









Figure 5.2-36 Proposed Corridor Upgrade: Tracy to Martinez, California. Wetland Information.



Figure 5.2-37 Proposed Corridor Upgrade: Tracy to Martinez, California. Wetland Information.





Figure 5.2-39 Proposed Corridor Upgrade: West Palm Springs to Garnet, California. Wetland Information.

6.0 COLORADO

6.1 PROPOSED ACTIONS AND NO-ACTION ALTERNATIVES

The proposed action in Colorado would involve the construction projects as described in this Part, which would be constructed generally as described in Section 2.0. In each case, the proposed construction is necessary to the efficiency of the merged operations and will result in the benefits discussed in Section 1 of this Part. The no-action alternative as, mes that the projects would not be constructed.

The construction projects proposed in Colorado include new or upgraded connections, new sidings, or siding extensions and expansion of an intermodal facility. The projects are listed below and shown in Table 1-1.

Denver - Pulman. SP Denver - A new connection and additional siding capacity connecting the SP subdivision 1-A at Utah Jct., the SP Belt line and the UP Greely subdivision mainline in Denver, Colorado is proposed, as shown on Figures 6.1-3 and 6.1-6. These constructions are necessary to manage movement of trains between the SP Moffat line (subdivision 1-A) and the UP lines to Cheyenne, Wyoming and Salina, Kansas. The connection includes the installation of poweroperated turnouts on both the SP Belt line and subdivision 1-A at Utah Jct. with connecting track construction of approximately 4,000 feet including property acquisition and grading. Also included is an extension of the main track siding for approximately 5,000 feet on the SP Belt line.

Denver - Intermodal - It is proposed that SP's existing intermodal facility in Denver will be consolidated into UP's Denver intermodal facility, Figure 6.1-3. Construction to accommodate this increase of traffic would require the addition of

a yard track, paving for parking trailers and containers and operation of a crane within the existing yard.

The following sidings/siding extensions are proposed to add capacity and increase efficiency of operations on UP's Salina Branch.

<u>Cedar Point</u> - A 3,500-foot siding extension to the existing siding between MF 564 and MP 562 as shown on Figure 6.1-1.

<u>Clifford</u> - A 5,500-foot siding extension to the existing siding between MP 528 and MP 526 as shown on Figure 6.1-2.

<u>Firstview</u> - Construction of a 9.300-foot siding between MP 473 and MP 471 as shown on Figure 6.1-4.

Mesa - Construction of a 9,300-foot siding between MP 627 and MP 625 as shown on Figure 6.1-5.

Strasburg - Construction of a 9,300-foot siding between MP 605 and MP 603 as shown on Figure 6.1-7.

6.2 DESCRIPTION OF EXISTING ENVIRONMENT AND POTENTIAL ENVIRONMENTAL IMPACTS OF PROPOSED ACTIONS

Existing land use information and potential impacts for proposed construction projects in Colorado are included in Table 6-1 and shown on Figures 6.1-1 to 6.1-7. Water resources and wetland information is summarized in Table 6-3 and shown on Figures 6.2-1 to 6.2-7. Existing biological resources information is presented in Table 6-4. Information concerning historic and cultural resources information at proposed construction projects sites is included in Table 6-6.

Suggested mitigation measures are described in Section 17. Such measures as are appropriate will be implemented before and during construction activities.

6.3 POTENTIAL ENVIRONMENTAL IMPACTS OF NO-ACTION ALTERNATIVES

Under the no-action alternative, it is assumed that the proposed projects would not be constructed and land use and environmental conditions that currently exist at the proposed sites would remain unchanged. However, if the merger is approved and implemented, elimination of the projects would result in less efficient rail service causing capacity constraints, delays, and slower operating speeds which would result in additional fuel consumption and air emissions.

6.4 SUMMARY OF COMMENTS

To assist in assessing the potential environmental impacts of the proposed UP/SP merger, Dames & Moore sent letters requesting information to various federal, state, and local agencies. In these letters, information was requested for the areas of: air quality, noise, land use, biological and water resources, historic and cultural resources, transportation systems, energy, and public health and safety. Copies of all correspondence received and telephone conversation notes recorded in response to the requests for information are included in Part 6.

For the proposed construction projects in this state, the following agencies responded: Natural Resources Conservation Service, The U.S. Department of the Interior Fish and Wildlife Service, Colorado Historical Society, State of Colorado Department of Local Affairs, and Lincoln County Board of County Commissioners. A summary of comments received prior to November 10, 1995 for Colorado is listed below.

 The Natural Resources Conservation Service stated that the Rocky Mountain Arsenal which is now a National Wildlife Refuge is located near the SP Denver site. Also stated was concern for a number of municipal

parks within a few miles of the sites and the South Platte River and Sand Creek which course through the Denver SP site area.

- The Fish and Wildlife Service provided a list as an "informal consultation" of known species within the proposed area. If requested, an official list will be submitted to the lead federal agency which is required under the Endangered Species Act to initiate a formal consultation. A contact to receive more information regarding this matter was also given.
- The Colorado Historical Society expressed concerns whether the Clifford School may be within the vicinity of the Clifford construction project. If any projects involve a property fifty or more years of age, consultation is needed to determine if the property meets the National Register of Historic Places eligibility criteria. It is the Colorado Historical Society's opinion that the merger will have no effect on historic properties.
- The Department of Local Affairs stated that it has ceased the activities of the Colorado Intergovernmental Review System and has no comment on the proposed projects.
- The Lincoln County Board of County Commissioners had no concerns or information regarding the proposed projects.

6.5 REFERENCES

6.5.1 Land Use

- Bernhart, Scott, 1995. Personal communication with Adams County Planning Department from Irene Merrifield, Dames & Moore.
- Cheyenne County Clerk, 1995. Personal communication with Cheyenne County from D. Lowrey, Dames & Moore.

- City of Denver, 1995. Personal communication with City of Denver Planning and Zoning from D. Lowrey, Dames & Moore.
- Duran, Inez, 1995. Personal communication with Denver County Zoning from D. Lowrey, Dames & Moore.
- Haas, Delores, 1995. Personal communication with Elbert County Government from D. Lowrey, Dames & Moore.
- Hayes, Jim, 1995. Personal communication with Adams County Planning Department from D. Lowrey, Dames & Moore.
- Manus, John, 1995. Personal communication with Unincorporated Araphahoe County from D. Lowrey, Dames & Moore.
- Stevens, Gordon, 1995. Letter to Julie Donsky, Dames & Moore, from Adams County Public Works Department. October 26.
- Thaller, Estelle, 1995. Personal communication with Lincoln County from Mark Mattheiss, Dames & Moore.
- U.S. Department of Agriculture, 1994. State soil geographic (STATSGO) data base.
- U.S. Geological Survey, various dates. Land use and land cover maps.
- U.S. Geological Survey, various dates. 1:24,000-scale topographic maps.

6.5.2 Water Resources and Wetlands

- Federal Emergency Management Agency (FEMA), various dates. FEMA Flood Insurance. Rate Maps (FIRM) for Colorado.
- U.S. Fish and Wildlife Service, various dates. National Wetland Inventory Maps. U.S. Geological Survey, various dates. 1:24,000-scale topographic maps.

6.5.3 Biological Resources

- Finstad, Gary, 1995. Letter to Julie Donsky, Dames & Moore, from Natural Resources Conservation District, Lakewood, CO. October 23.
- Hartman, James E., 1995. Letter to Julie Donsky, Dames & Moore, from Colorado Historical Society. October 11.
- Lovell, Dave, 1995. Personal correspondence (data base search) with Brian Leatherman, Dames & Moore, from Colorado Division of Wildlife, October 26.

6.5.4 Historic and Cultural Resources

- Hartmon, James E. (Colorado Historical Society), 1995. Letters to Julie Donsky, Dames & Moore, October 11, October 24.
- Hardy-Hunt, Kaaren (Colorado Historical Society, 1995.) Telephone conversation with Devise Bradley, Dames & Moore, October 25, and Andy York, Dames & Moore.

6.5.5 Air Quality

- 40 CFR Part 81 Designation of Areas for Air Quality Planning Purposes, Appendix A to Part 81.
- 40 CFR Part 81 Designation of Areas for Air Quality Planning Purposes, Sub Part C Section 107, Attainment Status Designation.
- 40 CFR Part 1105 Procedures for Implementation of Environmental Laws.

6.5.6 Noise

- Rathe, E.J., 1977. "Railway Noise Propagation," Journal of Sound and Vibration, vol. 51, no. 3, pp. 371-388.
- Saurenman, H.J., Nelson, J.T. and Wilson, G.P., 1982. "Handbook of Urban Rail Noise and Vibration Control," UMTA-MA-06-099-82-1.

EXISTING LAND USE INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN COLORADO

				Structure	s Near Site	Occurrence Within	
Location/Station	Existing Land Uses	General Plan Designation	Zoning Designation	Within 500 Feet	Length in Urbanized Areas (feet)	Prime Farmland	Coastal Zone
Cedar Point	Site: Transportation Surrounding: Herbaceous rangeland	No formal land use policies/controls exist		0	0	No	No
Clifford	Site: Transportation Surrounding: Herbaceous rangeland, mixed rangeland	No formal land use policies/controls exist		5	0	No	No
Denver	Site: Transportation Surrounding: Mixed urban or built-up land, residential, transportation	General Industrial	Industrial 1 (R-R development allowed)	0 ¹	5,000	No	No
Denver (Pulman)	Site: Transportation Surrounding: Residential, commercial/ industrial, industrial, cropland and pasture, mixed urban or other built-up land	Cl ²	CI ²	28	3,500	Yes	No
Firstview	Site: Transportation Surrounding: Cropland and pasture, herbaceous rangeland, strip mines or quarries or gravel pits	No formal land use policies/controls exist		2	0	Yes	No
Mesa	Site: Transportation Surrounding: Cropland and pasture, other urban or built-up land, commercial	Open Space, Transportation Related (R-R development allowed)	No zoning designations exist	13	0	Yes	No
SP Denver	Site: Transportation Surrounding: Industrial, transportation	Heavy Industrial	Industrial 3 (R-R development allowed)	40	0	No	No

TABLE 6-1 (concluded)

				Structure	s Near Site	Occurren	ce Within
Location/Station	Existing Land Uses	General Plan Designation	Zoning Designation	Within 500 Feet	Length in Urbanized Areas (feet)	Prime Farmland	Coastal Zone
Strasburg	Site: Transportation Surrounding: Cropland and pasture, transitional areas	Rural Residential	Agricultural 1 and 2 (R- R development allowed)	1	0	Yes	No

Sensitive Receptors = Some structures occur within approximately 200 feet of construction activities. CI = Initial contact made with agencies but information not received by time of report submittal.

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POTENTIAL LAND USE IMPACTS AT PROPOSED CONSTRUCTION LOCATIONS IN COLORADO

Location/Station	Compatible with Surrounding Land Uses	Consistent with General Plan/Zoning Designation	Potential Loss of Prime Farmland		
Cedar Point Yes - Not significant		Not applicable - Not significant	No - Not significant		
Clifford	Yes - Not significant	Not applicable - Not significant	No - Not significant		
Denver	Yes - Not significant	Yes - Not significant	No - Not significant		
Denver (Pulman)	Yes - Not significant	CI ²	Not expected - Not significant		
Firstview	Yes - Not significant	Not applicable - Not significant	Not expected - V significant		
Mesa	Yes - Not significant	Yes - Not significant	Not expected - Not significant		
SP Denver	Yes - Not significant	Yes - Not significant	No - Not significant		
Strasburg	Yes - Not significant	Yes - Not significant	Not expected - Not significant		

1 2

Construction is anticipated to be largely within existing right-of-way and no prime farmland is expected to be affected.

CI = Initial contact made with agencies but information not received by time of report submittal.

WATER RESOURCES AND WETLAND INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN COLORADO

	Water Resource Type ¹								
Location/Station	bls	wb	wl	cd	tc	mf	55	sp	
Cedar Point	5	1	-	-	-	-	-	_	
Clifford	2	-	-	-	-	-	-	-	
Denver	-	-	-	-	-	-	-	-	
Denver (Pulman)	1	1	-	1	-	-	-	-	
Firstview	-	-	-	-	-	-	-	-	
Mesa	-		-	_	-	-	-	-	
SP Denver	-	2) _	-	-	-	-	-	
Strasburg	1	-	~	-	-		-	-	

blue-line streams (bls)	=	permanent and intern
waterbodies (wb)	=	permanent and interm catchments, and beau
wetlands (wl)	=	areas depicted with th
canals, culverts,		
ditches (cd)	==	human-made water co
tidal channels (tc)	=	tidal channels includi
mudflats (mf)	=	permanent to intermit
sewage-treatment pond, industrial waster ponds,		
salt evaporators, etc. (ss)	=	areas used for public
springs (sp)	=	areas depicted with th

mittent watercourses, including creeks, streams, rivers, washes, and sloughs mittent bodies of standing water including ponds, lakes, reservoirs, bayous, ver pords he USGS wetland symbol, primarily including marshes and wot meadows

onveyances

- ing inlets, harbors, bays, and sloughs subject to tidal influences
- ttently wet, non-vegetated, usually alkaline, mudflats
 - facilities or commercial purposes he USGS spring symbol

BIOLOGICAL RESOURCES INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN COLORADO

Location	Vege	tation Type	Known and Potential	Parks, Forests,
	At the Site	Adjacent	Threatened, and Endangered Species in the Area	Refuges, or Sanctuaries within 5 Miles
Cedar Point	Shortgrass Prairie	Shortgrass Prairie	Bald Eagle Whooping Crane Eskimo Curlew Black-footed Ferret*	None
Clifford	Shortgrass Prairie	Shortgrass Prairie	Eskimo Curlew Black-footed Ferret*	None
Denver	Barren	Ruderal	None	Schafer Park City Park Curtis Park
Denver (Pulman)	Ruderal	Ruderal Grassland Riparian	None	None
Firstview	Ruderal Shortgrass Prairie	Wheat Fields Shortgrass Prairie	Bald Eagle Black-footed Ferret*	None
Mesa	Ruderal Wheat Fields Bald Eagle Grassland Ruderal Whooping Crane Grassland Grassland Eskimo Curlew Mexican Spotted Owl Black-footed Ferret* American Peregrine Falco		Bald Eagle Whooping Crane Eskimo Curlew Mexican Spotted Owl Black-footed Ferret* American Peregrine Falcon*	None
SP Denver	Barren	Ruderal	None	None
Strasburg	Ruderal Grassland	Wheat Fields	Bald Eagle Mexican Spotted Owl Ute Ladies'-tresses Orchid Black-footed Ferret*	None

* Historical records only

POTENTIAL IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES AT PROPOSED CONSTRUCTION LOCATIONS IN COLORADO

Location	Potential Impacts To						
	Rare, Threatened, and Endangered Species	Critical Habitat	Parks, Forests, Refuges, Sanctuaries				
Cedar Point	Not Significant	None - NS	None - NS				
Clifford	None - NS	None - NS	None - NS				
Denver	None - NS	None - NS	None - NS				
Denver (Pulman)	None - NS	None - NS	None - NS				
Firstview	Not Significant	None - NS	None - NS				
Mesa	Not Significant	None - NS	None - NS				
SP Denver	None - NS	None - NS	None - NS				
Strasburg	Not Significant	None - NS	None - NS				

NS = Not Significant

EXISTING CONDITIONS AND POTENTIAL IMPACTS FOR HISTORIC AND CULTURAL RESOURCES AT PROPOSED CONSTRUCTION LOCATIONS IN COLORADO

Location	Historic Resources			Archaeological Resources			Potential Impacts	
	L	E	U	L	E	U	1	
Cedar Point	0	0	0	0	0	0	None - NS	
Clifford	0	0	1	0	0	0	PS	
Denver	0	0	0	0	0	0	None - NS	
Denver (Pulman)	0	0	0	0	0	0	None - NS	
Firstview	0	Ő	0	0	0	0	None - NS	
Mesa	0	0	0	0	0	0	None - NS	
SP Denver	0	0	0	0	0	0	None - NS	
Strasburg	0	0	0	0	0	C	None - NS	

Note: L, listed on National Register of Historic Places (NRHP); E, determined or recommended eligible for NRHP; U, eligibility for NRHP is unknown; NS, not significant; PS, potentially significant. The numbers on table denote the number of known historic or archaeological resources within 100 feet of construction areas.

KEY FOR LAND USE

URBAN OR BUILT-UP LAND

RANGELAND

- RE Residential
- C Commercial and services
- I Industrial
- T Transportation, communications and utilities
- I/C Industrial and commercial complexes
- MU Mixed urban or build-up land
- OU Other urban or built-up land

AGRICULTURAL LAND

- CP Cropland and pasture
- CH Orchards, groves, vineyards, nurseries, and ornamental horticultural areas
- CF Confined feeding operations
- CO Other agricultural land

WATER

- WS Streams and canals
- WL Lakes
- WR Reservoirs
- WB Bays and estuaries

WETLAND

WE Forested wetland, and/or nonforested wetland

KEY FOR CULTURAL RESOURCES SITES

*

Location of known historic or or archaeological site

- Rh Herbaceous rangeland
- Rsb Shrub and brush rangeland
- Rm Mixed rangeland

FOREST LAND

- FD Deciduous forest land
- FE Evergreen forest land
- FM Mixed forest land

BARREN LAND

- Bsf Dry salt flats
- Bb Beaches
- Bs Sandy areas other than beaches
- Br Bare exposed rocks
- Bm Strip mines, quarries, and gravel pits
- Bt Transitional areas
- B Mixed barren land



Figure 6.1-1 Proposed Corridor Upgrade: Cedar Point, Colorado. Location and Land Use.



Figure 6.1-2 Proposed Corridor Upgrade: Clifford, Colorado. Location and Land Use.



Figure 6.1-3 Proposed Common Point Connection and Construction at Intermodal Facility: Denver (Pulman), Colorado. Location and Land Use.



Figure 6.1-4 Proposed Corridor Upgrade: Firstview, Colorado. Location and Land Use.



Figure 6.1-5 Proposed Corridor Upgrade: Mesa, Colorado. Location and Land Use.



Figure 6.1-6 Proposed Common Point Connection: SP Denver, Colorado. Location and Land Use.



Figure 6.1-7 Proposed Corridor Upgrade: Strasburg, Colorado. Location and Land Use.

NWI LEGEND



SYSTEM

R - RIVERINE

SUBSYSTEM	1 - TIDAL	2 -	LOWER PERENN	IIAL 3-U	PPER PER	ENNIAL 4-INT	ERMITTENT 5	- UNKNOWN PERENNIAL
CLASS	RB ROCK BOTTOM	UB UNCONSOLIDATED BOTTOM	SB STREAMBED	AB AQUATIC BED	RS ROCKY SHORE	US UNCONSOLIDATED SHORE	**EM EMERGEN	TOW - OPEN WATER/
SUDCIASS	1 Bedrock 2 Rubble	1 Cobble Gravel 2 Sand 3 Mud 4 Organic	1 Bedrock 2 Rubble 3 Cobble Grave! 4 Sand 5 Mud 6 Organic 2 Viscouted	1 Algai 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	1 Bedrock 2 Rubble	1 Cobble Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	2 Nonpersistent	

*STREAMBED is limited to TiDAL and INTERMITTENT SUBSYSTEMS, and comprises the only CLASS in the INTERMITTENT SUBSYSTEM "EMERGENT is limited to TIDAL and LOWER PERENNIAL SUBSYSTEMS

SYSTEM	P - PALUSTRINE								
CLASS	RB - ROCK BOTTOM	UB - UNCONSOLIDATED	AB - AQUATIC BED	US UNCONSOLIDATED SHORE	ML - MOSS	EM - EMERGENT	SS SCRUB-SHRUB	FO - FORESTED	OW - OPEN WATER
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algai 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergeni 6 Unknown Surface	1 Cobble Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	1 Moss 2 Lichen	1 Persistent 2 Nonpersistent	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Lear.ad Evergreen 4 Needle-Leaved Evergreen	1 Broad-Leaved Deciduous 2 Nædds-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needla-Leaved	
		Instructions for	or using the le	gend:		•	5 Dead 6 Deciduous 7 Evergreen	5 Dead 6 Deciduous 7 Evergreen	

Instructions for using the legend:

The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

7 Evergreen

NWI LEGEND



Instructions for using the legend:

The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

FLOOD INSURANCE RATE MAP LEGEND EXPLANATION OF ZONE DESIGNATIONS

Flood Insurance Rate Maps (FIRMs) display the zone designations for communities according to areas of designated flood hazards. The zone designations used by the Federal Emergency Management Agency (FEMA) are:

Lone	Explanation
А	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AO	Areas of 100-year shallow flooding; flood depth 1 to 3 feet; product of flood depth (feet) and velocity (feet per second) less than 15
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
AE A99	Areas of 100-year flood; base flood elevations determined (for Louisiana). Areas of 100-year flood to be protected by a flood protection system under construction: base flood elevations and flood based for the system under
В	Areas between limits of 100-year flood and 500-year flood, areas of 100-year shallow flooding where depths less than 1 foot
С	Areas outside 500-year flood.
Х	Areas of combined B and C zones (for Louisiana)
D	Areas of undetermined; but possible flood bazards
v	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevation and flood hazard factor determined.

Notes

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

FIRMs are for flood insurance rate purposes only; maps may not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.



Figure 6.2-1 Proposed Corridor Upgrade: Cedar Point, Colorado. Wetland Information.



Figure 6.2-2 Proposed Corridor Upgrade: Clifford, Colorado. Wetland Information.



Figure 6.2-3 Proposed Common Point Connection and Construction at Intermodal Facility: Denver (Pulman), Colorado. Wetland Information.



Figure 6.2-4 Proposed Corridor Upgrade: Firstview, Colorado. Wetland Information.



Figure 6.2-5 Proposed Corridor Upgrade: Mesa, Colorado. Wetland Information.






7.0 ILLINOIS

7.1 PROPOSED ACTIONS AND NO-ACTION ALTERNATIVES

The proposed action in Illinois would involve the construction projects as described in this Part, which would be constructed generally as described in Section 2.0. In each case, the proposed construction is necessary to the efficiency of the merged operations and will result in the benefits discussed in Section 1 of this Part. The no-action alternative assumes that the projects would not be constructed.

The construction projects proposed in Illinois would involve new and upgraded connections, expansion of intermodal facilities, and the addition or extension of sidings to provide added capacity and improved efficiencies for the anticipated increased rail traffic in this corridor. The projects are listed below and shown in Table 1-1.

Barr - An upgraded connection is proposed between the Chicago and Illinois Midland Railway and the UP Madison subdivision mainline at Barr, Illinois as shown on Figure 7.1-1. This connection will be upgraded to handle additional mainline traffic traveling from St. Louis to Peoria and north. The upgrade will include the replacement of 1,600 feet of rail and ties. No property acquisition or significant grading is expected.

Buda 1, 2, 3 and 4 - Trains operating over BN/Santa Fe trackage rights through Galesburg, Illinois are proposed to use a new connection at Buda, Illinois to reach certain UP locations in Chicago, Illinois including the Global I, Global II and Canal Street intermodal facilities. This connection, shown on Figure 7.1-2, between the BN mainline and the UP Peoria subdivision mainline will include the installation of power-operated switches in both mainlines, property acquisition and substantial grading to construct the connecting track. Also included is the construction of new siding on the BN west of Buda, Figure 7.1-3, the Peoria subdivision north of Buda, Figure 7.1-2, and a power-operated mainline cross-over on the BN west of the new siding, Figure 7.1-3. <u>Dolton</u> - As part of the consolidation of intermodal traffic in the Chicago terminal, the existing SP facilities at IMX and Forest Hill will be closed. The traffic, in part, will be handled at UP's Dolton facility which will be expanded by adding trackage and parking facilities (Figure 7.1-4).

<u>Dupo</u> - It is proposed to consolidate intermodal traffic from SP's facility in East St. Louis into UP's facility at Dupo, Illinois (Figure 7.1-5). Expansion of the facility to handle up to 400,000 annual lifts will require construction of yard trackage and paving to accomodate trailer and container parking and crane operations.

<u>Girard</u> - The operation of the merged system anticipates the construction of a new connection between the UP Madison subdivision mainline and the SP Springfield subdivision Wilmington line at Girard, Illinois, shown on Figure 7.1-6. This connection will be used for the routing of mainline traffic from St. Louis to Peoria, and north. Property acquisition of 12 acres will be required for the construction of 3,000 feet of new track and the relocation of 1,500 feet of track. A new mainline power-operated turnout will also be required on the SP Wilmington line.

<u>Global II</u> - The consolidation of UP and SP intermodal facilities in the Chicago terminal (Figure 7.1-7) is proposed. Two existing SP facilities at IMX and Forest Hill would be closed, and intermodal traffic from those facilities moved to other facilities, including Global II within the Proviso rail yard. Construction at Global II would involve removal of existing yard trackage, addition of trackage for intermodal cars, and addition of paving for parking trailers and containers.

Salem 1 and 2 - The operation of the merged systems anticipates the addition of additional mainline traffic onto the UP Chicago subdivision mainline through Salem, Illinois. Additional mainline traffic is expected to operate through to Conrail and CSX connections at Salem. In order to manage this additional business, a new connection is proposed between the UP Chicago subdivision mainline and the CSX mainline at Salem. Traffic between the CSX-east and the UP-south will be routed

through the connection. This connection will require property acquisition and the construction of new track between two new power-operated mainline switches in the UP and CSX mainlines shown on Figure 7.1-8. Also required will be an extension of the yard siding and two yard tracks in the UP Salem yard, shown on Figure 7.1-8, to accommodate additional traffic volume to Conrail.

<u>Springfield</u> - The existing connection between the SP Springfield subdivision Wilmington line and the Chicago and Illinois Midland at Springfield, Illinois is proposed for simplification and upgrading in order to handle additional through train volumes from St. Louis to Peoria, and north. Three existing cross-over's would be retired. These would be replaced in a different alignment (without requiring property acquisition) with two new higher-speed cross-over's and one new turnout shown on Figure 7.1-9.

7.2 DESCRIPTION OF EXISTING ENVIRONMENT AND POTENTIAL ENVIRONMENTAL IMPACTS OF PROPOSED ACTIONS

Existing land use information and potential impacts for proposed construction projects in Illinois are included in Tables 7-1 and 7-2, and shown on Figures 7.1-1 to 7.1-9. Water resources and wetland information is summarized in Table 7-3 and shown on Figures 7.2-1 to 7.2-9. Existing biological resources information and potential impacts are presented in Tables 7-4 and 7-5. Information concerning historic and cultural resources information at proposed construction project sites is included in Table 7-6.

Suggested mitigation measures are described in Section 17. Such measures as are appropriate will be implemented before and during construction activities.

7.3 POTENTIAL ENVIRONMENTAL IMPACTS OF NO-ACTION ALTERNATIVES

Under the no-action alternative, it is assumed that the proposed projects would not be constructed and land use and environmental conditions that currently exist at the proposed sites would remain unchanged. However, if the merger is approved and implemented, elimination of the projects would result in less efficient rail service causing

capacity constraints, delays, and slower operating speeds which would result in additional fuel consumption and air emissions.

7.4 SUMMARY OF COMMENTS

UP/SP merger, Dames & Moore sent letters requesting information to various federal, state, and local agencies. In these letters, information was requested for the areas of: air quality, noise, land use, biological and water resources, historic and cultural resources, transportation systems, energy, and public health and safety. Copies of all correspondence received and telephone conversation notes recorded in response to the requests for information are included in Part 6.

For the proposed construction projects in this state, the following agencies responded: Illinois Historic Preservation Agency, Natural Resources Conservation Service (NRCS), Sangamon County District, Natural Resources Conservation Service (NRCS), Marion County District, The U.S. Department of the Interior Fish and Wildlife Service, and Army Corps of Engineers, St. Louis District. A summary of comments received prior to November 10, 1995 for Illinois is listed below.

- The Illinois Historic Preservation Agency (IHPA) requested photographs of all standing structures within the proposed project area. The IHPA stated that the project area had not been surveyed and that a Phase I archaeological reconnaissance survey will be required to locate, identify and record archaeological resources within the project area.
- The Sangamon County District NRCS had no comment concerning the related construction proposals.
- The Marion County District NRCS provided contacts regarding endangered and threatened species lists. The NRCS expressed concern for forested wetlands within five miles of the proposed site. The agency also listed Bryan Memorial Park and Tully Park as parks and refuges near the proposed

construction project. The Salern Moose Lodge maintains a park adjacent to the site and the Salern Country Club operates a golf course in the vicinity. Also listed were known permitting/approval authorities:

- City of Salem
- IDOT (Springfield)
- IEPA
- COE (St. Louis District)
- Illinois State Historic Preservation Office (Springfield)
- The Fish and Wildlife Service expressed concerns about threatened and endangered species in Macoupin, Marion, Sangamon, and St. Clair Counties of Illinois. A list of threatened and endangered species which may exist in these areas was provided.
- The COE stated that from the information given it cannot be determined whether the projects will require Section 404 authorization. If there is a possibility that a project may involve work in a wetland, a wetland delineation must be performed in accordance with the "Corps of Engineers Wetlands Delineation Manual". COE also stated that if Section 404 authorization was required, the projects would also have to comply with Section 106 of the National Historic Properties Preservation Act.

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- U.S. Geological Survey, various dates. Land use and land cover maps.
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- Williams, Mark, 1995. Personal communication with City of Salem Planning Department from Irene Merrifield, Dames & Moore.

7.5.2 Water Resources and Wetlands

- Dozier, Ivan, 1995. Letter to Julie Donsky, Dames & Moore, from Natural Resources Conservation District, Carlinville. October 17.
- Federal Emergency Management Agency (FEMA), various dates. FEMA Flood Insurance. Rate Maps (FIRM) for Illinois.

U.S. Fish and Wildlife Service, various dates. National Wetland Inventory Maps. U.S. Geological Survey, various dates. 1:24,000-scale topographic maps.

7.5.3 Biological Resources

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- Kath, Joseph A., 1995. Letter to Julie Donsky, Dames & Moore, from Illinois Department of Conservation. October 12.
- Nelson, Richard C., 1995. Letter to Julie Donsky, Dames & Moore, from U.S. Fish and Wildlife Services, Rock Island field office. October 23.

7.5.4 Historic and Cultural Resources

- Haaker, Anne E. (Illinois Historic Preservation Agency), 1995. Letter to July Donsky, Dames & Moore, October 11.
- Soulle, Tracey (Illinois Historic Preservation Agency), 1995. Telephone conversation with Denise Bradley, Dames & Moore, October 25.

7.5.5 Air Quality

- 40 CFR Part 81 Designation of Areas for Air Quality Planning Purposes, Appendix A to Part 81.
- 40 CFR Part 81 Designation of Areas for Air Quality Planning Purposes, Sub Part C Section 107, Attainment Status Designation.
- 40 CFR Part 1105 Procedures for Implementation of Environmental Laws.

7.5.6 Noise

- Rathe, E.J., 1977. "Railway Noise Propagation," Journal of Sound and Vibration, vol. 51, no. 3, pp. 371-388.
- Saurenman, H.J., Nelson, J.T. and Wilson, G.P., 1982. "Handbook of Urban Rail Noise and Vibration Control," UMTA-MA-06-099-82-1.

EXISTING LAND USE INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN ILLINOIS

				Structure	Structures Near Site		Occurrence Within	
Location/Station	Existing Land Uses	General Plan Designation	Zoning Designation	Within 500 Feet	Length in Urbanized Areas (feet)	Prime Farmland	Coastal Zone	
Barr	Site: Transportation Surrounding: Cropland and pasture	No formal land use policies/controls exist		0	0	Yes	No	
Buda-1	Site: Transportation Surrounding: Strip mines or quarries or gravel pits, cropland and pasture, deciduous forest land	Manufacturing	Manufacturing 2 (R-R development allowed)	1	0	Yes	No	
Buda-2	Site: Cropland and pasture Surrounding: Cropland and pasture	Manufacturing	Manufacturing 2 (R-R development allowed)	0	0	Yes	No	
Buda-3	Site: Transportation Surrounding: Cropland and pasture, deciduous forest land	CI ²	CI ²	8	0	Yes	No	
Buda-4	Site: Transportation Surrounding: Cropland and pasture	Residential, Agricultural	Agricultural (R-R development allowed)	0	0	Yes	No	
Dolton	Site: Transportation Surrounding: Residential, industrial and commercial complexes, lakes, commercial, mixed urban or other built-up land	CI ²	CI ²	361	0	No	No	
Dupo	Site: Transportation Surrounding: Resi lential, cropland and pasture, forested wetland or non forested wetland, transportation, lakes and streams	Residential, Agricultural (R-R development allowed)	No zoning designations exist	01	216	Yes	No	

TABLE	7-1
(conclud	ed)

				Structure	s Near Site	Occurrence Within	
Location/Station	Existing Land Uses	General Plan Designation	Zoning Designation	Within 500 Feet	Length in Urbanized Areas (feet)	Prime Farmland	Coastal Zone
Girərd	Site: Transportation Surrounding: Cropland and pasture	Agricultural	Agriculture (R-R development allowed)	5	0	Yes	No
Global 2	Site: Transportation Surrounding: Transportation, commercial, residential, industrial and commercial complexes, other urban or built-up	General Industrial	Industrial 2 (R-R development allowed)	60 ¹	0	No	No
Salem-1	Site: Transportation Surrounding: Evergreen forest land	Industrial	Industrial 1 (R-R development allowed)	17	0	Yes	No
Salem-2	Site: Transportation Surrounding: Residential, cropland and pasture	Industrial	Industrial 1 (R-R development allowed)	27	0	Yes	No
Springfield	Site: Transportation Surrounding: Mixed urban or other built-up land, commercial, residential	Heavy Industrial, Commercial	Manufacturing 2 (R-R development allowed)	0 ¹	1,450	No	No

Sensitive Receptors = Some structures occur within approximately 200 feet of construction activities. CI = Initial contact made with agencies but information not received by time of report submittal.

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POTENTIAL LAND USE IMPACTS AT PROPOSED CONSTRUCTION LOCATIONS IN ILLINOIS

Location/Station	Compatible with Surrounding Land Uses	Consistent with General Plan/Zoning Designation	Potential Loss of Prime Farmland		
Barr	Yes - Not significant	Not applicable - Not significant			
Buda-1	Yes - Not significant	Yes - Not significant	Not expected - Not significant ¹		
Buda-2	Yes - Not significant	Yes - Not significant	Not expected - Not significant ¹		
Buda-3	Yes - Not significant	CI ²	Not expected - Not significant		
Buda-4	Yes - Not significant	Yes - Not significant	Not expected - Not significant ¹		
Dolton	Yes - Not significant	Cl ²	No - Not significant		
Dupo	Yes - Not significant	Yes - Not significant	Not expected - Not significant ¹		
Girard	Yes - Not significant	Yes - Not significant	Not expected - Not significant		
Global 2	Yes - Not significant	Yes - Not significant	No - Not significant		
Salem-1	Yes - Not significant	Yes - Not significant	Not expected - Not significant		
Salem-2	Yes - Not significant	Yes - Not significant	Not expected - Not significant		
Springfield	Yes - Not significant	Yes - Not significant	No - Not significant		

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Construction is anticipated to be largely within existing right-of-way and no prime farmland is expected to be affected.

CI = Initial contact made with agencies but information not received by time of report submittal.

WATER RESOURCES AND WETLAND INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN ILLINOIS

		Water Resource Type ¹							
Location/Station	bls	wb	wl	cd	tc	mf	35	SD	
Barr	0	-	-	n halan 17 di Abadian di Song arabar 	-	Contraction of the second second second second			
Buda-1	2	-	-	-	-				
Buda-2	1	-		-	_				
Buda-3	3	-	-	-	-				
Buda-4	-	-	-	-	-				
Dolton	-	-	-	-	-				
Dupo	2	1	-	1	-			-	
Girard	1	1	-		-				
Global 2	1	3	-		-				
Salem-1	-	4	-	-	-				
Salem-2	1	2	-	-	-	-			
Springfield		-	-						

human-made water conveyances

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=

=

=

=

tidal channels including inlets, harbors, bays, and sloughs subject to tidal influences

permanent to intermittently wet, non-vegetated, usually alkaline, mudflats

areas used for public facilities or commercial purposes areas depicted with the USGS spring symbol

ditches (cd)

mudflats (mf)

springs (sp)

tidal channels (tc)

sewage-treatment ponds, industrial waste ponds, salt evaporators, etc. (ss)

BIOLOGICAL RESOURCES INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN ILLINOIS

Location	Vegeta	tion Type	Known and Potential	Parks, Forests,	
	At the Site	Adjacent	Threatened, and Endangered Species in the Area	Sanctuaries within 5 Miles	
Barr	Ruderal, mixed-grass prairie	Ruderal, mixed-grass prairie	Indiana Bat Bald Eagle Prairie Fringed Orchid Loggerhead Shrike	None	
Buda-1	CI	CI	СІ	Hennepin Canal State Park Wyanet Geological Area Natural Area Coal Creek Fish and Wildlife Area	
Buda-2	Ruderal, mixed-grass prairie	Agricultural, wetland	CI	Hennepin Canal State Park	
Buda-3	CI	СІ	СІ	Hennepin Canal State Park	
Buda-4	СІ	CI	CI	Hennepin Canal State Park	
Doiton	Ruderal, short-grass prairie, wetland	Ruderal, short-grass prairie, wetland	Peregrine Falcon, Hines Emerald Dragonfly, Prairie Bush-clover, Eastern Prairie Fringed Orchid	15 parks, as listed in Part 6	
Dupo	Ruderal	Mixed-grass prairie, wetland, forests, agricultural, ruderal	Indiana Bat Bald Eagle Pallid Sturgeon Decurrent False aster Running Buffalo clover	Stemler Cave Area, Natural Area Falling Springs Natural Area, Dupo Prairie Natural Area, Sugar Loaf Hill Prairie Natural Area	
Girard	Mixed-grass prairie, wetland, ruderal	Agricultural, mixed-grass prairie, wetland, ruderal	Pondhorn mussel	None	
Global 2	СІ	CI .	Peregrine Falcon, Hines Emerald Dragonfly, Prairie Bush-Clover, Eastern Prairie Fringed Orchid	None	
Salem-1	Mixed-grass prairie, wetland, ruderal	Mixed-grass prairie, wetland, forests, ruderal	Indiana Bat	Salem-Lockrone Railroad Prairie Natural Area, Alma Road Prairie	

(concluded)

Location	Veget	ation Type	Known and Potential	Parks, Forests,
	At the Site	Adjacent	Occurrence of Rare, Threatened, and Endangered Species in the Area	Refuges, or Sanctuaries within 5 Miles
Salem-2	Mixed-grass prairie, ruderal	Mixed-grass prairie, forests, residential lawns, ruderal	Indiana Bat	(same as Salem-1)
Springfield	Forests, ruderal	Forests, ruderal	Indiana Bat Bald Eagle	Carpenter Park Riverside Park

CI = Initial agency contact completed. Information regarding sensitive biological resources has not been received from agencies.

POTENTIAL IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES AT PROPOSED CONSTRUCTION LOCATIONS IN ILLINOIS

Location	P	otential Impacts To	
	Rare, Threatened, and Endangered Species	Critical Habitat	Parks, Forests, Refuges, Sanctuaries
Barr	Loggerhead Shrike - PS Indiana Bat - PS	None - NS	None - NS
Buda-1	СІ	None - NS	None - NS
Buda-2	CI	None - NS	None - NS
Buda-3	CI	None - NS	None - NS
Buda-4	CI	None - NS	None - NS
Dolton	Not significant	None - NS	Not significant
Dupo	Indiana Bat - PS Bald Eagle - PS	None - NS	None - NS
Girard	Not significant	None - NS	None - NS
Global 2	Not significant	None - NS	None - NS
Salem - 1	Not significant	None - NS	Not significant
Salem - 2	Not significant	None - NS	None - NS
Springfield	Indiana Bat - PS	None - NS	Not significant

CI = Initial agency contact completed. Information regarding sensitive biological resources has not been received from agencies.

NS = Not Significant

PS = Potentially Significant

EXISTING CONDITIONS AND POTENTIAL IMPACTS FOR HISTORIC AND CULTURAL RESOURCES AT PROPOSED CONSTRUCTION LOCATIONS IN ILLINOIS

Location	His	toric Reso	urces	Archaeological Resources Potential In			Potential Impacts
	L	E	U	L	E	U	
Barr	СІ	CI	CI	CI	CI	CI	ND
Buda-1	CI	CI	CI	CI	CI	CI	ND
Buda-2	CI	CI	CI	CI	CI	CI	ND
Buda-3	CI	CI	CI	CI	CI	CI	ND
Buda-4	CI	CI	CI	CI	CI	CI	ND
Dolton	CI	CI	CI	CI	CI	CI	ND
Dupo	CI	CI	CI	CI	CI	CI	ND
Girard	CI	CI	CI	Cl	CI	CI	ND
Global 2	CI	CI	CI	Cl	CI	CI	ND
Salem-1	CI	CI	CI	CI	CI	CI	ND
Salem-2	CI	CI	CI	CI	CI	CI	ND
Springfield	CI	CI	CI	CI	CI	CI	ND

Note: L, listed on National Register of Historic Places (NRHP); E, determined or recommended eligible for NRHP. U, eligibility for NRHP is unknown; Cl, consultation with SHPO and/or data repository has been initiated but not completed at time of report submittal; ND, not determined. The numbers on table denote the number of known historic or archaeological resources within 100 feet of construction areas.

KEY FOR LAND USE

URBAN OR BUILT-UP LAND

RANGELAND

- RE Residential
- C Commercial and services
- I Industrial
- T Transportation, communications and utilities
- I/C Industrial and commercial complexes
- MU Mixed urban or build-up land
- OU Other urban or built-up land

AGRICULTURAL LAND

- CP Cropland and pasture
- CH Orchards, groves, vineyards, nurseries, and ornamental horticultural areas
- CF Confined feeding operations
- CO Other agricultural land

WATER

- WS Streams and canals
- WL Lakes
- WR Reservoirs
- WB Bays and estuaries

WETLAND

WE Forested wetland, and/or nonforested wetland

KEY FOR CULTURAL RESOURCES SITES

*

Location of known historic or or archaeological site

- Rh Herbaceous rangeland
- Rsb Shrub and brush rangeland
- Rm Mixed rangeland

FOREST LAND

- FD Deciduous forest land
- FE Evergreen forest land
- FM Mixed forest land

BARREN LAND

- Bsf Dry salt flats
- Bb Beaches
- Bs Sandy areas other than beaches
- Br Bare exposed rocks
- Bm Strip mines, quarries, and gravel pits
- Bt Transitional areas
- B Mixed barren land



Figure 7.1-1 Proposed Common Point Connection: Barr, Illinois. Location and Land Use.



Figure 7.1-2 Proposed Common Point Connection and Corridor Upgrade: Buda, Illinois. Location and Land Use.





Figure 7.1-3 Proposed Common Point Connection and Corridor Upgrade: Buda, Illinois. Location and Land Use.



Figure 7.1-4 Proposed Construction at Intermodal Facility: Dolton, Illinois. Location and Land Use.



Figure 7.1-5 Proposed Construction at Intermodal Facility: Dupo, Illinois. Location and Land Use.

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Figure 7.1-6 Proposed Common Point Connection: Girard, Illinois. Location and Land Use.



Figure 7.1-7 Proposed Construction at Intermodal Facility: Global 2, Illinois. Location and Land Use.

Base Map: USGS 7.5' Topographic Quadrangles: Elmhurst, Illinois 1993; River Forest, Illinois 1963 (Photorsvised 1972 and Photoinspected 1978)



Figure 7.1-8 Proposed Common Point Connections: Sale ., Illinois. Location and Land Use.



Figure 7.1-9 Proposed Common Point Connections: Springfield, Illinois. Location and Land Use.

NWI LEGEND



type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

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NWI LEGEND



Instructions for using the legend:

The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

FLOOD INSURANCE RATE MAP LEGEND EXPLANATION OF ZONE DESIGNATIONS

Flood Insurance Rate Maps (FIRMs) display the zone designations for communities according to areas of designated flood hazards. The zone designations used by the Federal Emergency Management Agency (FEMA) are:

Zone	Explanation
Α	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
VO	Areas of 100-year shallow flooding; flood depth 1 to 3 feet; product of flood depth (feet) and velocity (feet per second) less than 15
ΑΉ	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet: base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
AE A99	Areas of 100-year flood; base flood elevations determined (for Louisiana). Areas of 100-year flood to be protected by a flood protection system under construction; base flood elevations and flood hazard factors not determined
В	Areas between limits of 100-year flood and 500-year flood, areas of 100-year shallow flooding where depths less than 1 foot.
С	Areas outside 500-year flood.
X	Areas of combined B and C zones (for Louisiana)
D	Areas of undetermined: but possible flood hazards
v	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevation and flood hazard factor determined

Notes

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

FIRMs are for flood insurance rate purposes only; maps may not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.



Figure 7.2-1 Proposed Common Point Connection: Barr, Illinois. Wetland Information.



Figure 7.2-2 Proposed Common Point Connection and Corridor Upgrade: Buda, Illinois. Wetland Information.



Figure 7.2-3 Proposed Common Point Connection and Corridor Upgrade: Buda, Illinois. Wetland Information.



Figure 7.2-4 Proposed Construction at Intermodal Facility: Dolton, Illinois. Wetland Information.



Figure 7.2-5 Proposed Construction at Intermodal Facility: Dupo, Illinois. Wetland Information.



Figure 7.2-6 Proposed Common Point Connection: Girard, Illinois. Wetland Information.


Figure 7.2-7 Proposed Construction at Intermodal Facility: Global 2, Illinois. Wetland Information.



Figure 7.2-8 Proposed Common Point Connections: Salem, Illinois. Wetland Information.



Figure 7.2-9 Proposed Common Point Connections: Springfield, Illinois. Location

8.0 KANSAS

8.1 PROPOSED ACTIONS AND NO-ACTION ALTERNATIVES

The proposed action in Kansas would involve the construction projects as described in this Part, which would be constructed generally as described in Section 2.0. In each case, the proposed construction is necessary to the efficiency of the merged operations and will result in the benefits discussed in Section 1 of this Part. The no-action alternative assumes that the projects would not be constructed. The projects are listed below and shown in Table 1-1.

The following projects involve construction of new sidings or the extension of existing sidings at specified locations on UP's Salina Branch to improve capacity and operations for traffic between Denver and Salina, Kansas.

Brookville - Construction of a 9,300-foot siding between MP 208 and MP 206 as shown on Figure 8.1-1.

Dorrance - Construction of a 9,300-foot siding between MP 249 and MP 247 as shown on Figure 8.1-5.

<u>Grainfield</u> - Construction of a 9,300-foot siding between MP 362 and MP 359 as shown on Figure 8.1-7.

<u>Oakley</u> - Construction of a 5,500-foot extension to an existing siding between MP 377 and MP 375 as shown on Figure 8.1-13.

Page City - Construction of a 9,300-foot siding between MP 393 and MP 391 as shown on Figure 8.1-14.

Salina - Construction of a 9,300-foot siding between MP 184 and MP 182 as shown on Figure 8.1-17.

Solomon - Construction of a 9,300-foot siding between MP 170 and MP 168 as shown on Figure 8.1-18.

Toulon - Construction of a 9,300-foot siding between MP 284 and MP 282 as shown on Figure 8.1-20.

Wa Keeney - Construction of a 9,300-foot siding between MP 327 and MP 324 as shown on Figure 8.1-21.

Weskan - Construction of a 5,790-foot extension to an existing siding between MP 444 and MP 442 as shown on Figure 8.1-22.

The following projects involve the construction of new sidings or extension of existing sidings at specified locations on UP's OKT Subdivision between Wichita and Fort Worth to improve capacity and operating efficiencies on this line.

<u>Caldwell</u> - Construction of a 9,300-foot siding between MP 293 and MP 291 as shown on Figure 8.1-3.

Midland - Construction of 1,456-foot extension to an existing siding between MP 251 and MP 249 as shown on Figure 8.1-12.

The following projects involve the construction of new sidings or extension of existing sidings to improve capacity and operating efficiencies on UP's Herington Branch line.

Peabody - Construction of a 9,300-foot siding between MP 211 and MP 209 as shown on Figure 8.1-15.

Whitewater - Construction of 4,540-foot extension to an existing siding between MP 222 and MP 220 as shown on Figure 8.1-23.

The following projects involve the construction of a new siding or extensions of an existing siding on UP's McPherson Subdivision to improve capacity and operating efficiencies.

<u>Cline</u> - Construction of a 3,304-foot extension to an existing siding between MP 241 and MP 239 as shown on Figure 8.1-4.

Furley - Construction of a 9,300-foot siding between MP 232 and MP 230 as shown on Figure 8.1-6.

The following projects involve the construction of a new siding and extension of existing sidings on UP's Liberal Subdivision to improve capacity and operating efficiencies.

Bucklin - Construction of an extension to an existing siding between MP 347.1 and MP 348.4 to extend the siding to a length of 9,000 feet as shown on Figure 8.1-2. McPherson - Construction of a 9,700-foot siding between MP 212.7 and MP 214.7 as shown on Figure 8.1-11.

Pratt - Construction of an extension to an existing siding to a length of approximately 10,000 feet between MP 296.1 and MP 298.2 as shown on Figure 8.1-16.

The following projects involve the construction of new or upgraded connections and expansion of existing yards or intermodal facilities:

Herington - Classification workload would increase at Herington, Kansas under the combined operating plan as traffic is handled between points west of Herington (such as Wichita, Salina, New Mexico and Arizona) and points to the east and north of Kansas City, thereby bypassing handling in the Kansas City terminal area. Two yard tracks totaling 4300 feet are proposed in the SP yard off the Topeka subdivision Tucumcari line. In addition, the project would require the upgrade of a wye connection, installation of a crossover, and extension of three yards tracks. (Figure 8.1-8).

Hope - The construction of a new connection at Hope, Kansas between the UP Hoisington subdivision mainline and BN/Santa Fe is proposed as shown on Figure 8.1-9. This connection would be used for trains operating from the SP Herington yard to the Salina, Kansas area using UP's BN/Santa Fe trackage rights. The connection in the northwest quadrant of the existing crossing would require 2,000 feet of new track construction, the installation of two power-operated turnouts, and acquisition of 10 acres right-of-way.

<u>Kansas City-Armourdale</u> - It is proposed to consolidate existing intermodal traffic at UP's Kansas City, Missouri facility into SP's facility at the Armourdale yard, shown on Figure 8.1-10. Construction would include removal of yard trackage, addition of trackage for intermodal cars, additional paving for parking trailers and containers. Construction would occur within SP's existing yard.

<u>Topeka 1 and 2</u> - UP's Marysville Subdivision mainline and SP's Topeka Subdivision Tucumcari line connect and cross at Topeka, Kansas. It is proposed to upgrade the existing wye connection including tie and rail upgrade on 1,000 feet of track and install a new power-operated crossover between the UP siding which the connection runs into and the UP mainline next to the siding as shown on Figure 8.1-19. This connection would accommodate the addition of through train movements between North Platte, Nebraska and Fort Worth, Texas. In the vicinity of the existing rail crossing, it is proposed to construct a new connection in the northwest quadrant between UP yard tracks and the SP line extending north and east of the existing rail crossing as shown on Figure 8.1-19. This new connection involving the addition of one new turnout from the UP yard, construction of 1,000 feet of new yard track and a new power-operated cross-over between this yard track construction and the mainline wil permit the SP line north of the crossing to be served out of the UP Topeka yard. No acquisition of additional right-of-way is expected for either Topeka, Kansas project.

<u>Wichita</u> - A new connection between the UP OKT subdivision mainline and the BN/Santa Fe mainline in Wichita, Kansas is proposed as shown on Figure 8.1-24. This connection will handle the additional volumes of through trains moving over the UP OKT Subdivision between Herington, Kansas and Fort Worth, Texas. The connection will require the installation of two turnouts and construction of 1,300 feet of new track between the two mainlines, also using the UP Hutchinson industrial

lead for part of the route. No acquisition of additional right-of-way is expected for the project.

8.2 DESCRIPTION OF EXISTING ENVIRONMENT AND POTENTIAL ENVIRONMENTAL IMPACTS OF PROPOSED ACTIONS

Existing land use information and potential impacts for proposed construction projects in Kansas are included in Tables 8-1 and 8-2, and shown on Figures 8.1-1 to 8.1-24. Water resources and wetland information is summarized in Table 8-3 and shown on Figures 8.2-1 to 8.2-24. Existing biological resources information and potential impacts are presented in Tables 8-4 and 8-5. Information concerning historic and cultural resources information at proposed construction projects sites is included in Table 8-6 and Figures 8.1-17.

Suggested mitigation measures are described in Section 17. Such measures as are appropriate will be implemented before and during construction activities.

8.3 POTENTIAL ENVIRONMENTAL IMPACTS OF NO-ACTION ALTERNATIVES

Under the no-action alternative, it is assumed that the proposed projects would not be constructed and land use and environmental conditions that currently exist at the proposed sites would remain unchanged. However, if the merger is approved and implemented, elimination of the projects would result in less efficient rail service causing capacity constraints, delays, and slower operating speeds which would result in additional fuel consumption and air emissions.

8.4 SUMMARY OF COMMENTS

To assist in assessing the potential environmental impacts of the proposed UP/SP merger, Dames & Moore sent letters requesting information to various federal, state, and local agencies. In these letters, information was requested for the areas of: air quality, noise, land use, biological and water resources, historic and cultural resources, transportation systems, energy, and public health and safety. Copies of all correspondence received and telephone conversation notes recorded in response to the

requests for information are included in Part 6.

For the proposed construction projects in this state, the following agencies responded: Johnson County Office, Shawnee County Office, City of Bucklin, Historical Preservation Office, Kansas Department of Health and Environment, Trego County Board of Commissioners, Ellsworth County Clerk's Office, The U.S. Department of Agriculture, Logan County Clerk, and Saline County Planning and Zoning Department. A summary of comments received prior to November 10, 1995 for Kansas is listed below.

- The Office of the County Clerk in Johnson County did not recognize any property that would be affected be the proposed project.
- The Shawnee County Office provided contacts for other agencies regarding wildlife, parks, and recreational services.
- The City of Bucklin expressed concerns about a water well owned by the city. The well is located on railroad property at the west end of Bucklin.
- The Historic Preservation Office described a potential need for a Phase I archaeological reconnaissance survey at two of the proposed sites, Salina and Pratt. A known site (14SA403) is reported in the vicinity of the Salina project. The Pratt project is in an area of high potential for the discovery of prehistoric sites. The Office requested that a notification be sent to it when final construction plans are chosen.
- The Kansas Department of Health and Environment stated that the proposed project falls within the definition of construction activity for the purpose of the federal stormwater permitting regulations. The permit is required for projects that are five acres or larger.
- The Trego County Board of Commissioners had no comment on the proposed construction project.
- The Ellsworth County Clerk's Office was not able to respond and forwarded the information to the Kansas Wildlife and Parks Service.

- The U.S. Department of Agriculture stated that the merger should have no effect on prime farmland; however, concerns were expressed regarding land which is outside of railroad property and is covered under the Farmland Protection Policy Act.
- The Logan Country Clerk had no information regarding environmental impacts of the proposed construction project in Logan County.
- The Saline County Planning and Zoning Department stated that there are no parks or refuges within five miles of the proposed site. The department does not have information regarding critical habits and species nor does it possess any permitting/approval authority over the proposed project.

8.5 REFERENCES

8.5.1 Land Use

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- Beagle, Barry, 1995. Personal communication with Topeka-Shawnee County Planning Agency from D. Lowrey, Dames & Moore.
- Carder, John, 1995. Personal communication with City of Herington from Irene Merrifield, Dames & Moore.
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- Hawkey, Julie, 1995. Personal communication with Gove County from D. Lowrey, Dames & Moore.
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- McMillan, Karen, 1995. Personal communication with Dickenson County from D. Lowrey, Dames & Moore.
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- Miller, Pat, 1995. Personal communication with Logan County from Mark Mattheiss, Dames & Moore.
- Mote, Bonnie, 1995. Personal communication with Wallace County from Mark Mattheiss, Dames & Moore.
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- Schiffelbein, Jim, 1995. Personal communication with City of Wichita Planning from Mark Mattheiss, Dames & Moore.
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- Speise, Steve, 1995. Personal communication with City of Kansas City Planning from Bev Halwa, Dames & Moore.

- Topeka-Shawnee Metro Planning Agency, 1995. Personal communication with Topeka-Shwanee Metro Planning Agency from D. Lowrey, Dames & Moore.
- Tyson, Lenny, 1995. Personal communication with Russel County from Mark Mattheiss, Dames & Moore.
- Wasinger, Kay, 1995. Personal communication with Ellis County from Mark Mattheiss, Dames & Moore.
- U.S. Department of Agriculture, 1994. State soil geographic (STATSGO) data base.
- U.S. Geological Survey, various dates. Land use and land cover maps.

U.S. Geological Survey, various dates. 1:24,000-scale topographic maps.

8.5.2 Water Resources and Wetlands

- Federal Emergency Management Agency (FEMA), various dates. FEMA Flood Insurance. Rate Maps (FIRM) for Kansas.
- U.S. Fish and Wildlife Service, various dates. National Wetland Inventory Maps. U.S. Geological Survey, various dates. 1:24,000-scale topographic maps.

8.5.3 Biological Resources

8.5.4 Historic and Cultural Resources

- Anyanwu, Desmond (Kansas State Historical Society), 1995. Telephone conversation with Denise Bradley, Dames & Moore, October 26.
- Lowe, Gleyn A., 1995. Letter to Julie Donsky, Dames & Moore, from Trego County Commissioner. October 16.
- Pankrantz, Richard, 1995. Letter to Julie Donsky, Dames & Moore, from Kansas Historic Preservation office. October 4.

8.5.5 Transportation

Hoback, Robert L., 1995. Letter to Julie Donsky, Dames & Moore, from Russell County Highway Department. October 31.

8.5.6 Air Quality

- 40 CFR Part 81 Designation of Areas for Air Quality Planning Purposes, Appendix A to Part 81.
- 40 CFR Part 81 Designation of Areas for Air Quality Planning Purposes, Sub Part C Section 107, Attainment Status Designation.

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40 CFR Part 1105 - Procedures for Implementation of Environmental Laws.

8.5.7 Noise

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- Saurenman, H.J., Nelson, J.T. and Wilson, G.P., 1982. "Handbook of Urban Rail Noise and Vibration Control," UMTA-MA-06-099-82-1.

EXISTING LAND USE INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN KANSAS

			-	Structure	es Near Site	Occurre	nce Within
Location/Station	Existing Land Uses	General Plan Designation	Zoning Designation	Within 500 Feet	Length in Urbanized Areas (feet)	Prime Farmiand	Coastal Zone
Brookville	Site: Transportation Surrounding: Other urban or built-up land, cropland and pasture, herbaceous rangeland, lakes	No formal land use policies/controls exist		3	0	Yes	No
Bucklin	Site: Transportation Surrounding: Cropland and pasture, residential, other urban or built-up land, commercial	No formal land use policies/controls exist		66	0	Yes	No
Caldwell	Site: Transportation Surrounding: Cropland and pasture, herbaceous rangeland, residential	cj ²	CI ²	81	0	Yes	No
Cline	Site: Transportation Surrounding: Industrial, cropland and pasture, commercial	No formal land use policies/controls exist		34	0	Yes	No
Dorrance	Site: Trai.sportation Surrounding: Cropland and pasture	No formal land use policies/controls exist		0	0	Yes	No
Furley	Site: Transportation Surrounding: Cropland and pasture	No formal land use policies/controls exist		3	0	Yes	No
Grainfield	Site: Transportation Surrounding: Cropland and pasture, mixed rangeland, strip mines or quarries or gravel pits	No formal land use policies/controls exist		0	0	Yes	No

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				Structure	es Near Site	Occurrence Within	
Location/Station	Existing Land Uses	General Plan Designation	Zoning Designation	Within 500 Feet	Length in Urbanized Areas (feet)	Prime Farmland	Coastal Zone
Herington-1	Site: Transportation Surrounding: Strip mines or quarries or gravel pits, cropland and pasture, commercial, residential other urban or built-up land	Heavy Industrial	Industrial 2 (R-R development allowed)	5	0	Yes	No
Herington-2	Site: Transportation Surrounding: Cropland and pasture, commercial, residential, other urban or built-up land, strip mines or quarries or gravel pits	Agricultural	Agricultural (R-R development allowed)	0	0	Yes	No
Норе	Site: Cropland and Pasture Surrounding: Cropland and pasture	Agriculture (R-R development allowed)	No zoning designations exist	4	0	Yes	No
Kansas City/ Armourdale	Site: Transportation Surrounding: Industrial, transportation, residential	No designation exists	Heavy industrial (R-R development allowed)	231	0	No	No
McPherson	Site: Transportation Surrounding: Cropland pasture, herbaceous rangeland	No designation exists	Agriculture (R-R development allowed)	0	0	Yes	No
Midland	Site: Transportation Surrounding: Strip mines or quarties or gravel pits, residential, cropland and pasture, commercial	Cl ²	CI ²	90 ¹	0	Yes	No
Oakley	Site: Transportation Surrounding: Other urban or built-up land, residential, cropland and pasture, commercial	No formal land use policies/controls exist		68	0	No	No

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(continued)

				Structure	es Near Site	Occurrence Within	
Location/Station	Existing Land Uses	General Plan Designation	Zoning Designation	Within 500 Feet	Length in Urbanized Areas (feet)	Prime Farmland	Coastal Zone
Page City	Site: Transportation Surrounding: Cropland and pasture, herbaceous rangeland	No formal land use policies/controls exist		0	0	No	No
Peabody	Site: Transportation Surrounding: Cropland and pasture, commercial	No formal land use policies/controls exist		5	0	Yes	No
Pratt	Site: Transportation Surrounding: Cropland and pasture, residential, other urban or built-up land, strip mines or quarries or gravel pits	No designation exists	Light and Heavy Industrial, Residential (R-R development allowed)	0 ¹	5,400	Yes	No
Salina	Site: Transportation Surrounding: Cropland and pasture, commercial	No designation exists	Agricultural (R-R development allowed)	9	0	Yes	No
Solomon	Site: Transportation Surrounding: Cropland and pasture, confined reeding operations, residential, reservoirs	No formal land use policies/controls exist		24	0	Yes	No
Topeka I	Site: Commercial Surrounding: Streams and canals	General Industrial	Manufacturing 2 (R-R development allowed)	231	0	No	No
Topeka 2	Site: Commercial Surrounding: Residential	General Industrial	Manufacturing 2 (R-R development allowed)	23 ¹	0	No	No
Toulon	Site: Transportation Surrounding: Cropland and pasture	No formal land use policies/controls exist		0	0	Yes	No
Wa Keeney	Site: Transportation Surrounding: Cropland and pasture	No formal land use policies/controls exist		0	0	Yes	No



	•			Structure	s Near Site	Occurrence Within	
Location/Station Existing Land Uses General Pla Designatio	General Plan Designation	Zoning Designation	Within 500 Feet	Length in Urbanized Areas (feet)	Prime Farmland	Coastal Zono	
Weskan	Site: Transportation Surrounding: Cropland and pasture	No formal land use policies/controls exist		12	0	Yes	No
Whitewater	Site: Transportation Surrounding: Cropland and pasture, residential, industrial, commercial	No formal land use policies/controls exist		48	0	Yes	No
Wichita	Site: Transportation Surrounding: Residential, industrial	Heavy Industrial and Industrial	Industrial (R-R development allowed)	30	0	Yes	No

Sensitive Receptors = Some structures occur within approximately 200 feet of construction activities. CI = Initial contact made with agencies but information not received by time of report submittal.

POTENTIAL LAND USE IMPACTS AT PROPOSED CONSTRUCTION LOCATIONS IN KANSAS

Location/Station	Compatible with Surrounding Land Uses	Consistent with General Plan/Zoning Designation	Potential Loss of Prime Farmland
Brookville	Yes - Not significant	Not applicable - Not significant	Not expected - Not significant ¹
Bucklin	Yes - Not significant	Not applicable - Not significant	Not expected - Not significant
Caldwell	Yes - Not significant	CI ²	Not expected - Not significant ¹
Cline	Yes - Not significant	Not applicable - Not significant	Not expected - Not significant ¹
Dorrance	Yes - Not significant	Not applicable - Not significant	Not expected - Not significant ¹
Furley	Yes - Not significant	Not applicable - Not significant	Not expected - Not significant
Grainfield	Yes - Not significant	Not applicable - Not significant	Not expected - Not significant
derington-1	Yes - Not significant	Yes - Not significant	Not expected - Not significant ¹
Herington-2	Yes - Not significant	Yes - Not significant	Not expected - Not significant
Норе	Yes - Not significant	Yes - Not significant	Not expected - Not significant
Kansas City/Armourdale	Yes - Not significant	Yes - Not significant	Yes - Not significant
McPherson	Yes - Not significant	Yes - Not significant	Not expected - Not significant
Midland	Yes - Not significant	cl ²	Not expected - Not significant
Oakiey	Yes - Not significant	Not applicable - Not significant	No - Not significant
Page City	Yes - Not significant	Not applicable - Not significant	No - Not significant
Peabody	Yes - Not significant	Not applicable - Not significant	Not expected - Not significant
Pratt	Yes - Not significant	Yes - Not significant	Not expected - Not significant

TABLE 8-2	
(concluded)	

Location/Station	Compatible with Surrounding Land Uses	Consistent with General Plan/Zoning Designation	Potential Loss of Prime Farmland	
Salina	Yes - Not significant	Yes - Not significant	Not expected - Not significant	
Solomon	Yes - Not significant	Not applicable - Not significant	Not expected - Not significant ¹	
Topeka 1	Yes - Not significant	Yes - Not significant	No - Not significant	
Topeka 2	Yes - Not significant	Yes - Not significant	No - Not significant	
Toulon	Yes - Not significant	Not applicable - Not significant	Not expected - Not significant	
Wa Keeney	Yes - Not significant	Not applicable - Not significant	Not expected - Not significant	
Weskan	Yes - Not significant	Not applicable - Not significant	Not expected - Not significant	
Whitewater	Yes - Not significant	Not applicable - Not significant	Not expected - Not significant	
Wichita	Yes - Not significant	Yes - No significant	Not expected - Not significant 1	

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Construction is anticipated to be largely within existing right-of-way and no prime farmland is expected to be affected.

CI = Initial contact made with agencies but information not received by time of report submittal.

WATER RESOURCES AND WETLAND INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN KANSAS

		Water Resource Type ¹								
Location/Station	bls	wb	wl	cd	tc	mf	55	sp		
Brookville	3	-	-			-	-	-		
Bucklin	3	-	-	-	-	-	-	-		
Caldwell	1	-	-	-	-	-	-	-		
Cline	_	1	-	1	-	-	-	-		
Dorrance	2	-	-	-	-	-	-	-		
Furley	3	2	-	-	-	-	-	-		
Grainfield	1	-	-	-	-	-	-	-		
Herington-1	1	1	-	-	-	-	-	-		
Норе	2	-				-	-	-		
KC/Annourdale	-	-	-	-		-	-	-		
McPherson	2	-	-	-	-	-	-	-		
Midland	1	2	-	-		-	-	-		
Oakley		-	-	-	-	-	-	-		
Page City	1	-	-	-	-	-	-	-		
Peabody	3	-	-		-	-	-	-		
Pratt	3	-			-	-	-	-		
Salina	1	-	-	-	-	-	-	-		
Solomon	2	-	-	-	-	-	-	1		
Topeka - 1	1	-	-	-		-	-	-		
Topeka - 2	-	-	-	-		-	-	-		
Toulon	1		-	-	-		-			

TABL	E	8-3	
(concl	ud	ed)	

		Water Resource Type ¹								
Location/Station	bls	wb	wl	cd	tc	mf	\$\$	SD		
Wa Keeney	2	-	-	- 1	-	Assertion processing and a second				
Weskan	-	-	-	-	-					
Whitewater	4	2	-	_	-					
Wichita	-	-	-			-				

blue-line streams (bls) waterbodies (wb)	=	permanent and intermittent watercourses, including creeks, streams, rivers, washes, and sloughs permanent and intermittent bodies of standing water including ponds, lakes, reservoirs, bayous, catchments, and heaver ponds
wetlands (wl) canals, culverts,	=	areas depicted with the USGS wetland symbol, primarily including marshes and wet meadows
ditches (cd)	=	human-made water conveyances
tidal channels (tc)	=	tidal channels including inlets, harbors, have and cloughs subject to tidal influences
mudflats (mf) sewage-treatment ponds, industrial waste ponds,	=	permanent to intermittently wet, non-vegetated, usually alkaline, mudflats
salt evaporators, etc. (ss)	=	areas used for public facilities or commercial nurnoses
springs (sp)	=	areas depicted with the USGS spring symbol

BIOLOGICAL RESOURCES INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN KANSAS

Location	Veg	etation Type	Known and Potential	Parks, Forests, Refuges,	
At the Site		Adjacent	- Occurrence of Rare, Threatened, and Endangered Species in the Area	or Sanctuaries within 5 Miles	
Brookville	Ruderal, plum thickets, mixed- grass prairie	Ruderal, plum thickets, agricultural, riparian	9 species, as listed in Part 6	None	
Bucklin	Ruderal, mixed- grass prairie	Mowed grasses, agricultural, wetland, ruderal	9 species, as listed in Part 6	None	
Caldwell	Ruderal, mixed- grass prairie, forests	Forests, mixed-grass prairie	15 species, as listed in Part 6	None	
Cline	Ruderal, mixed- grass prairie	Ruderal, agricultural, mixed-grass prairie	10 species, as listed in Part 6	Watson Park Clapp Memorial Park Plainview Park Sim Memorial Park Central Riverside Park McDonald Park Chisholm Park	
Dorrance	Ruderal, mixed- grass prairie	Agricultural, ruderal, and mixed-grass prairie	9 species, as listed in Part 6	Lake Wilson Reservoir/ Wildlife Refuge	
Furley	Ruderal, mixed- grass prairie, forests	Agricultural, mixed- grass prairie	15 species, as listed in Part 6	None	
Grainfield	Ruderal	Agricultural and ruderal	9 species, as listed in Part 6	None	
Herington-1	Very little; scattered pigweed	Riparian habitat surrounding Lime Creek	11 species, as listed in Part 6	None	
Herington-2	(same as Herington-1)	(same as Herington-1)	11 species, as listed in Part 6	None	
Норе	Ruderal, mixed- grass prairie	Agricultural, ruderal, mixed-grass prairie	11 species, as listed in Part 6	None	
Kansas City Armourdale	Ruderal	Ruderal, forests	None	City Park, Gray's Park	
McPherson	Mixed-grass prairie	Agricultural, riparian wetland	СІ	None	
Midland	Mixed-grass prairie	Forests, mixed-grass prairie, riparian	10 species, as listed in Part 6	None	

TABLE 8-4 (continued)

Location	Vege	tation Type	Known and Potential	Parks, Forests, Refuges,	
At the Site		Adjacent	Occurrence of Rare, Threatened, and Endangered Species in the Area	or Sanctuaries within 5 Miles	
Oakley	Ruderal	Agricultural and ruderal	10 species, as listed in Part 6	None	
Page City	Ruderal	Agricultural and ruderal	10 species, as listed in Part 6	None	
Peabody	Mixed-grass prairie	Wooded riparian, agricultural	10 species, as listed in Part 6	Non	
Pratt	Wooded grasslands, mixed- grass prairie	Forests, tall-grass prairie, riparian	СІ	None	
Salina	Shortgrass prairie with scattered large trees	Agricultural and riparian	СІ	None	
Solomon	Shortgrass prairie, ruderal	Shortgrass prairie, agricultural, ruderal, riparian	11 species, as listed in Part 6	None	
Topeka-1	Ruderal	Ruderal	8 species, as listed in Part 6 Appendices	County Park Big Shunga Park Winter Park	
Topeka-2	Ruderal	Rudera!	8 species, as listed in Part 6	(same as Topeka-1)	
Toulon	Ruderal	Agricultural, ruderal, and shortgrass prairie	Eastern spotted skunk	None	
Wa Keeney	Ruderal, short- grass prairie	Agricultural, ruderal, short-grass prairie	CI	None	
Weskan	Ruderal	Ruderal and mowed grasses	СІ	None	
Whitewater	Mixed-grass prairie	Mixed-grass prairie with scattered elms, forests, agricultural	9 species, as listed in Part 6	None	
Wichita	Industrial	Ruderal, industrial, residential	10 species, as listed in Part 6	McAdams Park, Grove Park, Central Riverside Park, Schell Park, South Riverside Park	

CI = Initial agency contact completed. Information regarding sensitive biological resources has not been received from agencies.

POTENTIAL IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES AT PROPOSED CONSTRUCTION LOCATIONS IN KANSAS

Location	Potential Impacts To							
	Rare, Threatened, and Endangered Species	Critical Habitat	Parks, Forests, Refuges, Sanctuaries					
Brookville	Not significant	None - NS	None - NS					
Bucklin	Eastern Spotted Skunk - PS	None - NS	None - NS					
Caldwell	Eastern Spotted Skunk - PS Checkered Garter Snake - PS New Mexico Blind Sna	None - NS	None - NS					
Cline	Eastern Spotted Skunk - PS	None - NS	Not significant					
Dorrance	Not significant	None - NS	None - NS					
Furley	Eastern Spotted Skunk - PS Checkered Garter Snake - PS New Mexico Blind Snake - PS	None - NS	None - NS					
Grainfield	Not significant	None - NS	None - NS					
Herington-1	Not significant	Not significant	None - NS					
Herington-2	Not significant	None - NS	None - NS					
Норе	Not significant	None - NS	None - NS					
Kansas City Armourdale	None - NS	None - NS	None - NS					
McPherson	CI	None - NS	None - NS					
Midland	Eastern Spotted Skunk - PS	None - NS	None - NS					
Oakley	Western Green Toad - PS	None - NS	None - NS					
Page City	Western Green Toad - PS	None - NS	None - NS					
Peabody	Not significant	None - NS	None - NS					
Pratt	СІ	None - NS	None - NS					
Salina	СІ	None - NS	None - NS					
Solomon	Not significant	None - NS	None - NS					
[opeka-]	Not significant	None - NS	Not significant					
Topeka-2	Not significant	None - NS	Not significant					
oulon	Not significant	None - NS	None - NS					
Va Keeney	CI	None - NS	None - NS					
Veskan	CI	None - NS	None - NS					

TABLE 8-5 (concluded)

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Location	Potential Impacts To					
	Rare, Threatened, and Endangered Species	Critical Habitat	Parks, Forests, Refuges, Sanctuaries			
Whitewater	Not significant	None - NS	None - NS			
Wichita	Eastern Spotted Skunk - PS	None - NS	None - NS			

NS = Not Significant

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PS = CI = Potentially Significant

Initial agency contact completed. Information regarding sensitive biological resources has not been received from agencies.

EXISTING CONDITIONS AND POTENTIAL IMPACTS FOR HISTORIC AND CULTURAL RESOURCES AT PROPOSED CONSTRUCTION LOCATIONS IN KANSAS

Location	Hi	Historic Resources			aeological I	Potential Impacts	
	L	E	U	L	E	U	
Brookville	CI	CI	CI	CI	CI	CI	ND
Bucklin	CI	CI	CI	CI	CI	CI	ND
Caldwell	CI	CI	CI	CI	CI	CI	ND
Cline	CI	CI	CI	CI	CI	CI	ND
Dorrance	CI	CI	CI	CI	CI	CI	ND
Furley	CI	CI	CI	CI	CI	CI	ND
Grainfield	СІ	CI	CI	CI	CI	CI	ND
Herington-1	СІ	CI	CI	CI	CI	CI	ND
Herington-2	CI	CI	CI	CI	CI	CI	ND
Норе	CI	CI	CI	CI	CI	CI	ND
Kansas City Armourdale	CI	CI	CI	CI	CI	CI	ND
McPherson	CI	CI	CI	CI	CI	CI	ND
Midland	CT	CI	CI	CI	CI	CI	ND
Oakley	CI	CI	CI	CI	CI	CI	ND
Page City	CI	CI	CI	CI	CI	CI	ND -
Peabody	CI	CI	CI	CI	CI	CI	ND
Pratt	CI	CI	CI	CI	CI	CI	ND
Salina	CI	CI	CI	CI	CI	CI	PS
Solomon	CI	CI	CI	CI	CI	CI	ND
Topeka-1	CI	CI	CI	CI	CI	CI	ND
Topeka-2	CI	CI	Cl	CI	CI	CI	ND
Toulon	CI	CI	CI	CI	CI	CI	ND
Wa Keeney	CI	CI	CI	CI	CI	CI	ND
Weskan	CI	CI	CI	CI	CI	CI	ND
Whitewater	CI	CI	CI	CI	CI	CI	ND

Location	Historic Resources		Archaeological Resources			Potential Impacts	
	L	E	U	L	E	U	
Wichita	CI	CI	CI	CI	CI	CI	ND

TABLE 8-6 (corpluded)

Note: L, listed on National Register of Historic Places (NRHP); E, determined or recommended eligible for NRHP; U, eligibility for NRHP is unknown; CI, consultation with SHFO and/or data repository has been initiated but not completed at time of report submittal; PS, potentially significant. The numbers on table denote the number of known historic or archaeological resources within 100 feet of construction areas.

KEY FOR LAND USE

URBAN OR BUILT-UP LAND

RANGELAND

- RE Residential
- C Commercial and prvices
- I Industrial
- T Transportation, communications and utilities
- I/C Industrial and commercial complexes
- MU Mixed urban or build-up land
- OU Other urban or built-up land

AGRICULTURAL LAND

- CP Cropland and pasture
- CH Orchards, groves, vineyards, nurseries, and ornamental horticultural areas
- CF Confined feeding operations
- CO Other agricultural land

WATER

- WS Streams and canals
- WL Lakes
- WR Reservoirs
- WB Bays and estuaries

WETLAND

WE Forested wetland, and/or nonforested wetland

KEY FOR CULTURAL RESOURCES SITES



Location of known historic or or archaeological site

- Rh Herbaceous rangeland
- Rsb Shrub and brush rangeland
- Rm Mixed rangeland

FOREST LAND

- FD Deciduous forest land
- FE Evergreen forest land
- FM Mixed forest land

BARREN LAND

- Bsf Dry salt flats
- Bb Beaches
- Bs Sandy areas other than beaches
- Br Bare exposed rocks
- Bm Strip mines, quarries, and gravel pits
- Bt Transitional areas
- B Mixed barren land



Figure 8.1-1 Proposed Corridor Upgrade: Brookville, Kansas. Location and Land Use.



Figure 8.1-2 Proposed Corridor Upgrade: Bucklin, Kansas. Location and Land Use.





Figure 8.1-3 Proposed Corridor Upgrade: Caldwell, Kansas. Location and Land Use.



Figure 8.1-4 Proposed Corridor Upgrade: Cline, Kansas. Location and Land Use.

Base Map: USGS 7.5' Topographic Quadrangles: Valley Center, Kansas 1960 (Photorevised 1982); Wichita East, Kansas 1961 (Photorevised 1982)



Figure 8.1-5 Proposed Corridor Upgrade: Dorrance, Kansas. Location and Land Use.



Figure 8.1-6 Proposed Corridor Upgrade: Furley, Kansas. Location and Land Use.



Figure 8.1-7 Proposed Conidor Upgrade: Grainfield, Kansas. Location and Land Use.

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Base Map: USGS 7.5' Topographic Quadrangles: Grinnell NE, Kansas 1979; Suriny Slope Lake, Kansas 1979



Figure 8.1-8 Proposed Construction at Rail Yard: Herington, Kansas. Location and Land Use.


Figure 8.1-9 Proposed Common Point Connection: Hope, Kansas. Location and Land Use.



Figure 8.1-10 Proposed Construction at Intermodal Facility: KC/Armourdale, Kansas. Location and Land Use.





Figure 8.1-11 Proposed Corridor Upgrade: McPherson Kansas. Location and Land Use.





Figure 8.1-12 Proposed Corridor Upgrade: Midland, Kansas. Location and Land Use.



Figure 8.1-13 Proposed Corridor Upgrade: Oakley, Kansas. Location and Land Use.







Figure 8.1-14 Proposed Corridor Upgrade: Page City, Kansas. Location and Land Use.



Figure 8.1-15 Proposed Corridor Upgrade: Peabody, Kansas. Location and Land Use.



Figure 8.1-16 Proposed Corridor Upgrade: Pratt, Kansas. Location and Land Use.



Figure 8.1-17 Proposed Corridor Upgrade: Salina, ...ansas. Location and Land Use.



Figure 8.1-18 Proposed Corridor Upgrade: Solomon, Kansas. Location and Land Use.



Figure 8.1-19 Proposed Common Point Connections: Topeka. Location and Land Use.







Figure 8.1-21 Proposed Corridor Upgrade: Wa Keeney. Kansas. Location and Land Use.



Figure 8.1-22 Proposed Corridor Upgrade: Weskan, Kansas. Location and Land Use.

Base Map: USGS 7.5' Topographic Quadrangle: Weskan, Kansas 1979



Figure 8.1-23 Proposed Corridor Upgrade: Whitewater, Kansas. Location and Land Use.



Figure 8.1-24 Proposed Construction at Rail Yard: Wichita, Kansas, Location and Land Use.



NWI LEGEND

SYSTEM				M - MARIN	E				
SUBSYSTEM				2 - INTERTIDAL					
CLASS	RB ROCK BOTTOM	UB UNCONSOLIDATED A	AB AQUATIC BED R	IF REEF OW OPEN WA	IER AE	B AQUATIC BED	AF - REEF	RS - ROCKY SHORE	US - UNCONSOLIDATED
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 1 2 Sand 3 3 Mud 5 4 Grganic	Algat 1 Rooted Vascular 3 Unknown Submergeni	Coral Worm	1 / 3 5	Algai Rooted Vascular Unknown Submergent	1 Coral 3 Worm	1 Bedrock 2 Rubble	SHORE 1 Cobble-Gravel 2 Sand 3 Mud 4 Organic
SYSTEM				R R	IVERIN	IE			
SUBSYSTEM	1 - TIDA	NL 2-	LOWER PEREN	INIAL 3-U	PPERP	ERENNIAL	A INTE	DANTTENT P	······
CLASS	RB ROCK BOTTO	UB UNCONSOLIDATE	D 'SA STREAMBE	D AB AQUATIC BED	AS RO	CKY US UNCONS	OLIDATED	**EM - EMERGEN	UNKNOWN PERENNIA
Subclass	1 Bedrock 2 Rubble	1 Cobble Gravel 2 Sand 3 Mud 4 Organic	1 Bedrock 2 Rubble 3 Cobble Gravei 4 Sand 5 Mud 6 Organic 7 Vegetated	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submargent 6 Unknown Surface	1 Bedrock 2 Rubble	1 Cobble Grave 2 Sand 3 Mud 4 Organic 5 Vegetated	•	2 Nonpersistent	Uritnown Bottom
	STREAMBE	D is limited to TIDAL and INTE	RMITTENT SUBSYSTE	MS, and comprises the only C	LASS in I	NE INTERMITTENT SUB	SYSTEM		

PERENNIAL SUBSYSTEMS

SYSTEM	P - PALUSTRINE								
CLASS	RB - ROCK BOTTOM	UB - UNCONSOLIDATED BOTTOM	AB - AQUATIC BED	US UNCONSOLIDATED	ML - MOSS	EM EMERGENT	SS SCRUB SHRUB	FO - FORESTED	OW - OPEN WATER/
Subclass	1 Bedrock 2 Rubble	1 Cobble Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	1 Cobble Gra vel 2 Sand 3 Mud 4 Organic 5 Vegetated	1 Moss 2 Lichen	1 Persistent 2 Noi-persistent	1 Broad-Leaved Deciduous 2 Naedle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen	1 Broad-Leaved Deciduous 2 Naedle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen	- and an output
		Instructions for	or using the le	aend:			5 Dead 6 Deciduous 7 Evergreen	5 Dead 6 Deciduous 7 Evergreen	

Instructions for using the legend:

The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

NWI LEGEND



Instructions for using the legend:

The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

FLOOD INSURANCE RATE MAP LEGEND EXPLANATION OF ZONE DESIGNATIONS

Flood Insurance Rate Maps (FIRMs) display the zone designations for communities according to areas of designated flood hazards. The zone designations used by the Federal Emergency Management Agency (FEMA) are:

Zone	Explanation
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AO	Areas of 100-year shallow flooding; flood depth 1 to 3 feet; product of flood depth (feet) and velocity (feet per second) less than 15.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
AE	Areas of 100-year flood; base flood elevations determined (for Louisiana)
A99	Areas of 100-year flood to be protected by a flood protection system under construction; base flood elevations and , od hazard factors not determined
В	Areas between limits of 100-year flood and 500-year flood, areas of 100-year shallow flooding where depths less than 1 foot
С	Areas outside 500-year flood.
X	Areas of combined B and C zones (for Louisiana)
D.	Areas of undetermined: but possible flood hazards
v	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevation and flood hazard factor determined.

Notes

Certain areas not in the special flood hazaro areas (zones A and V) may be protected by flood control structures.

FIRMs are for flood insurance rate purposes only; maps may not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.



Figure 8.2-1 Proposed Corridor Upgrade: Brookville, Kansas. Wetland Information.









Figure 8.2-3 Proposed Corridor Upgrade: Caldwell, Kansas. Wetland Information.





Base Map: USGS 7.5' Topographic Quadrangles: Valley Center, Kansas 1960 (Photorevised 1982); Wichita East, Kansas 1961 (Photorevised 1982)



Figure 8.2-5 Proposed Corridor Upgrade: Dorrance Kansas. Wetland Information.



Figure 8.2-8 Proposed Corridor Upgrade: Furley, Kansas. Wetland Information.



Figure 8.2-7 Proposed Corridor Upgrade: Grainfield, Kansas. Wetland Information.



Figure 8.2-8 Proposed Construction at Rail Yard: Herington, Kansas. Wetland Information.

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Figure 8.2-9 Proposed Common Point Connection: Hope, Kansas. Wetland Information.





Figure 8.2-11 Proposed Corridor Upgrade: McPherson Kansas. Wetland Information.



Figure 8.2-12 Proposed Corridor Upgrade: Midland, Kansas. Wetland Information.







Figure 8.2-14 Proposed Corridor Upgrade: Page City, Kansas. Wetland Information.



Figure 8.2-15 Proposed Corridor Upgrade: Peabody, Kansas. Wetland Information.




Figure 8.2-17 Proposed Corridor Upgrade: Salina, Kansas. Wetland Information.



Figure 8.2-18 Proposed Comidor Upgrade: Solomon, Kansas. Wetland Information.



Figure 8.2-19 Proposed Common Point Connections: Topeka, Kansas. Wetland Information.



Figure 8.2-20 Proposed Corridor Upgrade: Toulon, Kansas. Wetland Information.



Figure 8.2-21 Proposed Corridor Upgrade: Wa Keeney, Kansas. Wetland Information.



Figure 8.2-22 Proposed Corridor Upgrade: Weskan, Kansas. Wetland Information.



Figure 8.2-23 Proposed Corridor Upgrade: Whitewater, Kansas. Wetland Information.



Figure 8.2-24 Proposed Construction at Rail Yard: Wichita, Kansas. Wetland Information.



9.0 LOUISIANA

9.1 PROPOSED ACTIONS AND NO-ACTION ALTERNATIVES

The proposed action in Louisiana would involve the construction projects as described in this Part, which would be constructed generally as described in Section 2.0. In each case, the proposed construction is necessary to the efficiency of the merged operations and will result in the benefits discussed in Section 1 of this Part. The no-action alternative assumes that the projects would not be constructed.

The following construction projects proposed in Louisiana involve the construction of new connections, upgraded connections, and increasing the capacity of one yard. The projects are listed below and shown in Table 1-1.

Avondale 1. 2 and 3 - The construction of a new connection between the UP Alexandria Subdivision mainline and SP Avondale Subdivision mainline just west of Avondale, Louisiana is proposed as shown on Figure 9.1-1. The connection will involve the construction of universal cross-over capability between the two mainlines, including installation of four power-operated 40 MPH mainline turnouts, and construction of 1,300 feet of new track on existing right-of-way. The connection will serve to provide additional capacity and routing flexibility for traffic moving between the UP and SP sides of Avondale and the lines to Livonia and Lafayette, Louisiana.

In addition, improvement of the interlocker at MP 10.2 as shown on Figure 9.1-2 connecting the UP and SP will permit efficient operations on the adjoining lines. Construction will occur within the existing right-of-way.

Intermodal traffic from UP's Westwego intermodal facility is proposed to be consolidated into SP's Avondale facility (Figure 9.1-2). This increased traffic will require construction of additional facilities to accommodate this increase.

Kinder - A new connection is proposed at Kinder, Louisiana between the UP Lake Charles Subdivision mainline and the UP Beaumont Subdivision mainline as shown on Figure 9.1-7. This new connection will be used by mainline movements between Livonia, Louisiana and Beaumont, Texas. The construction will involve the installation of two power-operated 30 MPH mainline turnouts, 1,400 feet of new track, and will require acquisition of right-of-way.

Livonia - Construction of additional terminal capacity for the UP yard at Livonia, Louisiana on the UP Alexandria Subdivision is proposed (Figure 9.1-8). This capacity is necessary to handle the additional volumes of classification traffic from both UP and SP sources making connections at the Livonia facility. Construction will include the addition of one new receiving track and two classification tracks within the existing facility. Also included is the realignment and construction of new connection in the rail crossing between the UP Beaumont and Alexandria Subdivision mainlines. Some additional right-of-way will be required for this construction.

Shreveport - In order to manage the movement of trains between the UP yard at Shreveport, Louisiana and the SP mainline south to Houston, a new connection is proposed between the UP Reisor Subdivision mainline and the SP Lufkin Subdivision mainline as shown on Figure 9.1-9. The construction of this new 30 MPH mainline connection will require the installation of two power-operated mainline turnouts, the construction of 1,200 feet of new track in the southwest wye quadrant, the acquisition of approximately three acres of right-of-way, and the relocation of a US Highway 171 overpass pier.

The following projects involve construction on UP's Alexandria subdivision to improve capacity and operating efficiencies. It is anticipated that most, if not all, of the construction would occur within the existing ROW.

<u>Farmers</u> - Construction of a new cross-over at MP 19.4 as shown on Figure 9.1-5. <u>Taft</u> - Construction of a new mainline track and conversion of existing mainline to sidings between MP 26.8 and 30.1 as shown on Figure 9.1-10.

White Castle - Construction of an extension to an existing siding between MP 71.1 and MP 78.8 as shown on Figure 9.1-11.

Edna - This project involves the construction of a new 8,500-foot siding on UP's Lake Charles subdivision as shown on Figure 9.1-3. A road and crossing would be relocated at the south end of this siding.

Elton - This project involves the construction of a new 8,500-foot siding between MP 550.6 and MP 552.4 on UP's Beaumont subdivision as shown on Figure 9.1-4.

9.2 DESCRIPTION OF EXISTING ENVIRONMENT AND POTENTIAL ENVIRONMENTAL IMPACTS OF PROPOSED ACTIONS

Existing land use information and potential impacts for proposed construction projects in Louisiana are included in Tables 9-1 and 9-2, and shown on Figures 9.1-1 to 9.1-11. Water resources and wetland information is summarized in Table 9-3 and shown on Figures 9.2-1 to 9.2-11. Existing biological resources information and potential impacts are presented in Tables 9-4 and 9-5. Information concerning historic and cultural resources information at proposed construction project sites is included in Table 9-6.

Suggested mitigation measures are described in Section 17. Such measures as are appropriate will be implemented before and during construction activities.

9.3 POTENTIAL ENVIRONMENTAL IMPACTS OF NO-ACTION ALTERNATIVES

Under the no-action alternative, it is assumed that the proposed projects would not be constructed and land use and environmental conditions that currently exist at the proposed sites would remain unchanged. However, if the merger is approved and implemented, elimination of the projects would result in less efficient rail service causing capacity constraints, delays, and slower operating speeds which would result in additional fuel consumption and air emissions.

9.4 SUMMARY OF COMMENTS

To assist in assessing the potential environmental impacts of the proposed UP/SP merger, Dames & Moore sent letters requesting information to various federal,

state, and local agencies. In these letters, information was requested for the areas of: air quality, noise, land use, biological and water resources, historic and cultural resources, transportation systems, energy, and public health and safety. Copies of all correspondence received and telephone conversation notes recorded in response to the requests for information are included in Part 6.

For the proposed construction projects in this state, the following agencies responded: Jefferson Davis Parish Police Jury, Natural Resources Conservation Service, Department of Transportation and Development, Jefferson Parish, The USFWS Region 4, and Department of Natural Resources. A summary of comments received prior to November 10, 1995 for Louisiana is listed below.

- The Jefferson Davis Parish Police Jury did not pose any objections or offer any comments regarding the environmental impacts of the proposed projects.
- The Natural Resources Conservation Service has no current projects that would affect or be affected by the proposed projects.
- The Department of Transportation and Development forwarded the construction information to the District Offices and to the department's Railroad and Maintenance Sections. Permits for construction may be required by these offices. The Department also provided additional contacts for agencies regarding protected species, critical habitat, parks, and refuges.
 - Jefferson Parish stated that two parks in the area of the proposed projects would not be affected by the projects. Also provided were contacts for protected species, permitting/approval authority, and stormwater management. Concerns expressed included flooding problems that may have been caused by previous railroad construction. A contact was provided for clarification on this subject. The Parish is unaware of any habitat in the

southern half which would be considered critical to the survival of any rare, endangered, or threatened species of plants or animals.

- The USFWS Region 4 stated that there are no significant wetland impacts and no listed, proposed, or candidate species present in the proposed project areas.
- The Department of Natural Resources stated that a Coastal Use Permit is not required for the projects located at Iowa Junction, Kinder, and Livonia. To review and evaluate the project at Avondale M.P. 15, a Coastal Use Permit Application must be submitted.
- The Louisiana Office of Cultural Development, Division of Archaeology, noted that there are four sites located at the Livonia yard, but that the project would have no effect on these sites.

9.5 REFERENCES

9.5.1 Land Use

- Cifreo, David, 1995. Personal communication with Pointe Coupee Parish from D. Lowrey, Dames & Moore.
- Dean, Ione, 1995. Personal communication with Shreveport Metropolitan Planning Commission from Irene Merrifield, Dames & Moore.
- Hart, Don, 1995. Personal communication with Userville Parish Assessor's Office from Irene Merrifield, Dames & Mcore.
- Howey, Terry W., 1995. Letter to Julie Donsky, Dames & Moore, from Louisiana Department of Natural Resources.
- Hyer, Sue Ann, 1995. Personal communication with St. Charles Parish County Planning Department from D. Lowery, Dames & Moore.
- LeJevne, Bryon, 1995. Personal communication with Jefferson Davis Parish from D. Lowrey, Dames & Moore.
- Manuel, Darlene, 1995. Personal communication with Kinder City Hall from Irene Merrifield, Dames & Moore.

- Matherne, Earl, 1995. Personal communication with St. Charles Parish Planning Department from Irene Merrifield, Dames & Moore.
- Oghciun, Esbii, 1995. Personal communication with Jefferson Parish Planning Department from Irene Merrifield, Dames & Moore.
- Simmers, Bill, 1995. Personal communication with White Castle Commissioners from Irene Merrifield, Dames & Moore.
- Tiller, Phil, 1995. Personal communication with Jefferson Parish Planning Department from D. Lowrey, Dames & Moore.
- U.S. Department of Agriculture, 1994. State soil geographic (STATSGO) data base.
- U.S. Geological Survey, various dates. Land use and land cover maps.
- U.S. Geological Survey, various dates. 1:24,000-scale topographic maps.

9.5.2 Water Resources and Wetlands

- Federal Emergency Management Agency (FEMA), various dates. FEMA Flood Insurance. Rate Maps (FIRM) for Louisiana.
- U.S. Fish and Wildlife Service, various dates. National Wetland Inventory Maps.
- U.S. Geological Survey, various dates. 1:24,000-scale topographic maps.

9.5.3 Biological Resources

- Barrow, Pauline (Historic Preservation Office), 1995. Telephone conversation with Denise Bradley, Dames & Moore, October 30.
- Hobdy, Gero (State Historic Preservation Office), 1995. Letter to Julie Donsky, Dames & Moore, November 2.
- Mahady, Mike (Division of Archaeology), 1995. Telephone conversation with Denise Bradley, Dames & Moore, October 30 and November 8.

9.5.4 Historic and Cultural Resources

9.5.5 Air Quality

- 40 CFR Part 81 Designation of Areas for Air Quality Planning Purposes, Appendix A to Part 81.
- 40 CFR Part 81 Designation of Areas for Air Quality Planning Purposes, Sub Part C Section 107, Attainment Status Designation.

40 CFR Part 1105 - Procedures for Implementation of Environmental Laws.

9.5.6 Noise

Rathe, E.J., 1977. "Railway Noise Propagation," Journal of Sound and Vibration, vol. 51, no. 3, pp. 371-388.

Saurenman, H.J., Nelson, J.T. and Wilson, G.P., 1982. "Handbook of Urban Rail Noise and Vibration Control," UMTA-MA-06-093-82-1.

EXISTING LAND USE INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN LOUISIANA

				Structure	s Near Site	Occurrence Within	
Location/Station	Existing Land Uses	General Plan Designation	Zoning Designation	Within 500 Feet	Length in Urbanized Areas (feet)	Prime Farmland	Coastal Zone
Avondale-1	Site: Transportation Surrounding: Streams and canals	Warehouse, Industrial	Warehouse 1 (R-R development allowed)	0	0	No	No
Avondale-2	Site: Transportation Surrounding: Residential, forested wetland or non forested wetland, other urban or built-up land, streams or canals, industrial, transportation	Manufacturing, Residential-Suburban, Agricultural	Manufacturing 1 and 2, Residential-Suburban, Agricultural	19 ¹	0	No	Yes
Avondale-3	Site: Transportation Surrounding: Transportation, forested wetland or non forested wetland, mixed urban or other built-up land, residential, industrial	Light Manufacturing	Manufacturing 1 (R-R development allowed)	4	0	No	Yes
Edna	Site: Transportation Surrounding: Cropland and pasture, transportation, streams and canals, forested wetland or nonforested wetland, residential	Commercial	Commercial 1, 2, and 3 (R-R development allowed)	18	0	Yes	No
Elton	Site: Transportation Surrounding: Mixed forest land, cropland and pasture, forested wetland or non forested wetland	Commercial	Agricultural 1, Commercial 1 and 2 (R- R development allowed)	381	0	Yes	No
Farmers	Site: Transportation Surrounding: Cropland and pasture, streams and canals	cı ²	CI ²	2	0	No	No

TABLE	9-	1
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(concluded)

Location/Station				Structures Near Site		Occurrence Within	
	Existing Land Uses	General Plan Designation	Zoning Designation	Within 500 Feet	Length in Urbanized Areas (feet)	Prime Farmland	Coastal Zone
Iowa Junction	Site: Transportation Surrounding: Cropland and pasture, transportation, residential	Agricultural, Commercial (R-R development allowed)	No zoning designations exist	14 ¹	0	Yes	Ho
Kinder .	Site: Transportation Surrounding: Residential, transportation, commercial	No formal land use policies/controls exist		6 ¹	9	Yes	No
Livonia	Site: Cropland and pasture Surrounding: Residential, cropland and pasture, other urban or built-up land	No formal land use policies/controls exist		15	0	Yes	No
Shreveport	Site: Transportation Surrounding: Residential, deciduous forest land, evergreen forest land	Industrial (R-R development allowed)	No zoning designations exist	6	0	No	No
Taft	Site: Transportation Surrounding: Transportation, industrial	CI ²	CI ²	27	0	No	No
White Castle	Site: Transportation Surrounding: Cropland and pasture, residential, industrial	CI ²	CI ²	220 ¹	0	Yes	No

Sensitive Receptors = Some structures occur within approximately 200 feet of construction activities. CI = Initial contact made with agencies but information not received by time of report submittal.

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POTENTIAL LAND USE IMPACTS AT PROPOSED CONSTRUCTION LOCATIONS IN LOUISIANA

Location/Station	Compatible with Surrounding Land Uses	Consistent with General Plan/Zoning Designation	Potential Loss of Prime Farmland	
Avondale-1	Yes - Not significant	Yes - Not significant	No - Not significant	
Avondale-2	Yes - Not significant	No - Not significant	No - Not significant	
Avondale-3	Yes - Not significant	Yes - Not significant	No - Not significant	
Edna	Yes - Not significant	Yes - Not significant	Not expected - Not significant	
Elton	Yes - Not significant	Yes - Not significant	Not expected - Not significant	
Farmers	Yes - Not significant	CI ²	No - Not significant	
Iowa Junction	Yes - Not significant	Yes - Not significant	Not expected - Not significant ¹	
Kinder	Yes - Not significant	Not applicable - Not significant	Not expected - Not significant	
Livonia	Yes - Not significant	Not applicable - Not significant	Not expected - Not significant	
Shreveport	Yes - Not significant	Yes - Not significant	No - Not significant	
Taft	Yes - Not significant	Cl ²	No - Not significant	
White Castle	Yes - Not significant	CI ²	Not expected - Not significant	

Construction is anticipated to be largely within existing right-of-way and no prime farmland is expected to be affected.

CI = Initial contact made with agencies but information not received by time of report submittal.

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WATER RESOURCES AND WETLAND INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN LOUISIANA

	Water Resource Type ¹								
Location/Station	bls	wb	wl	cd	tc	mf	\$\$	sp	
Avondale-1	-		1	3	-	-	-	-	
Avondale-2	-	-	-	-	-	-	-	-	
Avondale-3	-	2	-	2	-		-	-	
Edna	1	-	-	3	-	-		-	
Elton	3	-	-	1	-	-	-	-	
Farmers	-	-	-	-	-	-	-	-	
owa Junction		2	-	1	-	-	-	-	
inder	-	-	-	1	-	-	-	-	
Livonia	4	-	-	4	-	-	-	-	
Shreveport	-	1	-		-	-	-	-	
laft	-	-	-	4	-	-	6	-	
White Castle	-	-	-	2	-			-	

=	permanent and intermittent watercourses, including creeks, streams, rivers, washes, and sloughs
=	permanent and intermittent bodies of standing water including ponds, lakes, reservoirs, bayous, catchments, and beaver ponds
=	areas depicted with the USGS wetland symbol, primarily including marshes and wet needows
=	human-made water conveyances
=	tidal channels including inlets, harbors, bays, and sloughs subject to tidal influences
=	permanent to intermittently wet, non-vegetated, usually alkaline, mudflats
=	areas used for public facilities or commercial purposes
=	areas depicted with the USGS spring symbol

BIOLOGICAL RESOURCES INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN LOUISIANA

Location	Veget	ation Type	Known and Potential	Parks, Forests,	
	At the Site	Adjacent	Occurrence of Rare, Threatened, and Endangered Species in the Area	Refuges, or Sanctuaries within 5 Miles	
Avondale-1	Ruderal	Woodland	American Alligator	None	
Avondale-2	Ruderal	Residential	American Alligator	None	
Avondale-3	Ruderal Riparian	Pasture Woodland	American Alligator	None	
Edna	Ruderal	Agricultural	None	None	
Elton	Ruderal	Agricultural	None	None	
Farmers	Ruderal	Pasture Woodland	American Alligator	Salvador Wildlife Management Area	
Kinder	Ruderal	Residential	None	None	
Livonia Ruderal Grassland		Agricultural	None	Atchafalaya National Wildlife Refuge	
Shreveport	Ruderal	Residential	None	None	
Taft	Ruderal	Woodland	American Alligator	None	
White Castle	Ruderal	Agricultural	American Alligator	None	

POTENTIAL IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES AT PROPOSED CONSTRUCTION LOCATIONS IN LOUISIANA

Location	Potential Impacts To						
	Rare, Threatened, and Endangered Species	Critical Habitat	Parks, Forests, Refuges, Sanctuaries				
Avondale-1	Not Significant	None - NS	None - NS				
Avondale-2	Not Significant	None - NS	None - NS				
Avondale-3	Not Significant	None - NS	None - NS				
Edna	None - NS	None - NS	None - NS				
Elton	None - NS	None - NS	None - NS				
Farmers	Not Significant	None - NS	None - NS				
Kinder	None - NS	None - NS	None - NS				
Livonia	None - NS	None - NS	None - NS				
Shreveport	None - NS	None - NS	None - NS				
Taft	Not Significant	None - NS	None - NS				
White Castle	Not Significant	None - NS	None - NS				

NS = Not Significant

EXISTING CONDITIONS AND POTENTIAL IMPACTS FOR HISTORIC AND CULTURAL RESOURCE'S AT PROPOSED CONSTRUCTION LOCATIONS IN LOUISIANA

Location	Historic Resources			Archa	eological R	Potential Impacts	
	L	E	U	L	E	U	
Avondale-1	0	0	0	0	0	0	None - NS
Avondale-2	0	0	0	0	0	0	None - NS
Avondale-3	0	0	0	0	0	0	None - NS
Edna	0	0	0	0	0	0	None - NS
Elton	0	0	0	0	0	0	None - NS
Farmers	0	0	0	0	0	0	None - NS
Iowa Junction	0	0	0	0	0	0	None - NS
Kinder	0	0	0	0	0	0	None - NS
Livonia	0	0	0	0	0	4	None - NS
Plaquemine	0	0	0	0	0	0	None - NS
Shreveport	0	0	0	0	0	0	None - NS
Taft	0	0	0	0	0	0	None - NS
White Castle	0	0	0	0	0	0	None - NS

Note: L, listed on National Register of Historic Places (NRHP); E, determined or recommended eligible for NRHP; U, eligibility for NRHP is unknown; NS, not significant. The numbers on table denote the number of known historic or archaeological resources within 100 feet of construction areas.

KEY FOR LAND USE

URBAN OR BUILT-UP LAND

RANGELAND

- RE Residential
- C Commercial and services
- I Industrial
- T Transportation, communications and utilities
- I/C Industrial and commercial complexes
- MU Mixed urban or build-up land
- OU Other urban or built-up land

AGRICULTURAL LAND

- CP Cropland and pasture
- CH Orchards, groves, vineyards, nurseries, and ornamental horticultural areas
- CF Confined feeding operations
- CO Other agricultural land

WATER

- WS Streams and canals
- WL Lakes
- WR Reservoirs
- WB Bays and estuaries

WETLAND

WE Forested wetland, and/or nonforested wetland

KEY FOR CULTURAL RESOURCES SITES

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Location of known historic or or archaeological site

- Rh Herbaceous rangeland
- Rsb Shrub and brush rangeland
- Rm Mixed rangeland

FOREST LAND

- FD Deciduous forest land
- FE Evergreen forest land
- FM Mixed forest land

BARREN LAND

- Bsf Dry salt flats
- Bb Beaches
- Bs Sandy areas other than beaches
- Br Bare exposed rocks
- Bm Strip mines, quarries, and gravel pits
- Bt Transitional areas
- B Mixed barren land



Figure 9.1-1 Proposed Common Point Connection: Avondale, Louisiana. Location and Land Use.



Figure 9.1-2 Proposed Construction at Intermodal Facility and Corridor Upgrade: Avondale, Louisiana. Location and Land Use.



Figure 9.1-3 Proposed Corridor Upgrade: Edna, Louisiana. Location and Land Use.





Figure 9.1-4 Proposed Corridor Upgrade: Elton Louisiana. Location and Land Use.



Figure 9.1-5 Proposed Corridor Upgrade: Farmers, Louisiana. Location and Land Use.



Figure 9.1-6 Proposed Common Point Connection: Iowa Junction, Louisiana. Location and Land Use.

Hecker, Louisiana 1956 (Photorevised 1971); Laccassine, Louisiana (Provisional Edition 1985); Fenton, Louisiana (Provisional Edition 1985)



Figure 9.1-7 Proposed Common Point Connection: Kinder, Louisiana. Location and Land Use.

Base Map: USGS 7.5' Topographic Quadrangle: Kinder, Louisiana (Provisional Edition 1985)





FILE

Before the INTERSTATE COMMERCE COMMISSION

HUN 3 0 1995

Finance Docket No. 32760

INTERSTATE

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COMMERCE COMM'SSION 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 CORP. AND THE DENVER AND RIO GRANDE WESTERN RAILROAD COMPANY

RAILROAD MERGER APPLICATION

VOLUME 6, PART 5

CONSTRUCTION

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Figure 9.1-8 Proposed Construction at Rail Yard: Livonia, Louisiana. Location and Land Use.

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Figure 9.1-9 Proposed Common Point Connection: Shreveport , Louisiana. Location and Land Use.


Figure 9.1-10 Proposed Corridor Upgrade: Taft, Louisiana. Location and Land Use.



Figure 9.1-11 Proposed Corridor Upgrade: White Castle, Lc iisiana. Location and Land Use.

NWI LEGEND

SYSTEM				M - MARIN	E				
SUBSYSTEM		1 SUBTIDA	۹L			2	- INTERT	IDAL	
CLASS	RB ROCK BOTTOM	UB UNCONSOLIDATED BOTTOM	AB AQUATIC BED RE	REEF OW OPEN W	ATER AB	AQUATIC BED	RF REEF	RS - ROCKY SHORE	US - UNCONSOLIDATED
Subclass	1 Bedrock 2 Rubble	1 Cobble Gravel 2 Sand 3 Mud 4 Organic	1 Aigal 1 C 3 Rooted Vascular 3 W 5 Unknown Submergent	oral Iorm	1 Alga 3 Root 5 Unitr	i ed Vascular nown Submergent	1 Coral 3 Worm	1 Sedrock 2 Rubble	SHORE 1 Cobble Gravel 2 Sand 3 Mud 4 Organic
SYSTEM				R — 1	RIVERIME				
UBSYSTEM	1 - TIDA	L 2.	LOWER PERENN	VIAL 3-1	IPPER PER	ENNIAL	A INTE	DANTTENT C	
CLASS	RB ROCK BOTTOM	UB UNCONSOLIDATE	D '58 STREAMBED	AB AQUATIC BED	AS ROCKY	US UNCONS	OLIDATED	''EM - EMERGEN	UNKNOWN PERENNIAL 1 OW OPEN WATER/
Subclass	1 Bedrock 2 Rubble	1 Cobble Gravel 2 Sand 3 Mud 4 Organic	1 Bedrock 2 Rubble 3 Cobble Gravel 4 Sand 5 Mud 6 Organic	1 A'gai 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergei 6 Unknown Submergei	1 Bedrock 2 Rubble	1 Cobble Grave 2 Sand 3 Mud 4 Organic 5 Vegetated	*1	2 Nonpersistent	Unknown Bottom

STREAMBED is limited to TIDAL and INTERMITTENT SUBSYSTEMS and comprises the only CLASS in the INTERMITTENT SUBSYSTEM **EMERGENT is limited to TIDAL and LOWER PERENNIAL SUBSYSTEMS

YSTEM	······			P - PALU	STRINE				
CLASS	RB - ROCK BOTTOM	UB - UNCONSOLIDATED BOTTOM	AB - AQUATIC BED	US UNCONSOLIDATED	ML - MOSS	EM - EMERGENT	SS SCRUB-SHRUB	FO - FORESTED	OW - OPEN WATER
Subclass	1 Bedro≏k 2 Rubble	1 Cobble Gravel 2 Sand 3 Med 4 Organic	1 Algai 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	1 Cobble Gravet 2 Sand 3 Mud 4 Organic 5 Vegetated	1 Moss 2 Lichen	1 Persistent 2 Nonpersistent	1 Broad Leaved Deciduous 2 Needle Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle Leaved Evergreen	1 Broad-Leaved Deciduous 2 Neodle Leaved Deciduous 3 Brozd-Leaved Evirigreen 4 Meedle-Leaved Cvergreen	Ur&newn Bottom
		Instructions for	or using the le	gend:			6 Deciduous 7 Evergreen	5 Dead 6 Deciduous 7 Evergreen	

The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral.' The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

NWI LEGEND



Instructions for using the legend:

The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

FLOOD INSURANCE RATE MAP LEGEND EXPLANATION OF ZONE DESIGNATIONS

Flood Insurance Rate Maps (FIRMs) display the zone designations for communities according to areas of designated flood hazards. The zone designations used by the Federal Emergency Management Agency (FEMA) are:

Lone	Explanation
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AO	Areas of 100-year shallow flooding; flood depth 1 to 3 feet; product of flood depth
AH	(1) and verocity (feet per second) less than 15. Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
AE	Areas of 100-year flood hase flood elevations determined (for I and in)
A99	Areas of 100-year flood to be protected by a flood protection system under construction; base flood elevations and flood begain flood be
В	Areas between limits of 100-year flood and 500-year flood, areas of 100-year shallow flooding where depths less than 1 foot
С	Areas outside 500-year flood
Х	Areas of combined B and C zones (for Louisiane)
D	Areas of undetermined: but possible flood bazarda
v	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevation and flood hazard factor determined.

Notes

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

FIRMs are for flood insurance rate purposes only; maps may not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.



Figure 9.2-1 Proposed Common Point Connection: Avondale, Louisiana. Wetland Information.





Figure 9.2-3 Proposed Corridor Upgrade: Edna, Louisiana. Wetland Information.

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Figure 9.2-4 Proposed Corridor Upgrade: Elton Louisiana. Wetland Information.





Figure 9.2-6 Proposed Common Point Connection: Iowa Junction, Louisiana. Wetland Information.

Hecker, Louisiana 1956 (Photorevised 1971); Laccassine, Louisiana (Provisional Edition 1985); Fenton, Louisiana (Provisional Edition 1985)



Figure 9.2-7 Proposed Common Point Connection: Kinder , Louisiana. Wetland Information.



Figure 9.2-8 Proposed Construction at Rail Yard: Livonia, Louisiana. Wetland Information.



Figure 9.2-9 Proposed Common Point Connection: Shreveport, Louisiana. Wetland Information.



Figure 9.2-10 Proposed Corridor Upgrade: Taft, Louisiana. Wetland Information.

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Figure 9.2-11 Proposed Corridor Upgrade: White Castle, Louisiana. Wetland Information.

10.0 MISSOURI

10.1 PROPOSED ACTIONS AND NO-ACTION ALTERNATIVES

The proposed action in Missouri would involve the construction projects as described in this Part, which would be constructed generally as described in Section 2.0. In each case, the proposed construction is necessary to the efficiency of the merged operations and will result in the benefits discussed in Section 1 of this Part. The no-action alternative assumes that the projects would not be constructed.

The construction projects proposed in Missouri would involve the extension or addition of sidings or double tracking on existing ROW to provide added capacity and improved efficiencies for the anticipated increased rail traffic in this corridor. The projects are listed below and shown in Table 1-1.

<u>Paront</u> - This project involves the construction of an 8,000-foot extension to an existing siding at MP 47.1 on SP's Pine Bluff subdivision as shown on Figure 10.1-2.

Dexter - This project involves the construction of a 2,062-foot extension to an existing siding at MP 189.9 on UP's Chester subdivision as shown on Figure 10.1-1.

10.2 DESCRIPTION OF EXISTING ENVIRONMENT AND POTENTIAL ENVIRONMENTAL IMPACTS OF PROPOSED ACTIONS

Existing land use information and potential impacts for proposed construction projects in Missouri are included in Tables 10-1 and 10-2, and shown on Figures 10.1-1 to 10.1-2. Water resources and wetland information is summarized in Table 10-3 and shown on Figures 10.2-1 to 10.2-2. Existing biological resources information and potential impacts are presented in Tables 10-4 and 10-5. Information concerning historic and cultural resources information at proposed construction project sites is included in Table 10-6.

Suggested mitigation measures are described in Section 17. Such measures as are appropriate will be implemented before and during construction activities.

10.3 POTENTIAL ENVIRONMENTAL IMPACTS OF NO-ACTION ALTERNATIVES

Under the no-action alternative, it is assumed that the proposed projects would not be constructed and land use and environmental conditions that currently exist at the proposed sites would remain unchanged. However, if the merger is approved and implemented, elimination of the projects would result in less efficient rail service causing capacity constraints, delays, and slower operating speeds which would result in additional fuel consumption and air emissions.

10.4 SUMMARY OF COMMENTS

To assist in assessing the potential environmental impacts of the proposed UP/SP merger, Dames & Moore sent letters requesting information to various federal, state, and local agencies. In these letters, information was requested for the areas of: air quality, noise, land use, biological and water resources, historic and cultural resources, transportation systems, energy, and public health and safety. Copies of all correspondence received and telephone conversation notes recorded in response to the requests for information are included in Part 6.

For the proposed construction projects in this state, the following agencies responded: Army Corps of Engineers, Kansas City District; Department of Natural Resources, State Parks Division, St. Louis County SCS, and Department of Natural Resources (Historic Preservation Program). A summary of comments received prior to November 10, 1995 for Kansas is listed below.

 The COE stated that should the proposed construction require the discharge of fill material into any waters of the United States, a Department of the Army permit will be required. If there is a possibility that a project may involve work in a wetland, a wetland delineation must be performed. Additional contacts were provided regarding range and forestland, wildlife, and permit acquisition.

The Division of State Parks listed parks in the proposed area, with a federal identification number:

Kansas City: 29-00053 - Independence - Fairmount Park 29-00598 - Kansas City - Truman Park 29-00603 - Kansas City - Liberty Park 29-00979 - Kansas City - Oppenstein Memorial Park 29-01072S- Kansas City - 12th and Walnut 29-01130 - Independence - Glendale Park 29-01132 - Kansas City - Brush Creek Linkage 29-01182 - Kansas City - Cleveland Park 29-00367 - Independence - Northwest Parkway Park Dexter: 29-00049 - Dexter - Airport Park 29-00729 - Dexter - Boon City Park

- St. Louis County stated that, based on the lists of locations and maps identifying construction projects, none of the affected areas are in St. Louis County.
- The SCS primary concern was the possibility of damage to farmland where connections are constructed at the Dexter Junction and the Missouri Junction sites in Stoddard County.
- The Department of Natural Resources Historic Preservation Program stated that the proposed project in Jackson and Stoddard Counties will have no effect on properties listed on or determined eligible for listing in the National Register of Historic Places.

10.5 REFERENCES

10.5.1 Land Use

Buckland, Christopher D., 1995. Letter to Julie Donsky, Dames & Moore, from Missouri Department of Natural Resources, Division of State Parks.

- Fritz, Jay, 1995. Personal communication with City of Pleasant Hill from Bev Halwa, Dames & Moore.
- Millington, Wayne, 1995. Personal communication with Stoddard County from D. Lowrey, Dames & Moore.
- Prettyman, Robert, 1995. Personal communication with Cass County Zoning from D. Lowrey, Dames & Moore.
- Tyrrel, Linda, 1995. Personal communication with City of Lee's Summit Planning from D. Lowrey, Dames & Moore.

U.S. Department of Agriculture, 1994. State soil geographic (STATSGO) data base.

U.S. Geological Survey, various dates. Land use and land cover maps.

U.S. Geological Survey, various dates. 1:24,000-scale topographic maps.

10.5.2 Water Resources and Wetlands

- Federal Emergency Management Agency (FEMA), various dates. FEMA Flood Insurance. Rate Maps (FIRM) for Missouri.
- Remley, Chad, 1995. Letter to Julie Donsky, Dames & Moore, from U.S. Army Corps of Engineers, Kansas City District. October 23.
- U.S. Fish and Wildlife Service, various dates. National Wetland Inventory Maps. U.S. Geological Survey, various dates. 1:24,000-scale topographic maps.

10.5.3 Biological Resources

Buckland, Christopher D., 1995. Letter to Julie Donsky, Dames & Moore, from Missouri Department of Natural Resources, Division of State Parks. October 23.

10.5.4 Historic and Cultural Resources

Missouri Department of Natural Resources, Historic Preservation Office, 1995. Cultural Resource Assessment, Section 106 Review sent to Julie Donsky, Dames & Moore, October 5.

10.5.5 Air Quality

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- 40 CFR Part 81 Designation of Areas for Air Quality Planning Purposes, Appendix A to Part 81.
- 40 CFR Part 81 Designation of Areas for Air Quality Planning Purposes, Sub Part C Section 107, Attainment Status Designation.

40 CFR Part 1105 - Procedures for Implementation of Environmental Laws.

10.5.6 Noise

Rathe, E.J., 1977. "Railway Noise Propagation," Journal of Sound and Vibration, vol. 51, no. 3, pp. 371-388.

Saurenman, H.J., Nelson, J.T. and Wilson, G.P., 1982. "Handbook of Urban Rail Noise and Vibration Control," UMTA-MA-06-099-82-1.

EXISTING LAND USE INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN MISSOURI

				Structure	es Near Site	Occurren	ice Within
Location/Station	Existing Land Uses	General Plan Designation	Zoning Designation	Within 500 Feet	Length in Urbanized Areas (feet)	Prime Farmland	Coastal Zone
Dexter	Site: Transportation Surrounding: Cropland and pasture, residential	Residential (R-R development allowed)	No zoning designations exist	20 ¹	0	Yes	No
Paront	Site: Transportation Surrounding: Cropland and pasture, forested wetland or nonforested wetland	Open Space (R-R development allowed)	No zoning designations exist	8 ¹	0	Yes	No

Sensitive Receptors = Some structures occur within approximately 200 feet of construction activities.

POTENTIAL LAND USE IMPACTS AT PROPOSED CONSTRUCTION LOCATIONS IN MISSOURI

Location/Station	Compatible with Surrounding Land Uses	Consistent with General Plan/Zoning Designation	Potential Loss of Prime Farmland
Dexter	Yes - Not significant	Yes - Not significant	Not expected - Not significant
Paront	Yes - Not significant	Yes - Not significant	Not expected - Not significant ¹

Construction is anticipated to be largely within existing right-of-way and no prime farmland is expected to be affected.

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WATER RESOURCES AND WETLAND INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN MISSOURI

				Water Resou	urce Type ¹			
Location/Station	bls	wb	wl	cd	tc	mf	55	sp
Dexter	3	-	-	1	-	-		
Paront	3	~	-	2	-	-	-	

blue-line streams (bls)	=	permanent and intermittent watercourses, including creeks, streams, rivers, washes, and slough
waterbodies (v/b)	=	permanent and intermittent bodies of standing water including ponds, lakes, reservoirs, bayous, catchments, and beaver ponds
wetlands (wl) canals, culverts,	=	areas depicted with the USGS wetland symbol, primarily including marshes and wet meadows
ditches (cd)	=	human-made water conveyances
tidal channels (tc)	=	tidal channels including inlets, harbors, bays, and sloughs subject to tidal influences
mudflats (mf) sewage-treatment ponds, industrial waste ponds,	=	permanent to intermittently wet, non-vegetated, usually alkaline, mudflats
salt evaporators, etc. (ss)	=	areas used for public facilities or commercial purposes
springs (sp)	=	areas depicted with the USGS spring symbol

A.

BIOLOGICAL RESOURCES INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN MISSOURI

Location	Veget	ation Type	Known and Potential	Parks, Forests, Refuges, or Sanctuaries within 5 Miles	
	At the Site	Adjacent	Threatened, and Endangered Species in the Area		
Dexter	CI .	CI	CI	None	
Paront	СІ	CI	CI	None	

CI = Initial agency contact completed. Information regarding sensitive biological resources has not been received from agencies.

POTENTIAL IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES AT PROPOSED CONSTRUCTION LOCATIONS IN MISSOURI

Location	Pe	Potential Impacts To						
	Rare, Threatened, and Endangered Species	Critical Habitat	Parks, Forests, Refuges, Sanctuaries					
Dexter	Cl	None - NS	None - NS					
Paront	CI	None - NS	Not significant					

CI = Initial agency contact completed. Information regarding sensitive biological resources has not been received from agencies.

NS = Not Significant

PS = Potentially Significant

EXISTING CONDITIONS AND POTENTIAL IMPACTS FOR HISTORIC AND CULTURAL RESOURCES AT PROPOSED CONSTRUCTION LOCATIONS IN MISSOURI

Location	His	Historic Resources			eological Re	Potential Impacts	
	L	E	U	L	E	U	
Dexter	0	0	0	0	0	0	None - NS
Paront	0	0	0	0	0	0	None - NS

Note: L, listed on National Register of Historic Places (NRHP); E, determined or recommended eligible for NRHP; U, eligibility for NRHP is unknown; NS, not significant. The numbers on table denote the number of known historic or archaeological resources within 100 feet of construction areas.

KEY FOR LAND USE

URBAN OR BUILT-UP LAND

Residential

- C Commercial and services
- I Industrial

RE

- T Transportation, communications and utilities
- I/C Industrial and commercial complexes
- MU Mixed urban or build-up land
- OU Other urban or built-up land

AGRICULTURAL LAND

- CP Cropland and pasture
- CH Orchards, groves, vineyards, nurseries, and ornamental horticultural areas
- CF Confined feeding operations
- CO Other agricultural land

WATER

- WS Streams and canals
- WL Lakes
- WR Reservoirs
- WB Bays and estuaries

WETLAND

WE Forested wetland, and/or nonforested wetland

KEY FOR CULTURAL RESOURCES SITES

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Location of known historic or or archaeological site

RANGELAND

- Rh Herbaceous rangeland
- Rsb Shrub and brush rangeland
- Rm Mixed rangeland

FOREST LAND

- FD Deciduous forest land
- FE Evergreen forest land
- FM Mixed forest land

BARREN LAND

- Bsf Dry salt flats
- Bb Beaches
- Bs Sandy areas other than beaches
- Br Bare exposed rocks
- Bm Strip mines, quarries, and gravel pits
- Bt Transitional areas
- B Mixed barren land



Figure 10.1-1 Proposed Corridor Upgrade: Dexter, Missouri. Location and Land Use.



Figure 10.1-2 Proposed Corridor Upgrade: Paront, Missouri. Location and Land Use.

NWI LEGEND

SYSTEM M - MARINE SUBSYSTEM 1 - SUBTIDAL 2 - INTERTIDAL CLASS 88 UB - UNCONSOLIDATED AB AQUATIC BED RE REEF OW OPEN WATER ROCK AQUATIC BED AB RF - REEF RS - ROCKY SHORE US - UNCONSOLIDATED BOTTOM BOTTOM Unknown Bottom SHORE Subclass 1 Bedrock 1 Cobble Gravel 1 Algal 1 Coral 2 Rubble 1 Algai 2 Sand 3 Rooted Vascular I Coral 1 Bedrock 1 Cobble Gravel 3 Mud 3 Worm 3 Rooted Vascular 5 Unknown 3 Worm 2 Rubble 2 Sand 4 Organic 5 Unknown Submergent Submergent 3 Mud 4 Organic SYSTEM R - RIVERINE SUBSYSTEM 1 - TIDAL 2 - LOWER PERENNIAL 3 - UPPER PERENNIAL 4 - INTERMITTENT 5 - UNKNOWN PERENNIAL CLASS RB ROCK UB UNCONSOLIDATED 'SH STREAMBED AB AQUATIC BED RS ROCKY US UNCONSOLIDATED BOTTOM BOITOM "EM - EMERGENT OW - OPEN WATER/ SHORE Subclass Unknown Bottom 1 Bedrock 1 Cobble Gravel 1 Bedrock i Algai 1 Bedrock 2 Rubble 1 Coobie Gravel 2 Sand 2 Nonpersistent 2 Rubble 2 Aquatic Moss 2 Rubble 3 Mud 2 Sand 3 Cobble Gravel 3 Rooted Vascular 3 Mud 4 Organic 4 Sand 4 Floating Vascular 4 Organic 5 Mud 5 Unknown Submergeni 5 Vegetated 6 Organic 6 Unknown Surface 7 Vegetated *STREAMBED is limited to TIDAL and INTERMITTENT SUBSYSTEMS, and comprises the only CLASS in the INTERMITTENT SUBJYSTEM "EMERGENT is limited to TIDAL and LOWER PERENNIAL SUBSYSTEMS SYSTEM P - PALUSTRINE

LASS	BOTTOM	UB - UNCONSOLIDATED BOTTOM	AB - AQUATIC BED	US UNCONSOLIDATED SHORE	ML - MOSS	EM EMERGENT	SS SCRUB SHRUB	FO - FORESTED O	W - OPEN WATER/
ubclass	1 Bedrock 2 Rubble	1 Cobble Gravei 2 Sand 3 Mud 4 Organic	1 Algai 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	1 Cobble Gravel 2 Sand 3 Mud 4 <i>Organic</i> 5 Vegetated	1 Moss 2 Lichen	1 Persistent 2 Nonpersistent	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead	1 Broad-Leaved Deciduous 2 Needie-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needie-Leaved Evergreen	Unknown Bottom
		Instructions for	or using the le	gend:			6 Deciduous 7 Evergreen	6 Deciduous 7 Evergreen	

The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

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NWI LEGEND



Instructions for using the legend:

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FLOOD INSURANCE RATE MAP LEGEND EXPLANATION OF ZONE DESIGNATIONS

Flood Insurance Rate Maps (FIRMs) display the zone designations for communities according to areas of designated flood hazards. The zone designations used by the Federal Emergency Management Agency (FEMA) are:

Zone	Explanation
А	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
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AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
AE	Areas of 100-year flood; base flood elevations determined (for Louisiana)
A99	A reas of 100-year flood to be protected by a flood protection system under construction; base flood elevations and flood hazard factors not determined
В	Areas between limits of 100-year flood and 500-year flood, areas of 100-year shallow flooding where depths less than 1 foot
С	Areas outside 500-year flood.
Х	Areas of combined B and C zones (for Louisiana)
D	Areas of undetermined; but possible, flood hazards
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevation and flood hazard factor determined

Notes

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

FIRMs are for flood insurance rate purposes only; maps may not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.



Figure 10.2-1 Proposed Corridor Upgrade: Dexter, Missouri. Wetland Information.

Figure 10.2-2 Proposed Corridor Upgrade: Paront, Missouri. Wetland Information.



11.0 NEVADA

11.1 PROPOSED ACTIONS AND NO-ACTION ALTERNATIVES

The proposed action in Nevada would involve the construction projects as described in this Part, which would be constructed generally as described in Section 2.0. In each case, the proposed construction is necessary to the efficiency of the merged operations and will result in the benefits discussed in Section 1 of this Part. The no-action alternative assumes that the projects would not be constructed.

The proposed projects involve construction of universal cross-overs between the existing parallel SP and UP trackage to provide capacity and permit more efficient directional traffic. Construction would occur in the existing rights-of-way of SP and UP. Projects locations for the crossovers at Alazon, Barth, Beowawa, Elburz, MF 440, and UP Connection are shown on Figures 11.1- to 11.1-6.

11.2 DESCRIPTION OF EXISTING ENVIRONMENT AND POTENTIAL ENVIRONMENTAL IMPACTS OF PROPOSED ACTIONS

Existing land use information and potential impacts for proposed construction projects in Nevada are included in Table 11-1 and 11-2, and shown on Figures 11.1-1 to 11.1-6. Water resources and wetland information is summarized in Table 11-3 and shown on Figures 11.2-1 to 11.2-6. Existing biological resources information and potential impacts are presented in Tables 11-4 and 11-5. Information concerning historic and cultural resources information at proposed construction project sites is included in Table 11-6.

Suggested mitigation measures are described in Section 17. Such measures as are appropriate will be implemented before and during construction activities.

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Under the no-action alternative, it is assumed that the proposed projects would not be constructed and land use and environmental conditions that currently exist at the proposed sites would remain unchanged. However, if the merger is approved and
implemented, elimination of the projects would result in less efficient rail service causing capacity constraints, delays, and slower operating speeds which would result in additional fuel consumption and air emissions.

11.4 SUMMARY OF COMMENTS

To assist in assessing the potential environmental impacts of the proposed UP/SP merger, Dames & Moore sent letters requesting information to various federal, state, and local agencies. In these letters, information was requested for the areas of: air quality, noise, land use, biological and water resources, historic and cultural resources, transportation systems, energy, and public health and safety. Copies of all correspondence received and telephone conversation notes recorded in response to the requests for information are included in Part 6.

A summary of comments received prior to November 10, 1995, for Nevada is listed below.

 The State Historic Preservation Office responded that there are no National Register properties located in the vicinity of the proposed project area.
However, the SHPO considers the project area sensitive for historic features associated with historic railroad routes and cultural resources associated with overland emigrant travel and prehistoric use of the Humboldt River drainage.

11.5 REFERENCES

11.5.1 Land Use

- Fiorenzi, Leonard, 1995. Personal communication with Eureka County Public Works from Bev Halwa, Dames & Moore.
- Hammargren, Sandy, 1995. Personal communication with Humboldt County Planning from Bev Halwa, Dames & Moore.
- Kennison, Karl, 1995. Personal communication with Elko County Planning from Bev Halwa, Dames & Moore.

- U.S. Department of Agriculture, 1994. State soil geographic (STATSGO) data base.
- U.S. Geological Survey, various dates. Land use and land cover maps.
- U.S. Geological Survey, various dates. 1:24,000-scale topographic maps.

11.5.2 Water Resources and Wetlands

- Federal Emergency Management Agency (FEMA), various dates. FEMA Flood Insurance Rate Maps (FIRM) for Nevada, as available.
- U.S. Fish and Wildlife Service, various dates. National Wetland Inventory Maps. U.S. Geological Survey, various dates. 1:24,000-scale topographic maps.

11.5.3 Biological Resources

- Padilla, Butch, 1995. Personal communication with Brian Leatherman, Dames & Moore, from Nevada Division of Wildlife, September 29.
- Clemmer, Glenn, 1995. Personal correspondence (data base search) with Brian Leatherman, Dames & Moore, from Nevada Natural Heritage Program, November 2.

11.5.4 Historic and Cultural Resources

Palmer, Rebecca Lynn (State Historic Preservation Office), 1995. Letter to Julie Donsky, Dames & Moore, October 24.

York, Andy, Dames & Moore, 1995. Telephone conversation with Nevada Record Center.

11.5.5 Air Quality

- 40 CFR Part 81 Designation of Areas for Air Quality Planning Purposes, Appendix A to Part 81.
- 40 CFR Part 81 Designation of Areas for Air Quality Planning Purposes, Sub Part C Section 107, Attainment Status Designation.
- 40 CFR Part 1105 Procedures for Implementation of Environmental Laws.

11.5.6 Noise

- Rathe, E.J., 1977. "Railway Noise Propagation," Journal of Sound and Vibration, vol. 51, no. 3, pp. 371-388.
- Saurenman, H.J., Nelson, J.T. and Wilson, G.P., 1982. "Handbook of Urban Rail Noise and Vibration Control," UMTA-MA-06-099-82-1.

EXISTING LAND USE INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN NEVADA

				Structures Near Site		Occurrence Within	
Location/Station	Existing Land Uses	General Pian Designation	Zoning Designation	Within 500 Feet	Length in Urbanized Areas (feet)	Prime Farmland	Coastal Zone
Alazon	Site: Transportation Surrounding: Mixed rangeland	No formal land use policies/controls exist		0	0	No	No
Barth	Site: Transportation Surrounding: Mixed rangeland, lakes	No formal land use policies/controls exist		0	0	No	No
Beowawe	Site: Transportation Surrounding: Cropland and pasture, mixed rangeland	No formal land use policies/controls exist		11	0	No	No
Elburz	Site: Transportation * Surrounding: Cropland and pasture	No formal land use policies/controls exist		0	0	No	No
MP 440 (Mt. Golconda)	Site: Transportation Surrounding: Mixed rangeland, forested wetland or nonforested wetland	Open Space, Transportation- Related	Manufacturing 3, Open Space (R-R development allowed0	0	0	No	No
UP Conn	Site: Transportation Surrounding: Cropland and pasture	No formal land use policies/controls exist		0	0	. No	No

POTENTIAL LAND USE IMPACTS AT PROPOSED CONSTRUCTION LOCATIONS IN NEVADA

Location/Station	Compatible with Surrounding Land Uses	Consistent with General Plan/Zoning Designation	Potential Loss of Prime Farmland		
Alazon	Yes - Not significant	Not applicable - Not significant	No - Not significant		
Barth	Yes - Not significant	Not applicable - Not significant	No - Not significant		
Beowawe	Yes - Not significant	Not applicable - Not significant	No - Not significant		
Elburz	Yes - Not significant	Not applicable - Not significant	No - Not significant		
MP 440 (Mt. Golconda)	Yes - Not significant	Yes - Not significant	No - Not significant		
UP Conn	Yes - Not significant	Not applicable - Not significant	No - Not significant		

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WATER RESOURCES AND WETLAND INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN NEVADA

	Water Resource Type ¹							
Location/Station	bls	wb	wl	cd	tc	mf	58	sp
Alazon	-	-	-	-	-	-	-	-
Barth	1	3	-	-	-		-	-
Beowawe	3	1	-	-	-	-	-	-
Elburz	1	-	-	-	-	-	-	-
MP 440 (Mt. Golconda)	3	1	-	-	-	-	-	-
UP Conn	-	-	-	-	-	-		-

blue-line streams (bls) = waterbodies (wb) = wetlands (wl) canals, culverts, ditches (cd) tidal channels (tc) = mudflats (mf) == sewage-treatment ponds, industrial waste ponds, salt evaporators, etc. (ss) = springs (sp) =

permanent and intermittent watercourses, including creeks, streams, rivers, washes, and sloughs permanent and intermittent bodies of standing water including ponds, lakes, reservoirs, bayous, catchments, and beaver ponds areas depicted with the USGS wetland symbol, primarily including marshes and wet meadows human-made water conveyances tidal channels including inlets, harbors, bays, and sloughs subject to tidal influences permanent to intermittently wet, non-vegetated, usually alkaline, mudflats

- areas used for public facilities or commercial purposes
- areas depicted with the USGS spring symbol

S.

BIOLOGICAL RESOURCES INFORMATION AT PROPOSED CONSTRUCTION LOCATIONS IN NEVADA

Location	Vegeta	ation Type	Known and Potential	Parks, Forests,	
At the Site Adjacent		Occurrence of Rare, Threatened, and Endangered Species in the Area	Refuges, or Sanctuaries within 5 Miles		
Alazon	Ruderal	Big Sagebrush	None	None	
Barth	Ruderal	Riparian Piñon and Juniper	None	None	
Beowawe	Ruderal	Big Sagebrush Riparian	Wood Stork	None	
Elburz	Ruderal	Big Sagebrush Piñon and Juniper	None	None	
MP 440 (Mt. Golconda)	Ruderal	Big Sagebrush Piñon and Juniper	None	None	
UP Conn	Ruderal	Big Sagebrush	None	None	

POTENTIAL IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES AT PROPOSED CONSTRUCTION LOCATIONS IN NEVADA

Location	Potential Impacts To						
	Rare, Threatened, and Endangered Species	Critical Habitat	Parks, Forests, Refuges, Sanctuaries				
Alazon	None - NS	None - NS	None - NS				
Barth	None - NS	None - NS	None - NS				
Beowawe	None - NS	None - NS	None - NS				
Elburz	None - NS	None - NS	None - NS				
MP 440 (Mt. Golconda)	None - NS	None - NS	None - NS				
UP Connection	None - NS	None - NS	None - NS				

NS = Not Significant

EXISTING CONDITIONS AND POTENTIAL IMPACTS FOR HISTORIC AND CULTURAL RESOURCES AT PROPOSED CONSTRUCTION LOCATIONS IN NEVADA

Location	Historic Resources			Archaeological Resources			Potential Impacts	
e	L	E	U	L	E	U		
Alazon	0	0	0	0	0	0	None - NS	
Barth	0	0	0	0	0	0	None - NS	
Beowawe	0	0	0	0	0	0	None - NS	
Elburz	0	0	0	0	0	0	None - NS	
MP 440 (Mt. Golconda)	0	0	0	0	0	0	None - NS	
UP Conn	0	0	0	0	0	0	None - NS	

Note: L, listed on National Register of Historic Places (NRHP); E, determined or recommended eligible for NRHP; U, eligibility for NRHP is unknown; NS, not significant. The numbers on table denote the number of known historic or archaeological resources within 100 feet of construction areas.

e.

KEY FOR LAND USE

URBAN OR BUILT-UP LAND

- RE Residential
- C Commercial and services
- I Industrial
- T Transportation, communications and utilities
- I/C Industrial and commercial complexes
- MU Mixed urban or build-up land
- OU Other urban or built-up land

AGRICULTURAL LAND

- CP Cropland and pasture
- CH Orchards, groves, vineyards, nurseries, and ornamental horticultural areas
- CF Confined feeding operations
- CO Other agricultural land

WATER

- WS Streams and canals
- WL Lakes
- WR Reservoirs
- WB Bays and estuaries

WETLAND

WE Forested wetland, and/or nonforested wetland

KEY FOR CULTURAL RESOURCES SITES

*

Location of known historic or or archaeological site

RANGELAND

- Rh Herbaceous rangeland
- Rsb Shrub and brush rangeland
- Rm Mixed rangeland

FOREST LAND

- FD Deciduous forest land
- FE Evergreen forest land
- FM Mixed forest land

BARREN LAND

- Bsf Dry salt flats
- Bb Beaches
- Bs Sandy areas other than beaches
- Br Bare exposed rocks
- Bm Strip mines, quarries, and gravel pits
- Bt Transitional areas
- B Mixed barren land



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Figure 11.1-2 Proposed Corridor Upgrade: Barth, Nevada. Location and Land Use.

Figure 11.1-3 Proposed Corridor Upgrade: Beowawe, Nevada. Location and Land Use.







Figure 11.1-4 Proposed Corridor Upgrade: Elburz, Nevada. Location and Land Use.



Figure 11.1-5 Proposed Corridor Upgrade: MP 440 (Mt Golconda), Nevada. Location and Land Use.