riverine systems associated with streams crossed by the rail segment. The largest wetland systems are the riverine and palustrine wetlands associated with the numerous meanders of the Arkansas River. These abut the rail line in five locations.

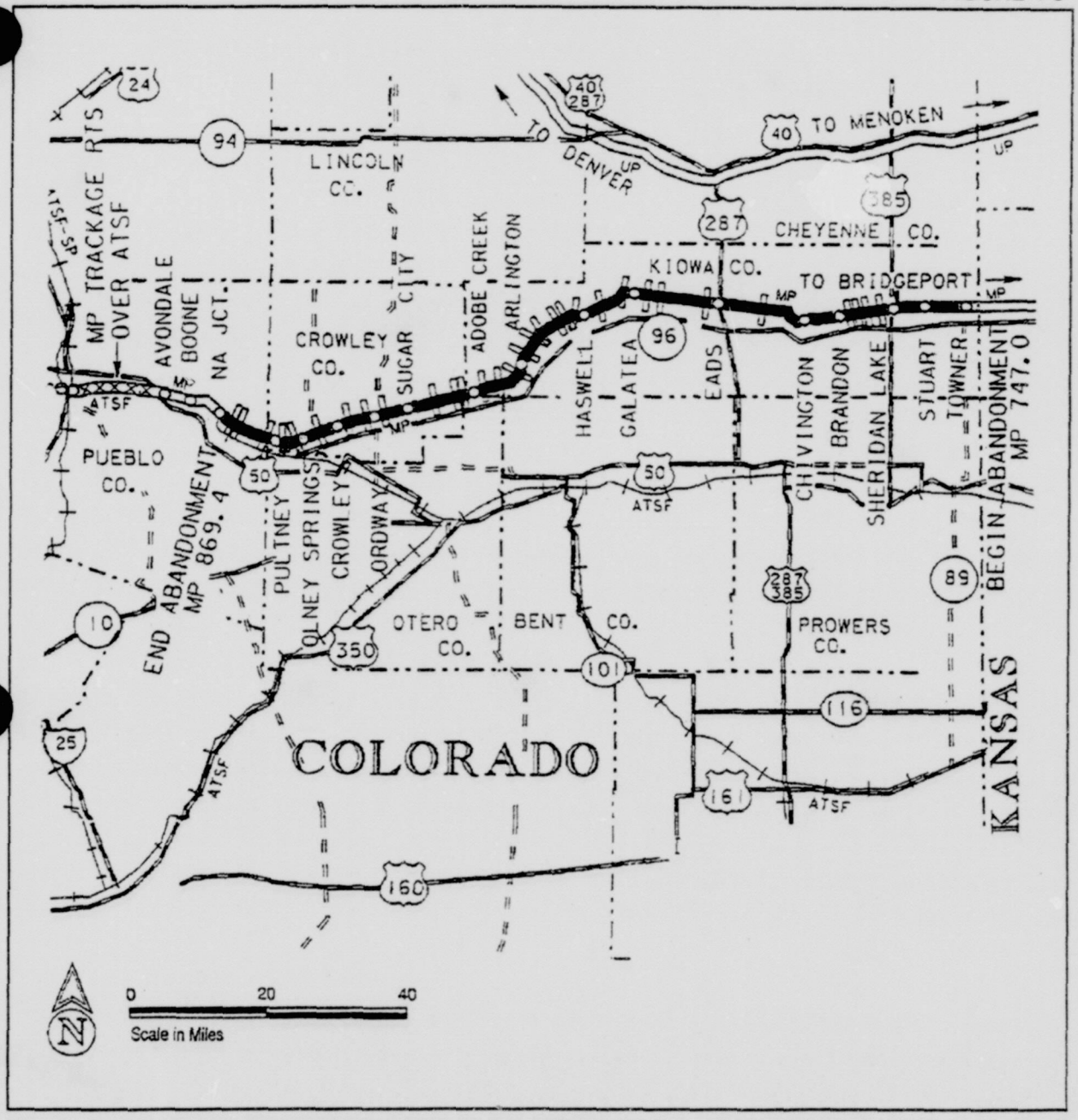
Biological Resources

Vegetation. Several vegetation communities are present along and adjacent to the abandonment corridor. These include short grass prairie and wetlands. These vegetation communities are interspersed with agricultural, developed, or built lands. Within the right-of-way, the vegetation is ruderal, having been disturbed by past rail construction and current rail activities.

Wildlife. The right-of-way provides habitat for a variety of terrestrial wildlife species; however, the extent of the habitat is limited. Habitat along the proposed abandonment corridor is a mixture of shortgrass prairie and agriculture (winter wheat, hay, and corn). Near the Arkansas River, habitat is found for white-tailed deer, bald eagle, kestrel, and owl as well as waterfowl and song birds. Pheasant and quail are typically found in the agricultural areas. Shortgrass prairie provides habitat for antelope and coyote, jackrabbit, and prairie dogs.

Threatened and Endangered Species. SEA consulted USFWS regarding threatened and endangered species in the region of the proposed rail line abandonment between Towner and NA Junction. The USFWS staff indicated that seven Federally-listed threatened or endangered species have historically occurred in the region and could potentially occur in the vicinity of the proposed abandonment. These species include the endangered least tern (*Sterna antillarum*), the endangered piping plover (*Charadrius melodus*), the threatened bald eagle (*Haliaeetus leucocephalus*), the endangered Eskimo curlew (*Numenius borealis*), the threatened western snowy plover (*Charadrius alexandrinus nivosus*), the endangered whooping crane (*Grus americana*), and the endangered black-footed ferret (*Mustela nigripes*). Field observations on site indicated no occurrences of these species. There is no critical habitat known or recorded in the vicinity of the proposed abandonment.

FIGURE 4-3



UP/SP RAILROAD MERGER

PROPOSED ABANDONMENT

TOWNER - NA JUNCTION, COLORADO

ENVIRONMENTAL ASSESSMENT

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, preserves, refuges, or sanctuaries occur near the proposed abandonment corridor.

Historic and Cultural Resources

The Towner to NA Junction section of the present UP Hoisington Subdivision was constructed in 1887 by the Pueblo & State Line Railroad, a subsidiary of the Missouri Pacific Railroad, subsequently the UP. There are 34 bridges (27 timber pile trestles, 4 steel beam bridges, 2 reinforced concrete bridges, and 1 concrete pile trestle) on the proposed abandonment. These bridges were constructed between 1922 and 1947. The oldest identified resources are a 1922 timber trestle bridge (MP 842.4, Sugar City vicinity) and a 1923 timber trestle bridge (MP 812.3, Haswell vicinity). Although potentially historic by their age, these bridges are of modest scale and are undistinguished in design and none meet the criteria for inclusion on the NRHP. In addition to the bridges previously noted, SEA's review of UP records and track evaluation videos for the entire length of the abandonment indicated five grain complexes in proximity to the railroad right-of-way: MP 753 (Stuart vicinity), MP 758.2 (Sheridan Lake vicinity), MP 766 (Brandon vicinity), MP 786 (Eads vicinity), and MP 807 (Haswell vicinity). Based on SEA's evaluation, one of these structures meet the criteria for inclusion in the NRHP. Consultation has been initiated with the Colorado SHPO to confirm these findings.

SEA's review of NRHP lists and specific information provided by the Colorado Historical Society Office of Archaeology and Historic Preservation indicated no recorded archaeological sites or National Register sites in the immediate project area. However, there is the potential for impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 coordination to address discovery and treatment of archaeological sites during the abandonment or salvage process.

Safety

SEA's review of the VISTA database and UP safety records identified a spill of unknown material at MP 830 in Heath in 1990. UP/SP shall confirm with the Colorado Public Health and Environment Department that this site has been remediated to agency satisfaction.

Transportation

Local shippers are currently served three times a week by a UP local train. In 1994, this line carried a total of 119 railcars containing grain products for customers in Eads and Haswell. SP also currently uses this segment for through traffic between Pueblo and Herington, Kansas--approximately 13 trains per day.

This rail line currently has 65 grade crossings with local roads. These roads carry low daily traffic volumes.

Air Quality

The Towner to NA Junction City line is located in two Air Quality Control Regions. The Kiowa County portion of the segment in located in AQCR 34 (Comanche); the Pueblo County portion is in AQCR 38 (San Isabel). AQCR 34 is nonattainment for particulate matter (PM); it is in attainment with the NAAQS for all other pollutants. AQCR 38 is nonattainment for particulate matter (PM) and carbon monoxide (CO); it is in attainment with the NAAQS for all other pollutants.

Noise

Rail, automobile and truck traffic are the primary sources of noise in this rural area of Colorado. The current level of train traffic on the Towner to NA Junction rail line (13 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). Noise impacts from the shipments of grain products and through traffic would be minimal due to the small numbers of sensitive receptors along the segment.

Automobiles and trucks are the major sources of noise in the vicinity of the 65 grade crossings found along the line. Noise levels from this traffic (at 50 feet) are estimated to be between 70 to 75 and 80 to 85 dBA respectively. However, because of the land uses adjacent to the right-of-way, there are few receptors for this automobile and truck noise. Residences in the communities along the rail line are potential receptors of rail and vehicular traffic noise.

4.3.4 Potential Environmental Impacts of Proposed Action

Land Use

The proposed abandonment would change the existing land use designation of the railroad right-of-way from active railroad use to an inactive status. It is estimated that approximately 2,673 acres of land would be affected by this change. Salvaging activities generally would not disturb adjacent land uses, although the removal of some bridges could require the use of construction equipment outside of the rail line right-of-way and property. Any adjacent land that would be disturbed by salvage activities would be restored by UP/SP to its original condition. The proposed abandonment would not affect any prime farmlands.

Salvage activities would generate material that would need to be disposed of at a landfill, burned as fuel, or incinerated. Most of this material would consist of unusable rail ties and utility poles. Disposal would be carried out in accordance with applicable Federal, state, and local

environmental regulations. If UP/SP select landfilling as a method of disposal, a properly permitted and designed landfill would be employed.

Water Resources

As discussed in Section 4.3.3, surface water resources along the proposed abandonment are abundant and include rivers, streams, and ponds. The rail line crosses a large number of streams, as indicated by the 34 bridges and culverts that are present on the line. There are also many ponds and lakes adjacent to the line, ranging in size from a few acres to several hundred acres.

Salvage activities associated with the proposed abandonment would include removing rails, ties, spikes, plates, railroad-related utilities, signaling devices, and possibly some bridge spans and decking. Bridge removal could disturb small areas of soil, and has the potential to increase soil erosion and sedimentation of adjacent water bodies. Soil disturbance from the removal of the other materials is expected to be negligible. Actions to control erosion and sedimentation could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches, and sediment collection basins. Enhanced controls, such as increasing the storage capacity of sediment basins and conducting more frequent inspections and maintenance, also may be required in areas where soils are particularly susceptible to erosion. The measures selected would need to be site-specific and would depend on local soil conditions, topography, the extent of disturbance proposed, proximity to water bodies, and applicable Federal, state or local regulations.

Bridge abutments would remain in place following salvage operations. These abutments are generally long-lived, and are not expected to fail or collapse in the near future from normal deterioration and aging.

Applicable Federal and state permits would be obtained by UP/SP if salvage activities would disturb native soils and vegetation in adjacent water bodies, floodplains, and/or wetlands. The only salvage activity that has the potential to disturb these areas would be bridge span, deck, or pier removal. Most bridges could be dismantled by equipment that would be positioned on railbeds or in upland areas. Dismantling long bridges that are located over open surface water bodies and associated floodplains or wetlands could require using equipment within these protected areas.

UP/SP's compliance with Federal and state permit requirements would ensure minimal impacts to these water bodies and associated floodplains and wetlands. Actions that could be taken by UP/SP to minimize or avoid impacts include placing equipment on barges, matting, or skids. The measures selected would be site-specific and would depend on local wetland and floodplain characteristics, topography, the nature and duration of the proposed activity, proximity to floodplain and wetland, and the applicable Federal, state, and local regulations.

Culverts along the rail line segment could be dammed by debris which could cause flooding and alter stream flows. During salvage operations, UP/SP would be required to open all culverts to avoid flooding and stream flow alterations. These activities would be conducted in accordance with Federal, state and local regulations.

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

Biological Resources

Vegetation. Existing vegetation control practices along the right-of-way would be discontinued after salvaging operations are completed. Native plant species would quickly revegetate the cleared railbed and it would eventually evolve to a natural state. Therefore, the overall impact of the proposed abandonment on vegetation along the right-of-way should be beneficial.

Wildlife. The proposed abandonment would have beneficial long-term impacts on most animal species that occupy terrestrial habitats adjacent to the rail line. The proposed abandonment could ease territorial movements and enhance the quality of habitat available to wildlife. Any potentially adverse impacts associated with salvaging activities would be temporary and would not result in permanent loss of wildlife species.

Threatened and Endangered Species. Although USFWS has indicated that Federally-listed threatened or endangered species could potentially occur in the area of the proposed abandonment, no effects on such species or their critical habitat are anticipated. This determination is based on the lack of any recorded occurrences at or 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. In addition, the Colorado Department of Natural Resources has no recorded sightings of the seven threatened or endangered species listed in Section 4.3.3 within the rail line corridor.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, forests, refuges, or sanctuaries would be affected by the abandonment.

Historic and Cultural Resources

Based on SEA's initial consultations with the Colorado SHPO, the proposed abandonment

of the Towner to NA Junction rail segment would not affect any historic or cultural resources.

SEA's review of SHPO listings indicated no known or documented archaeological sites exist along the rail line segment proposed for abandonment. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for continued Section 106 coordination to address discovery and treatment of archaeological sites during the abandonment or salvage process.

Safety

SEA's review of the VISTA database and UP safety records indicates that the unidentified spill occurrence at MP 830 has been remediated. UP/SP would undertake coordination with appropriate agencies to confirm this prior to initiation of the salvaging activities. Because the disturbance resulting from removal of rail and ties would be limited to minor surface disturbance, no hazardous waste and safety impacts are expected as a result of the proposed abandonment. In addition, the probability of a major spill of hazardous or toxic materials during salvage operations is very small. However, in the unlikely event that such a spill occurs at the abandonment 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 abandonment would not be expected to increase the probability or consequences of hazardous waste contamination.

Transportation

If the proposed merger is approved, through traffic currently on this line segment would be diverted to other UP/SP lines to provide east-west service to shippers. Approximately 120 railcars of grain products (wheat and corn) would be diverted to truck each year because of this abandonment. This would cause an insignificant increase of approximately 475 trucks per year on the local highway system. Current SP through traffic would be rerouted to other UP/SP lines; no rail-to-truck diversions are expected.

The discontinuance of rail service on the abandoned line would eliminate the need for 65 grade crossings and the remove the potential for vehicle/train accidents.

Air Quality

The operation of heavy equipment would be the primary source of pollutant emissions during salvage activities. The pollutants resulting from such activities typically consist of:

- Particulate matter, volatile organic compounds (VOCs), carbon monoxide (CO),

and nitrogen oxides (NO_x), resulting from the combustion of diesel fuel.

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

All of the emissions from salvaging operations would occur in an air quality attainment area. The fugitive particulate emissions, which would be of primary concern, can be controlled by UP/SP operators using water sprays or other suitable dust suppressants. Other emissions associated with salvaging operations (VOCs, CO, and NO_x) generally would be minor and of short duration. It should be noted that salvage activities themselves would be temporary in nature, have insignificant, temporary effects on air quality, and would not be expected to contribute to violations of the NAAQS.

Post-abandonment pollutant emissions along the right-of-way would be substantially reduced, due to the elimination of rail traffic and rail line maintenance activities.

Noise

As discussed in Section 4.3.3, there is local and through (13 trains per day) rail traffic along the rail line, though noise level impacts are minor due to the limited number of sensitive receptors near the right-of-way. Automobile and truck traffic contribute to noise levels in the vicinity of the 65 grade crossings along the rail line.

Salvage operations associated with the abandonment would cause temporary increases in noise levels. This would occur during the removal of rails, ties, plates, spikes, railroad-related utilities, signaling devices, and most bridges. These salvaging activities would require the use of trucks and front-end loaders, as well as cranes at larger bridges. Noise generated by such salvage equipment generally would be less than the 65-70 dBA level reported for typical trains. Equipment-generated noise, however, might be more frequent and last longer than noise from passing trains, since the equipment would remain relatively stationary for up to two days as each mile of track is dismantled and removed. Following salvage activities, elevated noise levels from all rail-related actions would be eliminated.

Minor changes in vehicular traffic levels and patterns also would occur in the vicinity of the right-of-way during and after salvage operations. Traffic levels at most of the 65 grade crossings on the rail line would be comparable to existing levels during and after salvage activities. Small increases in traffic could occur during salvaging at grade crossings near communities where the salvaging work force is operating. This temporarily increased traffic would result in small or imperceptible changes in existing traffic noise.

Upon completion of salvaging activities, all rail service and associated noise would cease. This permanent elimination of noise from rail traffic along the Towner to NA Junction line is expected to outweigh the temporarily increased noise of salvaging and local road traffic. Human and wildlife receptors located near the line would generally benefit from a long-term reduction in noise levels.

4.3.5 Potential Environmental Impacts of Alternative Action

Alternatives to the proposed abandonment would include denial (and therefore no change in operations), discontinuance of service without abandonment, and continued operation by another operator. In any of these cases, the existing quality of the human environment and energy consumption should not be affected.

4.3.6 Summary of Agency Comments

In considering the potential environmental impacts of the rail line segment abandonments 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 abandonments are summarized below:

- The U.S. Forest Service noted its intent to participate in proceedings, and expressed concerns about: the potential effects to their management responsibilities in the corridor; potential movement of hazardous materials; potential for railbanking; identification and inventory of reverted property rights, cultural resources, and hazardous material.

- The Natural Resources Conservation Service noted there would be no apparent

impacts on prime farmlands or farmland of statewide importance.

- The U.S. Fish and Wildlife Service, Western Colorado Office, provided a list of federally listed and candidate threatened and endangered species possible along the rail abandonment line.

- The U.S. Army Corp of Engineers, Omaha District, indicates that some of the salvage operations could take place in waterways or wetlands which are classified as waters of the U.S. and are therefore regulated under Section 404 of the Clean Water Act.

- The Colorado Historical Society requests that appropriate Colorado Cultural Resource Survey forms be completed for the rail lines themselves as well as their associated features and that they be submitted to the Historical Society's office for their opinion regarding their eligibility for inclusion in the NRHP.

- The Crowley County Commissioners comments include:
  (1) The abandonment of rail lines, and consolidation of rail yards and intermodal facilities would increase local truck traffic, which would cause increased deterioration of existing poor roadway surfaces. There would also be an increase in emissions and in traffic accidents and fatalities.
  (2) Grain for a large local feedlot is currently shipped by rail and the abandonment would cause a large increase in truck traffic to the feedlot.
  (3) Locally generated hazardous waste is currently transported by rail. The abandonment would necessitate this material being hauled by truck, which increases the risk to local citizens.

- The Kiowa County Commissioners comments include:
  (1) The county currently produces more than 5 million bushels of grain per year, with the potential for more than 9 million. Abandonment of the rail line could substantially increase truck traffic, greatly impacting the highways which are already greatly deteriorated.
  (2) If the abandoned land reverts back to the state, the Colorado Department of Transportation (CDOT) would be required to install additional bridges at Colorado taxpayers' expense. UP should be required to compensate CDOT for additional bridge construction.
  (3) Dirt dikes built by the railroad should be leveled, cleaned, and reclaimed to the original state, with the adjacent landowners' consent. This should not be up to the Colorado government to provide.
  (4) UP should run soil tests at each derailment site over the past 20 years.

Tests should include all EPA standards for hazardous materials.

(5) Expressed concern for the three major creeks in the area which drain into the Arkansas River and their associated wetlands.

4.3.7 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:

- The Colorado Historical Society requests that appropriate Cultural Resource Survey forms be provided for rail lines.

- The Kiowa County Commissioners request that UP compensate CDOT for construction of additional road bridges, to level dirt dikes and reclaim land to its original state, and conduct soil tests at all known derailment sites (over the last 20 years).

4.3.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving this proposed abandonment of the Towner to NA Junction line and discontinuance of service by D&RGW. 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 salvage of the proposed rail line.

2. UP/SP shall provide contamination investigation and mitigation for the three Superfund sites.

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

4. UP/SP shall restore any adjacent properties that are disturbed during right-of-way salvaging activities to pre-salvaging conditions.

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

Water Resources

1. UP/SP shall use appropriate technologies, such as silt screens, to minimize soil erosion during salvaging. UP/SP shall disturb the smallest area possible around streams and tributaries and shall revegetate disturbed areas immediately following salvage operations.

2. UP/SP shall assure that all culverts are clear from debris to avoid potential flooding and stream flow alteration, in accordance with Federal, state, and local regulations.

3. UP/SP shall obtain all necessary Federal, state, and local permits if salvaging activities require the alteration of wetlands, ponds, lakes, streams, or rivers, or if these activities would cause soil or other materials to wash into these water resources. UP/SP shall use appropriate techniques to minimize impacts to water bodies and wetlands, such as positioning salvaging equipment on barges, matting, or skids.

Biological Resources

1. To further assess the potential occurrence of the seven threatened and endangered species of plants and animals, UP/SP shall coordinate with USFWS and the Colorado Department of National Resources to determine if surveys in areas of potential disturbance due to salvage activities are needed and shall conduct any such surveys during an appropriate time of the year.

Historic and Cultural Resources

1. UP/SP shall retain their interest in and take no steps to alter the D&RGW mainline (and structures) and the Hanging Bridge and the Royal Gorge War Revetments until the Section 106 process of the National Historic Preservation Act (16 USC 470f), as amended, has been completed.

2. If previously unknown archaeological remains are found during salvage operations, UP/SP shall cease work in the area and immediately contact the Colorado SHPO.

Safety

1. Prior to the start of salvage operations in the vicinity of the known hazardous waste sites at MP 830, UP/SP shall contact the Colorado Public Health and Environment Department, Environment Office, Hazardous Materials and Waste Management Division, to confirm that remediation has been completed to agency satisfaction.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during abandonment activities at and near grade crossings.

2. UP/SP shall restore roads disturbed during abandonment activities to their original condition.

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

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.

CHAPTER 5.0
ILLINOIS

This chapter analyzes the potential environmental impacts of three rail line segments in Illinois that UP/SP propose to abandon as part of the proposed merger. The rail line segments proposed for abandonment are:

- Edwardsville to Madison, Illinois (UP) — Docket No. AB-33 (Sub-No. 98x).
- DeCamp to Edwardsville, Illinois (UP) — Docket No. AB-33 (Sub-No. 97x).
- Barr to Girard, Illinois (UP) — Docket No. AB-33 (Sub-No. 96).

Detailed descriptions of each proposed abandonment by location, alternative actions considered, the existing environment, the potential environmental impacts, and recommended mitigation measures, are provided below.

5.1 Edwardsville to Madison (UP)

Docket No. AB-33 (Sub-No. 98X)

5.1.1 Proposed Action

The proposed merger would include the abandonment of a 15-mile rail segment between Edwardsville and Madison, from MP 133.8 to MP 148.8 (see Figure 5-1). Edwardsville and Madison are both located in Madison County, approximately 25 miles northeast of St. Louis. The proposed abandonment is along a portion of the former Chicago and North Western Railway Company (CNW) line which currently serves as a route to St. Louis and is used primarily by passenger trains.

Generally, on the line proposed for abandonment, UP/SP would remove the rails, ties, ballast, and ancillary equipment (i.e., communications, signals) and grade crossings. Depending on whether there is a proposed adaptive reuse of the right-of-way, the bridges may or may not be removed. Most salvage and removal activities would occur within the existing right-of-way. The right-of-way would then be available for conversion to alternative uses such as recreation (trail use), linear public utility transmission, local transportation corridor, expansion of adjacent land uses, or in some instances, a combination of some or all of the above.

5.1.2 Alternative Actions Considered

Alternatives to the proposed abandonment action include: (1) discontinuance of service with no abandonment; (2) continued operations by another carrier; and (3) the no action alternative (i.e.,

denial of the abandonment). Under each of these alternatives, there would be no significant impact to the environment.

5.1.3 Existing Environment

Land Use

Land use along the 15-mile rail line between Edwardsville and Madison is predominantly residential and commercial. Four communities are found along the right-of-way: LeClaire, Glen Carbon, Stallings, and Four Corners.

The next most common use of the land adjacent to the rail line is cropland and pasture. Agricultural areas lie between the towns of Edwardsville and Glen Carbon. Prime agricultural lands have not been identified adjacent to the rail line. In addition, there are several water features along this rail line. These include wetlands near Four Corners, a large lake near Stallings, and a canal joining Judys Branch, Burdick Branch, and Cahokia Creek near Glen Carbon.

Less common land uses along the rail line include transportation uses at the crossing of I-270 near Glen Carbon and the crossing of I-25 near Stallings, and industrial uses near Madison.

Water Resources

The proposed abandonment crosses three watercourses including Long Lake, and five canals, culverts, and ditches. Three permanent and intermittent watercourses, including Judys Branch, are dispersed along the corridor. Four waterbodies are located adjacent to the rail corridor. National Wetland Inventory (NWI) maps indicate that 37 palustrine or riverine wetlands, both in and adjacent to the existing right-of-way, are dispersed along the corridor.

Biological Resources

Vegetation. Existing vegetation within the right-of-way corridor is typically ruderal weeds, having been disturbed by past rail construction and current rail activities. A small tract of deciduous forest is located near Glen Carbon, and small, linear wetlands are located adjacent to the proposed rail abandonment corridor.

Wildlife. The right-of-way provides habitat for a variety of terrestrial wildlife species, including mammals, reptiles, and birds. The area likely supports mammals such as rabbits, voles, mice, and fox. Species typically adapted to both urban and rural areas are also likely and may include opossum, raccoon, skunk, and deer. A variety of bird species likely utilize the forested area for both nesting and foraging. These species may include hawks, owls, woodpeckers, flycatchers,

FIGURE 5-1

UP/SP RAILROAD MERGER

PROPOSED ABANDONMENT

EDWARDSVILLE - MADISON, ILLINOIS

ENVIRONMENTAL ASSESSMENT

wrens, and warblers.

The wetland areas provide habitat for a variety of wildlife species. The open water areas are likely to be used by various turtles, frogs, and salamanders, as well as many invertebrates, during reproduction and early life-stages. Tolerant invertebrates, including beetles, air-breathing snails, and insect larvae, are present. The presence of water also attracts many of the terrestrial species noted above and acts as a bathing and drinking area.

Threatened and Endangered Species. SEA consulted USFWS regarding threatened and endangered species in the area of the proposed rail line abandonment between Edwardsville and Madison. The USFWS staff indicated that no Federally-listed threatened or endangered species are known to occur in the vicinity of the proposed abandonment project.

USFWS also reported there is no critical habitat known or recorded in the vicinity of the proposed abandonment.

SEA also consulted the Illinois Department of Conservation (IDC) regarding state-listed threatened or endangered species in the area of this proposed rail line abandonment. The IDC staff indicated that three state-listed avian species occur within a natural area associated with Horseshoe Lake, near the town of Venice in Madison County. These species include the state-endangered yellow-headed blackbird (*Xanthocephalus xanthocephalus*), the state-threatened common moorhen (*Gallinula chloropus*), and the state-threatened pied-billed grebe (*Podilymbus podiceps*). The common moorhen has also been recorded at a location approximately 1,000 feet from the proposed abandonment, near the town of Stallings, which is near the southern end of this rail line segment.

Parks, Forest Preserves, Refuges, and Sanctuaries. The Eagle Park Marsh-Illinois Natural Area Inventory (INAI) site, part of the Horsehoe Lake complex, is located approximately 500 to 1,000 feet east of the southern end of the proposed abandonment.

Historic and Cultural Resources

The Edwardsville to Madison line was constructed between 1889 and 1890 by the Chicago, Peoria & St. Louis Railroad, subsequently the Litchfield & Madison Railway. The line was later acquired by the CNW and in 1995 by the UP. UP records indicate that there are no bridges or other structures 50 years old or older within the proposed abandonment area. A review of UP track evaluation videotapes was examined for the entire length of the abandonment and revealed no additional structures within the proposed abandonment area. Consultation with the Illinois State Historic Preservation Officer (SHPO) has been initiated to confirm these findings.

Initial consultations with the Illinois SHPO determined that no documented archaeological sites have been identified along the rail line segment proposed for abandonment. 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 the abandonment or related salvage activities.

Safety

SEA's review of the VISTA database and UP safety records indicated no hazardous waste sites were identified on the rail alignment on the Edwardsville to Madison rail segment. The VISTA database review identified 2 CERCLIS sites, 14 ERNS sites, and 1 LUST site within 500 feet of the rail segment.

Transportation

This segment is part of the UP's Chicago-St. Louis route and is used primarily for passenger train service. In 1994, an average of seven trains per day operated on this segment.

There are 12 grade crossings located along this rail line. All are for local roads and carry very low daily traffic volumes.

Air Quality

The Edwardsville to Madison rail line is located in Air Quality Control Region (AQCR) 70: Metropolitan St. Louis. Currently, AQCR 70 is in nonattainment for these criteria pollutants: particulate matter, carbon monoxide, and ozone. It is in attainment with the National Ambient Air Quality Standards (NAAQS) for all other criteria pollutants.

Noise

Rail, automobile and truck traffic are the primary sources of noise in this rural region of Illinois. The current level of train traffic on the Edwardsville to Madison rail line (seven trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 100 feet without horns (300 with horns).

Automobile and truck sources of noise contribute to noise levels in the vicinity of the 12 grade crossings found along the line. Noise levels at 50 feet from individual automobiles and trucks are estimated to be approximately 70 to 75 and 80 to 85 dBA, respectively. Traffic levels at most of these road crossings are relatively low and there are few receptors for the automobile and truck noise. Most residences in the vicinity of the Edwardsville to Madison line are associated with the

small communities of LeClaire, Glen Carbon, Stallings, and Four Corners.

5.1.4 Potential Environmental Impacts of Proposed Action

Land Use

The proposed abandonment would change the existing land use designation of the railroad right-of-way from active railroad use to an inactive status. It is estimated that approximately 191 acres of land would be affected by this change. Salvaging activities generally would not disturb adjacent land uses, although the removal of some bridges could require the use of construction equipment outside of the rail line right-of-way and property. Any adjacent land that would be disturbed by salvage activities would be restored by UP/SP to its original condition. The proposed abandonment would not affect any prime farmlands.

Water Resources

As discussed in Section 5.1.3, surface water resources along the proposed abandonment are limited to eight features intercepted by the segment and seven features adjacent to it.

Salvaging activities associated with the proposed abandonment would include removing rails, ties, spikes, plates, railroad-related utilities, signaling devices, and possibly some bridge spans and decking. Bridge removal could disturb small areas of soil, and has the potential to increase soil erosion and sedimentation of adjacent water bodies. Soil disturbance from the removal of the other materials is expected to be negligible. Actions to control erosion and sedimentation could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches, and sediment collection basins. Enhanced controls, such as increasing the storage capacity of sediment basins and conducting more frequent inspections and maintenance, also may be required in areas where soils are particularly susceptible to erosion. The measures selected would need to be site-specific and would depend on local soil conditions, topography, the extent of disturbance proposed, proximity to water bodies, and applicable Federal, state or local regulations.

Bridge abutments would remain in place following salvage operations. These abutments are generally long-lived, and are not expected to fail or collapse in the near future from normal deterioration and aging.

Applicable Federal and state permits would be obtained by UP/SP if salvage activities would disturb native soils and vegetation in adjacent water bodies, floodplains, and/or wetlands. The only salvage activity that has the potential to disturb these areas would be bridge span, deck, or pier removal. Most bridges could be dismantled by equipment that would be positioned on railbeds or in upland areas. Dismantling long bridges that are located over open surface water bodies and

associated floodplains or wetlands could require using equipment within these protected areas.

UP/SP's compliance with Federal and state permit requirements would ensure minimal impacts to these water bodies and associated floodplains and wetlands. Actions that could be taken by UP/SP to minimize or avoid impacts include placing equipment on barges, matting, or skids. The measures selected would need to be site-specific and would depend on local wetland and floodplain characteristics, topography, the nature and duration of the proposed activity, proximity to floodplain and wetland, and the applicable Federal, state, and local regulations.

Culverts along the rail line segment could be dammed by debris which could cause flooding and alter stream flows. During salvage operations, UP/SP would be required to open all culverts to avoid flooding and stream flow alterations. These activities would be conducted in accordance with Federal, state and local regulations.

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

Biological Resources

Vegetation. Existing vegetation control practices along the right-of-way would be discontinued after salvaging operations are completed. Opportunistic plant species would quickly revegetate the cleared railbed and it would eventually evolve to a natural state. Therefore, the overall impact of the proposed abandonment on vegetation along the right-of-way should be beneficial.

Wildlife. The proposed abandonment would have beneficial long-term impacts on most animal species that occupy terrestrial habitats adjacent to the rail line. The proposed abandonment could ease territorial movements and enhance the quality of habitat available to wildlife. Any potentially adverse impacts associated with salvaging or other construction-related activities would be temporary and would not result in permanent loss of wildlife species.

Erosion and sedimentation caused by salvaging operations, particularly bridge deck and span removal, could affect downstream aquatic communities. However, adverse impacts to fish populations and habitats are not anticipated, provided that UP/SP follow permit requirements for soil erosion and sedimentation control measures and undertake adequate mitigation measures when salvaging takes place on soils that are prone to erosion. Mitigation measures could include implementing enhanced erosion and sedimentation controls such as planting a rapidly-growing

vegetation cover, increasing the storage capacity and detention periods for sediment basins, and conducting more frequent inspections. Salvage activities are not expected to create long-term negative impacts on water turbidity (i.e., degree of clarity) or existing fish populations and their habitat.

Threatened and Endangered Species. The proposed abandonment would have no impact to threatened and endangered species. The USFWS has indicated that no federally listed or threatened or endangered species, nor any designated critical habitats occur in the area of the proposed abandonment.

The state threatened common moorhen has been recorded over 1,000 feet from the rail line. Salvage activities would be restricted to the rail bed and would have no impact to this species.

Parks, Forest Preserves, Refuges, and Sanctuaries. The proposed abandonment would generally have long-term beneficial effects on the Eagle Park Marsh INAI site. After salvaging, activity on the rail line would cease. The absence of train noises and intrusions could increase wildlife activity and recreational opportunities on adjacent park properties. Noise generated by equipment and construction-related activities associated with salvage activities could, however, temporarily disrupt wildlife functions and recreational pursuits. However, these disruptions would be minor and of short duration. Based on UP/SP's preliminary salvaging plans, no area along the right-of-way should be affected for more than two days.

Historic and Cultural Resources

The proposed Edwardsville to Madison abandonment would have no impacts on historic or cultural resources. Consultation with the Illinois SHPO has been initiated, seeking concurrence of this determination.

Based on SEA's initial consultations with the Illinois SHPO, no known or documented archaeological sites exist along the rail line segment proposed for abandonment. 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 abandonment or salvage process.

Safety

UP/SP should undertake coordination with appropriate agencies to confirm the locations and status of nearby hazardous waste sites prior to initiation of salvage activities. Because the disturbance resulting from removal of rail and ties is limited to minor surface disturbance, no hazardous waste and safety impacts are expected as a result of the proposed abandonment. In

addition, the probability of a major spill of hazardous or toxic materials during salvage operations is very small. However, in the unlikely event that such a spill occurs at the abandonment site, drainage ditches are expected to retain the contaminated runoff. Overall, the proposed abandonment would not be expected to increase the probability or consequences of hazardous waste contamination.

The discontinuance of rail service between Edwardsville and Madison would eliminate the need for 12 grade crossings and remove the potential for vehicle/train accidents.

Transportation

Passenger and freight train service currently using this rail segment would be rerouted to other UP/SP lines. No rail-to-truck diversions are expected to result from the proposed abandonment.

Air Quality

The operation of heavy equipment would be the primary source of pollutant emissions during salvage activities. The pollutants resulting from such activities typically consist of:

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

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

All of the emissions from salvaging operations would occur in an air quality attainment area. The fugitive particulate emissions, which would be of primary concern, can be controlled by UP/SP operators using water sprays or other suitable dust suppressants. Other emissions associated with salvaging operations (VOCs, CO, and NO_x) generally would be minor and of short duration. It should be noted that salvage activities themselves would be temporary in nature and would have insignificant, temporary effects on air quality.

Post-abandonment pollutant emissions along the right-of-way would be substantially reduced, due to the elimination of rail traffic and rail line maintenance activities.

Noise

As discussed in Section 5.1.3, seven trains per day currently operate on this rail line, which contributes to noise levels along the entire segment. Automobile and truck traffic contribute to

noise levels in the vicinity of the 12 grade crossings along the rail line.

Rail service and associated noise would cease as a result of the proposed abandonment. The proposed abandonment also would include removal of rails, ties, plates, spikes, railroad-related utilities, signaling devices, and most and bridges. These salvaging activities would require the use of trucks and front-end loaders, as well as cranes at larger bridges. Noise generated by such salvage equipment generally would be less than the 65-70 dBA level reported for typical trains. Equipment-generated noise, however, might be more frequent and last longer than noise from passing trains, since the equipment would remain relatively stationary for up to two days as each mile of track is dismantled and removed. Following salvage activities, elevated noise levels from all rail-related actions would be eliminated.

Minor changes in vehicular traffic levels and patterns also would occur in the vicinity of the right-of-way during and after salvage operations. Traffic levels at most of the 12 grade crossings on the rail line would be comparable to existing levels during and after salvage activities. Small increases in traffic could occur during salvaging at grade crossings near communities where the salvaging work force is operating. This temporarily increased traffic would result in small or imperceptible changes in existing traffic noise.

Because the permanent elimination of noise from rail traffic along the Edwardsville to Madison line is expected to outweigh the temporarily increased noise of salvaging and local road traffic, human and wildlife receptors located near the line would generally benefit from a long-term reduction in noise levels.

5.1.5 Potential Environmental Impacts of Alternative Action

Alternatives to the proposed abandonment would include denial (and therefore no change in operations), discontinuance of service without abandonment, and continued operation by another operator. In any of these cases, the existing quality of the human environment and energy consumption should not be affected.

5.1.6 Summary of Agency Comment and Concerns

In considering the potential environmental impacts of the rail line segment abandonments 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 abandonments are summarized below:

- National Resources Conservation Service recommends that alternative actions take into account the adverse effect that could occur if rail lines are abandoned.

- Illinois Environmental Protection Agency advises that a General NPDES Permit for storm water discharges associated with construction site activities is required for any disturbance of five or more acres. For any abandonment site that totals five or more acres of disturbed land, submittal of Illinois EPA Notice of Intent forms is required 48 hours before beginning construction.

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:

- Illinois Environmental Protection Agency requires a General NPDES Permit for storm water discharges associated with any abandonment site that totals five or more acres of disturbed land.

5.1.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving this proposed abandonment of the Edwardsville to Madison line. 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 salvage 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 right-of-way salvaging activities to pre-salvaging conditions.

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

Water Resources

1. UP/SP shall use appropriate technologies, such as silt screens, to minimize soil erosion during salvaging. UP/SP shall disturb the smallest area possible around streams and tributaries and shall revegetate disturbed areas immediately following salvage operations.

2. UP/SP shall assure that all culverts are clear from debris to avoid potential flooding and stream flow alteration, in accordance with Federal, state and local regulations.

3. UP/SP shall obtain all necessary Federal, state, and local permits if salvaging activities require the alteration of wetlands, ponds, lakes, streams, or rivers, or if these activities would cause soil or other materials to wash into these water resources. UP/SP shall use appropriate techniques to minimize impacts to water bodies and wetlands, such as positioning salvaging equipment on barges, matting, or skids.

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 unknown archaeological remains are found during salvage activities, UP/SP shall cease work in the area and immediately contact the Illinois SHPO.

Safety

1. Prior to the start of abandonment activities in the vicinity of any known hazardous waste sites, UP/SP shall consult with the Illinois Environmental Protection Agency to assess procedures necessary to address issues related to the sites.

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

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during abandonment activities at and near grade crossings.

2. UP/SP shall restore roads disturbed during abandonment activities to conditions as required by state and 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 salvage operations shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment during salvaging.

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 DeCamp to Edwardsville (UP)

Docket No. AB-33 (Sub-No. 97X)

5.2.1 Proposed Action

The proposed merger would include the abandonment of the 14.6-mile rail segment between DeCamp and Edwardsville, from MP 119.2 to MP 133.8 (see Figure 5-2). DeCamp is located in Madison County, approximately 35 miles northeast of St. Louis. Edwardsville is also located in Madison County, approximately 25 miles northeast of St. Louis. The proposed abandonment is along a portion of the former CNW line that serves St. Louis. After this segment is abandoned, through trains using the line (i.e., coal trains) would be interchanged to Norfolk Southern at DeCamp, rather than at Edwardsville.

Generally, on the line proposed for abandonment, UP/SP would remove the rails, ties, ballast, and ancillary equipment (i.e., communications, signals) and grade crossings. Depending on whether there is a proposed adaptive reuse of the right-of-way, the bridges may or may not be removed. Most salvage and removal activities would occur within the existing right-of-way. The right-of-way would then be available for conversion to alternative uses such as recreation (trail use), linear public utility transmission, local transportation corridor, expansion of adjacent land uses, or in some instances, a combination of some or all of the above.

5.2.2 Alternative Actions Considered

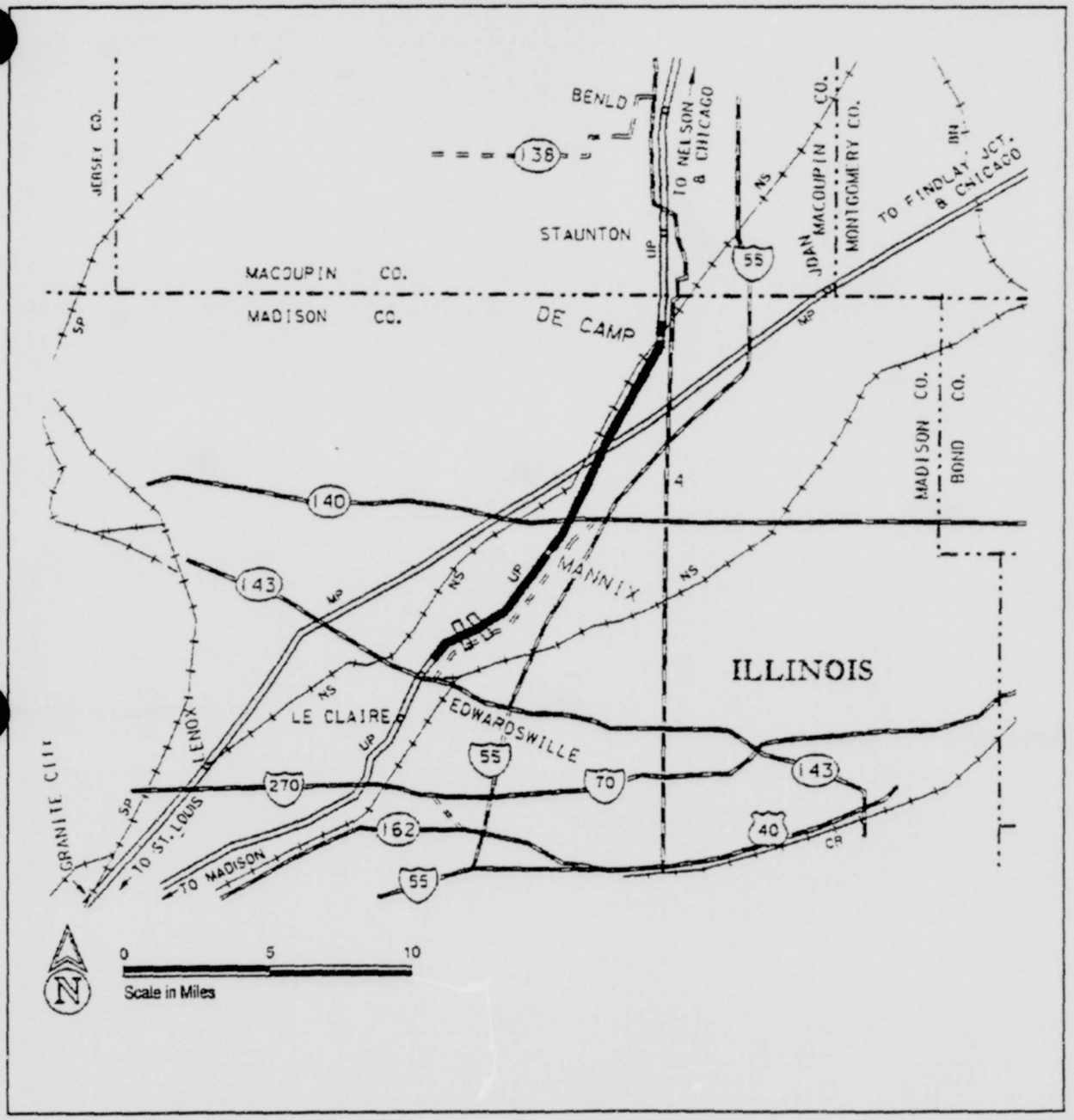
Alternatives to the proposed abandonment action include: (1) discontinuance of service with no abandonment; (2) continued operations by another carrier; and (3) the no action alternative (i.e., denial of the abandonment). Under each of these alternatives there would be no significant impact to the environment.

5.2.3 Existing Environment

Land Use

Land use along the 14-mile rail line between DeCamp and Edwardsville is predominantly cropland and pasture. Prime agricultural lands have not been identified adjacent to the rail line. Three residential areas are located along the right-of-way: Quercus Grove, Worden, and northern Edwardsville. A tract of deciduous forest lies between the cropland/pasture area south of Quercus Grove and the residential area north of Edwardsville.

FIGURE 5-2



UP/SP RAILROAD MERGER

PROPOSED ABANDONMENT

DeCAMP - EDWARDSVILLE, ILLINOIS

ENVIRONMENTAL ASSESSMENT

Water Resources

The proposed abandonment crosses 10 watercourses, including Mooney Creek and Sugar Creek. Five water bodies are located adjacent to the rail corridor. The NWI maps indicate that 11 palustrine or riverine wetlands, occurring both in and adjacent to the existing right-of-way, are dispersed along the corridor.

Biological Resources

Vegetation. Existing vegetation within the right-of-way corridor is typically ruderal weeds, having been disturbed by past rail construction and current rail activities. A small tract of deciduous forest and several wetlands are located adjacent to the proposed rail abandonment corridor between developed or farmed lands.

Wildlife. The right-of-way provides habitat for a variety of terrestrial wildlife species including mammals, reptiles, and birds. The area likely supports mammals such as rabbits, voles, mice, and fox. Species typically adapted to both urban and rural areas are also likely and may include opossum, raccoon, skunk, and deer. A variety of bird species likely utilize the forested and agricultural areas for both nesting and foraging. These species may include hawks, owls, woodpeckers, flycatchers, wrens, and warblers.

The wetland areas provide habitat for a variety of wildlife species. The open water areas are likely to be used by various turtles, frogs, and salamanders, as well as many invertebrates, during reproduction and early life-stages. Tolerant invertebrates, including beetles, air-breathing snails, and insect larvae, are present. The presence of water also attracts many of the terrestrial species noted above and acts as a bathing and drinking area.

Threatened and Endangered Species. SEA consulted USFWS regarding threatened and endangered species in the area of the proposed rail line abandonment between DeCamp and Edwardsville. The USFWS staff indicated that no Federally-listed threatened or endangered species are known to occur in the vicinity of the proposed abandonment project. The USFWS also indicated that there is no critical habitat known or recorded in the vicinity of the proposed abandonment.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, preserves, refuges, or sanctuaries are located within or adjacent to the proposed abandonment corridor.

Historic and Cultural Resources

The DeCamp to Edwardsville line was constructed between 1889 and 1890 by the Chicago,

Peoria & St. Louis Railroad, subsequently the Litchfield & Madison Railway. The line was later acquired by the CNW and in 1995 by the UP. There is one bridge on the 14.6-mile segment proposed for abandonment. The concrete arch structure at MP 132.47 (1905) is an early example of cast-in-place structural concrete and the only such structure on the DeCamp to Edwardsville segment that appears potentially eligible for the NRHP. A review of National Register listings did not identify any additional historic structures or archaeological sites in the project vicinity. UP track valuation videotapes were examined for the entire length of the abandonment and showed no additional structures within the project area. Consultation with the Illinois SHPO has been initiated to confirm these findings.

SEA's initial consultations with the Illinois SHPO determined that no documented archaeological sites have been identified along the rail line segment proposed for abandonment. 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 the abandonment or related salvage activities.

Safety

SEA's review of the VISTA database and UP safety records indicate that in 1987 a gasoline spill was identified at MP 116.6 on the CNW rail line.

Transportation

This segment currently serves St. Louis and handles coal trains from Monterey, Illinois; currently seven trains per day operate on this rail line. There is no local traffic on the DeCamp portion of this line.

There are 11 grade crossings located between DeCamp and Edwardsville. These are for local roads which carry low daily traffic volumes.

Air Quality

The DeCamp to Edwardsville rail line is located in AQCR 70: Metropolitan St. Louis. Currently, AQCR 70 is in nonattainment for these criteria pollutants: particulate matter, carbon monoxide, and ozone. It is in attainment with the NAAQS for all other criteria pollutants.

Noise

Rail, automobile and truck traffic are the primary sources of noise in this predominantly rural and undeveloped region of Illinois. The current level of train traffic on the DeCamp to Edwardsville

rail line (seven trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 100 feet without horns (300 with horns).

Automobile and truck sources of noise contribute to noise levels in the vicinity of the 11 grade crossings found along the line. Noise levels at 50 feet from individual automobiles and trucks are estimated to be approximately 70 to 75 and 80 to 85 dBA, respectively. Traffic levels at most of these road crossings are relatively low and there are few receptors for the automobile and truck noise. Most residences in the vicinity of the DeCamp to Edwardsville line are associated with the small communities of Quercus Grove and Worden. However, isolated and small clusters of other homes are found at several locations along the line.

5.2.4 Potential Environmental Impacts of Proposed Action

Land Use

The proposed abandonment would change the existing land use designation of the railroad right-of-way from active railroad use to an inactive status. It is estimated that approximately 139 acres of land would be affected by this change. Salvaging activities generally would not disturb adjacent land uses, although the removal of some bridges could require the use of construction equipment outside of the rail line right-of-way and property. Any adjacent land that would be disturbed by salvage activities would be restored by UP/SP to its original condition. The proposed abandonment would not affect any prime farmlands.

Water Resources

As discussed in Section 5.2.3, surface water resources along the proposed abandonment are limited to 10 features intercepted by the segment and 5 features adjacent to it.

Salvaging activities associated with the proposed abandonment would include removing rails, ties, spikes, plates, railroad-related utilities, signaling devices, and possibly some bridge spans and decking. Bridge removal could disturb small areas of soil, and has the potential to increase soil erosion and sedimentation of adjacent water bodies. Soil disturbance from the removal of the other materials is expected to be negligible. Actions to control erosion and sedimentation could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches, and sediment collection basins. Enhanced controls, such as increasing the storage capacity of sediment basins and conducting more frequent inspections and maintenance, also may be required in areas where soils are particularly susceptible to erosion. The measures selected would need to be site-specific and would depend on local soil conditions, topography, the extent of disturbance proposed, proximity to water bodies, and applicable Federal, state or local regulations.

Bridge abutments would remain in place following salvage operations. These abutments are generally long-lived, and are not expected to fail or collapse in the near future from normal deterioration and aging.

Applicable Federal and state permits would be obtained by UP/SP if salvage activities would disturb native soils and vegetation in adjacent water bodies, floodplains, and/or wetlands. The only salvage activity that has the potential to disturb these areas would be bridge span, deck, or pier removal. Most bridges could be dismantled by equipment that would be positioned on railbeds or in upland areas. Dismantling long bridges that are located over open surface water bodies and associated floodplains or wetlands could require using equipment within these protected areas.

UP/SP's compliance with Federal and state permit requirements would ensure minimal impacts to these water bodies and associated floodplains and wetlands. Actions that could be taken by UP/SP to minimize or avoid impacts include placing equipment on barges, matting, or skids. The measures selected would need to be site-specific and would depend on local wetland and floodplain characteristics, topography, the nature and duration of the proposed activity, proximity to floodplain and wetland, and the applicable Federal, state, and local regulations.

Culverts along the rail line segment could be dammed by debris which could cause flooding and alter stream flows. During salvage operations, UP/SP would be required to open all culverts to avoid flooding and stream flow alterations. These activities would be conducted in accordance with Federal, state and local regulations.

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

Biological Resources

Vegetation. Existing vegetation control practices along the right-of-way would be discontinued after salvaging operations are completed. Opportunistic plant species would quickly revegetate the cleared railbed and it would eventually evolve to a natural state. Therefore, the overall impact of the proposed abandonment on vegetation along the right-of-way should be beneficial.

Wildlife. The proposed abandonment would have beneficial long-term impacts on most animal species that occupy terrestrial habitats adjacent to the rail line. The proposed abandonment could ease territorial movements and enhance the quality of habitat available to wildlife. Any

potentially adverse impacts associated with salvaging or other construction-related activities would be temporary and would not result in permanent loss of wildlife species.

Erosion and sedimentation caused by salvaging operations, particularly bridge deck and span removal, could affect downstream aquatic communities. However, adverse impacts to fish populations and habitats are not anticipated, provided that UP/SP follow permit requirements for soil erosion and sedimentation control measures and undertake adequate mitigation measures when salvaging takes place on soils that are prone to erosion. Mitigation measures could include implementing enhanced erosion and sedimentation controls such as planting a rapidly-growing vegetation cover, increasing the storage capacity and detention periods for sediment basins, and conducting more frequent inspections. Salvage activities are not expected to create long-term negative impacts on water turbidity (i.e., degree of clarity) or existing fish populations and their habitat.

Threatened and Endangered Species. The proposed abandonment would have no impact on threatened and endangered species. 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, preserves, refuges, or sanctuaries would be affected by the proposed abandonment.

Historic and Cultural Resources

The proposed abandonment would have no impact on historic or cultural resources. Based on SEA's consultations with the Illinois SHPO, it has been determined that removal of the track and roadbed above the concrete arch structure at MP 132.47 would not impact that structure, which is potentially eligible for the NRHP.

Based on SEA's initial consultations with the SHPO in Illinois, no known or documented archaeological sites exist along the rail line segment proposed for abandonment. 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 abandonment or salvage process.

Safety

SEA's review of the VISTA database and UP safety records indicates that the gasoline spill at MP 116.6 has been remediated. Because the disturbance resulting from removal of rail and ties is limited to minor surface disturbance, no hazardous waste and safety impacts are expected as

a result of the proposed abandonment. In addition, the probability of a major spill of hazardous or toxic materials during salvage operations is very small. However, in the unlikely event that such a spill occurs at the abandonment site, drainage ditches are expected to retain the contaminated runoff. Overall, the proposed abandonment would not be expected to increase the probability or consequences of hazardous waste contamination.

The discontinuance of rail service between Edwardsville and Madison would eliminate the need for 11 grade crossings and remove the potential for vehicle/train accidents.

Transportation

Coal trains currently using this segment would be interchanged to Norfolk Southern at DeCamp, rather than at Edwardsville. SEA concludes there would be no impacts on local traffic.

Air Quality

The operation of heavy equipment would be the primary source of pollutant emissions during salvage activities. The pollutants resulting from such activities typically consist of:

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

All of the emissions from salvaging operations would occur in an air quality attainment area. The fugitive particulate emissions, which would be of primary concern, can be controlled by UP/SP operators using water sprays or other suitable dust suppressants. Other emissions associated with salvaging operations (VOCs, CO, and NO_x) generally would be minor and of short duration. It should be noted that salvage activities themselves would be temporary in nature and would have insignificant, temporary effects on air quality.

Post-abandonment pollutant emissions along the right-of-way would be substantially reduced, due to the elimination of rail traffic and rail line maintenance activities.

Noise

As discussed in Section 5.2.3, current rail traffic along this rail line consists of seven trains per day. These trains contribute to increased noise levels between DeCamp and Edwardsville. Automobile and truck traffic contribute to noise levels in the vicinity of the 11 grade crossings along the rail line.

Rail service and associated noise would cease as a result of the proposed abandonment. The proposed abandonment also would include removal of rails, ties, plates, spikes, railroad-related utilities, signaling devices, and most and bridges. These salvaging activities would require the use of trucks and front-end loaders, as well as cranes at larger bridges. Noise generated by such salvage equipment generally would be less than the 65-70 dBA level reported for typical trains. Equipment-generated noise, however, might be more frequent and last longer than noise from passing trains, since the equipment would remain relatively stationary for up to two days as each mile of track is dismantled and removed. Following salvage activities, elevated noise levels from all rail-related actions would be eliminated.

Minor changes in vehicular traffic levels and patterns also would occur in the vicinity of the right-of-way during and after salvage operations. Traffic levels at most of the 11 grade crossings on the rail line would be comparable to existing levels during and after salvage activities. Small increases in traffic could occur during salvaging at grade crossings near communities where the salvaging work force is operating. This temporarily increased traffic would result in small or imperceptible changes in existing traffic noise.

Because the permanent elimination of noise from rail traffic along the DeCamp to Edwardsville line is expected to outweigh the temporarily increased noise of salvaging and local road traffic, human and wildlife receptors located near the line would generally benefit from a long-term reduction in noise levels.

5.2.5 Potential Environmental Impacts of Alternative Action

Alternatives to the proposed abandonment would include denial (and therefore no change in operations), discontinuance of service without abandonment, and continued operation by another operator. In any of these cases, the existing quality of the human environment and energy consumption should not be affected.

5.2.6 Summary of Agency Comments

In considering the potential environmental impacts of the rail line segment abandonments 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 abandonments are summarized below:

- National Resources Conservation Service recommends that alternative actions take into account the adverse effect that could occur if rail lines are abandoned.

- Illinois Environmental Protection Agency advises that a General NPDES Permit for storm water discharges associated with construction site activities is required for any disturbance of five or more acres. For any abandonment site that totals five or more acres of disturbed land, submittal of Illinois EPA Notice of Intent forms is required 48 hours before beginning construction.

5.2.7 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:

- Illinois Environmental Protection Agency requires a General NPDES Permit for storm water discharges associated with any abandonment site that totals five or more acres of disturbed land.

5.2.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving this proposed abandonment of the DeCamp to Edwardsville line. 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 salvage 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 right-of-way salvaging activities to pre-salvaging conditions.

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

Water Resources

1. UP/SP shall use appropriate technologies, such as silt screens, to minimize soil erosion during salvaging. UP/SP shall disturb the smallest area possible around streams and tributaries and shall revegetate disturbed areas immediately following salvage operations.

2. UP/SP shall assure that all culverts are clear from debris to avoid potential flooding and stream flow alteration, in accordance with Federal, state and local regulations.

3. UP/SP shall obtain all necessary Federal, state, and local permits if salvaging activities require the alteration of wetlands, ponds, lakes, streams, or rivers, or if these activities would cause soil or other materials to wash into these water resources. UP/SP shall use appropriate techniques to minimize impacts to water bodies and wetlands, such as positioning salvaging equipment on barges, matting, or skids.

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 unknown archaeological remains are found during salvage activities, UP/SP shall cease work in the area and immediately contact the Illinois SHPO.

Safety

1. UP/SP shall transport all hazardous materials generated by salvage activities in

compliance with the U.S. Department of Transportation Federal Motor Carrier Safety Regulations (49 CFR Parts 171 to 179).

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during abandonment activities at and near grade crossings.

2. UP/SP shall restore roads disturbed during abandonment activities to conditions as required by state and 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 salvage operations shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment during salvaging.

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.

5.3 Barr to Girard (UP)

Docket No. AB-33 (Sub-No. 96)

5.3.1 Proposed Action

The proposed merger includes the abandonment of a 38.4-mile rail line segment between Barr and Girard, from MP 51.0 to MP 89.4 (see Figure 5-3). Barr is located in Menard County, approximately 15 miles north of Springfield. Girard is located in Macoupin County, approximately 25 miles south of Springfield. Following the abandonment, all through traffic would be diverted to a north-south route that would operate over the Chicago & Illinois Midland from Barr to Springfield and over an SP line from Springfield to St. Louis.

Generally, on the line proposed for abandonment, UP/SP would remove the rails, ties, ballast, and ancillary equipment (i.e., communications, signals) and grade crossings. Depending on

whether there is a proposed adaptive reuse of the right-of-way, the bridges may or may not be removed. Most salvage and removal activities would occur within the existing right-of-way. The right-of-way would then be available, depending on the condition of the title held by the railroad, for conversion to alternative uses such as recreation (trail use), linear public utility transmission, local transportation corridor, expansion of adjacent land uses, or in some instances, a combination of some or all of the above.

5.3.2 Alternative Actions Considered

Alternatives to the proposed abandonment action include: (1) discontinuance of service with no abandonment; (2) continued operations by another carrier; and (3) the no action alternative (i.e., denial of the abandonment). Under each of these alternatives, there would be no significant impact to the environment.

5.3.3 Existing Environment

Land Use

Land uses along the 38.4-mile rail line between Barr and Girard are primarily agricultural; approximately 80 percent of the corridor is cropland or pasture. Prime agricultural land has not been identified adjacent to the rail line.

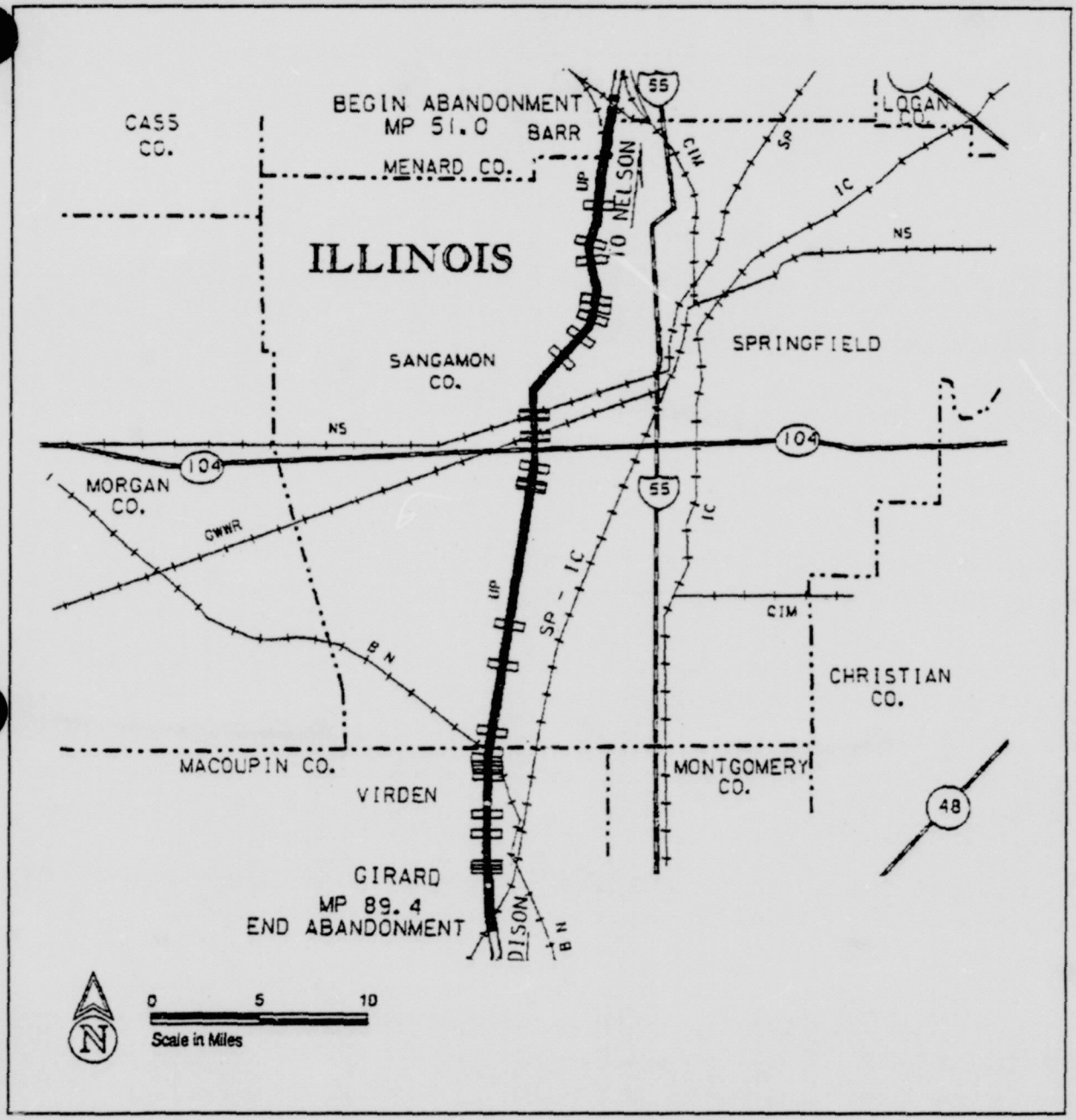
The next most common land uses are residential areas associated with the towns of Springfield and Girard, and commercial areas associated with the towns of Archer, Curran, Lick, and Compro.

Less common land uses along the rail line include confined feeding operations north of Archer, mixed urban use near Curran, and other urban use west of the Virden Cemetery in northern Macoupin County.

Water Resources

The proposed abandonment crosses 23 streams, including an unnamed tributary of Town Creek, Cantrall Creek, the Sangamon River, Spring Creek, Little Panther Creek, Sugar Creek, and Otter Creek. It also crosses two canals, culverts, and ditches. In addition, two streams, eight water bodies, and one canal are located adjacent to the rail corridor. The NWI maps indicate that more than 64 wetlands are dispersed along the corridor, occurring both in and adjacent to the existing right-of-way. These palustrine and riverine wetlands are associated with Cantrall Creek, Sangamon River, Spring Creek, Little Panther Creek, Sugar Creek, and Otter Creek. According to Federal Emergency Management Agency Flood Insurance Rate Maps, several portions of this

FIGURE 5-3



UP/SP RAILROAD MERGER

PROPOSED ABANDONMENT

BARR - GIRARD, ILLINOIS

ENVIRONMENTAL ASSESSMENT

proposed abandonment segment from Barr to Girard are located within a 100-year floodplain, including a broad area associated with Spring Creek near the City of Springfield in Sangamon County, and a narrow area associated with Sugar Creek near the City of Virden in Macoupin County.

Biological Resources

Vegetation. Existing vegetation within the right-of-way corridor is typically ruderal weeds, having been disturbed by past rail construction and current rail activities. A large tract of deciduous forest and numerous wetlands are located adjacent to the proposed rail abandonment corridor between developed or farmed lands.

Wildlife. The right-of-way provides habitat for a variety of terrestrial wildlife species including mammals, reptiles, and birds. The area likely supports mammals such as rabbits, voles, mice, and fox. Species typically adapted to both urban and rural areas are also likely and may include opossum, raccoon, skunk, and deer. A variety of bird species likely utilize the forested and agricultural areas for both nesting and foraging. These species may include hawks, owls, woodpeckers, flycatchers, wrens, and warblers.

The wetland areas provide habitat for a variety of wildlife species. The open water areas are likely to be used by various turtles, frogs, and salamanders, as well as many invertebrates, during reproduction and early life-stages. Tolerant invertebrates, including beetles, air-breathing snails, and insect larvae, are present. The presence of water also attracts many of the terrestrial species noted above and acts as a bathing and drinking area.

Threatened and Endangered Species. SEA consulted USFWS regarding threatened and endangered species in the area of the proposed rail line abandonment between Barr and Girard. The USFWS staff indicated that three Federally-listed threatened or endangered species are known to occur in the vicinity of the proposed abandonment project. These species include the endangered bald eagle (*Halaeetus leucocephalus*), 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 abandonment.

SEA also consulted IDC regarding state-listed threatened or endangered species in the area of the proposed rail line abandonment between Barr and Girard. The IDC staff indicated that the federal candidate species loggerhead shrike (*Lanius ludovicianus*) is also a state-listed threatened species which has a record of occurrence in Sangamon County, approximately one mile west of the proposed rail abandonment line and could potentially occur in the vicinity of the proposed

abandonment. Field observations on site indicated no occurrence of this species. There is no critical habitat known or recorded in the vicinity of the proposed abandonment.

Parks, Forest Preserves, Refuges, and Sanctuaries. The only public land (Federal, state, or municipal parks, refuges, or management areas) or non-profit managed area (nature preserves, registry natural areas) that occurs within 5 miles of the proposed abandonment is the Lincoln-New Salem State Park.

Historic and Cultural Resources

The Barr to Girard abandonment is part of a rail line constructed in 1914 by the St. Louis, Prairie & Northwestern Railway Company. The line was subsequently acquired by the CNW and in 1995 by the UP. There are 26 wooden or steel bridges on the proposed 38.4-mile abandonment, all constructed between 1912 and 1939. Of these 26 bridges, 3 deck truss bridges and 2 concrete arch bridges appear potentially eligible for listing on the NRHP:

- Riveted, deck truss bridge (1913) with lattice members and a plate-girder deck approach span at MP 57.28.
- Riveted, deck truss bridge over Spring Creek (1913) with lattice members and concrete approach spans at MP 60.74.
- Riveted, deck truss bridge (1920) with lattice members over Lick Creek at 69.45.
- Three-span, concrete arch bridge over Sugar Creek at MP 82.12.
- Three-span, concrete arch bridge at MP 87.04.

The remaining bridges are potentially historic because of their age but are of modest scale and are undistinguished in design, and SEA believes that none meet the criteria for inclusion in the NRHP. A review of National Register listings did not identify any additional historic structures or archaeological sites in the project vicinity. UP track evaluation videotapes were examined for the entire length of the abandonment and showed no additional structures within the project area. Consultation has been initiated with the Illinois SHPO to confirm these findings.

SEA's initial consultations with the Illinois SHPO determined that no documented archaeological sites have been identified along the rail line segment proposed for abandonment. 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 the abandonment or related salvage activities.

Safety

SEA's review of the VISTA database indicated that no hazardous waste sites were identified

along the proposed abandonment.

Transportation

The proposed abandonment is along a former CNW line that serves as one of the UP routes between Chicago and St. Louis. Current rail traffic on the segment is 4 trains per day.

There are 26 grade crossings located along this segment for local roads which carry low traffic volumes.

Air Quality

The Barr to Girard rail line is located in AQCR 75: West Central Illinois. Currently, AQCR 75 is in attainment with the NAAQS for all pollutants.

Noise

Rail, automobile and truck traffic are the primary sources of noise in this predominantly rural region of Illinois. The current level of train traffic on the Barr to Girard rail line (4 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 69 feet without horns (224 feet with horns).

Automobiles and trucks are the major sources of noise in the vicinity of the 26 grade crossings found along the line. Noise levels at 50 feet from individual automobiles and trucks are estimated to be approximately 70 to 75 and 80 to 85 dBA, respectively. However, as noted above, traffic levels at most of these road crossings are relatively low and there are few receptors for the automobile and truck noise. Most residences in the vicinity of the Barr to Girard are associated with the small communities of Archer, Curran, Lick and Compro. However, isolated and small clusters of other homes are found at several locations along the line.

5.3.4 Potential Environmental Impacts of Proposed Action

Land Use

The proposed abandonment would change the existing land use designation of the railroad right-of-way from active railroad use to an inactive status. It is estimated that approximately 619 acres of land would be affected by this change. Salvaging activities generally would not disturb adjacent land uses, although the removal of some bridges could require the use of construction equipment outside of the rail line right-of-way and property. Any adjacent land that would be disturbed by salvage activities would be restored by UP/SP to its original condition. The proposed

abandonment would not affect any prime farmlands.

Water Resources

Salvaging activities associated with the proposed abandonment would include removing rails, ties, spikes, plates, railroad-related utilities, signaling devices, and possibly some bridge spans and decking. Bridge removal could disturb small areas of soil, and has the potential to increase soil erosion and sedimentation of adjacent water bodies. Soil disturbance from the removal of the other materials is expected to be negligible. Actions to control erosion and sedimentation could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches, and sediment collection basins. Enhanced controls, such as increasing the storage capacity of sediment basins and conducting more frequent inspections and maintenance, also may be required in areas where soils are particularly susceptible to erosion. The measures selected would need to be site-specific and would depend on local soil conditions, topography, the extent of disturbance proposed, proximity to water bodies, and applicable Federal, state or local regulations.

Bridge abutments would remain in place following salvage operations. These abutments are generally long-lived, and are not expected to fail or collapse in the near future from normal deterioration and aging.

Applicable Federal and state permits would be obtained by UP/SP if salvage activities would disturb native soils and vegetation in adjacent water bodies, floodplains, and/or wetlands. The only salvage activity that has the potential to disturb these areas would be bridge span, deck, or pier removal. Most bridges could be dismantled by equipment that would be positioned on railbeds or in upland areas. Dismantling long bridges that are located over open surface water bodies and associated floodplains or wetlands could require using equipment within these protected areas.

UP/SP's compliance with Federal and state permit requirements would ensure minimal impacts to these water bodies and associated floodplains and wetlands. Actions that could be taken by UP/SP to minimize or avoid impacts include placing equipment on barges, matting, or skids. The measures selected would need to be site-specific and would depend on local wetland and floodplain characteristics, topography, the nature and duration of the proposed activity, proximity to floodplain and wetland, and the applicable Federal, state, and local regulations.

Culverts along the rail line segment could be dammed by debris which could cause flooding and alter stream flows. During salvage operations, UP/SP would be required to open all culverts to avoid flooding and stream flow alterations. These activities would be conducted in accordance with Federal, state and local regulations.

The proposed abandonment of this rail line segment would not have adverse impacts on

groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Because abandonment of the rail line would require relatively little earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area.

Biological Resources

Wildlife. The proposed abandonment would have beneficial long-term impacts on most animal species that occupy terrestrial habitats adjacent to the rail line. The proposed abandonment could ease territorial movements and enhance the quality of habitat available to wildlife. Any potentially adverse impacts associated with salvaging or other construction-related activities would be temporary and would not result in permanent loss of wildlife species.

Erosion and sedimentation caused by salvaging operations, particularly bridge deck and span removal, could affect downstream aquatic communities. However, adverse impacts to fish populations and habitats are not anticipated, provided that UP/SP follow permit requirements for soil erosion and sedimentation control measures and undertake adequate mitigation measures when salvaging takes place on soils that are prone to erosion. Mitigation measures could include implementing enhanced erosion and sedimentation controls such as planting a rapidly-growing vegetation cover, increasing the storage capacity and detention periods for sediment basins, and conducting more frequent inspections. Salvage activities are not expected to create long-term negative impacts on water turbidity (i.e., degree of clarity) or existing fish populations and their habitat.

Threatened and Endangered Species. Although USFWS and IDC have indicated that listed threatened or endangered species have occurred in the general area of the proposed abandonment, SEA concludes that no effects on such 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, and Sanctuaries. There are no parks, preserves, or sanctuaries near the proposed abandonment. Therefore, no impacts are anticipated due to the localized nature of salvage operations.

Historic and Cultural Resources

The Illinois SHPO has indicated the proposed abandonment would affect the three deck truss bridges at MP 57.28, MP 60.74 and MP 69.45. Section 106 consultation has been initiated with the SHPO regarding eligibility of these bridges and potential effects. Accordingly, the UP/SP would

be required under SEA's recommended mitigation to retain its interest in and take no steps to alter these bridges until the Section 106 process has been completed for these structures.

Based on SEA's initial consultations with the Illinois SHPO, no known or documented archaeological sites exist along the rail line segment proposed for abandonment. 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 abandonment or salvage process.

Safety

There are no known hazardous material sites within the railroad right-of-way. Therefore, because the disturbance resulting from removal of rail and ties is limited to minor surface disturbance, no hazardous waste and safety impacts are expected as a result of the proposed abandonment. In addition, the probability of a major spill of hazardous or toxic materials during salvage operations is very small. However, in the unlikely event that such a spill occurs at the abandonment site, drainage ditches are expected to retain the contaminated runoff. Overall, the proposed abandonment would not be expected to increase the probability or consequences of hazardous waste contamination.

The discontinuance of rail service between Barr and Girard would eliminate the need for 26 grade crossings and remove the potential for vehicle/train accidents.

Transportation

Following the abandonment, all through traffic would be diverted to an alternate north-south route. This rerouting would result in the diversion of local traffic consisting of plastic resin and fertilizer shipments to trucks. This diversion impact is not substantial, totalling only 38 railcars per year.

Air Quality

The operation of heavy equipment would be the primary source of pollutant emissions during salvage activities. The pollutants resulting from such activities typically consist of:

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

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

All of the emissions from salvaging operations would occur in an air quality attainment area. The fugitive particulate emissions, which would be of primary concern, can be controlled by UP/SP operators using water sprays or other suitable dust suppressants. Other emissions associated with salvaging operations (VOCs, CO, and NO_x) generally would be minor and of short duration. It should be noted that salvage activities themselves would be temporary in nature and would have insignificant, temporary effects on air quality.

Post-abandonment pollutant emissions along the right-of-way would be substantially reduced, due to the elimination of rail traffic and rail line maintenance activities.

Noise

As discussed in Section 5.3.3, four trains per day currently operate between Barr and Girard. Automobile and truck traffic contribute to noise levels in the vicinity of the 26 grade crossings along the rail line.

Salvaging operations associated with the abandonment would cause temporary increases in noise levels. This would occur during the removal of rails, ties, plates, spikes, railroad-related utilities, signaling devices, and most bridges. These salvaging activities would require the use of trucks and front-end loaders, as well as cranes at larger bridges. Noise generated by such salvage equipment generally would be less than the 65-70 dBA level reported for typical trains. Equipment-generated noise, however, might be more frequent and last longer than noise from passing trains, since the equipment would remain relatively stationary for up to two days as each mile of track is dismantled and removed. Following salvage activities, elevated noise levels from all rail-related actions would be eliminated.

Minor changes in vehicular traffic levels and patterns also would occur in the vicinity of the right-of-way during and after salvage operations. Traffic levels at most of the 26 grade crossings on the rail line would be comparable to existing levels during and after salvage activities. Small increases in traffic could occur during salvaging at grade crossings near communities where the salvaging work force is operating. This temporarily increased traffic would result in small or imperceptible changes in existing traffic noise.

Upon completion of salvaging activities, all rail service and associated noise would cease. This permanent elimination of noise from rail traffic along the Barr to Girard is expected to outweigh the temporarily increased noise of salvaging and local road traffic. Human and wildlife receptors located near the line would generally benefit from a long-term reduction in noise levels.

5.3.5 Potential Environmental Impacts of Alternative Action

Alternatives to the proposed abandonment would include denial (and therefore no change in operations), discontinuance of service without abandonment, and continued operation by another operator. In any of these cases, the existing quality of the human environment and energy consumption should not be affected.

5.3.6 Summary of Agency Comments

In considering the potential environmental impacts of the rail line segment abandonments 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 abandonments are summarized below:

- National Resources Conservation Service recommends that alternative actions take into account the adverse effect that could occur if rail lines are abandoned.

- Illinois Environmental Protection Agency advises that a General NPDES Permit for storm water discharges associated with construction site activities is required for any disturbance of five or more acres. For any abandonment site that totals five or more acres of disturbed land, submittal of Illinois EPA Notice of Intent forms is required 48 hours before beginning construction.

- Consultation with the Illinois State Historic Preservation Officer regarding National Register of Historic Places eligibility and effects has been initiated. Potential mitigation is dependent on their responses.

5.3.7 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:

- Illinois Environmental Protection Agency requires a General NPDES Permit for storm water discharges associated with any abandonment site that totals five or more acres of disturbed land.

5.3.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving this proposed abandonment of the Barr to Girard line. 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 salvage 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 right-of-way salvaging activities to pre-salvaging conditions.

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

Water Resources

1. UP/SP shall use appropriate technologies, such as silt screens, to minimize soil erosion during salvaging. UP/SP shall disturb the smallest area possible around streams and tributaries and shall revegetate disturbed areas immediately following salvage operations.

2. UP/SP shall assure that all culverts are clear from debris to avoid potential

flooding and stream flow alteration, in accordance with Federal, state and local regulations.

3. UP/SP shall obtain all necessary Federal, state, and local permits if salvaging activities require the alteration of wetlands, ponds, lakes, streams, or rivers, or if these activities would cause soil or other materials to wash into these water resources. UP/SP shall use appropriate techniques to minimize impacts to water bodies and wetlands, such as positioning salvaging equipment on barges, matting, or skids.

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 photograph and prepare written documentation on the history of the deck truss bridges at MP 57.28, MP 60.74 and MP 69.45 and the concrete bridges at MP 82.12 and MP 87.04 and submit to the Illinois SHPO. UP/SP shall retain their interest in and take no step to alter the listed bridges, until the Section 106 process of the National Historic Preservation Act (16 USC 470f, as amended) has been completed for these structures.

2. If previously unknown archaeological remains are found during salvage operations, UP/SP shall cease work and immediately contact the Illinois SHPO.

Safety

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

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during abandonment activities at and near grade crossings.

2. UP/SP shall restore roads disturbed during abandonment activities to conditions as required by state and 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 salvage operations shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment during salvaging.

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.

CHAPTER 6.0
KANSAS

This chapter analyzes the potential environmental impacts of rail line segments in Kansas that UP/SP propose to abandon and/or discontinue service on as part of the proposed merger. The rail line segments proposed for abandonment and/or discontinuance of service are:

- Whitewater to Newton, Kansas (UP) — Docket No. AB-3 (Sub-No. 132x).
- Hope to Bridgeport, Kansas (UP) :
  - Docket No. AB-3 (Sub-No. 131) - UP Abandonment.
  - Docket No. AB-8 (Sub-No. 37) - D&RGW Discontinuance of Service.

Detailed descriptions of each proposed abandonment and discontinuance by location, alternative actions considered, the existing environment, the potential environmental impacts, and recommended mitigation measures, are provided below.

6.1 Whitewater to Newton (UP)

Docket No. AB-3 (Sub-No. 132X)

6.1.1 Proposed Action

As part of the proposed merger, UP/SP intend to abandon a 9-mile rail line segment between Whitewater to Newton, from MP 476.0 to MP 485.0 (see Figure 6-1). Whitewater is located in Butler County, approximately 20 miles northeast of Wichita. Newton is located in Harvey County, approximately 20 miles north of Wichita. The proposed abandonment is along the UP McPherson Branch. Following the proposed merger, through traffic now using this segment would be diverted onto the SP Tucumcari line.

Generally, on the abandoned line, UP/SP would remove the rails, ties, ballast, buildings, ancillary equipment (i.e., communications, signals), and grade crossings. Depending on whether there is a proposed adaptive reuse of the right-of-way, the bridges may or may not be removed. Most salvage and removal activities would occur within the existing right-of-way. The right-of-way would then be available for conversion to alternative uses such as recreation (trail use), linear public utility transmission, local transportation corridor, expansion of adjacent uses, or in some instances, a combination of some or all of the above.

6.1.2 Alternative Actions Considered

Alternatives to the proposed abandonment action include: (1) discontinuance of service with no abandonment; (2) continued operations by another carrier; and (3) the no action alternative (i.e.,

denial of the abandonment). Under each of these alternatives there would be no significant impact to the environment.

6.1.3 Existing Environment

Land Use

Land use along the 9-mile rail line between Whitewater and Newton is nearly 100 percent cropland and pasture.

A less common land use along the rail line is residential/commercial. The small communities of Annelly and McLains are found along the right-of-way. The right-of-way also crosses four underground pipelines. Prime agricultural lands have not been identified adjacent to the rail line.

Water Resources

The proposed abandonment crosses 13 streams, and is adjacent to 3 additional streams. National Wetland Inventory (NWI) maps indicate 13 wetlands within or adjacent to the existing right-of-way proposed for abandonment. Each of these are small palustrine wetlands associated with streams crossed by the rail line. The rail line also crosses the 100-year floodplains of the Whitewater, Gypsum, Wildcat, and Lester Creeks and several other unnamed tributaries.

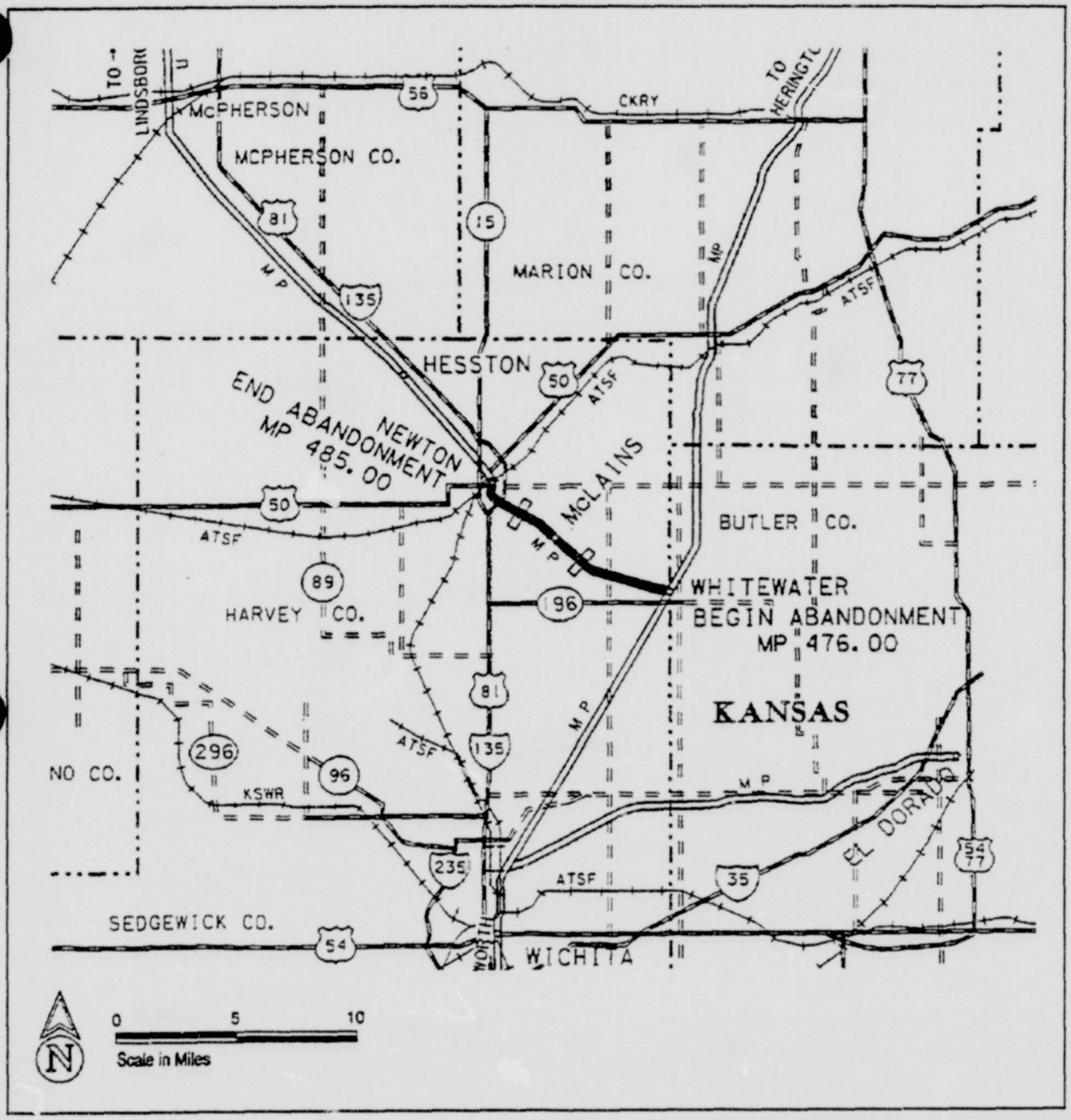
Biological Resources

Vegetation. Existing vegetation within the right-of-way corridor is typically ruderal weeds, having been disturbed by past rail construction and current rail activities. Pasture and palustrine wetlands are located adjacent to the proposed abandonment corridor between developed or farmed lands.

Wildlife. The vegetation around Whitewater is a combination of native grasses and agricultural species, primarily wheat. Typical wildlife species found in the native grass/shortgrass prairie areas include larger mammals such as white-tailed deer and coyote, smaller mammals such as cotton-tail rabbit and jackrabbit, and avian species such as red-tailed hawk, pheasant, great-horned owl, and quail.

The wetland areas provide habitat for a variety of wildlife species. The open water areas are likely to be used by turtles, frogs, and salamanders, as well as many invertebrates, during reproduction and early life-stages. Tolerant invertebrates, including beetles, air-breathing snails, and insect larvae, are present. The water also attracts many of the terrestrial species noted above for bathing and drinking.

FIGURE 6-1



UP/SP RAILROAD MERGER

PROPOSED ABANDONMENT

WHITEWATER - NEWTON, KANSAS

ENVIRONMENTAL ASSESSMENT

Threatened and Endangered Species. SEA consulted USFWS regarding threatened and endangered species in the area of the proposed rail line abandonment between Whitewater and Newton. The USFWS staff indicated that no federally listed threatened or endangered species would be adversely affected by the proposed abandonment.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, preserves, refuges or sanctuaries occur in or around the proposed abandonment corridor.

Historic and Cultural Resources

The Whitewater to Newton rail line was constructed in 1885 by the Ellsworth, McPherson, Newton & Southwestern Railway, subsequently the Missouri Pacific Railroad Company. There are two wooden bridges, constructed in 1939 and 1940, on the proposed 9-mile abandonment. Although potentially historic because of their age, these bridges are of modest scale and are undistinguished in design, and, based on SEA's evaluation, do not meet the criteria for inclusion on the National Register of Historic Places (NRHP). Consultation with the Kansas SHPO has been initiated to confirm these findings.

SEA's review of NRHP lists and specific information provided by the Kansas State Historical Society, Cultural Resources Division (Kansas SHPO) indicated no recorded archaeological sites or National Register sites in the immediate project area. 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 the abandonment or related salvage activities. SEA's review of UP records and track evaluation videos for the entire length of the abandonment indicated no additional structures within the project area.

Safety

SEA's review of the VISTA database and UP safety records indicated no hazardous waste sites within the right-of-way on the Whitewater to Newton segment.

Transportation

Currently, the Whitewater to Newton line serves as the UP route to McPherson. It carries one through train per day and no local traffic. If the proposed merger is approved, the through traffic would be rerouted to the SP Tucumcari line.

There are two grade crossings located along the rail line. Both of these involve local roads that carry very low daily traffic volumes.

Air Quality

The Whitewater to Newton rail line is located in Air Quality Control Region (AQCR) 96: North Central Kansas. Currently, AQCR 96 is in attainment with the National Ambient Air Quality Standards (NAAQS) for all pollutants.

Noise

Rail, automobile, and truck traffic are the primary sources of noise in this predominantly rural region of Kansas. Along much of the Whitewater to Newton line, rail traffic is the primary noise source. The current level of train traffic on the Whitewater to Newton rail line (one train per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 30 feet without horns (110 feet with horns).

Automobiles and trucks also contribute to the noise levels in the vicinity of the two grade crossings found along the line. Noise levels at 50 feet from individual automobiles and trucks are estimated to be approximately 70 to 75 and 80 to 85 dBA, respectively. However, as noted above, traffic levels at these grade crossings are relatively low and there are few receptors for the automobile and truck noise. Most residences in the vicinity of the Whitewater to Newton line are associated with the small communities of Annelly and McLains. However, isolated and small clusters of other homes are found at several locations along the line.

6.1.4 Potential Environmental Impacts of Proposed Action

Land Use

The proposed abandonment would change the existing land use designation of the railroad right-of-way from active railroad use to an inactive status. It is estimated that approximately 110 acres of land would be affected by this change. Salvaging activities generally would not disturb adjacent land uses, although the removal of some bridges could require the use of construction equipment outside of the rail line right-of-way and property. Any adjacent land that would be disturbed by salvage activities would be restored by UP/SP to its original condition. The proposed abandonment would not affect any prime farmlands.

Salvage activities would generate material that would need to be disposed of at a landfill, burned as fuel, or incinerated. Most of this material would consist of unusable rail ties and utility poles. Disposal would be carried out in accordance with applicable Federal, state, and local environmental regulations. If UP/SP select landfilling as a method of disposal, a properly permitted and designed landfill would be employed.

Water Resources

As discussed in Section 6.1.3, surface water resources along the proposed abandonment include 13 streams. There are no ponds or lakes adjacent to the line.

Salvaging activities associated with the proposed abandonment would include removing rails, ties, spikes, plates, railroad-related utilities, signaling devices, and possibly some bridge spans and decking. Bridge removal could disturb small areas of soil, and has the potential to increase soil erosion and sedimentation of adjacent water bodies. Soil disturbance from the removal of the other materials is expected to be negligible. Actions to control erosion and sedimentation could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches, and sediment collection basins. Enhanced controls, such as increasing the storage capacity of sediment basins and conducting more frequent inspections and maintenance, also may be required in areas where soils are particularly susceptible to erosion. The measures selected would need to be site-specific and would depend on local soil conditions, topography, the extent of disturbance proposed, proximity to water bodies, and applicable Federal, state or local regulations.

Bridge abutments would remain in place following salvage operations. These abutments are generally long-lived, and are not expected to fail or collapse in the near future from normal deterioration and aging.

Applicable Federal and state permits would be obtained by UP/SP if salvage activities would disturb native soils and vegetation in adjacent water bodies, floodplains, and/or wetlands. The only salvage activity that has the potential to disturb these areas would be bridge span, deck, or pier removal. Most bridges could be dismantled by equipment that would be positioned on railbeds or in upland areas.

UP/SP's compliance with Federal and state permit requirements would ensure minimal impacts to these water bodies and associated floodplains and wetlands. Actions that could be taken by UP/SP to minimize or avoid impacts include placing equipment on barges, matting, or skids. The measures selected would need to be site-specific and would depend on local wetland and floodplain characteristics, topography, the nature and duration of the proposed activity, proximity to floodplain and wetland, and the applicable Federal, state, and local regulations.

Culverts along the rail line segment, if left in place, could become blocked by waterborne debris, which could cause upstream flooding and alter stream flows. During salvage operations, UP/SP would be required to open all culverts to avoid flooding and stream flow alterations. These activities would be conducted in accordance with Federal, state, and local regulations.

The proposed abandonment of this rail line segment would not have adverse impacts on

groundwater resources, given the small size of the project and the limited productivity of groundwater in the area. Because abandonment of the rail line would require relatively little earthwork, the project design would not alter stormwater drainage and infiltration patterns in the area.

Biological Resources

Vegetation. Existing vegetation control practices along the right-of-way would be discontinued after salvaging operations are completed. Opportunistic plant species would quickly revegetate the cleared railbed and it would eventually evolve to a natural state. Therefore, the overall impact of the proposed abandonment on vegetation along the right-of-way should be beneficial.

Wildlife. The proposed abandonment would have beneficial long-term impacts on most animal species that occupy terrestrial habitats adjacent to the rail line. The proposed abandonment could ease territorial movements and enhance the quality of habitat available to wildlife. Any potentially adverse impacts associated with salvaging activities would be temporary and would not result in permanent loss of wildlife species.

Erosion and sedimentation caused by salvaging operations, particularly bridge deck and span removal, could affect downstream aquatic communities. However, adverse impacts to fish populations and habitats are not anticipated, provided that UP/SP follow permit requirements for soil erosion and sedimentation control measures and undertake adequate mitigation measures when salvaging takes place on soils that are prone to erosion. Mitigation measures could include implementing enhanced erosion and sedimentation controls such as planting a rapidly-growing vegetation cover, increasing the storage capacity and detention periods for sediment basins, and conducting more frequent inspections. Salvage activities are not expected to create long-term negative impacts on water turbidity (i.e., degree of clarity) or existing fish populations and their habitat.

Threatened and Endangered Species. USFWS has indicated that no federally listed threatened or endangered species would be adversely affected by the proposed abandonment.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, preserves, refuges or sanctuaries would be affected by the abandonment.

Historic and Cultural Resources

The Kansas SHPO has determined that the proposed abandonment would not adversely affect any historic resources.

Based on SEA's initial consultations with the Kansas SHPO, no known or documented archaeological sites exist along the rail line segment proposed for abandonment. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for UP/SP to continue Section 106 consultation to address discovery and treatment of archaeological sites during the abandonment or salvage process.

Safety

As reported in Section 6.1.3, there are no hazardous waste sites along the existing rail line. Therefore, no hazardous waste and safety impacts are expected as a result of the proposed abandonment. In addition, the probability of a major spill of hazardous or toxic materials during abandonment is very small. However, in the unlikely event that such a spill occurs from salvage machinery at the abandonment 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 abandonment would not be expected to increase the probability or consequences of hazardous waste contamination.

The discontinuance of rail service along the Whitewater to Newton line would eliminate the need for the two grade crossings and would eliminate the potential for vehicle/train accidents.

Transportation

No existing rail shipments would be diverted to trucks as a result of the proposed abandonment.

Air Quality

The operation of heavy equipment would be the primary source of pollutant emissions during salvage activities. The pollutants resulting from such activities typically consist of:

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

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

All of the emissions from salvaging operations would occur in an air quality attainment area. The fugitive particulate emissions, which would be of primary concern, can be controlled by UP/SP operators using water sprays or other suitable dust suppressants. Other emissions associated with

salvaging operations (VOCs, CO, and NO_x) generally would be minor and of short duration. It should be noted that salvage activities themselves would be temporary in nature and would have insignificant, temporary effects on air quality.

Post-abandonment pollutant emissions along the right-of-way would be substantially reduced, due to the elimination of rail traffic and rail line maintenance activities.

Noise

As discussed in Section 6.1.3, one train per day operates on this rail line segment. Due to the small volume of traffic, noise impacts would be insignificant. Automobile and truck traffic contribute to noise levels in the vicinity of the two grade crossings along the rail line.

Salvaging operations associated with the abandonment would cause temporary increases in noise levels. This would occur during the removal of rails, ties, plates, spikes, railroad-related utilities, signaling devices, and bridges. These salvaging activities would require the use of trucks and front-end loaders, as well as cranes at larger bridges. Noise generated by such salvage equipment generally would be less than the 65-70 dBA level reported for typical trains. Equipment-generated noise, however, might be more frequent and last longer than noise from passing trains, since the equipment would remain relatively stationary for up to two days as each mile of track is dismantled and removed. Following salvage activities, elevated noise levels from all rail-related actions would be eliminated.

Minor changes in vehicular traffic levels and patterns also would occur in the vicinity of the right-of-way during and after salvage operations. Traffic levels at the two grade crossings on the rail line would be comparable to existing levels during and after salvage activities. Small increases in traffic could occur during salvaging at grade crossings near communities where the salvaging work force is operating. This temporarily increased traffic would result in small or imperceptible changes in existing traffic noise.

Upon completion of salvaging activities, all rail service and associated noise would cease. This permanent elimination of noise from rail traffic along the Whitewater to Newton line is expected to outweigh the temporarily increased noise of salvaging and local road traffic. Human and wildlife receptors located near the line would generally benefit from a long-term reduction in noise levels.

6.1.5 Potential Environmental Impacts of Alternative Action

Alternatives to the proposed abandonment would include denial (and therefore no change in operations), discontinuance of service without abandonment, and continued operation by another operator. In any of these cases, the existing quality of the human environment and energy

consumption should not be affected.

6.1.6 Summary of Agency Comments

In considering the potential environmental impacts of the rail line segment abandonments 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 abandonments are summarized below:

- U.S. Fish and Wildlife Service concludes there should be no adverse impacts to fish and wildlife resources, including threatened and endangered species. They encourage that right-of-way for abandoned lines be kept in natural condition to benefit native wildlife, plants, and the public.

6.1.7 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 encourages that the right-of-way be kept in natural condition to benefit native wildlife, plants, and the public.

- The Kansas Department of Health and Environment requires a Stormwater Pollution Control permit for any project which disturbs more than 5 acres.

6.1.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving this proposed abandonment of the Whitewater to Newton line. 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 salvage 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 right-of-way salvaging activities to pre-salvaging conditions.

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

Water Resources

1. UP/SP shall use appropriate technologies, such as silt screens, to minimize soil erosion during salvaging. UP/SP shall disturb the smallest area possible around streams and tributaries and shall revegetate disturbed areas immediately following salvage operations.

2. UP/SP shall assure that all culverts are clear from debris to avoid potential flooding and stream flow alteration, in accordance with Federal, state and local regulations.

3. UP/SP shall obtain all necessary Federal, state, and local permits if salvaging activities require the alteration of wetlands, ponds, lakes, streams, or rivers, or if these activities would cause soil or other materials to wash into these water resources. UP/SP shall use appropriate techniques to minimize impacts to water bodies and wetlands, such as positioning salvaging equipment on barges, matting, or skids.

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 unknown archaeological remains are found during salvage operations, UP/SP shall cease work in the area and immediately contact the Kansas SHPO.

Safety

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

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during abandonment activities at and near grade crossings.

2. UP/SP shall restore roads disturbed during abandonment activities 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 salvage operations shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment during salvaging.

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.

6.2 Hope to Bridgeport (UP)

Docket No. AB-3 (Sub-No. 131) - UP Abandonment
Docket No. AB-8 (Sub-No. 37) - D&RGW Discontinuance of Service

6.2.1 Proposed Action

The Hope to Bridgeport rail line segment planned for abandonment by UP as part of the proposed merger is 32.0 miles, from MP 459.2 to 491.2 (See Figure 6-2). D&RGW would discontinue service over the same line. Hope is located in Dickinson County, approximately 30 miles east of Salina. Bridgeport is located in Saline County, approximately 15 miles south of Salina. The proposed abandonment is along the UP line from Hope to Bridgeport. After the abandonment, D&RGW (SP) through traffic on this line would be diverted to nearby, more efficient UP/SP lines.

Generally, on the line proposed for abandonment, UP/SP would remove the rails, ties, ballast, ancillary equipment (i.e., communications, signals), and grade crossings. Depending on whether there is a proposed adaptive reuse of the right-of-way, the bridges may or may not be removed. Most salvage and removal activities would occur within the existing right-of-way. The right-of-way would then be available for conversion to alternative uses such as recreation (trail use), linear public utility transmission, local transportation corridor, expansion of adjacent land uses, or in some instances, a combination of some or all of the above.

6.2.2 Alternative Actions Considered

Alternatives to the proposed abandonment action include: (1) discontinuance of service with no abandonment; (2) continued operations by another carrier; and (3) the no action alternative (i.e., denial of the abandonment). Under each of these alternatives there would be no significant impact to the environment.

6.2.3 Existing Environment

Land Use

Land use along the 32-mile rail line between Hope and Bridgeport is predominantly cropland and pasture. The second most common use is herbaceous range. In addition, there is mixed use urban land near Elmo and Carlton, a residential area near Gypsum, and water uses associated with the Smokey Hill River near Bridgeport. Prime agricultural lands have not been identified adjacent to the rail line.

Water Resources

The proposed abandonment crosses 46 streams and is adjacent to 8 additional streams. The NWI maps indicate that there are no wetlands within or adjacent to the existing right-of-way proposed for abandonment. However, small, unmapped wetlands are expected along the creeks in the area. The corridor crosses the 100-year floodplains associated with Holland, Turkey, and Spring Creeks (and their tributaries). The western end of the corridor crosses the Smoky Hill River floodplain.

Biological Resources

Vegetation. Existing vegetation within the right-of-way corridor typically is ruderal weeds, having been disturbed by past rail construction and current rail activities. The vegetation around Hope is a combination of native grasses and agricultural species, primarily wheat.

Wildlife. Typical wildlife species found in the native grass/shortgrass prairie areas include larger mammals such as white-tailed deer and coyote and avian species such as pheasant and wild turkey. Wildlife in the riparian areas along the Smokey Hill River near Bridgeport include beaver, raccoon, and striped skunk. Other typical species for the area include fox and possibly grey squirrel.

Threatened and Endangered Species. SEA consulted USFWS regarding threatened and endangered species in the area of the proposed rail line abandonment between Whitewater and Newton. The USFWS staff indicated that no federally listed threatened or endangered species would be adversely affected by the proposed abandonment.

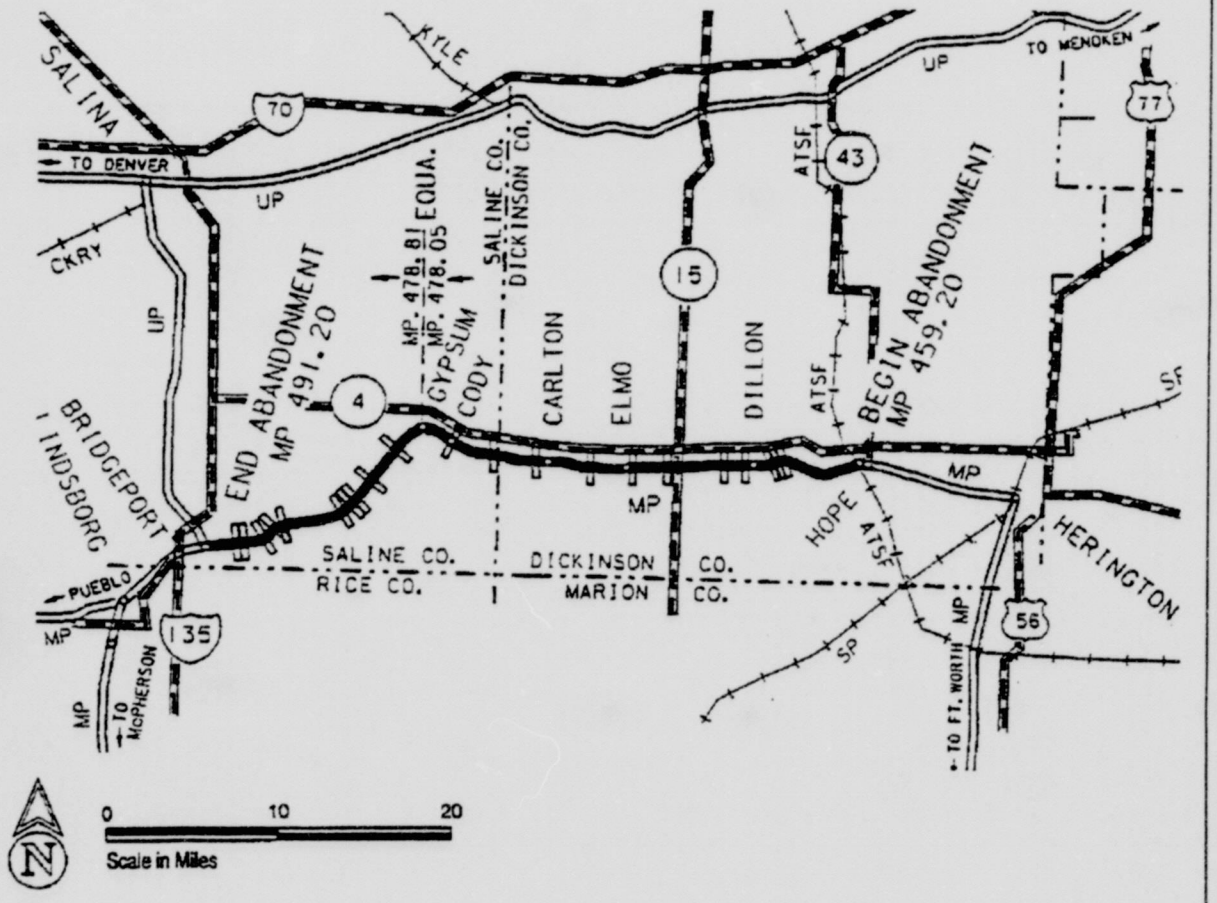
Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, preserves, refuges or sanctuaries occur near the proposed abandonment corridor.

Historic and Cultural Resources

The Hope to Bridgeport portion of the present UP Herington Subdivision was constructed in 1886-87 by the Topeka, Salina & Western Railroad (Hope to MP 476.4) and the Council Grove, Smoky Valley Western Railway (Gypsum to Bridgeport). There are 28 wooden or steel/concrete bridges on this segment. With the exception of one bridge constructed in 1953, all were constructed between 1919 and 1940. Although potentially historic by their age, these bridges are of modest scale and are undistinguished in design, and none meet the criteria for inclusion on the NRHP. Consultation has been initiated with the Kansas SHPO to confirm this finding.

SEA's review of NRHP lists and specific information provided by the Kansas State Historical

FIGURE 6-2



UP/SP RAILROAD MERGER

PROPOSED ABANDONMENT

HOPE - BRIDGEPORT, KANSAS

ENVIRONMENTAL ASSESSMENT

Society, Cultural Resources Division (Kansas SHPO) indicated no recorded archaeological sites or National Register sites in the immediate project area. 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 the abandonment or related salvage activities. A review of UP records and track evaluation videotapes for the entire length of the abandonment indicated no additional structures within the project area.

Safety

SEA's review of the VISTA database and UP safety records indicates no hazardous waste sites on the rail alignment on the Hope to Bridgeport rail segment.

Transportation

This segment is a UP line currently used by SP for through traffic shipments of grain and fertilizer; it is also used occasionally for local traffic. Total service on the rail line segment averages 13 trains per day.

There are 34 grade crossings located along the rail line. All of these involve local roads that carry very low daily traffic volumes.

Air Quality

The Hope to Bridgeport rail line is located in AQCR 96: North Central Kansas. Current, AQCR 96 is in attainment with the NAAQS for all pollutants.

Noise

Rail, automobile, and truck traffic are the primary sources of noise in this predominantly rural and undeveloped region of Kansas. The current level of train traffic on the Hope to Bridgeport rail line (13 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 190 feet without horns (570 feet with horns).

Automobiles and trucks are the major sources of noise in the vicinity of the 34 crossings found along the line. Noise levels at 50 feet from individual automobiles and trucks are estimated to be approximately 70 to 75 and 80 to 85 dBA, respectively. However, as noted above, traffic levels at most of these road crossings are relatively low and there are few receptors for the automobile and truck noise. Most residences in the vicinity of the Hope to Bridgeport line are located in the following small communities: Elmo, Carlton, Gypsum, and Bridgeport. However, isolated and small clusters of other homes are also found at several locations along the line.

6.2.4 Potential Environmental Impacts of Proposed Action

Land Use

The proposed abandonment would change the existing land use designation of the railroad right-of-way from active railroad use to an inactive status. It is estimated that approximately 754 acres of land would be affected by this change. Salvaging activities generally would not disturb adjacent land uses, although the removal of some bridges could require the use of construction equipment outside of the rail line right-of-way and property. Any adjacent land that would be disturbed by salvage activities would be restored by UP/SP to its original condition. The proposed abandonment would not affect any prime farmlands.

Salvage activities would generate material that would need to be disposed of at a landfill, burned as fuel, or incinerated. Most of this material would consist of unusable rail ties and utility poles. Disposal would be carried out in accordance with applicable Federal, state, and local environmental regulations. If UP/SP select landfilling as a method of disposal, a properly permitted and designed landfill would be employed.

Water Resources

As discussed in Section 6.2.3, surface water resources along the proposed abandonment are numerous and include rivers, streams, and ponds. Salvaging activities associated with the proposed abandonment would include removing rails, ties, spikes, plates, railroad-related utilities, signaling devices, and bridge spans and decking. Bridge removal could disturb small areas of soil, and has the potential to increase soil erosion and sedimentation of adjacent water bodies. Soil disturbance from the removal of the other materials is expected to be negligible. Actions to control erosion and sedimentation could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches, and sediment collection basins. Enhanced controls, such as increasing the storage capacity of sediment basins and conducting more frequent inspections and maintenance, also may be required in areas where soils are particularly susceptible to erosion. The measures selected would need to be site-specific and would depend on local soil conditions, topography, the extent of disturbance proposed, proximity to water bodies, and applicable Federal, state, or local regulations.

Bridge abutments would remain in place following salvage operations. These abutments are generally long-lived, and are not expected to fail or collapse in the near future from normal deterioration and aging.

Applicable Federal and state permits would be obtained by UP/SP if salvage activities would disturb native soils and vegetation in adjacent water bodies, floodplains, and/or wetlands. The only

salvage activity that has the potential to disturb these areas would be bridge span, deck, or pier removal. Most bridges could be dismantled by equipment that would be positioned on railbeds or in upland areas. Dismantling long bridges that are located over open surface water bodies and associated floodplains or wetlands, such as the Smoky Hill River crossing, could require using equipment within these protected areas.

UP/SP's compliance with Federal and state permit requirements would ensure minimal impacts to these water bodies and associated floodplains and wetlands. Actions that could be taken by UP/SP to minimize or avoid impacts include placing equipment on barges, matting, or skids. The measures selected would need to be site-specific and would depend on local wetland and floodplain characteristics, topography, the nature and duration of the proposed activity, proximity to floodplain and wetland, and the applicable Federal, state, and local regulations.

Culverts along the rail line segment, if left in place, could become blocked by waterborne debris, which could cause upstream flooding and alter stream flows. During salvage operations, UP/SP would be required to open all culverts to avoid flooding and stream flow alterations. These activities would be conducted in accordance with Federal, state, and local regulations.

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

Biological Resources

Vegetation. Existing vegetation control practices along the right-of-way would be discontinued after salvaging operations are completed. Opportunistic plant species would quickly revegetate the cleared railbed and it would eventually evolve to a natural state. Therefore, the overall impact of the proposed abandonment on vegetation along the right-of-way should be beneficial.

Wildlife. The proposed abandonment would have beneficial long-term impacts on most animal species that occupy terrestrial habitats adjacent to the rail line. The proposed abandonment could ease territorial movements and enhance the quality of habitat available to wildlife. Any potentially adverse impacts associated with salvaging activities would be temporary and would not result in permanent loss of wildlife species.

Erosion and sedimentation caused by salvaging operations, particularly bridge deck and span removal, could affect downstream aquatic communities. However, adverse impacts to fish

populations and habitats are not anticipated, provided that UP/SP follow permit requirements for soil erosion and sedimentation control measures and undertake adequate mitigation measures when salvaging takes place on soils that are prone to erosion. Mitigation measures could include implementing enhanced erosion and sedimentation controls such as planting a rapidly-growing vegetation cover, increasing the storage capacity and detention periods for sediment basins, and conducting more frequent inspections. Salvage activities are not expected to create long-term negative impacts on water turbidity (i.e., degree of clarity) or existing fish populations and their habitat.

Threatened and Endangered Species. USFWS has indicated that no federally listed threatened or endangered species would be adversely affected by the proposed abandonment.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, preserves, refuges or sanctuaries would be affected by the abandonment.

Historic and Cultural Resources

Based on SEA's initial consultations with the Kansas SHPO, the Hope to Bridgeport abandonment would not affect any historic resources.

The SHPO also indicated that no known or documented archaeological sites exist along the rail line segment. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for UP/SP to continue Section 106 consultation to address discovery and treatment of archaeological sites during the abandonment or salvage process.

Safety

As reported in Section 6.2.3, there are no hazardous waste sites along the existing rail line. Therefore, no hazardous waste and safety impacts are expected as a result of the proposed abandonment. In addition, the probability of a major spill of hazardous or toxic materials during abandonment is very small. However, in the unlikely event that such a spill occurs at the abandonment 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 abandonment would not be expected to increase the probability or consequences of hazardous waste contamination.

The discontinuance of rail service along the Hope to Bridgeport line would eliminate the need for the 34 grade crossings and remove the potential for vehicle/train accidents.

Transportation

Abandonment of this segment would result in the diversion of some shipments from rail to truck. Approximately 240 railcars per year of grain and fertilizer now using this segment would be diverted to trucks. The remainder of existing through traffic would be accommodated on the reconfigured UP/SP system.

Air Quality

The operation of heavy equipment would be the primary source of pollutant emissions during salvage activities. The pollutants resulting from such activities typically consist of:

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

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

All of the emissions from salvaging operations would occur in an air quality attainment area. The fugitive particulate emissions, which would be of primary concern, can be controlled by UP/SP operators using water sprays or other suitable dust suppressants. Other emissions associated with salvaging operations (VOCs, CO, and NO_x) generally would be minor and of short duration. It should be noted that salvage activities themselves would be temporary in nature and would have insignificant, temporary effects on air quality.

Post-abandonment pollutant emissions along the right-of-way would be substantially reduced, due to the elimination of rail traffic and rail line maintenance activities.

Noise

As discussed in Section 6.2.3, current rail traffic consists of 13 trains per day on this rail line, which contributes to noise levels along the entire segment. Automobile and truck traffic contribute to noise levels in the vicinity of the 34 grade crossings along the rail line.

Salvaging operations associated with the abandonment would cause temporary increases in noise levels. This would occur during the removal of rails, ties, plates, spikes, railroad-related utilities, signaling devices, and bridges. These salvaging activities would require the use of trucks and front-end loaders, as well as cranes at larger bridges. Noise generated by such salvage equipment generally would be less than the 65-70 dBA level reported for typical trains. Equipment-generated noise, however, might be more frequent and last longer than noise from passing trains,

since the equipment would remain relatively stationary for up to two days as each mile of track is dismantled and removed. Following salvage activities, elevated noise levels from all rail-related actions would be eliminated.

Minor changes in vehicular traffic levels and patterns also would occur in the vicinity of the right-of-way during and after salvage operations. Traffic levels at most of the 34 grade crossings on the rail line would be comparable to existing levels during and after salvage activities. Small increases in traffic could occur during salvaging at grade crossings near communities where the salvaging work force is operating. This temporarily increased traffic would result in small or imperceptible changes in existing traffic noise.

Upon completion of salvaging activities, all rail service and associated noise would cease. This permanent elimination of noise from rail traffic along the Hope to Bridgeport line is expected to outweigh the temporarily increased noise of salvaging and local road traffic. Human and wildlife receptors located near the line would generally benefit from a long-term reduction in noise levels.

6.2.5 Potential Environmental Impacts of Alternative Action

Alternatives to the proposed abandonment would include denial (and therefore no change in operations), discontinuance of service without abandonment, and continued operation by another operator. In any of these cases, the existing quality of the human environment and energy consumption should not be affected.

6.2.6 Summary of Agency Comments

In considering the potential environmental impacts of the rail line segment abandonments 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. Telephone contacts with agencies were made 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. Agency comments regarding the proposed abandonments are summarized below:

- U.S. Bureau of Indian Affairs, Anadarko Area Office, reported that the proposed abandonment is not within close proximity of any current American Indian reservations or individual allotted lands. The history of the railroad in relation to lands ceded by the Kaw (Kansa) Nation for purposes of construction of the railroads in Kansas may need to be investigated.

- U.S. Fish and Wildlife Service, Kansas Field Office, indicated that the proposed abandonment would not adversely affect fish and wildlife resources, including threatened and endangered species. The Service encourages UP/SP to keep the right-of-way in a natural condition for the benefit of native wildlife, plants, and the public.

- Kansas Department of Health and Environment provided application requirements for the Stormwater Pollution Control plan required for any project disturbing more than five acres.

- Saline County Planning and Zoning Department does not have species information or a listing of critical habitats within five miles of the site. The Department also indicated that there are no parks or wildlife refuges in proximity to the project.

6.2.7 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 U.S. Fish and Wildlife Service encourages maintaining a natural right-of-way for the benefit of native wildlife, plants, and the public.

6.2.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving this proposed abandonment of UP Hope to Bridgeport line and discontinuance of D&RGW (SP) service. 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 salvage 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 right-of-way salvaging activities to pre-salvaging conditions.

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

Water Resources

1. UP/SP shall use appropriate technologies, such as silt screens, to minimize soil erosion during salvaging. UP/SP shall disturb the smallest area possible around streams and tributaries and shall revegetate disturbed areas immediately following salvage operations.

2. UP/SP shall assure that all culverts are clear from debris to avoid potential flooding and stream flow alteration, in accordance with Federal, state, and local regulations.

3. UP/SP shall obtain all necessary Federal, state, and local permits if salvaging activities require the alteration of wetlands, ponds, lakes, streams, or rivers, or if these activities would cause soil or other materials to wash into these water resources. UP/SP shall use appropriate techniques to minimize impacts to water bodies and wetlands, such as positioning salvaging equipment on barges, matting, or skids.

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 unknown archaeological remains are found during ground disturbance, UP/SP shall contact the Kansas SHPO.

Safety

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

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during abandonment activities at and near grade crossings.

2. UP/SP shall restore roads disturbed during abandonment activities 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 salvage operations shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment during salvaging.

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.

CHAPTER 7.0
LOUISIANA

This chapter analyzes the potential environmental impacts of the line segment in Louisiana that UP/SP propose to abandon as part of the proposed merger. The rail line segment proposed for abandonment is:

- Iowa Junction to Manchester (UP) Docket No. AB-3 (Sub-No. 133X).

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

7.1 Iowa Junction to Manchester (UP)
Docket No. AB-3 (Sub-No. 133X)

7.1.1 Proposed Action

The proposed merger would include the abandonment of a 8.5-mile rail segment between Iowa Junction and Manchester, from MP 680.0 to MP 688.5 (see Figure 7-1). Iowa Junction and Manchester are both located in Calcasieu Parish, within 15 miles of Lake Charles. The proposed abandonment is along the UP Lake Charles Subdivision. After the merger, access to the Lake Charles area would be provided via an adjacent SP line.

Generally, on the line proposed for abandonment, UP/SP would remove the rails, ties, ballast, ancillary equipment (i.e., communications, signals), and grade crossings. Depending on whether there is a proposed adaptive reuse of the right-of-way, the bridges may or may not be removed. Most salvage and removal activities would occur within the existing right-of-way. The right-of-way would then be available for conversion to alternative uses such as recreation (trail use), linear public utility transmission, local transportation corridor, expansion of adjacent uses, or in some instances, a combination of some or all of the above.

7.1.2 Alternative Actions Considered

Alternatives to the proposed abandonment action include: (1) discontinuance of service with no abandonment; (2) continued operations by another carrier; and (3) the no action alternative (i.e., denial of the abandonment). Under each of these alternatives there would be no significant impact to the environment.

7.1.3 Existing Environment

Land Use

Land use along the rail line between Iowa Junction and Manchester is approximately 90 percent cropland and pasture. Approximately 6 percent is residential and approximately 4 percent consists of streams and canals.

The nearest developed areas are the communities of Iowa just to the north of the proposed abandonment and Lake Charles within 15 miles to the west.

According to the U.S. Department of Agriculture soils data, prime farmland occurs along the rail line.

The Louisiana Department of Natural Resources, Coastal Management Division, has stated that the proposed abandonment is outside the Louisiana coastal zone.

Water Resources

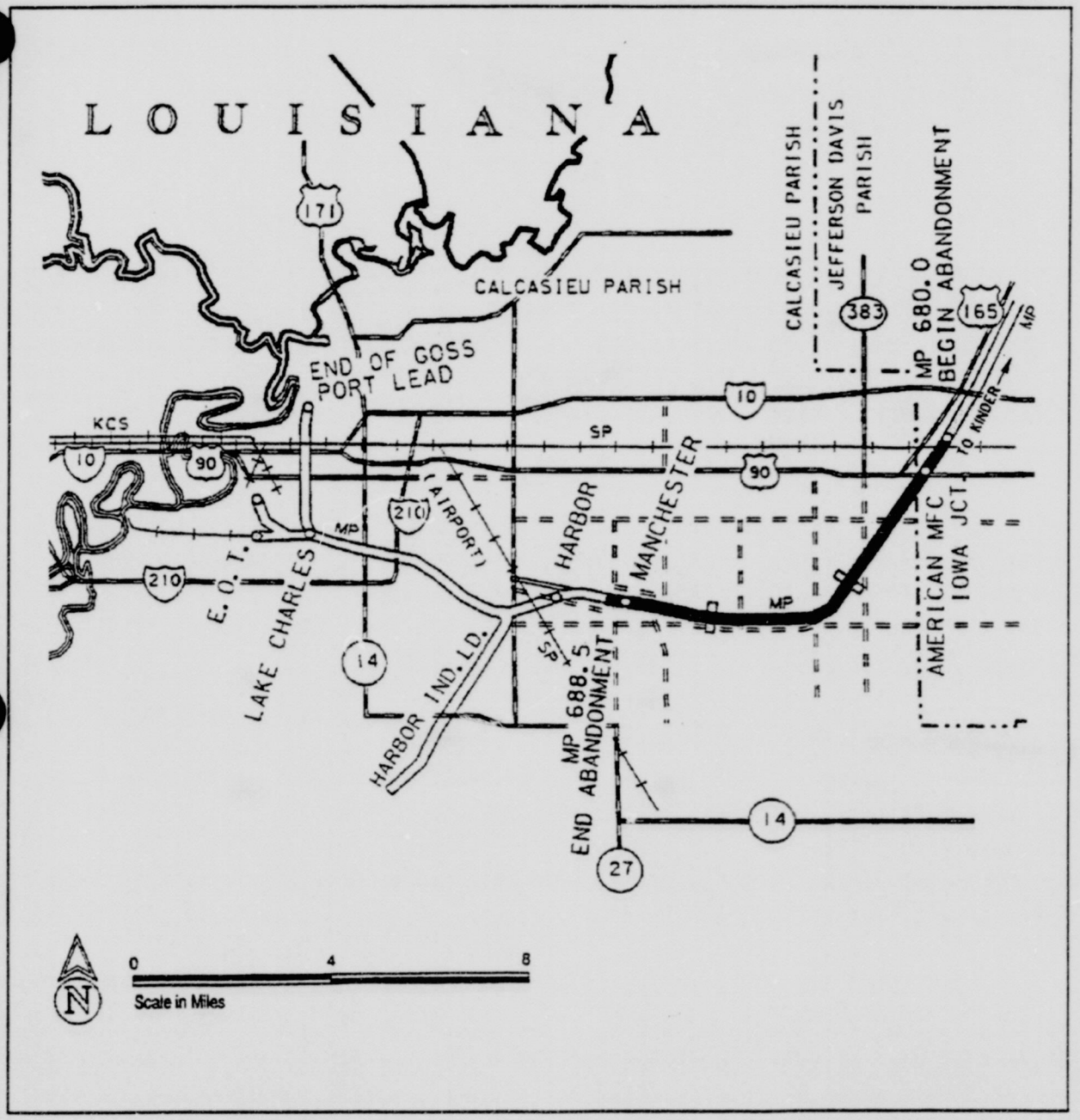
The proposed abandonment corridor crosses six streams and two man-made canals, and is adjacent to three additional streams. National Wetland Inventory maps indicate two palustrine wetlands adjacent to the existing right-of-way about midway between Iowa Junction and Manchester and riverine unconsolidated bottom and aquatic bed classifications for the two canals. The rail line does not cross any 100-year floodplains according to the Federal Emergency Management Agency maps.

Biological Resources

Vegetation. Existing vegetation within the right-of-way corridor is typically ruderal weeds, having been disturbed by past rail construction and current rail activities. Adjacent vegetation types consist of coastal marsh species or mixed deciduous forested land including China-berry (*Melia azedarach*), American sweetgum (*Liquidambar styraciflua*), sea-myrtle (*Baccharis halimifolia*), and southern wax-myrtle (*Myrica cerifera*). These vegetation cover types are interspersed with agricultural and developed lands.

Wildlife. Because much of this area of Calcasieu Parish is used agriculturally for rice production, there are relatively high populations of duck and geese, both native and migratory.

FIGURE 7-1



UP/SP RAILROAD MERGER

PROPOSED ABANDONMENT

IOWA JUNCTION - MANCHESTER, LOUISIANA

ENVIRONMENTAL ASSESSMENT

Species such as quail and rabbit that thrive in agricultural areas are also common.

The wetland areas provide habitat for a variety of wildlife species. The open water areas are likely to be used by turtles, frogs, and salamanders, as well as many invertebrates, during reproduction and early life-stages. Tolerant invertebrates, including beetles, air-breathing snails, and insect larvae, are present. The water also attracts many of the terrestrial species noted above for bathing and drinking.

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 abandonment between Iowa Junction and Manchester. The USFWS staff indicated that two federally-listed threatened or endangered species could potentially occur in the vicinity of the proposed abandonment. These species include the threatened bald eagle (*Haliaeetus leucocephalus*) and the endangered least tern (*Sterna antillarum*). However, the Louisiana Department of Wildlife and Fisheries indicates that they have no current recording of either species in the project area. 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 abandonment

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, preserves, refuges, or sanctuaries occur near the proposed abandonment corridor.

Historic and Cultural Resources

The Iowa Junction to Manchester rail line was constructed in 1892 by the Kansas City, Watkins & Gulf Railway and later acquired by the Missouri Pacific Railroad. The proposed abandonment includes seven timber pile trestles, two of which were constructed in 1929, the remainder in 1947 and 1949. The seven bridges are undistinguished examples of a common bridge type and do not meet the criteria for inclusion in the National Register of Historic Places (NRHP). Consultation has been initiated with the Louisiana SHPO to confirm this finding.

SEA's review of NRHP lists and specific information provided by the Louisiana Office of Cultural Development (Louisiana SHPO) documented no previously recorded archaeological sites or National Register sites in the immediate project area. 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 the abandonment or related salvage activities. A review of UP records and track evaluation videotapes for the entire length of the abandonment showed no additional structures within the project area.

Safety

SEA's review of the VISTA database and UP safety records indicated that no hazardous waste sites are located within 500 feet of the Iowa Junction to Manchester rail segment.

Transportation

This segment currently serves as the UP access to Lake Charles. Local traffic consists of two cars per year of grass seed.

There are five grade crossings along this rail segment. They all involve local roads with low traffic volumes.

Air Quality

The Iowa Junction to Manchester rail line is located in Air Quality Control Region (AQCR) 106: Southern Louisiana - Southeast Texas. Currently, AQCR 106 is in nonattainment with the National Ambient Air Quality Standards (NAAQS) for ozone.

Noise

Rail, automobile, and truck traffic are the primary sources of noise in this predominantly rural and undeveloped region of Louisiana. The current level of train traffic on the Iowa Junction to Manchester rail line (one train per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 30 feet without horns (110 feet with horns).

Automobiles and trucks are the major sources of noise in the vicinity of the five grade crossings found along the line. Noise levels at 50 feet from individual automobiles and trucks are estimated to be approximately 70 to 75 and 80 to 85 dBA, respectively. However, as noted above, traffic levels at most of these road crossings are relatively low and there are few receptors for the automobile and truck noise. Most residences in the vicinity of the Iowa Junction to Manchester line are associated with the small communities of Manchester and Iowa. However, isolated and small clusters of other homes are found at several locations along the line.

7.1.4 Potential Environmental Impacts of Proposed Action

Land Use

The proposed abandonment would change the existing land use designation of the railroad right-of-way from active railroad use to an inactive status. It is estimated that approximately 109

acres of land would be affected by this change. Salvaging activities generally would not disturb adjacent land uses, although the removal of some bridges could require the use of construction equipment outside of the rail line right-of-way and property. Any adjacent land that would be disturbed by salvage activities would be restored by UP/SP to its original condition. The proposed abandonment would not affect any prime farmlands.

Salvage activities would generate material that would need to be disposed of at a landfill, burned as fuel, or incinerated. Most of this material would consist of unusable rail ties and utility poles. Disposal would be carried out in accordance with applicable Federal, state, and local environmental regulations. If UP/SP select landfilling as a method of disposal, a properly permitted and designed landfill would be employed.

The Calcasieu Parish Police Jury has indicated a desire to utilize the rail segment as a recreational trail. UP has indicated its willingness to negotiate with the Jury for interim trail use under the National Trail System Act.

Water Resources

Salvaging activities associated with the proposed abandonment would include removing rails, ties, spikes, plates, railroad-related utilities, signaling devices, and possibly some bridge spans and decking. Bridge removal could disturb small areas of soil, and has the potential to increase soil erosion and sedimentation of adjacent water bodies. Soil disturbance from the removal of the other materials is expected to be negligible. Actions to control erosion and sedimentation could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches, and sediment collection basins. The measures selected would need to be site-specific and would depend on local soil conditions, topography, the extent of disturbance proposed, proximity to water bodies, and applicable Federal, state, or local regulations.

Bridge abutments would remain in place following salvage operations. These abutments are generally long-lived, and are not expected to fail or collapse in the near future from normal deterioration and aging.

Applicable Federal and state permits would be obtained by UP/SP if salvage activities would disturb native soils and vegetation in adjacent water bodies or wetlands. The only salvage activity that has the potential to disturb these areas would be bridge span, deck, or pier removal. Most bridges could be dismantled by equipment that would be positioned on railbeds or in upland areas.

UP/SP's compliance with Federal and state permit requirements would ensure minimal impacts to these water bodies and associated wetlands. Actions that could be taken by UP/SP to minimize or avoid impacts include placing equipment on barges, matting, or skids. The measures

selected would need to be site-specific and would depend on local wetland characteristics, topography, the nature and duration of the proposed activity, proximity to wetland, and the applicable Federal, state, and local regulations.

Culverts along the rail line segment, if left in place, could become blocked by waterborne debris which could cause upstream flooding and alter stream flows. During salvage operations, UP/SP would be required to open all culverts to avoid flooding and stream flow alterations. These activities would be conducted in accordance with Federal, state, and local regulations.

If this rail segment is converted to recreational trail use, then all bridges and culverts would remain in place.

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

Since there are no designated floodplains in the vicinity of the proposed abandonment, there would be no floodplain impacts.

Biological Resources

Vegetation. Existing vegetation control practices along the right-of-way would be discontinued after salvaging operations are completed. Opportunistic plant species would quickly revegetate the cleared railbed and it would eventually evolve to a natural state. Therefore, the overall impact of the proposed abandonment on vegetation along the right-of-way should be beneficial.

If this segment of rail line is converted to recreational trail use, then continuing vegetation management activities would be necessary.

Wildlife. The proposed abandonment would have beneficial long-term impacts on most animal species that occupy terrestrial habitats adjacent to the rail line. The proposed abandonment could ease territorial movements and enhance the quality of habitat available to wildlife. Any potentially adverse impacts associated with salvaging activities would be temporary and would not result in permanent loss of wildlife species.

Erosion and sedimentation caused by salvaging operations, particularly bridge deck and span removal, could affect downstream aquatic communities. However, adverse impacts to fish

populations and habitats are not anticipated, provided that UP/SP follow permit requirements for soil erosion and sedimentation control measures and undertake adequate mitigation measures when salvaging takes place on soils that are prone to erosion. Mitigation measures could include implementing enhanced erosion and sedimentation controls such as planting a rapidly-growing vegetation cover, increasing the storage capacity and detention periods for sediment basins, and conducting more frequent inspections. Salvage activities are not expected to create long-term negative impacts on water turbidity (i.e., degree of clarity) or existing fish populations and their habitat.

Threatened and Endangered Species. Although the U.S. Fish and Wildlife has indicated that Federally-listed threatened or endangered species could potentially occur in the area of the proposed abandonment, no effects on such species or their critical habitat are anticipated. This determination is based on the lack of any recorded occurrences at or 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. Furthermore, the Louisiana Department of Wildlife and Fisheries indicates that no threatened or endangered species would be affected by the abandonment of the rail line corridor.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, preserves, refuges or sanctuaries would be affected by the abandonment.

Historic and Cultural Resources

The Louisiana SHPO has determined that the proposed Iowa Junction to Manchester abandonment would not adversely affect historic or archaeological resources.

Based on SEA's initial consultations with the Louisiana SHPO, no known or documented archaeological sites exist along the rail line segment proposed for abandonment. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for UP/SP to continue Section 106 consultation to address discovery and treatment of archaeological sites during the abandonment or salvage process.

Safety

Because the disturbance from removal of rail and ties would be limited to minor surface disturbance, no hazardous waste and safety impacts are expected as a result of the proposed abandonment. In addition, the probability of a major spill of hazardous or toxic materials during salvage operations is very small. However, in the unlikely event that such a spill occurs at the abandonment 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 abandonment would not be expected to increase the probability or consequences of hazardous waste contamination.

The discontinuance of rail service on this segment would eliminate the need for grade crossings and the associated potential for vehicle/train accidents.

Transportation

Train traffic now using the segment proposed for abandonment would be rerouted to a nearby SP line with minimal impacts to shippers. The two carloads of grass seed per year would likely be diverted to truck if the segment were abandoned.

Air Quality

The operation of heavy equipment would be the primary source of pollutant emissions during salvage activities. The pollutants resulting from such activities typically consist of:

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

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

The fugitive particulate emissions, which would be of primary concern, can be controlled by UP/SP operators using water sprays or other suitable dust suppressants. Other emissions associated with salvaging operations (VOCs, CO, and NO_x) generally would be minor and of short duration. It should be noted that salvage activities themselves would be temporary in nature and would have insignificant, temporary effects on air quality.

As reported in Section 7.1.3, AQCR 106 is in a nonattainment area for ozone. The minor, intermittent emissions of NO_x (a precursor to ozone) during salvage operations would not be expected to contribute to violations of ozone NAAQS.

Post-abandonment pollutant emissions along the right-of-way would be substantially reduced, due to the elimination of rail traffic and rail line maintenance activities.

Noise

As discussed in Section 7.1.3, current rail traffic consists of one train per day operating on this rail segment. This contributes to increased noise levels along the entire segment. Automobile

and truck traffic contribute to noise levels in the vicinity of the five grade crossings along the rail line.

Salvaging operations associated with the abandonment would cause temporary increases in noise levels. This would occur during the removal of rails, ties, plates, spikes, railroad-related utilities, signaling devices, and most bridges. These salvaging activities would require the use of trucks and front-end loaders, as well as cranes at larger bridges. Noise generated by such salvage equipment generally would be less than the 65-70 dBA level reported for typical trains. Equipment-generated noise, however, might be more frequent and last longer than noise from passing trains, since the equipment would remain relatively stationary for up to two days as each mile of track is dismantled and removed. Following salvage activities, elevated noise levels from all rail-related actions would be eliminated.

Minor changes in vehicular traffic levels and patterns also would occur in the vicinity of the right-of-way during and after salvage operations. Traffic levels at most of the five grade crossings on the rail line would be comparable to existing levels during and after salvage activities. Small increases in traffic could occur during salvaging at grade crossings near communities where the salvaging work force is operating. This temporarily increased traffic would result in small or imperceptible changes in existing traffic noise.

Upon completion of salvaging activities, all rail service and associated noise would cease. This permanent elimination of noise from rail traffic along the Iowa Junction to Manchester line is expected to outweigh the temporarily increased noise of salvaging and local road traffic. Human and wildlife receptors located near the line would generally benefit from a long-term reduction in noise levels.

7.1.5 Potential Environmental Impacts of Alternative Action

Alternatives to the proposed abandonment would include denial (and therefore no change in operations), discontinuance of service without abandonment, and continued operation by another operator. In any of these cases, the existing quality of the human environment and energy consumption should not be affected.

7.1.6 Summary of Agency Comments

In considering the potential environmental impacts of the rail line segment abandonments 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

the 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 abandonment are summarized below:

- U.S. Army Corps of Engineers, New Orleans District, reports concerns over flood control with the abandonment. Removal of rails, ties, and switching assemblies is not anticipated to have any appreciable effect on the railroad roadbed integrity as a structure impeding and directing surface drainage of the surrounding areas throughout the designated linear abandonment proposal. However, the maintenance, clean out, and replacement of bridges, culverts, and structures that has been continuous to protect the integrity of the railroad roadbed has provided control of surface drainage in the area.

- Louisiana Department of Environmental Quality notes that air quality problems during abandonment and salvage activities could result from unauthorized open burning, grading, trucking, or other activities which generate particulates.

- Imperial Calcasieu Regional Planning & Development Commission requests issuance of a Public Use Condition, as well as an interim Trail Use Condition rather than outright abandonment.

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:

- U.S. Army Corps of Engineers recommends continued maintenance of drainage structures.

- Louisiana Department of Environmental Quality recommends no open burning.

- Imperial Calcasieu Regional Planning and Development Commission requests a Public Use Condition for creating a trail. The UP has indicated its willingness to negotiate with the Commission for interim trail use.

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 abandonment of the Iowa Junction to Manchester line. 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 salvage 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 right-of-way salvaging activities to pre-salvaging conditions.

4. UP/SP shall continue negotiations with the Imperial Calcasieu Regional Planning and Development Commission for interim trail use.

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

Water Resources

1. UP/SP shall use appropriate technologies, such as silt screens, to minimize soil erosion during salvaging. UP/SP shall disturb the smallest area possible around streams and tributaries and shall revegetate disturbed areas immediately following salvage operations.

2. UP/SP shall assure that all culverts are clear from debris to avoid potential flooding and stream flow alteration, in accordance with Federal, state, and local

regulations and shall consult with the U.S. Army Corps of Engineers, New Orleans District.

3. UP/SP shall obtain all necessary Federal, state, and local permits if salvaging activities require the alteration of wetlands, ponds, lakes, streams, or rivers, or if these activities would cause soil or other materials to wash into these water resources. UP/SP shall use appropriate techniques to minimize impacts to water bodies and wetlands, such as positioning salvaging equipment on barges, matting, or skids.

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 unknown archaeological remains are found during salvage operations UP/SP shall cease work in the area and immediately contact the Louisiana SHPO.

Safety

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

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during abandonment activities at and near grade crossings.

2. UP/SP shall restore roads disturbed during abandonment activities to their original 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

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

2. UP/SP shall conduct no open burning during salvage operations.

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.

CHAPTER 8.0
TEXAS

This chapter analyzes the potential environmental impacts of three rail line segments in Texas that UP/SP propose to abandon as part of the proposed merger. The rail line segments proposed for abandonment are:

- Seabrook to San Leon, Texas (SP) — Docket No. AB-12 (Sub-No. 187x).
- Suman to Benchley, Texas (SP) — Docket No. AB-12 (Sub-No. 185x).
- Troup to Whitehouse, Texas (UP) — Docket No. AB-3 (Sub-No. 134x).

Detailed descriptions of each proposed abandonment by location, alternative actions considered, the existing environment, the potential environmental impacts, and recommended mitigation measures, are provided below.

8.1 Seabrook to San Leon (SP)

Docket No. AB-12 (Sub-No. 187X)

8.1.1 Proposed Action

The proposed merger would include the abandonment of 10.5 miles of rail line between Seabrook and San Leon, from MP 30.0 to MP 40.5 (see Figure 8-1). Seabrook is located in Harris County, approximately 20 miles southeast of Houston. San Leon is located in Galveston County, approximately 30 miles southeast of Houston. The proposed abandonment is along a portion of the SP Galveston line that has been out of service for several years. Service to the Texas City/ Galveston area is currently available on a parallel UP route.

Generally, on the line proposed for abandonment, UP/SP would remove the rails, ties, ballast, ancillary equipment (i.e., communications, signals), and grade crossings. Depending on whether there is a proposed adaptive reuse of the right-of-way, the bridges may or may not be removed. Most salvage and removal activities would occur within the existing right-of-way. The right-of-way would then be available, for conversion to alternative uses such as recreation (trail use), linear public utility transmission, local transportation corridor, expansion of adjacent land uses, or in some instances, a combination of some or all of the above.

8.1.2 Alternative Actions Considered

Alternatives to the proposed abandonment action are limited to the no action alternative (i.e., denial of the abandonment) since there is currently no service on the line. This alternative would have no significant impact on the environment.

8.1.3 Existing Environment

Land Use

The 10.5-mile rail line section between Seabrook and San Leon is adjacent to various land uses, including transportation, communication, utilities, residential, cropland, and pastures. The largest adjacent land use is a series of electric power transmission lines paralleling the entire rail line section, along with an associated electric substation.

The second most common land use (approximately 35 percent) adjacent to the rail line is residential. The small communities of Seabrook, Kemah, Bayview, Bacliff, and San Leon are found along the right-of-way.

Less common land uses along the rail line include cropland, bays, and estuaries, and commercial land. Cropland and pastures are located south of the Dickinson Bayou. Prime agricultural lands have not been identified adjacent to the line.

Water Resources

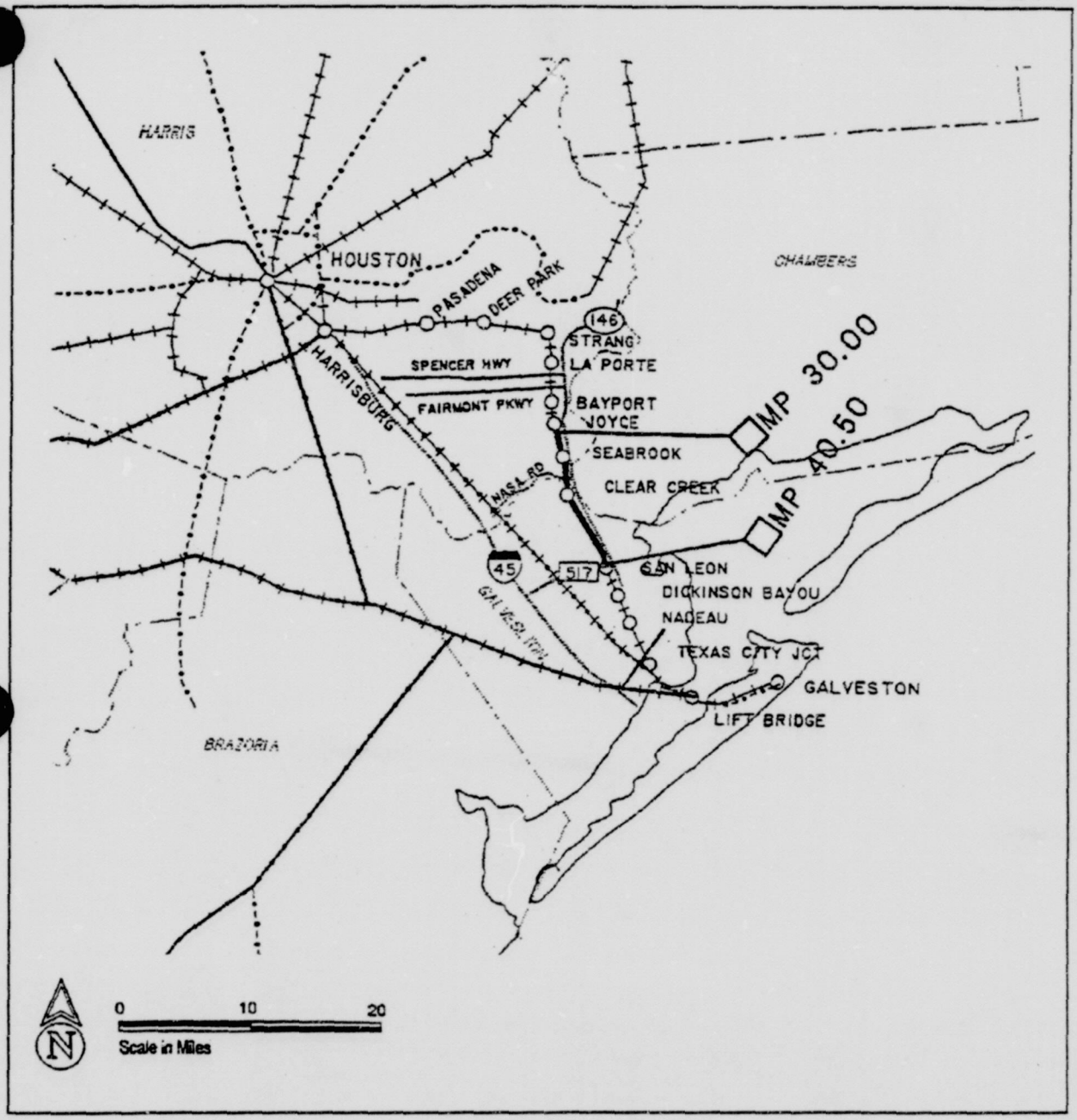
The proposed abandonment corridor crosses one stream and two tidal channels, including Clear Creek and Dickinson Bayou. The National Wetland Inventory (NWI) maps indicate 18 estuarine and palustrine wetlands within or adjacent to the existing right-or-way proposed for abandonment. Also nearby are a tidal channel and a ditch. The rail line crosses two large 100-year floodplains--the first associated with Galveston Bay and the second with Dickinson Bayou.

Biological Resources

Vegetation. Existing vegetation within the right-of-way corridor is typically ruderal weeds, having been disturbed by past rail construction and maintenance activities. Adjacent vegetation types consist of coastal marsh species, grassland, and post-oak savanna. These vegetation cover types are interspersed with agricultural and developed lands.

Wildlife. The right-of-way provides habitat for a variety of terrestrial wildlife species; however, the extent of habitat is extremely limited. The adjacent marsh and grassland areas provide cover for small mammals such as mice, moles, voles, shrews, chipmunks, and rabbits. These small mammals provide food sources for predators such as red-tailed hawk, red fox, and others. Various

FIGURE 8-1



UP/SP RAILROAD MERGER

PROPOSED ABANDONMENT

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birds are likely to forage in these areas, including songbirds such as thrasher, sparrow, towhee, and catbird, and possibly gamebirds such as quail and woodcock. Other wildlife species that may use these habitats include American kestrel, box turtle, and garter snakes.

The wetland areas provide habitat for a variety of wildlife species. The open water areas are likely to be used by turtles, frogs, and salamanders, as well as many invertebrates, during reproduction and early life-stages. Tolerant invertebrates, including beetles, air-breathing snails, and insect larvae, are present. The water bodies also attract many of the terrestrial species noted above for bathing and drinking.

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 abandonment between Seabrook and San Leon. The USFWS staff indicated that the federally listed endangered species, Attwater's greater prairie chicken (*Tympanuchus cupido attwateri*), occurs at a site southeast of the project. The USFWS also noted that several populations of Texas windmill-grass (*Chloris texensis*), a candidate species, are known to occur in the vicinity. There is no critical habitat known or recorded in the vicinity of the proposed abandonment. Field observations on site also indicated no occurrences of these species. The Texas Parks and Wildlife Department noted that there are no known occurrences of special species or natural communities in the general vicinity of the project.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, preserves, refuges, or sanctuaries occur along or adjacent to the proposed abandonment corridor.

Historic and Cultural Resources

The Galveston Line (Seabrook to San Leon) had its origin as the North Galveston, Houston and Kansas City Company, incorporated in 1882. The property passed through two receivers and on February, 1893 was purchased by the La Porte, Houston and Northern, which opened the line on May 12, 1896. In 1905, the property was purchased by the Galveston, Harrisburg and San Antonio, which was already under the control of SP.

Two through-plate girder swing bridges located at MP 31.99 and MP 38.77 were both constructed in 1907 and, based on SEA's evaluation, are potentially eligible for the National Register of Historic Places (NRHP). There are six wooden bridges built between 1932 and 1947 that, based on Texas State Historic Preservation Officer (SHPO) guidance, are not considered eligible for the NRHP.

SEA's review of National Register listings identified three archaeological sites within or adjacent to the right-of-way: GU 84 and GU 85, both shell middens previously determined eligible

for listing on the NRHP; and GU 37, a prehistoric site that, based on SEA's evaluation, appears eligible for the NRHP. Consultation has been initiated with the Texas SHPO to confirm these findings.

Safety

SEA's review of the VISTA database identified one RCRA-TSD site, three LUST sites, and four ERNS sites within 500 feet of the rail segment. According to the ERNS list, one of the hazardous waste spills was a 2,500-gallon diesel fuel spill in Dickinson in 1990, which was remediated.

Transportation

The proposed abandonment is along a portion of the SP Galveston line that has been out of service for several years and therefore carries no traffic. This segment formerly served as an SP access route to Texas City and Galveston. There are eight grade crossings located along the rail line.

Air Quality

The Seabrook to San Leon rail line is located in Air Quality Control Region (AQCR) 216: Metropolitan Houston - Galveston. Currently, AQCR 216 is in nonattainment with the National Ambient Air Quality Standards (NAAQS) for ozone.

Noise

Automobile and truck traffic are the primary sources of noise along this corridor because the rail line parallels Texas State Highway 146. Since there is no existing rail traffic on the Seabrook to San Leon line, rail traffic is not a source of noise.

The automobile and truck sources of noise along State Highway 146 are the primary contributors to noise levels in the communities of Seabrook, Kemah, Bayview, Bacliff, and San Leon. There are also isolated and small clusters of other homes at several locations along the line and the adjacent highway.

8.1.4 Potential Environmental Impacts of Proposed Action

Land Use

The proposed abandonment would change the existing land use designation of the railroad

right-of-way from railroad use to non-railroad use. It is estimated that approximately 143 acres of land would be affected by this change. Salvaging activities generally would not disturb adjacent land uses, although the removal of some bridges could require the use of construction equipment outside of the rail line right-of-way and property. Any adjacent land that would be disturbed by salvage activities would be restored by UP/SP to its original condition. The proposed abandonment would not affect any prime farmlands.

Salvage activities would generate material that would need to be disposed of at a landfill, burned as fuel, or incinerated. Most of this material would consist of unusable rail ties and utility poles. Disposal would be carried out in accordance with applicable Federal, state, and local environmental regulations. If UP/SP select landfilling as a method of disposal, a properly permitted and designed landfill would be employed.

Water Resources

As discussed in Section 8.1.3, surface water resources along the proposed abandonment include a stream, and two tidal channels. The rail line also crosses two large floodplains. There are also many wetlands within or adjacent to the line.

Salvaging activities associated with the proposed abandonment would include removing rails, ties, spikes, plates, railroad-related utilities, signaling devices, and possibly some bridge spans and decking. Bridge removal could disturb small areas of soil, and has the potential to increase soil erosion and sedimentation of adjacent water bodies. Soil disturbance from the removal of the other materials is expected to be negligible. Actions to control erosion and sedimentation could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches, and sediment collection basins. Enhanced controls, such as increasing the storage capacity of sediment basins and conducting more frequent inspections and maintenance, also may be required in areas where soils are particularly susceptible to erosion. The measures selected would need to be site-specific and would depend on local soil conditions, topography, the extent of disturbance proposed, proximity to water bodies, and applicable Federal, state, or local regulations.

Bridge abutments would remain in place following salvage operations. These abutments are generally long-lived, and are not expected to fail or collapse in the near future from normal deterioration and aging.

Applicable Federal and state permits would be obtained by UP/SP if salvage activities would disturb native soils and vegetation in adjacent water bodies, floodplains, and/or wetlands. The only salvage activity that has the potential to disturb these areas would be bridge span, deck, or pier removal. Most bridges could be dismantled by equipment that would be positioned on railbeds or in upland areas. Dismantling long bridges that are located over open surface water bodies and

associated floodplains or wetlands, such as the Clear Creek or Dickinson Bayou crossings, could require using equipment within these protected areas.

UP/SP's compliance with Federal and state permit requirements would ensure minimal impacts to these water bodies and associated floodplains and wetlands. Actions that could be taken by UP/SP to minimize or avoid impacts include placing equipment on barges, matting, or skids. The measures selected would need to be site-specific and would depend on local wetland and floodplain characteristics, topography, the nature and duration of the proposed activity, proximity to floodplain and wetland, and the applicable Federal, state, and local regulations.

Culverts along the rail line segment, if left in place, could become blocked by waterborne debris. Such blockage could cause upstream flooding and alter stream flows. During salvage operations, UP/SP would be required to open all culverts to avoid flooding and stream flow alterations. These activities would be conducted in accordance with Federal, state, and local regulations.

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

Biological Resources

Vegetation. Existing vegetation control practices along the right-of-way would be discontinued after salvaging operations are completed. Opportunistic plant species would quickly revegetate the cleared railbed and it would eventually evolve to a natural state. Therefore, the overall impact of the proposed abandonment on vegetation along the right-of-way should be beneficial.

Wildlife. The proposed abandonment would have beneficial long-term impacts on most animal species that occupy terrestrial habitats adjacent to the rail line. The proposed abandonment could ease territorial movements and enhance the quality of habitat available to wildlife. Any potentially adverse impacts associated with salvaging activities would be temporary and would not result in permanent loss of wildlife species.

Erosion and sedimentation caused by salvaging operations, particularly bridge deck and span removal, could affect downstream aquatic communities. However, adverse impacts to fish populations and habitats are not anticipated, provided that UP/SP follow permit requirements for soil erosion and sedimentation control measures and undertake adequate mitigation measures

when salvaging takes place on soils that are prone to erosion. Mitigation measures could include implementing enhanced erosion and sedimentation controls such as planting a rapidly-growing vegetation cover, increasing the storage capacity and detention periods for sediment basins, and conducting more frequent inspections. Salvage activities are not expected to create long-term negative impacts on water turbidity (i.e., degree of clarity) or existing fish populations and their habitat.

Threatened and Endangered Species. Although USFWS has indicated that one federally listed endangered species and one candidate species could potentially occur in the area of the proposed abandonment, no effects on such species or their critical habitat are anticipated. This determination is based on the lack of any recorded occurrences at the project site, the lack of any critical 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, preserves, refuges, or sanctuaries occur along or adjacent to the rail line. Therefore, no effects on such resources would result the abandonment.

Historic and Cultural Resources

Salvage operations could result in the physical destruction, damage, or alteration of the two historic swing bridges (MP 31.99 and 38.77) and three archaeological sites reported in Section 8.1.3. If the abandonment procedure does not include salvage operations, there is still a possibility for indirect adverse effects. Neglect of the sites may result in their destruction due to vandalism or deterioration due to lack of regular maintenance.

Section 106 consultation with the Texas SHPO regarding NRHP eligibility and potential effect has been initiated. UP/SP shall retain their interest and take no steps to alter the two historic bridges until the Section 106 process has been completed. SEA's recommended mitigation measures also include provisions for UP/SP to continue Section 106 consultation to address discovery and treatment of archaeological sites during the abandonment or salvage process.

Safety

UP/SP would undertake coordination with appropriate agencies regarding the locations and influence of nearby hazardous waste sites prior to initiation of abandonment activities. Because the disturbance resulting from removal of rail and ties is limited to minor surface disturbance, no hazardous waste and safety impacts are expected as a result of the proposed abandonment. In addition, the probability of a major spill of hazardous or toxic materials during abandonment is very small. However, in the unlikely event that such a spill occurs from salvage machinery at the

abandonment 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 abandonment would not be expected to increase the probability or consequences of hazardous waste contamination.

The discontinuance of the Seabrook to San Leon line would eliminate the need for the eight grade crossings which would be removed. Since there is currently no rail traffic, the potential for vehicle and pedestrian/train accidents would not change.

Transportation

Potential through train traffic on the abandoned line segment would be rerouted along a parallel SP route. Since this line has been out of service for several years, no rail-to-truck diversions are anticipated as a result of the proposed abandonment. Service to the Texas City and Galveston areas would be provided by the parallel UP route.

Air Quality

The operation of heavy equipment would be the primary source of pollutant emissions during salvage activities. The pollutants resulting from such activities typically consist of:

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

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

The fugitive particulate emissions, which would be of primary concern, can be controlled by UP/SP operators using water sprays or other suitable dust suppressants. Other emissions associated with salvaging operations (VOCs, CO, and NO_x) generally would be minor and of short duration. It should be noted that salvage activities themselves would be temporary in nature and would have insignificant, temporary effects on air quality.

As reported in Section 8.1.3, AQCR 216 is in a nonattainment area for ozone. The minor, intermittent emissions of NO_x (a precursor to ozone) during salvage operations would not be expected to contribute to violations of ozone NAAQS.

Post-abandonment pollutant emissions along the right-of-way would be unchanged since there is currently no rail traffic on this section.

Noise

As discussed in Section 8.1.3, there is no current rail traffic along the rail line. Automobile and truck traffic contribute to noise levels in the vicinity of the adjacent communities and the eight grade crossings along the rail line.

Salvaging operations associated with the abandonment would cause temporary increases in noise levels. This would occur during the removal of rails, ties, plates, spikes, railroad-related utilities, signaling devices, and most bridges. These salvaging activities would require the use of trucks and front-end loaders, as well as cranes at larger bridges. Noise generated by such salvage equipment generally would be less than the 65-70 dBA level reported for typical trains. Equipment-generated noise, however, might be more frequent and last longer than noise from passing trains, since the equipment would remain relatively stationary for up to two days as each mile of track is dismantled and removed. Following salvage activities, elevated noise levels from all rail-related actions would be eliminated.

Minor changes in vehicular traffic levels and patterns also would occur in the vicinity of the right-of-way during and after salvage operations. Traffic levels at most of the eight grade crossings on the rail line would be comparable to existing levels during and after salvage activities. Small increases in traffic could occur during salvaging at grade crossings near communities where the salvaging work force is operating. This temporarily increased traffic would result in small or imperceptible changes in existing traffic noise.

Upon completion of salvaging activities, all rail service-associated noise would cease. This permanent elimination of noise from rail activities along the Seabrook to San Leon line is expected to outweigh the temporarily increased noise of salvaging and local road traffic. Human and wildlife receptors located near the line would generally benefit from a long-term reduction in noise levels.

8.1.5 Potential Environmental Impacts of Alternative Action

Alternatives to the proposed abandonment are limited to the no-action alternative. This alternative should not affect the existing quality of the human environment and energy consumption.

8.1.6 Summary of Agency Comments

In considering the potential environmental impacts of the rail line segment abandonments 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 abandonments are summarized below:

- U.S. Natural Resources Conservation Service, Temple Office, strongly recommends that all trackage abandonments include plans to prevent soil erosion during and after track removal.

- U.S. Fish and Wildlife Service, Houston Office, reports that this section of abandonment occurs near one of the few remaining populations of Attwater's Greater Prairie Chicken. The Service also noted that several populations of Texas Windmill-grass (C2 candidate species) are known to occur in the vicinity.

- U.S. Army Corps of Engineers requests that, prior to actual salvage operations within the jurisdiction of Galveston District, the Chief of Evaluation be contacted.

- Texas Historical Commission requested that an assessment be made of any historic or archaeological properties along the abandonment.

- Texas Natural Resource Conservation Commission reported that the Houston/Galveston area is classified as a severe ozone nonattainment area. The Commission also advised that General Conformity regulations require that Federal actions be considered as a whole. Therefore, actions dealing with increased rail activity should be combined with construction actions within each nonattainment area in order to determine net emissions increase/decrease.

- Texas Parks and Wildlife Department recommends that existing vegetation along the abandoned sections of track be disturbed as little as possible. Railroad corridors often provide undisturbed segments of native vegetation communities not often found in Texas, which should be kept intact to provide some remnants of these once abundant communities.

8.1.7 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:

- Natural Resources Conservation Service recommends that all proposed abandonments include soil erosion plans.

- Texas Parks and Wildlife Department recommends leaving existing vegetation along abandoned trackbeds.

8.1.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA preliminarily recommends that the Board impose in any final decision approving this proposed abandonment of the Seabrook to San Leon line. 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 salvage 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 right-of-way salvaging activities to pre-salvaging conditions.

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

Water Resources

1. UP/SP shall use appropriate technologies, such as silt screens, to minimize soil erosion during salvaging. UP/SP shall disturb the smallest area possible around streams and tributaries and shall revegetate disturbed areas immediately following salvage operations.

2. UP/SP shall assure that all culverts are clear from debris to avoid potential flooding and stream flow alteration, in accordance with Federal, state, and local regulations and shall consult with the U.S. Army Corps of Engineers, Galveston District.

3. UP/SP shall obtain all necessary Federal, state, and local permits if salvaging activities require the alteration of wetlands, ponds, lakes, streams, or rivers, or if these activities would cause soil or other materials to wash into these water resources. UP/SP shall use appropriate techniques to minimize impacts to water bodies and wetlands, such as positioning salvaging equipment on barges, matting, or skids.

Biological Resources

1. USFWS indicated a possible desire to obtain permission to determine if Windmill-grass is present along the fail line. Should USFWS follow up with such a request, UP/SP shall cooperate in granting the necessary authorizations.

2. 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 its interest in and take no steps to alter the through-plate girder bridges at MP 31.99 and 38.77 until the Section 106 process of the National Historic Preservation Act (16 USC 470f., as amended), has been completed for these structures.

2. UP/SP shall continue Section 106 consultation with the Texas SHPO to determine the need and extent of a recovery and treatment program for the three known archaeological sites along this segment.

3. If previously unknown archaeological remains are found during salvage operations, UP/SP shall cease work in the area and immediately contact the Texas SHPO.

Safety

1. Prior to the start of abandonment activities in the vicinity of any known hazardous waste sites, UP/SP shall contact the Texas Natural Resources Conservation

Commission, Waste Management Office, to assess procedures necessary to address issues related to the sites.

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

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during abandonment activities at and near grade crossings.

2. UP/SP shall restore roads disturbed during salvage activities 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 salvage operations shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment during salvaging.

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 limit construction work within 1,000 feet of residences to daytime hours to mitigate noise impacts on nearby receptors.

8.2 Suman to Benchley (SP)

Docket No. AB-12 (Sub-No. 185X)

8.2.1 Proposed Action

The proposed merger would include the abandonment of a 13.1-mile rail line segment between Suman and Benchley, from MP 117.6 to MP 105.07 (see Figure 8-2). Suman is located in Robertson County, approximately 80 miles northeast of Austin. Benchley is located in Robertson County, approximately 80 miles northwest of Houston. Following the merger, existing rail traffic on this segment would be diverted to a parallel UP route.

Generally, on the line proposed for abandonment, UP/SP would remove the rails, ties, ballast, ancillary equipment (i.e., communications, signals), and grade crossings. Depending on whether there is a proposed adaptive reuse of the right-of-way, the bridges may or may not be removed. Most salvage and removal activities would occur within the existing right-of-way. The right-of-way would then be available for conversion to alternative uses such as recreation (trail use), linear public utility transmission, local transportation corridor, expansion of adjacent land uses, or in some instances, a combination of some or all of the above.

8.2.2 Alternative Actions Considered

Alternatives to the proposed abandonment action include: (1) discontinuance of service with no abandonment; (2) continued operations by another carrier; and (3) the no action alternative (i.e., denial of the abandonment). Under each of these alternatives there would be no significant impact to the environment.

8.2.3 Existing Environment

Land Use

Land along the 13.1-mile rail line between Suman and Benchley is predominantly rural and undeveloped. Mixed rangeland is adjacent to approximately 60 percent of the rail line. Deciduous forest is the second most common land cover and is adjacent to approximately 30 percent of the rail line. Cropland and pasture are located at the south end of the rail line near Benchley and make up the remainder of the land use. Prime agricultural lands have not been identified adjacent to the rail line.

The small communities of Sutton and Benchley are found along the right-of-way.

Water Resources

The proposed abandonment corridor crosses eight streams and is adjacent to several other streams associated with Pin Oak Creek, Spring Creek, and Campbells Creek. It is also adjacent to several other water bodies, such as lakes or ponds. The NWI maps indicate that 12 palustrine wetlands are adjacent to the proposed abandonment, particularly in the area of Spring and Pin Oak Creeks. The right-of-way does not cross any 100-year floodplain.

Biological Resources

Vegetation. Existing vegetation within the right-of-way corridor is typically ruderal weeds, having been disturbed by past rail construction and current rail activities. Vegetation types adjacent to the right-of-way consist of blackland prairie, and post-oak savanna. These vegetation cover types are interspersed with agricultural and developed lands.

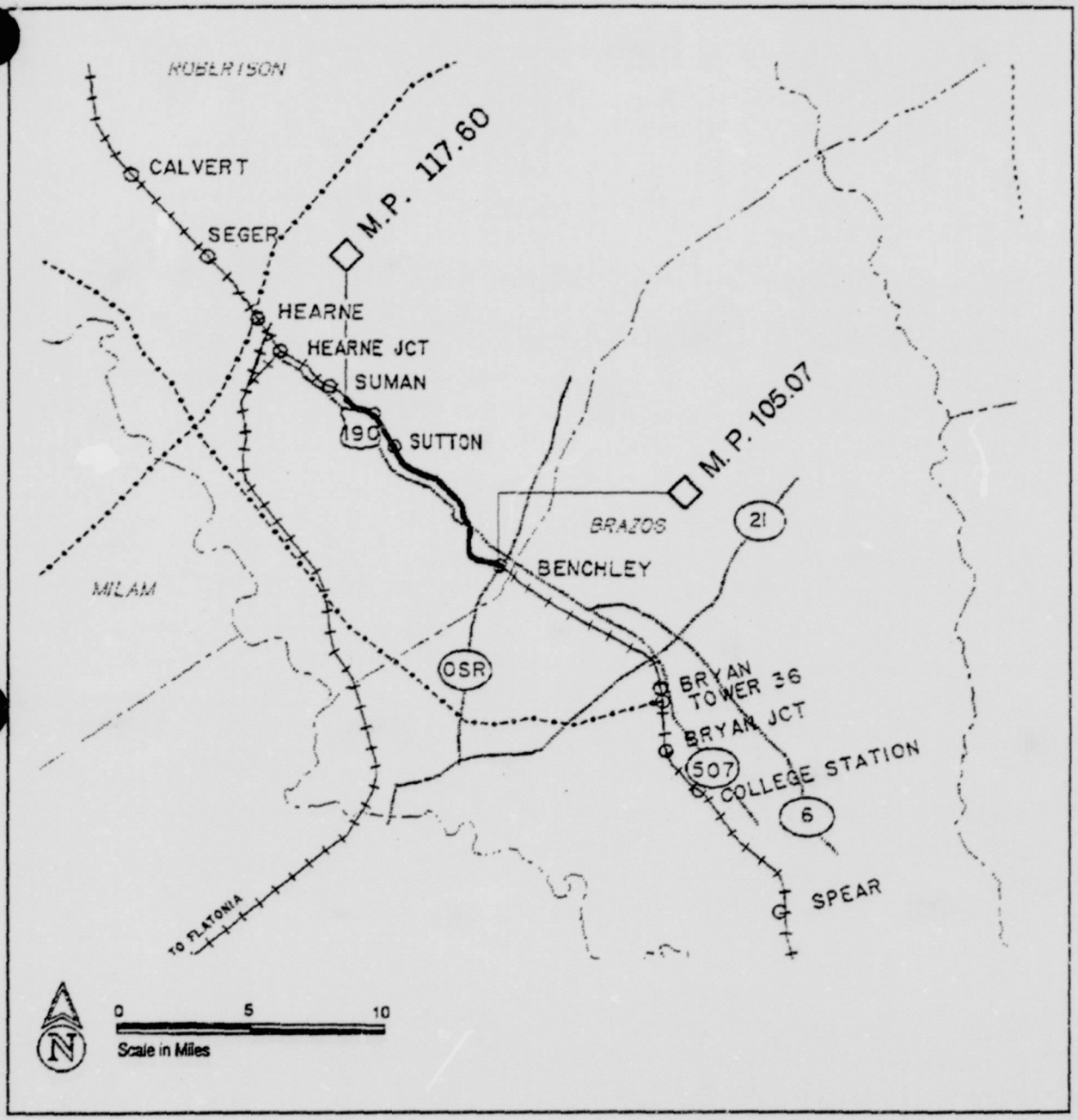
Wildlife. The right-of-way provides habitat for a variety of terrestrial wildlife species; however, the extent of habitat is extremely limited. The adjacent forest and field areas provide cover for small mammals such as mice, moles, voles, shrews, chipmunks, and rabbits. These small mammals provide food sources for predators such as red-tailed hawk, red fox, and others. Various birds are likely to forage in these areas, including songbirds such as thrasher, sparrow, towhee, and catbird, and possibly gamebirds such as quail and woodcock. Other wildlife species that may use these habitats include American kestrel, box turtle, and garter snakes.

The wetland areas provide habitat for a variety of wildlife species. The open water areas are likely to be used by turtles, frogs, and salamanders, as well as many invertebrates, during reproduction and early life-stages. Tolerant invertebrates, including beetles, air-breathing snails, and insect larvae, are present. The presence of water also attracts many of the terrestrial species noted above for bathing and drinking.

Threatened and Endangered Species. SEA consulted USFWS regarding threatened and endangered species in the area of the proposed rail line abandonment between Suman and Benchley. The USFWS staff indicated concern for one federally listed endangered species that may occur in Robertson County, the Navasota Ladies'-tresses (*Spiranthes parksii*). There are no critical habitats designated in the area. Field observations on site indicated no occurrences of this species. Although suitable habitat may exist in the post oak areas outside the railroad right-of-way, such areas are beyond the limits of any work that would be done to carry out the proposed abandonment. The Texas Parks and Wildlife Department noted that there are no known occurrences of special species or natural communities in the general vicinity of the project.

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

FIGURE 8-2



UP/SP RAILROAD MERGER

PROPOSED ABANDONMENT

SUMAN - BENCHLEY, TEXAS

ENVIRONMENTAL ASSESSMENT

sanctuaries occur near the proposed abandonment corridor.

Historic and Cultural Resources

The Hearne Line (Suman to Benchley) had its origins as part of the Galveston & Red River Valley Railway, originally chartered in 1847 to begin building a railroad between Houston and Denison. The railroad franchise and property were sold at foreclosure during the Civil War in 1861 to the Houston & Texas Central. The line began operations from Houston to Bryan in August 1867 and steadily progressed to Dallas by 1872 and finally to Denison in 1873.

Three deck plate girder bridges at MP 109.73 (built 1899), MP 112.96 (built 1899), and MP 117.55 (built 1901) have undergone alterations; their NRHP eligibility is still awaiting SHPO concurrence. There are two wooden bridges built in 1940 and 1942 that, based on Texas SHPO guidance, are not considered eligible for the NRHP. SEA identified one archaeological site eligible for listing on the NRHP within the right-of-way. The site is Route 192, a State Archaeological Landmark, described as a substantial late prehistoric site with buried material. Consultation has been initiated with the Texas SHPO to confirm these findings.

SEA's review of National Register listings and information did not identify any additional historic structures or archaeological sites in the vicinity of the proposed abandonment. 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 the abandonment or related salvage activities. SEA reviewed UP track evaluation videotapes for the entire length of the proposed abandonment and did not identify any additional historic structures within the project area.

Safety

SEA's review of the VISTA database indicated that there are no hazardous waste sites along the rail line.

Transportation

Rail traffic on the segment is currently eight trains per day. Any through traffic would be served by the parallel UP line if the proposed merger is approved. There are five grade crossings on the segment.

Air Quality

The Suman to Benchley rail line is located in Air Quality Control Region (AQCR) 212: Austin-

Waco. Currently, AQCR 212 is in attainment with the National Ambient Air Quality Standards (NAAQS) for all pollutants.

Noise

Rail, automobile, and truck traffic are the primary sources of noise in this rural and undeveloped region of Texas. Along most of this line, rail traffic is the predominant noise source. The current level of train traffic on the Suman to Benchley rail line (eight trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 109 feet without horns (336 feet with horns).

Automobile and truck sources also contribute to noise levels adjacent to the rail line, because U.S. Route 190 parallels the rail line. Noise levels at 50 feet from individual automobiles and trucks are reported to be approximately 70 to 75 and 80 to 85 dBA, respectively.

Because of the rural character of the areas adjacent to the rail line, there are few receptors for the rail, automobile, and truck noise. Most residences in the vicinity of the Suman to Benchley line are associated with the two small communities of Sutton and Benchley. However, isolated and small clusters of homes are also present at several locations along the line.

8.2.4 Potential Environmental Impacts of Proposed Action

Land Use

The proposed abandonment would change the existing land use designation of the railroad right-of-way from active railroad use to an inactive status. It is estimated that approximately 220 acres of land would be affected by this change. Salvaging activities generally would not disturb adjacent land uses, although the removal of some bridges could require the use of construction equipment outside of the rail line right-of-way and property. Any adjacent land that would be disturbed by salvage activities would be restored by UP/SP to its original condition. The proposed abandonment would not affect any prime farmlands.

Salvage activities would generate material that would need to be disposed of at a landfill, burned as fuel, or incinerated. Most of this material would consist of unusable rail ties and utility poles. Disposal would be carried out in accordance with applicable Federal, state, and local environmental regulations. If UP/SP select landfilling as a method of disposal, a properly permitted and designed landfill would be employed.

Water Resources

As discussed in Section 8.2.3, surface water resources along the proposed abandonment include eight rivers and streams and many wetlands associated with Pin Oak Creek, Spring Creek, and Campbells Creek.

Salvaging activities associated with the proposed abandonment would include removing rails, ties, spikes, plates, railroad-related utilities, signaling devices, and possibly some bridge spans and decking. Bridge removal could disturb small areas of soil, and has the potential to increase soil erosion and sedimentation of adjacent water bodies. Soil disturbance from the removal of the other materials is expected to be negligible. Actions to control erosion and sedimentation could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches, and sediment collection basins. Enhanced controls, such as increasing the storage capacity of sediment basins and conducting more frequent inspections and maintenance, also may be required in areas where soils are particularly susceptible to erosion. The measures selected would need to be site-specific and would depend on local soil conditions, topography, the extent of disturbance proposed, proximity to water bodies, and applicable Federal, state, or local regulations.

Bridge abutments would remain in place following salvage operations. These abutments are generally long-lived, and are not expected to fail or collapse in the near future from normal deterioration and aging.

Applicable Federal and state permits would be obtained by UP/SP if salvage activities would disturb native soils and vegetation in adjacent water bodies and/or wetlands. The only salvage activity that has the potential to disturb these areas would be bridge span, deck, or pier removal. Most bridges could be dismantled by equipment that would be positioned on railbeds or in upland areas. Dismantling long bridges that are located over open surface water bodies and associated wetlands, such as the Spring Creek and Campbells Creek crossings, could require using equipment within these protected areas.

UP/SP's compliance with Federal and state permit requirements would ensure minimal impacts to these water bodies and associated floodplains and wetlands. Actions that could be taken by UP/SP to minimize or avoid impacts include placing equipment on barges, matting, or skids. The measures selected would need to be site-specific and would depend on local wetland and floodplain characteristics, topography, the nature and duration of the proposed activity, proximity to floodplain and wetland, and the applicable Federal, state, and local regulations.

Culverts along the rail line segment, if left in place, could become blocked by waterborne debris. Such blockage could cause upstream flooding and alter stream flows. During salvage operations, UP/SP would be required to open all culverts to avoid flooding and stream flow

alterations. These activities would be conducted in accordance with Federal, state and local regulations.

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

Biological Resources

Vegetation. Existing vegetation control practices along the right-of-way would be discontinued after salvaging operations are completed. Opportunistic plant species would quickly revegetate the cleared railbed and it would eventually evolve to a natural state. Therefore, the overall impact of the proposed abandonment on vegetation along the right-of-way should be beneficial.

Wildlife. The proposed abandonment would have beneficial long-term impacts on most animal species that occupy terrestrial habitats adjacent to the rail line. The proposed abandonment could ease territorial movements and enhance the quality of habitat available to wildlife. Any potentially adverse impacts associated with salvaging activities would be temporary and would not result in permanent loss of wildlife species.

Erosion and sedimentation caused by salvaging operations, particularly bridge deck and span removal, could affect downstream aquatic communities. However, adverse impacts to fish populations and habitats are not anticipated, provided that UP/SP follow permit requirements for soil erosion and sedimentation control measures and undertake adequate mitigation measures when salvaging takes place on soils that are prone to erosion. Mitigation measures could include implementing enhanced erosion and sedimentation controls such as planting a rapidly-growing vegetation cover, increasing the storage capacity and detention periods for sediment basins, and conducting more frequent inspections. Salvage activities are not expected to create long-term negative impacts on water turbidity (i.e., degree of clarity) or existing fish populations and their habitat.

Threatened and Endangered Species. Although USFWS has indicated that one federally listed endangered species could potentially occur in the area of the proposed abandonment, 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 on the project site, and the lack of any observations of occurrences during site visits.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, preserves, refuges or sanctuaries occur along or adjacent to the rail line. Therefore, there would be no effects on such resources as a result of the proposed abandonment.

Historic and Cultural Resources

Salvage operations could result in the physical destruction, damage, or alteration of the three historic deck plate girder bridges and one archaeological site located along this segment. If the abandonment procedure does not include salvage operations, there is still a possibility for indirect adverse effects. Neglect of the bridges may result in their destruction due to vandalism or deterioration due to lack of regular maintenance.

Section 106 consultation with the Texas SHPO regarding NRHP eligibility and potential effect has been initiated. UP/SP shall retain their interest and take no steps to alter the three historic bridges until the Section 106 process has been completed. SEA's recommended mitigation measures also include provisions for UP/SP to continue Section 106 consultation to address discovery and treatment of archaeological sites during the abandonment or salvage process.

Safety

UP/SP would undertake coordination with appropriate agencies to determine the locations and influence of any nearby hazardous waste sites prior to initiation of abandonment activities. Because the disturbance resulting from removal of rail and ties is limited to minor surface disturbance, any existing hazardous wastes are unlikely to be affected as a result of the proposed abandonment. Safety impacts are also expected to be negligible. In addition, the probability of a major spill of hazardous or toxic materials during abandonment is very small. However, in the unlikely event that such a spill occurs from salvage machinery at the abandonment 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 abandonment would not be expected to increase the probability or consequences of hazardous waste contamination.

The discontinuance of rail service along the Suman to Benchley line would eliminate the need for the five grade crossings and would remove the potential for vehicle/train accidents.

Transportation

Through traffic on the rail line segment proposed for abandonment would be served by a parallel UP line. However, some local shipments of wood particle board would be diverted to truck as a result of the abandonment. The diversion of this traffic to truck would result in approximately

212 additional trucks per year on local highways, including U.S. Route 190. The transportation impacts of this diversion are expected to be minimal.

Air Quality

The operation of heavy equipment would be the primary source of pollutant emissions during salvage activities. The pollutants resulting from such activities typically consist of:

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

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

All of the emissions from salvaging operations would occur in an air quality attainment area. The fugitive particulate emissions, which would be of primary concern, can be controlled by UP/SP operators using water sprays or other suitable dust suppressants. Other emissions associated with salvaging operations (VOCs, CO, and NO_x) generally would be minor and of short duration. It should be noted that salvage activities themselves would be temporary in nature and would have insignificant, temporary effects on air quality.

Post-abandonment pollutant emissions along the right-of-way would be substantially reduced, due to the elimination of rail traffic and rail line maintenance activities.

Noise

As discussed in Section 8.2.3, rail traffic is currently the predominant noise source along most of the Suman to Benchley line. Currently, eight trains per day operate on this rail line, which contribute to noise levels along the entire segment. Automobile and truck traffic also contribute to current noise levels in the vicinity of the rail line.

Noise disturbances during the salvaging operations would be temporary and generally less than noise from trains that currently travel along the rail line. This would occur during the removal of rails, ties, plates, spikes, railroad-related utilities, signaling devices, and most bridges. These salvaging activities would require the use of trucks and front-end loaders, as well as cranes at larger bridges. Noise generated by such salvage equipment generally would be less than the 65-70 dBA level reported for typical trains. Equipment-generated noise, however, might be more frequent and last longer than noise from passing trains, since the equipment would remain relatively stationary for up to two days as each mile of track is dismantled and removed. Following salvage activities, noise levels along the rail line would be greatly reduced due to the elimination

of all train traffic.

Minor changes in vehicular traffic levels and patterns also would occur in the vicinity of the right-of-way during and after salvage operations. Traffic levels at most of the five grade crossings on the rail line would be comparable to existing levels during and after salvage activities. Small increases in traffic could occur during salvaging at grade crossings near communities where the salvaging work force is operating. This temporarily increased traffic would result in small or imperceptible changes in existing traffic noise. The additional truck traffic resulting from the diversion of local shipments of wood particle board would result in insignificant increase in traffic noise levels.

Upon completion of salvaging activities, all rail service and associated noise would cease. This permanent elimination of noise from rail traffic along the Suman to Benchley line is expected to outweigh the temporarily increased noise of salvaging and local road traffic. Human and wildlife receptors located near the line would generally benefit from a long-term reduction in noise levels.

8.2.5 Potential Environmental Impacts of Alternative Action

Alternatives to the proposed abandonment would include denial (and therefore no change in operations), discontinuance of service without abandonment, and continued operation by another operator. In any of these cases, the existing quality of the human environment and energy consumption should not be affected.

8.2.6 Summary of Agency Comments

In considering the potential environmental impacts of the rail line segment abandonments 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 consultations with agencies as shown in **Volume 5**, Appendix E, Table E-1. Agency comments regarding the proposed abandonment are summarized below:

- U.S. Fish and Wildlife Service, Austin Office, indicated concern for the Navasota Ladies-tresses, a federally listed endangered species that may occur in Robertson County. They recommend that any habitat that may be cleared or modified by the abandonment be evaluated to determine if the site is used by the species.

- Texas Historical Commission requested that an assessment be made of any historic or archaeological properties along the abandonment.

- Texas Parks and Wildlife Department recommends existing vegetation along these sections of track be disturbed as little as possible. The Department notes that railroad corridors often provide undisturbed segments of native vegetation communities not often found in Texas, which should be kept intact to provide some remnants of these once abundant communities. A search of the Texas Biological and Conservation Data System revealed no presently known occurrences of special species or natural communities in the general vicinity of the proposed abandonment.

8.2.7 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. Fish and Wildlife Service recommends that before clearing any area, a survey for Navasota ladies-tresses be conducted.

- Texas Parks and Wildlife Department recommends preservation of existing vegetation along the trackbed.

8.2.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving this proposed abandonment of the Suman to Benchley line. 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 salvage 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 right-of-way salvaging activities to pre-salvaging conditions.

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

Water Resources

1. UP/SP shall use appropriate technologies, such as silt screens, to minimize soil erosion during salvaging. UP/SP shall disturb the smallest area possible around streams and tributaries and shall revegetate disturbed areas immediately following salvage operations.

2. UP/SP shall assure that all culverts are clear from debris to avoid potential flooding and stream flow alteration, in accordance with Federal, state, and local regulations.

3. UP/SP shall obtain all necessary Federal, state, and local permits if salvaging activities require the alteration of wetlands, ponds, lakes, streams, or rivers, or if these activities would cause soil or other materials to wash into these water resources. UP/SP shall use appropriate techniques to minimize impacts to water bodies and wetlands, such as positioning salvaging equipment on barges, matting, or skids.

Biological Resources

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

2. To further assess the potential occurrence of Navasota Ladies'-tresses (*Spiranthes parksii)*, a federally listed endangered species, UP/SP shall conduct

a survey prior to salvage operations to determine if this species is present in any areas to be cleared or modified by the proposed abandonment.

Historic and Cultural Resources

1. UP/SP shall retain their interest in and take no steps to alter the three deck plate girder bridges at MPs 109.73, 112.96 and 117.55, until the Section 106 process of the National Historic Preservation Act. (16 USC 470f, as amended), has been completed for these structures.

2. UP/SP shall continue Section 106 consultation with the Texas SHPO to determine the need and extent of a recovery and treatment program for the known archaeological site.

3. If previously unknown archaeological remains are found during salvage operations, UP/SP shall cease work in the area and immediately contact the Texas SHPO.

Safety

1. Prior to the start of abandonment activities in the areas containing copper slag ballast, UP/SP shall contact the Texas Natural Resources Conservation Commission, Waste Management Office, as necessary to assess procedures necessary to address issues related to the sites.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during abandonment activities at and near grade crossings.

2. UP/SP shall restore roads disturbed during abandonment activities to their original 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 salvage operations shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment during salvaging.

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.

8.3 Troup to Whitehouse (UP)

Docket No. AB-3 (Sub-No. 134X)

8.3.1 Proposed Action

The proposed merger would include the abandonment of a 7.5-mile rail line segment between Troup and Whitehouse from MP 0.5 to MP 8.0 (see Figure 8-3). Troup and Whitehouse are both located in Smith County, approximately 100 miles southeast of Dallas. The proposed abandonment is along the UP Tyler Industrial Lead. Following the merger, traffic using this line would be rerouted to the SP line serving the Tyler area.

Generally, on the line proposed for abandonment, UP/SP would remove the rails, ties, ballast, and ancillary equipment (i.e., communications, signals) and grade crossings. Depending on whether there is a proposed adaptive reuse of the right-of-way, the bridges may or may not be removed. Most salvage and removal activities would occur within the existing right-of-way. The right-of-way would then be available for conversion to alternative uses such as recreation (trail use), linear public utility transmission, local transportation corridor, expansion of adjacent land uses, or in some instances, a combination of some or all of the above.

8.3.2 Alternative Actions Considered

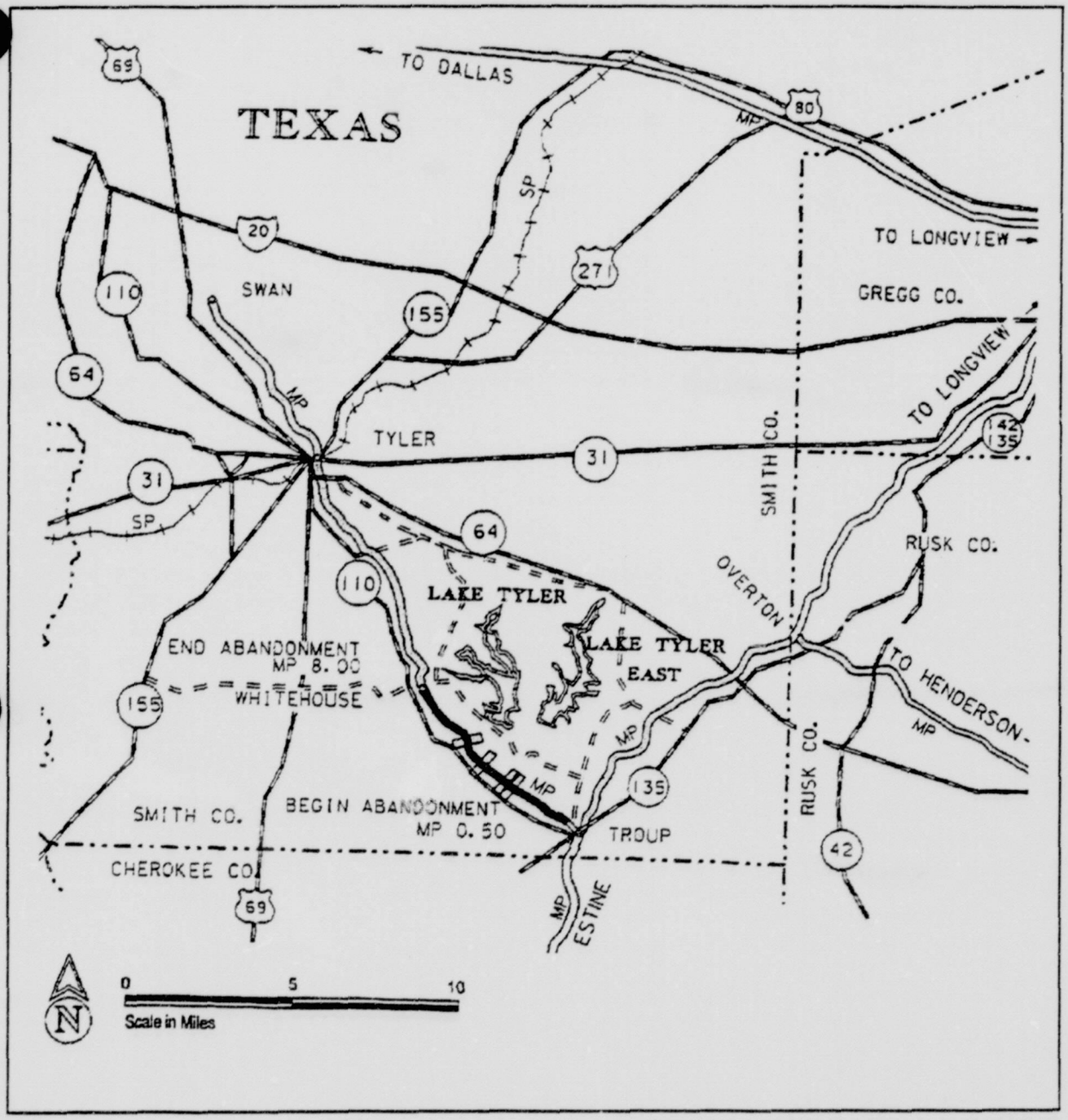
Alternatives to the proposed abandonment action include: (1) discontinuance of service with no abandonment; (2) continued operations by another carrier; and (3) the no action alternative (i.e., denial of the abandonment). Under each of these alternatives there would be no significant impact to the environment.

8.3.3 Existing Environment

Land Use

The 7.5-mile rail line between Troup and Whitehouse is predominantly rural and undeveloped. Mixed forest land is adjacent to approximately 75 percent of the rail line.

FIGURE 8-3



UP/SP RAILROAD MERGER

PROPOSED ABANDONMENT

TROUP - WHITEHOUSE, TEXAS

ENVIRONMENTAL ASSESSMENT

The second most common land use adjacent to the rail line is cropland and pasture, comprising approximately 15 percent. Prime agricultural lands have not been identified adjacent to the rail line.

Less common land uses along the rail line include forested and nonforested wetlands and a small area of commercial/service use. The two endpoints of the proposed abandonment are adjacent to the communities of Troup and Whitehouse.

Water Resources

The proposed abandonment corridor crosses 6 streams and is adjacent to another 10 streams. It is also adjacent to three ponds. The NWI maps indicate more than 30 wetlands within or adjacent to the existing right-or-way proposed for abandonment. Many of these are associated with Horsepen Branch, Kickapoo Creek, Prairie Creek, and Blackhawk Creek. The right-of-way does not cross any 100-year floodplains.

Biological Resources

Vegetation. Existing vegetation within the right-of-way corridor is typically ruderal weeds, having been disturbed by past rail construction and current rail activities. Vegetation types adjacent to the right-of-way consist of deciduous woodland, and pine forests. These vegetation cover types are interspersed with agricultural and developed lands.

Wildlife. The right-of-way provides habitat for a variety of terrestrial wildlife species; however, the extent of habitat is extremely limited. The adjacent forest and field areas provide cover for small mammals such as mice, moles, voles, shrews, chipmunks, and rabbits. These small mammals provide food sources for predators such as red-tailed hawk, red fox, and others. Various birds are likely to forage in these areas, including songbirds such as thrasher, sparrow, towhee, and catbird, and possibly gamebirds such as quail and woodcock. Other wildlife species that may use these habitats include American kestrel, box turtle, and garter snakes.

The wetland areas provide habitat for a variety of wildlife species. The open water areas are likely to be used by turtles, frogs, and salamanders, as well as many invertebrates, during reproduction and early life-stages. Tolerant invertebrates, including beetles, air-breathing snails, and insect larvae, are present. The water also attracts many of the terrestrial species noted above and acts as a bathing and drinking area.

Threatened and Endangered Species. SEA consulted USFWS regarding threatened and endangered species in the area of the proposed rail line abandonment between Troup and Whitehorse. The USFWS staff indicated that no federally listed threatened or endangered species

are known to occur in the vicinity of the proposed abandonment project

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, preserves, refuges, or sanctuaries occur near the proposed abandonment corridor.

Historic and Cultural Resources

This line was constructed in 1872 by the Houston and Great Northern Railroad, subsequently the Missouri Pacific Railroad. There are seven wooden pre-1950 bridges along the rail line. However, based on guidance from the Texas SHPO, none of these bridges are considered eligible for the NRHP.

SEA's initial consultations with the Texas SHPO determined that no documented archaeological sites have been identified along the rail line segment proposed for abandonment. 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 the abandonment or related salvage activities.

Safety

The UP Troup Yard, adjacent to the Troup to Whitehouse rail segment, was identified by UP as a closed LUST site.

Transportation

Current rail traffic on the segment is six trains per day. There are four grade crossings located along the rail line.

Air Quality

The Troup to Whitehouse rail line is located in AQCR 22: Shreveport-Texarkana-Tyler. Currently, AQCR 22 is in attainment with the NAAQS for all pollutants.

Noise

Rail, automobile, and truck traffic are the primary sources of noise in this predominantly rural and undeveloped region of Texas. The current level of train traffic on the Troup to Whitehouse 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 (280 feet with horns).

Automobiles and trucks are the major sources of noise in the vicinity of the four grade crossings found along the line. Noise levels at 50 feet from individual automobiles and trucks are estimated to be approximately 70 to 75 and 80 to 85 dBA, respectively. However, as noted above, traffic levels at most of these road crossings are relatively low and there are few receptors for the automobile and truck noise.

8.3.4 Potential Environmental Impacts of Proposed Action

Land Use

The proposed abandonment would change the existing land use designation of the railroad right-of-way from active railroad use to an inactive status. It is estimated that approximately 157 acres of land would be affected by this change. Salvaging activities generally would not disturb adjacent land uses, although the removal of some bridges could require the use of construction equipment outside of the rail line right-of-way and property. Any adjacent land that would be disturbed by salvage activities would be restored by UP/SP to its original condition. The proposed abandonment would not affect any prime farmlands.

Salvage activities would generate material that would need to be disposed of at a landfill, burned as fuel, or incinerated. Most of this material would consist of unusable rail ties and utility poles. Disposal would be carried out in accordance with applicable Federal, state, and local environmental regulations. If UP/SP selects landfilling as a method of disposal, a properly permitted and designed landfill would be employed.

Water Resources

As discussed in Section 8.3.3, surface water resources along the proposed abandonment include streams, and associated wetlands. There are also several streams and ponds adjacent to the line.

Salvaging activities associated with the proposed abandonment would include removing rails, ties, spikes, plates, railroad-related utilities, signaling devices, and possibly some bridge spans and decking. Bridge removal could disturb small areas of soil, and has the potential to increase soil erosion and sedimentation of adjacent water bodies. Soil disturbance from the removal of the other materials is expected to be negligible. Actions to control erosion and sedimentation could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches, and sediment collection basins. Enhanced controls, such as increasing the storage capacity of sediment basins and conducting more frequent inspections and maintenance, also may be required in areas where soils are particularly susceptible to erosion. The measures selected would need to be site-specific and would depend on local soil conditions, topography, the extent of disturbance proposed,

proximity to water bodies, and applicable Federal, state, or local regulations.

Bridge abutments would remain in place following salvage operations. These abutments are generally long-lived, and are not expected to fail or collapse in the near future from normal deterioration and aging.

Applicable Federal and state permits would be obtained by UP/SP if salvage activities would disturb native soils and vegetation in adjacent water bodies or wetlands. The only salvage activity that has the potential to disturb these areas would be bridge span, deck, or pier removal. Most bridges could be dismantled by equipment that would be positioned on railbeds or in upland areas. Dismantling long bridges that are located over open surface water bodies and associated floodplains or wetlands, such as the Blackhawk Creek and Kickapoo Creek crossings, could require using equipment within these protected areas.

UP/SP's compliance with Federal and state permit requirements would ensure minimal impacts to these water bodies and associated wetlands. Actions that could be taken by UP/SP to minimize or avoid impacts include placing equipment on barges, matting, or skids. The measures selected would need to be site-specific and would depend on local wetland and floodplain characteristics, topography, the nature and duration of the proposed activity, proximity to wetland, and the applicable Federal, state, and local regulations.

Culverts along the rail line segment, if left in place, could become blocked by waterborne debris which could cause upstream flooding and alter stream flows. During salvage operations, UP/SP would be required to open all culverts to avoid flooding and stream flow alterations. These activities would be conducted in accordance with Federal, state, and local regulations.

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

Biological Resources

Vegetation. Existing vegetation control practices along the right-of-way would be discontinued after salvaging operations are completed. Opportunistic plant species would quickly revegetate the cleared railbed and it would eventually evolve to a natural state. Therefore, the overall impact of the proposed abandonment on vegetation along the right-of-way should be beneficial.

Wildlife. The proposed abandonment would have beneficial long-term impacts on most animal species that occupy terrestrial habitats adjacent to the rail line. The proposed abandonment could ease territorial movements and enhance the quality of habitat available to wildlife. Any potentially adverse impacts associated with salvaging activities would be temporary and would not result in permanent loss of wildlife species.

Erosion and sedimentation caused by salvaging operations, particularly bridge deck and span removal, could affect downstream aquatic communities. However, adverse impacts to fish populations and habitats are not anticipated, provided that UP/SP follow permit requirements for soil erosion and sedimentation control measures and undertake adequate mitigation measures when salvaging takes place on soils that are prone to erosion. Mitigation measures could include implementing enhanced erosion and sedimentation controls such as planting a rapidly-growing vegetation cover, increasing the storage capacity and detention periods for sediment basins, and conducting more frequent inspections. Salvage activities are not expected to create long-term negative impacts on water turbidity (i.e., degree of clarity) or existing fish populations and their habitat.

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 abandonment area. Consequently, there would be no effects on such species.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, preserves, refuges, or sanctuaries occur along or adjacent to the rail line. Therefore, there would be no effects on such resources as a result of the abandonment.

Historic and Cultural Resources

No historic properties were identified by the Texas SHPO along this segment; therefore, there would be no adverse effects associated with its abandonment.

Based on SEA's initial consultations with the SHPO in Texas, no known or documented archaeological sites exist along the rail line segment proposed for abandonment. 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 abandonment or salvage process.

Safety

Salvage activities would not involve the LUST site identified in the UP Troup Yard. Along the rail segment the disturbance from removal of rail and ties would be limited to minor surface

disturbance, and no hazardous waste and safety impacts are expected as a result of the proposed abandonment. In addition, the probability of a major spill of hazardous or toxic materials during abandonment is very small. However, in the unlikely event that such a spill from salvage machinery occurs at the abandonment 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 abandonment would not be expected to increase the probability or consequences of hazardous waste contamination.

The discontinuance of service along the Troup to Whitehouse line would eliminate the need for the four grade crossings and remove the potential for vehicle/train accidents.

Transportation

Existing and potential through train traffic on the line segment proposed for abandonment would be rerouted along the SP line serving the Tyler area. Since there is no local traffic at present, no diversions of rail traffic to trucks (or other transportation modes) are expected to result from abandonment of this segment.

Air Quality

The operation of heavy equipment would be the primary source of pollutant emissions during salvage activities. The pollutants resulting from such activities typically consist of:

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

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

All of the emissions from salvaging operations would occur in an air quality attainment area. The fugitive particulate emissions, which would be of primary concern, can be controlled by UP/SP operators using water sprays or other suitable dust suppressants. Other emissions associated with salvaging operations (VOCs, CO, and NO_x) generally would be minor and of short duration. It should be noted that salvage activities themselves would be temporary in nature and would have insignificant, temporary effects on air quality.

Post-abandonment pollutant emissions along the right-of-way would be substantially reduced, due to the elimination of rail traffic and rail line maintenance activities.

Noise

As discussed in Section 8.3.3, current rail operations on this line (six trains per day) contribute to noise levels along the entire segment. Automobile and truck traffic contribute to noise levels in the vicinity of the four grade crossings along the rail line.

Salvaging operations associated with the abandonment would cause temporary increases in noise levels. This would occur during the removal of rails, ties, plates, spikes, railroad-related utilities, signaling devices, and most bridges. These salvaging activities would require the use of trucks and front-end loaders, as well as cranes at larger bridges. Noise generated by such salvage equipment generally would be less than the 65-70 dBA level reported for typical trains. Equipment-generated noise, however, might be more frequent and last longer than noise from passing trains, since the equipment would remain relatively stationary for up to two days as each mile of track is dismantled and removed. Following salvage activities, elevated noise levels from all rail-related actions would be eliminated.

Minor changes in vehicular traffic levels and patterns also would occur in the vicinity of the right-of-way during and after salvage operations. Traffic levels at most of the 4 grade crossings on the rail line would be comparable to existing levels during and after salvage activities. Small increases in traffic could occur during salvaging at grade crossings near communities where the salvaging work force is operating. This temporarily increased traffic would result in small or imperceptible changes in existing traffic noise.

Upon completion of salvaging activities, all rail service and associated noise would cease. This permanent elimination of noise from rail traffic along the Troup to Whitehouse line is expected to outweigh the temporarily increased noise of salvaging and local road traffic. Human and wildlife receptors located near the line would generally benefit from a long-term reduction in noise levels.

8.3.5 Potential Environmental Impacts of Alternative Action

Alternatives to the proposed abandonment would include denial (and therefore no change in operations), discontinuance of service without abandonment, and continued operation by another operator. In any of these cases, the existing quality of the human environment and energy consumption should not be affected.

8.3.6 Summary of Agency Comments

In considering the potential environmental impacts of the rail line segment abandonments 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 abandonments are summarized below:

- U.S. Fish and Wildlife Service, Arlington Office, reports that there are no federally listed threatened or endangered species known to occur within the vicinity of the proposed abandonment. However, abandonment activities along Mud, Kickapoo, and Blackhawk Creeks should avoid impacts to wetlands and riparian vegetation.

- Natural Resources Conservation Service, Temple Office, strongly recommends that

  all trackage abandonments include plans to prevent soil erosion during and after track removal.

- Texas Parks and Wildlife Department recommends that existing vegetation along these sections of track be disturbed as little as possible. Railroad corridors often provide undisturbed segments of native vegetation communities not often found in Texas, which should be kept intact to provide some remnants of these once abundant communities.

- East Texas Council of Governments has determined that there would be no adverse economic consequences from the proposed abandonment.

8.3.7 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:

- Natural Resources Conservation Service recommends that all proposed

abandonments include soil erosion plans.

- Texas Parks and Wildlife Department recommends preservation of existing vegetation along the trackbed.

8.3.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving this proposed abandonment of the Troup to Whitehouse line. 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 salvage 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 right-of-way salvaging activities to pre-salvaging conditions.

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

Water Resources

1. UP/SP shall use appropriate technologies, such as silt screens, to minimize soil erosion during salvaging. UP/SP shall disturb the smallest area possible around streams and tributaries and shall revegetate disturbed areas immediately following salvage operations.

2. UP/SP shall assure that all culverts are clear from debris to avoid potential flooding and stream flow alteration, in accordance with Federal, state, and local regulations.

3. UP/SP shall obtain all necessary Federal, state, and local permits if salvaging

activities require the alteration of wetlands, ponds, lakes, streams, or rivers, or if these activities would cause soil or other materials to wash into these water resources. UP/SP shall use appropriate techniques to minimize impacts to water bodies and wetlands, such as positioning salvaging equipment on barges, matting, or skids.

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 unsuspected archaeological remains are found during salvage operations, UP/SP shall cease work in the area and immediately contact the Texas SHPO.

Safety

1. Prior to the start of abandonment activities in the vicinity of any known hazardous waste sites, UP/SP shall contact the Texas Natural Resource Conservation Commission, Waste Management Division, and other appropriate agencies as necessary to assess procedures for addressing issues related to the sites.

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during abandonment activities at and near the four grade crossings.

2. UP/SP shall restore roads disturbed during abandonment activities to their original 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 salvage operations shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment during salvaging.

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.

CHAPTER 9.0
UTAH

This chapter analyzes the potential environmental impacts of the line segment in Utah that UP/SP propose to abandon as part of the proposed merger. The rail line segment proposed for abandonment is:

- Little Mountain Jct. to Little Mountain (UP) — Docket No. AB-33 (Sub-No. 99X).

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

9.1 Little Mountain Jct. to Little Mountain (UP)
Docket No. AB-33 (Sub-No. 99X)

9.1.1 Proposed Action

The proposed merger would include the abandonment of 12.0 miles of rail line between Little Mountain Junction and Little Mountain, Utah, from MP 0.0 to 12.0 (see Figure 9-1). Little Mountain Junction is located in Box Elder County, approximately 20 miles north of Salt Lake City. Little Mountain is located in Weber County, approximately 8 miles north of Salt Lake City. If the proposed merger is approved, Little Mountain would be served via the SP main line.

Generally, on the line proposed for abandonment, UP/SP would remove the rails, ties, ballast, structures, buildings, ancillary equipment (i.e., communications, signals), and grade crossings. Depending on whether there is a proposed adaptive reuse of the right-of-way, the bridges may or may not be removed. Most salvage and removal activities would occur within the existing right-of-way. The right-of-way would then be available for conversion to alternative uses such as recreation (trail use), linear public utility transmission, local transportation corridor, expansion of adjacent land uses, or in some instances, a combination of some or all of the above.

9.1.2 Alternative Actions Considered

Alternatives to the proposed abandonment action include: (1) discontinuance of service with no abandonment; (2) continued operations by another carrier; and (3) the no-action alternative (i.e.,

denial of abandonment). Under each of these alternatives there would be no significant impact to the environment.

9.1.3 Existing Environment

Land Use

Land use along the 12.0-mile rail line between Little Mountain Junction and Little Mountain is predominantly rural and undeveloped. Wetlands, which include both forested and nonforested, are adjacent to more than 60 percent of the rail line.

The second most common land use adjacent to the rail line is cropland and pasture. These areas are located on the eastern end of the rail line. Prime agricultural lands have not been identified adjacent to the rail line.

The only remaining land use along the rail line is a small area (approximately 7 percent) of land used for transportation, communications, and/or utilities. This area is located on the eastern end of the rail line between cropland areas.

Water Resources

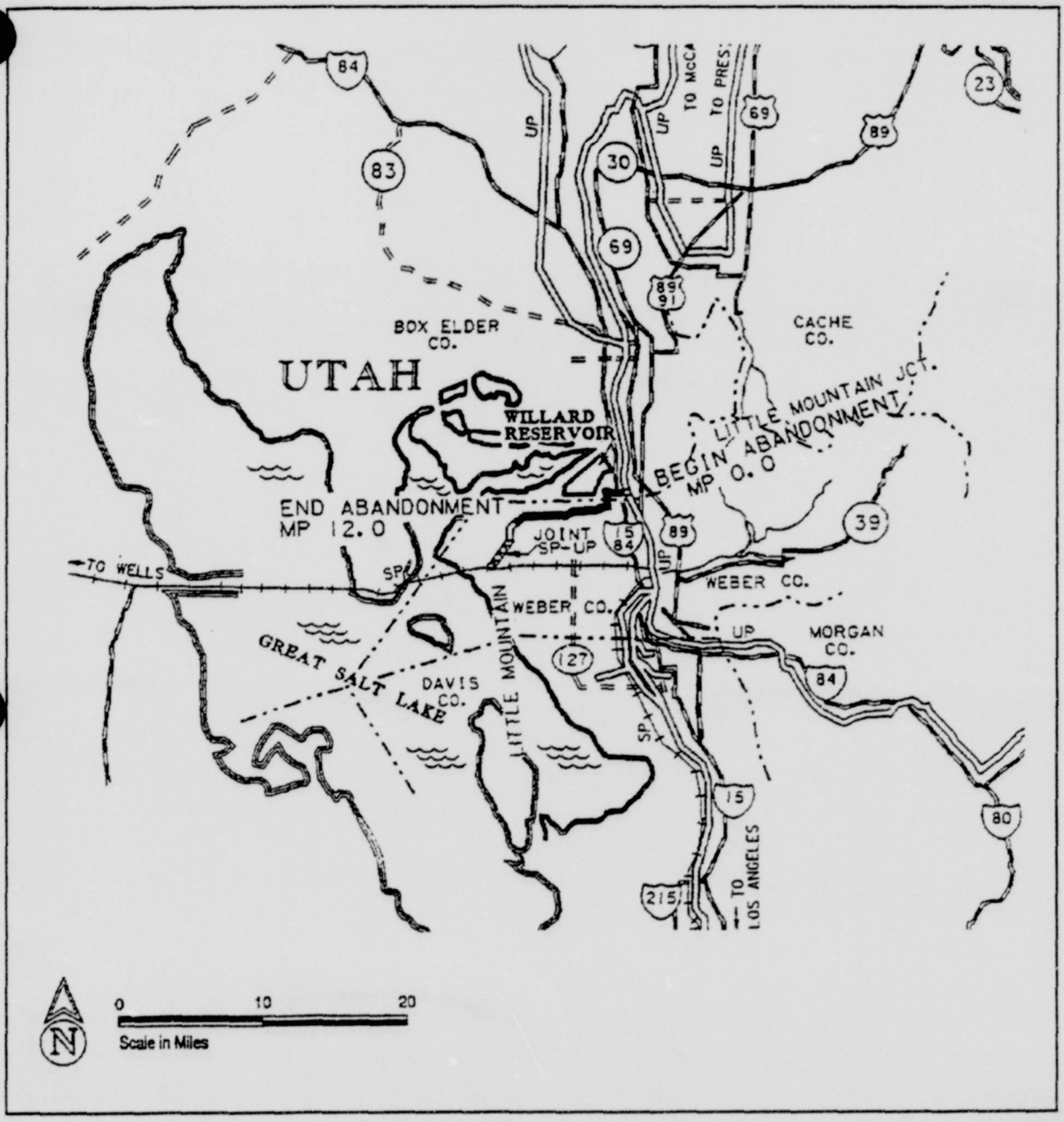
The proposed abandonment corridor crosses 12 streams and is adjacent to 2 other streams. Major stream crossings include First Salt Creek, Second Salt Creek, and Third Salt Creek. The corridor intercepts one water body, four wetlands, eight culverts, canals, or ditches, and one mud flat. It is also adjacent to two other ponds, three wetlands, one mud flat, and one salt evaporation pond. The National Wetland Inventory (NWI) maps indicate extensive palustrine and littoral wetlands along most of the rail segment. The right-of-way does not cross any 100-year floodplain.

Biological Resources

Vegetation. Existing vegetation within the right-of-way corridor is typically ruderal weeds, having been disturbed by past rail construction and current rail activities. Vegetation types adjacent to the right-of-way consist of marsh, wetland, and riparian.

Wildlife. Much of the area adjacent to the Great Salt Lake is a reserve for birds and fur-bearing animals. This reserve includes the Willard Bay State Wildlife Management Area and the Harold S. Crane State Waterfowl Area, both located near the Little Mountain Jct. to Little Mountain proposed abandonment corridor. Both local and migratory geese and ducks are found abundantly in this area; muskrats are also fairly abundant.

FIGURE 9-1



UP/SP RAILROAD MERGER

PROPOSED ABANDONMENT

LITTLE MOUNTAIN JUNCTION - LITTLE MOUNTAIN, UTAH

ENVIRONMENTAL ASSESSMENT

The wetland areas provide habitat for a variety of wildlife species. The open water areas are likely to be used by turtles, frogs, and salamanders, as well as many invertebrates, during reproduction and early life-stages. Tolerant invertebrates, including beeties, air-breathing snails, and insect larvae, are present. The presence of water would also attract many terrestrial species (deer, mice, voles, moles, rabbits, flycatchers, catbirds, warblers, chickadees, woodpeckers, sparrows) and act as a bathing and drinking area. Beavers are likely to be present throughout this area.

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 abandonment between Little Mountain Jct. and Little Mountain. The USFWS staff indicated that one Federally-listed threatened species could potentially occur in the vicinity of the proposed abandonment. This species is the bald eagle (*Haliaeetus leucocephalus*) which could potentially be present within the region of the proposed abandonment corridor. No occurrences of this species are known or recorded on or near the project site. Field observations on site also indicated no occurrences of this species. There is no critical habitat known or recorded in the vicinity of the proposed abandonment.

Parks, Forest Preserves, Refuges, and Sanctuaries. The proposed abandonment corridor is adjacent to the Willard Bay State Wildlife Management Area and the Harold S. Crane State Waterfowl Area.

Historic and Cultural Resources

This line was constructed in 1971 by the Oregon Short Line Railroad. SEA identified no historic properties along this segment. Consultation has been initiated with the SHPO to confirm this finding.

SEA's initial consultations with Utah's State Historic Preservation Office (SHPO) determined that no documented archaeological sites have been identified along the rail line segment proposed for abandonment. 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 the abandonment or related salvage activities.

Safety

Based on SEA's review of the VISTA database and UP files, no hazardous waste sites were identified on the Little Mountain Junction to Little Mountain rail segment.

Transportation

Currently, one train per day operates over the Little Mountain Junction to Little Mountain rail line. This line currently serves as the UP route to Little Mountain, which would be served by the SP mainline if the proposed merger is approved. There is one grade crossing located along the line.

Air Quality

The Little Mountain Junction to Little Mountain rail line is located in Air Quality Control Region (AQCR) 220: Wasatch Front. Currently, AQCR 220 is in nonattainment with the National Ambient Air Quality Standards (NAAQS) for carbon monoxide (CO).

Noise

Rail, automobile and truck traffic are the primary sources of noise in the predominantly rural and undeveloped area of Utah. The current level of traffic on the Little Mountain Junction to Little Mountain rail line (one train per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 30 feet without horns (110 feet with horns). Because of the rural character of the area adjacent to the rail line, there are few receptors for noise from rail, automobile and truck traffic.

9.1.4 Potential Environmental Impacts of Proposed Action

Land Use

The proposed abandonment would change the existing land use designation of the railroad right-of-way from active railroad use to an inactive status. It is estimated that approximately 304 acres of land would be affected by this change. Salvaging activities generally would not disturb adjacent land uses, although the removal of some bridges could require the use of construction equipment outside of the rail line right-of-way and property. Any adjacent land that would be disturbed by salvage activities would be restored by UP/SP to its original condition. The proposed abandonment would not affect any prime farmlands.

Salvage activities would generate material that would need to be disposed of at a landfill, burned as fuel, or incinerated. Most of this material would consist of unusable rail ties and utility poles. Disposal would be carried out in accordance with applicable Federal, state, and local environmental regulations. If UP/SP select landfilling as a method of disposal, a properly permitted and designed landfill would be employed.

Water Resources

As discussed in Section 9.1.3, water resources along the proposed abandonment are abundant and include rivers, streams, and wetlands. The rail line crosses 12 streams and almost two thirds of the rail line is located next to forested and nonforested wetlands.

Salvaging activities associated with the proposed abandonment would include removing rails, ties, spikes, plates, railroad-related utilities, signaling devices, and possibly some bridge spans and decking. Bridge removal could disturb small areas of soil, and has the potential to increase soil erosion and sedimentation of adjacent water bodies. Soil disturbance from the removal of the other materials is expected to be negligible. Actions to control erosion and sedimentation could include using sediment barriers (e.g., silt fences and straw bale dikes), diversion ditches, and sediment collection basins. Enhanced controls, such as increasing the storage capacity of sediment basins and conducting more frequent inspections and maintenance, also may be required in areas where soils are particularly susceptible to erosion. The measures selected would need to be site-specific and would depend on local soil conditions, topography, the extent of disturbance proposed, proximity to water bodies, and applicable Federal, state or local regulations.

Bridge abutments would remain in place following salvage operations. These abutments are generally long-lived, and are not expected to fail or collapse in the near future from normal deterioration and aging.

Applicable Federal and state permits would be obtained by UP/SP if salvage activities would disturb native soils and vegetation in adjacent water bodies, floodplains, and/or wetlands. The only salvage activity that has the potential to disturb these areas would be bridge span, deck, or pier removal. Most bridges could be dismantled by equipment that would be positioned on railbeds or in upland areas. Dismantling long bridges that are located over open surface water bodies and associated floodplains or wetlands, such as the Salt Creek crossings, could require using equipment within these protected areas.

UP/SP's compliance with Federal and state permit requirements would minimize potential impacts to these water bodies and associated floodplains and wetlands. Actions that could be taken by UP/SP to minimize or avoid impacts include placing equipment on barges, matting, or skids. The measures selected would need to be site-specific and would depend on local wetland and floodplain characteristics, topography, the nature and duration of the proposed activity, proximity to floodplain and wetland, and the applicable Federal, state, and local regulations.

Culverts along the rail line segment could be dammed by debris which could cause flooding and alter stream flows. During salvage operations, UP/SP would be required to open all culverts to avoid flooding and stream flow alterations. These activities would be conducted in accordance

with Federal, state, and local regulations.

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

Biological Resources

Vegetation. Existing vegetation control practices along the right-of-way would be discontinued after salvaging operations are completed. Opportunistic plant species would quickly revegetate the cleared railbed and it would eventually evolve to a natural state. Therefore, the overall impact of the proposed abandonment on vegetation along the right-of-way should be beneficial.

Wildlife. The proposed abandonment would have beneficial long-term impacts on most animal species that occupy terrestrial habitats adjacent to the rail line and in the Willard Bay State Wildlife Management Area and the Harold S. Crane State Waterfowl Area. The proposed abandonment could ease territorial movements and enhance the quality of habitat available to wildlife. Any potentially adverse impacts associated with salvaging or other construction-related activities would be temporary and would not result in permanent loss of wildlife species.

Erosion and sedimentation caused by salvaging operations, particularly bridge deck and span removal, could affect downstream aquatic communities. However, adverse impacts to fish populations and habitats are not anticipated, provided that UP/SP follow permit requirements for soil erosion and sedimentation control measures and undertake adequate mitigation measures when salvaging takes place on soils that are prone to erosion. Mitigation measures could include implementing enhanced erosion and sedimentation controls such as planting a rapidly-growing vegetation cover, increasing the storage capacity and detention periods for sediment basins, and conducting more frequent inspections. Salvage activities are not expected to create long-term negative impacts on water turbidity (i.e., degree of clarity) or existing fish populations and their habitat.

Threatened and Endangered Species. Although USFWS has indicated that a Federally-listed endangered species could potentially occur in the area of the proposed abandonment, 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. The proposed abandonment would generally have long-term beneficial effects on both the Harold S. Crane State Waterfowl Management Area and the Willard Bay State Wildlife Management Area. After salvaging, activity on the rail line would cease. The absence of train noises and intrusions could increase wildlife activities. Noise generated by equipment and construction-related activities associated with salvaging activities could, however, temporarily disrupt wildlife functions. However, these disruptions would be minor and of short duration. Based on UP/SP's preliminary salvaging plans, no area along the right-of-way should be affected for more than two days.

Historic and Cultural Resources

SEA's consultation with the Utah SHPO identified no known historic properties along this segment; therefore, no adverse effects associated with its abandonment are anticipated. Consultation with the Utah SHPO has been initiated, seeking concurrence of this determination.

Based on SEA's initial consultations with the Utah SHPO, no known or documented archaeological sites exist along the rail line segment proposed for abandonment. However, there is the potential for adverse impacts on undocumented archaeological sites. SEA's recommended mitigation measures include provisions for UP/SP to continue Section 106 consultation to address discovery and treatment of archaeological sites during the abandonment or salvage process.

Safety

SEA's review of the VISTA database and UP safety records indicates that no hazardous waste sites are located on the Little Mountain Junction to Little Mountain rail line.

The probability of a major spill of hazardous or toxic materials during salvage operations is very small. However, in the unlikely event that such a spill occurs from salvaging equipment at the abandonment site, drainage ditches are expected to retain the contaminated runoff. Overall, the proposed abandonment would not be expected to increase the probability or consequences of hazardous waste contamination.

The discontinuance of rail service along the line would eliminate the need for the grade crossing and remove the potential for vehicle/train accidents.

Transportation

Potential through train traffic on the abandoned line segment would be rerouted along the SP mainline. Since there are no trains operating on the line, no rail-to-truck diversions are expected to result from the proposed abandonment.

Air Quality

The operation of heavy equipment would be the primary source of pollutant emissions during salvage activities. The pollutants resulting from such activities typically consist of:

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

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

The fugitive particulate emissions, which would be of primary concern, can be controlled by using water sprays or other suitable dust suppressants. Other emissions associated with salvaging operations (VOCs, CO, and NO_x) generally would be minor and of short duration. It should be noted that salvage activities themselves would be temporary in nature and would have insignificant, temporary effects on air quality.

As reported in Section 9.1.3, AQCR 220 is a nonattainment area for carbon monoxide. The minor, intermittent increase in CO emissions during salvage operations would not be expected to contribute to violations of the carbon monoxide NAAQS

Post-abandonment pollutant emissions along the right-of-way would be substantially reduced, due to the elimination of rail traffic and rail line maintenance activities.

Noise

As discussed in Section 9.1.3, one train per day operates on the Little Mountain Junction to Little Mountain rail line, which contributes to noise levels along the entire segment. Rail service and associated noise would cease as a result of the proposed abandonment. The proposed abandonment also would include removal of rails, ties, plates, spikes, railroad-related utilities, signaling devices, and most bridges. These salvaging activities would require the use of trucks and front-end loaders, as well as cranes at larger bridges. Noise generated by such salvage equipment generally would be less than the 65-70 dBA level reported for typical trains. Equipment-generated noise, however, might be more frequent and last longer than noise from passing trains, since the equipment would remain relatively stationary for up to two days as each mile of track is dismantled and removed. Following salvage activities, elevated noise levels from all rail-related actions would be eliminated.

Because the permanent elimination of noise from rail traffic along the Little Mountain Junction to Little Mountain line is expected to outweigh the temporarily increased noise of salvaging and

local road traffic, human and wildlife receptors located near the line would generally benefit from a long-term reduction in noise levels.

9.1.5 Potential Environmental Impacts of Alternative Actions

Alternatives to the proposed abandonment would include denial (and therefore no change in operations), discontinuance of service without abandonment, and continued operation by another operator. In any of these cases, the existing quality of the human environment and energy consumption should not be affected.

9.1.6 Summary of Agency Comments

In considering the potential environmental impacts of the rail line segment abandonments 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 abandonments are summarized below:

- Weber County Commissioners request that the Surface Transportation Board place a provision on the abandonment and making the rail bed available for public use on reasonable terms. The Commissioners also note that marshes along the corridor provide valuable wildlife habitat.

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:

- Weber County Commissioners request the abandoned segment be made available for public use.

9.1.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving this proposed abandonment of the Little Mountain Junction to Little Mountain segment. 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 salvage 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 right-of-way salvaging activities to pre-salvaging conditions.

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

Water Resources

1. UP/SP shall use appropriate technologies, such as silt screens, to minimize soil erosion during salvaging. UP/SP shall disturb the smallest area possible around streams and tributaries and shall revegetate disturbed areas immediately following salvage operations.

2. UP/SP shall assure that all culverts are clear of debris to avoid potential flooding and stream flow alteration, in accordance with Federal, state, and local regulations.

3. UP/SP shall obtain all necessary Federal, state, and local permits if salvaging activities require the alteration of wetlands, ponds, lakes, streams, or rivers, or if these activities would cause soil or other materials to wash into these water

resources. UP/SP shall use appropriate techniques to minimize impacts to water bodies and wetlands, such as positioning salvaging equipment on barges, matting, or skids.

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 unsuspected archaeological remains are found during ground disturbance, UP/SP shall cease work in the area of discovery and immediately contact the Utah SHPO.

Safety

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

Transportation

1. UP/SP shall use appropriate signs and barricades to control traffic disruptions during salvage operations at and near the one grade crossing.

2. UP/SP shall restore roads disturbed during salvage activities 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 salvage operations shall be minimized by using such control methods as water spraying, installation of wind barriers, and chemical treatment during salvaging.

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.

CHAPTER 10.0
SUMMARY OF ABANDONMENT IMPACTS

10.1 Introduction

This chapter provides an overview of the potential environmental impacts of the 17 rail line segments that the UP/SP plan to abandon as part of the proposed merger. Rail traffic currently using these lines would be rerouted to other UP/SP lines. The 17 segments proposed for abandonment are located in eight states and total nearly 600 miles of track. These segments include:

- Gurdon to Camden, Arkansas (UP).
- Whittier Junction to Colima Junction, California (UP).
- Magnolia Tower to Melrose, California (UP).
- Alturas to Wendel, California (SP).
- Sage to Leadville, Colorado (SP).
- Malta to Canon City, Colorado (SP).
- Towner to NA Junction, Colorado (UP).
- Barr to Girard, Illinois (UP).
- Edwardsville to Madison, Illinois (UP).
- DeCamp to Edwardsville, Illinois (UP).
- Whitewater to Newton, Kansas (UP).
- Hope to Bridgeport, Kansas (UP).
- Iowa Junction to Manchester, Louisiana (UP).
- Seabrook to San Leon, Texas (SP).
- Suman to Benchley, Texas (SP).
- Troup to Whitehouse, Texas (UP).
- Little Mountain Junction to Little Mountain, Utah (UP).

On rail line segments to be abandoned, the rails, ties, ballast, structures, buildings, and ancillary equipment (i.e., communications, signals) would be removed by the UP/SP. Road crossings would also be removed. Most salvage and removal activities would occur within the existing right-of-way. In addition, portions of some abandoned segments may be considered for future recreation use (e.g., Rails to Trails). In such cases, after the railroad has removed its equipment, the right-of-way would be maintained for recreational purposes by the trail owner or operator.

In conducting its environmental analysis, SEA considered the following environmental impact areas in accordance with the Board's environmental rules at 49 CFR 1105.7(e):

- Air quality.
- Noise.
- Energy.
- Land use.
- Water resources.
- Biological resources.
- Historic and archaeological resources.
- Safety.
- Transportation.

Based on the information available to date and the mitigation measures recommended in **Volume 3** of this EA, SEA concludes that the proposed abandonments would not result in significant environmental impacts. Below are summaries of the systemwide environmental impacts and the impact categories and criteria. The potential site-specific environmental impacts of each proposed abandonment are summarized, below by location, in the tables beginning in Section 10.2.

10.1.1 Systemwide Environmental Impacts

SEA evaluated three impact areas--air quality, noise, and energy--based on the systemwide effects of the proposed abandonments.

Air Quality

The primary air quality impact from the proposed abandonments would be a change in emissions levels due to cessation of railroad operations and the diversion of traffic from the abandoned segments to trucks. SEA concludes that the proposed abandonments would result in a decrease in overall emissions. Although six of the proposed abandonments would generate rail-to-truck diversions, the increased emissions from truck traffic would be offset by the decreases associated with all abandonments. No impacts to ambient (i.e., existing) air quality are anticipated.

Noise

In terms of noise impacts, SEA concludes that none of the proposed abandonments would cause exposure to increased noise levels or adverse noise impacts at sensitive receptors. In most cases, abandonment of a rail segment would lead to reduced noise exposure at adjacent receptors. However, there may be short-term increases in noise levels associated with salvage operations.

Energy

The Board's environmental analysis thresholds require an estimate of the net change in energy consumption resulting from a rail line abandonment if the proposed abandonment causes a rail-to-truck diversion totaling 1,000 or more rail cars per year, or more than 50 carloads/mile per year for an individual line segment. Based on data included in the Applicants' operating plan, the total rail traffic on all lines to be abandoned is 992 cars per year, an average of 1.7 carloads per mile. Because no lines proposed for abandonment would exceed either threshold for energy analysis, no energy consumption impacts were calculated.

10.1.2 Site-Specific Environmental Impacts

In addition to the systemwide impacts associated with proposed abandonments, SEA evaluated specific impact areas for each proposed abandonment location, including:

- Land use.
- Water resources.
- Biological resources.
- Historic and archaeological resources.
- Safety.
- Transportation.

To assess potential environmental impacts, SEA through its third party consultant reviewed existing conditions, consulted with public agencies and local officials, analyzed resource maps and published reports, and visited abandonment sites. Criteria developed to characterize impacts are discussed below.

Land Use

A rail line abandonment could affect local or regional land uses. SEA was primarily concerned about potential impacts to land uses sensitive to environmental changes, such as housing, businesses, schools, hospitals, and prime agricultural lands. Each proposed abandonment was reviewed for its compatibility with adjacent land uses, consistency with local or regional land use plans, and effect on prime farmland.

Water Resources

Water resources that could experience impacts as a result of the proposed abandonments include creeks, streams, wetlands, floodplains, lakes, ponds, ditches, and canals. Impacts to water resources are considered adverse if there is substantial interference with drainage, adverse discharges (i.e., sediment, pollutants, etc.), or loss of wetlands resulting from the proposed

abandonment action.

Biological Resources

Potential impacts on important natural and biological resources, such as threatened and endangered species (plants and animals), critical habitats, parklands, forest preserves, and wildlife refuges resulting from proposed abandonment locations were assessed. Impacts are considered adverse if the action would cause:

- Loss of important vegetation or wildlife habitats.
- Harm to threatened or endangered species.
- Loss of critical habitat(s).
- Loss or degradation of parklands, forest preserves, or wildlife sanctuaries.

Historic and Archaeological Resources

Each abandonment location was reviewed to determine if any historic or archeological sites listed (or eligible for listing) on the National Register of Historic Places (NRHP) would be affected by the proposed action. An impact is considered adverse if any property listed on the NRHP would be disturbed by the proposed abandonment or subsequent salvage operations. The Section 106 consultation process was initiated on January 29, 1996 with the issuance of a letter to the State Historic Preservation Officer in each affected state. A sample of these letters is shown in Volume 5, Appendix D, Exhibit D-8. Subsequent consultation has taken place, and will continue, to address the identification of NRHP properties and whether the proposed merger would have an effect on NRHP properties.

Safety (Hazardous Waste Sites)

SEA reviewed each abandonment to determine if the proposed action would create or disturb hazardous waste sites. Any abandonment action which would cause additional exposure to hazardous waste sites or hazardous materials is considered to have an significant safety-related impact.

Transportation

Rail-to-truck diversions resulting from rail line abandonments were the primary transportation impacts reviewed. Transportation impacts are considered adverse if a substantial increase in truck traffic would occur on local, regional, or national transportation routes.

10.2 Arkansas

10.2.1 Gurdon to Camden

The proposed action would include the abandonment of 28.7 miles of rail line between Gurdon and Camden, Arkansas, from MP 428.3 to 457.0. Approximately 405 acres would be affected by this change. There would be no rail-to-truck diversions. Surface water impacts would be minor, and no groundwater or wetlands would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. Changes in air quality and noise levels due to short-term salvage operations would be negligible. One historic resource, a bridge on this rail line segment, would will be affected; Section 106 consultation has been initiated. No hazardous waste sites would be affected.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	Impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	Minor
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	One Bridge -- Section 106 Consultation Initiated
Safety	Change in Exposure to Hazardous Sites or Materials	None
Transportation	Change in Truck Traffic Due to-Rail-to-Truck Diversion	None

10.3 California

10.3.1 Whittier Junction to Colima Junction

The proposed action would include the abandonment of 5.2 miles of rail line between Whittier Junction and Colima Junction, California, from MP 0.0 to MP 5.2. Approximately 38 acres would be affected by this change. There would be no rail-to-truck diversions. Surface water impacts would be minor, and no groundwater or wetlands would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. Changes in air quality and noise levels due to short-term salvage operations would be negligible. No historic resources would be affected. No hazardous waste sites would be affected.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	Impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	None
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	None
Safety	Change in Exposure to Hazardous Sites or Materials	None
Transportation	Change in Truck Traffic Due to-Rail-to-Truck Diversion	None

10.3.2 Magnolia Tower to Melrose

The proposed action would include the abandonment of 4.9 miles of rail line between Magnolia Tower and Melrose, from MP 5.8 to MP 10.7. Approximately 29 acres would be affected by this change. There would be no rail-to-truck diversions. Surface water and wetland impacts would be minor, and no groundwater would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. Changes in air quality and noise levels due to short-term salvage operations would be negligible. One historic resource would be affected; Section 106 consultation has been initiated. No hazardous waste sites would be affected.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	Impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	Minor
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	1 Site -- Section 106 Consultation Initiated
Safety	Change in Exposure to Hazardous Sites or Materials	None
Transportation	Change in Truck Traffic Due to-Rail-to-Truck Diversion	None

10.3.3 Alturas to Wendel

The proposed action would include the abandonment of 85.5 miles of rail line between Alturas and Wendel, from MP 445.6 to MP 360.1. Approximately 1,900 acres would be affected by this change. There would be no rail-to-truck diversions. Surface water and wetland impacts would be minor, and no groundwater would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. Changes in air quality and noise levels due to short-term salvage operations would be negligible. No historic resources would be affected. No hazardous waste sites would be affected.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	Impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	Minor
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	None
Safety	Change in Exposure to Hazardous Sites or Materials	None
Transportation	Change in Truck Traffic Due to-Rail-to-Truck Diversion	None

10.4 Colorado

10.4.1 Sage to Leadville

The proposed action would include the abandonment of 64.0 miles of rail line between Sage and Leadville, from MP 335.0 to 271.0. Approximately 1,406 acres would be affected by this change. There would be no rail-to-truck diversions. Surface water and wetland impacts would be minor, and no groundwater would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. Changes in air quality and noise levels due to short-term salvage operations would be negligible. Two historic resources, both of which are portions of the rail line itself, would be affected; Section 106 consultation has been initiated. Two Superfund hazardous waste sites would be affected. Risk assessment and remediation plans will be developed.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	Impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	Minor
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	2 Sites -- Section 106 Consultation Initiated
Safety	Change in Exposure to Hazardous Sites or Materials	2 Superfund Sites -- Risk Assessment and Remediation Plans to Be Developed
Transportation	Change in Truck Traffic Due to-Rail-to-Truck Diversion	None

10.4.2 Malta to Cañon City

The proposed action would include the abandonment of 109 miles of rail line between Malta and Cañon City, from MP 271.0 to 162.0. Approximately 2,487 acres would be affected by this change. Approximately 530 rail car loads would be diverted to trucks. Surface water and wetland impacts would be minor, and no groundwater would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. There would be negligible changes in air quality due to rail-to-truck diversions. Impacts to noise levels due to short-term salvage operations would be negligible. Three historic resources would be affected; Section 106 consultation has been initiated. Two Superfund hazardous waste sites would be affected. Risk assessment and remediation plans will be developed.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	Minor
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	3 sites -- Section 106 Consultation Initiated
Safety	Change in Exposure to Hazardous Sites or Materials	2 Superfund Sites -- Risk Assessment and Remediation Plan to Be Developed
Transportation	Change in Truck Traffic Due to-Rail-to-Truck Diversion	Minor

10.4.3 Towner to NA Junction

The proposed action would include the abandonment of 122.4 miles of rail line between Towner and North Avondale Junction, from MP 747.0 to 869.4. Approximately 2,673 acres would be affected by this change. Approximately 120 rail car loads would be diverted to trucks. Surface water and wetland impacts would be minor, and no groundwater would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. There would be negligible changes in air quality due to rail-to-truck diversions. Impacts to noise levels due to short-term salvage operations would be negligible. No historic sites would be affected. No hazardous waste sites would be affected.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	Impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	Minor
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	None
Safety	Change in Exposure to Hazardous Sites or Materials	None
Transportation	Change in Truck Traffic Due to-Rail-to-Truck Diversion	Minor

10.5 Illinois

10.5.1 Barr to Girard

The proposed action would include the abandonment of 38.4 miles of rail line between Barr and Girard, from MP 51.0 to MP 89.4. Approximately 619 acres would be affected by this change. Approximately 38 rail car loads would be diverted to truck. Surface water and wetland impacts would be minor, and no groundwater would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. There are negligible changes in air quality due to rail-to-truck diversions. Impacts to noise levels due to short-term salvage operations are negligible. Three historic railroad bridge sites would be affected. No hazardous waste sites would be affected.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	Impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	Minor
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	3 Bridges; Section 106 Consultation Initiated
Safety	Change in Exposure to Hazardous Sites or Materials	None
Transportation	Change in Truck Traffic Due to-Rail-to-Truck Diversion	Minor

10.5.2 Edwardsville to Madison

The proposed action would include the abandonment of 15 miles of rail line between Edwardsville and Madison, from MP 133.8 to MP 148.8. Approximately 191 acres would be affected by this change. There would be no rail-to-truck diversions. Surface water and wetland impacts would be minor, and no groundwater would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. Changes in air quality and noise levels due to short-term salvage operations would be negligible. No historic sites would be affected. No hazardous waste sites would be affected.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	Impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	Minor
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	None
Safety	Change in Exposure to Hazardous Sites or Materials	None
Transportation	Change in Truck Traffic Due to-Rail-to-Truck Diversion	None

10.5.3 De Camp to Edwardsville

The proposed action would include the abandonment of 14.6 miles of rail line between DeCamp and Edwardsville, from MP 119.2 to MP 133.8. Approximately 139 acres would be affected by this change. There would be no rail-to-truck diversions. Surface water and wetland impacts would be minor, and no groundwater would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. Changes in air quality and noise levels due to short-term salvage operations would be negligible. One historic site, a railroad bridge, could be affected; Section 106 consultations have been initiated. No hazardous waste sites would be affected.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	Impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	Minor
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	1 Potential Site
Safety	Change in Exposure to Hazardous Sites or Materials	None
Transportation	Change in Truck Traffic Due to-Rail-to-Truck Diversion	None

10.6 Kansas

10.6.1 Whitewater to Newton

The proposed action would include the abandonment of 9 miles of rail line between Whitewater and Newton, from MP 476.0 to MP 485.0. Approximately 110 acres would be affected by this change. There would be no rail-to-truck diversions. Surface water and wetland impacts would be minor, and no groundwater would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. Changes to air quality and noise levels due to short-term salvage operations would be negligible. No historic sites would be affected. No hazardous waste sites would be affected.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	Impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	Minor
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	None
Safety	Change in Exposure to Hazardous Sites or Materials	None
Transportation	Change in Truck Traffic Due to-Rail-to-Truck Diversion	None

10.6.2 Hope to Bridgeport

The proposed action would include the abandonment of 32.0 miles of rail line between Hope and Bridgeport, from MP 459.2 to 491.2. Approximately 754 acres would be affected by this change. Surface water and wetland impacts would be minor, and no groundwater would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. Approximately 240 rail car loads would be diverted to trucks. Changes to air quality and noise levels due to short-term salvage operations would be negligible. No historic sites would be affected. No hazardous waste sites would affected.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	Impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	Minor
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	None
Safety	Change in Exposure to Hazardous Sites or Materials	None
Transportation	Change in Truck Traffic Due to-Rail-to-Truck Diversion	Minor

10.7 Louisiana

10.7.1 Iowa Junction to Manchester

The proposed action would include the abandonment of 8.5 miles of rail line between Iowa Junction and Manchester, MP 680.0 to MP 688.5. Approximately 109 acres would be affected by this change. Surface water and wetland impacts would be minor, and no groundwater would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. There are two rail-to-truck diversions. Changes to noise levels and air quality due to short-term salvage operations are negligible. No historic sites would be affected. No hazardous waste sites would be affected.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	Impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	Minor
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	None
Safety	Change in Exposure to Hazardous Sites or Materials	None
Transportation	Change in Truck Traffic Due to-Rail-To-Truck Diversion	Minor

10.8 Texas

10.8.1 Seabrook to San Leon

The proposed action would include the abandonment of 10.5 miles of rail line between Seabrook and San Leon, from MP 30.0 to MP 40.5. Approximately 143 acres would be affected by this change. There are no rail-to-truck diversions. Surface water and wetland impacts would be minor, and no groundwater would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. Changes to noise levels and air quality due to short-term salvage operations would be negligible. Two historic bridge sites and three archaeological sites would be affected; Section 106 consultation has been initiated. No hazardous waste sites would be affected.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	Impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	Minor
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	2 Bridges and 3 Archaeological Sites -- Section 106 Consultation Initiated
Safety	Change in Exposure to Hazardous Sites or Materials	None
Transportation	Change in Truck Traffic Due to-Rail-to-Truck Diversion	None

10.8.2 Suman to Benchley

The proposed action would include the abandonment of 12.53 miles of rail line between Suman and Benchley, from MP 117.6 to MP 105.07. Approximately 220 acres would be affected by this change. There are 106 rail-to-truck diversions. Surface water and wetland impacts would be minor, and no groundwater would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. Changes to noise levels and air quality due to short-term salvage operations would be negligible. There are three historic bridge sites and one archaeological site affected. No hazardous waste sites would be affected.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	Impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	Minor
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	3 Bridges and 1 Archaeological Site -- Section 106 Consultation Initiated
Safety	Change in Exposure to Hazardous Sites or Materials	None
Transportation	Change in Truck Traffic Due to-Rail-to-Truck Diversion	Minor

10.8.3 Troup to Whitehouse

The proposed action would include the abandonment of 7.5 miles of rail line between Troup and Whitehouse, from MP 0.5 to MP 8.0. Approximately 157 acres would be affected by this change. There are no rail-to-truck diversions. Surface water and wetland impacts would be minor, and no groundwater would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. Changes to noise levels and air quality due to short-term salvage operations would be negligible. No historic sites would be affected. No hazardous waste sites would be affected.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	Impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	Minor
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	None
Safety	Change in Exposure to Hazardous Sites or Materials	None
Transportation	Change in Truck Traffic Due to-Rail-to-Truck Diversion	None

10.9 Utah

10.9.1 Little Mountain Junction to Little Mountain

The proposed action would include the abandonment of 12.0 miles of rail line between Little Mountain Junction and Little Mountain, from MP 0.0 to 12.0. Approximately 304 acres would be affected by this change. There are no rail-to-truck diversions. Surface water and wetland impacts would be minor, and no groundwater would be affected. Natural habitat loss would be negligible, and no threatened or endangered species or critical habitats would be affected. Changes to noise levels and air quality due to short-term salvage operations would be negligible. No historic sites would be affected. No hazardous waste sites would be affected.

Impacts of the proposed abandonment are summarized in the following table.

Impact Type	Assessment Criteria	Impacts
Land Use	Compatibility with Adjoining Land Uses	Compatible
	Compatibility with Land Use Plans	Compatible
	Effect on Prime Farmland	None
Water Resources	Effect on Groundwater	None
	Effect on Surface Water	Minor
	Effect on Wetlands	Minor
Biological Resources	Loss of Critical Habitats	No
	Effect on Federally-listed Threatened & Endangered Species	None
Historic and Archaeological Resources	Potential or Actual NRHP Sites Affected	None
Safety	Change in Exposure to Hazardous Sites or Materials	None
Transportation	Change in Truck Traffic Due to-Rail-to-Truck Diversion	None

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Service Date: April 12, 1996
Comment Due Date: May 3, 1996

ENVIRONMENTAL ASSESSMENT

FINANCE DOCKET NO. 32760

UNION PACIFIC CORPORATION, UNION PACIFIC RAILROAD COMPANY,
AND MISSOURI PACIFIC RAILROAD COMPANY

-CONTROL AND MERGER-

SOUTHERN PACIFIC RAIL CORPORATION,
SOUTHERN PACIFIC TRANSPORTATION COMPANY,
ST. LOUIS SOUTHWESTERN RAILWAY COMPANY,
SPCSL CORPORATION, AND
THE DENVER & RIO GRANDE WESTERN RAILROAD COMPANY

VOLUME 4 OF 5
PROPOSED CONSTRUCTION PROJECTS

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Prepared by:
Surface Transportation Board
Section of Environmental Analysis

Service Date: April 12, 1996
Comment Due Date: May 3, 1996

Environmental Assessment

Finance Docket No. 32760

Union Pacific Corporation, Union Pacific Railroad Company, and Missouri Pacific Railroad Company

--Control and Merger--

Southern Pacific Rail Corporation, Southern Pacific Transportation Company, St. Louis Southwestern Railway Company, SPCSL Corporation, and the Denver & Rio Grande Western Railroad Company

Volume 4:
Proposed Construction Projects

Surface Transportation Board
Washington, D.C. 20423-0001

Section of Environmental Analysis

April 12, 1996

To: Interested Parties

The attached Environmental Assessment (EA) prepared by the Surface Transportation Board's Section of Environmental Analysis (SEA) addresses potential environmental impacts associated with the proposed merger of the Union Pacific Railroad Company and the Southern Pacific Transportation Company and their subsidiaries in the Finance Docket No. 32760.

The EA addresses potential areas of environmental impact such as safety, transportation, air quality, noise, historic and cultural resources, water quality, biological resources, land use and hazardous materials. The EA also recommends mitigation measures to address potential environmental impacts.

The EA incorporates early input received from many Federal, state and local agencies. We recognize that each community has its own local issues and interests. At this time, we welcome any additional comments on specific areas of environmental impact that may affect or be important to your community as a result of the proposed merger. Also, we invite you to submit specific and reasonable mitigation measures and your basis for recommending this particular mitigation.

Your written comments must be submitted to SEA by May 3, 1996, which is the close of the public comment period on the EA. SEA will review all comments received in response to the EA in making its final recommendations to the Surface Transportation Board. The Board will consider SEA's recommendations and the environmental comments in making its final decision on the proposed Union Pacific/Southern Pacific merger.

SURFACE TRANSPORTATION BOARD
Finance Docket No. 32760

Union Pacific Railroad Company
--Control and Merger--
Southern Pacific Transportation Company

GUIDE TO THE ENVIRONMENTAL ASSESSMENT

This Environmental Assessment (EA) evaluates the potential environmental impacts that could result from the proposed merger of the Union Pacific Railroad Company and the Southern Pacific Transportation Company. The EA has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA), as amended (42 USC 4321), the Surface Transportation Board's environmental rules (49 CFR Part 1105) and other applicable environmental statutes and regulations.

The Environmental Assessment includes five volumes:

Volume 1: Environmental Overview of the Proposed Merger provides an Executive Summary, an overview of the proposed merger, and a summary of the potential environmental impacts which could result if the proposed merger were approved. This volume also summarizes recommended mitigation measures.

Volume 2: Rail Line Segments, Rail Yards and Intermodal Facilities provides detailed analysis and mitigation of the potential environmental impacts related to proposed changes in traffic and other merger-related activities on specific rail line segments, at rail yards, or at intermodal facilities.

Volume 3: Proposed Abandonments provides detailed analysis and mitigation of potential environmental impacts associated with the proposed abandonment of rail line segments and related salvage activities.

Volume 4: Proposed Construction Projects provides detailed analysis and mitigation of the potential environmental impacts related to the proposed construction and operation of new rail lines requiring new rights-of-way.

Volume 5: Appendices contains additional documentation related to the preparation of the Environmental Assessment including: copies of agency correspondence, public comments on the proposed action, and descriptions of analytical methodologies.

To assist you in the review of this EA, a Glossary and List of Abbreviations and Acronyms is included in the front of each of the five volumes.

Based on an analysis of all available information, and subject to the recommended mitigation measures, the Surface Transportation Board's Section of Environmental Analysis concludes that the proposed merger of the Union Pacific and Southern Pacific railroads would not significantly affect the quality of the human environment.

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LIST OF ACRONYMS AND ABBREVIATIONS

A&S	Alton & Southern Railway Company
ACHP	Advisory Council on Historic Preservation
ADT	Average Daily Traffic
AHPP	Arkansas Historic Preservation Program
AQCR(s)	Air Quality Control Region(s)
BIA	Bureau of Indian Affairs
BMPs	Best Management Practices
BN	Burlington Northern Railroad Company
BN/SF	The new railroad system created by the merger of the holding companies of BN and Santa Fe.
BRGI	Brownsville and Rio Grande International Railroad
CAAA	Clean Air Act and Amendments
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (the "Superfund" Act)
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CMTA	Capital Metropolitan Transportation Authority
CNW	Chicago and Northwestern Railway Company
CO	Carbon Monoxide
COE	United States Army Corps of Engineers
CTC	Centralized Traffic Control
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
db	Decibel
dBA	Decibels (of sound) A range
DNL	Day-night equivalent level
DOT	United States Department of Transportation
DRGW	Denver and Rio Grande Western Railroad Company
EA	Environmental Assessment
EPA	Environmental Protection Agency
ER	Environmental Report
ERNS	Emergency Response Notification System
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
FRA	Federal Railroad Administration
GWWR	Gateway Western Railway Company
HC	Hydrocarbons (in air)
IBP	Iowa Beef Producers
HBT	Houston Belt Terminal
IC	Illinois Central
ICC	Interstate Commerce Commission (former licensing agency for the proposed merger; merger approval authority now with the Surface Transportation Board)

IHPA	Illinois Historic Preservation Agency
KCS	Kansas City Southern Railway Company
KSHS	Kansas State Historical Society
L_{dn}	Day-night equivalent sound level
L_{max}	Maximum sound level during train passby, dBA
LUST	State Inventory of Leaking Underground Storage Tanks
MOU	Memorandum of Understanding
MP	Mile Post or Missouri Pacific
MPH	Miles per Hour
MPRR	Missouri Pacific Railroad Company
MRL	Montana Rail Link, Inc.
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act of 1966
NO_2	Nitrogen dioxide
NO_x	Nitrogen oxides
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O_3	Ozone
OBS	Office of Biological Services/United States Fish and Wildlife Service
OKT	Oklahoma-Kansas-Texas (operating division of UP)
OSHA	Occupational Safety and Health Administration
Pb	Lead
PDEA	Preliminary Draft Environmental Assessment
PM_{10}	Particulate Matter (under 10 microns in diameter)
PSD	Prevention of Significant Deterioration
RCRA	Resource Conservation and Recovery Act
ROW	Right of Way
SEA	Section of Environmental Analysis
SCS	Soil Conservation Service (currently named Natural Resources Conservation Service, Division of United States Department of Agriculture)
SEL	Source sound exposure level at 100 feet, dBA
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SO_2	Sulfur dioxide
SO_x	Sulfur oxides
SP	Southern Pacific Rail Corporation--includes SPT, SSW, SPCSL Corp., and DRGW
SPT	Southern Pacific Transportation Company
SSW	St. Louis Southwestern Railway Company
SPL	State Priority List
STATSGO	State Soil Geographic Database
STB	Surface Transportation Board

SWLF	State Inventory of Solid Waste Facilities
TRAA	Terminal Railroad Association of St. Louis
TSD	Treatment, Storage, or Disposal Sites
TSP	Total Suspended Particulates (particulate matter)
UP	Union Pacific Railroad, MPRR, and CNW
UP/SP	The new railroad system to be created by the merger of the holding companies of UP and SP if the merger proposal is approved
USC	United States Code
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VISTA	VISTA Environmental Information, Inc.
VOCs	Volatile organic compounds
WCL	Wisconsin Central Ltd.
WEPCO	Wisconsin Electric Power Company
WSC	Western Shipper's Coalition

GLOSSARY

ballast	Top surface of rail bed, usually composed of aggregate (i.e., small rocks and gravel).
Best Management Practices (BMPs)	Techniques recognized as very effective in providing environmental protection.
Board	Surface Transportation Board, the licensing agency for the proposed merger.
borrow material	Earthern material used to fill depressions to create a level right-of-way.
bulk train	Also known as unit train. A solid consist of a single non-breakable commodity (such as coal, grain, semi-finished steel, sulfur, potash, or orange juice) being transported at a trainload rate.
consist	The make-up of a train, usually referring to the number of cars.
construction footprint	The area at a construction site subject to both permanent and temporary disturbances by equipment and personnel.
criteria pollutant	Any of six substances (lead, carbon dioxide, sulfur dioxide, nitrogen dioxide, ozone and particulate matter) regulated under the Clean Air Act, for which areas must meet national air quality standards.
dBA	Adjusted decibel level. A sound measurement that adjusts noise by filtering out certain frequencies to make it analogous to that perceived by the human ear.
decibel	A logarithmic scale that comprises over one million sound pressures audible to the human ear over a range from 0 to 140, where zero decibels represents a reference sound level necessary for a minimum sensation of hearing and 140 represents the level at which pain occurs.
deciduous	Any plant whose leaves are shed or fall off during certain seasons; usually used in reference to tree types.

emergent	An aquatic plant with vegetative growth mostly above the water.
endangered	A species that is in danger of extinction throughout all or a significant portion of its range and is protected by state and/or federal laws.
fill	The term used by the United States Army Corps of Engineers that refers to the placement of suitable materials (e.g., soils, aggregates, formed concrete structures, sidecast material, etc.) within water resources under Corps jurisdiction.
flat yard	A system of relatively level tracks within defined limits provided for making up trains, storing cars, and other purposes which requires a locomotive to move cars (switch cars) from one track to another.
Flood Insurance Rate Maps	Maps available from the Federal Emergency Management Agency that delimit the land surface area of 100-year and 500-year flooding events.
floodplain	The lowlands adjoining inland and coastal waters and relatively flat areas and flood prone areas of offshore islands, including, at a minimum, that area inundated by a one percent (also known as a 100-year or Zone A floodplain) or greater chance of flood in any given year.
frog	A track structure used where two running rails intersect that provides flangeways to permit wheels and wheel flanges on either rail to cross the other.
habitat	The place(s) where plant or animal species generally occur(s) including specific vegetation types, geologic features, and hydrologic features. The continued survival of that species depends upon the intrinsic resources of the habitat. Wildlife habitats are often further defined as places where species derive sustenance (foraging habitat) and reproduce (breeding habitat).
haulage right	The limited right of one railroad to operate trains over the designated lines of another railroad.
hump yard	A railroad classification yard in which the classification of cars is accomplished by pushing them over a summit, known as a "hump," beyond which they run by gravity.

interlocking	An arrangement of switch, lock, and signal appliances interconnected so that their movements succeed each other in a predetermined order, enabling a moving train to switch onto adjacent rails. It may be operated manually or automatically.
intermodal facility	A site or hub consisting of tracks, lifting equipment, paved areas, and a control point for the transfer (receiving, loading, unloading, and dispatching) of intermodal trailers and containers between rail and highway or rail and marine modes of transport.
intermodal train	A train consisting or partially consisting of highway trailers and containers or marine containers being transported for the rail portion of a multi-modal movement on a time-sensitive schedule. Also referred to as piggback, TOFC (Trailer on Flat Car), COFC (Container on Flat Car), and double stacks (for containers only).
L_d	Level of noise (measured in decibels) averaged over the "daytime" period (7 a.m.-10 p.m.).
L_{dn}	Nighttime noise level (L_n) adjusted to account for the perception that a noise level at night is more bothersome than the same noise level would be during the day.
lift	A lift is defined as an intermodal trailer or container lifted onto or off a rail car. For calculations, lifts were used to determine the number of trucks using intermodal facilities.
locomotive, road	One or more locomotives (or engines) designed to move trains between yards or other designated points.
locomotive, switching	Locomotive (or engine) used to switch cars in a yard, industrial, or other area where cars are sorted, spotted (placed at a shipper's facility), pulled (removed from a shipper's facility), and moved within a local area.
merchandise train	A train consisting of single and/or multiple car shipments of various commodities.
mitigation	Actions to prevent or lessen negative effects.

National Wetlands Inventory	An inventory of wetland types in the United States compiled by the United States Fish and Wildlife Service.
nonattainment	An area that does not meet NAAQS specified under the Clean Air Act.
non-point source discharge	Pollution not associated with a specific outfall location, such as a sewer pipe.
palustrine wetland	Non-tidal wetland dominated by trees, shrubs or persistent emergent vegetation. Includes wetlands traditionally classified as marshes, swamps, or bogs.
passby	The passing of a train past a specific reference point.
pick up	To add one or more cars to a train from an intermediate (non-yard) track designated for the storage of cars.
rail spur	A track that diverges from a main line, also known as a spur track or rail siding, which typically serves one or more industries.
railbanking	A set-aside of abandoned rail corridor for recreational and/or transportation uses, including reuse for rail.
receptor/receiver	A land use or facility where sensitivity to noise or vibration is considered.
right-of-way	The right held by one person over the lands of another for a specific use; rights of tenants are excluded. The strip of land for which permission has been granted to build and maintain a linear structure, such as a road, railroad, or pipeline.
riparian	Relating to, living, or located on, or having acces to, the bank of a natural water course, sometimes also a lake or tidewater.
riprap	A loose pile or layer of broken stones erected in water or on soft ground as a guard against erosion.
riverine wetland	All wetlands and deepwater habitats contained within a channel, either naturally or artificially created.

ruderal	An introduced plant community dominated by weed species, typically adapted to disturbed areas.
scrub-shrub	Areas dominated by woody vegetation less than 6 meters (20 feet) tall, which includes true shrubs and young trees.
set out	To remove one or more cars from a train at an intermediate (non-yard) location such as a siding, interchange track, spur track, or other track designated for the storage of cars.
take	Loss of individuals of a plant or wildlife species and/or any direct or indirect action that results in mortality and/or injury. Further defined to include actions that disrupt normal patterns of wildlife species behavior; specifically those that reduce the survival and reproductive potential of an individual. Also refers to loss and/or degradation of species' habitat.
threatened	A species that is likely to become an endangered species within the foreseeable future throughout all or part of its range, and is protected by state and/or federal law.
trackage rights	The right or combination of rights of one railroad to operate over the designated trackage of another railroad including, in some cases, the right to operate trains over the designated trackage; the right to interchange with all carriers at all

	junctions; the right to build connections or additional tracks in order to access other shippers or carriers.
turnout	A track arrangement consisting of a switch and frog with connecting and operating parts, extending from the point of the switch to the frog, which enables engines and cars to pass from one track to another.
unit train	A train consisting of cars carrying a single commodity, e.g., a coal train.
water resources	All-inclusive term that refers to many types of permanent and seasonally wet/dry surface water features including springs, creeks, streams, rivers, ponds, lakes, wetlands, canals, harbors, bays, sloughs, mudflats, and sewage-treatment and industrial waste ponds.
wetland	As defined by 40 CFR Part 230.3, wetlands are "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Wetlands generally include swamps, marshes, bogs and similar areas.
wye track	A principal track and two connecting tracks arranged like the letter "Y" on which locomotives, cars and trains may be turned.

CHAPTER 1.0
INTRODUCTION

1.1 Background

This document is **Volume 4** of the Environmental Assessment (EA) prepared for the proposed merger of the Union Pacific Railroad Company (UP) and the Southern Pacific Transportation Corporation (SP) into a combined operating railroad, the UP/SP. This volume analyzes the potential environmental impacts associated with the 25 proposed rail line construction projects in new rights-of-way that UP/SP have identified in connection with the proposed merger. UP/SP state that the purposes of the proposed rail line construction projects are to connect the UP/SP rail systems, to improve the efficiency and quality of rail service offered by the merged system, and to add or expand facilities to handle increased rail traffic. These proposed rail line construction projects, as discussed in Chapters 2 through 9 of this volume, are located in eight states, and vary in length from approximately 650 feet to approximately 8,900 feet. These are:

- Camden, Arkansas - 1,100 feet.
- Fair Oaks, Arkansas - 1,100 feet.
- Pine Bluff, Arkansas (two connections) - 650 feet and 900 feet.
- Texarkana, Arkansas - 2,500 feet.
- West Colton, California (two connections) - 1,150 feet and 6,000 feet.
- Lathrop, California - 3,000 feet.
- Stockton, California - 1,500 feet.
- Denver, Colorado (two connections) - 3,650 feet and 5,000 feet.
- Girard, Illinois - 3,100 feet.
- Salem, Illinois - 4,600 feet.
- Hope, Kansas - 2,200 feet.
- Kinder, Louisiana - 1,750 feet.
- Shreveport, Louisiana - 1,560 feet.
- Dexter, Missouri - 8,900 feet.
- Paront, Missouri - 8,600 feet.
- 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.

These connections would involve construction of a new rail line segment to connect existing tracks to other existing rail lines (common point connections), sidings, and/or yard facilities. Most of the connections would be between UP and SP lines, although there would be some connections between the UP, SP and other carriers with whom trackage rights agreements have been

negotiated. As with construction of any new railroad tracks, steps required to build a new rail connection include site preparation and grading, railbed preparation, ballast application, track installation, and systems (e.g., signals, communications) installation. Although the parameters of construction zones would vary, most work should be completed within a 100-foot strip along the new rail line. The environmental impact analyses of the proposed construction projects are detailed in Chapters 2 through 9 of this volume and are individually assessed according to location. Each chapter provides the following information for each construction project:

- Proposed action and alternatives considered.
- Description of the existing environment.
- Potential environmental impacts of the proposed action.
- Potential environmental impacts of alternatives.
- Summary of agency comments.
- Suggested mitigation of various agencies.
- Recommended mitigation.

1.2 Impact Areas and Methodologies

In conducting its environmental analysis, the Surface Transportation Board's (Board) Section of Environmental Analysis (SEA) considered the following environmental impact areas in accordance with the Board's environmental rules at 49 CFR 1105.7(e):

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

Based on its independent analysis, the information available to date, and the mitigation measures recommended in this volume, SEA concludes that the proposed new rail line constructions would not result in significant environmental impacts.

1.2.1 Land Use

The proposed rail line construction could affect local or regional land uses. Consistent with the Board's environmental rules at 49 CFR 1105.7(e)(3), SEA assessed whether the proposed new rail construction would:

- Conflict with existing land use, comprehensive, or master plans.
- Conflict with existing Coastal Zone Management Plans, where applicable.
- Displace prime farmland from use for agricultural production.

To inventory existing land uses, SEA conducted site visits, reviewed local planning and U.S. Geological Survey (USGS) maps, and analyzed aerial photos. Land uses of concern include those sensitive to environmental changes; residential, commercial, educational, medical, religious, agricultural, institutional, water resources, and prime farmland. To assess land use impacts, SEA consulted with local planning agencies to determine if the proposed rail line construction and operation were consistent with existing land uses and future land use plans. Determination of whether a proposed rail line construction would affect any prime agricultural land was based on SEA's consultations with the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) office in each affected state. SEA conducted similar consultations with state Coastal Zone Management agencies to ensure that the proposed constructions and operations would not harm protected coastal areas, as required by the Board's environmental rules at 49 CFR 1105.9

Land use impacts are considered adverse if any construction activities or subsequent operations cause long-term changes in land use patterns that are incompatible with adjacent land uses.

1.2.2 Water Resources

The construction of new rail connections could adversely affect water resources. Water resources that could experience impacts as a result of the proposed construction projects include creeks, streams, wetlands, lakes, ponds, and canals. The Board's environmental rules at 49 CFR 1105.7(e)(9) require an assessment as to whether the actions related to the proposed merger are consistent with all applicable water quality standards and if Section 402 or Section 404 permits would be required by the Clean Water Act (33 USC 1344)[1]. SEA is also required to determine if any merger-related construction would adversely affect any designated wetlands or 100-year floodplains.

SEA consulted several data sources to identify existing conditions and assess the potential environmental impacts of the proposed construction and operation projects on water resources.

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[1]Section 402 of the Clean Water Act established the National Pollutant Discharge Elimination System (NPDES) to regulate industrial and municipal source discharge of pollutants into the nation's waters. The NPDES permit program is administered by an appropriate state agency or the U.S. EPA. Section 404 of the Clean Water Act established a permit program to regulate the non-point source discharges of dredged or fill material into the nation's waters. The Section 404 program is administered by the U.S. Army Corps of Engineers.

These included USGS maps, U.S. Fish & Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps, and aerial photographs. Where necessary, SEA conducted site visits and additional consultations with local officials. SEA also entered consultation with Federal and state agencies that regulate water quality, including the U.S. Army Corps of Engineers (COE), the U.S. Environmental Protection Agency (EPA), and state environmental agencies.

Impacts to water resources are considered adverse if there is substantial interference with drainage, adverse discharges (i.e., sediment, pollutants, etc.), or loss of wetlands or floodplains resulting from construction or operations of the new rail line connection.

1.2.3 Biological Resources

Pursuant to the Board's environmental rules at 49 CFR 1105.7(e)(8), SEA evaluated the potential environmental impacts to important natural and biological resources, such as threatened and endangered species (plants and animals), critical habitats, parklands, forest preserves, wildlife refuges, and sanctuaries due to construction and operation of new rail line connections. Specifically, SEA assessed the following potential impacts for each construction site:

- Physical alteration of critical habitats.
- Physical disturbance of parks or wildlife refuges.
- Adverse effects to threatened or endangered species.
- Severance of existing habitats.

To gather information about the biological resources that may be present at each of the proposed construction sites, SEA reviewed USGS maps, NRCS surveys, and USFWS lists of sensitive species (threatened, endangered, or listing candidates). SEA also consulted Federal, state, and local resource management agencies.

impacts are considered adverse if the proposed action would cause:

- Loss of important vegetation or wildlife habitats.
- Harm to threatened or endangered species.
- Loss of critical habitat(s).
- Loss or degradation of parklands, forest preserves, refuges, or wildlife sanctuaries.

1.2.4 Air Quality

Air quality impacts are generally defined as the increase or decrease in emissions from a source to the ambient air. Impacts that could result from the proposed rail construction projects

include increased levels of fugitive dust near construction sites and increased emissions from the operation of construction equipment and vehicles. Some construction sites could experience increased levels of fugitive dust due to specific construction activities, including clearing, grading and excavating. The amount of fugitive dust generated could vary by construction site and depends on the topography of the site, soil composition, wind speeds, precipitation, vehicle traffic levels, and the types of roadways used to get to the site. Construction sites also could experience temporary increases in emissions of hydrocarbons, carbon monoxide, sulfur dioxide, nitrogen oxide, and particulate matter due to the operation of construction equipment (cranes, bulldozers, graders), trucks, and automobiles. SEA examined air quality impacts related to fugitive dust emissions in and around the construction sites and emissions from employee traffic and equipment, based on data provided by UP/SP. SEA also examined emissions from rail operations, primarily from increases in train traffic over the proposed new rail line connections.

SEA assessed potential impacts to air quality from the proposed constructions and operations in accordance with the Board's environmental rules at 49 CFR 1105.7(e)(5). The Board has specified thresholds for both attainment and nonattainment areas as described in Table 1-1.

Volume 1 of the EA provides an overview of increases in emissions from rail line segments, rail yards, and intermodal facilities. Overall, SEA concludes that these air quality impacts would not cause long-term degradation of the environment.

TABLE 1-1
SURFACE TRANSPORTATION BOARD
AIR QUALITY THRESHOLDS FOR IMPACT ANALYSIS

Activity Site	Threshold
Attainment Areas (49 CFR 1105.7(e)(5)(i))	
Rail Line Segments	Increase of 8 trains per day or 100% increase in annual gross ton miles.
Rail Yards	Increase of 100% in carload activity per day.
Intermodal Facilities	Increase of 50 trucks per day or 10% increase in average daily traffic volume on any affected road segment.
Non-Attainment Areas (49 CFR 1105.7(e)(5)(ii))	
Rail Line Segments	Increase of 3 trains per day or 50% increase in annual gross ton miles.
Rail Yards	Increase of 20% in carload activity per day.
Intermodal Facilities	Increase of 50 trucks per day or 10% increase in average daily traffic volume on any affected road segment.

1.2.5 Noise

SEA evaluated the proposed rail line constructions and operations for both long-term operational noise impacts and short-term construction noise impacts. The Board's environmental rules at 49 CFR 1105.7(e)(6) state that the same level of activity that triggers the threshold for air quality impact analysis in air quality attainment areas also triggers its noise analysis threshold, as shown in the table above.

The Board's environmental rules at 49 CFR 1105.7(e)(6) specify two types of noise thresholds where an increase in the activity level of a proposed action requires noise analysis:

- An incremental increase in noise levels of 3 decibels (dBA) or more, as measured by the Day-Night Equivalent Sound Level (L_{dn}); or

- An increase to a noise level of L_{dn} of 65 dBA or greater.

In general, an increase in L_{dn} of 3 dBA would require a 100 percent increase in rail traffic, a substantial change in operating conditions, changes in equipment, or a shift of daytime operations to nighttime hours. Nighttime noise often dominates L_{dn} because of weighting factors that reflect the fact that people are more sensitive to nighttime noise. In calculating L_{dn}, the nighttime adjustment considers one event--such as a freight train passby--occurring between 10:00 pm and 7:00 am as the equivalent of 10 passbys during daytime hours.

SEA's approach for analyzing operational noise impacts was to identify noise-sensitive land uses where changes in operation could result in noise exposure increases that meet or exceed the Board's thresholds. The approach relied on known noise baselines and proposed activity level data using accepted noise models. SEA's third party consultant also performed various noise measurements in some locations to supplement available noise data from several sources related to railroad operations.

SEA also evaluated the potential short-term noise impacts associated with proposed construction activities. Although the proposed construction projects have the potential to cause adverse noise impacts at nearby noise-sensitive receptors, construction-related noise would be of limited duration. UP/SP state that most of the construction projects proposed as part of the merger would include construction activities lasting from one to two months at any one location. These activities would have noise characteristics similar to those associated with normal track maintenance procedures taking place at these locations. For each construction site, noise-sensitive receivers located within 1,000 feet of the rail line or construction site were identified. Construction-related noise impacts were estimated for all noise-sensitive receptors near the rail line, using the methods outlined in **Volume 5**, Appendix H.

1.2.6 Historic and Cultural Resources

Pursuant to the Board's environmental rules at 49 CFR 1105.8, SEA is required to assess whether the proposed merger would affect historic properties, as defined in Section 106 of the National Historic Preservation Act of 1966, as amended, and implementing regulations ("Protection of Historic Properties") at 36 CFR Part 800. Historic properties are those listed on or potentially eligible for listing on the National Register of Historic Places (NRHP). Historic properties may include districts, sites, buildings, structures, or objects, as well as archaeological sites.

For each construction site, SEA consulted with the State Historic Preservation Officer (SHPO) in the affected state to collect information on potentially affected historic properties. SEA also conducted follow-up consultations with the SHPOs to further document historic and archaeological resources in the project area and to assess impacts of the construction activities on any property or structure determined eligible for listing on the NRHP.

Impacts to historic and archaeological resources are considered adverse if any property listed or eligible for listing on the NRHP would experience an adverse effect as defined in 36 CFR 800.9 as a result of the proposed rail line construction and/or subsequent rail operations.

1.2.7 Transportation and Safety

The Board's environmental rules at 49 CFR 1105.7(e)(7) require a description of the effects of the proposed action on local or regional transportation systems. SEA, therefore, examined the existing local and regional rail systems that could be affected by the proposed new rail line constructions. The proposed merger could affect local or regional transportation systems and patterns through, for example, reducing vehicle traffic on regional transportation routes and interstate highways, while simultaneously increasing local traffic around intermodal facility locations. The Board's environmental rules also require an estimate of the amount of passenger or freight traffic that would be diverted to other transportation modes as a result of the proposed action. A summary of these diversions is discussed in **Volume 1** of this EA. In **Volume 2**, local traffic impacts associated with increases in activity at intermodal facilities are discussed.

The proposed construction of new rail line connections could disturb any existing hazardous waste sites. Following the Board's environmental rules at 49 CFR 1105.7(e)(7), SEA assessed the potential safety impacts of each proposed construction project. SEA reviewed information from UP/SP and from Federal and state environmental databases obtained through VISTA Environmental Information Inc. (VISTA) to determine if activities on or next to the proposed construction sites (within 500 feet) would disturb known hazardous waste sites. The VISTA reports summarize the sites included in the following databases: National Priorities List (NPL), Comprehensive Environmental Response, Compensation, and Liability Information System

(CERCLIS), RCRA Treatment, Storage, or Disposal sites (TSDs), Emergency Response Notification System (ERNS) spill sites, State Priority List (SPL) or State Inventory of Solid Waste Facilities (SWLF), State Inventory of Leaking Underground Storage Tanks (LUST), and the Orphan or Unmappable Sites list. Any new construction that would cause additional exposure to hazardous waste sites or hazardous materials is considered to have an adverse safety-related impact.

The Board's environmental rules also require a review of the impacts at grade crossings related to the proposed constructions. No new grade crossings are planned as part of the proposed rail line constructions. As a result, SEA concluded that increased train movements over the connections would have minimal safety impacts.

1.2.8 Environmental Justice

Executive Order 12898 (EO), entitled "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," directs Federal agencies to analyze the environmental effects of their actions on minority and low-income communities. Significant and adverse effects should then be addressed by mitigation measures in the environmental document. In addition, Federal agencies should provide the opportunity for community input, including identifying potential effects and mitigation measures, throughout the NEPA process.

In this EA, SEA has considered the impacts of the proposed merger, which include changes in rail operations, rail constructions, and rail abandonments, on minority and low-income communities. Also, SEA has solicited comments from agencies and communities in order to identify potential impacts and devise mitigation measures, where necessary. In response to comments submitted by the Bureau of Indian Affairs, SEA is recommending that Applicants consult with Native American Tribes near construction sites. SEA specifically requests comments on environmental justice issues and recommended mitigation measures.

1.3 Conclusion

Based on SEA's independent analysis, all information available to date, comments of interested parties, consultation with Federal, state, and local agencies, and the recommended mitigation described in Chapters 2 through 9, SEA concludes that, as currently proposed, the proposed construction and operation of new rail line connections would not significantly affect the quality of the human environment. Therefore, the Environmental Impact Statement process is unnecessary in this proceeding.

1.4 Request for Comments

SEA specifically invites comments on the environmental analysis of the construction

proposals presented in this EA, and the recommended mitigation measures. SEA will consider all comments received in response to the EA in making its final recommendation to the Board. The Board will consider SEA's final recommendations and any environmental comments in making its final decision.

Comments (an original and 10 copies) or any questions regarding the environmental analysis of construction projects in this EA should be filed with the Board's Section of Environmental Analysis, Room 3219, Surface Transportation Board, Washington, D.C. 20423, to the attention of Elaine K. Kaiser. Comments should refer to **Finance Docket Number 32760.**

Date made available to the public: April 12, 1996
Comment due date: May 3, 1996

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CHAPTER 2.0
ARKANSAS

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

- Camden, Arkansas - 1,100 feet.
- Fair Oaks, Arkansas - 1,100 feet.
- Pine Bluff, Arkansas (two connections) - 650 feet and 900 feet.
- Texarkana, Arkansas - 2,500 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.

2.1 Camden

Camden is located in Ouachita County, 80 miles southwest of Little Rock. Existing rail lines in the area include the SP Pine Bluff subdivision mainline and the UP Gurdon branch.

2.1.1 Proposed Action

The proposed action at Camden would involve the construction and operation of a new connection between the UP and SP tracks (see Figure 2-1). This new construction would permit through train movement between the SP Pine Bluff subdivision mainline and the UP Gurdon branch. The design includes a new power-operated turnout from the Pine Bluff subdivision mainline and approximately 1,100 feet of new rail line construction. It would require acquisition of approximately 0.5 acre of new right-of-way. The existing UP/SP crossing diamond would be removed.

Construction Requirements

UP estimates that construction of the new rail line connection would require a labor force of 15 people over a period of 20 days. The construction would require approximately 6,000 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 to the existing rail lines which would be connected by the proposed construction:

- 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 connection would include occasional local trains.

2.1.2 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.

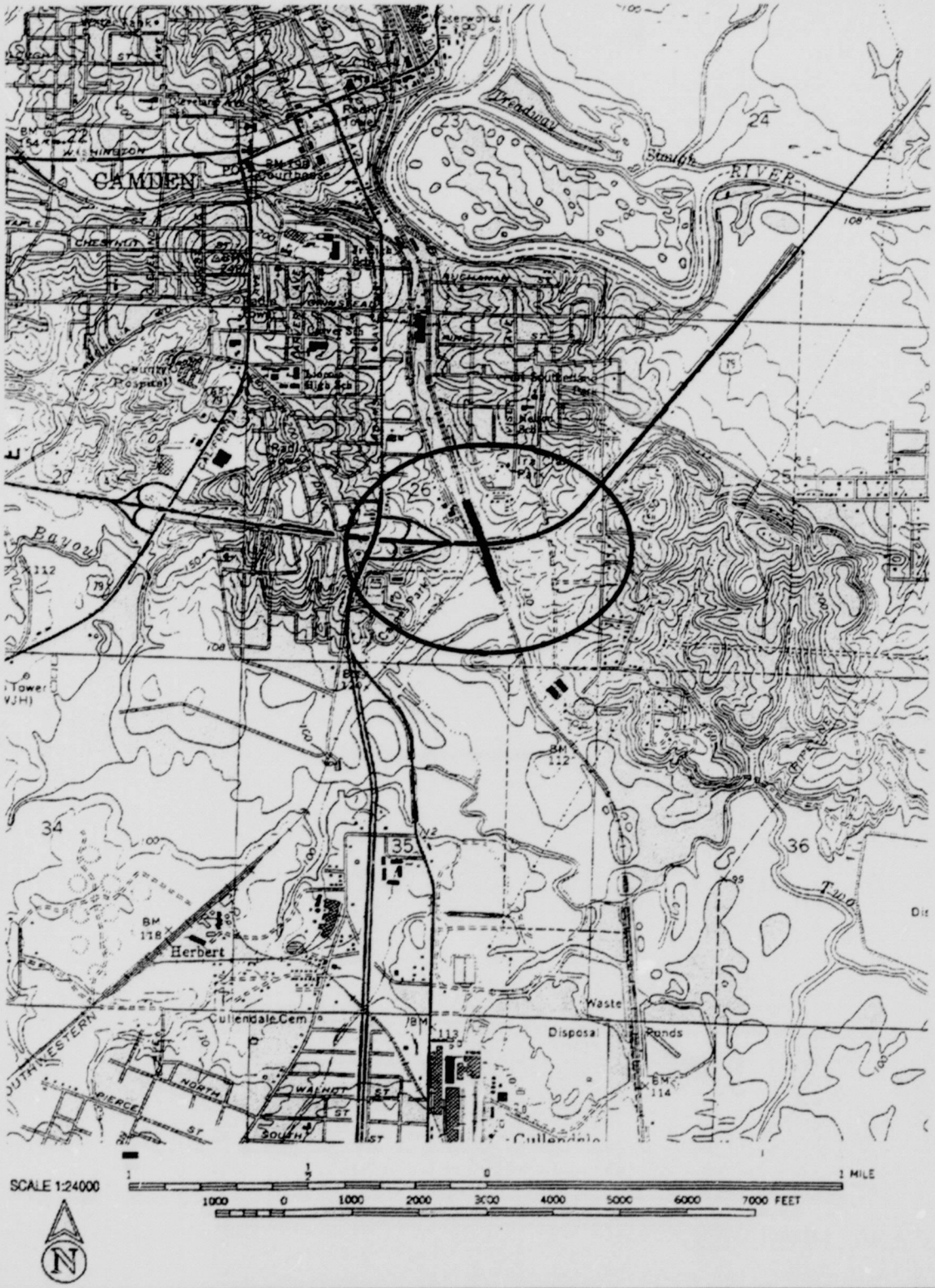
2.1.3 Existing Environment

Land Use

The proposed construction would occur within an area already dominated by rail and other transportation and utility uses. Other land uses surrounding the proposed site include residential and commercial properties along the northern end of the rail line, and forested wetlands to the south. The site is currently zoned for manufacturing uses; railroad development is allowed in the area. The proposed construction would not occur on prime farmland or within a designated coastal zone.

Water Resources

The Ouachita River is located 1/2 mile to the north of the construction site. As shown in Figure 2-1, an unnamed intermittent stream runs parallel to the rail line immediately east of the



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

CAMDEN, ARKANSAS

ENVIRONMENTAL ASSESSMENT

construction site and then passes under the track. This intermittent stream is a tributary to Two Bayou and does not flow directly into the river. Forested wetlands are adjacent to the south end of the proposed construction site. Parts of the proposed construction site are located within the 100-year floodplain.

Biological Resources

Vegetation. Because the site is within an industrialized section of Camden, much of the area has been disturbed by rail activity and urbanization. Some remnant, deciduous forested wetlands exist adjacent to the site to the south. Soil surveys of Ouachita County describe trees typical to Amy Association soils in this wetland area, including loblolly pine, nuttal oak, sweetgum, cottonwood, and ash.

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.

Threatened or 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 Camden. The USFWS staff indicated that no listed threatened or endangered species are known to occur in the vicinity of the proposed construction project.

SEA also consulted the Arkansas Game and Fish Commission (AGFC). AGFC indicated no species of special concern and no objections to the project.

Parks, Forest Preserves, Refuges, and Sanctuaries. No parks, preserves, refuges, or sanctuaries are located in the immediate vicinity of the proposed construction site. Two municipal parks are within a mile of the proposed rail line in Camden. These parks would be separated from the proposed rail line construction by existing development.

Air Quality

The proposed construction site is located in Air Quality Control Region (AQCR) 19: Monroe - El Dorado. 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 SP Pine Bluff rail line (21 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

The former Missouri Pacific Railroad Depot in Camden is listed on the National Register of Historic Places (NRHP) as a part of the Historic Railroad Depots of Arkansas Multiple Property Submission. The Camden Depot is outside the project area and would not be affected by the proposed connector. No other historic or cultural resources have been identified within the new UP/SP connection project area in Camden. Consultation with the Arkansas State Historic Preservation Officer (SHPO) has been initiated to confirm these findings.

Initial consultations with the 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 ground transportation network consists of the UP and SP rail lines that intersect one another in Camden.

Camden can be reached by U.S. Highway 79 and several local roads. Access to the rail construction area would be on local roads. The proposed rail line construction would be grade

separated at Route 79 and 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.

2.1.4 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 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 could have minor impacts on the small intermittent stream which parallels 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 affect water quality in the construction area. The proposed construction may involve incidental discharge of 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, probably under Nationwide Permit 26 (Headwaters Discharges). 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.

Threatened or Endangered Species. Based on SEA's consultation with USFWS and AGFC, there would be no effects on any listed threatened or endangered species resulting from the activities of the proposed construction at Camden.

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 Camden 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 19 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 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 20 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 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 6,000 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 19, nor would it result in any exceedances of the NAAQS.

Noise

UP/SP estimate 28 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 250 feet without horns. The distance would be 870 feet with horns, but horns would not likely be used along the proposed connection because no highway 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. There are no sensitive receptors in the immediate vicinity of the proposed project. Therefore, no detailed noise impact analysis is warranted. In conclusion, no adverse noise impacts are associated with this construction project.

Historic and Cultural Resources

There are no historic or cultural resources within the project area. 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 and through Camden 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.

2.1.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 2.1.2, 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 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.

2.1.6 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 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 and Water 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 (DOT) recommended that the final plans be reviewed by DOT.

2.1.7 Suggested Mitigation Measures

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.)

- 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.

2.1.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Camden 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.

2.2 Fair Oaks

Fair Oaks is located in Cross County, 85 miles northeast of Little Rock on U.S. 49. Existing rail lines in the area include the UP Memphis and SP Illmo subdivision mainlines.

2.2.1 Proposed Action

The proposed action at Fair Oaks involves upgrading the existing wye connection between the UP Memphis subdivision mainline and the SP Illmo subdivision mainline to 30 mph standards (see Figure 2-2). This new connection in the southwest quadrant of the wye would be part of the route for trains between Memphis and Pine Bluff. Construction would require the reduction of the existing curve and relocation of the Miscrove tower guy wires. The upgrade would include the installation of power-operated turnouts, rail and tie replacement, and approximately 1,100 feet of new rail line. Acquisition of 0.5 acre of new right-of-way would also be required.

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 18 days. The construction would require approximately 2,500 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 Memphis line would increase from 14 to 15 trains per day, and the annual gross tons would increase from 31 to 37 million tons (a 20 percent increase).

- Traffic on the SP Illmo line would decrease from 11 to 10 trains per day, and the annual gross tons would increase from 10 to 13 million tons (a 30 percent increase).

- Traffic on the new common point connection would include four manifest trains per day.

2.2.2 Alternative Actions Considered

SEA identified no other feasible alternatives to the proposed rail line connection upgrade. The proposed upgraded 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 upgraded 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.

2.2.3 Existing Environment

Land Use

The surrounding land uses of the proposed site are residential, cropland, and pasture. The proposed construction would occur in an area of prime farmland. The line proposed for construction is not a designated coastal zone.

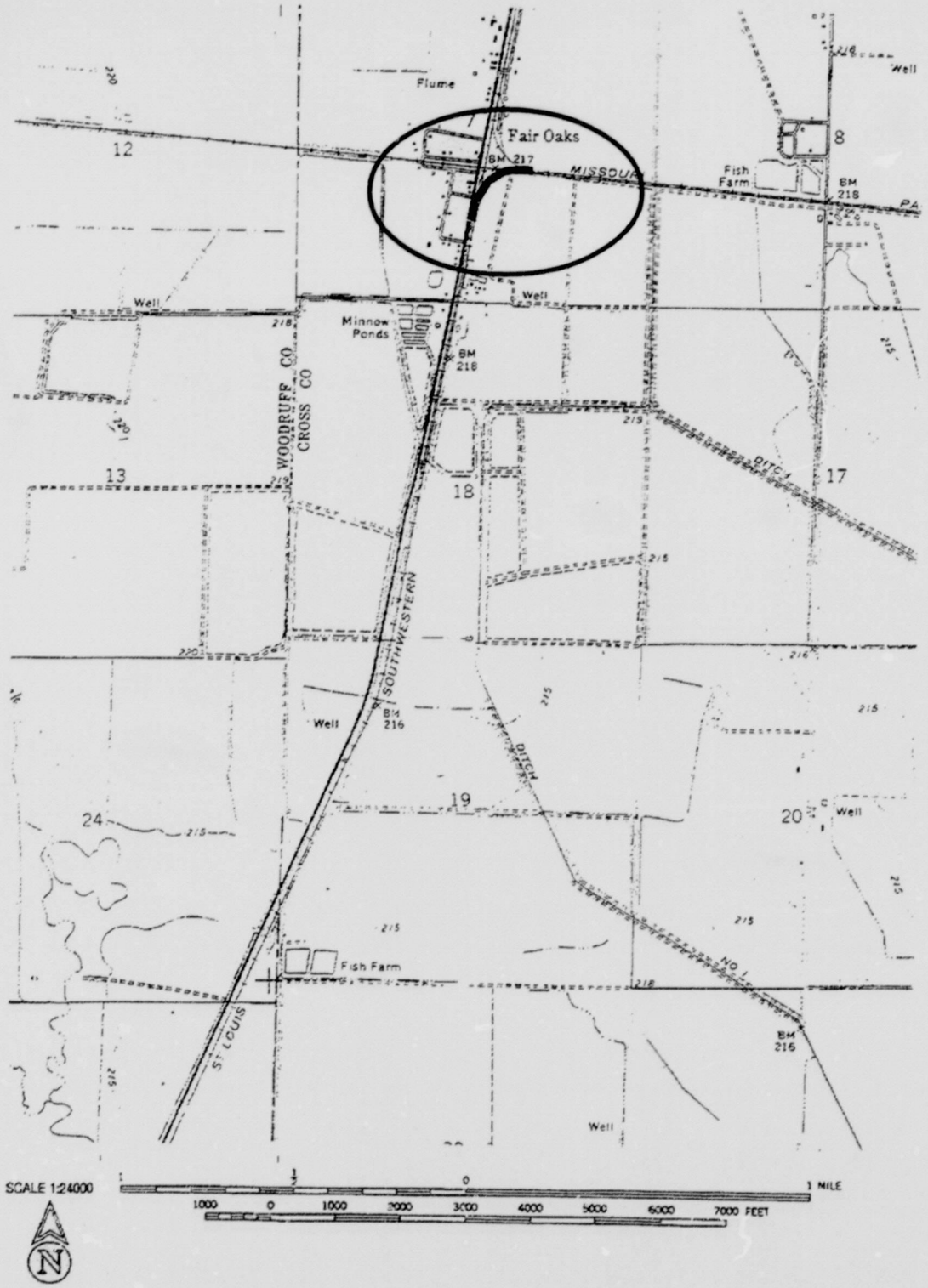
Water Resources

The proposed construction site is within an agricultural area. As shown in Figure 2-2, no streams or water bodies are located in or adjacent to the site. The area around Fair Oaks is dotted with minnow ponds; however, the closest of these are approximately 1/2 mile to the south. There are no known wetlands within or adjacent to the proposed construction site. The proposed site is not located within a 100-year floodplain.

Biological Resources

Vegetation. The site is located at the junction of two existing rail lines within the Town of Fair Oaks. Much of the vegetation in the area has been disturbed by rail activity or by the agricultural use of the adjacent land. Soils on the site include Henry silt loam and Calloway silt loam.

Wildlife. Wildlife habitat on the proposed site is of fair quality; native vegetation has been



UP/SP RAILROAD MERGER

NEW RAIL LINE CONSTRUCTION

FAIR OAKS, ARKANSAS

ENVIRONMENTAL ASSESSMENT

disturbed by rail and agricultural activities. Therefore, wildlife species on or near the site are tolerant of the rail environment and agricultural conditions.

Threatened and Endangered Species. SEA consulted USFWS regarding federally-listed threatened and endangered species in the area of the proposed rail line construction at Fair Oaks. USFWS staff indicated that endangered Fat Pocketbook Pearly Mussel (*Potamilus capax*) potentially occurs in Cross County. Since there is no critical or suitable habitat on or near the project site, this species is unlikely to be present.

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 20: Northeast 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 as a result of the proposed construction and operation of the new connection.

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 Memphis subdivision mainline (14 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 160 feet without

horns (600 feet with horns). The current level of traffic operating on the SP Illmo subdivision mainline (11 trains per day) generates an estimated L_{dn} noise level of 65 dBA at a distance of approximately 130 feet without horns (480 feet with horns).

Historic and Cultural Resources

No known historic or cultural resources exist in the vicinity of the proposed connection. The land proposed for construction of the wye connection has been owned by UP for many years and there is no record of any building on the site. Consultation with the 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 the 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 southeast of Fair Oaks. State Highway 39 is the primary highway in the project vicinity. Access to the rail construction area would be on local roads. The proposed rail line construction would not require any additional grade crossings.

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

2.2.4 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 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 not have 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, and habitat suitability evaluations, there would be no effects on any listed threatened or endangered species resulting from the activities of the proposed construction at Fair Oaks.

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 Fair Oaks 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 20 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 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 18 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 720. 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 2,500 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 20, nor would it result in any exceedances of the NAAQS.

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 225 feet without horns. The distance would be 640 feet with horns, but horns

would not likely be used along the proposed connection because no roadway grade crossings would be crossed. Currently one church and six homes are located within the L_{dn} 65 contour. If the proposed connection is constructed, 10 homes and one church are projected to be within the L_{dn} 65 contour.

Historic and Cultural Resources

There are no historic or cultural resources in the immediate vicinity of the proposed construction site. Therefore, there would be no impact on historic and 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 and through Fair Oaks 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.

2.2.5 Potential Environmental Impact of Alternative Actions

As discussed in Section 2.2.2, 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 could result in less efficient rail service. The capacity constraints, delays, and slower operating speeds that could result without the new connection would cause additional fuel consumption and increased emissions impacts.

2.2.6 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:

- Natural Resources Conservation Service stated that rail line construction in Fair Oaks may adversely affect prime farmland, and recommends that conservation practices be applied to the construction area.

- 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 (DOT) recommended that the final plans be reviewed by DOT.

2.2.7 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 Natural Resources Conservation Service, Little Rock office, recommended that conservation practices be applied to the construction area.

- 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.

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

2.2.8 SEA Recommended Mitigation

This section contains the mitigation measures that SEA recommends that the Board impose in any final decision approving the proposed Fair Oaks 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.2

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.

2.3 Pine Bluff (East)

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.

2.3.1 Proposed Action

As part of the proposed merger, two new connections would be constructed in Pine Bluff between the UP Monroe subdivision mainline and the SP Pine Bluff subdivision (see Figure 2-3). The first connection (east), requiring approximately 650 feet of new rail line, would permit the operation of trains between the SP Pine Bluff yard and the UP mainline south to Monroe, Louisiana. This connection would require the acquisition of approximately 0.5 acre of residential property and the construction of new track between the SP International Paper lead and the west end of the existing UP yard.

Construction Requirements

Construction of the new rail line connection would require a labor force of 15 people over a period of 10 days. The construction would require approximately 1,000 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 Monroe subdivision mainline would decrease from 13 to 12 trains per day, and the annual gross tons would increase from 25 to 29 million tons (a 17 percent increase).

- Traffic on the SP Pine Bluff subdivision mainline would increase from 23 to 32 trains per day, and the annual gross tons would increase from 25 to 50 million tons (a 100 percent increase).

- Traffic on the new common point connection would include two manifest trains per day.

2.3.2 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 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 or attractive 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.

2.3.3 Existing Environment

Land Use

The proposed construction would occur in an area already dominated by rail and other transportation or utility uses. Other land uses surrounding the construction site include residential, cropland, and pastures. The proposed site is currently zoned for industrial uses; railroad development is allowed in the area. 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 construction site is located adjacent to an existing rail yard. U.S. Geological Survey (USGS) maps indicate that no streams or water bodies are located adjacent to the site. Lake Langhoffer is located approximately 1/2 mile to the north. National Wetland Inventory (NWI) maps were not available for the proposed construction site. The proposed site is not located within a 100-year floodplain.

Biological Resources

Vegetation. Because the site is on the outskirts of Pine Bluff within the vicinity of existing rail yards, much of the area has been disturbed by rail activity and urbanization. Vegetation within and adjacent to the proposed site consists of ruderal weeds and mowed grass.

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. Therefore, 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 (East). 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.