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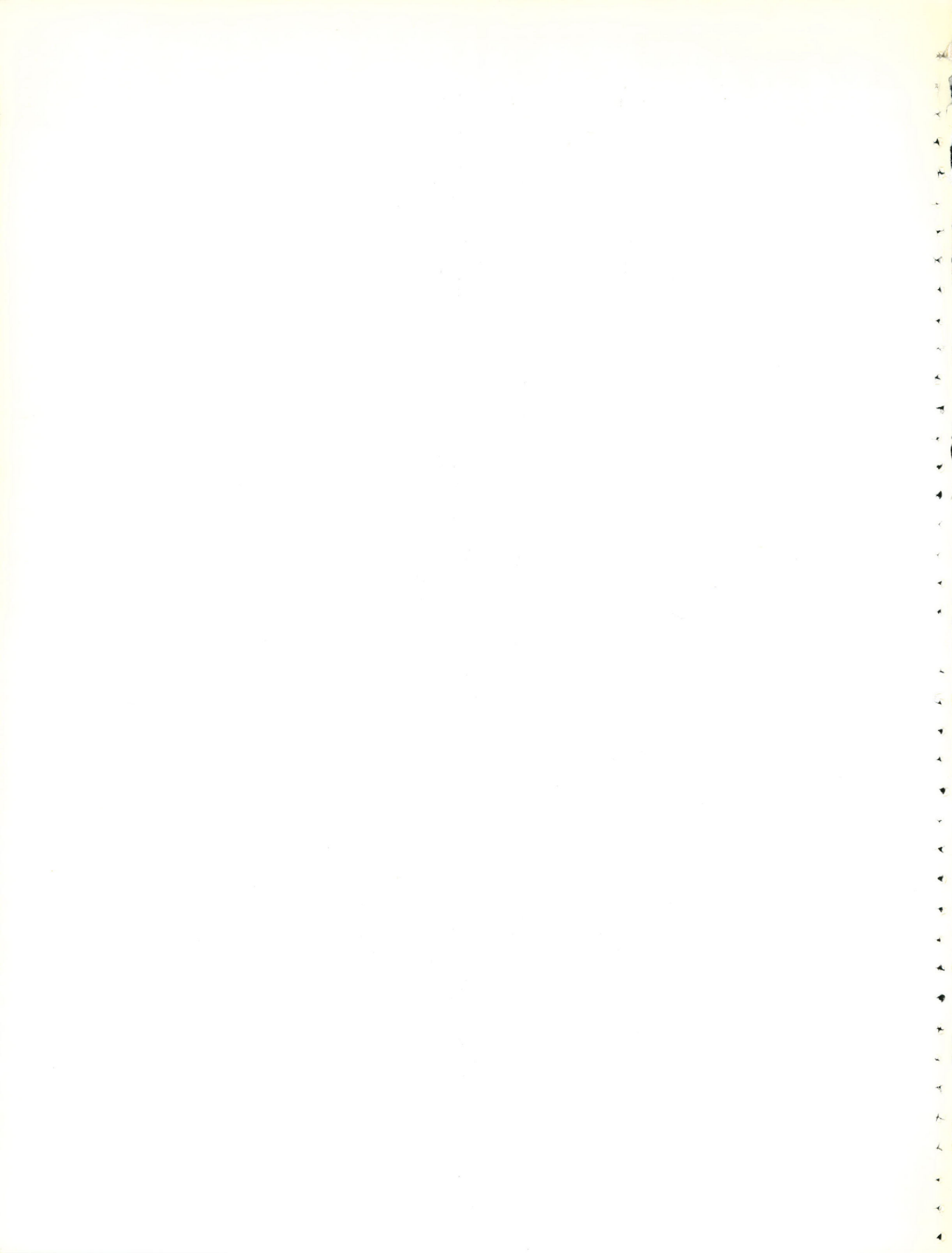
# Texas State Rail Plan

## Volume II: Detailed Analysis of Designated Rail Segments/Part B



**Railroad Commission of Texas**  
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TEXAS STATE RAIL PLAN

VOLUME II:

DETAILED ANALYSIS OF DESIGNATED  
RAIL SEGMENTS

PART B

Abilene-Winters  
San Angelo-Maryneal  
Crystal City-Carrizo Springs  
Brenham-Giddings  
Llano-Scobee

Railroad Commission of Texas  
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## FOREWORD

The preparation of State Rail Plans was enabled by the Railroad Revitalization and Regulatory Reform Act of 1976 (P.L. 94-210, commonly referred to as the "4 R Act"). Once a State has established a Rail Plan administered by a designated State agency with authority to "... develop, promote, supervise, and support safe, adequate, and efficient rail transportation services ..." it becomes eligible to participate in rail freight assistance programs through a Certified Program of Projects (CPP). The Texas State Rail Plan, prepared by the Railroad Commission of Texas in accordance with the requirements of the 4 R Act, is comprised of two volumes.

Volume I details the methodology employed in the development of the Plan, presents recommendations for subsequent inclusion in a CPP for the State of Texas, and describes the public participation process, transportation planning activities in Texas, and the ongoing rail planning program.

As of June 30, 1978, 21 light-density rail lines had been designated for possible abandonment by railroads in the State of Texas. Detailed analyses of these lines were performed to determine which segments should be considered for project assistance under the 4 R Act. Volume II, in four parts, contains the results of these analyses.

### Part A:

Valley Lines (Victoria-Beeville,  
Skidmore-Alice, Falfurrias-Edinburg)  
Alice-Falfurrias  
San Benito-Rio Hondo  
Mission Hidalgo  
Mission-Spaulding  
Spaulding-Rio Grande City

Part B:

Abilene-Winters  
San Angelo-Maryneal  
Crystal City-Carrizo Springs  
Brenham-Giddings  
Llano-Scobee

Part C:

Acme-Floydada  
Burkburnett-Oklahoma Border  
Pampa-Oklahoma Border  
Pringle-Stinnett  
Skellytown-White Deer  
Whiteface-Bledsoe

Part D:

Seagoville-Bonita Junction  
Thedford-Lindale  
Weatherford-Mineral Wells  
Soumethun

A fifth part of Volume II, Part E, contains a retrospective analysis of 12 Texas rail lines that had already been approved for abandonment by the Interstate Commerce Commission in June of 1978:

Teague-Mexia  
Mission-Palmhurst  
Edinburg-McAllen  
Raymondville-Monte Alto  
Stamford-Rotan  
Sonora-S.N. Jct.  
El Paso Union Depot  
Bridgeport-Graham  
Georgetown-Austin  
San Martine-Rockhouse  
Quinif-Rosebud  
Sterley-Silverton

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Segment Analysis

ABILENE & SOUTHERN RAILWAY

Abilene-Winters

RAILROAD COMMISSION OF TEXAS

With

Technical Assistance

of

Arthur D. Little, Inc.

October 1978

Revised January 1979



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## PART A. SUMMARY

### 1. Introduction

The Missouri Pacific Railroad Company (Mo-Pac) has filed public notice that the 38.6 mile railroad of the Abilene & Southern Railway (A&S), its wholly-owned subsidiary, has been designated a Category 1 line which the carrier anticipates will be the subject of an abandonment application to be filed within three years, pursuant to 49 CFR 1121.20 (b)(1). The line is located in West Central Texas, and extends between Abilene, in Taylor County, and Winters, in Runnels County. In the event of abandonment, Abilene would retain north-south rail service via the Fort Worth & Denver Railway (FW&D) and east-west service via a main line route of Mo-Pac. Winters would lose all rail service. This line was the subject of a previous abandonment application, which was denied in 1977.

### 2. Traffic Characteristics

Traffic over the line in 1977 was estimated at 5,120 cars. Commodities carried included primarily grain and livestock feeds, cottonseed and refined cottonseed oil. Other goods and products included farm, construction and other heavy equipment, non-durable consumer products, and petroleum-related products, such as lubricants and drilling muds.

### 3. Economic Characteristics

#### a. Economic Activity

The economy of Runnels County is based primarily on agriculture,

with businesses in Winters oriented toward providing services to agriculture. Manufacturing in the area is a comparatively recent development, and is relatively small.

The economy of Abilene and Taylor County is based on manufacturing, wholesale and retail trade, and services. Agricultural production has historically been and continues to be a significant economic activity. Oil and gas production is still important, although employment in this industry has been declining. There are several educational institutions located in Abilene and an Air Force base situated near the City, which are important in terms of employment and contribution to personal income.

b. Rail Users

There are 15 establishments that utilize rail services of the A&S. Five of these are located in Winters, and ten in Abilene. Three firms, which ship or receive agricultural commodities, accounted for 95% of the traffic and 84% of the freight tonnage. One of these firms, located in Abilene, was predominant, accounting for two-thirds of the estimated traffic.

4. Impacts of Abandonment

The near-term impacts of complete abandonment of the line would include marginal increases in employment, the result of offsets between firms that would close down or curtail employment and those that would increase employment to meet transportation requirements. There would be corresponding increases in payroll in the near term which represent higher costs to the rail users. Significant increases in current capital and operating costs would be expected for those firms remaining in business. At least one firm reports that it would shut

down, another would cut back operations, and a third would likely relocate to retain access to rail service. Increased unemployment and higher costs would occur in the longer term.

Some investment would be foregone, since a planned expansion by one firm would reportedly be cancelled as a result of abandonment.

If partial abandonment of the line occurred, with Abilene retaining and Winters losing service, the impacts would be confined to Winters. At least two firms would be severely affected by rising transportation costs, and the loss of jobs would be expected.

#### 5. Alternatives to Abandonment

Continuation of service with temporary operating and rehabilitation subsidies and reorganization as a short line were considered to be alternatives to abandonment.

#### 6. Inclusion in Certified Program of Projects

Although the segment is not recommended for inclusion in the CPP at the present time, there is State interest in maintaining service on the line. It is recommended that the State explore non-subsidized and amicable strategies for continuing service and avoiding an abandonment. Should these strategies fail and abandonment actually be sought, it is recommended that the continuation of service with temporary subsidies alternative be considered for inclusion in the CPP.



## PART B. DETAILED ANALYSIS

### 1. Description of the Line and Proposed Action

Public notice<sup>1</sup> was filed in April 1978, identifying the Abilene & Southern Railway (A&S), as a line "which the carrier anticipates will be the subject of an abandonment or discontinuance application to be filed within three years." [This is a Category 1 designation in accordance with 49 CFR 1121.20(b)(1).] A previous application to abandon the subject line was recommended for denial by an Interstate Commerce Commission (I.C.C.) administrative law judge in May 1977.<sup>2</sup> The recommendation was adopted by I.C.C. Division 3 in September 1977.<sup>3</sup> This decision rendered moot a related application<sup>4</sup> by the Texas & Pacific Railway Company (T&P) to acquire approximately 7.3 miles of the A&S, in order to continue service to the customers in the immediate Abilene area. The Missouri Pacific has indicated it would file a similar companion application with any future abandonment application. The A&S became a subsidiary of the Missouri Pacific System (Mo-Pac) when T&P was merged into Mo-Pac in 1976.<sup>5</sup>

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<sup>1</sup>Abilene Reporter-News, April 1978.

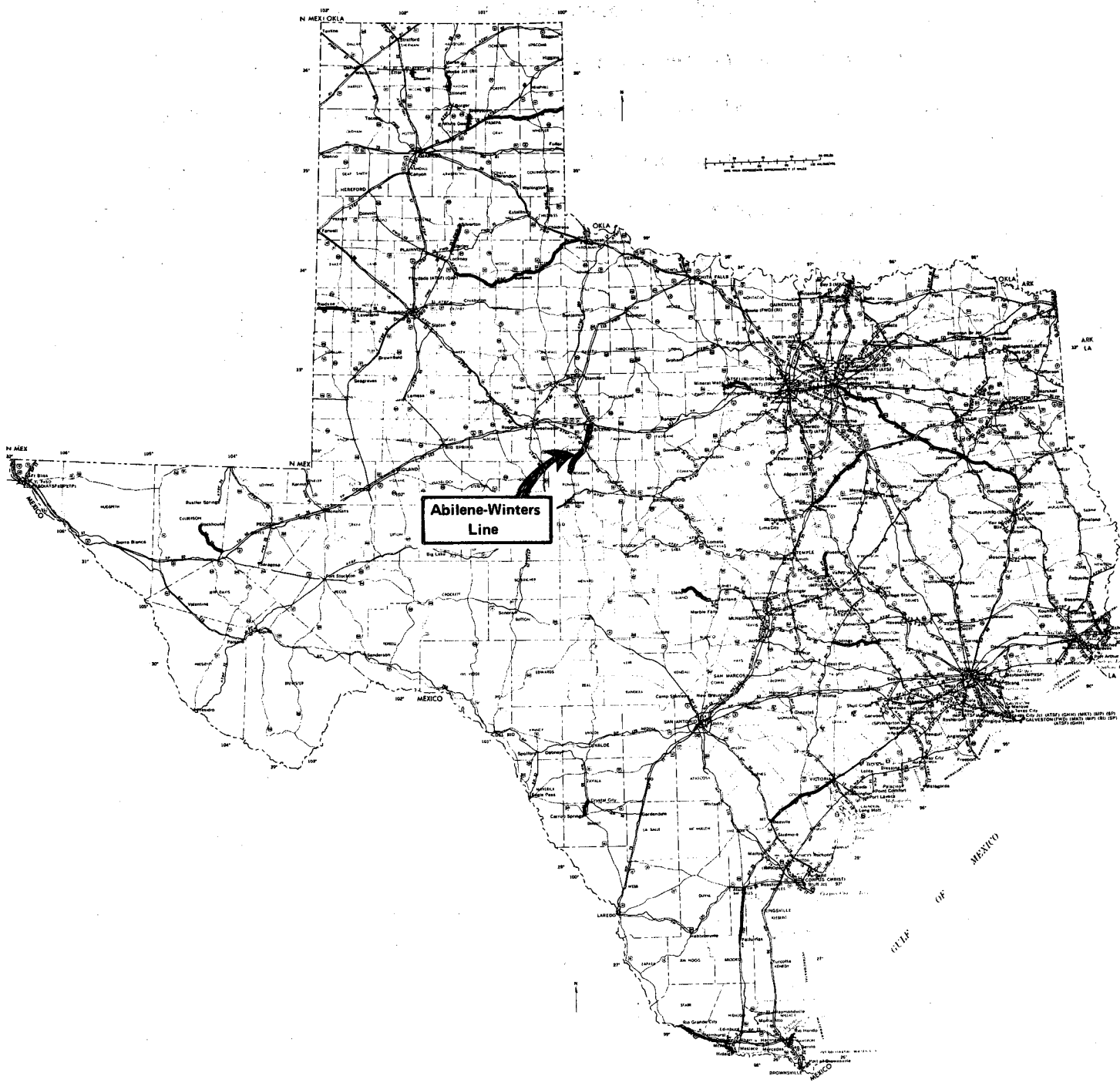
<sup>2</sup>Initial Decision, Docket No. AB-21, served May 17, 1977.

<sup>3</sup>Decision and Order, Docket No. AB-21, served September 7, 1977.

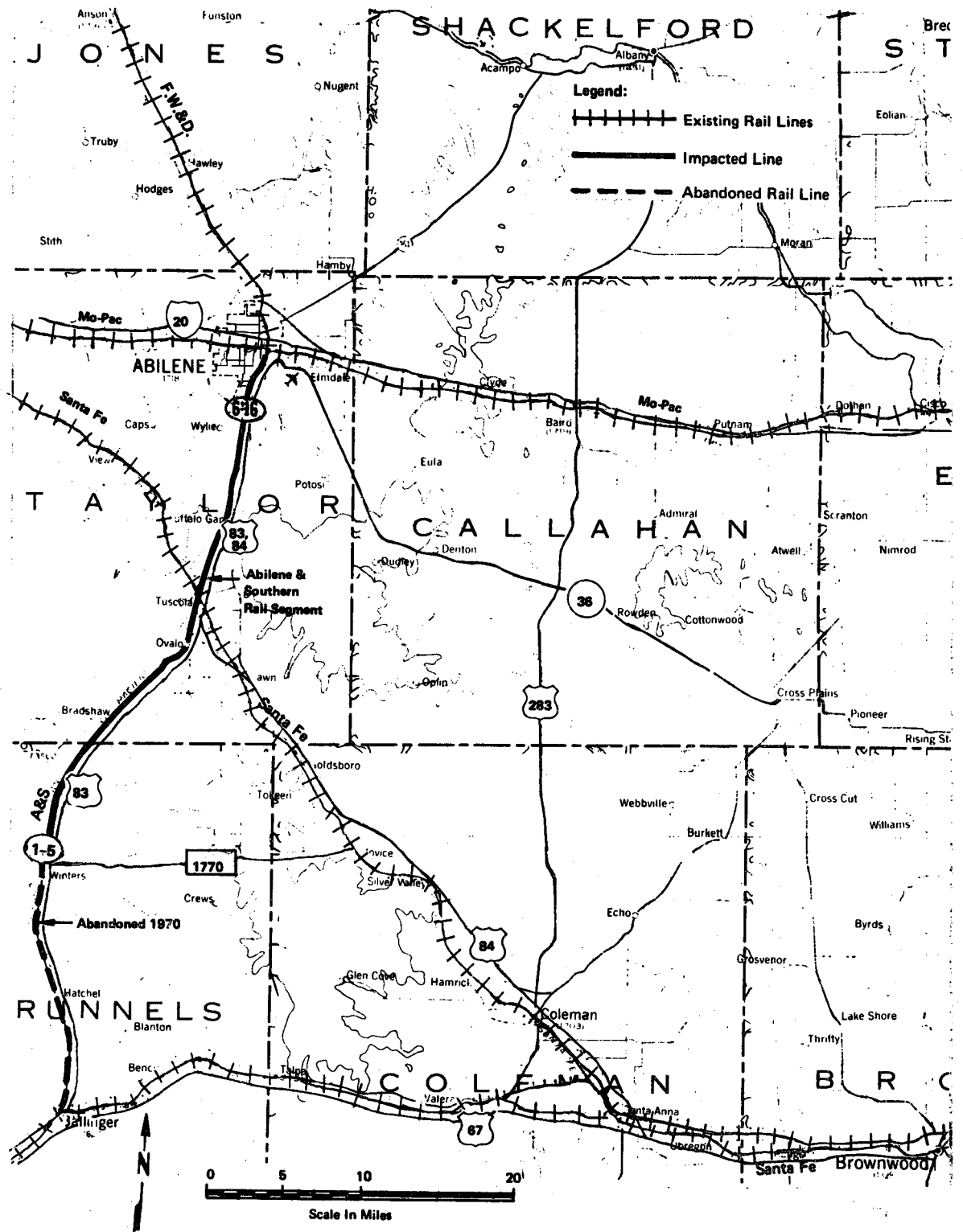
<sup>4</sup>I.C.C. Finance Docket No. 27929.

<sup>5</sup>The A&S was recently merged into Mo-Pac in a corporate simplification in I.C.C. Finance Docket Nos. 28586 and 28637, served September 29, 1978.

The A&S railroad is approximately 39 miles in length and is contained within Taylor and Runnels Counties in West Central Texas (see Figure 1). The railroad originates in Abilene, where it intersects the Mo-Pac main line, and terminates in Winters. The line passes through the towns of Tuscola, where it intersects the Atchison, Topeka & Santa Fe Railway Company, and Bradshaw. The line formerly extended beyond Winters south to Ballinger, the county seat of Runnels County. The Winters-Ballinger segment was previously abandoned by the railroad (see Figure 2).



**FIGURE 1 LOCATION OF ABILENE-WINTERS LINE  
IN RELATION TO THE TEXAS RAIL SYSTEM**



Note: For rail user codes, refer to Table 1.

FIGURE 2 LOCATION OF ABILENE-WINTERS LINE IN TAYLOR AND RUNNELS COUNTIES, TEXAS





I. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS ON THE LINE OF THE RAILROAD

a. Freight Traffic

Freight originating at Winters consists primarily of agricultural products, including milo, wheat, and oats, which are shipped to commodity markets in other parts of the State. Freight terminating at Winters includes some grain and feed, as well as farm equipment and implements, and petroleum products. Cotton was formerly a commodity produced and shipped in quantity from Winters; however, the relative importance of this crop to the area has declined in recent years in favor of grain crops.

Those firms in Abilene that use the Abilene & Southern Railway do so primarily for the receipt of terminating shipments, indicating that the markets for the products of these firms are primarily in the local area. Users of the A&S at Abilene include wholesalers, heavy equipment dealerships, and manufacturing firms. One of the latter businesses, Anderson Clayton Co., is the major user of rail service on the line; one of the firm's three Abilene divisions alone accounted for over 2,000 cars per year in 1977.<sup>1</sup> An average of 4,240 cars per year was shipped on the line during the period 1973-1975.<sup>2</sup> Since the A&S Railway's southern terminus is at a distance from other main lines, the line is not significant in terms of the routing of bridge traffic outside of Abilene.

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<sup>1</sup> See Table 1 based on shipper interviews and questionnaires.

<sup>2</sup> Based on I.C.C. Abandonment Docket No. AB-21; data for the last full year for which traffic density are documented in the public record.

b. Shipper Characteristics

As shown in Table 1, there are approximately 15 major rail users on the A&S line, five in Winters and the remainder located in Abilene. At the present time, there are no firms using the line located in either Tuscola or Bradshaw, intermediate points along the Abilene-Winters segment. These major users are characterized in Table 2 as to the size of the firm (sales or employment) and use characteristics (shipper or receiver and commodities involved).

In general, the users of the Abilene & Southern Railway are engaged either in agribusiness activities, or in the manufacture and distribution of consumer products. There are, of course, exceptions to this generalization, notably the distributors of general and heavy construction equipment.

The principal users of A&S services are two firms that are primarily involved in the storage, processing, and distribution of grains and feeds. One of the firms, Anderson Clayton Co., also has a division that processes cottonseed oil. The other, Alderman-Cave Co., has, in addition to the grain elevator and milling operations, a farm supply business and cattle feedlot. Since these two firms are engaged in essentially the same business, there is an element of competition in their interaction.

Anderson Clayton Co., located in Abilene, is the larger of the two firms. The A&S is the railroad of convenience for this company, since the trackage parallels the firm's major operations. With the industrial development of the Abilene metropolitan area, there are potential alternatives for the provision of rail service to this company, though in the

TABLE 1

## RAIL FREIGHT USERS: ABILENE-WINTERS SEGMENT

1973, 1977

C O D E	Rail User	Location	Commodity	Originating			Terminating			Total Traffic		
				1973	1977		1973	1977		1973	1977	
				(Cars)	(Cars)	(Tons)	(Cars)	(Cars)	(Tons)	(Cars)	(Cars)	(Tons)
1	Alderman-Cave	Winters	Grain	313	211	14,770	390	363	14,520	703	574	29,290
2	Chickasha Cotton Oil Co.	Winters	Grain	237 <sup>1</sup>	83 <sup>1</sup>	3,652	--	--	--	237 <sup>1</sup>	83 <sup>1</sup>	3,652
3	Winters Farm Equipment	Winters	Farm equipment	--	--	--	--	--	--	} 9 <sup>1</sup>	9 <sup>1</sup>	81
4	Mansell Bros.	Winters	Farm equipment	--	--	--	9	9	81			
5.	Bob Loyd LP Gas Co.	Winters	Lubricants, empty drums	2	2	10	5	9	260	7	11	270
	TOTAL Winters			552	296	18,432	404	381	14,861	956	677	33,293
6	Anderson Clayton Co.	Abilene	Cotton seed	1,074	1,145	77,125	819	881	55,075	1,893	2,026	143,200
7	Oil Seed Processing Div. Acco Feed Div.		Grain									
8	Featherlite Corp.	Abilene	Bricks	--	--	--	50	60	3,600	50	60	3,600
9	Mrs. Baird's Bakery	Abilene	Flour, etc.	--	--	--	175	175	9,062	175	175	9,062
10	Independent Grocery	Abilene	Food & paper prod.	--	--	--	120	200	8,500	120	200	8,500
11	Abilene Lumber & Supply	Abilene	Lumber & supplies	--	--	--	--	240	12,000	--	240	12,000
12	Wholesale Food Supply	Abilene	Food & paper prod.	--	--	--	--	82+	3,200	--	82	3,200
13	Packing Corp. of America	Abilene	Corrugated prod.	--	12 <sup>2</sup>	360	--	12	360	--	24	720
14	Treanor Equipment	Abilene	Construction equip.	--	--	--	24	24	960	24	24	960
15	Plains Machinery	Abilene	Heavy equipment	--	--	--	--	12	600	--	12	600
16	Grand Mud Co.	Abilene	Salt water gel	--	--	--	--	100	5,000	--	100	5,000
	TOTAL Abilene			1,074	1,757	137,485	1,188	2,636	199,357	2,262	4,443	336,942
	TOTAL			1,620	2,053	155,917	1,592	3,067	214,218	3,218	5,120	370,135

<sup>1</sup>Arthur D. Little, Inc. estimates<sup>2</sup>1976

-- = no rail shipments/receipts.

Source: Interviews with rail users.

TABLE 2

CHARACTERISTICS OF USERS OF ABILENE AND SOUTHERN  
RAILWAY SERVICES (1977)

WINTERS

<u>Company</u>	<u>Shipper or Receiver</u>	<u>Commodity</u>	<u>Sales (MM \$)</u>	<u>Employment</u>
Alderman-Cave Milling and Grain	S/R <sup>1</sup>	Primarily grain	4.9	44-55
Chickasha Cotton Oil Co.	S	Grain	n.a.	1
Winters Farm Equipment	R	Farm equipment	1.8	12-14
Mansell Bros.	R	Farm equipment	.7	8
Bob Loyd L.P. Gas Co.	S/R	Lubricants, empty drums	3.5	15

ABILENE

Anderson Clayton Co.				
Oil Seed Processing Div.	S/R	Cottonseed	30.0 {	100
ACCO Feed Div.	S/R	Grain and feed		130-150
Mrs. Baird's Bakery	R	Flour, syrup, starch	n.a.	100-249
Wholesale Food Supply, Inc.	R	Food and paper products	12.3	65-70
Independent Grocery Co.	S/R	Food and paper	16.0	60
The Featherlite Corp.	S/R	Brick	2.5	25
Treanor Equipment Co.	R	Machinery	n.a.	220
Plains Machinery Co.	R	Heavy equipment	n.a.	n.a.
Grand Mud Co.	R	Salt water gel	n.a.	25
Packing Corp. of America	S/R	Corrugated products and scrap	n.a.	45
Abilene Lumber and Supply	R	Lumber and wood products	n.a.	78

<sup>1</sup> Ship/Receive

n.a. - not available.

Source: Interviews with rail users.

event of complete abandonment, inter-modal transfer of commodities within the city limits would be required.

#### 1. Major Rail Users in Winters

Five rail users in Winters will lose all rail service if the Abilene-Winters segment is abandoned. All receive and ship at a team track adjacent to the Alderman-Cave Company in Winters. Thus Alderman-Cave is the only user shipping and receiving directly at its own facility; the others must truck their goods a short distance.

For the Alderman-Cave Company, there are no other rail transportation alternatives. The A&S is the only railroad serving northern Runnels County. Discontinuation of service and abandonment of the A&S would eliminate the railroad as an alternative transportation mode for the area. The company's management has indicated both in written testimony and personal interviews, that the company is dependent on rail service in order to compete effectively in business.

The other users based in Winters generally concurred with this assessment of the importance of rail services for their businesses. For two of the users in Winters--Alderman-Cave and the Chickasha Cotton Oil Co.--dependence on adequate rail service is acute. Like Alderman-Cave, Chickasha operates grain elevators in Winters. For these companies, rail is considered a more efficient alternative, since greater volumes can be transported in fewer shipments. Due to this efficiency, rail freight costs are lower. Management has characterized the grain elevator and milling activities as high-volume, low-margin operations; hence, freight costs can be a critical factor in the determination of profitability and viability of the business. Moreover, since sales transactions are on an

FOB origin basis, the cost of freight has a direct effect on the marketability of grain. In addition, for certain products--i.e, wheat--the mode of transportation determines whether premiums are paid on the grain. For these reasons and more, access to rail service is considered critical to the operations, and rail is the preferred transport option.

Runnels County is an agricultural area, predominantly producing grain crops; in turn, the products and services of rail users are oriented toward the agricultural basis of the local economy. In addition to serving farmers of the area, individuals in the user companies may themselves own ranches and farms. The types of products and services offered--e.g., farm equipment sales and services, lubricating oil and fuel, grain storage and feed--are all products and services essential to large-scale, mechanized farm operations.

These essential products and services could only be obtained by farmers in northern Runnels County at more distant locations (e.g., Abilene, Ballinger) at greater cost. In this respect, rail users represent a key sector of the local economy. Moreover, because the manufacturing and retail sectors are relatively small, the companies are significant for the non-farm sector of the economy.

## 2. Major Rail Users in Abilene

The economy of the Abilene area is not as concentrated in one sector as is that of the more rural Runnels County. Agriculture is important, but mining and the federal military sector (through Dyess Air Force Base) are also considered important to the area. Wholesale and retail trade, manufacturing, and services are the major sectors, but

employment in, and contributions to personal income from these sectors are not as important for the Abilene area as for the State as a whole. Significantly, the firms comprising major subsectors of the manufacturing sector, i.e., manufacturers of electronic components and appliances (including electrical appliances and aerospace components), are not dependent on rail services.

Abilene-based users of the A&S constitute a more diversified group, in terms of the range of products and services offered. However, as in Winters, a single firm--Anderson Clayton Co.--predominates in its use of A&S rail services. The principal businesses of this firm (feed manufacturing and cotton seed oil processing) are more closely related to agriculture than are the manufacturing and distributing activities of other Abilene-based A&S users.

Cattle production is a significant component of the agricultural sector in the Abilene metropolitan area. As a major manufacturer of cattle feed, Anderson Clayton Co. is directly involved in this sector of the local economy, through its ACCO Feed Division.

There is evidence of recent construction activity in the Abilene area, primarily in the residential, commercial and public sectors. Among the users of the A&S railroad are firms that distribute and service construction machinery, and manufacture and distribute building materials. These firms, therefore, serve a key sector of the Abilene economy.

Other users of the A&S services are engaged in the processing and distribution of foodstuffs and related consumer products. This, clearly, is another important sector of the economy. Exploration for and production of oil and gas are considered part of the broadened economic base

of the area. At least one firm engaged in oil field services and supply activity is a user of the A&S railroad.

Though few of the Abilene-based A&S rail users are among the largest employers in the Abilene area, the firms are engaged in agriculture-related, industrial and service activity, all of which are of important to the local economy.



## II. REVENUES DERIVED FROM RAIL FREIGHT SERVICES AND THE COST OF PROVIDING THESE SERVICES

### a. Revenues

The Abilene & Southern Railway Company (A&S), a wholly-owned subsidiary of the Mo-Pac, serves approximately 39 miles from Abilene to Winters. There are more published data on this line, much of it inconsistent, than for most other Texas segments because of the availability of (1) a "branch line" accounting form R-6, (2) a Class II railroad annual report form R-2, (3) A&S traffic and revenue data for 1967-1976 filed with I.C.C. as part of a Mo-Pac corporate simplification, and (4) previous abandonment case data.

In part, inconsistencies occur because Abilene-area traffic of A&S appears sometimes to be credited to subsidiary A&S and other times to parent Mo-Pac. In the absence of consistent treatment, it is impossible to determine whether the revenues credited to A&S arise from the performance of the same rail services for which costs are charged.

For example, the A&S R-2 form is intended to treat the subject 39-mile segment as though it were an independent railroad. Most of A&S traffic is interlined with parent Mo-Pac, without credit for the system revenues going to A&S, however. Yet substantial switching expenses benefiting both A&S and Mo-Pac are charged against A&S. For 1977, switching revenues were only \$42,392, but yard employee costs alone were \$87,195. The latter was the largest single line item of operating expense, and half of all transportation expense. By contrast, train crew wages for road service were \$46,427 and fuel was only \$11,658. Thus, the major expenses result from the performance of terminal services, for which revenues are inadequate and not from line-haul service.

A 10-year history of traffic and revenues on the line [Mo-Pac Exhibit A-14(ii) in I.C.C. Finance Docket No. 28586] shows the following for 1967 and 1976. Data for 1977 are from the R-2 report, and all data appear to exclude A&S traffic in Abilene.

<u>Item</u>	<u>1967</u>	<u>1976</u>	<u>1977</u>
Carloads	1,056	844	735(e)
Revenue Tons	32,696	43,290	47,574
Revenue Ton-miles	951,359	1,262,560	1,341,242 <sup>1</sup>
Gross Freight Revenue	\$78,028	\$117,672	\$149,076 <sup>1</sup>

Each measure of activity on the line, except cars, has increased over time. Total freight revenues are higher than "gross freight revenue" because of switching and incidental sources such as freight storage.

Reference to the Revenue and Expense Estimation Sheet for the base year 1977 shows a total revenue of \$391,296. This is based upon the A&S R-6 filing for 8 months of 1977 annualized. The amount represents an A&S estimation of both on-line and beyond-the-line revenues attributable to traffic originating or terminating on the line. Although the amount is used without adjustment (except annualizing from an 8-month sample), one note is warranted.

The railroad's designation of the line in its annual map is for 38.6 miles, an amount approximately equal to the full 39 miles on which the R-2 is based, and similar to the mileage for which Mo-Pac once sought abandonment. The R-6 mileage, however, on which the above-cited revenues are based, is for a distance of only 30.89 miles between Mileposts 7.31 and 38.2. Thus, R-2 and R-6 data are not strictly comparable, and the establishment of a consistent data base will be an important part of any

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<sup>1</sup> Excludes \$56,436 in other revenues (including \$42,392 switching revenues and \$12,110 freight storage) for a total of \$205,512.

(e) = signifies estimated.

future I.C.C. proceedings involving proposed abandonment or subsidization of the segment.

The difference between the 30.89 miles and 38.6 miles is apparently dictated by a railroad preference for retaining branch line near-in traffic (i.e., Abilene) while abandoning a more distant point (Winters). Thus, for one official purpose, the full 38.6 miles is claimed and for another official purpose, the lesser mileage is asserted. Use of data for the shorter mileage makes the segment appear less viable in that the denser "near-in" sources of revenue are omitted along with the Maintenance of Way (M/W) and Transportation expenses for a minimal portion of the operation. The R-6 data (based on the shorter mileage) are, however, reasonably well suited to the new formula requirements and are used for that reason.

b. Expenses

The M/W expenses derived from the R-6, after being annualized, exceed the total amount shown in the R-2. This is an impossibility, since the R-6 represents a 30.89-mile part of the line and the R-2 represents a 39-mile whole. One explanation is that M/W work tends to be seasonal, with less of it performed in the winter months; the R-6 actual data are for May-December. Consequently, R-2 data for \$73,929 for 39 miles (\$1,896 per mile) were used.

Consistent with an approach which requires the estimation of both on- and off-line revenues and expenses, freight train car costs and maintenance of equipment costs are ascribed from the R-6 data. These total \$91,297.

Transportation expense is also based on R-6 data. Since the shorter mileage is used, the Abilene-area yard expenses, mentioned earlier, appear to be excluded and the on-branch transportation cost of \$49,859 appears to represent a road-service cost. An off-branch expense of \$44,270 for

train gross ton-mile costs is also included, and transportation expense totals \$94,129. The operating expense subtotal, based on the preceding items, is \$259,355.

Other items of expense, all based on R-6 claims, are payroll tax expense, representing old age retirement contributions of the railroad and unemployment taxes. These total \$38,190. State taxes are \$4,295. An additional \$20,468 for equipment rental is included, representing lease or other payments to the owners of rolling stock for use of the equipment. Other expenses include \$9,431 in claimed working capital and a \$3,912 claim for administrative costs (1% of revenues).

c. Comparison of Revenues and Expenses

Total expenses sum to \$335,651 and the net result of operations is a profit of \$55,645. This contrasts with a loss claimed by the carrier for the entire (R-2) line operation. Any such loss, however, appears to be the result of different accounting formulas or of failure to adjust cost accounting techniques between A&S and parent Mo-Pac so that revenue and expense calculations are on a consistent basis. In addition, switching services at Abilene may be inadequately compensated, and subject to adjustment within control of the parent.

REVENUE AND EXPENSE ESTIMATION SHEET

Line: Abilene-Winters  
(Abilene & Southern)

Railroad: Class II  
owned by Mo-Pac

Miles: 38.60  
or 30.89<sup>1</sup>

1977 Carloads & Tonnage:

735 cars (over the 30.89 mile segment from MP 7.31 to 38.2; average 23.8 per mile), per R-6; 47,371 tons calculated per R-6. [Differs from ADL estimate in Table 1.]

A. Revenues

\$391,296

1. Basis of estimate: 8-month data from R-6 annualized to full year. Based on only 30.89 miles of full 38.6-mile line; apparently includes off-branch revenues, however.

2. Description of O&T or Bridge Traffic:  
Assumptions: Bridge traffic possible via ATSF at Tuscola, although R-6 does not reflect this traffic. A Mo-Pac exhibit in its merger case (Exhibit A-13 (ii)) shows 60 bridge cars in 1976.

B. Expenses

1. Maintenance of Way

\$ 73,929

Basis: From R-2 for full 39-mile segment for 1977, equivalent to \$1,896/mile. Annualized R-6 amount produces impossibility of part of line costing more than whole.

2. Maintenance of  
Equipment

\$ 91,297

Basis: From R-6 claimed freight train car costs (off-branch) of \$89,243 plus on-branch maintenance of equipment of \$2,054.

3. Transportation

On-branch: \$49,859

Off-branch: 44,270

\$ 94,129

Basis: From R-6. Uses annualized on-branch transportation expense of \$49,859 plus off-branch train gross ton-mile costs of \$44,270.

Operating Expense Subtotal

\$259,355

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<sup>1</sup>Data sources filed by Mo-Pac are inconsistent.

4. Estimated Taxes			
Payroll	\$ 38,190	<u>Basis:</u>	Annualized R-6 data.
Other-than-federal	\$ 4,295	<u>Basis:</u>	Annualized R-6 data.
Tax Subtotal	\$ 42,485		
5. Equipment Rents	\$ 20,468	<u>Basis:</u>	Annualized R-6 data.
6. Other Expenses	\$ 9,431	<u>Basis:</u>	Annualized R-6 working capital estimate.
7. Management Fee	\$ 3,912	<u>Basis:</u>	Annualized R-6 administrative costs.
EXPENSE TOTAL	\$335,651		
NET RESULT	\$ 55,645		

### III. REVIEW OF CONDITION OF RAIL PLANT, EQUIPMENT AND FACILITIES

#### a. History of the Line

The Abilene & Southern Railway was operated by the Texas & Pacific Railway Co. (T&P) until the recent merger of T&P into the Missouri Pacific. The A&S is now a subsidiary of the Missouri Pacific system lines.<sup>1</sup>

The A&S was originally constructed in 1909, of 54-pound rail. The line originally ran between Abilene and Ballinger; in the early 1970's, the 16-mile segment between Winters and Ballinger was abandoned and the track removed. This action reduced the operating length of the line to approximately 39 miles, with the southern terminus at Winters.

Subsequent to the abandonment of the Winters-Ballinger segment, upgrading and improvement of the Abilene-Winters segment were undertaken by the railroad. These improvements included reballasting, tie replacement, and track rehabilitation with relay rail along the entire length of the line. This project, initiated in 1970, was terminated in 1974. Bridge improvements were not completed as part of this project.

#### b. Description of the Layout of the Branch Line

The A&S line passes through four communities at Abilene and Bradshaw in Taylor County, and Tuscola and Winters in Runnels County. Some shippers in Abilene utilize team track facilities. There is a siding at the Winters depot. The 31.69-mile segment of the Abilene-Winters line that was the subject of the previous abandonment proceeding occupies approximately 442 acres, with the average width of right-of-way being 115 feet. Of this acreage, 332 acres are held in fee by the Abilene & Southern. Total area occupied by the A&S is estimated to be 550 acres. The line crosses the Santa Fe Temple-Lubbock main line at Tuscola.

<sup>1</sup>The A&S recently merged with Mo-Pac as part of a corporate simplification.

At present, the railroad consists of 85-90 pound rail supported by creosoted cross ties, with the ballast consisting of gravel and rock. The length of the rails is 39 feet. Joints are staggered. Ties were spaced to average 21 per 39-foot rail length. A spot check revealed that the condition of the ties is generally good, although 15-20% were observed to show signs of advancing rot or were split fully along the length of the tie. The latter observations are indicative of stress and weathering, and the current status of maintenance.

Spot inspections also showed angle bars and tie plates to be in place, though some of the latter were found to be inadequately secured. Spacing between rail ends was observed to be less than 1 inch at all observation points. The condition of the alignment appeared good, and no evidence of recent derailment was observed.

There are at a minimum 60 grade crossings, 42 culverts, and 30 bridges in the 31.69-mile segment that was the subject of the previous abandonment proceeding. According to testimony given during the previous proceeding, at least six additional bridges are located between Milepost 0 and Milepost 4.2. Bridges vary in length from 14 to 250 feet.

Weight limitations on the existing bridges do not permit the passage of certain types of cars, notably the jumbo hopper cars, which are widely used elsewhere for the transportation of grain.

Since the railroad has undergone substantial rehabilitation within the last 4-8 years, it is in reasonably good and serviceable condition. With the exception of the bridges, which have not been rehabilitated, extraordinary repairs are not required in order to improve service. According to testimony presented at the previous proceeding, the cost of



bridge improvements would be modest; materials for upgrading and repairing the bridges were actually unloaded at Milepost 4, but were never used. The estimated cost of these repairs was not determined in the course of the proceeding. However, the railroad has indicated that it is not prepared to assume these costs. (See Docket No. AB-21, Initial Decision, "Discussion and Conclusion.")



#### IV. ECONOMIC AND OPERATIONAL ANALYSIS OF PRESENT AND FUTURE FREIGHT SERVICE NEEDS

##### a. Economic Overview

##### 1. Definition of the Area of Impact

Runnels and Taylor Counties, the area which the A&S Railway serves, are located in West Central Texas. Taylor County, including the City of Abilene, is part of the Abilene Standard Metropolitan Statistical Area (SMSA).<sup>1</sup> Runnels County borders on, but is not included in the SMSA.

Abandonment of the line would affect the community of Winters in Runnels County where shippers would be left without rail service. Abilene and Taylor County would not be as adversely affected. All shippers in Abilene are located in relative proximity to the Mo-Pac main line. There are no other shippers located along the 39 miles of track other than those at Abilene and Winters.

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<sup>1</sup>The SMSA includes Jones County, Callahan County, and Taylor County. Part of Abilene proper is in Jones County.

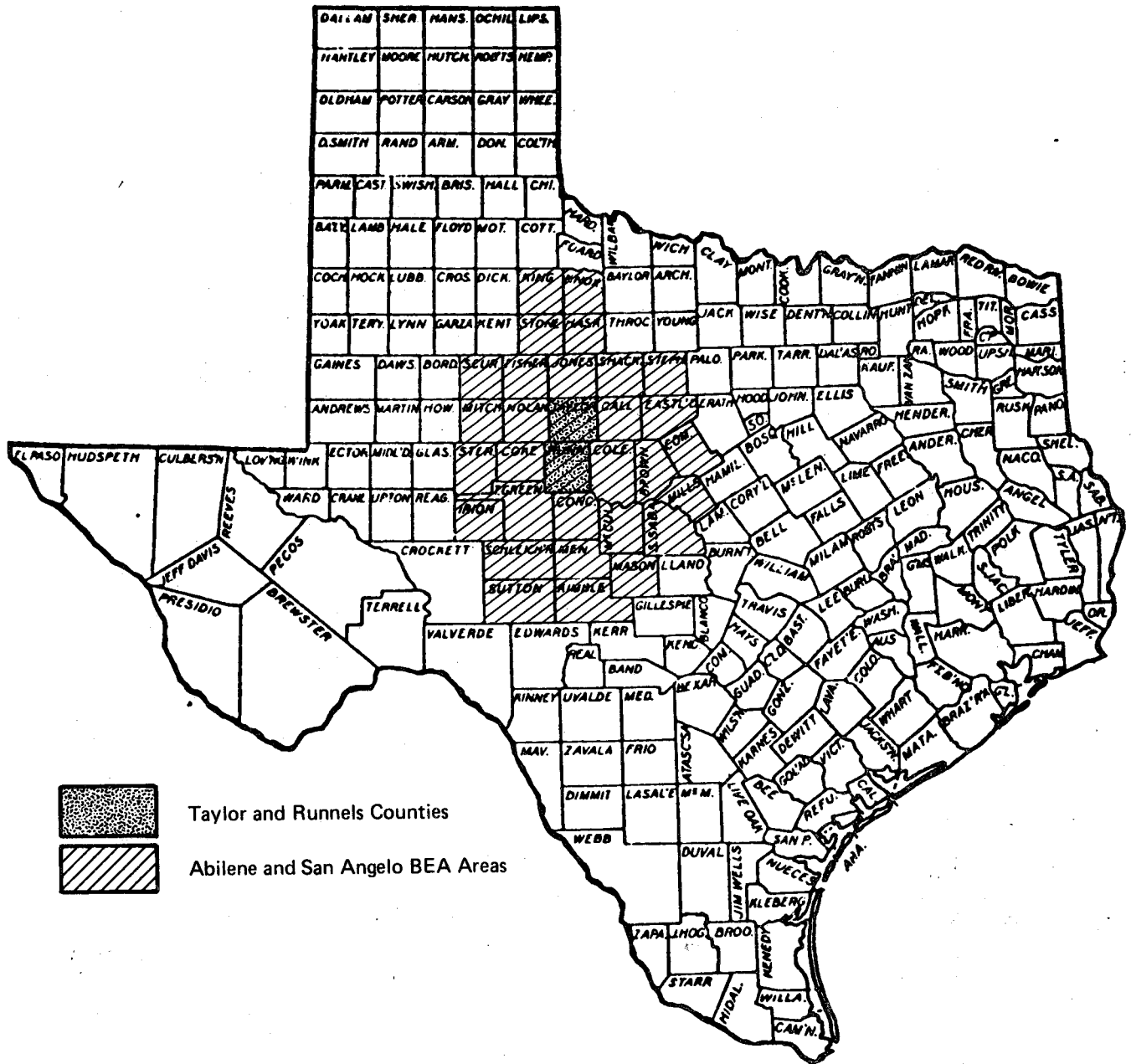
## 2. Overview of Regional Trends and Projections

Taylor County is located in the Abilene BEA Economic Area (see Figure 3). Runnels County, as shown in the figure, is located in the San Angelo BEA Area. The Abilene BEA Area consists of 17 counties, including the three counties that make up the Abilene SMSA. The San Angelo BEA Area consists of 14 counties. Taylor County, where most of the Abilene metropolitan area population resides, accounted for about 37% of the Abilene BEA Area's 1970 population. Runnels County accounted for 9.5% of the San Angelo BEA Area population. Combined, the two counties accounted for about 28% of the 31-county Abilene-San Angelo regional population.

Overall trends forecasted for the BEA areas have only general implications for rail traffic on the Abilene-Winters segment. However, these areas are the smallest for which long-term economic forecasts have been made on a basis consistent with State and national forecasts.

The Abilene BEA Area had a population of about 265,000 in 1970. About 34% of the area population resided in the City of Abilene. The major economic sectors in the area, on the basis of employment and personal income, include services, wholesale and retail trade, and agriculture. Mining, manufacturing, and government were also important to the area.

The San Angelo BEA Area had a 1970 population of about 125,000. Its important economic sectors included agriculture, wholesale and retail trade, and services. Manufacturing and government were also significant contributors to employment and personal income.



**FIGURE 3 LOCATION OF TAYLOR AND RUNNELS COUNTIES WITHIN THE STATE OF TEXAS AND THE ABILENE AND SAN ANGELO BEA AREAS**

Total employment in the two BEA areas was 146,988 in 1966, a decline of approximately 4.9% from the level of employment in 1950. This decline contrasts with the level of growth in employment for the State, reported at 38% over the same period. The areas are expected to experience growth of 1.9%, or about 0.1% per year for the period 1966-1980. Growth in employment in the Abilene BEA Area will be offset by further decline in the number of employed persons in the San Angelo area, resulting in the marginal rate of growth indicated by the forecast to 1980. Employment is expected to increase by 14% between 1980 and the year 2000, at an average annual rate of 0.7% per year. During this period, employment in the San Angelo BEA Area is expected to grow at a slightly faster rate (0.9% per year) than Abilene (0.6% per year).

The structure of employment, as shown in Table 3, is based upon relatively higher employment in certain sectors, e.g., agriculture, which are growing slowly or declining in the State as a whole. Conversely, the two BEA areas have a lower percentage average employment in faster growing economic sectors, e.g., manufacturing. For example, the San Angelo BEA Area had 15% of employed persons engaged in this sector. The level of agricultural employment for the State as a whole was on the order of 7%.

About 9% of those employed in the San Angelo BEA worked in manufacturing. At 11%, the level of employment in manufacturing in the Abilene BEA Area was slightly higher. At the State level, 18% of employed persons in Texas worked in manufacturing. The employment structures in the two BEA areas are generally expected to follow State trends, with declining employment in agriculture and increased manufacturing employment.

TABLE 3

EMPLOYMENT STRUCTURE TRENDS AND PROJECTIONS FOR COMBINED  
SAN ANGELO AND ABILENE BEA AREAS 1950-2000

	<u>1950</u>	<u>% Dist.</u>	<u>1966</u>	<u>% Dist.</u>	<u>1980</u>	<u>% Dist.</u>	<u>1990</u>	<u>% Dist.</u>	<u>2000</u>	<u>% Dist.</u>
Agriculture	37,547	24.3	20,207	13.7	13,100	8.7	10,600	6.8	9,600	5.6
Mining	9,796	6.3	5,953	4.1	4,500	3.0	3,900	2.5	3,300	1.9
Construction	13,584	8.8	10,239	7.0	10,300	6.8	10,700	6.8	11,700	6.8
Manufacturing	9,658	6.2	14,841	10.1	16,000	10.6	17,200	11.0	19,100	11.1
Transportation & Utilities	11,398	7.4	9,995	6.8	10,000	6.7	10,300	6.6	11,100	6.4
Wholesale & Retail Trade	32,626	21.1	29,814	20.3	30,500	20.3	31,300	20.0	33,700	19.6
Finance, Insurance & Real Estate	3,842	2.5	4,716	3.2	5,100	3.4	5,600	3.6	6,300	3.7
Services	28,876	18.7	35,028	23.8	41,300	27.4	46,000	29.3	53,100	30.9
Government	7,305	4.7	16,195	11.0	19,000	12.6	20,700	13.2	24,000	14.0
<b>TOTAL</b>	<b>154,632</b>		<b>146,988</b>		<b>149,800</b>		<b>156,300</b>		<b>171,900</b>	

Source: U.S., Department of Commerce and Department of Agriculture. OBERS Projections of Economic Activity in the United States. Volume II. BEA Economic Areas. Washington, D.C., 1972.

### 3. Demographic Characteristics and Trends in the Two-County Impact Area

Population trends in the two counties were divergent between 1910 and 1975. The population of Taylor County has trended upward over the period, at least until the 1970 census. The trend in Runnels County, however, was toward population decline through the early 1970's. This divergence may be attributed in part to the urbanization of the Abilene area, with attendant industrial development. Events such as the establishment of the Dyess Air Force Base and an oil boom may have contributed to growth between 1940 and 1960. Runnels County, on the other hand, has maintained an essentially rural character with the extent of major industrial development insufficient to stimulate major population growth.

The combined population of the two counties at the 1970 census was approximately 110,000 persons (see Table 4). Of the total population, 89% resided in Taylor County. The City of Abilene (1970 population-- 89,653) represented about 81.5% of the combined population for the two counties.

Population estimates for the year 1973 indicated that the proportion of the area population located in Taylor County had increased marginally, to 89.6%. Between 1970-1973, the population of Abilene increased by 3.2%, to about 92,500; however, the estimated county population increased by a somewhat greater rate, 4.6%. Accordingly, the proportion of area population residing in Abilene decreased marginally to 80.9%. This trend, confirmed by available 1975 population estimates, is indicative of a trend toward suburbanization within the Abilene SMSA.

While Taylor County registered population growth between 1970 and



TABLE 4  
HISTORICAL POPULATION OF TAYLOR AND RUNNELS COUNTIES  
INCLUDING CITIES AND TOWNS IN THE IMPACT AREA - 1910-1975

	<u>Taylor County</u>			<u>Runnels County</u>		
	<u>Total</u>	<u>Abilene</u> <sup>1</sup>	<u>% of County</u>	<u>Total</u>	<u>Winters</u>	<u>% of County</u>
1910	26,293	9,204	35	20,858	1,347	6
1920	24,081	10,274	43	17,074	1,509	9
1930	41,023	23,175	56	21,821	2,423	11
1940	44,147	26,612	60	18,903	2,335	12
1950	63,370	45,570	72	16,771	2,676	16
1960	101,078	90,368	89	15,016	3,266	22
1970	97,853	89,653	92	12,108	2,907	24
1973	102,400	92,479	90	11,900	2,403	24
1975	105,337	96,459	92	11,540	2,711	23

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<sup>1</sup>Part of Abilene proper is in Jones County.

SOURCE: Texas Almanac, 1978-79, A. H. Belo Corp., Dallas, Texas. (Data are from U.S. Census, with the exception of 1975, which are estimates).

1973 totaling almost 5%, Runnels County experienced a decline in population of almost 2%. The proportion of the area population resident in Runnels County declined marginally from about 11% to about 10%. The population of Winters declined slightly between 1970 and 1973, but this trend appears to have been reversed.

Population estimates for 1975 indicate continuation of the trends, i.e., declining population in Runnels County and population growth in Taylor County and Abilene. By 1975, the combined county populations reached 116,937. Taylor County accounted for 90.1% with the balance in Runnels County. Over the period 1970-75, population in the two-county area had increased by 6.3% at a compound rate of slightly more than 1.2% per annum.

Population projections for the area forecast the trends to continue through the year 2000 and beyond. That is, the population of Runnels County is expected to dwindle, while Taylor County will continue to demonstrate growth (Table 5). The Texas Department of Water Resources has projected that the population of Runnels County will drop to about 10,000 by the year 2000, while the Taylor County population is projected to increase to about 123,000.

Projections of the population for the area indicate a slower growth rate than that forecasted for the State (as shown in Table 5). The two-county area is expected to increase in population at the rate of only about 0.5% per year through the end of the century; the total increase is projected at 13.5% between 1975 and 2000. Taylor County is expected to grow at a slightly faster pace than the Abilene BEA Area. The San Angelo BEA Area is also expected to grow, despite the decline in Runnels County. The decline in population in Runnels County may be attributed in part to

TABLE 5

POPULATION TRENDS AND FORECASTS FOR TAYLOR AND RUNNELS COUNTIES  
IN RELATION TO FORECASTS FOR BEA AREAS AND THE STATE, 1960-2000

	<u>1960-1970</u>	<u>1970-1980</u>	<u>1989-1990</u>	<u>1990-2000</u>
Two-County Area <sup>1</sup>	(5.3)%	9.9%	3.4%	6.2%
Taylor	(3.2)%	11.8%	4.4%	7.4%
Runnels	(19.4)%	(5.0)%	(6.1)%	(6.5)%
Abilene BEA Area <sup>2</sup>	(9.0)	3.1	4.1	6.3
San Angelo BEA Area <sup>2</sup>	(0.9)%	2.4%	5.5%	9.3
Total	(6.5)%	2.9%	4.5%	7.3
State of Texas <sup>1</sup>	16.9%	19.7%	16.4%	17.2%

<sup>1</sup>Texas Department of Water Resources. Population Projections. 1976.

<sup>2</sup>U.S., Department of Commerce and Department of Agriculture. OBERS Projections of Economic Activity in the United States. Volume II. BEA Economic Areas. Washington, D.C. 1972.

an out-migration from the farms to more urbanized areas, principally by younger residents. Indicative of this was the median age for the county, which was 39 years. The indicated trend may be part of a more general statewide trend of population growth in the industrialized centers coupled with decline in the agricultural, rural areas.

#### 4. Economic Characteristics and Trends in the Two-County Impact Area

As previously noted, the economy of Runnels County is based primarily on agriculture. Grain crops and livestock were the principal sources of income from agriculture in 1976. Income from farm products was more than double the combined income from the manufacturing sector and oil and gas production.

On both an acreage and production basis, sorghums are the principal crops in Runnels County. Wheat and oats are also of economic significance to farmers in the county. Table 6 provides statistics on acres planted and volume of production for these principal crops.

As noted, there has been a shift in the cash crop emphasis in Runnels County in recent years. Formerly, cotton was a principal crop in production; the shift to grain crops has been attributed to an infestation of boll weevil, which severely reduced production and marketability of cotton. Feed grains produced are destined primarily for export markets, although grain production is also integrated with the production of livestock.

Income from marketing of livestock and livestock products exceeded crop income in the county in 1976. Cattle and sheep are the principal livestock maintained. About 31,000 cattle were marketed from feedlots in 1976, and over 400,000 pounds of wool were produced in that year.

TABLE 6  
PRODUCTION AND VALUE OF AGRICULTURAL COMMODITIES  
TAYLOR AND RUNNELS COUNTIES, 1976

	<u>Taylor</u>		<u>Runnels</u>	
	<u>Harvested Acres</u>	<u>Production</u>	<u>Harvested Acres</u>	<u>Production</u>
<u>Crops</u>				
Wheat	63,000	97,000 bu.	59,100	610,000 bu.
Oats	4,900	104,300 bu.	9,000	217,600 bu.
Sorghum	21,700	595,800 bu.	79,200	2,277,800 bu.
Cotton	8,600	4,108 bales	31,900	18,000 bales
<u>Livestock and Products</u>				
Cattle from feedlots		117,000 head		31,000 head
Wool		111,000 lb.		408,000 lb.
<u>Income from Farm Markets</u>				
		(000\$)		(000\$)
All Crops		5,952		13,594
Livestock and products		<u>29,140</u>		<u>15,990</u>
		\$35,092		\$29,584

SOURCE: U.S. Department of Agriculture and Texas Department of Agriculture.  
1976 Texas County Statistics. Bulletin 152, September 1977.

The principal rail user in Winters, Alderman-Cave, is part owner of, and vertically integrated with (through its feed mill operation), a major cattle feedlot in the county. The Win-Tex feedlot is reported to have a capacity of 10,000 head of cattle, and is designed for expansion to a capacity of 25,000 head.

In addition to beef cattle and wool, milk and eggs play a secondary role in livestock production. A major sector of the local economy, livestock marketing is not as dependent on rail service as marketing of grain crops.

In agriculture, Taylor and Runnels Counties are similar in the type of crops cultivated and livestock produced. However, livestock more clearly constitutes the agricultural base in Taylor County. Over 85% of farm income in Taylor County was from cattle, sheep, and other livestock; while in Runnels County, about 60% of farm income was generated from livestock. Over 117,000 head of cattle were marketed from Taylor County feedlots in 1976; total income for farm marketing was reported at approximately \$35 million (see Table 6). The value of manufactured goods in 1976 was reported at approximately \$57 million, with the value of oil, gas, and other mineral production reported at about \$22 million.

The manufacturing sector of the local economy for the two-county region is based primarily in Abilene, although a number of manufacturing firms in Winters have shown rapid growth in recent years. Among the manufacturing firms in Winters are the Dry Manufacturing Division of

Wallace-Murray Corp., which fabricates grates and registers for heating, ventilating and air conditioning systems; Johns International, which fabricates tool boxes as accessories for pickup trucks; and Win-Tex Industries, manufacturing metal display shelving. None of these firms currently uses the subject line. Sales for these companies in 1978 were estimated by the firms to have exceeded \$30 million (including Win-Tex Feeders).

Among the products manufactured in Abilene and Taylor County are apparel, aircraft components, appliances, musical instruments, faucets, meat and milk products, etc. There were 125 firms engaged in the manufacture of 83 products listed in the 1978 Directory of Manufacturers for Abilene, Texas. In addition to this industrial base, a large military installation, the Dyess Air Force Base, is located in Abilene. Besides the complement of military personnel, the base is a significant employer of area civilians.

The electrical component and appliance industry is an important factor in the manufacturing sector because of the significant level of employment in this industry. Among the major firms located in Abilene and engaged in the manufacture of electronic components is Texas Instruments. Components for digital watches and calculators are manufactured at the firm's Abilene plant. The manufacture of electrical appliances is significant, but is of secondary importance with the emergence of electronic components as a leading industry. Aerospace components are an important product of the manufacturing sector. General Dynamics recently established a facility for the manufacture of aircraft and missile structural components in the Abilene area.

Increases in oil and gas drilling activity in the Abilene area have been important for the oil field services and supply industry. There are a number of small firms in this industry located in the immediate Abilene area.

## 5. Employment

Both Taylor and Runnels Counties have relatively high levels of employment. Total labor force in the two-county area in 1976 was approximately 54,000. Wholesale and retail trade, manufacturing, agriculture, and education were the principal sectors of employment for area residents. Unemployment in the area was below the statewide annual average. Runnels County reported an unemployment rate of only 2.3% for the year 1976, while Taylor County reported 4.1% of the labor force was unemployed in that year, as shown in Table 7. Unemployment for the State in 1976 was about 5.7%.

Available data through the third quarter of 1977 showed unemployment to have been increasing in Taylor County and decreasing in Runnels County. Unemployment in Taylor County for the period was slightly higher than the statewide average of 4.9%, but was only 2.0% in Runnels County. Contraction in the Runnels County labor force may have been a factor in the marginal decline in unemployment. The decline in county population was due in part to a net out-migration, which resulted in a reduction in the total labor force of approximately 3%. The ranks of the unemployed were reduced by 14%, which contributed to the decrease in unemployment, in the absence of growth in the labor force.

Retail trade was the sector of principal employment for members of the Taylor County labor force in 1970, while the agricultural sector was



TABLE 7

EMPLOYMENT CHARACTERISTICS  
TAYLOR AND RUNNELS COUNTIES

	<u>Taylor County</u>			<u>Runnels County</u>			<u>Total Taylor &amp; Runnels</u>		
	<u>1970</u>	<u>1976</u>	<u>1977</u>	<u>1970</u>	<u>1976</u>	<u>1977</u>	<u>1970</u>	<u>1976</u>	<u>1977</u>
<u>Labor Force</u>	36,482	49,173	50,343	4,435	4,889	4,763	40,917	54,062	55,105
<u>Employed</u>	35,173	47,155	47,787	4,268	4,778	4,668	39,441	51,933	52,455
<u>Unemployed</u>									
Total	1,309	2,018	2,555	167	111	95	1,476	2,129	2,650
Percentage Unemployed	3.6	4.1	5.1	3.8	2.3	2.0	3.6	3.9	4.8

SOURCE: Texas Employment Commission, Austin, Texas.

of primary importance in employment in Runnels County. Employment data by industry sector are presented in Table 8. When compared with the State of Texas as a whole, the two-county area has higher proportions of employment in agriculture, mining, transportation, and public utilities, and wholesale and retail trade. The proportion of agricultural employment is lower in the two-county area than in either BEA Area, but more concentrated in other areas, e.g., wholesale and retail trade, particularly in Abilene and Taylor County. The two-county area has much lower levels of employment in finance, insurance and real estate; services; and government than either the BEA Areas or the State. Taylor and Runnels Counties also have lower levels of employment in construction and manufacturing than the State, but are higher than the BEA Areas due to the concentration of manufacturing activity in Abilene and Taylor County (see Table 9).

A significant level of employment in the manufacturing sector is a relatively recent phenomenon in Runnels County. The successes of locally established manufacturing firms are indications for some area observers of the growth potential of the sector. A significant characteristic of the manufacturing sector in Runnels County, particularly in the Winters area, is that the major local firms are relatively independent of rail service. This characteristic may have significance with respect to long-term impacts should the potential abandonment occur.

The production of oil, gas, and minerals is a factor in the economies of Taylor and Runnels Counties. Some oil and gas are produced in Runnels County; the value of such local production was estimated at \$6.5 million for 1976 and \$11 million in 1977. In addition to oil and gas, stone,

TABLE 8

COMPARISON OF THE EMPLOYMENT STRUCTURE OF TAYLOR AND RUNNELS COUNTIES,  
ABILENE AND SAN ANGELO BEA AREAS, AND THE STATE OF TEXAS: 1970

	<u>Two County Area<sup>1</sup></u>	<u>Abilene BEA Area<sup>2</sup></u>	<u>San Angelo BEA Area<sup>2</sup></u>	<u>Texas<sup>2</sup></u>
Agriculture	7.3	13.1	15.0	4.4
Mining	5.4	5.0	2.3	2.4
Construction	6.3	6.6	7.7	7.0
Manufacturing	16.3	10.7	9.0	17.4
Transportation and Utilities	8.0	6.6	7.2	6.4
Wholesale and Retail Trade	30.1	20.9	19.0	20.9
Finance, Insurance and Real Estate	5.2	3.2	3.1	} 29.9
Services	21.0	23.2	25.1	
Government	-- <sup>3</sup>	10.7	11.6	11.6

<sup>1</sup>U.S. Department of Commerce, Bureau of the Census. County Business Patterns. Texas. CBP-70-45, Washington, D.C., 1971.

<sup>2</sup>U.S. Department of Commerce and Department of Agriculture. OBERS Projections of Economic Activity in the United States. Volume II, BEA Economic Areas. Washington, D.C., 1972.

<sup>3</sup>Included in services.

TABLE 9  
EMPLOYMENT IN TAYLOR AND RUNNELS COUNTIES

	<u>Taylor County</u>		<u>Runnels County</u>		<u>Total</u>	
	<u>1970</u>	<u>1975</u>	<u>1970</u>	<u>1975</u>	<u>1970</u>	<u>1975</u>
Mining	1,322	986	216	361	1,538	1,347
Contract Construction	1,729	2,321	63	72	1,792	2,393
Manufacturing	4,323	6,432	330	472	4,653	6,904
Public Utilities	2,163	2,374	112	48	2,275	2,422
Wholesale Trade	2,044	2,376	214	203	2,258	2,579
Retail Trade	5,853	6,988	473	458	6,326	7,446
Finance, Insurance, Real Estate	1,411	1,394	85	92	1,496	1,486
Services	5,727	7,360	254	351	5,981	7,711
Other	82	399 <sup>1</sup>	40 <sup>1</sup>	46	122 <sup>1</sup>	445 <sup>1</sup>
Sub-total <sup>2</sup>	24,654	30,630	1,787	2,103	26,441	32,733
Agriculture <sup>3</sup>	1,098	1,098	977	977	2,075	2,075
Total	25,752	31,728	2,764	3,080	28,516	34,808

<sup>1</sup>May include some employment in agricultural services.

<sup>2</sup>U.S. Department of Commerce, Bureau of the Census. County Business Patterns. Texas. CBP-75-45, Washington D.C., 1976. (Excludes self-employed persons, farm employees, domestic workers, and railroad employees. Data are reported for county of employment.)

<sup>3</sup>U.S. Department of Commerce, Bureau of the Census. General Social and Economic Characteristics. Texas. PC(1)-C45 Tex., April 1972. (Data on agricultural employment are not available for 1975 from the Census; therefore, the 1970 estimate is used. With generally declining agricultural employment, it is likely that this somewhat overstates agricultural employment in 1975.)

clays, sand and gravel are extracted in Taylor County. The value of production from these sources was \$13.6 million in 1976 and \$21.5 million in 1977.

6. Implications of Trends in Selected Economic Sectors for Future Rail Traffic

Expansion of industry in the Abilene area, as is occurring along the South Treadway Boulevard industrial area, could result in an increased demand for rail services. The Abilene & Southern is at present the only railroad directly serving this section of the city, where an industrial park is being developed. Manufacturing and minerals are areas where continued growth will utilize increasing rail traffic. These areas represent two growth sectors in the local economy of Abilene and Taylor County. In addition, agriculture, including both crop and livestock production, will continue to utilize the railroad in Abilene.

With a substantially developed infrastructure, Abilene is served by the Fort Worth & Denver Railway and the Missouri Pacific in addition to the Abilene & Southern. Continued rail service in the South Treadway Boulevard area would be a convenience for present and potential users. In the previous proceeding the volume of traffic in the area was considered sufficient to justify the retention of service. Further development along the South Treadway transportation corridor will enhance the potential for rail traffic.

In Runnels County and the Winters area, agricultural production emphasizes certain commodities that are ideally suited to efficient transportation via rail. As with all agricultural commodities, production is seasonal and subject to cyclical climatic conditions. However,

productivity, in terms of acres harvested and yield, has tended to increase in recent years. Despite the fact that population and the labor force are in decline, mechanization of the farm and increasing use of other aids (e.g., fertilizer) to boost productivity will contribute to increased output. The demand for rail will also be increased by the shift from cotton to grain. The volume and weight of grain harvested per acre is greater than for cotton.

In the view of area shippers, the volume of rail traffic could be greatly increased if the railroad provided better service. One shipper alone--Alderman-Cave--estimated that it would have shipped an additional 16,000 tons of grain per year if cars had been available and if the bridges on the branch had been capable of accommodating large hopper cars on which favorable rates depend.<sup>1</sup> The potential for future increases in rail traffic exists, due not only to increased output, but also to potential shortages of petroleum fuels.

b. Current and Projected Rail Freight Operations and Traffic

1. Current Rail Operations

Service is provided by the Abilene & Southern on both a scheduled and on-call basis. The current schedule calls for three trips per week over the 38.6-mile distance between Abilene and Winters.

On-call service is more in demand during the periods of harvest, when large quantities of grain are shipped from Winters. Shippers have reported that the response of the railroad to the demand for an adequate

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<sup>1</sup>Letter from Alderman-Cave to T&P General Freight Agent, July 18, 1972.

number of cars for the shipment of grain has been less than satisfactory. This is due to the inability of the railroad to supply jumbo hoppers because of weight restrictions on the line, and a diminishing supply of regular hopper cars.

Because of the non-agricultural nature of their industries, some Abilene-based users of the Abilene & Southern are not as subject to seasonal variation in their demand for service. For these users, the A&S provides convenient access to the east-west Mo-Pac line, and the Fort Worth & Denver line to the north. Users in Abilene have not reported difficulties in obtaining an adequate number of cars or service.

## 2. Rail Users: Current Traffic and Projections for Future Traffic

Estimates of current traffic indicate 5,120 cars per year moved on the line in 1977, or 131 cars per mile. These data are presented in Table 1. Total tonnage shipped is estimated at more than 370,000 tons during 1977. About 82% of the cars and 88% of the freight tonnage was accounted for by agricultural products, primarily feed grain and cottonseed. These products were shipped by three companies. The data filed by the Mo-Pac and A&S at the time of the previous abandonment proceeding understated traffic on the entire line by excluding the data for shippers on the 7.31-mile segment in the Abilene area. Uncertainties still remain with respect to the uniformity of traffic, revenue and cost data between A&S and Mo-Pac for the Abilene area. The effects of these differences on the apparent viability of the A&S are noted in Section II.

Those companies in Winters that rely on the A&S all project that their use of the railroad could be increased in the future if the quality of service were improved. Testimony offered by two of the major shippers in Winters indicated that significant tonnage was lost by the railroad to truck, due to the failure to provide adequate service.

Because of the nature of the commodities shipped, quantitative projections of future rail requirements by area shippers were difficult to obtain. In general, however, shippers in Winters felt that the use of the railroad would increase if service were improved. Abilene users also indicated that rail usage is likely to increase in the future.

South of Abilene, the use of the railroad is highly dependent on the seasonal and cyclical nature of agricultural production. The volume of rail traffic may, therefore, vary significantly from year to year. At present, the use of the railroad is limited to a large degree by the quality of service. It is clear that increased traffic could be achieved in times of good harvest if shippers were supplied with the required number of cars. Moreover, if service became more reliable, area manufacturers might also utilize the railroad. The estimates of future traffic by rail users in Winters and Abilene are presented in Table 10.

Apparently the potential for increased use of the Abilene and Southern exists. The degree to which this potential can be realized should soon be put to a test; after an extended period of inaction on the matter of bridge repairs, Mo-Pac informed the Railroad Commission recently that "...arrangements have been made for the upgrading of the bridges on the line from Abilene to Winters...to permit handling of jumbo hopper cars..."<sup>1</sup>

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<sup>1</sup>Letter from William R. McDowell, Vice President and General Counsel, Missouri Pacific, January 22, 1979.



TABLE 10

ESTIMATES OF 1980 TRAFFIC  
ABILENE-WINTERS RAIL SEGMENT

<u>Rail User</u>	<u>Cars</u>	<u>Tons</u>
Alderman-Cave	600	42,000
Mansell Brothers	10	100
Winters Farm		
Bob Loyd LP Gas	12	180
Chickasha Cotton Oil Co.	210	14,700
Anderson-Clayton Co.	3,840	307,200
Featherlite Corp.	70	4,200
Mrs. Baird's Bakeries	200	10,356
Independent Grocery Co.	250	10,000
Abilene Lumber & Supply Co.	265	13,250
Wholesale Food Supply	96	3,840
Packing Corp. of America	12	120
Treanor Equipment	25	250
Plains Machinery	15	150
Grand Mud	<u>110</u>	<u>5,500</u>
	5,715	411,846

SOURCE: Arthur D. Little, Inc., estimates based upon interviews with rail users.



V. ANALYSIS OF THE IMPLICATIONS OF THE ABANDONMENT ON THE TRANSPORTATION NEEDS OF THE STATE

a. Relationship of the Line Segment and its Traffic to the State Rail System and Its Traffic

The Abilene & Southern Railway represents approximately 1.2% of the Missouri Pacific System's miles of road in the State of Texas, and less than 0.3% of the total miles of road reported by the ten major railroads in the State. From this perspective, the Abilene & Southern constitutes a relatively insignificant proportion of both the parent company's trackage and the entire railroad system for the State.

In a local context, however, the railroad assumes a somewhat larger importance. Abandonment of this line would eliminate the possibility of rail service for farms and businesses between Tuscola, in southern Taylor County, and Ballinger in southern Runnels County. Although it accounts for a smaller proportion of the traffic, the Abilene & Southern is roughly estimated to account for about 25% of the trackage in Runnels and Taylor Counties. Though the effect of the abandonment on the movement of rail traffic through the two-county area would be mitigated by shifts to other railroads or intermodal transfers, the impact on the availability of in-place railroad facilities would be substantive and irreversible.

The A&S line is designated AS 001 and AS 002 in the U.S. Department of Transportation Final Standards, Classification and Designation of Lines of Class I Railroads in the United States, but the traffic densities are not shown for A&S (or for other Class II railroads). The AS 001 segment from Winters to Tuscola connects with Santa Fe line segments SF 152 between Sweetwater and Tuscola and SF 306 between Tuscola and

San Angelo Junction. The AS 002 segment from Tuscola to Abilene connects with Mo-Pac segments TP 046 (Sweetwater-Abilene) and TP 026 (Abilene-Weatherford). The two Santa Fe segments are designated Category A main line and carry 20-30 million gross tons annually. Although the two Mo-Pac segments would normally be designated Category B main line, based on traffic density of 10-20 million gross tons, they also carry a classification as routes required for national defense and are, therefore, designated as Category A main line.

b. Relationship to Highways, Waterways and Other Modes of Transportation

As seen in Figure 1, the line segment runs roughly parallel to U.S. Highway 83, a north-south, primarily undivided, road that links Taylor and Runnels Counties. The line is also crossed by farm-to-market roads at Winters and other points. The Santa Fe line intersects the Abilene & Southern at Tuscola. The Abilene area is served by Mo-Pac on the former T&P rail line, by the Fort Worth & Denver, a subsidiary of the Burlington-Northern, and by other major highways, including Interstate 20, which connects Abilene with the Dallas-Fort Worth area.

## VI. RELATIVE ECONOMIC, SOCIAL, ENVIRONMENTAL, AND ENERGY COSTS AND BENEFITS

### a. Identification of Alternatives

In the previous abandonment proceeding concerning the Abilene-Winters line, and in the more recent public notice indicating that the line may still be subject to abandonment, the Abilene & Southern Railway identified two options with respect to abandoning the line. These were: (1) partial abandonment of the line (including 31.09 miles out of a total of 38.4), with service to be continued within 7.31 miles of Abilene; and (2) complete abandonment of the entire length of the line, including Abilene. The first alternative, which was the substance of the previous application, included the conveyance of trackage rights on the 7.31 miles to the Missouri Pacific, resulting in the dissolution of the Abilene & Southern Railway. The Mo-Pac recently indicated that it would continue service to Abilene, but in the absence of a formal application, both possibilities must be considered. Either option would result in the complete loss of rail service to Winters.

The three alternatives to abandonment of the Abilene-Winters rail line that have been considered would all retain service on the line:

(1) Continue rail service on the line. The analysis of current financial performance in Chapter II indicates that the line is operating at a net annual profit of about \$55,000. However, inclusion of return on value of investment would undoubtedly result in a deficit. An annual return-on-value claim by Mo-Pac could be as much as \$200,000, based on R-6 assertions. Therefore, continuation of service could require a temporary

operating subsidy. Any continuation subsidy would be justified as a means of allowing sufficient time for additional traffic to develop so that the line could become a long-term, self-sustaining operation for the carrier. In addition, a rehabilitation subsidy could be required for one or more bridges currently in need of repair that are cited by the carrier as precluding the use of jumbo hopper railcars on the line. Rail users in Winters have indicated in testimony before the I.C.C. and in public meetings held by the Railroad Commission that the availability of jumbo hoppers would significantly increase rail traffic on the line.<sup>1</sup>

(2) Continue rail service on the entire designated segment by reorganization of operations on a short-line basis. This would be any form of operation, within the private sector, which would continue to provide rail service without requiring an on-going commitment of public funds. Although establishing the financial feasibility of a short-line operation on this segment would require further study, the present circumstances of the line and its traffic include at least two favorable aspects: control over a substantial amount of originating traffic and access to at least two carriers (Santa Fe at Tuscola and Mo-Pac at Abilene) and possible access to a third (Fort Worth and Denver at Abilene). The success of this alternative would depend upon its financial feasibility, the interest of some group in assuming operations, and the willingness of the present carrier to negotiate a sale. The cost of

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<sup>1</sup>Mo-Pac recently notified the Railroad Commission and the major rail users in Winters (by letter from William R. McDowell on January 28, 1979) of its intention to upgrade bridges on the line to permit handling of jumbo hoppers.

acquisition of trackage and right of way could cost approximately \$1 million or more,<sup>1</sup> with further investment required in locomotives, rolling stock, etc. This alternative could require a temporary continuation subsidy to allow time for negotiation and the assistance of the Railroad Commission during the negotiation process.

(3) Continue rail service on the entire designated segment through a combination of (a) a short-line operation serving between Winters and Tuscola and (b) either continued service by Mo-Pac to the 7.3 miles between Abilene and Tuscola or conveyance of that portion of the line to the Fort Worth and Denver. This alternative assumes that the Mo-Pac might prefer to retain the portion of the rail line just south of Abilene because of its high traffic density. Thus, although the acquisition costs associated with this alternative would be somewhat lower, the volume of revenue traffic would also be significantly lower (381 versus 2,687 railcars in 1977).

b. Economic, Energy, Environmental, and Social Costs and Benefits

Table 11 summarizes the impacts of the two possible abandonment scenarios (loss of service on the entire designated segment and only on that portion south of Tuscola) and the three alternatives to abandonment considered. The specific economic, energy, environmental and community impacts presented in the table include:

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<sup>1</sup>Based on worksheet data of Mo-Pac witness, C.D. Bowman, and shipper witness, C.H. Nelson, in Docket AB-21.

TABLE 11

## SOCIOECONOMIC IMPACTS OF ABANDONMENT OF THE ABILENE-WINTERS RAIL LINE

ECONOMIC IMPACTS	ANNUAL IMPACT				
	Abandonment Abilene-Winters	Partial Abandonment Retain Abilene Only <sup>1</sup>	Alternative 1 Continue Service Rehabilitation and Operating Subsidy if Needed	Alternative 2 Continue Service Short Line	Alternative 3 Short Line Tuscola-Winters Continue Service Abilene
<u>Employment Changes</u>					
Direct employment					
Current	+3	-7	0	0	0
Future	-13	-19	0	0	0
Unemployment					
Number	< 1%	20	No effect	No effect	No effect
Rate	Negligible	00.4	No effect	No effect	No effect
Payroll <sup>2</sup>					
Current	+\$ 30,000	-\$ 70,000	0	0	0
Future	-\$130,000	-\$190,000	0	0	0
<u>Transportation Costs<sup>2</sup></u>					
Additional cost of transporting goods - Current	+\$414,361	+\$35,570	0	0	0
Additional cost of transporting goods - Future (1980)	+\$426,101	+\$55,224	0	0	0
Capital cost of facilities and equipment - Current	+\$128,700 <sup>3</sup>	+\$13,000 <sup>2</sup>	0	0	0
Capital cost of facilities and equipment - Future (1980)	+\$142,700 <sup>3</sup>	+\$18,000	0	0	0
<u>Investment<sup>2</sup></u>					
Amount of investment lost (companies)					
Current					0
Future	\$500,000	\$500,000	0	0	0
<u>Taxes<sup>1</sup></u>					
Amount of local taxes lost (companies)					
Current	\$ 1,750	\$ 1,750	0	0	0
Future	\$ 4,250	\$ 4,250	0	0	0
Amount of railroad taxes lost					
Current	\$ 5,435	\$ 4,400	0	0	0
Future	\$ 5,435	\$ 4,400	0	0	0
<u>Other Public Costs<sup>1</sup></u>					
Increase in unemployment benefits	\$ 7,560	\$ 6,156	0	0	0
<u>ENERGY IMPACTS</u>					
<u>Net change in fuel consumption (gallons per year)</u>					
Current	+14,461	+4,833	0	0	0
Future	+18,111	+6,905	0	0	0



TABLE 11 (continued)

ENVIRONMENTAL IMPACTS	ANNUAL IMPACT				
	Abandonment Abilene-Winters	Partial Abandonment Retain Abilene Only	Alternative 1	Alternative 2	Alternative 3
			Continue Service Rehabilitation and Operating Subsidy if Needed	Continue Service Short Line	Short Line Tuscola-Winters Continue Service Abilene
Net change in emissions (pounds per year)					
<u>Current</u>					
HC	342	114	0	0	0
NO <sub>x</sub>	5,351	1,789	0	0	0
CO	3,576	1,195	0	0	0
SO <sub>x</sub>	289	96	0	0	0
Particulates	147	50	0	0	0
<u>Future</u>					
HC	428	163	0	0	0
NO <sub>x</sub>	6,700	2,555	0	0	0
CO	4,479	1,709	0	0	0
SO <sub>x</sub>	362	138	0	0	0
Particulates	236	71	0	0	0
Impact on Air Quality	Negligible	Negligible	0	0	0
COMMUNITY IMPACTS					
<u>Change in Population</u>	Some in Winters	Some in Winters	None	None	None
<u>Change in Development Potential</u>	Negligible	Negligible	0	0	0
SUBSIDY COSTS <sup>2</sup>					
<u>Operating Costs</u>	0		? <sup>4</sup>	? <sup>4</sup>	? <sup>4</sup>
<u>Capital Costs</u>	0		\$ 50,000 <sup>5</sup>		

<sup>1</sup>Mo-Pac indicated in an interview that service to Abilene would be continued in the event of an abandonment. This column indicates the impacts of abandonment under this scenario. However, in the absence of a formal petition indicating the carrier's intention to continue service in Abilene, the worst case must be assumed, that is, abandonment of the entire Abilene-Winters line.

<sup>2</sup>All dollars are 1977 constant dollars.

<sup>3</sup>One-time capital investment depreciated over 10 years.

<sup>4</sup>Each alternative could require temporary subsidization of operating costs, although the analysis presented in Chapter II shows the line to be currently profitable (excluding a return-on-investment element).

<sup>5</sup>The recent announcement by the Mo-Pac of its intention to upgrade bridges apparently obviates the need for any rehabilitation subsidy.

- Employment - Net change in employment resulting from the loss of jobs in businesses adversely affected by abandonment less the increase in jobs due to additional workers employed in trucking (or other activities).
- Payroll - The net change in payroll estimated to be associated with the change in employment.
- Unemployment - The net change in unemployment anticipated as a result of the abandonment.
- Transportation Costs - Additional costs of transporting goods by alternative mode (e.g., truck) to the nearest rail head, including annualized capital costs for new transportation facilities such as trucks and loading docks.
- Investment - Investment lost (especially in recently constructed rail facilities) and future investment that would not be made should rail service be abandoned.
- Taxes - Local taxes lost (or in the long term, foregone) due to abandonment of the rail line, closing of certain plants, or decisions to cancel planned investment.
- Other Public Costs - Increase in unemployment compensation.
- Energy - Net change in fuel consumption due to a shift to alternative transportation modes.

- Environmental Effects - Change in air emissions such as increase in hydrocarbons, nitrous oxides, carbon monoxide and particulates due to change in fuel consumption resulting from modal shift.
- Community Effects - Change in development potential and population that is likely to occur in the Impact Area as a result of the cumulative effects of abandonment.

### 1. Economic

The major economic effects of the complete abandonment case would be concentrated in the Winters area. Companies using the A&S in the Abilene area have various transportation alternatives available, such as intermodal transfer over a short cross-town haul, which could partially offset the lack of direct rail services. The companies would be most likely to increase their requirements for truck drivers and other transportation personnel. These increases, including an estimated requirement for 10 truck drivers and two supplementary personnel by Anderson Clayton Co., are indicated in Table 11. The additional employees represent increased operating costs to the firms involved.

It is significant to note that the magnitude of the increase in employment, related primarily to transportation, assumes a major hiring effort by the Anderson Clayton Co. However, management at the company's Abilene facility has raised the possibility that complete abandonment of the line might force consideration of relocating the facilities' operations. It is not clear whether such relocation would occur within the

Abilene area or elsewhere in the State. (One other firm in Abilene indicated that the loss of rail service could prompt a cross-town relocation to a site with access to rail services.) The estimated cost of relocation for the Anderson Clayton Co. was placed at about \$20 million. For purposes of estimating the costs and benefits relating to the abandonment, it was assumed that the company, which is located in proximity to the Mo-Pac, would adjust, either by obtaining a spur connecting with Mo-Pac or by making a substantial investment in truck transportation.

One firm located in Winters indicated that the shut-down and disposal of its grain elevator would be considered if the abandonment occurred. Additional freight costs would reduce the margin on elevator operations to an unprofitable level and could be sufficient to induce closing. This analysis assumed that this closure would occur, with the loss of three to five full-time equivalent positions.

One other Winters firm would, in all likelihood, be forced to curtail operations as a result of abandonment. The volume of traffic originated by the Alderman-Cave Co. was estimated to be reduced by as much as one-third, with a corresponding reduction in employment. The company claims that it might not be able to adjust to the limitations imposed on its operations by the abandonment and could go out of business. It is concerned with the increased costs and the inability to compete in the event of an abandonment.

A further assumption is that adjustments to the abandonment required of other Winters-based shippers would be relatively limited. The Mansell Bros. farm equipment dealership indicated that additional personnel might be hired specifically for transportation purposes. However, the estimated net effect of the abandonment in the longer term would be the loss of jobs and income to the people of Winters.

The total net change in employment in the short-term indicates an increase of three jobs. However, the loss of seven job opportunities in Winters must be distinguished from the increase of 10 trucking related jobs in Abilene. The latter are not necessarily a benefit since they represent a significant additional cost to the firms.

Transportation costs would be expected to increase in excess of \$400,000 if the entire line were abandoned. If Winters only were abandoned, total transportation costs were estimated to increase by nearly \$50,000 annually. In addition to these increases, abandonment assumes, at a minimum, the loss of investment in a fertilizer blending plant projected for the Winters area, which would be foregone if the abandonment occurred.

The continuation of service either with operating and rehabilitation subsidies or both and by reorganization as a short-line would avoid all of the economic impacts of abandonment. The costs associated with each alternative are elaborated in Section X.

## 2. Energy

The loss of more fuel efficient rail transportation would result in

increased fuel consumption under the abandonment alternatives. Abandonment of the entire line would result in a net increase in diesel fuel consumption for truck transport of 14,000-18,000 gallons per year.

The abandonment of Winters only would result in fuel consumption increases of 5,000-7,000 gallons per year. Energy impacts would be avoided under the alternatives to abandonment. It should be noted that this assumes trucking commodities to and from the nearest rail head. The major shipper in Winters has indicated that it would ship much of its commodities to/from the destination/origin directly by truck, resulting in significantly greater fuel consumption.

### 3. Environment

Increased fuel consumption would result in increases in atmospheric emissions associated with the combustion of diesel fuels. These emissions include hydrocarbons, nitrogen oxides, sulfur oxides, carbon monoxide and particulates. The latter is of significant interest because the Impact Area is at present a non-attainment area for particulates, with respect to federal air quality criteria. Nitrogen oxides ( $\text{NO}_x$ ) will be emitted in the greatest volume. National ambient air quality standards for this gaseous contaminant have been established on a long-term measurement basis (micrograms per cubic meter, annual arithmetic mean). The status of  $\text{NO}_x$  concentrations in the Impact Area are undetermined at the present time.

Increased emissions of atmospheric contaminants are not anticipated if service is continued.

#### 4. Community Impacts

The impacts of the abandonment alternatives on population appear to be minimal. However, it should be noted that population in the Winters area declined between 1960 and 1973, but has begun to increase in the last few years. The abandonment of rail service could reverse the recent growth, by reason of the limitations imposed on the economic growth potential of the area. Although the direct net effect of job loss will be relatively small, the lack of railroad infrastructure as a transportation alternative might be viewed as a disadvantage by companies that otherwise might consider locating in the Winters area. A similar view may apply in the case of potential development in the South Treadway industrial area of Abilene. These perceptions may limit growth in the number of available jobs, and hence accelerate net out-migration, particularly among youthful job seekers. The Winters area would be most likely to experience such decline.

An important community impact of abandonment would be lower incomes for farmers, particularly in the Winters area. Wheat farmers would be adversely affected by the loss of a wheat premium. The wheat grown in the area usually has a high protein content, making it particularly desirable to the bread baking industry. The premium paid for this wheat varies between a few cents and 60¢ per bushel, depending on the protein-rich wheat. Because of the high costs of sampling and separately storing this wheat, buyers only offer the premium on wheat shipped by rail. The premium passed on to area farmers by the principal elevator in Winters, Alderman-Cave, amounted to \$102,812 in 1976.

Milo farmers would be adversely affected because it is usually more economical to ship milo by rail. Elevators located along a rail line are usually able to offer higher prices. Livestock producers would have to pay higher feed prices, since much of the feed sold in Winters is presently brought in by rail. Trucking the feed grains ordinarily results in higher prices.



VII. EVALUATION OF METHODS OF ACHIEVING ECONOMIES IN THE COST OF RAIL SERVICE OPERATIONS ON LINES ON WHICH SERVICE WILL BE CONTINUED

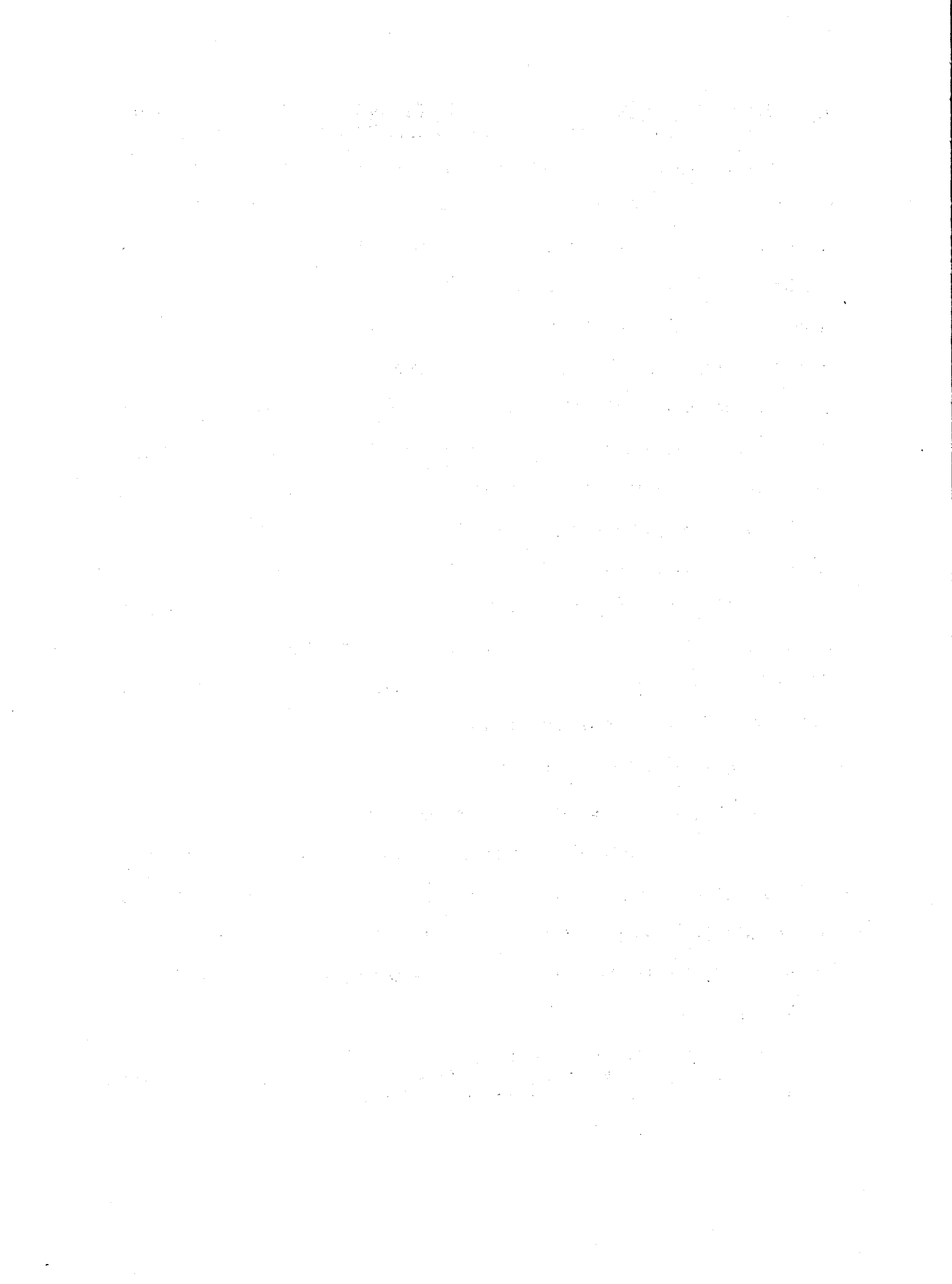
One method of achieving economies in the cost of rail service operations on the Abilene & Southern Railway would be to complete the job begun in the track rehabilitation program by now strengthening the bridges to accommodate jumbo hopper cars.<sup>1</sup> Rail users have indicated that they would benefit from lower rates if the line permitted shipments in this type of car. Moreover, the major users have asserted they have the capability to provide more revenue traffic for the railroad, given improvement of service. Should such improvements result in a change in competitive position in favor of the railroad vis-a-vis truck transport, the operational deficit asserted by the railroad (although not supported by this analysis) could be turned around.

An additional form of economy might be accomplished by careful review of the revenue and cost allocation procedures established between A&S and parent Mo-Pac. The available data suggest that revenues generated from switching activities performed by A&S at Abilene may be inadequate to compensate A&S for the expenses resulting from the work.

Other methods of achieving economies for this railroad might include: 1) integration of services with those of the Missouri Pacific in order to reduce duplication of equipment and 2) maintenance of service on an "on-call" basis year round, as opposed to the present scheduled service complemented by "on-call" service during the harvest season.

---

<sup>1</sup>The Mo-Pac recently notified the Railroad Commission of Texas (letter of January 22, 1979, from William R. McDowell) of its intention to upgrade bridges on the line to permit handling of jumbo hopper cars.



## VIII. COMPETITIVE OR OTHER EFFECTS ON OR BY PROFITABLE RAILROADS

### a. Competition

The A&S does not compete with other railroads to provide direct service between Abilene and Winters. In the event of discontinuance of rail service on the line, the shift to other carriers serving Tuscola and Abilene should not involve a substantial enough volume of traffic to affect competition among them.

### b. Profitability

In the near term, the profitability of the parent company might be reduced by the abandonment, through the reduction of the net operating gain found by the analysis. In the parent's (Mo-Pac) view, however, claimed losses would be avoided and additional benefits gained from disinvestment by sale of the right-of-way and salvage of the trackage. These revenues would not materially affect the financial performance of the parent railroad, which is presently profitable system-wide.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in financial matters. This section also touches upon the legal implications of failing to maintain such records, which can lead to severe consequences for individuals and organizations alike.

2. The second part of the document delves into the specific requirements for record-keeping, including the types of documents that must be retained and the duration for which they should be kept. It provides a detailed overview of the various categories of records, such as financial statements, contracts, and correspondence, and outlines the best practices for organizing and storing these documents to ensure they are easily accessible when needed.

3. The third part of the document addresses the challenges associated with record-keeping, such as the volume of data generated and the risk of data loss or corruption. It offers practical solutions and recommendations for overcoming these challenges, including the use of secure digital storage systems and the implementation of robust backup and recovery procedures. Additionally, it discusses the importance of regular audits and reviews to ensure the integrity and accuracy of the records.

4. The final part of the document provides a summary of the key points discussed and offers concluding thoughts on the overall importance of record-keeping. It reiterates that maintaining accurate and complete records is not only a legal obligation but also a critical component of effective business management and risk mitigation. The document concludes by encouraging individuals and organizations to take proactive steps to ensure their record-keeping practices are up-to-date and compliant with all relevant regulations.

## IX. CONSIDERATIONS RELATING TO RAIL BANKING

### a. Recommendations

This line is not recommended for rail banking. The development potential for fossil fuels and minerals appears at this time to be limited. Agriculture is dependent on rail service at present, but would not derive any near-term benefit from the rail banking alternative, barring a massive petroleum shortage that would impair truck service.

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY

RESEARCH REPORT  
NO. 1000  
BY  
J. H. GOLDSTEIN  
AND  
R. F. W. WILSON  
1955

X. DESCRIPTION OF ALTERNATIVES EVALUATED TOGETHER WITH AN ANALYSIS OF THE RELATIVE ADVANTAGES, DISADVANTAGES, AND COSTS ASSOCIATED WITH EACH ALTERNATIVE

a. Brief Description of Alternatives

Table 12 summarizes the benefits and costs associated with the alternatives identified in Section VI relative to abandonment of the line. The advantages and disadvantages of each alternatives are noted below.

Alternative 1: Continue All Service; Provide Operating and Rehabilitation Subsidies If Needed

This alternative involves maintaining the status quo and providing continued service to all rail users by means of a temporary operating subsidy and one-time rehabilitation grant as needed. The loss of 7-13 jobs associated with abandonment would be avoided. This alternative has the important advantage that \$1,724,000 in increased transportation costs would be avoided within the first year and an additional \$566,000 would be saved within two years. Other benefits include avoidance of the loss of \$500,000 investment which would otherwise be foregone; a loss of local taxes; increased fuel consumption; and increased levels of fuel emissions. Avoiding higher fuel emissions is important given that the Impact Area is a non-attainment area for particulates. Finally, rehabilitation of the bridges would help lead to additional rail traffic. The disadvantage of this alternative is that some public costs would be involved. These costs are discussed below. It should be noted that this alternative considers the entire length of the line from Abilene to Winters. Not including the first 7.3 miles in Abilene, as is done by Mo-Pac, is in effect an accounting procedure which indicates greater subsidy requirements than would be the case if the entire line is considered.

TABLE 12

BENEFIT-COST ANALYSIS RELATIVE TO THE  
ABANDONMENT CASE, ABILENE-WINTERS SEGMENT

	Relative Weight	Alternative 1		Alternative 2		Alternative 3	
		Diff. from Abandonment	Relative Benefit Units	Diff. from Abandonment	Relative Benefit Units	Diff. From Abandonment	Relative Benefit Units
Employment (Jobs)	.20						
Current	.15	-3	-.33	-3	-.33	-3	-.33
Future	.05	+13	1	+13	1	+13	1
Transportation Costs (\$thousands)	.30						
Current	.25	1,724	1	1,724	1	1,724	1
Future	.05	566	1	566	1	566	1
Investment (\$thousands)	.10	500,000	1	500,000	1	500,000	1
Taxes (\$thousands)	.20	10	1	5	1	5	1
Energy (Gallons/Year)	.10						
Current	.08	14,461	1	14,461	1	14,461	1
Future	.02	18,111	1	18,111	1	18,111	1
Emissions (Lbs/Year)	.10						
Current	.08	9,705	1	9,705	1	9,705	1
Future	.02	12,205	1	12,205	1	12,205	1
Total Benefits	1.00		.80		.80		.80
Annual Cost		\$50,000		\$120,000 <sup>1</sup>		\$60,000 <sup>2</sup>	
Benefit Cost Ratio		.016		.006		.013	
Ranking		1		2 <sup>3</sup>		3 <sup>3</sup>	

<sup>1</sup>Estimated acquisition cost of \$1.2 million annualized (10-year basis).

<sup>2</sup>Estimated acquisition cost of \$1.6 million annualized (10-year basis).

<sup>3</sup>Despite the calculated cost-benefit ratios for Alternatives 2 and 3, Alternative 2 is ranked higher because its success is viewed as more likely (Alternative 3 is riskier).



### Alternatives 2 and 3: Continue Service as a Short-Line Operation

This alternative, like Alternative 1, would provide continued service to all rail users and avoid all the impacts of abandonment. This would apply to both short-line possibilities: Abilene-Winters and Tuscola-Winters. The difference is that in the latter case, Mo-Pac would continue to extend service to shippers in Abilene. Besides cost factors which will be described below, this alternative has the disadvantage of certain risk factors associated with it. Among them are the possibility that no private investors may be interested in the line, and the risk that a short line operator may not succeed in profitably operating the line.

#### b. Movement of Existing and Future Traffic by Rail and Alternative Modes

Rail traffic is presently routed through Abilene. In the future, if the segment is not abandoned, traffic would be expected to be routed in the same manner. If a short line is established between Tuscola and Winters, Winters traffic would be routed through Tuscola onto the Santa Fe. In all likelihood, Mo-Pac would tear up its trackage from Tuscola to a point south of Abilene. Truck traffic is primarily routed over U.S. Highway 83, which parallels the rail line. Interstate 20 passes through Abilene, while several farm-to-market roads also traverse the region. Truck traffic would be expected to move in a similar fashion in the future.

c. Identification of Costs Associated with Alternatives

The costs associated with Alternative 1 include possible temporary operating subsidies and a rehabilitation subsidy. In Section II it was noted that the line segment appears to be currently profitable if the entire line is considered and if it is credited with its share of switching fees.

Mo-Pac claims a loss for the line, apparently because it does not include the 7.3 miles of trackage in Abilene, which are profitable in cost-revenue calculations. The carrier justifies this position on the basis that it would file a companion application to continue service on this portion of track. However, in the absence of a formal application, the line as a whole must be considered in formulating a service continuation alternative. Otherwise, when the most profitable segment of the line is excluded, subsidy requirements would appear to be unnecessarily high.

Since the Abilene-Winters line does appear to be presently profitable, no operating subsidy would be required at this time. In the event of a downward trend in revenues and considering a return-on-value-of-investment, a small temporary subsidy might be required. This would not be expected to exceed \$50,000 per year. This type of subsidy would be justified as a means of buying time to allow traffic to develop or to permit the establishment of a short-line operation.

The opportunity for generating increased traffic would be greatly enhanced by the completion of a rehabilitation program, particularly the

strengthening of bridges. This would allow for 100-ton jumbo hoppers to move over the line. The Winters shippers have indicated that this would result in significant increases in traffic.

The major portion of the rehabilitation was completed in 1974. The remaining work, strengthening of the bridges, could be undertaken by Mo-Pac, with the assistance of the users, or with external assistance provided in the form of a capital subsidy. As the public record is unclear as to the extent to which such subsidy assistance might be required, any valuation of the rehabilitation expense estimated here is speculative. The best evidence in the hearing record regarding bridge conditions was developed by a shipper, the owner of Alderman-Cave, who recorded attributes and measurements of bridges on which 220,000-pound limits had been placed by Mo-Pac, and compared them with other bridges on the line that were not so restricted. He found that the bridges did not appear to be significantly different. The testimony was given substantial weight by the judge. Mo-Pac has provided an informal recent estimate that bridge rehabilitation might be accomplished for approximately \$50,000.

The costs associated with Alternative 2--establishment of a short-line, are also difficult to quantify. The alternative could require the operating subsidy in Alternative 1 as a means of providing sufficient time to

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<sup>1</sup>The recently announced intention of Mo-Pac to upgrade bridges on the line appears to eliminate the need for a rehabilitation subsidy, thereby further reducing the costs of this alternative.

negotiate and establish the short line. It would also involve acquisition of the trackage at a minimum cost of the net salvage value of the line and the market value of the right-of-way. If a short line were to be established over the entire length of the line, the cost of acquiring the trackage might range between \$0.7 to \$1.3 million, with the cost of the Tuscola-Winters trackage estimated close to the low end of the range.

d. Selection Process

Alternative 1--Continuation of Service--with a temporary subsidy and rehabilitation subsidy as needed is the preferred alternative to abandonment. Table 12 indicates that the relative benefits of all three alternatives are the same in that they both avoid the impacts of abandonment. Alternative 1 is selected as the preferred alternative because of the lower costs associated with it and because it is less complex and risky. Table 12 indicates that the benefit-cost ratio for Alternative 1 is considerably better since the only costs associated with it are some rehabilitation expenditures and possibly some temporary operating subsidy. Alternatives 2 and 3 involve the significant cost of acquisition as well as the intangible problems of finding a suitable short-line operator and negotiating a successful acquisition and take-over of services. Alternative 3 is, in turn, somewhat riskier than Alternative 2 since retention of the entire Abilene-Winters traffic base is more likely to be capable of financial viability.

XI. CONCLUSION OF THE STATE AS TO WHETHER THE ALTERNATIVE SHOULD BE SELECTED FOR FEDERAL OR STATE ASSISTANCE

The Abilene-Winters line is recommended to be considered for inclusion in the Certified Program of Projects (CPP). The public impacts of abandonment would be significant. Alternative 1--Continuation of Service with a Temporary Operating Subsidy and a Rehabilitation Grant--would avoid the impacts of abandonment at a relatively small cost. The subsidies would be justified as a means of allowing time for additional traffic to develop and to stimulate additional traffic by improving the physical condition of the line. The exact costs involved would have to be re-examined before the alternative could be implemented. The cost-revenue record would have to be better elaborated and an engineering study of the bridges would be required.

Should Alternative 1 not be feasible, a short-line alternative should be explored. The Abilene-Winters short-line possibility would be preferable to a Tuscola-Winters line since it would have a greater probability of success. However, Mo-Pac would almost certainly resist creation of an independent short line with access to two major trunk lines (Mo-Pac at Abilene and Santa Fe at Tuscola) for fear of significant traffic diversion from its system. The Tuscola-Winters short line has the advantage that Winters shippers have shown an interest in this possibility. The disadvantages are that there is no assurance that Abilene would continue to receive rail service or that the Santa Fe would be interested in a connection at Tuscola.

Prior to an abandonment application and the implementation of one of the alternatives, it is recommended that the Railroad Commission of Texas adopt the strategy of exploring non-subsidized means of continuing and improving rail service and possibly avoiding an abandonment application altogether. The preferred strategy would be a shipper surcharge to cover any possible operating losses and rail user participation in the rehabilitation costs. Should the carrier document that it is indeed operating at a loss, it could be encouraged to negotiate a shipper surcharge to cover these losses until additional traffic could be generated. The role of the Commission would be to provide technical and informational services. This strategy should be feasible since there is a potential for increased traffic and revenues, the Winters shippers have much to gain from continued service, and the costs involved are not particularly great.

A second, but less promising strategy would be to encourage the Santa Fe to acquire the trackage between Tuscola and Winters while the Mo-Pac continued to provide service to Abilene. The principal problem would be whether the Santa Fe would be interested in acquiring the trackage. Winters shippers might help stimulate interest by offering to pay part of the costs of acquiring the line.

In summary, it is recommended that the Railroad Commission explore strategies for working out an amicable solution and avoiding a costly and difficult abandonment proceeding. In the event that these strategies do not succeed, and the carrier files for abandonment, it is recommended that the preferred alternative to abandonment be considered for inclusion in the CPP.

## XII. STATEMENT OF THE STATE'S FUTURE ROLE

The State would not expect to assume any financial responsibility for the Abilene-Winters line (or any portion of it) upon the expiration of any project.











Segment Analysis

SAN ANGELO-MARYNEAL

RAILROAD COMMISSION OF TEXAS

with

Technical Assistance

of

Arthur D. Little, Inc.

October 1978

Revised January 1979



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## PART A. SUMMARY

### 1. Introduction

The San Angelo-Maryneal line segment of the Atchison, Topeka and Santa Fe Railway Company (Santa Fe) has been designated a Category 2 line, that is, potentially subject to abandonment in accordance with 49CFR 1121.20(b)(2). The 53.4-mile segment begins approximately one mile north of the City of San Angelo and ends just south of the community of Maryneal. The line traverses parts of Coke, Nolan and Tom Green counties in Texas.

### 2. Traffic Characteristics

There is no longer any traffic on the line segment, nor is any anticipated in the future. There are no rail users on this segment. The State Department of Highways and Public Transportation, the last identified user of the line, shipped three carloads in the mid-1970's. The Santa Fe has occasionally routed a work train over the line, and the line has also been used on occasion as an alternative route when the San Angelo-Ballinger line has been blocked.

### 3. Economic Characteristics

The economy of the area served by the subject line is based primarily on agriculture and mineral production. Manufacturing activity has traditionally been minimal in Coke County and is declining in Nolan County. In Tom Green County, the City of San Angelo has emerged as a manufacturing center for the area.

### 4. Impact of Abandonment

No local shippers would be affected by the abandonment. Taxes now

paid by the railroad could be lost if the abandonment occurred, although these lost taxes might be offset in the future through new use of the land.

#### 5. Alternatives to Abandonment

Because of the apparent absence of adverse public impacts and the unlikelihood of the line becoming viable, no alternatives to abandonment are considered practical or reasonable.

#### 6. Inclusion in Program of Certified Projects

This line is not recommended for inclusion in the Certified Program of Projects.

## PART B. DETAILED ANALYSIS

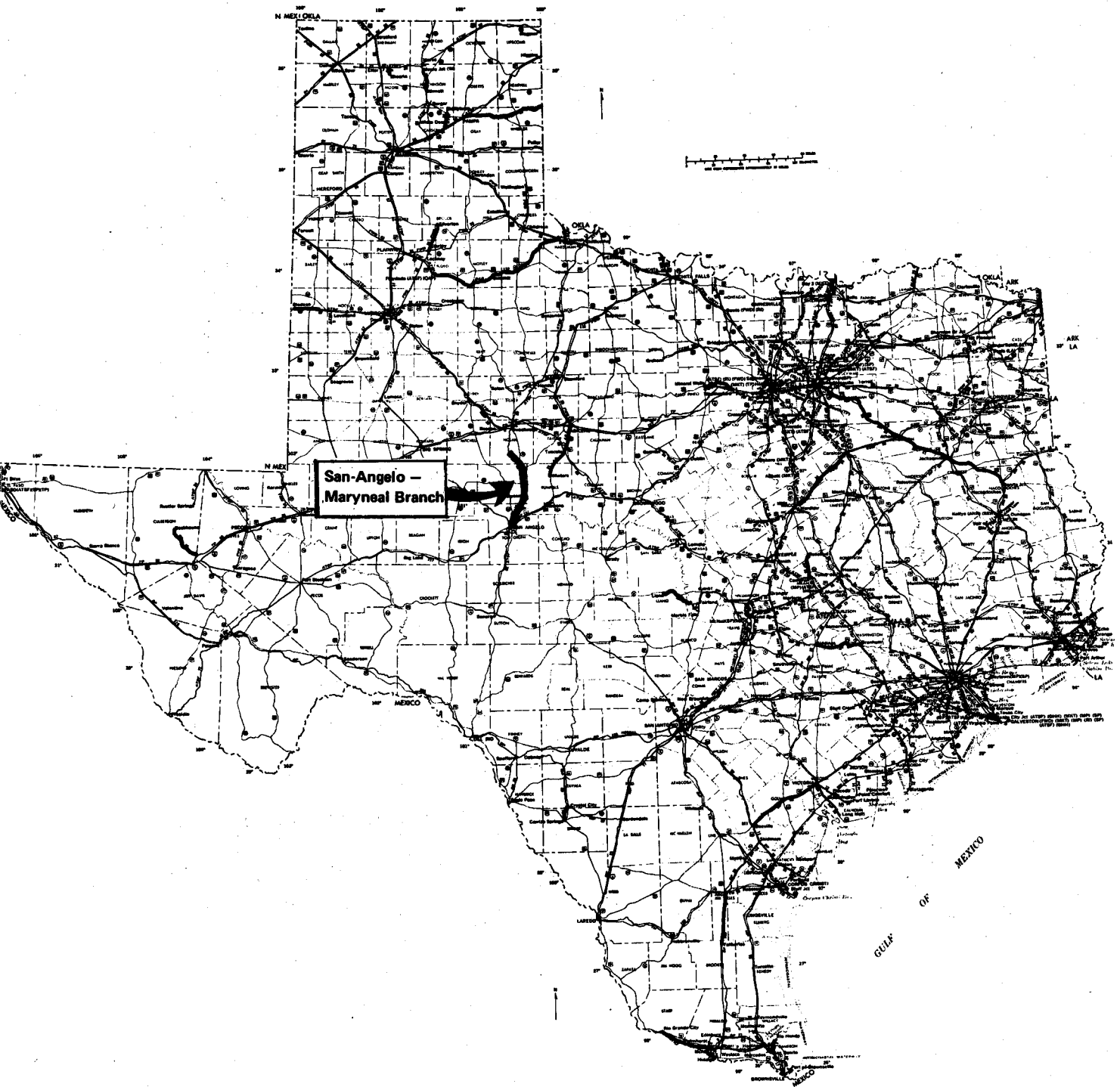
### a. Description of the Line

The Santa Fe filed notice<sup>1</sup> on March 31, 1978, designating its rail line from San Angelo to Maryneal in Category 2, that is, potentially subject to an abandonment application in accordance with 49CFR 1121.20 (b)(2).

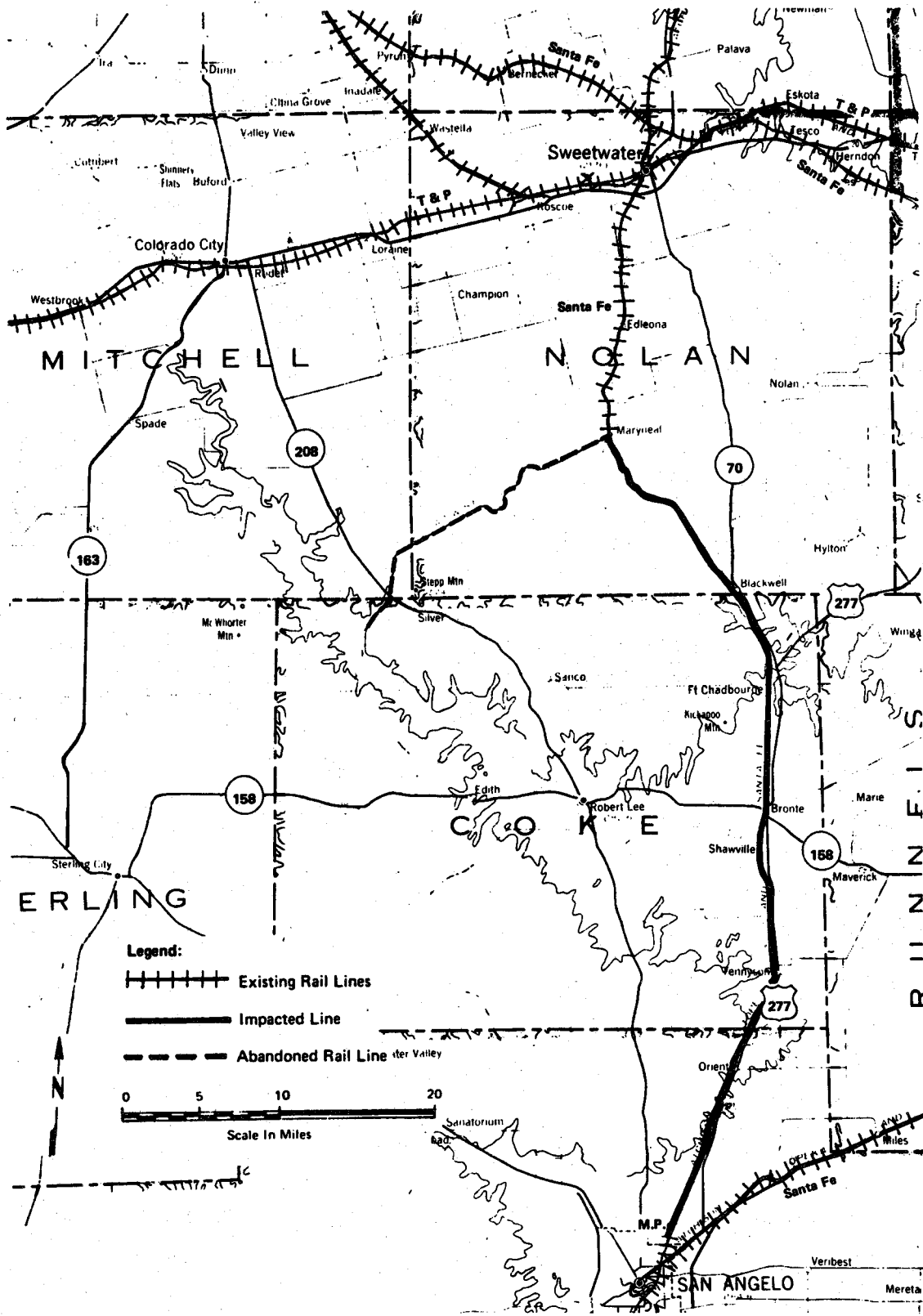
The 53.4-mile line segment is located entirely in Texas, in Nolan, Coke and Tom Green counties (Figure 1). The designated segment lies between Milepost 658.6 (1.3 miles south of the agency station at Maryneal) and Milepost 712.0 (2.5 miles north of the Sayard agency station). The line, referred to as the San Angelo-Maryneal segment, has no agency stations actually located on it but could be served by agency stations located at Maryneal (Milepost 657.3), Sayard (Milepost 714.5), or San Angelo (Milepost 717.4). The City of San Angelo would continue to be served by the Santa Fe branch line running west to east between Presidio and Brownwood. The community of Maryneal would continue to be served by the Santa Fe line to Sweetwater, Texas (see Figure 2).

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<sup>1</sup>See letter from William L. Paul, Assistant to the President, The Atchison, Topeka and Santa Fe Railway Company, to the Governor, State of Texas, Public Service Commission, Designated State Agency, dated March 31, 1978.



**FIGURE 1 LOCATION OF SAN ANGELO-MARYNEAL RAIL LINE IN RELATION TO THE TEXAS RAIL SYSTEM**



**FIGURE 2 LOCATION OF SAN ANGELO – MARYNEAL RAIL LINE IN NOLAN, COKE, AND TOM GREEN COUNTIES**



I. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS ON THE LINE OF THE RAILROAD

a. Freight Traffic

There was no originating or terminating traffic on the designated line segment in 1977 or 1978. The only freight traffic in recent years was three carloads of asphalt shipped by the State Department of Highways and Public Transportation. There is no regular bridge traffic on the segment. The line is occasionally used to route a work train between San Angelo and Hamlin, where crews for the Santa Fe Plains Division are based. It was reported that the line has also been used, on occasion, as an alternate route when the San Angelo-Ballinger line was blocked. There has apparently been no regular service or freight traffic on the segment since 1969.<sup>1</sup>

b. Shipper Characteristics

There were no shippers using the designated line segment on either a regular or occasional basis in 1977 or 1978. The Santa Fe has indicated that no cars were shipped or received and no tonnage was accounted for by the affected stations of Sayard, Tennyson, Shawville, Bronte, Fort Chadbourne, and Blackwell during 1977. Of the six firms that have leased property on the line between San Angelo and Maryneal, none has had a carload of traffic since 1969. Only one occasional user of the rail line--the State Department of Highways and Public Transportation--was identified. Firms located in San Angelo and Maryneal (e.g., Lone Star Cement Company) would not be affected by the potential abandonment.

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<sup>1</sup>Correspondence from William L. Paul, Assistant to the President, The Atchison, Topeka and Santa Fe Railway Company, August 2, 1978, and August 4, 1978.





## II. REVENUES DERIVED FROM RAIL FREIGHT SERVICES AND THE COST OF PROVIDING THESE SERVICES

### a. Revenues

This segment has not been used for either bridge or originating and terminating (O&T) revenue traffic since 1969, according to data submitted by the Santa Fe. Consequently, no revenues have been generated by operations on the segment for eight years, including 1977.

### b. Expenses

In the absence of revenue-generating traffic, no production costs can be attributed to operations on or off the branch. Costs that could be avoided by the railroad, should the abandonment occur, would include minimal maintenance-of-way expenses incurred in the course of occasional inspections of the line, and property or other local taxes assessed against the value of the right-of-way.

### c. Operating Results and Breakeven

No operating results are calculable for the line. Similarly, no breakeven traffic can be usefully estimated.

Continued maintenance of the line and property represent a continuing deficit for the railroad. Abandonment would contribute marginally to the near-term profitability of the railroad through revenues generated by the sale of the right-of-way and trackage.

TABLE 1

CARLOAD RAIL TRAFFIC ON THE CARRIZO SPRINGS-CRYSTAL CITY RAIL LINE  
1973, 1977 and 1980

Rail User Code*	Rail User	Location	Commodity	Originating			Terminating			Total Traffic			ADL Estimate
				1973	1977	1980	1973	1977	1980	1973	1977	1980	1980
1	Alamo Lumber Co.	Carrizo Springs	Lumber	0	0	0	2	0	2	2	0	2	2
			Drilling Mud	0	0	0	60	71	80	60	71	80	70
2	Dimmit Supply Co.	Carrizo Springs	Lumber	0	0	0	3	3	4	3	3	4	3
			Metal Products	0	0	0	2	2	2	2	2	2	2
3	Chemical Enterprises Inc. <sup>1</sup>	Carrizo Springs	Sulfur	0	58	58	0	0	0	0	58	58	58
			Liquid Fertilizer <sup>2</sup>	0	21	110	0	0	0	0	21	110	110
4	T.J. Power & Co.	Carrizo Springs	Vegetables	20	0	30	0	0	0	20	0	30	20
5	Dowell Corp. <sup>1</sup>	Carrizo Springs	Oil Drilling Materials	0	0	0	0	6	6	0	6	6	10
6	Haliburton Oil Services	Carrizo Springs	Oil Drilling Materials	0	0	0	50	29	30	50	29	30	30
	Subtotal			20	79	198	117	111	124	137	190	322	305
7	Tesoro Petroleum Co.	Carrizo Springs	Petroleum	91	1,200	1,600	0	0	0	91	1,200	1,600	1,500
	Total			111	1,279	1,798	117	111	124	228	1,390	1,922	1,805

\*Keyed to location on Figure 2.

<sup>1</sup>This facility began operations in 1976.

<sup>2</sup>1980 estimates do not assume that Chemical Enterprises Inc. will receive a contract from the Sun Oil Co.'s sour gas processing plant now under construction. Should they receive this contract, 1980 rail use might increase by 50 rail cars annually.

Source: Interviews with rail users and Arthur D. Little, Inc., estimates.

### III. REVIEW OF CONDITION OF THE RAIL PLANT, EQUIPMENT AND FACILITIES

#### a. History of the Line

The 53.4 miles between San Angelo and Maryneal were constructed in 1909 by the Kansas City, Mexico and Orient Railway of Texas as part of a 1,600-mile rail line that was to join Kansas City, Kansas with Topolobampo, Mexico. The road reached as far as Alpine, Texas by 1913 and into Presidio, Texas (across the border from Ojinaga, Mexico) in 1929.

The Orient, unfortunately, was never profitable and was in receivership for many years. In 1928, the Santa Fe bought and operated the subject line. The San Angelo-Maryneal segment is now part of the Sayard District of the Plains Division.

#### b. Description of the Layout of the Branch Line Stations

Agency stations at Maryneal (Milepost 657.3), Sayard (Milepost 714.5) and San Angelo (Milepost 717.4) are excluded from the segment potentially subject to abandonment (Mileposts 658.6 to 712.0). A field survey noted only two structures remaining on the segment, those being the abandoned Fort Chadbourne depot at Milepost 677.5 and the Bronte depot, now utilized as a Masonic Lodge.

The only sidings or team tracks detected by field survey were at Bronte in the immediate vicinity of the former depot. These facilities are no longer in use.

#### c. Physical Characteristics

Rail condition spot checks were performed at Mileposts 659.5, 685.0 and 712.0. Rail weights range between 70-112 pounds per yard, with the preponderance of rail in the 70- and 90-pound categories. Ninety-pound

rail inspected in the field was originally rolled between 1920-1928; 70-pound rail in 1909. While old and somewhat light, the rail consistently appeared to be in good condition with no spalling or other obvious defects. The alignment was good.

The ballast is gravel in most locations, washed out to a depth of 1 to 2 inches below the tie surface. At Milepost 659.5, the ballast is small sized, sharp-edged black cinders in sufficient quantity to reach to the top of the ties.

Date nails signify that the ties in place were laid as long ago as 1936. Most existing ties observed were installed in 1956 and a very few as late as 1964. The number of defective ties per 100-tie section varied from four to thirteen. Some of the oldest ties were still in excellent condition, while some others that were much newer appeared to have rotted or split.

Vegetation was found growing between the rails and along the right-of-way. Blooming prickly pear cacti, 2 to 3 feet in height, were observed between the rails as were other common plants of the area.

Numerous short, pile timber trestles are found on the line, particularly where the track parallels U.S. Highway 277. A long pile timber trestle crosses the Colorado River. All bridges and trestles examined appeared to be in satisfactory condition. In reviewing a draft copy of the segment analysis, Santa Fe provided information regarding bridges and other structures along the segment as follows:

<u>Structure</u>	<u>Number</u>	<u>Total Length (Feet)</u>
Steel bridges	7	635
Ballast deck pile trestles	32	3,585
Open deck pile trestles	11	672
Reinforced concrete boxes	4	<u>399</u>
		5,291



#### IV. ECONOMIC AND OPERATIONAL ANALYSIS OF PRESENT AND FUTURE FREIGHT SERVICE NEEDS

##### a. Economic Overview

##### 1. Regional Area of Probable Impact

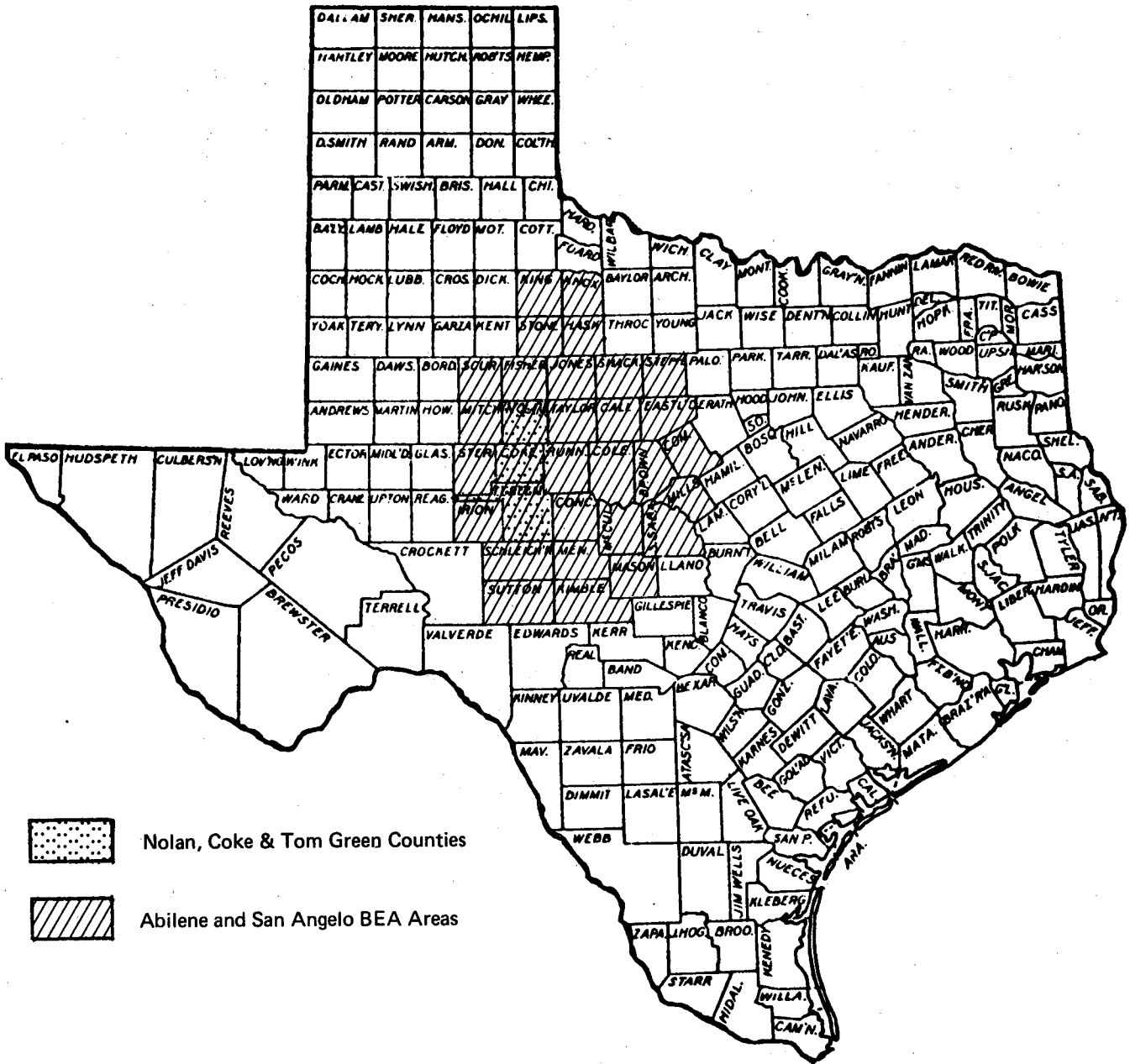
Nolan County is located in the Abilene BEA area. Coke and Tom Green counties, as shown in Figure 3, are located in the San Angelo BEA area. These two BEA areas are comprised of a total of 31 counties, 17 of which are in the Abilene area and 14 of which are in the San Angelo area. The total population in the region was approximately 390,000 in 1970; about 39% of this population resided in the cities of Abilene (23% of the regional population) and San Angelo (16% of the regional population). The three counties accounted for about 24% of the regional population with a high concentration of the regional total in Tom Green County.

Overall trends for the BEA areas only have the most general implications for the area traversed by the subject line segment. Additional information on the regional area is presented in the segment analysis of Abilene & Southern Railway for the Abilene-Winters segment.

Three counties--Nolan, Coke and Tom Green--form the probable impact region. These counties are located in west central Texas, approximately 200 miles northwest of Austin.

##### 2. Demographic and Economic Characteristics of the Area

The population of Coke County peaked in 1910 and until 1970, was in general decline. Between 1970 and 1975, there has been a slight gain. The population of Nolan County peaked in 1950, has since declined and is



**FIGURE 3 LOCATION OF NOLAN, COKE, AND TOM GREEN COUNTIES WITHIN THE STATE OF TEXAS AND THE ABILENE AND SAN ANGELO BEA AREAS**



forecasted to continue to fall (as is Coke County) through 1990 (see Tables 1 and 2).

In contrast, Tom Green County has experienced a continual population increase since 1900. Propelled by the expansion of San Angelo, an industrial and agricultural center for much of west Texas, Tom Green is the only county of the three consistently and substantially increasing in size.

Agriculture and mining have traditionally been primary factors in the economy. Cattle (both beef and dairy), hogs, sheep and goats dominate the agricultural sector. San Angelo is often referred to as "the sheep and goat capital of Texas." Cotton, sorghum, small grains and hay are the leading crops. Table 3 delineates the agricultural base of the impact region counties.

Oil and gas production are responsible for much of the region's economic base. In addition, the mining of sand, gravel, stone and gypsum has economic importance. Cement is produced in Nolan County in Maryneal at the Lone Star Cement plant, but this plant is not on the line segment under consideration.

Manufacturing is on the increase within the impact area. San Angelo, in particular, is becoming a center for diversified manufacturing in west Texas. Table 4 quantifies the value of both mineral production and manufacturing in the three counties.

The ascendance of Tom Green County (and San Angelo) is perhaps the most obvious trend, particularly in manufacturing. Table 4 details employment by major sector within the impact region.

TABLE 1

HISTORICAL POPULATION OF COKE, NOLAN AND TOM GREEN COUNTIES  
INCLUDING CITIES AND TOWNS IN THE IMPACT AREA - 1900-1975

	<u>Coke County</u>	<u>Nolan County</u>		<u>Tom Green County</u>	
	<u>Total</u>	<u>Total</u>	<u>Sweetwater</u>	<u>Total</u>	<u>San Angelo</u>
1900	3,430	2,611	670	6,804	--
1910	6,412	11,999	4,176	17,882	10,321
1920	4,557	10,868	4,307	15,210	10,050
1930	5,253	19,323	10,848	36,033	25,308
1940	4,590	17,309	10,367	39,302	25,802
1950	4,045	19,808	13,619	58,929	52,093
1960	3,589	18,963	13,914	64,630	58,815
1970	3,087	16,220	12,020	71,047	63,884
1975 (Est.)	3,381	15,986	11,574	74,534	66,099

Source: Texas Almanac, 1978-79, A. J. Belo Corp. (data are from U.S. Census, with the exception of 1975, which are estimates).

TABLE 2

POPULATION TRENDS  
(Percent)

	<u>1960-1970</u>	<u>1970-1980</u>	<u>1980-1990</u>	<u>1990-2000</u>
Three-County Area <sup>1</sup>				
Coke	(14.0)	(12.5)	(11.1)	(16.6)
Nolan	(14.5)	( 2.0)	( 3.8)	( 3.3)
Tom Green	4.5	13.4	13.3	13.1
Abilene BEA Area <sup>2</sup>	( 9.0)	3.1	4.1	6.3
San Angelo BEA Area <sup>2</sup>	( 1.0)	2.4	5.5	9.3
Total	( 6.5)	2.9	4.5	7.3
State of Texas <sup>1</sup>	16.9	19.7	16.4	17.2

( ) signifies decrease

<sup>1</sup> Source: Texas Water Development Board. Population Projections. 1976.

<sup>2</sup> Source: U.S. Department of Commerce and Department of Agriculture. OBERS Projections of Economic Activity in the United States. Volume II. BEA Economic Areas. Washington, D.C., 1972

TABLE 3

AGRICULTURE IN IMPACT REGION COUNTIES, 1974

<u>COUNTY</u>	<u>VALUE OF AGRICULTURAL PRODUCTS (\$000)</u>	<u>VALUE OF CROPS &amp; HAY (\$000)</u>	<u>VALUE OF LIVESTOCK PRODUCTS (\$000)</u>	<u>ACRES IN FARMS</u>	<u>CROPLAND HARVESTED (Acres)</u>
Coke	\$ 4,278	\$ 209	\$ 4,068	487,474	9,996
Nolan	17,658	2,279	15,302	495,391	48,990
Tom Green	27,656	8,992	17,124	1,041,775	147,945
TEXAS	5,625,188	2,112,997	3,168,764	134,185,289	19,246,083

---

SOURCE: 1974 Census of Agriculture  
U.S. Department of Commerce, Bureau of Census

TABLE 4  
EMPLOYMENT IN COKE, NOLAN, AND TOM GREEN COUNTIES  
1975

	<u>COKE</u>	<u>NOLAN</u>	<u>TOM GREEN</u>
Mining	177	350	1238
Contract Construction	B	97	1640
Manufacturing	A	1260	4273
Public Utilities	-	392	C
Wholesale Trade	B	307	1257
Retail Trade	69	795	4982
Finance, Insurance, Real Estate	B	154	984
Services	B	533	4217
Other	-	56	-
Subtotal <sup>1</sup>	477	3944	22331
Agricultural <sup>2</sup>	<u>311</u>	<u>521</u>	<u>1329</u>
TOTAL	788	4465	23660

---

A: 0-19  
B: 20-99  
C: 100-249

<sup>1</sup>) Source: 1970 Census of Population--Census data for agricultural employment not available for 1975. Therefore, 1970 data were used. See note B.

<sup>2</sup>) Source: U.S. Department of Commerce, Bureau of the Census, County Business Patterns, Texas. CBP-75-45, Washington, D.C., 1976.

### 3. Implication of Economic Trends for Future Rail Traffic

The subject line begins in the southern third of Nolan County, extends southward through the western portion of Coke County, and terminates approximately one mile north of the San Angelo city limits. Coke County, through which most of the line passes, is not characterized by economic growth. In particular, the communities of Blackwell, Bronte, and Orient along the line appear to be stable or declining slowly. San Angelo is experiencing consistent economic expansion and population growth, but interviews in the field failed to reveal any correlation between the growth and freight service on the San Angelo-Maryneal rail segment.

There are no known deposits of undeveloped natural resources in the vicinity of the rail segment.

#### b. Current and Projected Rail Freight Operations and Traffic

##### 1. Current Rail Operations

There are no current rail operations over the line segment and there have been none for several years. The Santa Fe trainmaster in San Angelo related that the only operations over the line were performed by hi-rail vehicles. These vehicles run on occasional safety inspection trips for the purpose of ascertaining that the line could safely be traversed by trains should the need arise (e.g., a washout near Ballinger could close the line to Brownwood, necessitating use of the segment as an alternate route).

The existing Santa Fe timetable--Plains Division Timetable No. 3, May 7, 1978--allows a maximum authorized speed of 20 miles per hour between Maryneal and San Angelo.

Rail service into Maryneal is routed through Sweetwater; engines and crews are based in Hamlin, serving Hamlin-Maryneal once a day, six days per week. Rail service into San Angelo is routed through Brownwood; engines and crews are also based there. As noted above, these operations would not be affected should the abandonment occur.

## 2. Rail Users

Official Santa Fe records specify that there have been no carloads shipped, no carloads received and no tonnage in the last reporting year. The economic outlook for the area traversed by the line, field interviews and other data do not indicate any potential for future rail traffic.





V. ANALYSIS OF THE IMPLICATIONS OF ABANDONMENT ON THE TRANSPORTATION NEEDS OF THE STATE

a. Relationship of the Line Segment and its Traffic to the State Rail System and its Rail Traffic

As was noted in Section III.a., the San Angelo-Maryneal line segment is part of the former "Orient Line," constructed to join Kansas with the Pacific Coast of the Republic of Mexico at Topolobampo. Traffic density on the line has never reached a high level (see Table 5).

The San Angelo-Maryneal segment is part of the line designated as SF 307 in the U.S. Department of Transportation Final Standards, Classification and Designation of Lines of Class I Railroads in the United States. The segment is shown as a Category B branch line, signifying traffic of less than one million gross tons per year. The San Angelo end connects with lines SF 046 and SF 047, which run to Presidio; both of these are also Category B branch lines. Another connection at San Angelo is to SF 308, a Category A branch line carrying 1-5 million gross tons on an east-west route between San Angelo and San Angelo Jct.

An absence of traffic--both local and throughline--over this segment for the past several years has been noted. No future traffic is anticipated.

TABLE 5

TRAFFIC DENSITY  
STATE OF TEXAS - SANTA FE FREIGHT ONLY

<u>STATION</u>		Traffic Density (millions of gross tons)						
<u>From:</u>	<u>To:</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
TX-OK St Line	Hamlin	0.3	0.4	0.5	0.3	0.5	0.5	0.6
Hamlin	Sweetwater	0.9	1.0	1.1	1.0	1.2	1.1	1.1
Sweetwater	Maryneal							0.6
Maryneal	San Angelo	0.2	0.2	0.7	0.9	0.7	0.8	0.0
San Angelo	Fort Stockton	1.0	1.0	1.1	1.0	1.1	1.1	0.7
Fort Stockton	Alpine	0.9	0.9	0.6	0.4	0.5	0.4	0.3
Alpine	Presidio	0.4	0.3	0.2	0.3	0.3	0.3	0.3

SOURCE: Atchison, Topeka and Santa Fe Railway Company

(As yet, the Santa Fe has filed no formal notice of intent to seek abandonment of that segment.)

b. Relationship of the Line Segment to Highways, Waterways and Other Modes of Transportation

The segment is paralleled for most of its length by U.S. Highway 277 and Nolan County Road 1170 in Nolan County. The line also crosses the Colorado River near Milepost 69.0 in Coke County, as shown in Figure 2.



VI. RELATIVE ECONOMIC, SOCIAL, ENVIRONMENTAL AND ENERGY COST AND BENEFITS RESULTING FROM THE SELECTION OF ALTERNATIVES

a. Identification of Alternatives

The San Angelo-Maryneal line was apparently designated as potentially subject to an abandonment application because of prolonged disuse. If the line were to be abandoned, the only foreseeable impact to the community would be the loss of property taxes assessed to the railroad roadbed. The rail loss due to abandonment is estimated as follows:

Coke County	\$ 4,252
Tom Green County	9,637
Nolan County	<u>13,057</u>
	\$26,946

The effect of abandonment on the tax bases of the three counties would be negligible, representing only 0.65%, 0.36%, and 0.21% in Coke, Tom Green and Nolan counties, respectively. These losses would probably be offset at some time in the future through new use of the land.

Since the line is not currently being used, there would be no benefits gained by the community through continuation of service. Abandonment of the line would allow Santa Fe to avoid maintenance of way expense and ad valorem tax expense.

Because of the lack of significant public impacts, no alternatives to abandonment have been considered further.



VII. EVALUATION OF METHODS OF ACHIEVING ECONOMIES IN THE COST OF RAIL OPERATIONS ON LINES ON WHICH SERVICE WILL BE CONTINUED

Since there is currently no service on the San Angelo-Maryneal line, the only available method of achieving economies is abandonment.





## VIII. COMPETITIVE OR OTHER EFFECTS ON OR BY PROFITABLE RAILROADS

### a. Competition

The abandonment of the San Angelo-Maryneal line would not alter competition among railroads.

### b. Profitability

The profitability of the Santa Fe should be marginally enhanced by a reduction of cost in maintenance of way and taxes avoided. Furthermore, the abandoned rail could presumably be redeployed by the Santa Fe or sold for its salvage value.



## IX. CONSIDERATIONS RELATING TO RAIL BANKING

Rail banking is not relevant to this segment. There is no present or foreseeable future traffic, including any traffic required by agricultural or fossil fuels development.



X. DESCRIPTION OF THE ALTERNATIVES EVALUATED TOGETHER WITH AN ANALYSIS OF THE RELATIVE ADVANTAGES, DISADVANTAGES AND COSTS ASSOCIATED WITH EACH ALTERNATIVE

No alternative to abandonment appears practical in view of the lack of significant public impacts. There are no rail users on the line segment under consideration.



XI. CONCLUSION OF THE STATE AS TO WHETHER THE ALTERNATIVE SHOULD BE  
SELECTED FOR FEDERAL OR STATE ASSISTANCE

Because abandonment of the San Angelo-Maryneal line would result in negligible public impacts and because of the unlikelihood that the line would become a viable operation in the foreseeable future, this line is not being considered further for inclusion in the Certified Program of Projects.





**XII. STATEMENT OF THE STATE'S FUTURE ROLE ON EXPIRATION OF FEDERAL ASSISTANCE**

No short-term or long-term assistance is contemplated for this rail segment.









Segment Analysis

CRYSTAL CITY-CARRIZO SPRINGS

RAILROAD COMMISSION OF TEXAS

With

Technical Assistance

of

Arthur D. Little, Inc.

October 1978

Revised January, 1979



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## PART A. SUMMARY

### 1. Introduction

The Missouri Pacific Railroad Company (Mo-Pac) has given notice that its rail line from Crystal City to Carrizo Springs is potentially subject to abandonment. (This is a Category 2 designation in accordance with 49 CFR 1121.20 (b)(2)). The 11.6-mile long segment in Dimmit and Zavala Counties lies between Mileposts 144.7 and 156.3 (Carrizo Springs).

The rail line mainly passes through farm and ranch land between Crystal City (1975 population about 8,000) and Carrizo Springs (1975 population about 6,500). Seven companies located along this line are using, or have used, rail service regularly. All are in Dimmit County and Carrizo Springs. These companies employ nearly 250 workers. No rail users in Crystal City or Zavala County would lose rail service if the rail segment were abandoned.

### 2. Traffic Characteristics

A total of 1,390 carloads of traffic was generated in 1977 by the seven companies located on this line. Some additional traffic is generated by other occasional users of the team track. Most of the goods moved over the line are petroleum-related diesel fuel, drilling mud, chemicals and related supplies. The largest shipper on the line (which accounts for over 85% of all receipts and shipments) is the Tesoro Petroleum Company, which sells diesel fuel to the Mo-Pac. Because Tesoro's diesel fuel is transported by the operating carrier for its own use, these shipments are assumed to be non-revenue carloads. Only 190 carloads in 1977 were rate-paying traffic.

The roadbed, rail, bridges, and trestles appear to be in good condition. The roadbed is ballasted with gravel. The track is welded rail from the Tesoro Petroleum Company to the junction with the Mo-Pac main line in Crystal City.

### 3. Economic Characteristics

Agriculture, ranching and oil-related activities are important sectors of the Dimmit and Zavala County economies. The area is part of the "Winter Garden" area of Texas, in which vegetables such as onions, carrots and spinach are grown. Together, agriculture and food processing accounted for approximately one-half of total employment in the two-county area in 1970. However, these activities make little use of the rail line. Oil and gas exploration, production and refining accounted for 3% of employment in 1970 (6% in 1975), yet this sector accounted for almost 94% of the rail shipments on the line. This sector has been growing, especially in Dimmit County, where it is concentrated; county employment in oil and gas more than doubled from 105 to 260 jobs between 1970 and 1975. Included in this sector is oil drilling, exploration, oil field services and a refinery, the Tesoro Petroleum Company--most of which activities are located in or near Carrizo Springs.

Overall, the two-county area has not been growing very rapidly, and its population increased by less than 100 persons (to 21,954) between 1950 and 1975. During the 1980-2000 period, its rate of growth is forecasted to be about 10% as fast as the State's--1.4% to 1.9% per decade--compared to 16.4% to 17.2% for the State. Reasons for this slow projected growth include a continued reduction in agricultural employment due partly to mechanization. In Dimmit County, a falling water table is also hindering intensive irrigated farming. Some local observers feel that in the short-term oil operations will level off. Therefore, it does not appear that the Dimmit-Zavala economy as a whole will expand significantly in the near future; nor are rail-related economic sectors likely to increase

rapidly, generating large amounts of additional traffic. On the other hand, rail users constitute an important sector of the local economy, particularly of Dimmit County, where they accounted for more than 11% of total employment in 1975.

#### 4. Impacts of Abandonment

Abandonment of the rail line could result in an increase in shipping costs of about \$87,000\* annually to companies located in Carrizo Springs. New equipment and facilities to handle goods formerly shipped by rail are estimated to require an investment of \$36,000. Approximately 10,000 tons of goods would be diverted to trucks. In the short-term, abandonment would result in the net loss of seven jobs in Carrizo Springs and the diversion of some future investment (about \$10,000) to Crystal City. The tax loss in Dimmit County is estimated to amount to about \$400, which is less than 0.5% of its annual tax receipts. The long-term effect of abandonment is likely to be that Crystal City would attract a larger proportion of growth in the two-county area than would Carrizo Springs.

Most of the rail line is in good condition and probably will not require substantial maintenance expenditures during the next few years. Based on current plans of rail users, it is unlikely

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\* This does not include Tesoro Petroleum Company. It is assumed that its contract with Mo-Pac for diesel fuel will be cancelled prior to abandonment. It is also assumed that Alamo Lumber Company in Carrizo Springs will cease operations.

that rail traffic will increase by more than 50% during the next five years. The line now carries more than 120 railcars per mile annually (including Tesoro Petroleum Company).

#### 5. Alternatives to Abandonment

The alternative to abandonment that has been evaluated is: continuation of service, with a temporary subsidy if needed. This alternative would avoid the public impacts of abandonment. The public cost currently associated with it would be small as the line appears presently profitable (excluding return on investment that would be considered during negotiations between the carrier and other parties for an actual subsidy).

#### 6. Inclusion in Certified Program of Projects

If the Mo-Pac files for abandonment, the Crystal City-Carrizo Springs line is recommended for inclusion in the Certified Program of Projects pending a cost-benefit evaluation of all possible projects.

## PART B. DETAILED ANALYSIS

### 1. Description of the Line and Proposed Action

Public notice was filed in 1977 by the Missouri Pacific Railroad Company (Mo-Pac) that its 11.6-mile rail line from Crystal City to Carrizo Springs, Texas, is potentially subject to an abandonment application.<sup>1</sup>

[This is a Category 2 designation in accordance with 49 CFR 1121.20(b)(2).]

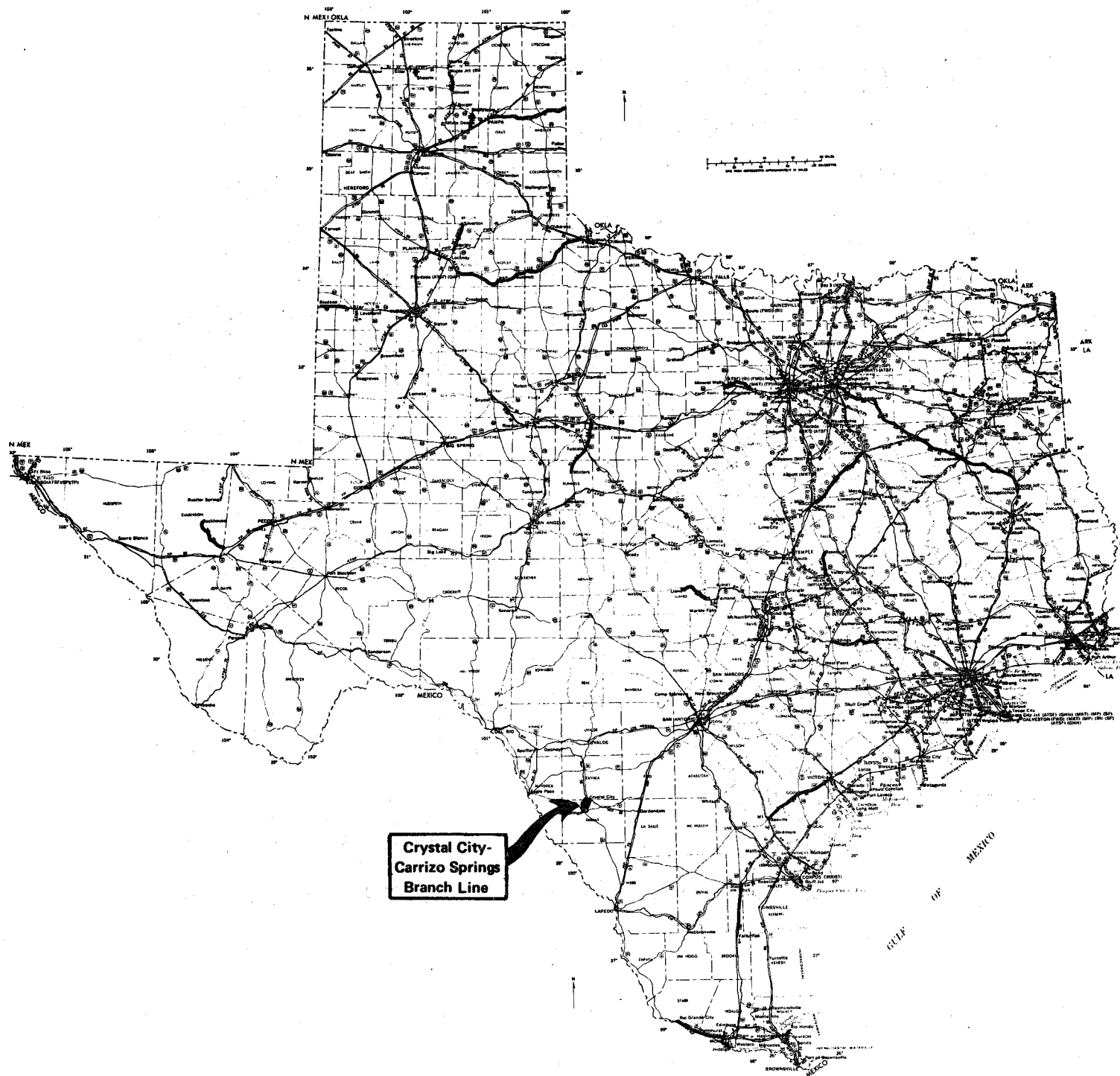
No agency stations are located on this segment. It is served by a mobile agent based at Crystal City (Milepost 145.8).

The rail line connects with another branch of the Mo-Pac at Crystal City. No shippers in Crystal City (population about 8,000) would lose service as a result of the abandonment. South of Crystal City the rail line passes through a predominantly farming and agricultural area. Carrizo Springs (1975 population about 6,500) is located at the southern terminus of the line. All seven companies that are using or have used the rail line are located in Dimmit County, particularly in Carrizo Springs, which would lose all rail service if this line were abandoned.

Figure 1 shows the location of the segment in relation to the State rail system. Figure 2 shows its location in Dimmit and Zavala Counties.

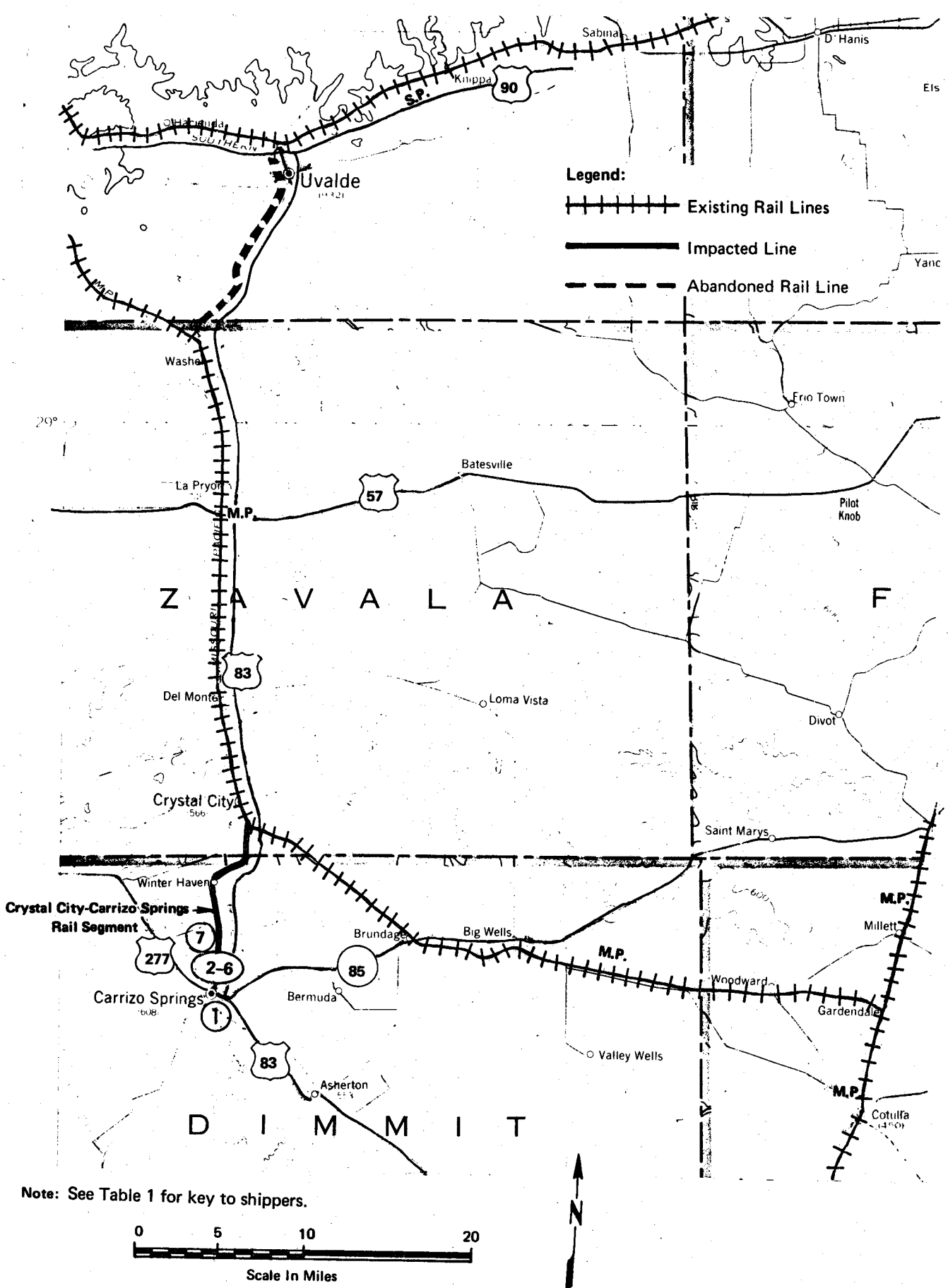
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<sup>1</sup>Federal Register, Vol. 42, No. 63, April 1, 1977, p. 17731.



**FIGURE 1 LOCATION OF CRYSTAL CITY-CARRIZO SPRINGS LINE IN RELATION TO THE TEXAS RAIL SYSTEM**





**FIGURE 2 LOCATION OF CRYSTAL CITY-CARRIZO SPRINGS LINE IN ZAVALA AND DIMMIT COUNTIES, TEXAS**



I. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS ON THE CRYSTAL CITY TO CARRIZO SPRINGS RAIL SEGMENT

a. Freight Traffic

Table 1 shows the historic and projected freight traffic on the Crystal City-Carrizo Springs rail line by rail user and by commodity. It indicates that total traffic on the line increased from 228 carloads in 1973 to nearly 1,400 in 1977 and is expected by the rail users to increase to 1,922 carloads in 1980. Tesoro Petroleum Company is responsible for most of the increase in traffic.

Presently, Tesoro Petroleum Company ships 94% of total originating traffic (1,200 carloads of diesel fuel to Mo-Pac) and 86% of total traffic.

Excluding Tesoro Petroleum Company, nearly all (96%, 106 carloads) of the terminating and 100% of the originating rail traffic is related to oil exploration or processing. Only two rail users are involved in non-petroleum-related fields. These are T. J. Power and Company, a vegetable produce processor, and Dimmit Supply Company, a building supply company.

There is no local or bridge traffic on this rail segment.

b. Shipper Characteristics

Seven rail users are located on the rail line. All of these are within 3 miles of the end of the line in Carrizo Springs. The location of the four principal shippers is shown in Figure 2. The characteristics of these seven rail users, all of whom would lose rail service if the line were abandoned, are summarized below and in Table 2.

TABLE 1

CARLOAD RAIL TRAFFIC ON THE CARRIZO SPRINGS-CRYSTAL CITY RAIL LINE  
1973, 1977 and 1980

Rail User Code*	Rail User	Location	Commodity	Originating			Terminating			Total Traffic			ADL Estimate
				1973	1977	1980	1973	1977	1980	1973	1977	1980	1980
1	Alamo Lumber Co.	Carrizo Springs	Lumber	0	0	0	2	0	2	2	0	2	2
			Drilling Mud	0	0	0	60	71	80	60	71	80	70
2	Dimmit Supply Co.	Carrizo Springs	Lumber	0	0	0	3	3	4	3	3	4	3
			Metal Products	0	0	0	2	2	2	2	2	2	2
3	Chemical Enterprises Inc. <sup>1</sup>	Carrizo Springs	Sulfur	0	58	58	0	0	0	0	58	58	58
			Liquid Fertilizer <sup>2</sup>	0	21	110	0	0	0	0	21	110	110
4	T.J. Power & Co.	Carrizo Springs	Vegetables	20	0	30	0	0	0	20	0	30	20
5	Dowell Corp. <sup>1</sup>	Carrizo Springs	Oil Drilling Materials	0	0	0	0	6	6	0	6	6	10
6	Haliburton Oil Services	Carrizo Springs	Oil Drilling Materials	0	0	0	50	29	30	50	29	30	30
	Subtotal			20	79	198	117	111	124	137	190	322	305
7	Tesoro Petroleum Co.	Carrizo Springs	Petroleum	91	1,200	1,600	0	0	0	91	1,200	1,600	1,500
	Total			111	1,279	1,798	117	111	124	228	1,390	1,922	1,805

\*Keyed to location on Figure 2.

<sup>1</sup>This facility began operations in 1976.

<sup>2</sup>1980 estimates do not assume that Chemical Enterprises Inc. will receive a contract from the Sun Oil Co.'s sour gas processing plant now under construction. Should they receive this contract, 1980 rail use might increase by 50 rail cars annually.

Source: Interviews with rail users and Arthur D. Little, Inc., estimates.

- Alamo Lumber Co.--A dealer in a chain of retail lumber and hardware stores that supply drilling mud locally. The company is located at the end of the rail line on Pena Street, in Carrizo Springs. It employs 11 people and has a payroll of nearly \$74,000 annually. This store receives all of its drilling mud by rail; it received 71 carloads in 1977. According to the firm, rail abandonment would cause its transportation costs to rise significantly. Chemicals and lumber are received by truck. A "sister" store is located in Crystal City, but it does not handle drilling mud.
- Dimmit Supply Company--The largest local retail building materials outlet, hardware store, and company in Carrizo Springs, employing about 20 people and having an annual payroll of almost \$200,000. This firm brings in five or six rail carloads of lumber and metal building products and almost 60 truckloads of these products. Thus, the firm appears to be not totally dependent on rail service.
- Chemical Enterprises, Inc.--A shipper of liquid fertilizer and molten sulfur. The company employs one person at its storage and loading facility in Carrizo Springs. It shipped all of its molten sulfur by rail in 1977--a total of 79 carloads.
- T.J. Power & Co.--A carrot and onion grower, processor, and shipper. The company employs about 20 people in its processing and shipping operation and has a payroll of about \$100,000. Truck is presently the principal mode of transportation used. Rail shipments generally amount to 20 to 30 carloads annually, although the number varies considerably

from year to year depending upon freight rates, truck and railcar availability and customer preference.

- Dowell Corp., a division of Dow Chemical Corporation--One of two local suppliers of oil field services and chemicals. The company employs about 25 people and has a payroll of \$300,000. It brings in about six rail carloads of oil drilling materials compared with 320 truckloads.
- Halliburton Oil Field Services, Inc.--An important local supplier of oil and gas field services. The company employs 85 people and has an annual payroll of about \$1,200,000. Rail transportation plays a role in its operations since the company brings in about 30 carloads by rail. Total tonnage brought by rail in 1977 was 2,250 compared with 11,040 by truck.
- Tesoro Petroleum Company--A refinery producing fuels for regional and national distribution. The company employs about 150 people and has an annual payroll of over \$2,000,000. Twelve percent of total production is shipped by rail, mostly to the Mo-Pac system. This amounts to about 1,200 cars annually. Much of this is shipped in unit "Tank Trains".<sup>1</sup>

Several other local companies use the rail line from time to time. These include local vegetable growers and shippers, the county and state highway departments, as well as local ranchers.

The characteristics of the seven companies that use or have used rail regularly are briefly summarized in Table 2. These have a combined employment of 312 and an annual payroll of \$4 million.

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<sup>1</sup>"Tank Trains" are six tank cars modified so that all six cars can be filled simultaneously from a single point.

TABLE 2

SELECTED CHARACTERISTICS OF RAIL-RELATED COMPANIES ON THE  
CRYSTAL CITY-CARRIZO SPRINGS RAIL SEGMENT

1977

<u>Company</u>	<u>Employment</u>	<u>Payroll</u>	<u>Rail Use Total Carloads</u>	<u>Truck Use Total Truckloads</u> <sup>1</sup>
1. Alamo Lumber Company	11	\$ 73,970	71	78
2. Dimmit Supply Company	20	197,000	5	59
3. Chemical Enterprises, Inc.	1	10,800	79	--
4. T.J. Power & Co.	20 <sup>e</sup>	300,000 <sup>e</sup>	0	N.A.
5. Dowell Corp.	25	300,000	6	320
6. Halliburton Oil Field Services	85	1,200,000	29	580
7. Tesoro Petroleum Company	<u>150</u>	<u>2,000,000</u>	<u>1,200</u>	<u>38,400</u>
TOTAL	312	\$4,081,770	1,390	39,437

<sup>1</sup> Does not include trucks used for local pick-up or delivery of materials.

<sup>e</sup> Arthur D. Little, Inc., estimate.

Source: Interviews with companies and supplementary data.





## II. REVENUES DERIVED FROM RAIL FREIGHT SERVICES AND THE COST OF PROVIDING THESE SERVICES

### a. Revenues

The line is unusual in that the dominant traffic is diesel fuel, transported by the operating carrier for its own use. Since this is non-revenue tonnage, it has not been included in the estimate of revenues attributable to the line. Annually, 190 cars of rate-paying traffic move to and from diverse locations over the line. Revenues attributable to rate-payers are estimated at \$178,750 as shown on the Revenue and Expense Estimation Sheet.

### b. Expenses

The line needs no rehabilitation, and average maintenance of way expenses for the 11.6 miles total an estimated \$19,732. Maintenance of equipment is based on average costs per carload, for revenue equipment only, and totals \$22,237. On-branch transportation expenses are based on an R-6 branch line average of \$5.05 per locomotive unit mile assuming a separate weekly train run apart from any company material train service. Off-branch expenses are based on average system transportation expense. The operating expense subtotal is \$99,701.

Other items include \$8,136 in payroll taxes, assumed to be avoidable, plus state taxes of \$11,500. Total expenses amount to an estimated \$132,570.

### c. Operating Results and Breakeven

A comparison of revenues and expenses shows an apparent net operating profit of \$46,180 for the segment. Based on the revenue and expense relationships estimated in the analysis, the line is capable of profitable operation above a breakeven traffic level of approximately 100 carloads of revenue traffic annually.

REVENUE AND EXPENSE ESTIMATION SHEET

Line: Crystal City-Carrizo Springs

Railroad: Mo-Pac

Miles: 11.60

1977 Carloads & Tonnage:

190 rate-paying carloads plus 1,200 cars of Mo-Pac fuel purchased from Tesoro Petroleum. Total traffic: 1,390 cars. Revenue Tons: 14,300 by rate-payers

A. Revenues: \$178,750

1. Basis of estimate: Revenue traffic only. Excludes Mo-Pac's non-revenue tonnage [ 14,300 x 500 x \$.025 = \$178,750].

2. Description of O&T or Bridge Traffic, Assumption: Revenue traffic consists of 190 cars per year of various bulk commodities (lumber, sulfur, drilling mud, etc.). Origins are Pacific Northwest, Southeast, etc. No provision made for attributing revenue to line arising from railroad hauling its own materials. Avg. haul assumed longer than system average. Rate of \$0.025/net ton mile.

B. Expenses:

1. Maintenance of way \$ 19,732

Basis: Line in good condition; no rehabilitation assumed. Annualized m/w expense per mile is \$1,701 per R-6. [\$1,701 x 11.6 = \$19,732].

2. Maintenance of equipment \$ 22,237

Basis: Includes revenue traffic only [ 14,300 x 500 x \$.00311 = \$22,237].

3. Transportation  
On-branch \$ 6,092  
Off-branch 51,640

Basis: Assumes 52 trips per year. On-branch costs, per R-6 are \$5.05/locomotive unit mile [ \$5.05 x (52 x 2) x 11.6 = \$6,092]. Off-branch costs based on R-1 transportation expense per ton-mile and 488-mile off-branch trip. [14,300 x 488 x \$.0074=\$51,640.]

\$ 57,732

Operating Expense \$ 99,701  
Subtotal:

4. Estimated Taxes:  
Payroll \$ 8,136

Basis: Payroll taxes (FICA, retirement, etc.) estimated to add 17% to labor cost, which accounts for 48% of operating expense [ \$99,701 x .48 x .17 = \$8,136].

<sup>1</sup>Includes an estimated \$2,680 Health and Welfare contributions on the basis of 5.6% of labor costs.

Other-than-federal	\$ 11,000	<u>Basis:</u> Avg. other-than-federal tax expense in Texas for system is \$948/mi. of road [\$948 x 11.6 = \$11,000].
Tax Subtotal	\$ 19,136	
5. Equipment Rents	\$ 7,752	<u>Basis:</u> System average equipment rental per loaded car mile is .0816. [\$.0816 x 190 x 500 = \$7,752].
6. Other Expenses	\$ 4,193	<u>Basis:</u> Pro-rate of other avoidable expenses, per R-6, on a mileage basis [(11.6/438.29) x \$158,412 = \$4,193].
7. Management Fee	\$ 1,788	<u>Basis:</u> 1% of gross revenues
EXPENSE TOTAL	\$132,570	
NET RESULT:	\$ 46,180	

Missouri Pacific made no comments on the Crystal City-Carrizo Springs rail segment based upon review of a previous draft analysis. No detailed R-6 branch line worksheet data for the segment were available to the Railroad Commission, although publicly-available systemwide R-6 branch line data were used.

### III. REVIEW OF CONDITION OF THE RAIL PLANT, EQUIPMENT AND FACILITIES

#### a. History of the Line

The Crystal City-Carrizo Springs rail segment was originally laid by the Missouri Pacific Railroad Company in 1910. This railroad company continues to operate the rail segment.

#### b. Description of the Layout of the Branch Line Stations (Sidings)

The rail segment in question branches from another Mo-Pac line approximately one-half mile south of Crystal City. It meanders south through farm and open fields, roughly paralleling U.S. Highway 83 to Carrizo Springs. Approximately 1,200 feet before the rail segment crosses Refinery Road is Tesoro Petroleum Company's rail siding. Just south of Refinery Road is the siding of Halliburton Oil Field Services. The rail segment continues south, crossing 9th Street North where the Dowell Corp. rail siding is located, it then closely parallels U.S. Highway 83. Along these last 2 miles are several rail sidings that are used occasionally--if at all. The rail segment ends at U.S. Highway 277 (Pena Street) in Carrizo Springs.

#### c. Physical Characteristics

Visual spot checks revealed that the trackage on the Crystal City-Carrizo Springs rail segment is generally in good condition. The 90-pound rail itself appears to be in reasonably good condition. The section of the line between the Tesoro Petroleum Company's spur and the main line at Crystal City is welded rail. Only about 10-15% of the rail ties appear to be in poor condition. About 2-3% of the ties observed have missing or loose spikes and most appear to be more than 10 years old. The line is ballasted with gravel,

which is in good, clean condition, nearly covering the ties in some places. The track alignment appears to be good. There is evidence of recent work on some of the trestles and these generally appeared to be in good condition.

#### IV. ECONOMIC AND OPERATIONAL ANALYSIS OF PRESENT AND FUTURE FREIGHT SERVICE NEEDS

##### a. Economic Overview

##### 1. Definition of the Area of Impact

Two counties--Dimmit and Zavala--would be affected by the abandonment. These counties are located in the South Central Texas Region,<sup>1</sup> which includes the communities of San Antonio, Laredo, and Corpus Christi (see Figure 3). The rail segment is a spur that connects the main Mo-Pac line at Crystal City in the southwestern part of Zavala County with Carrizo Springs in the northwestern part of Dimmit County. Crystal City would continue to receive rail service on the Mo-Pac main line. Zavala County would be virtually unaffected by abandonment because there are no other communities or shippers on the few miles of track in the County. Carrizo Springs, located in Dimmit County, would lose all rail service. Both Crystal City and Carrizo Springs are County seats.

##### 2. Overview of Trends and Projections for the South Central Texas BEA Regional Area

Both Dimmit and Zavala Counties are located in the South Central Texas Region which includes 42 counties in the San Antonio and Corpus Christi BEA areas. This BEA region is the smallest area for which long-term economic forecasts have been made on a consistent basis with state and national forecasts.

The Laredo SMSA, the closest SMSA to the impacted communities, had a population of about 81,000 in 1975. Its important economic sectors include

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<sup>1</sup>The South Central Texas BEA Regional Area is made up of the San Antonio and Corpus Christi BEA Regional areas as defined in OBERS Projections of Economic Activity in the United States. Volume II. BEA Economic Areas, U.S. Department of Commerce and Department of Agriculture; Washington, D. C., 1972. These two BEA Regional areas were combined since rail line in question is located in both.





manufacturing (such as refining metals); minerals (oil, gas, sand and gravel); agriculture (especially cattle, vegetables and cotton); and foreign trade with Mexico.

The San Antonio BEA includes San Antonio (population about 982,000) and Austin, the State capital (population about 397,000 in 1975). The area's important economic sectors include: government (including the State capital and several military installations); tourism; and a variety of manufacturing industries. It is also a major retail and wholesale distribution center.

Corpus Christi is the major exporting point for the South Central Texas Region's agricultural products, minerals and fuels. Its metropolitan area had a population of about 299,000 in 1975. It is the most important industrial and commercial center for the Texas Coastal Bend Region. Of particular importance in the manufacturing sector are refining and related activities, primary metals, and printing. Agricultural-related industries include grain storage and transshipment and agricultural chemicals. In the outlying parts of the Corpus Christi BEA, ranching and farming are important activities.

Total employment in the South Central Texas Region amounted to nearly 442,000 in 1950 and increased to nearly 596,000 by 1966 (see Table 3). Between 1966 and 1980, employment in the South Central Texas Region is expected to grow at a rate of 15% compared with the State average of 25%. Looking ahead to the year 2000, employment is expected to increase by 21%, reaching a total of nearly 831,000. This rate of growth is substantially slower than the 36% rate that the State of Texas is expected to experience.

TABLE 3

EMPLOYMENT TRENDS AND PROJECTIONS IN SOUTH TEXAS REGION, 1950-2000

	<u>1950</u>	<u>Percent Distri- bution</u>	<u>1966</u>	<u>Percent Distri- bution</u>	<u>1980</u>	<u>Percent Distri- bution</u>	<u>1990</u>	<u>Percent Distri- bution</u>	<u>2000</u>	<u>Percent Distri- bution</u>
Agriculture	75,891	17.2%	44,444	7.5%	30,400	4.4%	25,800	3.5%	23,300	2.8%
Mining	12,419	2.8	14,972	2.5	12,000	1.7	110,700	1.4	9,500	1.1
Construction	36,048	8.1	43,894	7.4	45,500	6.6	50,200	6.7	56,300	6.8
Manufacturing	35,673	8.1	64,338	10.8	78,300	11.4	87,700	11.7	99,700	12.0
Transportation and Utilities	30,064	6.8	30,727	5.2	34,500	5.0	37,800	5.1	42,200	5.1
Wholesale and Retail Trade	90,343	20.5	114,333	19.2	135,400	19.8	147,500	19.7	163,300	19.7
Finance, Insurance & Real Estate	11,975	2.7	16,563	2.8	27,500	4.0	31,200	4.2	35,600	4.3
Services	79,463	18.0	122,450	20.6	162,300	23.7	190,700	25.5	225,500	27.1
Government	69,778	15.8	143,934	24.2	159,300	23.2	165,800	22.2	175,300	21.0
Total	441,654	100.0	595,655	100.0	685,200	100.0	747,400	100.0	830,700	100.0

Note: The South Texas Area includes BEA Economic Areas 142 and 143. (San Antonio and Corpus Christi).

SOURCE: U.S. Department of Commerce and Agriculture. OBERS Projections of Economic Activity in the United States. Volume II. BEA Economic Areas. Washington, D.C., 1972.

Part of the reason for this comparative decline in employment is the particular economic structure of the South Central Texas Region compared with that of the State. The Region's structure has higher proportions of employment in slowly-growing economic categories such as agriculture and mining. It also has lower proportions of employment in faster-growing economic sectors--especially in the two most rapidly-growing sectors, manufacturing and services. The size of the manufacturing sector in the South Central Texas Region is estimated to amount to 11.4% in 1980 compared with 18.6% for the State.

Interviews with local industrial development agencies indicate that since the 1973 change in oil prices, there has been a spurt in industrial development in the Corpus Christi and San Antonio areas due to the moderately warm climate and availability of oil and natural gas.

Agricultural employment in the South Central Texas Region has declined at an annual rate of about 2.0% since 1966 and during the next two decades, is expected to continue to decline. Two industries in which employment is declining, agriculture and mining, are concentrated in the rural areas of South Central Texas such as that in which the Carrizo Springs-Crystal City rail line is located. However, decline in agricultural employment is due largely to increased mechanization of agricultural operations and does not necessarily mean a decrease in agricultural production, as shown by county agricultural statistics.

Population trends in the South Central Texas Region and in the State as a whole reflect changes in the economy of the area. The annual rate of growth in population estimated in the OBERS projections indicates that the Region has grown and will continue to grow at a slower rate than the State as a whole. Between 1980 and 2000, population in the Region is

expected to increase by nearly 0.8% annually, compared with the State's rate of increase of 1.4%.

### 3. Demographic Characteristics and Trends in the Two-County Impact Area

The combined population of Dimmit and Zavala Counties, in which the rail line is located, was 20,409 in 1970 and 21,954 in 1975. This is about 1.1% of the population of the South Central Texas Region and about 0.2% of the population of the State.

After a period of rapid growth through 1930, the population of both Dimmit and Zavala Counties has fluctuated in recent decades (see Table 4). Dimmit County appears to have recovered earlier population losses, whereas Zavala County has experienced population decline since 1960.

Carrizo Springs and Crystal City now represent 66.3% of the total combined population of the two counties. Crystal City's population peaked in 1960 while that of Carrizo Springs, the only community that would lose all rail service, is still growing at a moderate rate. The 1975 U.S. Census population estimate is 6,563, but city officials indicate that the population is now closer to 9,000.

The recent growth in Carrizo Springs' population is due to new employment opportunities resulting from oil and gas exploration and development during the past few years. How long this will continue is uncertain. Representatives of local companies have indicated that exploration has levelled off. Thus, it is doubtful whether the community's population is likely to increase as rapidly as it has during the last few years, particularly if it loses rail service. Following abandonment of the subject line, Crystal City would still have rail service. Some of the growth that might otherwise occur in Carrizo Springs would probably take place in Crystal City.

TABLE 4

POPULATION OF DIMMIT AND ZAVALA COUNTIES, 1900-1975

Year	Dimmit County Total	Carrizo Springs		Zavala County Total	Crystal City	
		Number	Percent of County		Number	Percent of County
1900	1,106	...	...	792	...	...
1910	3,460	...	...	1,889	...	...
1920	5,296	954	18.0	3,108	800	25.7
1930	8,828	2,171	24.6	10,349	6,609	63.9
1940	8,542	2,494	29.2	11,603	6,529	56.3
1950	10,654	4,316	40.5	11,201	7,198	64.3
1960	10,095	5,699	56.5	12,696	9,101	71.7
1970	9,039	5,374	59.5	11,370	8,104	71.3
1975	10,881	6,563	60.3	11,073	7,693	69.5

SOURCE: Texas Almanac, 1978-1979. A. H. Belo Corporation, Dallas, Texas, 1977. (Data are from the U.S. Census, with the exception of data for 1975, which are estimates.)

Viewed in a broader context, the rate of population growth in the two-county impact area has lagged behind that of the South Central Texas Region and the State, as shown in Table 5. During the next two decades, growth in Dimmit and Zavala Counties is expected to continue to lag behind that of the Region and the State.

The slow rate of growth in the two-county area--one-fourth as fast as that of the South Central Texas Region--suggests that comparatively little new rail traffic will be generated in the future by construction, manufacturing and other economic sectors related to urbanization and growth. Rail traffic is likely to remain related to petroleum and agricultural activities.

#### 4. Economic Characteristics and Trends in the Two-County Impact Area

Zavala and Dimmit Counties are located in the "Winter Garden" district of Southwest Texas. This district--like parts of Southern California, Arizona, and Florida--has a mild climate and suitable soils, water, and other conditions favoring commercial production of cool-season vegetables. Zavala County is the leading county in Texas in terms of vegetable production.

In Dimmit County, oil and natural gas, together with various petroleum-related industries, have surpassed farming, ranching, and associated agribusiness as the largest dollar earner in recent years. However, agriculture is still the largest employer.

TABLE 5

POPULATION GROWTH RATES IN THE  
TWO-COUNTY AREA, THE SOUTH CENTRAL  
REGION, AND THE STATE OF TEXAS  
1960-2000

	<u>Percentage Increase in Population</u>			
	<u>1960-1970</u>	<u>1970-1980</u>	<u>1980-1990</u>	<u>1990-2000</u>
Two-County Area <sup>1</sup> (Dimmit and Zavala)	-11.7%	2.9%	1.4%	1.9%
South Central Texas Region	14.5	7.7	9.4	8.6
State of Texas <sup>2</sup>	16.9	19.7	16.4	17.2

<sup>1</sup>Texas Water Development Board (now Texas Department of Water Resources);  
Population Projections. 1976.

<sup>2</sup>U.S. Department of Commerce and Department of Agriculture. OBERS Projections  
of Economic Activity in the United States. Volume II. BEA Economic Areas.  
Washington D.C., 1972.

The petroleum industry will become increasingly important to the economy of the Impact Area. Petroleum-related activities in the Carrizo Springs area include a refinery and a liquefied petroleum gas (LPG) plant in Carrizo Springs and two desulfurization plants located just south of Carrizo Springs near Asherton. (A third is planned for 1978-79.) Firms supplying both materials and services to these industries also are located in Carrizo Springs. These activities are the principal source of rail traffic in the area.

Other local economic activities include light manufacturing (a clothing factory), tourism, building materials suppliers and a variety of retail and service activities.

Total employment in Dimmit and Zavala Counties was almost 5,300 in 1970, according to the U.S. Census. Table 6 shows the two counties to be heavily dependent upon agriculture, which accounts for some 35% of all employment. Manufacturing is also closely related to the agricultural sector; more than two-thirds of manufacturing employment in the two counties is in canning locally-grown fruits and vegetables. Most canning activity takes place at the Del Monte canning plant in Crystal City. Canneries generally use rail service as a convenience but only one company uses rail to any degree.

More recent data for 1975 show an increase in two sectors of the area's economy--mining (oil and gas production) and clothing manufacture. Both of these changes took place in Dimmit County.



TABLE 6

EMPLOYMENT IN DIMMIT AND ZAVALA COUNTIES, 1970 AND 1975<sup>1</sup>

	Dimmit		Zavala	
	1970	1975	1970	1975
Mining (Oil & Gas Extraction)	105	260	10 <sup>e</sup>	10 <sup>e</sup>
Contract Construction	20	30	60	43
Manufacturing	--	361	510 <sup>e</sup>	476 <sup>e</sup>
-- Canned Fruits & Veggies.	--	--	383 <sup>e</sup>	357 <sup>e</sup>
-- Children's Outerwear	--	95 <sup>e</sup>	--	--
Public Utilities	19	15 <sup>e</sup>	24	14
Wholesale Trade	105 <sup>e</sup>	185	39	34
Retail Trade	242	282	358	277
Finance, etc.	33	15 <sup>e</sup>	40	32
Services	105	182	127	110 <sup>e</sup>
Other	--	5	50 <sup>e</sup>	57
Subtotal <sup>1</sup>	<u>525</u>	<u>1,430</u>	<u>1,601</u>	<u>1,410</u>
Agricultural Services <sup>2</sup>	<u>610</u>	<u>610</u>	<u>894</u>	<u>894</u>
Grand Total	1,135	2,040	2,495	2,304

<sup>1</sup>U.S. Department of Commerce, Bureau of the Census. County Business Patterns. Texas. CBP-70-45, 1971 and CBP-75-45, 1976, Washington, D.C. (Excludes self-employed persons, farm employees, domestic workers, and railroad employees. Data are reported for county of employment.)

<sup>2</sup>U.S. Department of Commerce, Bureau of the Census. General Social and Economic Characteristics. Texas. PC(1)-C45 Tex., April 1972. (Data on agricultural employment are not available for 1975 from the Census; therefore, the 1970 estimate is used. With generally declining agricultural employment, it is likely that this somewhat overstates agricultural employment in 1975.)

<sup>e</sup>Arthur D. Little estimates.

Employment in oil and gas production rose from 105 in 1970 to 260 in 1975; most of this increase occurred in the oil and gas field service sector due to increased petroleum exploration. This sector, rose only 17% within the State of Texas compared with the increase of 148% in Dimmit County. A number of petroleum-related firms are rail users.

Growth also occurred in the children's outerwear industry. This was due to the establishment of a new industrial plant. This plant had sought trailer-on-flatcar rail service from Carrizo Springs but did not receive it. Rail service is used to only a limited extent, since it is too costly to transport the trailers to and from Crystal City.

In general, the two-county area is highly dependent on agriculture (28.4% of employment), in comparison with both the South Central Texas Region (7.5%) and the State (6.5%) (see Table 7). Agriculture is a slow growth employment sector. Those sectors with a high forecasted growth rate are less significant employers in the two counties than in the South Central Texas Region or the State. For example, service industries account for 31.4% of the Counties' economy compared with 47.5% of the Region's and 39.2% of the State's.

Both counties exhibit unemployment rates higher than the State average (see Table 8). Zavala County has a significantly higher unemployment rate than Dimmit County (13.4% versus 9.8%).

TABLE 7

COMPARISON OF THE EMPLOYMENT STRUCTURE OF  
THE TWO-COUNTY IMPACT AREA, SOUTH CENTRAL  
TEXAS REGION AND THE STATE OF TEXAS--1970

	<u>Dimmit and Zavala Counties<sup>1</sup></u>	<u>South Central Texas Region</u>	<u>State of Texas</u>
Agriculture	28.4%	7.5%	6.5%
Mining	1.4	2.5	2.8
Construction	5.5	7.4	7.3
Manufacturing	10.3	10.8	17.7
Transportation and Public Utilities	3.2	5.2	6.7
Wholesale and Retail Trade	19.8	19.2	19.8
Finance, Insurance & Real Estate Services & Other	31.4	23.3	27.9
Government	<u>(3)</u>	<u>24.2</u>	<u>11.3</u>
Total	100.0%	100.0%	100.0%

<sup>1</sup>U.S. Department of Commerce, Bureau of the Census. General Social and Economic Characteristics. Texas. PC(91)-C45 Tex., April 1972.

<sup>2</sup>U.S. Department of Commerce and Department of Agriculture. OBERS Projections of Economic Activity in the United States. Volume II. BEA Economic Areas. Washington, D.C., 1972.

<sup>3</sup>Included under services.

Table 3

EMPLOYMENT, UNEMPLOYMENT AND LABOR FORCE IN DIMMIT AND  
ZAVALA COUNTIES AND IN THE STATE OF TEXAS  
1976

<u>County</u>	<u>Labor Force</u>	<u>Unemployment</u>	<u>Unemployment Rate</u>	<u>Total Employment</u>
Dimmit	3,861	380	9.8%	3,481
Zavala	4,345	583	13.4	3,762
Two-County Area	8,206	963	11.7	7,603
State of Texas	5,535,000	318,000	5.7	5,217,000
Percent of Two Counties of the State	0.2%	0.3%		0.1%

Note: Total employment includes resident wage and salary workers, self-employed, unpaid family workers and domestics in private households, agricultural workers and workers involved in labor-management disputes.

SOURCE: Texas Employment Commission, Labor Force Estimates for Texas Counties, Annual Average 1976. (Revised February 7, 1977.) Austin, Texas.

In Zavala County, and to a lesser extent Dimmit County, the high level of unemployment is partly attributable to the large supply of low-cost Mexican labor (the Mexican border is only 40 miles away) and by the recent devaluation of the peso, which has reduced retail spending regionally.

#### 5. Agricultural Characteristics and Trends

Dimmit and Zavala Counties have approximately the same numbers of livestock. Zavala County has from five to six times as much harvested acreage as Dimmit County (see Table 9). The difference in harvested acreage is due mainly to the greater availability of water in Zavala County. In recent years, the lack of water, due to a falling water table, has become more severe in Dimmit County. The major crops grown in and around Carrizo Springs (Dimmit County) are carrots, onions, and spinach. When convenient, these are sometimes shipped by rail.

During 1976, 27,000 head of cattle were marketed from feedlots in Dimmit County, and 25,000 in Zavala County. Hogs and sheep-raising accounted for a small proportion of all sales of livestock and livestock products. Typically, livestock is not transported by rail.

#### 6. Other Significant Characteristics

Activities related to agribusiness play important roles in the economic structure of Carrizo Springs and Crystal City. This is particularly true of Crystal City, which has packing plants for produce, a cannery, and a fertilizer company supplying the area's farmers. None of these firms would lose rail service should the Crystal City-Carrizo Springs line be abandoned.

TABLE 9

HARVESTED ACREAGE IN DIMMIT AND ZAVALA COUNTIES, 1971 AND 1976

	Dimmit		Zavala	
	<u>1971</u> <sup>1</sup>	<u>1976</u> <sup>2</sup>	<u>1971</u> <sup>1</sup>	<u>1976</u> <sup>2</sup>
Upland Cotton	--	700	3,300	7,000
Grains	4,700	6,400	30,000	40,000
Hay	1,900	...	3,400	2,200
Vegetables	<u>3,200</u>	<u>3,475</u>	<u>11,400</u>	<u>10,895</u>
Total	9,800	10,575	48,100	60,695

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<sup>1</sup>U.S. Department of Agriculture and Texas Department of Agriculture.  
1971 Texas County Statistics. Bulletin 92, August 1972.

<sup>2</sup>U.S. Department of Agriculture and Texas Department of Agriculture.  
1976 Texas County Statistics. Bulletin 152, September 1977.

Carrizo Springs, with a clothing manufacturing company, an oil refinery, and at least three other firms related to oil and gas extraction, has a more diversified economy than does Crystal City.

The 1975-76 data on petroleum production and value are given in Table 10.

## 7. Implications of Trends for Future Rail Traffic

The area potentially affected by abandonment exhibits a slow rate of economic growth. Significant future industrial development is unlikely in the Carrizo Springs area (which would lose all rail service) because it is not located near major industrial and commercial markets.

Only a small proportion of the crops grown locally are shipped by rail. Furthermore, the large cannery in Crystal City that processes local produce would not lose rail service. The agribusiness sector, which presently makes little use of the line, is not expected to generate significant rail traffic in the future.

Thus, petroleum rail traffic can be expected to continue to account for most traffic carried on the line. Future demand for rail service is expected to be most closely linked to that sector.

### b. Current and Projected Rail Freight Operations and Traffic

#### 1. Current Rail Operations

Rail service is on an "on-call" basis for all companies on the rail segment. Other than Tesoro Petroleum Company, rail users receive less than two cars each week. Occasionally, Tesoro receives as many as three spottings of tank cars daily because of its high volume. It also ships by "Tank Train."

TABLE 10  
PETROLEUM STATISTICS FOR DIMMIT AND ZAVALA COUNTIES  
1975 AND 1976

	<u>Dimmit</u>	<u>Zavala</u>
Barrels per day (1976)	11,404	1,821
Value of Oil and Gas (1975)	\$50,000,000	\$5,200,000

SOURCE: A.H. Belo Corporation, Texas Almanac, 1978-1979. Dallas, Texas, 1977.



The other companies on the rail segment generally use hopper cars (for cement, sand, and drilling mud) and boxcars (for vegetables, drilling mud, and building materials). Other than Tesoro's service, the trains are short, usually having from three to five rail cars.

## 2. Rail Users

Within the last two years, rail use of the Crystal City-Carrizo Springs rail segment has increased appreciably. This has been due to increased petroleum production and exploration. The future demand for rail service in the long- and short-term is expected to be closely related to a continued expansion of the petroleum and petroleum-related industries.

Ninety-nine percent of all rail tonnage at Carrizo Springs is petroleum-related--including the shipment of diesel fuel by Tesoro Petroleum and receipt of materials (such as drilling mud) for the local oil fields. Terminating rail shipments amounted to about 6,400 tons in 1977. This includes materials such as drilling mud, chemicals, sand, and acid.

Should there be an expansion in oil exploration, inbound shipments might increase by 50% or more--or about an additional 50 to 80 carloads annually. However, industry sources indicated that oil exploration is levelling off, at least for the next few years (see 1980 rail user estimates in Table 1).

Diesel fuel sold to Mo-Pac by the Tesoro Petroleum Company accounts for 86% of total traffic on the line and 94% of originating traffic. Since there is no long-term contract between Tesoro and Mo-Pac, it is difficult to forecast how these rail shipments will change in the future. The refinery spent \$20,000 for improvements to facilitate shipment by rail in 1976,

and the refinery anticipates a 10% annual increase in rail use. This expansion would be caused by larger sales of diesel fuel to Mo-Pac, as well as greater amounts of fuel sold to markets outside of Texas.

The rest of the originating shipments (7,900 tons) are of liquid fertilizer and molten sulfur by Chemical Enterprises, Inc. Sulfur is a by-product of "sour gas" processing and an important component of liquid fertilizer. Shipments of liquid fertilizer are expected to increase at least five-fold over the next three to five years--an increase generating almost 90 additional carloads. If Chemical Enterprises' bid is accepted for the purchase of molten sulfur that may be produced at the sour gas processing plant that is now under construction near Carrizo Springs (by the Sun Oil Company), an additional 50 carloads of liquid fertilizer/sulfur would be generated.

In summary, total rail traffic is expected to increase by 415 carloads, from 1,390 in 1975 to 1,805 in 1980--a 30% increase. This takes into account continued growth of Tesoro Petroleum and Chemical Enterprises. No additional rail user is anticipated to locate on the rail line during the next three years. The annual average carloads per mile in 1977 was almost 120; by 1980, this is expected to increase to about 155. Of course, it is possible that rail use might actually decline or remain stable should Tesoro Petroleum lose its contract or the expectations of the other rail users not be realized. Based upon present estimates of operations, the projected traffic increases should be enough to insure profitable operation of the rail segment.

V. ANALYSIS OF THE IMPLICATIONS OF ABANDONMENT ON THE TRANSPORTATION NEEDS OF THE STATE

a. Relationship of the Line Segment and its Traffic to the State Rail System and its Rail Traffic

The Crystal City-Carrizo Springs segment is designated MP 220 in the U.S. Department of Transportation's Final Standards, Classification and Designation of Lines of Class I Railroads in the United States. It is a stub-end branch from MP 222 and MP 218, and all three of these segments are designated as Category A branch line, signifying that they carry between 1 and 5 million gross tons annually. The subject segment and its two companion segments connect at Gardendale with the Mo-Pac Category B main line (5-10 million gross tons--segments MP 221 and MP 294) between Laredo and San Antonio.

b. Relationship of the Line Segment to Highways, Waterways, and Other Modes of Transportation

The South Texas Region is well served by rail transportation facilities and an extensive federal-state highway network.

Southwest Zavala County and Northwest Dimmit County are served by U.S. Highway 83, which runs from Uvalde in the north through Crystal City and Carrizo Springs paralleling the rail spur and continuing southeast towards Laredo. Carrizo Springs is also served by U.S. Highway 277, which continues west to Eagle Pass at the Mexican border, as well as State Highway 85, which connects with Interstate 35 approximately 45 miles to the east.

Abandonment of the Carrizo Springs-Crystal City spur would mean that Carrizo Springs would lose all rail service; however, Crystal City would continue to be served by the main Mo-Pac line. Carrizo Springs

is approximately equidistant from Crystal City (on U.S. Highway 83) and Brundage (on State Highway 85), both of which are on the Mo-Pac line.

An extensive network of petroleum pipelines connects the local gas and oil fields with local petroleum processors. Currently, there is no pipeline that allows local processors to distribute liquid petroleum products nationally or internationally.

c. Special Considerations

This segment is vital to Tesoro Petroleum Company for making deliveries to the Mo-Pac. Presently rail transportation is the only current economical way for Tesoro Petroleum Company to distribute certain of its products to national markets.

VI. RELATIVE ECONOMIC, SOCIAL, ENVIRONMENTAL AND ENERGY COSTS AND BENEFITS RESULTING FROM THE SELECTION OF ALTERNATIVES

a. Identification of Alternatives

Although several alternatives for the Crystal City-Carrizo Springs line could be considered, practical recognition was made that: 1) the line appears presently to be profitable and in good condition and, therefore, in the absence of changed traffic circumstances affecting the viability of the line, Mo-Pac is not likely to seek abandonment; 2) since all revenue-producing shippers are located at the extreme end of the segment, there are limited opportunities for partial abandonment by means of line segmentation.

Therefore, the one alternative to abandonment of the Crystal City-Carrizo Springs rail line that has been examined is:

continuation of all service on the line segment with a temporary operating subsidy provided if needed. Any operating subsidy would be justified as a means of:

(a) providing a short-term opportunity for traffic on a line to develop to the point that the line could become self-sustaining; or (b) giving shippers an opportunity to arrange for alternative transportation or plant siting and thus alleviate the impact on rail users and the communities served.

The line is currently profitable for the Mo-Pac, as shown by the analysis in Chapter II. Furthermore, it is in generally good condition. Thus, should a temporary continuation subsidy be required, it should not require a large

expenditure of public funds (despite the current operating profit of \$46,000 estimated in Chapter II, any actual subsidy negotiated between the carrier and other parties would include return-on-investment and other considerations not reflected in the analysis of current financial performance).

b. Economic, Social, Energy, and Environmental Costs and Benefits

1. Overview and Summary of Socioeconomic Costs and Benefits

Table 11 compares the likely impacts of abandonment of the Crystal City-Carrizo Springs line with the alternative to abandonment considered. The specific economic, energy, environmental and community impacts presented in the table include:

- Employment - Net change in employment resulting from the loss of jobs in businesses adversely affected by abandonment less the increase in jobs due to additional workers employed in trucking (or other activities).
- Payroll - The net change in payroll estimated to be associated with the change in employment.
- Unemployment - The net change in unemployment anticipated as a result of the abandonment.
- Transportation Costs - Additional costs of transporting goods by alternative mode (e.g., truck) to the nearest rail head, including annualized capital costs for new transportation facilities such as trucks and loading docks.
- Investment - Investment lost (especially in recently constructed rail facilities) and future investment that would

TABLE 11

SOCIOECONOMIC IMPACTS OF ABANDONMENT OF THE CRYSTAL CITY - CARRIZO SPRINGS SEGMENT

	ANNUAL IMPACT	
	<u>Abandonment</u>	<u>Continue Service Provide Operating Subsidy If Needed</u>
<b>ECONOMIC IMPACTS</b>		
<u>Employment Changes</u>		
Direct Employment		
Current	-7	0
Future	0	0
<u>Unemployment</u>		
(Number)	Negligible	0
(Rate)	Negligible	0
<u>Payroll<sup>1</sup></u>		
Current	-\$60,000	0
Future		0
<u>Transportation<sup>1</sup></u>		
Additional Cost of transportation goods		
Current	\$ 86,870	0
Future (1980)	\$147,200	0
Capital Cost of Facilities and Equipment		
Current	\$ 3,600 <sup>2</sup>	0
Future	\$ 3,600 <sup>2</sup>	0
<u>Investment<sup>1</sup></u>		
Amount of Lost Investment (Companies)		
Current	0	0
Future (Foregone)	0	0
<u>Taxes<sup>1</sup></u>		
Amount of Lost Local Taxes (Companies)		
Current	\$ 1,200	0
Future (Foregone)	\$ 1,200	0
Amount of Railroad Taxes Lost	\$ 370	0
<u>Other Public Costs<sup>1</sup></u>		
Increase in Unemployment Benefits	Negligible	0

TABLE 11 (Continued)

	ANNUAL IMPACT	
	Abandonment	Continue Service Provide Operating Subsidy If Needed
ENERGY IMPACTS		
<u>Net Change in Fuel Consumption</u> (Gallons Per Year)		
Current	2,000	0
Future	3,900	0
ENVIRONMENTAL IMPACTS		
<u>Net Change in Emissions</u> (Pounds per Year)		
Current		
HC	46	0
NO <sub>x</sub>	740	0
CO	498	0
SO <sub>x</sub>	39	0
Particulates	20	0
Future		
HC	93	0
NO <sub>x</sub>	1,443	0
CO	963	0
SO <sub>x</sub>	79	0
Particulates	39	0
<u>Impact on Air Quality</u>	Negligible	None
COMMUNITY IMPACTS		
<u>Change in Population</u>	0	None
<u>Change in Development Potential</u>	Slight	None
SUBSIDY COSTS		
<u>Operating Costs</u>	0	0 <sup>3</sup>
<u>Capital Costs</u>	0	0

<sup>1</sup> All dollars are 1977 constant dollars.

<sup>2</sup> One-time capital cost of \$36,000 depreciated over 10 years.

<sup>3</sup> Segment currently appears to be profitable, excluding return-on-investment. A small operating subsidy could be required in the future.

NOTES: Under the abandonment case, the following assumptions were made:

- Tesoro is not affected because their contract with Mo-Pac would be cancelled prior to abandonment.
- That Alamo Lumber would close due to the additional cost of transportation.
- That the \$10,000 investment in storage facilities currently planned by Chemical Enterprise, Inc., in Carrizo Springs would occur in Crystal City.



not be made should rail service be abandoned.

- Taxes - Local taxes lost (or in the long term, foregone) due to abandonment of the rail line, closing of certain plants, or decisions to cancel planned investment.
- Other Public Costs - Increase in unemployment compensation.
- Energy - Net change in fuel consumption due to shift to alternative transportation modes.
- Environmental Effects - Change in air emissions such as increase in hydrocarbons, nitrous oxides, carbon monoxide and particulates due to change in fuel consumption from modal shift.
- Community Effects - Change in development potential and population that is likely to occur in the Impact Area as a result of the cumulative effects of abandonment.

Table 11 indicates that abandonment would have some adverse effects on the Impact Area; seven jobs would be lost, investment would be shifted from Carrizo Springs to Crystal City, and fuel use and its attendant environmental emissions would increase.

Impacts of abandonment on the Alamo Lumber Company in Carrizo Springs vary depending on the course of action chosen by the company. There are five possible scenarios for this firm:

- (1) No change in company operations in the unlikely event that the supplier of drilling mud and chemicals absorbs all additional transportation costs.
- (2) The addition of two employees, a truck, and a forklift to transport materials from Crystal City with associated

costs to be absorbed by the Alamo Lumber Company.

- (3) A change in suppliers of materials presently received by rail so that truck transportation becomes a reasonable, economic alternative.
- (4) Diversification by the Alamo Lumber Company's Carrizo Springs branch into carrying a much wider range of goods-- similar to the branch in Crystal City.
- (5) Closing the company's branch in Carrizo Springs; this could result in the loss of nine jobs in the City or the transfer of those jobs to the Company's Crystal City branch.

Chemical Enterprises states that it would relocate the existing storage tank (now in Carrizo Springs) to Crystal City. Their planned future investment in storage facilities also would be switched to Crystal City.

Dimmit Supply Company would either pick up materials in Crystal City or contract for delivery by truck.

Both oil field supply service firms, Dowell, Inc., and Halliburton Oil Field Services, Inc., would haul all of their materials by truck from various regional and national distribution points, while implementing a stricter method of inventory control. This would require the addition of roughly two employees and result in an increase in operating expenses for these firms.

T.J. Power & Company would be deprived of a secondary means of transportation.

Tesoro Petroleum Company's use of rail is mainly dependent on the purchase of fuel by Mo-Pac, the owner and operator of the rail line.

The assumption is made for the abandonment case that the railroad would not file for abandonment unless it planned to stop receiving fuel from Tesoro Petroleum. Thus, Tesoro is not considered in the impact analysis of abandonment. If Tesoro were included, the effect would be the addition of four employees with an average annual salary of \$11,500 each. (These employees would represent an increased operating expense for the company.) Four trucks, having an average cost of \$65,000 each, would be purchased for regional delivery. No changes in investment, transportation (other than the above), or taxes would take place.

In summary, presently all but one firm (Alamo Lumber Company) would be able to adjust to the abandonment without drastic changes. However, nearly all would feel the effect through higher transportation costs that would tend to reduce their profits or adversely affect their competitive position. Additional annual transportation costs are estimated at roughly \$60,000 for the present and nearly \$120,000 by 1980.

In general, the social, economic, and environmental impacts of the potential abandonment are as follows:

- Employment, Income and Local Spending Impacts

The seven companies that use rail service in Dimmit County<sup>1</sup> account for a total employment of roughly 300 persons; an annual payroll of about \$4 million; and local purchases of approximately \$2 million annually. Local taxes paid by these industries are estimated to amount to over \$85,000 annually. The total employment directly related to rail users amounts to almost 15% of total employment in Dimmit County.

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<sup>1</sup>There are no companies in Zavala County that would lose rail service as a result of this abandonment.

Nine full-time equivalent jobs could be lost by the closing of Alamo Lumber's branch in Carrizo Springs and two jobs would be gained at the oilfield service firms. The latter two jobs represent increased costs to these firms. The net job loss could possibly be seven, though it is likely that the unemployed workers would commute to other parts of the local labor market in search of work.

The loss of direct payroll within the County is estimated to be on the order of \$60,000 in the short term.

- Transportation Costs

Transportation costs for most local rail-using companies would increase due to the loss of rail service. Several rail users in Carrizo Springs would probably be able to pass on all or most of the increased cost of transportation to their customers. Total tonnage diverted from rail to truck would amount to about 92,300 tons, including Tesoro Petroleum (see Table 12).

The increased cost of transporting commodities that formerly moved by rail is estimated to amount to nearly \$260,000 annually for all firms. This assumes all rail users would truck to the nearest rail head (Crystal City) except Tesoro Petroleum, which would sell fuel regionally. Excluding Tesoro Petroleum Company, total additional transportation costs are \$90,470, if all current shippers remain in business. Additional transportation costs would be \$24,000 less if Alamo Lumber Company closes its branch in Carrizo Springs, as assumed in the worst case.

TABLE 12

ESTIMATED RAIL FREIGHT THAT WOULD BE DIVERTED TO  
TRUCK SHOULD THE CRYSTAL CITY-CARRIZO SPRINGS RAIL  
SEGMENT BE ABANDONED

<u>Company</u>	<u>1977 Average Rail Carloads</u>	<u>Average weight (Tons)</u>	<u>Total Tons</u>	<u>Increased Cost per ton</u>	<u>Total Cost</u>
Alamo Lumber Company	71	55	3,905	\$ 6.14 <sup>(1)</sup>	\$ 24,000
Chemical Enterprises, Inc.	79	100	7,900	\$ 6.60	\$ 47,400
Dimmit Supply Company	5	40	200	\$ 8.50	\$ 1,700
Dowell Corp.	6	20	120	\$ 6.00 <sup>(e)</sup>	\$ 720
Halliburton Oil Field Services	29	75	2,175	\$ 6.00 <sup>(e)</sup>	\$ 13,050
T.J. Power and Company	<u>0</u>	<u>25</u>	<u>-</u>	<u>-</u>	<u>-</u>
Subtotal	190	315	14,300	\$ 6.08	\$ 86,870
Tesoro Petroleum Co.	<u>1,200</u>	<u>65</u>	<u>78,000</u>	<u>\$ 2.15</u>	<u>\$168,000</u>
Grand Total	1,390	380	92,300	\$ 8.23	\$254,870

Notes: (e) ADL estimate.

(1) The existing supplier estimates increased cost of approximately \$20/ton if shipped directly from Laredo.

SOURCE: Interviews with shippers; based on the assumption that all materials would be trucked from Crystal City, the nearest rail station, except Tesoro Petroleum, which would sell fuel regionally.

- Investment

Only one firm, Chemical Enterprises, Inc., would forego any planned investment under any of the alternatives in Dimmit County. Under the condition of total abandonment, the firm would transfer its planned investment from Carrizo Springs to Crystal City. It would also move its existing storage tank to Crystal City.

- Taxes

Abandonment of the Carrizo Springs-Crystal City segment of the Missouri Pacific rail line would cause a small reduction in the tax base of Dimmit and Zavala Counties. The moving of Chemical Enterprises' storage facility from Dimmit to Zavala County would result in almost no change in the tax base of the two counties. In 1977, the assessed valuation on the railway roadbed, railroad rolling stock and intangible railroad property, amounted to about \$200,000 or less than 0.5% of Dimmit County's totally assessed valuation. At current tax rates, this could result in an annual local tax loss of about \$370.<sup>1</sup> Should Alamo Lumber in Carrizo Springs close its doors, it is doubtful that the new use of the property would not be taxable. If the new user paid no taxes, there would be a loss of \$1,200 in taxes annually. Zavala County's railroad taxes would decline a negligible amount due to the abandonment of less than 1/2 mile of trackage.

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<sup>1</sup>This may overstate the tax loss, due to the assumption that the railroad land would be removed from the tax rolls. It is likely that this land will be used for taxable purposes but which have a lower value.

- Energy Impact

Abandonment of the rail line would result in increased local consumption of fuel, due to greater use of trucks picking up and dropping off materials previously shipped by rail. In the long-term, the shift of some activities from Carrizo Springs to Crystal City would have a minor offsetting effect.

Abandonment of the rail line would mean that, on average, about 10,000 tons of commodities would have to be transported by truck at least the 11 miles to Crystal City (if not to their final destination), not including Tesoro Petroleum and if Alamo Lumber Company is assumed to close. This would probably mean an additional 415 truck shipments annually (1 to 2 per day) and an annual total of over 100,000 ton-miles.

- Environmental Impacts

Beyond the small increased use of the local highways for the distribution of goods, no marked effects on the environment should follow abandonment. Approximately 100,000 ton-miles of truck traffic would be generated annually with attendant emissions.

- Community Impacts

In the long-term, abandonment of the rail segment would probably mean slower growth of Carrizo Springs, particularly of its non-agricultural sector. This would mean a continued out-migration of younger people who are unable to make a living in farming and ranching, or who find employment in other economic sectors. It would slow down the transition of the economy from one based on agriculture and mining (petroleum) to one with more diversification.

● Future Development Potential

In addition to the estimates of the future impact of the loss of rail service on existing industries, there might also be a dampening of potential industrial expansion. An industrial foundation was established in Dimmit County several years ago to promote industrial development because it appeared to local leaders that there were such opportunities. The efforts of the industrial foundation and Chamber of Commerce during the last 5 years helped to attract the Carrizo Springs Manufacturing Company<sup>1</sup> (a clothing manufacturer which employs more than 100 workers). Meetings also have been held with several other industrial prospects.

The population of Dimmit County (much of which is located in Carrizo Springs) has recently shown signs of stabilizing after decades of out-migration. This has been due to expansion in non-agricultural sectors of the economy, especially in mining (oil and gas), manufacturing and services. The existence of the rail line probably has been a factor in this expansion. Continued rail service would be an asset for continued non-agricultural development.

Losing rail service would diminish the attractiveness of Dimmit County for new industry and would result in slower industrial development in the future. Therefore, loss of rail probably would reduce the potential rate of non-agricultural growth.

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<sup>1</sup>This firm utilizes TOFC from Crystal City occasionally.



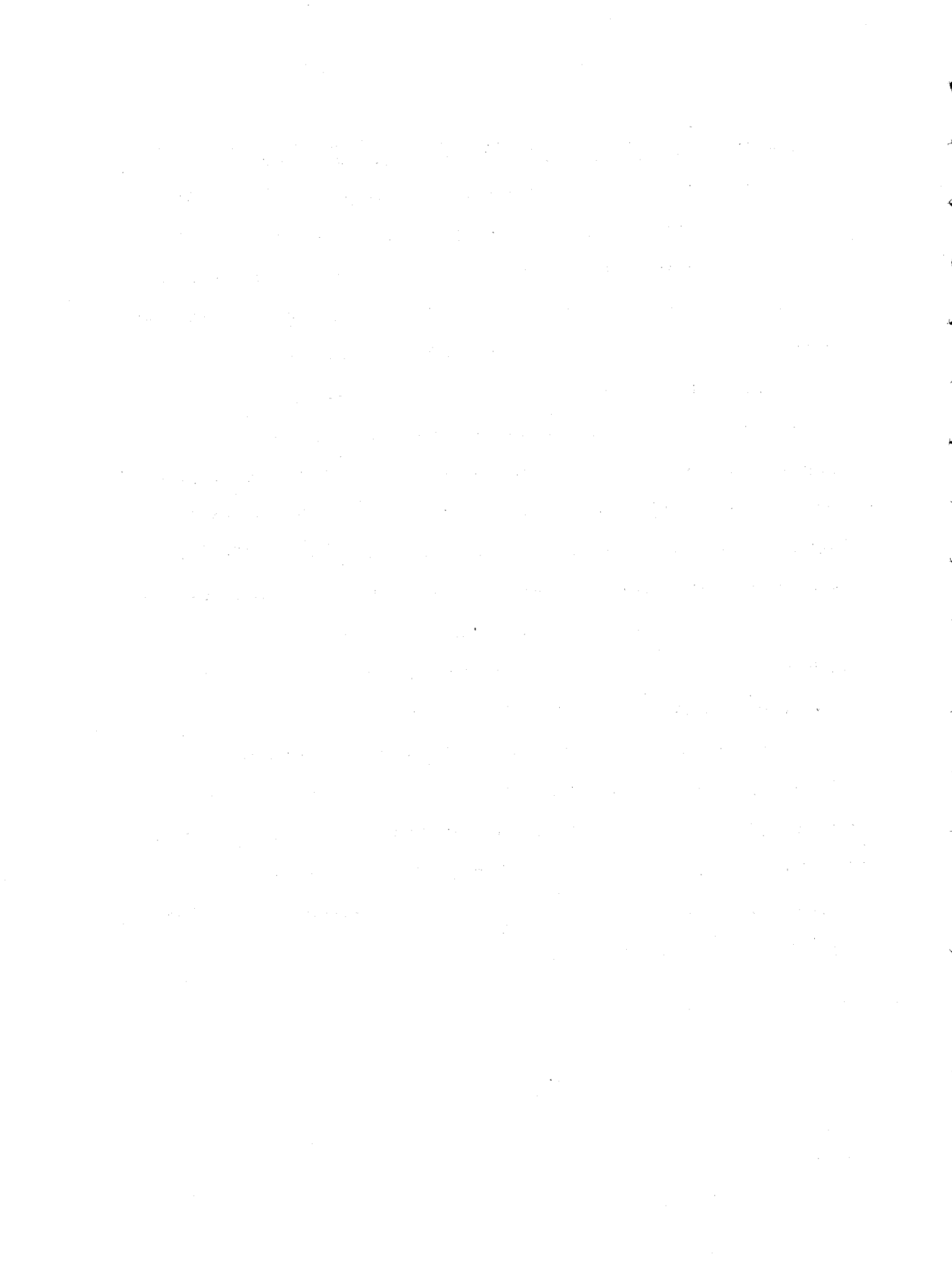
As shown in Table 11, the continuation of service alternative would avoid all of the adverse effects already discussed. This alternative essentially involves maintaining the status quo by continuing all service and providing a temporary operating subsidy if needed. All current rail users would continue to receive service. Although current estimates (Section II) show that the line is not operating at a loss, continued profitability will depend upon whether the optimistic traffic projections made by the rail users materialize. Should traffic increases not materialize and the segment operate at a loss, a small operating subsidy could be required in the future. (The estimates also do not take into account a return-on-value-of-investment consideration, which would be the subject of negotiations.)



VII. EVALUATION OF METHODS OF ACHIEVING ECONOMIES IN THE COST OF RAIL SERVICE OPERATIONS ON LINES ON WHICH SERVICE WILL BE CONTINUED

Should the rail line be retained in its entirety, additional economies could be effected by reducing service. The reduction of service could take place in three forms: one being a reduction in the maintenance of the rail line itself. The line is presently in good-to-excellent condition; and, therefore, should not need any major expenditures within the next several years. In the long term, this economy could become costly should the line actually be retained for a long period of time and could represent a diseconomy. A second method of achieving economies would be to reduce service on the rail segment. This could be accomplished by switching from an on-call service to a weekly or biweekly service. The current on-call service provides rail service on the average of more than once a week. However, neither of these alternatives for achieving economies in the cost of operation is very practical, particularly in the long term.

A third possible economy would be to abandon the trackage in the City of Carrizo Springs. The cost of maintaining the several grade crossings in the town would be avoided and the rail users could use a team track outside of town. This alternative is favored by city officials and has been suggested to Mo-Pac. However, the potential savings offered by this strategy appear to be limited.



## VIII. COMPETITIVE OR OTHER EFFECTS ON OR BY PROFITABLE RAILROADS

### a. Competition

The transfer of most service from the Carrizo Springs-Crystal City rail head would not affect the competitive condition existing between the Mo-Pac and the other rail lines in the region because the amount of traffic diverted to other modes of transport is limited.

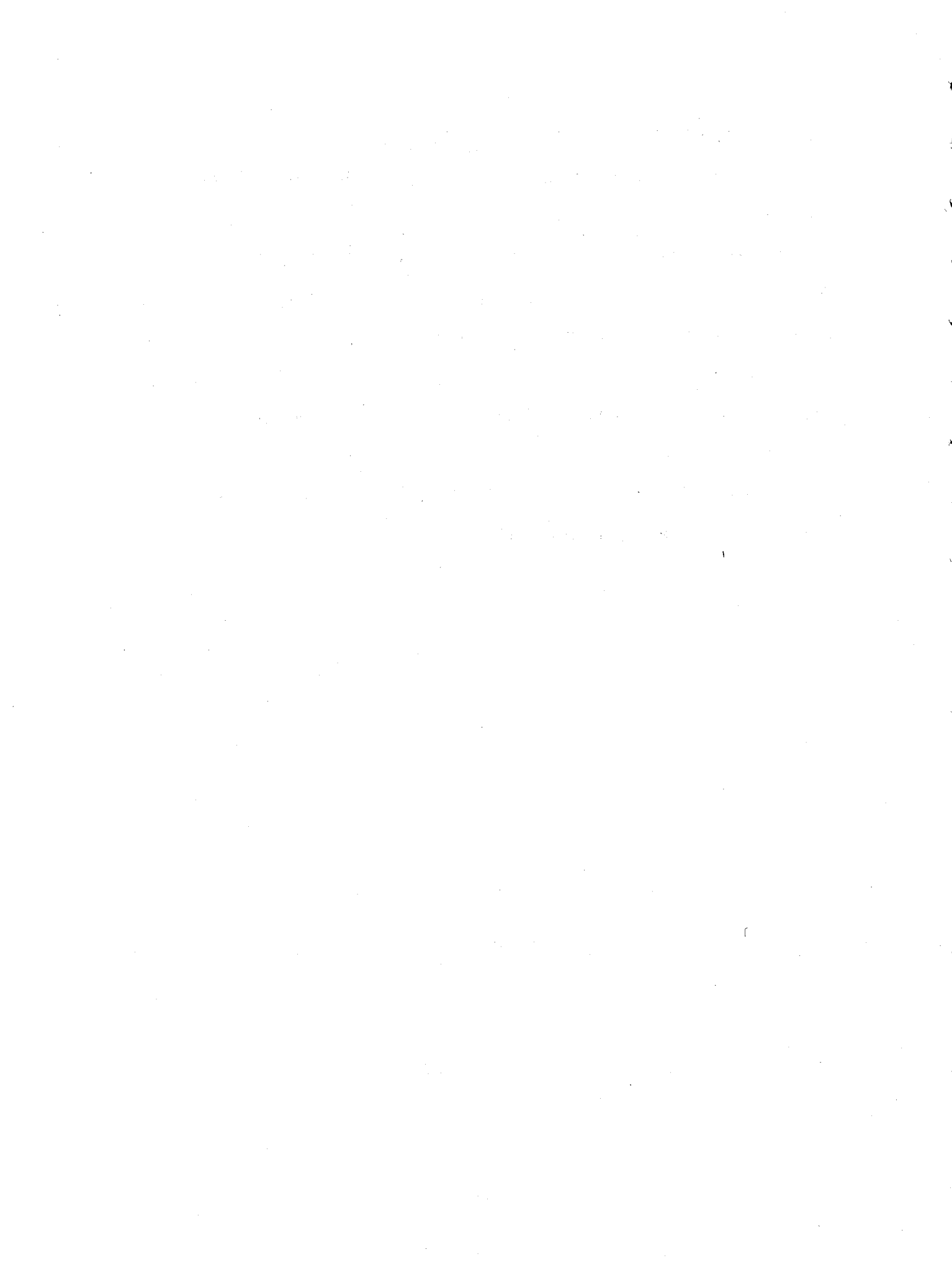
### b. Profitability

The line segment in question appears to be presently slightly profitable. Abandonment of the line would probably result in a small decrease in the profitability of the Mo-Pac. The Mo-Pac is currently profitable on a system-wide basis.



## IX. CONSIDERATIONS RELATING TO RAIL BANKING

This rail segment does not appear to be a candidate for rail banking. The forecast of future development does not indicate a strong potential that would generate a large volume of rail traffic in the foreseeable future. It appears that petroleum and related industries will not expand dramatically. Pipeline installation would be more economical for the transportation of oil than the reconstruction of the rail segment in the future. Presently, agriculture is stable in the two-county area. Industrial development appears limited because the Carrizo Springs area is not as well located as are other cities that are nearer the major industrial and commercial markets.





X. DESCRIPTION OF THE ALTERNATIVES EVALUATED TOGETHER WITH AN ANALYSIS OF THE RELATIVE ADVANTAGES, DISADVANTAGES AND COSTS ASSOCIATED WITH EACH ALTERNATIVE

a. Brief Description of Alternatives

The alternative to abandonment that has been evaluated - continued service with a temporary operating subsidy if needed would maintain the status quo. Since Mo-Pac seems to be currently operating the segment at a profit no subsidy appears to be necessary, pending negotiation of a reasonable return-on-value-of-investment. In the future, if the financial situation changes, an operating subsidy might be needed. The advantages of this alternative to abandonment are that about seven jobs could be saved. Rail users would save paying increased transportation costs, of about \$87,000. They would also save making additional transportation equipment investment of about \$36,000. One local area would not lose taxes of about \$1,000 and increased energy use and environmental pollution would be prevented. The possible closing of one firm and increased operating expenses for others might be avoided.

b. Movement of Existing and Future Traffic by Rail and Alternative Modes

The segment under consideration is a stub-end line from Crystal City. All rail traffic is routed through Crystal City. In the future if service is retained, traffic would be expected to be routed in the same manner. Truck traffic serving communities affected by the proposed abandonment moves over U.S. Highway 83, which parallels the rail segment. In the future, truck traffic would be expected to move in the same manner as at present.

c. Identification of Costs Associated with Alternative

The line appears to be currently operating at a profit (excluding return-on-investment considerations). Thus, at present, the alternative to abandonment does not appear to have any cost associated with it. In the future, an operating subsidy may be needed if the segment ceases to be sufficiently profitable.

d. Selection Process

Continuation of service with a temporary operating subsidy, if needed, is the selected alternative because it avoids all of the impacts of abandonment with little or no public cost. A small temporary subsidy could be warranted as a means of avoiding the public impacts of abandonment. Traffic projections indicate that, if needed, a temporary subsidy might provide the time for enough traffic to be generated to ensure the long-term viability of the line.

XI. CONCLUSION OF THE STATE AS TO WHETHER THE ALTERNATIVE SHOULD BE  
SELECTED FOR FEDERAL OR STATE ASSISTANCE

The Crystal City-Carrizo Springs rail line appears to be profitable for the carrier at present and the volume of traffic carried is expected to grow. This situation, combined with the generally good physical condition of the rail line itself, suggests that the outlook for the line is quite good.

City officials in Carrizo Springs have suggested abandoning the trackage in the city proper and having rail users ship and receive at a team track outside of the city; this would save the Mo-Pac the expense of maintaining several grade crossings.

Should the carrier file an application for abandonment of the line, this segment is recommended for inclusion in the Certified Program of Projects, pending a cost-benefit evaluation of all possible projects. Public costs associated with a project would be low, and the offsetting benefits to the community of Carrizo Springs important.

In the meantime, it is further recommended that the Railroad Commission of Texas monitor the volume of rail traffic moving over the line.



XII. STATEMENT OF THE STATE'S FUTURE ROLE ON EXPIRATION OF  
FEDERAL ASSISTANCE

Should any Federal assistance be required, the State of Texas would not expect to assume any financial responsibility upon expiration of such assistance.











Segment Analysis  
BRENHAM-GIDDINGS

RAILROAD COMMISSION OF TEXAS

With

Technical Assistance

of

Arthur D. Little, Inc.

November 1978

Revised January 1979

THE  
UNIVERSITY OF  
MICHIGAN

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## PART A. SUMMARY

### 1. Introduction

The Southern Pacific Transportation Company (SP) has an abandonment application pending to discontinue service on a 35-mile line between Brenham and Giddings. This Category 3 line pursuant to 49 CFR 1121.20 (b)(3) is located in Washington, Fayette and Lee Counties. Figure 1 shows the location of the segment in relation to the rest of the rail system in the State, while Figure 2 shows the location of the line in the three counties.

During the hearings concerning the abandonment application, the SP indicated that it intended to convey 2.66 miles of trackage at Brenham to the Atchison, Topeka & Santa Fe Railway Company (Santa Fe) in order to provide Brenham rail users with continued rail service. The Santa Fe indicated it had agreed to this conveyance and operation, although formal application had not yet been made. In addition, Giddings would continue to be served by SP. If this agreement is formalized, rail service would be discontinued only at stations between Giddings and Brenham--Ledbetter, Carmine, Burton and Mill Creek.

### 2. Traffic Characteristics

Rail service is provided on the branch line on an average of three times a week. The condition of the rail line is relatively good (although industrial sidings within the City of Brenham are in generally poor and dilapidated condition).

Annual movement over the line amounts to an average of 989 carloads and approximately 38,000 tons. Food products constitute about

70% of the tonnage moved, paper products about 8%, petroleum products about 7%, and nonmetallic minerals about 4%.

Approximately three-fourths of the traffic originates or terminates at Brenham and is moved over the length of the branch line. (Under the conditional arrangement, for conveyance of trackage at Brenham to the Santa Fe, all Brenham traffic would continue to be moved over alternative Santa Fe routings.) The rest of the traffic originates or terminates at Carmine. No significant bridge traffic moves over the rail segment. There has been an opportunity in the past to develop bridge traffic, but this did not materialize.

### 3. Economic Characteristics

#### a. Economic Activity

The three-county region served by the rail segment is predominantly agricultural. Population is slightly over 45,000 and growing slowly. Cattle ranching, poultry and egg production, and farming are the most important economic activities in the area. Employment amounts to about 12,000 in the three-county area.

The three-county area is located at the outer fringes of two rapidly growing economic areas--Austin and Houston. The region is expected to have stable or declining population during the next decade, but the communities of Brenham and Giddings have been growing steadily and should continue to do so. No significant economic or agricultural development is anticipated. (Recently oil and gas drilling activity has been initiated, particularly in Lee County near Giddings. This activity is expected to continue growing, although it should have little effect on rail movements.)



b. Rail Users

Five rail users account for slightly more than 80% of the carload traffic originated or terminated on the rail segment. They are: Brenham Wholesale Grocery, Texas Fibers, Green Grain, Brentex Mills, all in Brenham, and Jacobs Store, an egg production facility at Carmine. Twelve other rail users account for the rest of the carload traffic. Jacobs Store and Luedemann Grocery and Mill are the only current rail users that would lose rail service if abandonment occurs and Santa Fe takes over the Brenham traffic. Direct employment associated with these two firms is about 40.

Due to the relatively low potential for new economic development in the region, change in rail traffic on the segment is likely to be related to the current rail users. Little additional rail traffic can be expected from oil and gas drilling activity, unless major new discoveries are made requiring oil field materials.

c. Importance of Rail to Users

None of the rail users is critically dependent on the rail service sought to be discontinued. U.S. Highway 290 parallels the rail line between Brenham and Giddings and provides an adequate route for trucking. All of the rail users can switch to truck use, albeit at an added transportation cost.

4. Impact of Abandonment

On the assumptions that service by SP will be continued at Giddings and that service at Brenham will be taken over by Santa Fe, the impact of the proposed abandonment on the three-county region would be expected

to be negligible. Two current users would lose rail service: Jacobs Store at Carmine and Luedemann Grocery and Mill at Mill Creek. (Cities Service at Carmine would also lose service, but this company has not used the line in two years.) These three shippers account for an average of 226 carloads per year -- 90% of which is for Jacobs Store.

- The Jacobs Store at Carmine is the Ralston-Purina feed distributor and includes a substantial egg-laying operation. Currently Jacobs Store employs 22 full-time-equivalent workers and has a payroll of about \$400,000 annually. Expansion plans for the next 12-18 months call for an increase in employment to 25-30 workers and a payroll of \$500,000 - \$550,000.

Loss of rail service would increase operating costs, which would either be absorbed or passed-on. Loss of rail service is expected to result in neither curtailment of operations nor in reduction of planned expansion.

- Luedemann Grocery and Mill located at Mill Creek sells dairy, cattle and hog feed as well as range meal. It currently employs fewer than 20 workers. Loss of rail service would require use of truck transportation at an increased cost of \$300 annually, with no anticipated detrimental effect on current or future operations.
- Cities Service Corporation at Carmine has not made use of rail service in the last two years. Consequently, loss of rail service is not expected to have an appreciable effect on operations.

- Abandonment would reduce taxes by \$14,000 annually, pending re-use of the land. No jobs would be lost. The railroad's profitability would be slightly affected by elimination of a marginal line.

#### 5. Alternatives to Abandonment

Under the assumptions of continued service to Brenham and Giddings, no jobs would be lost due to the abandonment and public impacts would be negligible; therefore, no alternatives to abandonment were evaluated.

#### 6. Inclusion in Certified Program of Projects

No project has been identified for inclusion in the Certified Program of Projects.

#### 7. Addendum

Subsequent to completion of the Brenham-Giddings rail segment analysis, ICC Administrative Law Judge David H. Allard issued his decision in the abandonment proceeding, Docket No. AB-12 (Sub.-No. 56), recommending that abandonment be granted, subject to conditions. Principally, the conditions require conveyance of Brenham trackage from SP to Santa Fe and provide for service to Jacob's Store at Carmine via the Giddings-Carmine subsegment until June 1, 1980. Physical abandonment may not be accomplished before June 1, 1980, employee protective conditions are specified, and sale of the line to a responsible party for continued operation is permitted.

A second event subsequent to both issuance of the ICC decision and the completion of the segment analysis by the Railroad Commission is receipt of a letter of January 12, 1979 from the Lower Colorado River

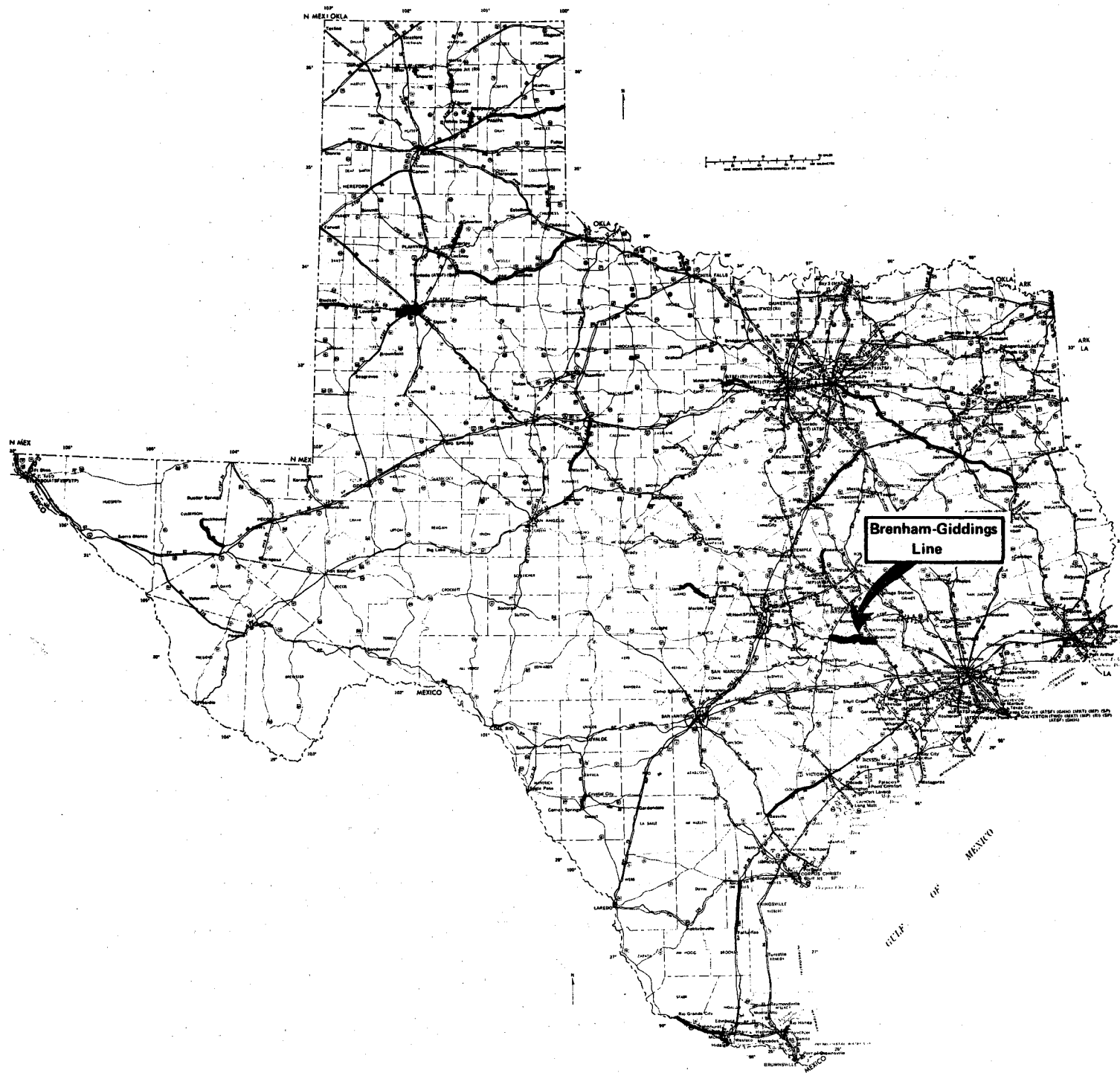
Authority stating its interest in preservation of the rail line pending analysis of the possibility of transporting lignite from the vicinity of Ledbetter to a proposed Fayette Power Project east of LaGrange.

## PART B. DETAILED ANALYSIS

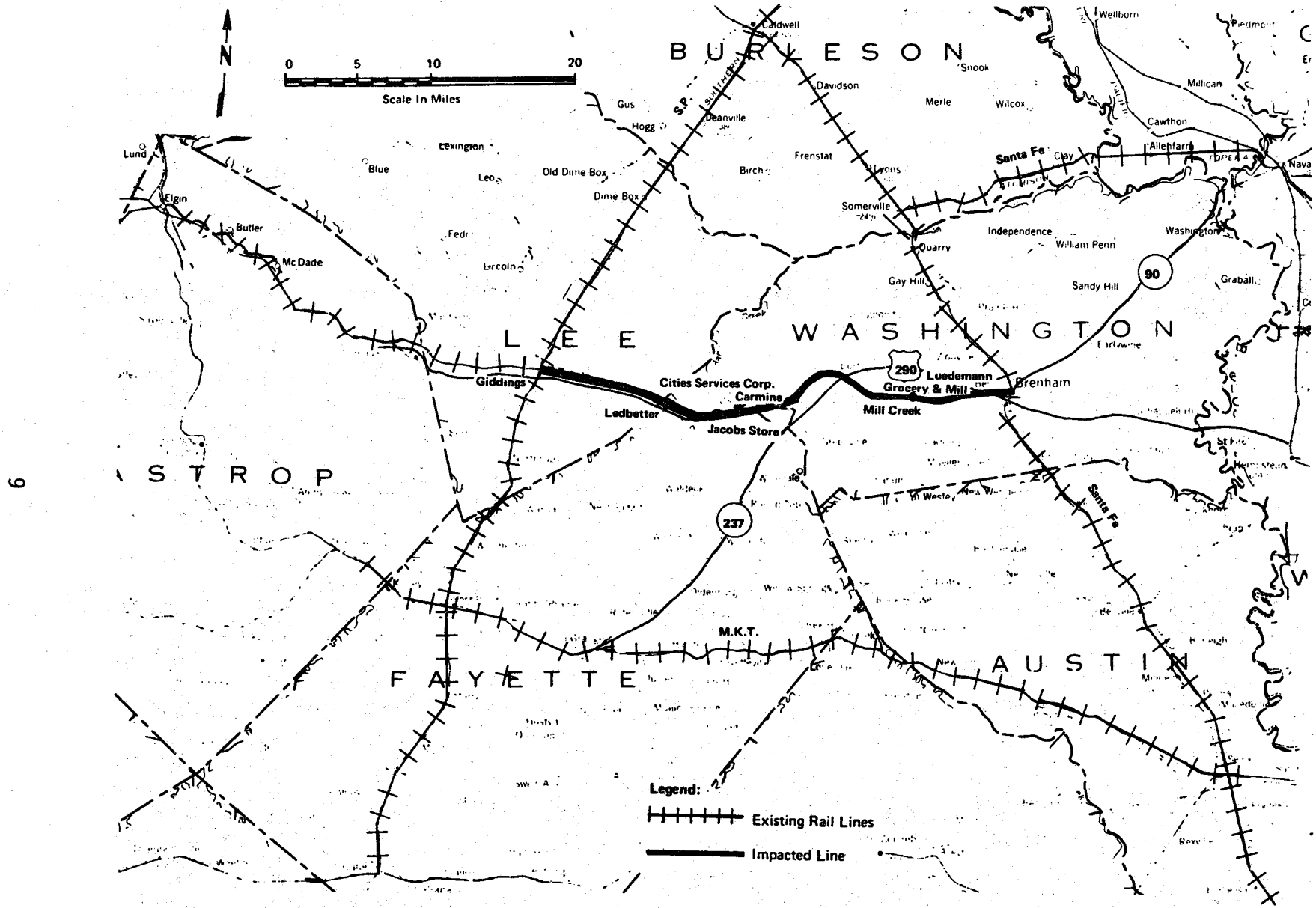
### 1. Description of the Line

The Southern Pacific Transportation Company (SP) has an abandonment application pending before the Interstate Commerce Commission (ICC) concerning its rail line from Milepost 20.86 near Brenham to the end of the branch at Milepost 55.78 near Giddings, a distance of 34.92 miles. This category 3 line based upon 49 CFR 1121.20(b)(3) is in Washington, Fayette, and Lee Counties. Figure 1 shows the relationship of this segment to the rest of the railway system in Texas. Figure 2 shows the location of the line within the impacted counties.

During hearings held by ICC, the SP indicated its intention to convey trackage of 2.66 miles between Milepost 21.89 and Milepost 19.23 in Brenham to the AT&SF Railway Company (Santa Fe); and to retain 0.78 miles, from Milepost 55.78 to Milepost 55.0 near Giddings. A remaining 0.56 miles of track in Brenham (Milepost 19.23 to Milepost 18.67) at the stub end was claimed to be "tail track" not subject to ICC jurisdiction. The proposed conveyance appears to signal a willingness to have the abandonment conditioned upon successful transfer of property and service obligations at Brenham to Santa Fe. The effect of these changes would be to preserve rail service to all large shippers in Brenham. SP asserted that the proposed abandonment would have no effect on shippers or rail traffic in Giddings, as this community would continue to be served by the SP network. Thus, no shippers at Giddings would lose rail service. Of the other stations between Giddings and Brenham--Ledbetter, Carmine, Burton and Mill Creek--only Carmine accounts for



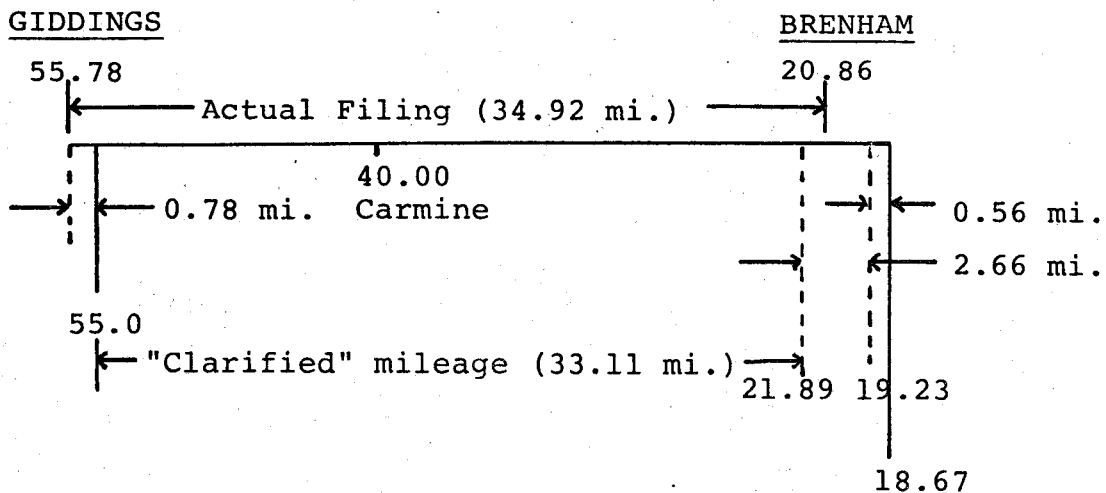
**FIGURE 1 LOCATION OF BRENHAM-GIDDINGS LINE IN RELATION TO TEXAS RAIL SYSTEM**



**FIGURE 2 LOCATION OF BRENHAM – GIDDINGS LINE IN LEE, WASHINGTON, AND FAYETTE COUNTIES**

substantial traffic. The SP asserted that Santa Fe indicated willingness to continue service to the SP shippers at Brenham via the Santa Fe main line. The following schematic shows the various mileposts involved in the current SP filing and classification.

SCHEMATIC REPRESENTATION OF  
MILEPOSTS INVOLVED IN BRENHAM-GIDDINGS CASE



The SP-Santa Fe agreement was the subject of extended argument in the hearings leading to clarification by the SP in Exhibits 6 and 12 of the hearing and to testimony of a Santa Fe representative. Exhibit 6 is an October 25, 1977 letter from the Santa Fe to the SP confirming that "... Santa Fe will switch the Southern Pacific industries at Brenham provided Southern Pacific will convey to Santa Fe, at no cost, its trackage and related facilities, including rights of way, between Blinn Blvd. and the end of the trackage at The Industrial Park." Exhibit 12



is a December 16, 1977 SP letter to the Santa Fe stating that:

"Upon abandonment of our service after receipt of authority from the I.C.C., Southern Pacific will convey to Santa Fe, without monetary consideration, all of our trackage between Blinn Boulevard (MP 21.89) and the end of the trackage at the Industrial Park (MP 19.23). With respect to the right of way, it was understood in recent discussion with your representative that an easement would be satisfactory to Santa Fe. Accordingly, we will grant Santa Fe an easement for railroad purposes on land underlying the subject trackage without monetary consideration."

The SP asserts that such conveyance of property and rights and a commitment by the Santa Fe to switch "Southern Pacific industries" would assure that Brenham would retain rail service as presently provided.



## I. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS ON THE LINE OF THE RAILROAD

### a. Freight Traffic

Table 1 summarizes the carload and tonnage data for the Brenham-Giddings branch line, by station and commodity as reported by the SP. In 1976, 959 carloads carrying 37,151 tons moved over the branch line, compared with 938 carloads and 36,366 tons in 1975, and 844 carloads and 33,189 tons in the first nine months of 1977. Table 2 shows carload data by shipper and station for 1977 and projected 1980, based on a shipper survey.

Between 75-79% of the traffic has originated or terminated at Brenham and moved over the entire length of the line. Between 20-33% of the traffic terminated at Carmine and one percent at Mill Creek.

The principal commodities being moved over the branch line as a whole are food, farm and paper products. Almost all of the commodities are being delivered to points on the line whereas only about 6% represents originating traffic.

Approximately 5-7.5% of all traffic is originating traffic. The rest is terminating traffic. The SP reports no bridge traffic at this time. However, according to information presented by the shippers' economic consultant, an opportunity for significant bridge traffic came close to materializing in recent years.

The opportunity arose from events subsequent to SP abandonment of another segment that served Brenham. In 1961, the SP was authorized to abandon the segment of its line between Brenham and Hempstead (21 miles) on the basis that no traffic originated or terminated on the segment.

TABLE 1

SOUTHERN PACIFIC TRANSPORTATION COMPANY  
CARLOADS AND TONS ON BRENHAM-GIDDINGS RAIL SEGMENT

<u>By Station:</u>	<u>Year 1975</u>		<u>Year 1976</u>		<u>Year 1977<sup>1</sup></u>	
	<u>Cars</u>	<u>Tons</u>	<u>Cars</u>	<u>Tons</u>	<u>Cars</u>	<u>Tons</u>
Brenham	722	25,070	723	24,614	668	22,998
Carmine	202	10,889	225	12,213	167	9,934
Mill Creek	13	365	11	324	9	257
Burton	1	42	0	0	0	0
Totals	938	36,366	959	37,151	844	33,189
 <u>By Commodity:</u>						
Food Products	636	26,333	649	27,360	459	20,592
Paper Products	134	2,947	134	3,164	116	2,438
Waste & Scrap	0	0	19	825	92	2,132
Chemical Prod.	10	620	27	946	59	1,814
Nonmetallic Min.	24	1,677	9	649	42	2,997
Clay/stone Prod.	9	445	10	437	27	1,336
Prim. Metal Prod.	11	706	29	1,701	20	1,276
Farm Products	20	547	22	620	8	238
Wood Products	2	104	28	711	0	0
Containers, empty	16	246	13	240	10	178
Machinery	10	144	10	201	9	106
Petroleum Prod.	53	2,139	5	245	2	82
Rubber/plastic	13	458	3	31	0	0
Miscellaneous	0	0	1	21	0	0
Totals	938	36,366	959	37,151	844	33,189

<sup>1</sup>Nine months - January-September 1977.

Source: Southern Pacific, Exhibit 4, Brenham-Giddings Abandonment Hearings. A subsequent filing, Exhibit 4a, changes the 1975 results to an estimated 871 carloads and 33,662 tons and the 1976 results to 960 carloads and 37,161 tons.

TABLE 2  
CARLOAD TRAFFIC ON THE BRENHAM-GIDDINGS RAIL SEGMENT, 1977  
AND PROJECTED 1980

<u>Location and Rail User</u>	1977		<u>Total</u>	<u>1980 Est. Total</u>
	<u>Originating</u>	<u>Terminating</u>		
<u>Brenham</u>				
Brenham Wholesale Grocery	--	375	375	465
Green Grain	52	106	158	175
Texas Fibers	118	43	161	160
Blue Bell Creameries	--	25	25	30
Brentex Mills	--	57	57	50
Brenham Produce	--	24	24	75
Woodson Lumber	--	5	5	7
Beaumier Iron Works	--	8	8	25
Milchem	--	9	9	50
Other	--	20 (es.)	20	25
TOTAL Brenham	170	672	842	1,062
<u>Mill Creek</u>				
Luedemann Grocery & Mill	--	12	12	12
<u>Carmine</u>				
Jacobs Store	--	220	220	310
Total Mill Creek & Carmine	--	232	232	322
Total Brenham-Giddings	170	904	1,074	1,384

NOTE: There is a small difference between the SP's estimates and results of shipper survey.

Source: Shipper survey and Arthur D. Little, Inc. estimates.

Before the abandonment, the short line route between Austin and Houston was via Giddings-Brenham-Hempstead (Figure 3). The abandonment required an alternative routing that was 43% longer (72.5 miles) via Giddings-Caldwell-Hearne-Hempstead-Houston.

Subsequently, rock traffic from the hill country northwest of Austin increased to the point of requiring trainload movements to Houston. This traffic moved via Hearne (or Flatonia and Victoria) in the absence of a shorter route and added to congestion at Hearne. Sustained jetty stone and aggregate traffic eventually led the SP to negotiate trackage rights over Santa Fe's Brenham-Rosenberg route in order to decrease circuitous movement.

Agreement on the trackage rights was negotiated at \$2.50 per train mile for a route that would have reduced circuitry by 46.5 miles compared with the all-SP route via Hearne. The agreement was approved by the I.C.C. on December 31, 1974, but it was never put into effect and lapsed in 1977. SP data from a separate regulatory proceeding involving the rock traffic indicate that 6,515 carloads moved from origins northwest of Austin via Hearne to Houston in 1974--the equivalent of a weekly train of 125 cars. The shippers' consultant estimated a foregone benefit to SP of about \$207,000 annually by failure to use the Giddings-Brenham route for this bridge traffic.

b. Shipper Characteristics

Table 2 lists the rail users moving commodities over the Brenham-Giddings line, their location, and the estimated number of carloads originated and terminated during the 1975-77 period. As the table shows, almost all of the rail users are located in Brenham. All have access to

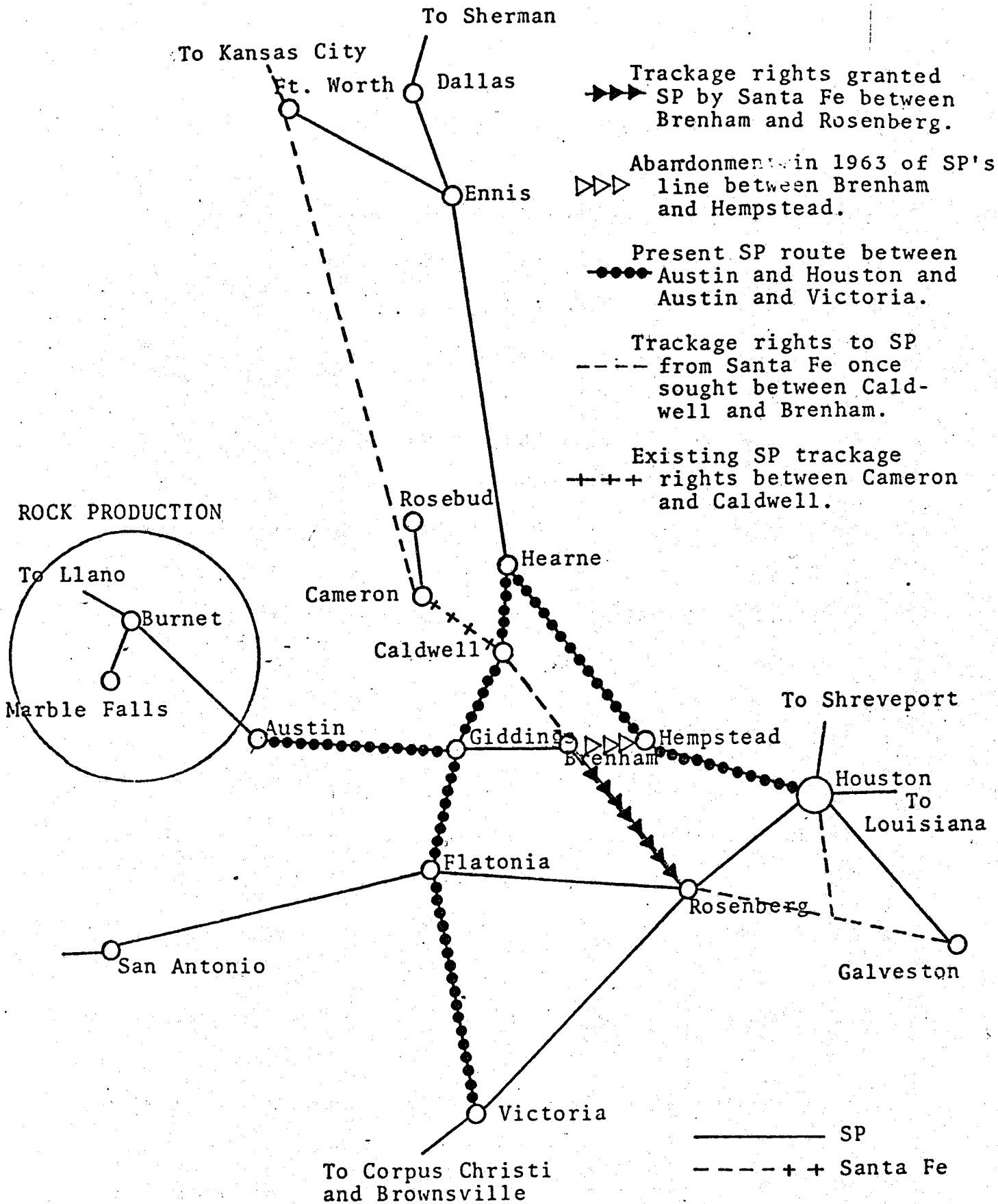


FIGURE 3

REPRESENTATION OF SP AND SANTA FE LINES  
IN VICINITY OF BRENHAM AND GIDDINGS

(reproduced from testimony by shippers' economic consultant Nelson)

the 2-1/2 miles of track that the SP appears to be willing to convey to the Santa Fe. (If the abandonment proposal is granted subject to the condition that the Brenham trackage is conveyed to and operated by the Santa Fe, no Brenham shippers would be adversely affected.)

There are four significant users on the line in Brenham: Brenham Wholesale Grocery, Green Grain, Texas Fibers, and Brentex Mills (division of Chromalloy American). These four shippers account for 60% of all traffic on the line, predominantly as receivers; only about 50 cars were originated in 1975 and 136 carloads in the 21 month period of January 1975-September 1976. Other small shippers located at Brenham include: Blue Bell Creamery, Brenham Produce, Trinity Mud, Beaumier Iron Works, Woodson Lumber, Milchem, and other occasional users. The Brenham shippers would be affected if the Brenham trackage is not transferred to the Santa Fe.

- Brenham Wholesale Grocery

This is the largest shipper in Brenham in terms of rail use. The firm received about 375 carloads of general merchandise in 1977 via the SP and expects its tonnage to increase 10-15% for 1978. Rail accounts for 30% of the goods received. The firm employs 180 people, representing a payroll of \$2.5 million. Substantial expansion has taken place at the current site, largely because of the availability of rail service. If the Santa Fe does not operate the SP trackage, the impact of abandonment would be considerable, resulting in higher trucking costs and requiring the construction of new loading facilities, and the purchase of several trucks. These costs could affect the company's ability to compete. Even if Santa Fe acquires the trackage, the firm is concerned that the



quality of service may suffer.

- Green Grain

This major rail user is 100% dependent on rail for transport of beer, feed and grain, and tissue supplies, which represent almost all of the firm's business. Rail use is expected to increase 10-15% over the next three years from its 1977 level of 158 carloads. The firm would be seriously impacted if the line is abandoned and the Santa Fe does not provide alternative service because it is completely geared toward rail use. Trucking would represent significantly higher costs to the firm. The firm is concerned that service may deteriorate even if Santa Fe provides alternative service. Green Grain employs 10, representing a payroll of \$100,000.

- Texas Fibers

This Brenham rail user received about 43 carloads of cotton by-products and shipped 118 carloads of polyurethane and cotton by-products in 1977. The firm is about 33% dependent on rail. Abandonment, with no alternative service by the Santa Fe, would represent some increased costs to the firm. Because it also has a warehouse on the Santa Fe line, the firm could adjust by rehabilitating the spur and the warehouse, albeit at a substantial cost to the firm. The company employs 10 with a payroll of about \$100,000. These impacts would be avoided by alternative rail service.

- Blue Bell Creameries

Blue Bell is one of the most important employers in Brenham with 300 employees. Although the firm presently receives most of its rail freight via the Santa Fe, the 25 carloads received via the SP is of

particular importance. These carloads of corn syrup and liquid sucrose must be unloaded at a liquid pump station which is now located on the SP. This pump station cannot be moved and there is no room at the Santa Fe location to build a new one. Thus, trucks would have to be utilized in the event of a complete abandonment of the SP trackage at great cost and inconvenience to the firm. The cost would be passed on in higher prices. The Santa Fe could provide adequate alternative service.

- Brentex Mills

Located in downtown Brenham, Brentex Mills is a major employer with 250 workers and an annual payroll of \$2.6 million. In 1977, the firm received 12 carloads of starch and 45 carloads of polyester by rail. Other materials and the final product are trucked. Complete abandonment would result in considerably higher transportation costs as a result of having to switch to trucks. The Santa Fe could provide adequate alternative service.

- Brenham Produce

This firm received about 24 cars of sacked feed in 1977 via the SP. Although it currently receives most of its feed via the Santa Fe, the firm was considering relying more heavily on the SP because of concern with the quality of service provided by Santa Fe. The firm must pick up the feed delivered by both carriers at a team loading facility. Rail accounts for 50% of the company's supplies. The firm expressed concern that with complete abandonment it would lose the ability to choose between two competing carriers.

- Occasional Users

Woodson Lumber receives about 5 carloads of lumber and wood shingles

annually, representing 10% of its receipts. Trucking is usually considered more convenient. Loss of rail service would have little impact. Beaumier Iron Works receives between 8 and 20 carloads of drilling mud annually. Complete abandonment would increase the firm's transportation costs and possibly affect its competitiveness. The Santa Fe could provide adequate alternative service.

Trinity Mud receives only one car of drilling mud per year and does not expect this to change much.

Milchem receives about 9 carloads of drilling mud annually. However, the firm expects this to increase substantially, possibly by as much as 50 carloads annually. Abandonment without alternative service by the Santa Fe would result in higher transportation costs, possibly adversely affecting the firm's competitive position.

Of the four stations--Mill Creek, Burton, Carmine and Ledbetter--located on the portion of the line subject to abandonment in the current SP proceeding, only Mill Creek and Carmine are presently being utilized. At Mill Creek, Luedemann Grocery and Mill receives about 12 cars annually. Carmine is the location of one regular rail user, Jacobs Store (about 219 carloads are received annually), and one user, Cities Service, which has not made use of rail since 1975 when 19 carloads were received.

- Luedemann Grocery and Mill

This company, established in 1937, sells livestock feed. The firm employs between 8 and 24 people. About 12 carloads of feed are received every year at the public siding in Mill Creek and trucked two miles to the store. Much of the feed and other products sold by Luedemann is brought in by truck from Brenham. Because of the inconvenience and

expense of driving two miles to pick up goods brought by rail, and the alternative available of trucking directly from Brenham, the firm is not dependent on rail service and is unlikely to make further use of rail. It is believed that the firm is indifferent to the need to truck from Brenham rather than Mill Creek.

● Jacobs Store

The Jacobs Store at Carmine is a Ralston-Purina feed distributor and a 350,000-hen egg-laying operation. The store receives approximately 220 carloads (about 15,000 tons) of feed annually from Fort Worth, most of it for the egg-laying operation. Rail use has increased significantly over the past several years. The eggs are shipped out by truck, mostly to the Houston area. About a dozen families in the area have entered into contractual arrangements under which they build and make available hen houses which, in turn, are stocked with hens by Jacobs Brothers who also supply the feed. The families provide the labor necessary to feed and care for the hens. Jacobs Store also maintains a standby truck service to haul poultry feed in the event of a serious delay in rail deliveries. Jacobs currently employs 22 full-time (equivalent) workers, representing an annual payroll of \$400,000. The tonnage shipped by Jacobs Brothers has increased steadily from 3,235 tons in 1967 to 13,116 tons in 1976 and an estimated 15,000 tons in 1977.

During the next 18 months, the owners expect to expand the egg-laying operation to 500,000 hens. This would result in an increase in the use of rail to a total of 310 carloads, and 21,500 tons of feed annually. The expansion would also involve 3 to 8 additional employees and an increase in payroll of \$55,000 to \$145,000 per year.

- Cities Service Corporation

Cities Service Corporation, located at Carmine, has utilized rail service in the past (19 carloads were shipped or received in 1975), but did not use rail service in 1976 or the first nine months in 1977. It appears that the firm is not dependent on rail service.



II. REVENUES DERIVED FROM RAIL FREIGHT SERVICES AND COST OF PROVIDING THESE SERVICES

a. Revenues

Revenues attributable to the branch line were estimated by SP as \$222,503 in 1975; \$274,764 in 1976; and \$265,039 for nine months of 1977--\$353,385 annualized.<sup>1</sup> In each year, line-haul freight revenue represented 98-99% of the total, with small amounts of switching, demurrage and other revenues accounting for the difference.

Revenues appear understated due to estimation procedures employed, which excluded revenues from some intransit traffic.<sup>2</sup> Adjusted revenues attributable to the branch line are estimated as \$222,503 in 1975; \$376,870 in 1976, and \$342,241 for nine months of 1977--\$456,321 annualized.<sup>3</sup>

b. Expenses

Costs attributable to the branch line were estimated by SP as \$525,348 in 1975, \$575,237 in 1976, and \$475,600 for nine months of 1977--\$634,133 annualized.<sup>4</sup>

<sup>1</sup> Exhibit 5, Testimony of SP Witness Lundeen, Brenham-Giddings Abandonment Hearings. In response to an opportunity to review a draft of this segment analysis, SP submitted revised numbers as follows: \$216,809 (1975); \$275,524 (1976); \$269,997 (nine months 1977). Details are not available.

<sup>2</sup> Transit revenues estimated by this analysis to result in a 25-30% understatement.

<sup>3</sup> In reviewing a draft of this segment analysis, SP submitted revised numbers as follows: \$216,809 (1975); \$305,073 (1976); \$276,909 (nine months 1977); \$369,212 (annualized 1977). Details are not available and these revisions are not reflected elsewhere in this analysis. Revenues used also exclude estimated foregone benefit to SP of \$207,000 by reason of failure to use Giddings-Brenham route for bridge traffic, as described in Section I-a.

<sup>4</sup> Exhibit 5, Testimony by Witness Lundeen, Brenham-Giddings Abandonment Hearings. In reviewing a draft of this segment analysis, SP submitted revised numbers based on Exhibit 5-a as follows: \$506,007 (1975); \$575,963 (1976); \$468,004 (nine months 1977); \$624,005 (annualized 1977). Details are not available and these revisions are not reflected elsewhere in this analysis.

Costs are divided into two major categories--off-branch and on-branch, both of which can be avoided if the line is abandoned. The off-branch costs are derived by applying a series of system-average formulas to car movements. In other words, off-branch costs reflect maintenance of equipment and transportation operating expenses incurred in moving branch-related cars off-branch (but "on-system").

On-branch costs consist of maintenance of way (M/W), maintenance of equipment (M/E), transportation expense (primarily crew costs and locomotive fuel), payroll taxes and miscellaneous and rehabilitation expenses.

Expenses appear overstated due to estimation procedures employed, which included major claims for rehabilitation and for crew cost savings which apparently cannot be achieved.<sup>1</sup> Adjusted expenses attributable to the branch line are estimated as \$197,135 in 1975, \$210,776 in 1976, and \$271,671 for annualized 1977.

c. Comparison of Revenues and Expenses

Table 3 summarizes the adjustments in revenues and expenses. Major adjustments, in order of significance were (1) reflection of complete revenues attributable to the line, (2) elimination of rehabilitation expense, and (3) revised allocation of transportation expense.

Table 4, which restates operating results from the line to reflect these adjustments, shows that the branch line appears to be marginally profitable at present. The adjusted analysis shows an annualized profit

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<sup>1</sup>Principal adjustments involved elimination of \$99,698 in claimed rehabilitation expense, \$72,489 in trainmen and enginemen expense, \$10,612 in associated payroll taxes, and \$11,320 in off-branch expenses based on through-train averages.



TABLE 3

COMPARISON OF ADJUSTED OPERATING RESULTS  
WITH SP. ABANDONMENT APPLICATION

	<u>1975</u>	<u>1976</u>	<u>Annualized</u> <u>1977</u>
<u>Revenues</u>			
SP-estimated revenues	\$222,503	\$274,764	\$353,385
Adjusted Revenues	<u>222,503</u>	<u>376,870</u>	<u>456,321</u>
Adjustment Increase	\$ 0	\$102,106	\$102,936
<u>Expenses</u>			
SP-estimated expenses	\$525,348	\$575,237	\$634,133
Adjusted Expenses	<u>340,172</u>	<u>368,750</u>	<u>430,923</u>
Adjustment Decrease	\$185,176	\$206,487	\$203,210
<u>Profit (loss)</u>			
SP-estimated loss	\$(302,845)	\$(300,473)	\$(280,748)
Adjusted (loss) Profit	<u>(117,669)</u>	<u>8,120</u>	<u>25,398</u>
Diminished Loss	\$185,176	\$308,593	\$306,146

Sources: Exhibits, Workpapers and Testimony in ICC Docket AB-12 Sub. No. 56 and Arthur D. Little, Inc. analysis.

TABLE 4

OPERATING RESULTS FOR  
BREHAM-GIDDINGS BRANCH LINE  
ADJUSTED REVENUES AND COSTS

<u>Item</u>	<u>Year</u> <u>1975</u>	<u>Year</u> <u>1976</u>	<u>Annualized</u> <u>1977</u>
<u>Total Revenues</u>	\$222,503	\$376,870	\$456,321
<u>Expenses</u>			
<u>Off-branch costs</u>	\$197,135	\$210,776	\$271,671
<u>On-branch costs</u>			
Maintenance of way	\$ 35,000	\$ 35,000	\$ 35,000
Maintenance of equipment	20,040	22,107	23,492
Transportation	69,183	79,542	78,807
Taxes	11,954	13,674	14,149
Miscellaneous & rents	<u>6,860</u>	<u>7,651</u>	<u>7,804</u>
Subtotal	143,037	157,974	159,252
<u>Total Expenses</u>	\$340,172	\$368,750	\$430,923
Profit (loss)	\$(117,669)	\$ 8,120	\$ 25,398

Sources: Exhibits, Workpapers and Testimony in ICC Docket AB-12 Sub. No. 56, and Arthur D. Little, Inc. analysis.

of about \$25,400 for 1977 and a profit of only \$8,120 in 1976. In 1975, a loss of almost \$118,000 was recorded. This analysis excludes administrative costs and return on the fixed assets for which the public would be asked to pay if the line abandonment were approved and continuation subsidy were offered.

Subsequent to completion of a draft analysis of the Brenham-Giddings rail segment, SP provided its 1977 Railroad Branch Line Annual Report Form R-6 worksheets specifically applicable to this segment. While essentially similar to data presented by SP in its abandonment case, and subject to similar adjustments, a summary of the data is shown in Table 5. The tabulation shows revenues of \$353,384 and on-branch expenses of \$196,307. Total expenses, however, are estimated at \$579,592, resulting in a claimed operating loss of \$226,208. The inclusion of a claimed \$274,949 return on value element in addition to the operation loss would result in a continuation subsidy claim by SP of at least \$501,157. As noted in footnotes to the table, these amounts exclude rehabilitation and foregone tax benefit claims.

No comprehensive analysis of these worksheet data has been attempted. However, one test suggests that expenses may be overstated. The off-branch expenses of \$290,651 (some 50% of total adjusted expenses of \$579,592) are associated with 12,440,410 revenue ton-miles, according to the available worksheets. This traffic presumably shares average off-branch system characteristics that make it indistinguishable from other SP average traffic. However, the off-branch expenses of this traffic equate to \$0.0234 per net ton-mile, or nearly 30% more than the average of \$0.0181 per net ton-mile for all SP system expenses; since the system

average itself is increased by the inclusion of high unit cost branch operations, the overstatement in off-branch expenses allocated to Brenham-Giddings operations exceeds 30%.

No attempt at estimating breakeven traffic for the rail segment has been made, since there are fundamental differences in the applicable revenues and expenses between the SP results and the findings of the independent segment analysis. Extensive data sources were used and generally cited in sources or footnotes.

TABLE 5

BRENHAM-GIDDINGS BRANCH LINE R-6 WORKSHEET DATA  
 PROVIDED BY SOUTHERN PACIFIC - 1977

Line mileage: 34.92      Carloads: 939<sup>1</sup>

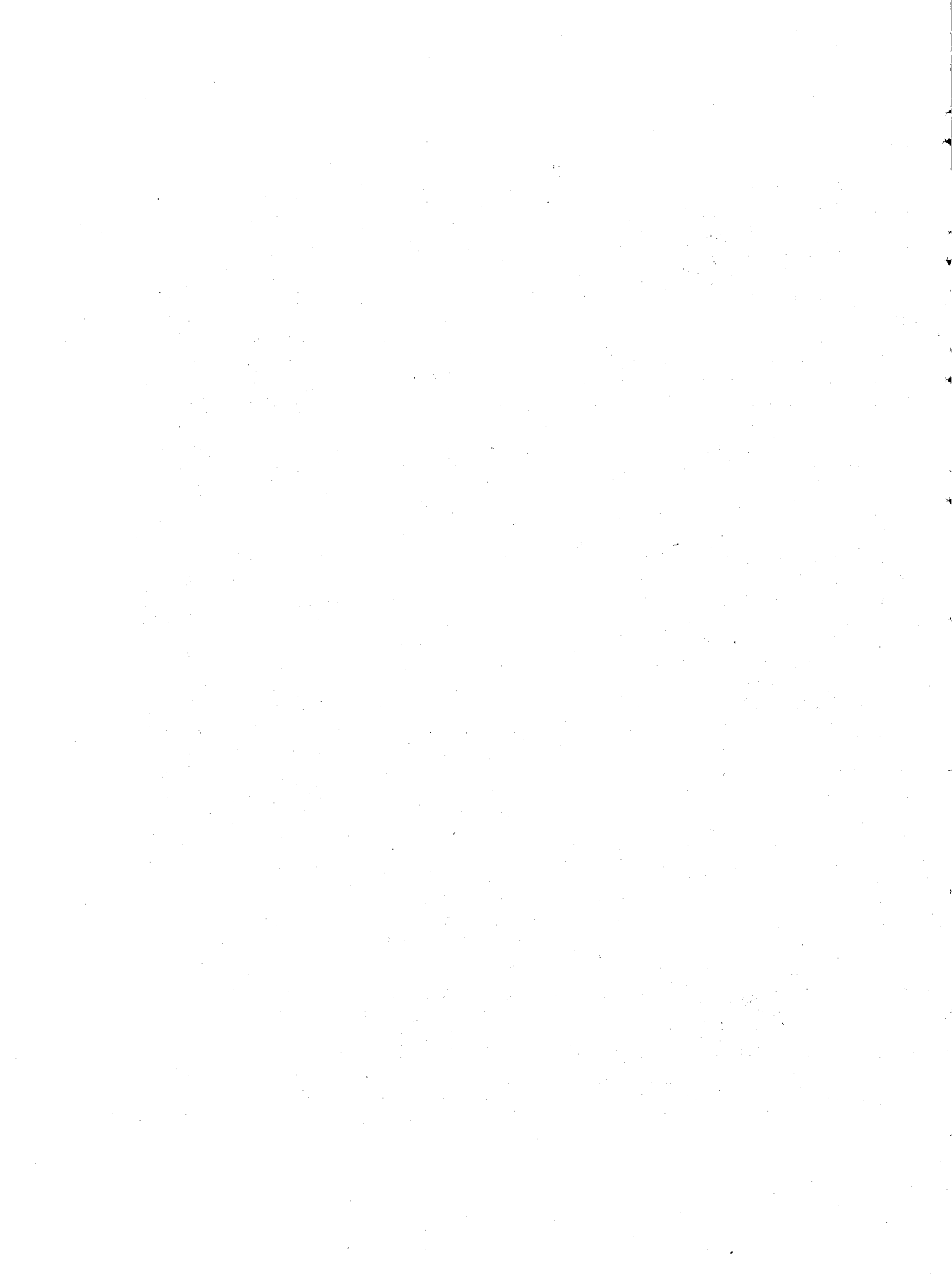
<u>R-6 Schedule</u>	<u>Item</u>	<u>Amount</u>	<u>Line No.</u>
A	<u>Revenues</u>		1
	Freight	\$ 349,934	2
	Other	3,450	3
	Total	<u>\$ 353,384</u>	4
B-1	<u>On-Branch Expenses</u>		5
	Maintenance of way	\$ 37,350	6
	Maintenance of equipment	9,701	7
	Traffic	--	8
	Transportation	149,256	9
	Subtotal	<u>\$ 196,307</u>	10
B-2	<u>Income Account Expenses</u>		11
	Tax Accruals	\$ 12,304	11a
	Work equipment rental	2,007	11b
	Subtotal	<u>\$ 14,311</u>	11c
B-3	<u>Computed On- and Off- Branch Expenses</u>		12
	Locomotive ROI	\$ 2,383	14
	Car Costs	25,929	15
	Fringe benefits	34,311	16
	Subtotal	<u>\$ 62,623<sup>2</sup></u>	17
B-4	<u>Off-Branch Avoidable Expenses</u>		18
	Terminal costs	\$ 93,325	19
	Car costs	65,340	20
	Gross ton-mile costs	131,986	21
	Subtotal	<u>\$ 290,651</u>	22
B-5	<u>All Other Avoidable Expenses</u>		23
	Working Capital	\$ 15,700	24
	Administrative Costs	--	25
	Subtotal	<u>\$ 15,700<sup>3</sup></u>	26
	<u>Total Expenses (Lines 10,11c,17, 22,26)</u>	<u>\$ 579,592</u>	27
	<u>Operating Results (Line 4 minus Line 27)</u>	\$(226,208)	28 29
	Return on Value	\$ 274,949	30
	Operating Results including Return element (Line 29 minus Line 30)	\$(501,157)	31

<sup>1</sup>Based upon 65,552 loaded and empty car-miles over 34.92 miles.

<sup>2</sup>Omits \$119,530 for rehabilitation claimed by SP.

<sup>3</sup>Omits \$132,800 foregone tax benefit claimed by SP.

Source: Southern Pacific R-6 Worksheets for 1977.



### III. REVIEW OF THE CONDITION OF THE RAIL PLANT, EQUIPMENT AND FACILITIES

#### a. History of the Line

The Houston and Texas Central (H&TC) completed its link between Brenham and Austin (via Giddings) in 1871. The first Pullman service in Texas was established between Houston and Austin in 1872, utilizing this segment. The H&TC went into receivership in 1885 and the Southern Pacific obtained control in 1893. The current track was laid in the 1940's with rail rolled in 1920. No general rehabilitation has been done since the early 1940's.

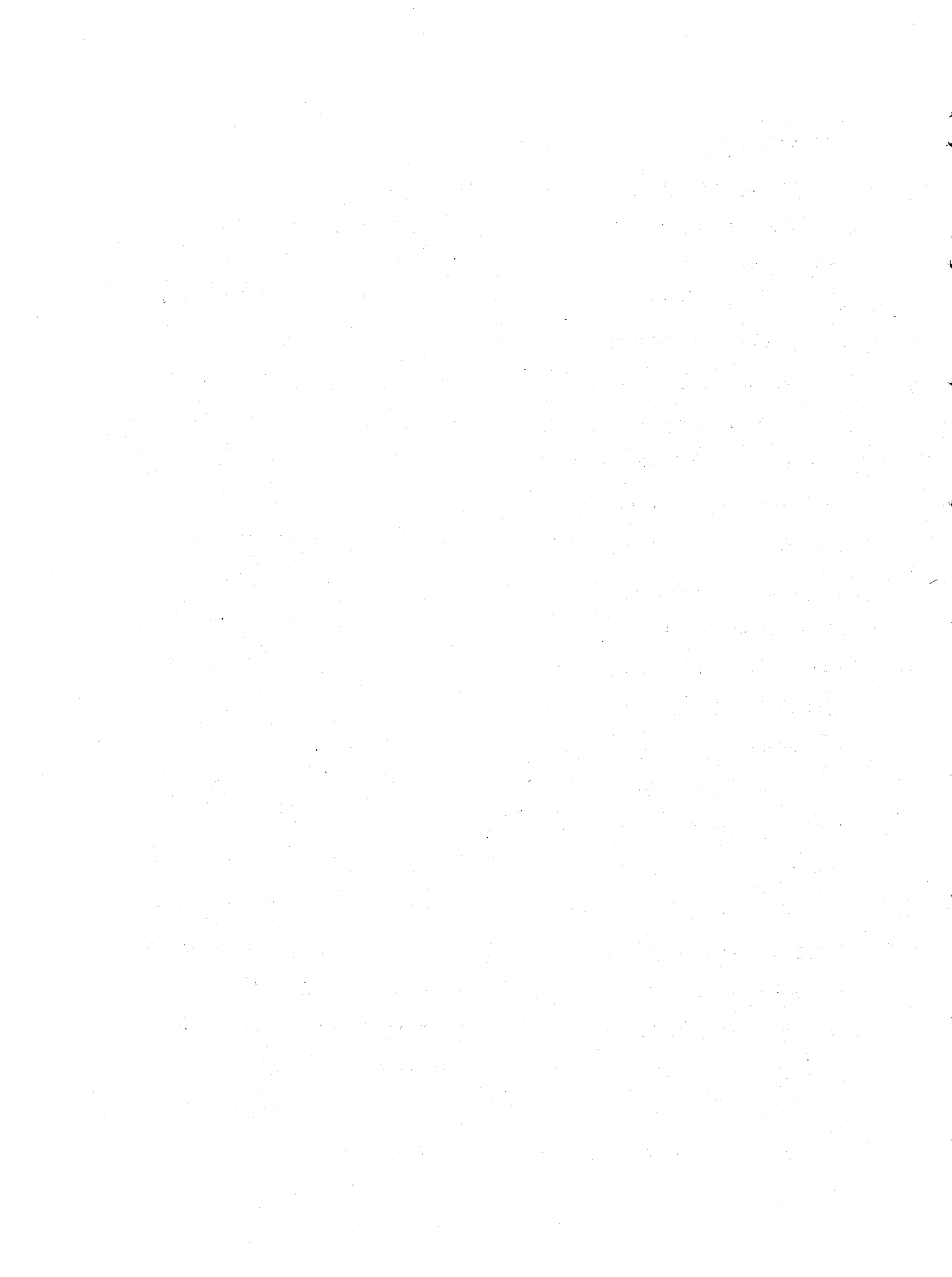
#### b. Description of the Layout of the Branch Line Stations

There are six stations on the Brenham to Giddings branch line. Giddings and Brenham would not be affected by an abandonment provided that the arrangements between the SP and Santa Fe cited at the hearings (see Part B, Detailed Analysis) are introduced. The four stations that would lose service are Mill Creek, Burton, Carmine, and Ledbetter.

#### c. Physical Characteristics

Visual inspection at several points along the line and observations from a "hi-rail" car inspection trip of the line indicated that the physical condition of the line is relatively good. The rail is 90-pound and was laid in the 1940's. Only 3% to 5% of the cross ties need replacement. Gravel ballast was added in the 1940's, the last time that a rehabilitation was undertaken. The ballast is ample, sound and draining well. The SP reports a possible bridge problem in the area between Carmine and Brenham. Timetable speeds permit a 28 mile-per-hour average speed over the line.

Industrial sidings--of both SP and Santa Fe--within the City of Brenham are in generally poor and dilapidated condition.





#### IV. ECONOMIC AND OPERATIONAL ANALYSIS OF PRESENT AND FUTURE SERVICE NEEDS

##### a. Economic Overview

##### 1. Definition of the Area of Impact

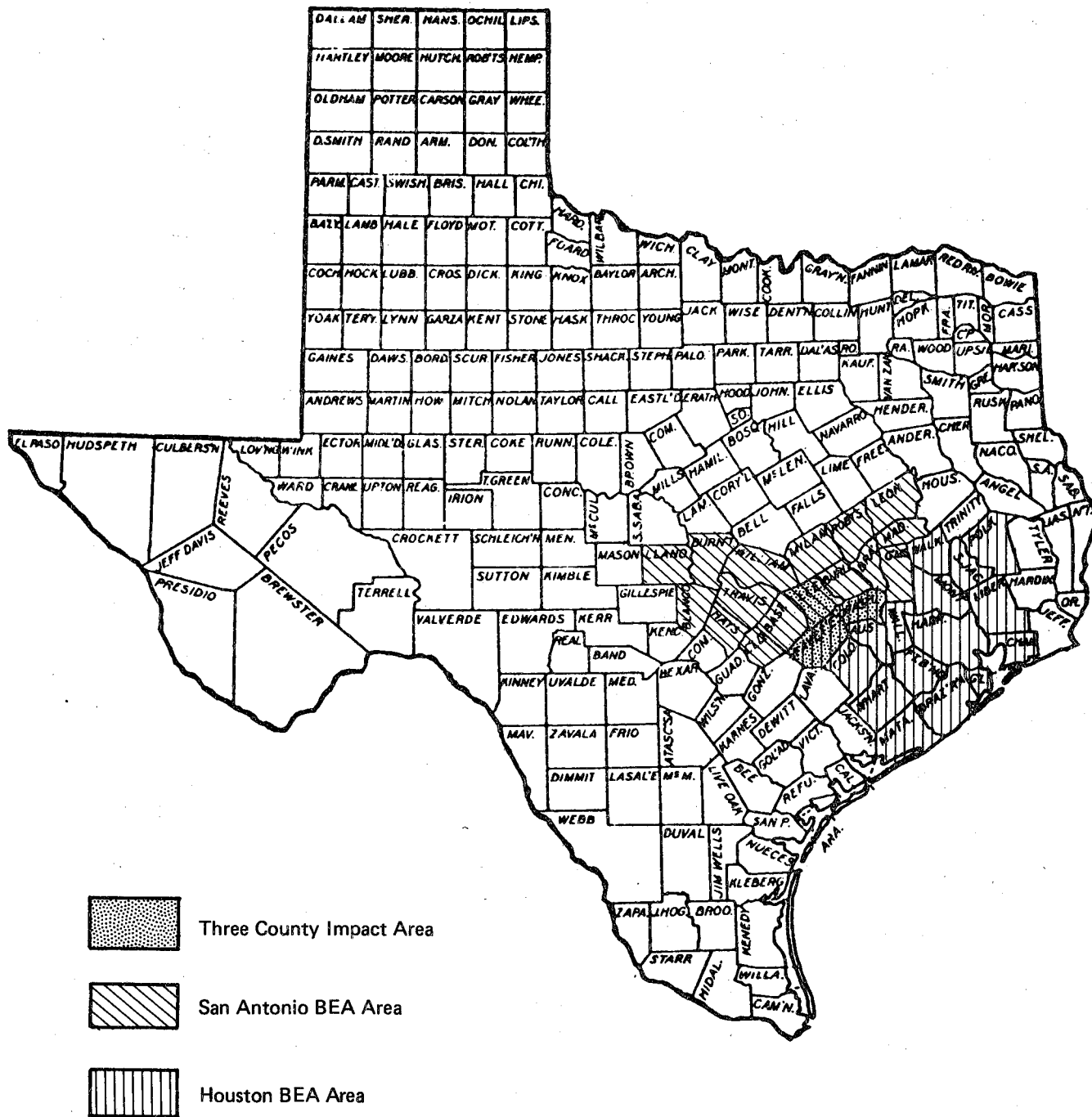
The Brenham to Giddings Branch Line runs through three Texas counties-- Washington, Fayette and Lee (see Figure 4). From east to west, the railroad line crosses through half of Washington County, the northern tip of Fayette County, and a small portion of Lee County.

##### 2. Population and Economic Trends

The population of the three-county area decreased steadily between 1900 and 1970 although it has grown slightly since then (see Table 6). From a high of 84,068 in 1900, the population fell to 44,540 in 1970 before it increased slightly to 46,718 in 1975. The pattern has been the same in all three counties except in Fayette where the population continues to decline.

Population projections developed by the Texas Water Development Board (now the Texas Department of Water Resources) indicate that the population of the three-county area will continue to decline through the year 2000. The exception is Washington County where a 4% increase is expected in the 1970-1980 decade followed by no change for the following two decades (see Table 7).

County population trends reveal little about the growth of the impact region since the line passes through such small portions of Lee and Fayette County. The economic activities in the two principal communities located at each end of the railroad line--Brenham and Giddings county seats of Washington and Lee Counties, respectively--are more indicative. Both have been growing steadily, such that the population of Brenham (10,329 in 1975) now represents 51% of Washington County's population whereas Giddings (3,470) accounts for 39% of Lee County's population. Giddings is expected to retain rail service.



**FIGURE 4 LOCATION OF LEE, FAYETTE, AND WASHINGTON COUNTIES WITHIN THE STATE OF TEXAS AND THE SAN ANTONIO AND HOUSTON BEA AREAS**

TABLE 6

POPULATION OF WASHINGTON, FAYETTE AND LEE COUNTIES  
1900 - 1975

	<u>1900</u>	<u>1910</u>	<u>1920</u>	<u>1930</u>	<u>1940</u>	<u>1950</u>	<u>1960</u>	<u>1970</u>	<u>1975</u>
<u>Washington County</u>	32,931	25,561	26,624	25,394	25,387	20,542	19,145	18,842	20,112
Brenham	5,968	4,718	5,066	5,974	6,435	6,941	7,740	8,922	10,329
% of County	18	18	19	24	25	34	40	47	51
Mill Creek	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	40
% of County	--	--	--	--	--	--	--	--	.2
Burton	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	325
% of County	--	--	--	--	--	--	--	--	2
<u>Fayette County</u>	36,542	29,796	29,965	30,708	29,246	24,176	20,384	17,650	12,048
Carmine	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	215
% of County	--	--	--	--	--	--	--	--	1
Ledbetter	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	76
% of County	--	--	--	--	--	--	--	--	.4
<u>Lee County</u>	14,595	13,132	14,014	13,390	12,751	10,144	8,949	8,048	9,558
Giddings	--	--	1,650	1,835	2,166	2,532	2,821	2,783	3,470
% of County	--	--	12	14	17	25	32	35	36
<u>Three County Area</u>	84,068	68,489	50,603	69,492	67,384	54,478	48,478	44,540	46,718

Source: Texas Almanac, 1978-1979. A. H. Belo Corporation, Dallas, Texas, 1977.

TABLE 7  
POPULATION TRENDS AND FORECASTS IN WASHINGTON,  
FAYETTE, AND LEE COUNTIES, HOUSTON AND AUSTIN BEA  
REGIONAL AREAS AND THE STATE OF TEXAS

	<u>1960-1970</u>	<u>1970-1980</u>	<u>1980-1990</u>	<u>1990-2000</u>
Washington County <sup>1</sup>	- 1.6%	4.0%	0	0
Fayette County <sup>1</sup>	- 13.4%	- 4.8%	- 6.5%	- 6.4%
Lee County <sup>1</sup>	- 10.1%	- 4.3%	- 6.5%	- 5.5%
Three County Average	- 8.1%	- 1.0%	- 3.6%	- 3.3%
Houston BEA <sup>2</sup>	31.0%	23.9%	23.1%	19.0%
Austin BEA <sup>2</sup>	15.7%	19.3%	15.5%	13.5%
State of Texas <sup>2</sup>	16.9%	19.7%	16.4%	17.2%

<sup>1</sup>Texas Water Development Board (now the Texas Department of Water Resources)  
Population Projections, 1976.

<sup>2</sup>U.S. Department of Commerce and Department of Agriculture, OBERS  
Projections of Economic Activity in the United States, Volume II,  
BEA Economic Areas, Washington, D.C., 1972.

Brenham may retain it if agreements between SP and the Santa Fe to have the Santa Fe serve Brenham are formalized.

Four other communities along the rail line are expected to lose rail service. Burton, the largest of these with a population of 325, does not currently use rail service. Carmine and Mill Creek, the two stations that are in use, have a combined population of 255. The fourth town, Ledbetter, has a population of 76. It appears that these communities have stable or declining populations.

The employment structure of the three counties, shown in Table 8 and 9, indicated an economy highly concentrated in the agricultural and trade sectors. Agriculture in the three-county area averaged 34% of employment in 1970 (ranging from a high of 41.9% in Fayette to a low of 26.8% in Washington County). This contrasts sharply with the state average of 4.4% and the Houston and Austin BEA averages of 3.1 and 9.9%, respectively.<sup>1</sup>

The wholesale and retail sector accounts for approximately the same level of employment in the three-county area as agriculture does. Employment in manufacturing and services is unusually low in the three-county area compared to the State and to the BEA areas, but in Washington County manufacturing, with about 23% of total employment, is as significant as agriculture and trade and, in fact, accounts for a higher percentage of employment than it does in the Houston area or in the State as a whole. In Fayette and Lee Counties manufacturing accounts for only 4.8% and 6.9% of employment, respectively. Plants manufacturing wood and metal products are concentrated in Brenham and Giddings. Metal product plants in Fayette County

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<sup>1</sup>The three-county impact area falls in both Houston and Austin BEA Areas (see Figure 4). These areas are a useful source for projecting economic activity and for comparative purposes. U.S. Department of Commerce and Department of Agriculture. OBERS Projections of Economic Activity in the United States. Volume II. BEA Economic Areas. Washington, D.C., 1972.

TABLE 8  
EMPLOYMENT IN WASHINGTON, FAYETTE AND LEE COUNTIES  
1970 and 1975

	<u>Washington County</u>		<u>Fayette County</u>		<u>Lee County</u>	
	<u>1970</u>	<u>1975</u>	<u>1970</u>	<u>1975</u>	<u>1970</u>	<u>1975</u>
Mining	-	-	103	10*	-	-
Contract Construction	385	431	150	164	286	424
Manufacturing	1,104	1,101	211	552	110*	235
Public Utilities	153	175*	91	90	14	40*
Retail & Wholesale Trade	1,165	1,323	1,417	1,556	419	581
Finance, Insurance, Real Estate	175	230	117	162	47	64
Services	495	393	471	505	218	330
Subtotal <sup>1</sup>	3,477	3,653	2,560	3,039	1,094	1,674
Agriculture <sup>2</sup>	1,271	1,144*	1,844	1,660*	493	444*
TOTAL	4,748	4,797	4,404	4,699	1,587	2,118

\* Estimated

<sup>1</sup> U.S. Department of Commerce, Bureau of the Census, County Business Patterns, Texas. CBP-75-45, Washington, D.C., 1976. (Excludes self-employed persons, farm employees, domestic workers, and railroad employees. Data are reported for county of employment.)

<sup>2</sup> U.S. Department of Commerce, Bureau of the Census. General Social and Economic Characteristics, Texas PC91- C45-Tex, April 1972. (Data on agricultural employment are not available for 1975 from The Census; an estimated 10% decline has been assumed.)

TABLE 9

DISTRIBUTION OF EMPLOYMENT IN WASHINGTON, FAYETTE  
AND LEE COUNTIES  
1970

	<u>Washington County<sup>1</sup></u>	<u>Fayette County<sup>1</sup></u>	<u>Lee County<sup>1</sup></u>	<u>Houston BEA Area<sup>2</sup></u>	<u>Austin BEA Area<sup>2</sup></u>	<u>State of Texas<sup>1</sup></u>
Agriculture	26.8	41.9	31.1	3.1	9.9	4.4
Mining	-	2.3	-	3.1	.8	2.4
Construction	8.1	3.4	18.0	10.1	7.5	7.0
Manufacturing	23.3	4.8	6.9	20.9	9.3	17.4
Public Utilities	3.2	2.1	.9	8.4	4.4	6.4
Wholesale & Retail Trade	24.5	32.2	26.4	20.6	19.1	20.9
Finance, Insurance, Real Estate	3.7	2.7	3.0	4.8	5.0	- <sup>3</sup>
Services	<u>10.4</u>	<u>10.7</u>	<u>13.7</u>	<u>28.9</u>	<u>44.0</u>	<u>41.5</u>
Total	100.0	100.0	100.0	100.0	100.0	100.0

<sup>1</sup>U.S. Department of Commerce, Bureau of the Census. General Social and Economic Characteristics, Texas. PC91-C-45 Tex., April 1972.

<sup>2</sup>U.S. Department of Commerce and Department of Agriculture. OBERS Projections of Economic Activity in the United States. Volume II. BEA Economic Areas. Washington, D.C., 1972.

<sup>3</sup>Included under Services.

are found in central and southern cities, La Grange and Schulenburg. While there are no indications that manufacturing activity will increase substantially, the Brenham Industrial Foundation's efforts to promote a 35-acre industrial park have had some results.

Employment in the service sector ranges between about 10 and 14% in the three counties compared with almost 40% for the State.

Non-agricultural employment opportunities have been increasing at a moderate rate whereas agricultural opportunities are decreasing. However, the counties exhibit high concentrations of employment in the State's slower growing sectors, such as agriculture, and lower proportions in rapidly growing sectors such as manufacturing and services. This implies that employment growth in the counties in the future will be relatively limited with current trends and patterns likely to continue. Employment growth will probably continue to occur at Brenham and Giddings.

The unemployment rate in the three counties is unusually low, probably partly due to the outmigration from the area (see Table 10).

Agriculture is the most important productive sector in the three counties. As shown in Table 11, production of most of the major agricultural commodities--livestock and livestock products, peanuts, corn and sorghums--increased between 1971 and 1976. However, farm products account for relatively little of the rail traffic in the area.

Petroleum and gas activity has been insignificant as shown in Table 12; oil production amounted to about 500 barrels per day in each county in 1975. Gas production amounted to about 500 MCF per day or less than 0.01% of the State's production of each. Recently, there has been an increase in oil drilling activity, particularly in Lee County near Giddings. As a result, several of the major oil-drilling service industries have established subsidiaries in Brenham.



TABLE 10  
UNEMPLOYMENT IN WASHINGTON, FAYETTE AND LEE COUNTIES  
AND THE STATE OF TEXAS  
1976 AND 1977

	<u>April 1976<sup>1</sup></u>	<u>October 1977<sup>2</sup></u>
<u>Washington County</u>		
Unemployment #	191	140
Unemployment %	2.2	1.6
<u>Fayette County</u>		
Unemployment #	149	168
Unemployment %	1.8	2.1
<u>Lee County</u>		
Unemployment #	74	113
Unemployment %	2.0	2.9
<u>State of Texas</u>		
Unemployment %	5.3	4.9

<sup>1</sup> Texas Almanac, 1978-1979. A.H. Belo Corporation, Dallas Texas, 1977.

<sup>2</sup> Texas Employment Commission. Labor Force Estimates for Texas Counties, Final October 1977. Austin, Texas.

TABLE 1!

## Production of Agricultural Commodities in 1971 and 1976

Commodity	Unit	Washington County		Fayette County		Lee County		Three-County Area	
		1971 <sup>1</sup>	1976 <sup>2</sup>	1971 <sup>1</sup>	1976 <sup>2</sup>	1971 <sup>1</sup>	1976 <sup>2</sup>	1971	1976
<u>Crops</u>									
Corn	Bushe1	255,000	266,000	433,000	501,400	89,000	79,400	777,000	846,800
Sorghum Grain	Bushe1	30,000	25,600	199,000	259,600	83,000	166,600	312,000	451,800
Hay & Silage	Ton	48,100	48,000	81,290	67,000	14,050	26,900	143,440	941,900
Oats	Bushe1	1,300	8,200	800	9,200	1,200	11,000	3,300	28,400
Cotton	Bale	920	-	1,400	-	-	-	2,320	-
Wheat	Bushe1	-	-	2,000	6,000	16,200	17,000	18,200	23,000
Peanuts	Pound	-	-	951,000	1,702,000	6,422,000	10,329,000	7,373,000	12,031,000
Cowpeas	Pound	-	-	27,000	-	-	-	2,700	-
Soybeans	Bushe1	-	-	-	15,800	-	-	-	15,800
<u>Livestock &amp; Products</u>									
Cattle <sup>3</sup>	Number	64,000	102,000	86,000	135,000	54,000	98,000	204,000	335,000
Hens <sup>3</sup>	Number	84,000	111,000	472,000	472,000	121,000	66,000	677,000	649,000
Hogs <sup>3</sup>	Number	6,100	4,100	29,200	24,600	17,000	8,300	52,300	37,000
Eggs	Dozen	1,454,000	2,166,666	6,547,000	8,800,000	1,845,000	1,167,000	9,846,000	12,133,666
Milk	Ctn.	309,880	293,000	421,230	267,000	29,650	14,000	760,760	574,000

<sup>1</sup>U.S. Department of Agriculture and Texas Department of Agriculture. 1971 Texas County Statistics. Bulletin 92, August 1972.

<sup>2</sup>U.S. Department of Agriculture and Texas Department of Agriculture. 1976 Texas County Statistics. Bulletin 152, September 1977.

<sup>3</sup>On farms on January 1, 1972.

TABLE 12

PETROLEUM AND GAS STATISTICS FOR WASHINGTON,  
FAYETTE AND LEE COUNTIES, 1975

<u>County</u>	<u>Crude Oil Barrels</u>	<u>Natural Gas MCF</u>
Washington	149,413	171,232
Fayette	238,825	100,421
Lee	156,303	152,857
State	1,189,740,007	7,990,133,290

Source: Texas Almanac, 1976-1977. A. H. Belo Corporation,  
Dallas, Texas, 1977.

There are known lignite deposits of the Jackson, Yegua and Wilcox formations crossed by the Brenham-Giddings segment. Although testimony by a witness for the State suggested the possibility that the segment should be retained in order to transport lignite, no quantification of timing or quantities was offered. Current information makes it difficult to forecast when development might occur.<sup>1</sup>

### 3. Implications of Trends for Future Rail Traffic

The demographic and economic situation discussed above has a number of important implications for future rail traffic:

- The limited potential for development in areas of the counties outside the principal cities of Brenham and Giddings restricts the potential for increased originating and terminating traffic.
- Brenham, located on the end of the branch line, is growing and should generate more rail traffic. Some of it would undoubtedly move over the Santa Fe, but a substantial amount would pass over the Brenham-Giddings line as present traffic does now, if the line continued in operation.
- The small towns located along the line are unlikely to generate much new traffic.
- Agricultural production is increasing, but none of the crops is currently shipped out over the Brenham-Giddings line. Livestock feed is the only potential growth area and even this is limited.

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<sup>1</sup>Testimony by Dr. William R. Kaiser before the Interstate Commerce Commission, Docket No. AB-12, Sub. 56, April 3, 1978, Tr. 219-245. The Lower Colorado River Authority (LCRA) by a letter of January 12, 1979, indicated a possibility of mining lignite from an area both north and south of the Brenham-Giddings rail segment to serve a proposed plant, east of LaGrange. The Authority states that it has acquired 15,000 acres and might commence operations by 1986, involving an estimated 3.5-7.0 million tons per year. The LCRA did not participate in the abandonment proceeding before the ICC.

- Oil and gas will not generate much traffic unless major new discoveries are made requiring oil field materials.

In short, the economic characteristics and trends in the impact area imply that there are few opportunities for substantial increases in O&T traffic over the Brenham-Giddings line. Growth in Brenham is the only exception and the City will retain alternative service if agreement is reached between the SP and the Santa Fe for operation by the Santa Fe in the Brenham area. The only other possibility for new traffic is aggregate traffic now moving over an alternative route, but which could bridge the rail segment (see Section I-a).

b. Current and Projected Rail Freight Operations and Traffic

1. Current Rail Operations

Rail service is provided on the branch line an average of three times per week. Hearing testimony and the on-branch statistics that underlie the SP cost calculations show the number of round trips for 1975, 1976 and the nine months of 1977 as 165, 153 and 118, respectively. The single-locomotive train originates and ties up at Austin. It performs local switching work over the 59.2-mile route between Austin and Giddings, in addition to work on the Giddings-Austin branch and some industry switching for the Santa Fe at Brenham. The average number of cars handled on the branch per trip is six. This service level is not perceived as adequate by some rail users; several complain of unreliable delivery, misrouted cars, and delays in receipt of cars.

Speed restrictions between Giddings and Brenham range between 25 and 35 miles per hour. The estimated round-trip time is about four hours, made up of one hour and 15 minutes running eastward, two hours running westbound, 30 minutes switching, and 15 minutes tie-up time.

Within Brenham, both SP and Santa Fe perform reciprocal switching, with SP switching about 100 cars per year for Santa Fe.

## 2. Current and Projected Rail Freight Traffic

As indicated in Section I-b, the principal shippers on the Brenham-Giddings are located in Brenham, although a number of smaller shippers are located in Giddings. One shipper is located at Mill Creek and a major user is at Carmine.

Current rail use is shown in Tables 1 and 2. Table 2 in Section I-b also shows the projected rail use by shipper for 1980, based on a survey of the principal shippers.

Rail traffic generated by the Brenham shippers in 1980 is expected to total 1,062 carloads compared with 842 in 1977. Brenham Wholesale Grocery, Green Grain, and Texas Fibers will account for 75% of this traffic. This traffic would not be significantly affected by an abandonment if the Santa Fe agrees to acquire and serve the 2-1/2 miles of track in Brenham.

The traffic over the rest of the line is expected to be about 322 cars, of which 310 will be generated by Jacobs Store and 12 by Luedemann's Grocery and Mill.

V. ANALYSIS OF THE IMPLICATION OF ABANDONMENT ON THE TRANSPORTATION NEEDS OF THE STATE

a. Relationship of the Line Segment and Its Traffic to the State Rail System and Its Rail Traffic

The relationship of the Brenham-Giddings line to a number of other lines in the vicinity has been discussed elsewhere in connection with the potential movement of bridge traffic. The segment itself is designated as SP 027 in the U.S. Department of Transportation, Final Standards, Classification and Designation of Lines of Class I Railroads in the United States (1977). It is categorized as a Category A branch line, carrying 1-5 million gross tons annually. This characterization is at odds with evidence that only approximately 1,000 cars per year are carried on the line, since the combined lading plus tare weight of 1,000 cars, including empty return is approximately 125 tons (65 tons lading plus twice 30 tons tare); trailing gross tons cannot exceed 125,000 gross tons annually. Locomotive tare might add another 37,500 gross tons (125 tons x 150 one-way trips x 2), for a total of 162,500 gross tons. No explanation for the wide discrepancy is available other than the possibility of error in the DOT publication.

The connecting lines at the Giddings end are designated SP 182 (to Austin), a Category A branch line, and the north-south SP Category A main lines, SP 168 (20-30 million gross tons) between Giddings and Caldwell, and SP 179 (over 30 million gross tons) between Giddings and West Point. At the Brenham end of the subject line, Santa Fe Category A main lines are SF 271 (20-30 million gross tons) between Brenham and Somerville, and SF 270 (20-30 million gross tons) between Brenham and Sealy.

b. Relationship of the Line Segment to Highways, Waterways, and Other Modes of Transportation

East Central Texas is served by excellent, all-weather, two and four-lane highways. United States Highway 290 parallels the segment between Giddings and Brenham. State Highway 90 intersects with U.S. 290 in Brenham and State Highway 105 ends in Brenham.

c. Special Considerations

There are no special crops that would be adversely affected by an abandonment of the line. Supplies for potential oil and gas fields could be brought in by alternative rail lines or other modes of transportation. Lignite deposits exist in the three counties although the timing of any development is uncertain. Higher quality deposits are being exploited elsewhere in Texas. The likelihood of the deposits near Brenham and Giddings being exploited will depend on a combination of increasing fuel and transportation costs and environmental regulations (see Chapter IV-a.2).



VI. RELATIVE ECONOMIC, SOCIAL, ENVIRONMENTAL, AND ENERGY COSTS AND BENEFITS RESULTING FROM THE SELECTION OF ALTERNATIVES

a. Identification of Alternatives

The principal reason for the SP abandonment application on the Brenham-Giddings rail segment is that there is limited traffic potential that cannot be accommodated by alternative routings. Without bridge traffic or significant new on-line traffic development, prospects for segment viability are slight. The line is, at best, marginally profitable based upon our segment analysis, and significantly unprofitable based upon SP claims. In either case, continuation subsidy would require substantial public outlays for a return on value element in addition to meeting direct operating losses.

At the same time, the line segmentation decision of SP to provide for service to Brenham rail users by transfer of operations to Santa Fe effectively restricts impacts to the one major rail user at Carmine whose operations would be significantly affected by the abandonment. Possible alternatives to complete abandonment, such as stub-end operations from Giddings to Carmine by SP or from Brenham to Carmine by Santa Fe would in effect require continued operation of approximately half the line for about one-fourth of the traffic. Such alternatives would be costly to the public in exchange for limited benefits.

In view of SP's stated intention to provide for continued rail service at Brenham through conveyance of trackage to Santa Fe, only one alternative to abandonment of the whole line was considered; continued service at Brenham but abandonment of the remainder of the line.

b. Economic, Social, Energy, and Environmental Costs and Benefits

Table 13 compares the likely impacts of abandonment of all service on the entire Brenham-Giddings rail line with those of the likely alternative of continued service on that portion serving users located in Brenham. The specific economic, energy, environmental and community impacts presented in the table include:

- Employment - net change in employment resulting from the loss of jobs in businesses adversely affected by abandonment less the increase in jobs to additional workers employed in trucking (or other activities).
- Payroll - net change in payroll estimated to be associated with the change in employment.
- Unemployment - net change in unemployment anticipated as a result of the abandonment.
- Transportation Costs - additional costs of transporting goods by alternative mode (e.g., truck), to the nearest rail head, including annualized capital costs for new transportation facilities such as trucks and loading docks.
- Investment - investment lost (especially in recently constructed rail facilities) and future investment that would not be made should rail service be abandoned.
- Taxes - local taxes (or in the long term, foregone), due to abandonment of the rail line, closing of certain plants, or decisions to cancel planned investment.
- Other Public Costs - increase in unemployment compensation.

- Energy - net change in fuel consumption due to a shift to alternative transportation modes.
- Environmental Effects - change in air emissions such as increase in hydrocarbons, nitrous oxides, carbon monoxides and particulates due to change in fuel consumption resulting from modal shift.
- Community Effects - change in development potential and population that is likely to occur in the Impact Area as a result of the cumulative effects of abandonment.

The impacts of abandonment would be severe, however, if Santa Fe service is not extended to Brenham rail users. If the line were discontinued and the agreement between the SP and Santa Fe to have Santa Fe provide service to the Brenham area were not carried out, a large number of shippers would be affected (see Table 2). Of the total number of carloads carried on the line annually, about 75% are accounted for by Brenham shippers. This situation would result in serious impacts for the principal Brenham rail users, which can be summarized as follows:

- Brenham Wholesale Grocery would experience a significant increase in transportation costs. In order to switch to trucking, the firm claims it would have to build new facilities and purchase 4-5 new trucks. The cost was estimated at about \$500,000. The higher trucking rates would involve an additional transportation cost as well. The need to unload trucks quickly would represent an inconvenience. Together, these impacts might hurt the firm's competitive position.

- Green Grain is now 100% dependent on rail for its supplies. The firm estimates that trucking the 52 carloads of feed and grain currently received by rail would cost an additional \$6.85 per ton or \$35,620. The beer and other commodities would also involve higher costs. A truck might have to be purchased. Trucking would also be an inconvenience in that trucks have to be unloaded immediately.
- Texas Fibers has a warehouse located on the Santa Fe line which has not been used in years. In the event of an abandonment, this facility and the rail siding would have to be rehabilitated at a cost estimated by the firm to range between \$5,000-\$10,000. This cost might be higher, since the 200 foot long siding is in serious disrepair.
- Blue Bell Creameries receives its liquid syrups via the SP. A liquid pump station, located on the SP, is indispensable for unloading the syrup. The pump station cannot practically be moved or rebuilt at the Santa Fe facility because of inadequate space. This would force the firm to truck the syrup at a considerably higher cost which would be passed on to the consumer. Unloading facilities would also have to be revamped.
- Brentex Mills receives starch and polyester via the SP. The starch is stored in a silo along the SP track. In the event of abandonment, rebuilding the silo or constructing a pipe to the plant would cost between \$50,000-\$70,000. The firm estimates that trucking starch would cost \$1.47 per hundred pounds more than it would cost by rail or \$10,832 annually. Trucking

polyester would cost an additional \$1.10 per hundred pounds or \$30,395 per year.

- Beaumier Iron Works would have to unload its drilling mud at the Santa Fe team loading facility. This would require the purchase of a truck and the hiring of one or two additional people for a total increase in costs of about \$15,000 annually. The firm believes that abandonment would adversely affect its ability to expand.
- Brenham Produce is 50% rail dependent, but presently uses both the SP and the Santa Fe.
- Milchem would incur higher transportation costs as a consequence of an abandonment. The firm is concerned about the impact of these costs on the firm's competitiveness.

As shown in Table 13, the greatest impact of abandonment, in the event that the Santa Fe does not acquire the 2 1/2 miles of Brenham trackage, would be \$377,275 to \$464,105 in additional transportation costs incurred annually by the rail users. These estimates may be conservative since they assume trucking to the nearest rail head (the Santa Fe line in Brenham). Similarly, the estimates of additional fuel consumption and fuel emissions are conservative. This scenario would also adversely affect the development potential in Brenham, as well as in the other communities along the line. Brenham has been growing rapidly. The SP serves many of the major employers in Brenham and also passes through locations with potential for future industrial development such as the Industrial Park.

TABLE 13

SOCIOECONOMIC IMPACTS OF ABANDONMENT OF THE  
BRENHAM-GIDDINGS RAIL SEGMENT

	ANNUAL IMPACT	
	<u>Abandonment of all Service Including Brenham</u>	<u>Alternative 1 Abandon Service; Santa Fe Serves Brenham</u>
ECONOMIC IMPACTS		
<u>Employment Changes</u>		
Direct employment		
Current	0	0
Future	0	0
Unemployment		
(Number)	0	0
(Rate )	0	0
Payroll		
Current	0	0
Future		
<u>Transportation Costs<sup>1</sup></u>		
Additional cost of transporting goods		
Current	\$306,275	\$ 81,300
Future	393,105	116,300
Capital cost of facilities & equipment <sup>2</sup>		
Current	71,000	4,000
Future	71,000	4,000
<u>Investment<sup>1</sup></u>		
Amount of investment "lost" (companies)		
Current	0	0
Future (foregone)	0	0
<u>Taxes<sup>1</sup></u>		
Amount of local taxes "lost"		
Current	0	0
Future	0	0
Amount of railroad taxes "lost"		
Current	13,000	12,000
Future	13,000	4,000
<u>Other Public Costs<sup>1</sup></u>		
Increase in unemployment benefits	0	0

TABLE 13  
(Continued)

	ANNUAL IMPACT	
	Abandonment of all Service <u>Including Brenham</u>	Alternative 1 Abandon Service; <u>Santa Fe Serves Brenham</u>
ENERGY IMPACTS		
<u>Net change in fuel consumption</u> (gallons per year)		
Current	4,996	3,911
Future	6,935	5,600
ENVIRONMENTAL IMPACTS		
<u>Net change in emissions</u> (pounds per year)		
<u>Current</u>		
HC	119	93
NO <sub>x</sub>	1,849	1,447
CO	1,236	967
SO <sub>x</sub>	99	78
Particulates	49	40
<u>Future</u>		
HC	165	133
NO <sub>x</sub>	2,564	2,070
CO	1,713	1,383
SO <sub>x</sub>	139	112
Particulates	70	57
<u>Impact on Air Quality</u>	Negligible	Negligible
COMMUNITY IMPACTS		
<u>Change in Population</u>	Negligible	Negligible
<u>Change in Development Potential</u>	Some	Negligible

<sup>1</sup>All dollars are 1977 constant dollars.

<sup>2</sup>Depreciated over 10 years.

Formalization and implementation of the agreement to have the Santa Fe take over Brenham service would limit the impact to two regular rail users and one former user who would lose all rail service. The impacts on these three users can be summarized as follows:

- Luedemann Grocery and Mill reports that it would truck all of its feed from Brenham in the event of an abandonment. Since the firm already has to truck the feed two miles from a team track to the store, abandonment would involve driving only four additional miles and increased transportation costs of \$300 annually.
- Jacobs Store would have to truck 220 to 310 carloads of feed 19 miles from Brenham to Carmine in the event of an abandonment. The additional cost of trucking has been estimated by Jacobs to be \$3.80 per ton based on rail freight costs of \$2.80 per ton compared with truck rates of \$6.60 per ton.<sup>1</sup> This means the additional transportation cost would be about \$57,000 at current shipping levels and \$81,700 after the planned expansion takes place. However, if the additional costs of both transporting and handling the goods are considered, the additional transportation costs would be \$81,000 currently, and \$116,000 in 1980. The loss of rail service is not expected to have any effect on either the present level of operations or on the planned expansion.

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<sup>1</sup>Petition of Jacobs Store filed before the ICC on February 18, 1977.



- Cities Service Corporation has utilized service in the past but has not used it in the last few years. Hence, it appears that this firm would not be adversely impacted by an abandonment.

Thus, the most significant effect of the abandonment in the likely event that the Santa Fe continues to serve Brenham, would be an increase in transportation costs of \$121,300 immediately and \$146,000 in two years (see Table 13). Almost all of these costs would be incurred by one rail user, Jacobs Store, which would also incur a capital cost of \$40,000. Jacobs Store representatives indicate that the increased costs, which are equivalent to 1/2¢ per dozen of eggs, would not harm present operations or future expansion plans. The community impact is negligible; there will be no loss of employment, although property taxes would be reduced by \$12,000 unless and until the abandoned property can be re-used for other tax-paying purposes. While some development potential might be lost, the area along the line is economically stable and the two main points of activity--Brenham and Giddings--would retain service. There is some concern among Brenham shippers that the quality of service would deteriorate if they had to depend on only one carrier. The railroad would be expected to improve its operating profitability as a result of abandonment.

In summary, the public impacts of abandonment depend on whether or not the agreement between the Santa Fe and the SP regarding 2 1/2 miles of trackage in Brenham is formalized and implemented. If the agreement does materialize, the public impacts of abandonment are relatively limited. In view of the lack of public impacts, no alternatives to

abandonment were evaluated, pending formalization and implementation of the agreement between the SP and Santa Fe. Should this agreement not be carried out, alternatives would have to be reassessed.

VII. EVALUATION OF METHODS OF ACHIEVING ECONOMIES IN THE COST OF RAIL SERVICE OPERATIONS ON LINES ON WHICH SERVICE WILL BE CONTINUED

The implementation of the agreement between the SP and the Santa Fe would represent a method of achieving economies in the cost of rail service operations on the segment in Brenham. The two carriers presently perform reciprocal switching at Brenham. The SP's crew is based at Austin. Some economies might be achieved if all switching duties were performed by the Santa Fe crew based in Brenham.



VIII. THE COMPETITIVE OR OTHER EFFECTS ON OR BY PROFITABLE RAILROADS

a. Competition

The transfer of service in Brenham to the Santa Fe, agreed upon by both and included in the current SP proposal but not as yet formalized, would not alter competitive conditions between the two lines to any significant degree. The amount of traffic transferred, which is most of the traffic on the Brenham-Giddings segment, would be a very small part of the total traffic hauled by each line.

b. Profitability

Abandonment of the Brenham-Giddings rail line would increase the profitability of the SP to some degree by eliminating the annual loss presently experienced by the railroad in operating the line and by realization of revenues from the sale of trackage and right-of-way.



## IX. CONSIDERATIONS RELATING TO RAIL BANKING

It is possible that the Brenham to Giddings rail segment might be considered a candidate for rail banking, at least to the extent of maintaining the right of way. Substantial lignite deposits exist in the area, of lower quality than those currently being exploited. If energy costs, using other fuels, continue to increase, it is possible that the lignite deposits in the Brenham-Giddings area may be of increased value, warranting exploitation (see Chapter IV-a.2).





X. DESCRIPTION OF THE ALTERNATIVES EVALUATED TOGETHER WITH AN ANALYSIS OF THE RELATIVE ADVANTAGES, DISADVANTAGES AND COSTS ASSOCIATED WITH EACH ALTERNATIVE

As indicated in Section VI, the only alternative to abandonment of the entire Brenham-Giddings rail line evaluated was abandonment of all but the 2.66 miles serving Brenham users. Should the appropriate agreements between the Santa Fe and the SP not be formalized, alternatives to abandonment might have to be reassessed.



XI. CONCLUSION OF THE STATE AS TO WHETHER THE ALTERNATIVE SHOULD BE SELECTED FOR FEDERAL OR STATE ASSISTANCE

No federal or state assistance is contemplated at this time. However, it is essential that the Commission ensure that the appropriate agreements are filed with the I.C.C. to have the Santa Fe take over and operate the 2.66 miles of track in Brenham between Mileposts 19.23 and 21.89, thus providing continuing service to Brenham shippers.



XII. STATEMENT OF THE STATE'S FUTURE ROLE ON EXPIRATION OF FEDERAL ASSISTANCE

No Federal financial assistance is contemplated.











Segment Analysis  
SOUTHERN PACIFIC RAILROAD  
Llano-Scobee

RAILROAD COMMISSION OF TEXAS

With

Technical Assistance

of

Arthur D. Little, Inc.

October 1978

Revised January 1979

1. The first part of the document

describes the general situation

and the main objectives

2. The second part of the document

describes the

main results of the study

and

the conclusions drawn from them

3. The third part of the document

describes the

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## PART A. SUMMARY

### 1. Introduction

The Southern Pacific Transportation Company (SP) has given notice that an abandonment application may be filed with the Interstate Commerce Commission (ICC) within the next three years for the Llano-Scobee rail segment, which is classed as a Category 1 line in accordance with 49 CFR 1121.20(b)(1). This 25 mile long rail line is located between Scobee in Burnet County and the City of Llano in Llano County, where it ends. It is located about 50 miles northwest of Austin.

There are eight rail users on the line, seven of whom are located at or near the end of the rail line in the City of Llano. About three-fourths of the traffic tonnage and 60% of the carloads are generated by one company, the Wootan Farm and Ranch Center. Since this is the only rail line in Llano County, abandonment would mean the loss of all direct rail service there. The SP would continue to provide service to most of Burnet County and no rail shippers in Burnet County would be affected by the abandonment.

### 2. Traffic Characteristics

A total of 333 carloads of rail traffic (approximately 13 cars per mile) carrying 19,073 tons was shipped over the rail segment in 1977, in contrast to 57 cars and 1,652 tons in 1973. The bulk of the increase was attributable to two feed suppliers, Wootan Farm and Ranch and Llano Feed and Supply. Nearly all of the 1977 traffic terminated on the line (330 carloads); only three carloads carrying a total of 60 tons originated on the line. The principal commodities carried on the line were soybean meal (160 carloads), commercial feed (98 carloads), corn solubles (35 carloads), chemicals (15 carloads) and granite and related products

(7 carloads); combined these accounted for 95% of the traffic on the line.

Estimates of future traffic indicate an increase to 350 carloads annually. This estimate is based on the planned expansion of current rail users, especially the Wootan Farm and Ranch Center. Recently, a granite quarry operator, A.B. Snead, reported receiving a one-year contract for 1,000 carloads of jetty stone. Although this would result in a dramatic increase of traffic in the next year, the firm is not sure whether this level can be sustained in the long run. There are also possibilities for additional rail use by a company reported to be developing a limestone deposit in Llano County. If service on the rail line continues, the company expects to begin shipping 80-car-unit trains of crushed limestone materials every other day beginning in 1980.

### 3. Economic Characteristics

The Llano-Burnet area generally is rural in character. Its population was 24,400 in 1975. The City of Llano, the largest community on the rail segment, had a population in 1975 of 2,956. The largest employment sectors are agriculture, mining, construction, trade and services. The share of employment in manufacturing is one-half that for the Austin area and less than one-fourth that for Texas.

The two-county area's population is expected to increase by about 14% to 15% each decade for the rest of this century, a substantial slowdown from the rapid growth experienced between 1960 and 1975 when the two-county population increased by over 68%. Llano County, in which the rail line is mainly located, has grown slower than adjoining Burnet County and is expected to continue to grow less rapidly in the future.



#### 4. Impact of Abandonment

Abandonment of the rail line would mean the elimination of all rail service in Llano County. Most severely affected would be the Wootan Farm and Ranch Center, which reports it would lose two-thirds of its business--a reduction of \$4 to \$5 million in sales--as well as 9-10 jobs, accounting for about \$90,000 in wages. If higher transportation costs, resulting from truck shipments, caused Wootan to lose this business, it is likely that the turkey growers to whom they sell the feed would have to relocate or cease operations, thus reducing employment by up to an additional 100 persons.

Some other rail users, such as Premier Granite Company (which brings in silicon carbide by rail) and Thompson-Hayward Chemical Company (which brings in chemicals), would experience significantly higher transportation costs, as well as difficulty in having some materials used in their operations shipped by truck. Other activities (especially farming and ranching), which are located in Llano County and in Mason County (to the west) would be indirectly affected by abandonment, largely due to higher costs for fertilizer and feed, resulting from higher transportation costs.

Opportunities for mineral extraction, including jetty stone, dolomite, and iron ore ballast would be seriously curtailed by loss of rail. At least one project involving crushed limestone materials is known to be planned. A granite quarry operator also recently acquired a 12-month contract for 1,000 railcars of jetty stone to be hauled during 1979.

The loss of rail service is likely to cause a slightly higher unemployment rate. Loss of job opportunities and cancellation of some expansion plans would slightly reduce the expected rate of economic and population growth in Llano County.

Transportation costs would be expected to increase as a result of the shift from rail to truck transportation. The added annual cost to present users of shipping by truck is estimated to amount to nearly \$59,000 currently and to over \$62,000 by 1980. In addition, capital equipment acquisitions such as trucks, loading docks and other related facilities are estimated to require a one-time investment of \$70,000.

Abandonment of the rail line could result in an annual net loss of \$3,089 in local property tax revenue paid by the railroad. After abandonment and removal of the track, the right-of-way would probably be used for farming and grazing and considerably lower taxes would be paid on it. Loss of this tax revenue would have little effect on the finances of Llano and Burnet Counties, however.

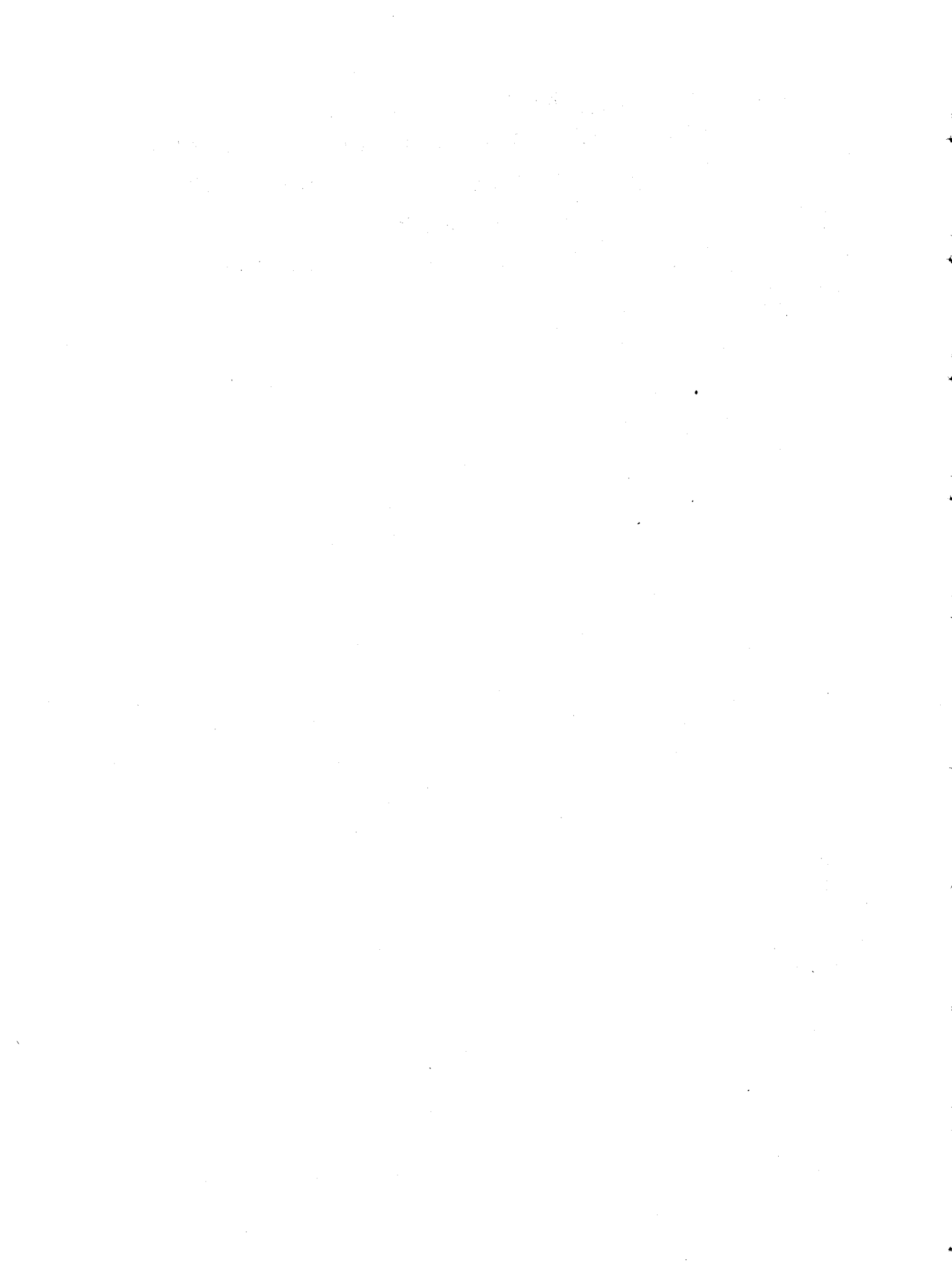
Abandonment would slightly improve the profitability of the railroad by reducing the net annual loss on this segment, estimated at \$30,687 in 1977.

#### 5. Alternatives to Abandonment

One alternative to abandonment was considered: to provide an operating subsidy to the SP to ensure continuation of service for three years, during which time additional freight traffic potential from the development of dolomite and other mineral deposits in Llano County could be evaluated.

## 6. Inclusion in Certified Program of Projects

Because of the favorable outlook for substantial increases in rail traffic, the Llano-Scobee line is recommended for inclusion in the Certified Program of Projects. The Railroad Commission of Texas will also monitor the status of mineral development projects contemplated for the area served by the line.



PART B. DETAILED ANALYSIS

1. Description of the Line

a. Proposed Action

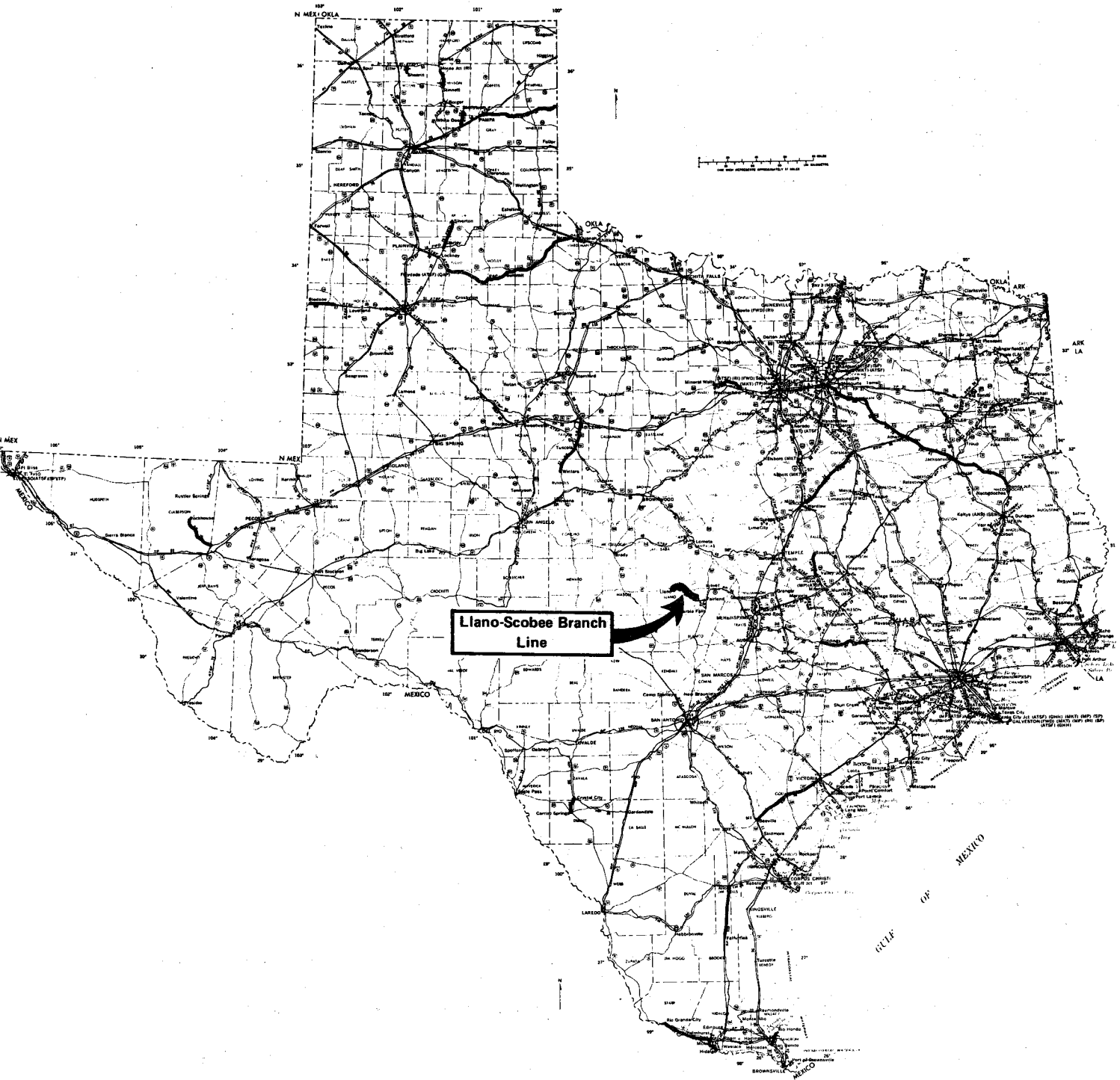
The Southern Pacific Transportation Company has filed notice that it may submit an abandonment application to the ICC for the branch line segment between Llano and Scobee, a Category 1 line [49 CFR 1121.20(b)(1)].

b. Description of the Rail Segment

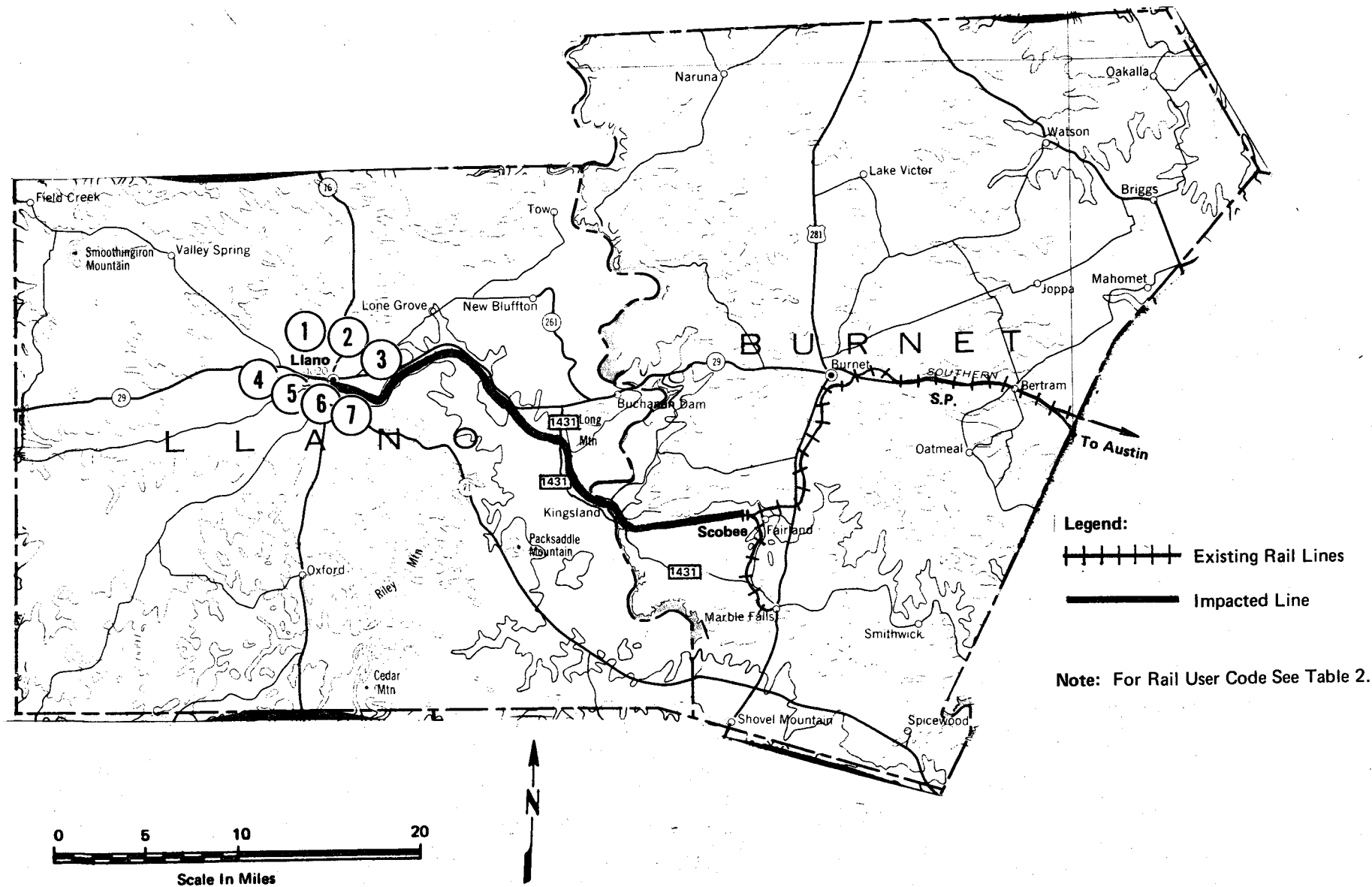
The subject rail segment is 25.07 miles in length and located wholly within the counties of Llano and Burnet in the State of Texas. The two counties are located to the northwest of Austin. The segment begins at Milepost 74.0 at Scobee, Burnet County and terminates at Milepost 99.07 in the City of Llano, Llano County. Approximately 20 miles of the segment are in Llano County; this is the only rail line in the county. Approximately five miles of the segment are in Burnet County, representing about 10% of the miles of rail line in that County.

The branch line diverges from a Southern Pacific line in Burnet County near the town of Fairland. Scobee is the beginning of the designated segment and is located to the west of Fairland near the Llano-Burnet County line.

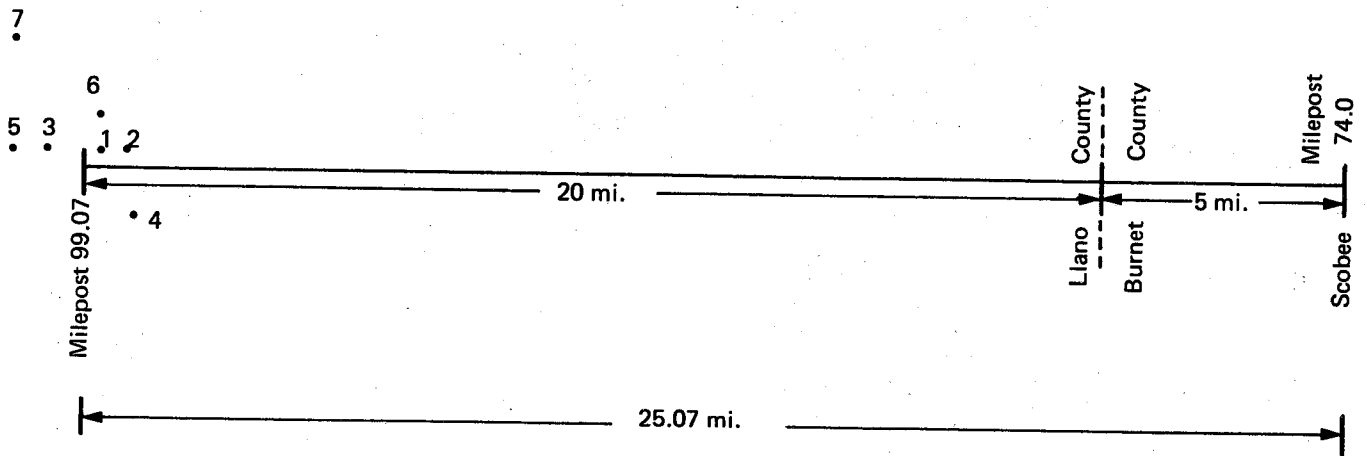
Figure 1 shows the relationship of the Llano-Scobee segment to the rest of the State's rail system. Figure 2 shows the location of the segment in Llano and Burnet Counties, while Figure 3 is a schematic representation of the segment being considered for abandonment, showing significant mileposts, shipper location and stations.



**FIGURE 1 LOCATION OF LLANO-SCOBEE LINE IN RELATION TO THE TEXAS RAIL SYSTEM**



**FIGURE 2 LOCATION OF LLANO TO SCOBEE RAIL SEGMENT OF THE SOUTHERN PACIFIC RAILROAD IN LLANO AND BURNET COUNTIES**



1. Wootan Farm and Ranch Center
2. Llano Feed and Supply Co.
3. Thompson-Hayward Chemical Co.
4. Buttery Hardware
5. Premier Granite Quarries
6. Hasse Bros. Feed Co.
7. Central Texas Electric Co-op

Not Shown: Donop Feed (in Mason, 34 miles west of Llano)

Source: Field Survey of Rail Line and Supplementary Sources.

**FIGURE 3 SCHEMATIC DIAGRAM OF THE LLANO-SCOBEE RAIL LINE AND LOCATION OF ITS SHIPPERS**



## I. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS ON THE LINE OF THE RAILROAD

### a. Freight Traffic

Nearly all traffic carried on this line is destined for Llano. In 1977, terminations totalled approximately 330 cars or about 19,000 tons of materials, and originations amounted to 3 cars and 60 tons. The bulk of the commodities received by firms in Llano is commercial feed and components, which are subsequently distributed to local ranchers (Table 1). The feed components (soybean meal, corn solubles, phosphoric acid) are blended into dry feed mixtures and liquid feed supplement used in raising turkeys, hogs and cattle. Granite is also unloaded in Llano, along with other materials used in the finishing of granite for commercial purposes. Some chemical products are also terminated on the line. All companies that receive commodities at Llano distribute their products by truck.

Freight traffic, as shown in Table 2, increased substantially between 1973 and 1977, from 57 to 333 carloads, due largely to shipments by Wootan Farm and Ranch Center and Llano Feed and Supply. Wootan received no shipments in 1973; information on Llano Feed's shipments in 1973 is not available.

Provided an opportunity to review a draft of this segment analysis, the SP supplied carload traffic data for 1977 that are somewhat at variance with the results of the rail user survey presented in Tables 1 and 2. SP records indicate a total 1977 traffic of 287 carloads (rather than 333).

### b. Shipper Characteristics

The companies that make the greatest use of the Southern Pacific rail services to Llano are engaged in the manufacture, blending, and

TABLE 1  
TERMINATING TRAFFIC ON LLANO-SCOBEE RAIL  
LINE, 1973 AND 1977

	<u>1973</u>		<u>1977</u>	
	<u>Cars</u>	<u>Tons</u>	<u>Cars</u>	<u>Tons</u>
Soybean Meal	--		160	12,800
Corn Solubles	--		35	1,400
Commercial Feed	--		98	3,060
Fertilizer	--		2	100
Phosphoric Acid	--		6	240
Sodium Chlorate and Other Chemicals	25	1,162	15	638
Granite	14	910	6	510
Emery	3	195	1	60
Sand	1	45		--
Hardware <sup>e</sup>	8	240	6	180
Cross Arms	1	25	1	25
Transformers	<u>5</u>	<u>75</u>	<u>    </u>	<u>--</u>
	57	2,652	330	19,013

---

e = Estimated

Source: Interview data and Arthur D. Little, Inc. estimates.

TABLE 2

## CARLOAD RAIL TRAFFIC ON THE LLANO-SCOBEE LINE FOR 1973 AND 1977

Rail User Code*	Rail User	Commodity	Originating				Terminating			
			1973		1977		1973		1977	
			Cars	Tons	Cars	Tons	Cars	Tons	Cars	Tons
1	Wootan Farm and Ranch Center	Feed ingredients	-	-	-	-	-	-	201	14,440
2	Llano Feed and Supply Co.	Commercial feed	-	-	-	-	n.a.	n.a.	91	2,850
3	Thompson-Hayward Chemical Co.	Misc. chemicals	-	-	3	60	25	162	15	638
4	Buttery Hardware	Building materials	-	-	-	-	8	240	6	180
5	Premier Granite Quarries	Granite block, etc.	-	-	-	-	18	1,150	7	570
6	Hasse Bros. Feed Co.	Salt	-	-	-	-	-	-	2	60
7	Central Texas Electric Co-op	Poles; transformers	-	-	-	-	6	100	1	25
8	Donop Feed	Feed	-	-	-	-	n.a.	n.a.	7 <sup>e</sup>	250 <sup>e</sup>
			0	0	3	60	57	1,652	330	19,013

Note: All rail users located at Llano, with exception of Donop Feed, which is at Mason.

n.a. = not available.

-- = no shipment

e = estimated

\*Keyed to Figure 2.

Source: Survey of rail users, 1978.

distribution of commercial livestock feeds and feed supplements. Of the eight companies receiving shipments at Llano, the four companies in the feed and supply business accounted for almost 90% of total 1977 traffic. The largest of these companies, Wootan Farm and Ranch Center, accounts for about three-quarters of the inbound tonnage. The feed materials for blending originate at points in the Midwest and South. Other commercial feeds originate at points in Texas, primarily the Dallas/Fort Worth area, and are shipped to the Llano Feed and Supply Company for distribution at the retail level to area ranches.

The Wootan Farm and Ranch Center employs 13 persons (full-time equivalent), while Llano Feed and Supply employs five (seven during periods of peak employment). Combined sales were \$6.8 million in 1977, with the Wootan Farm and Ranch Center accounting for almost 90% of the total. Sales and employment data are summarized in Table 3.

These two firms are very dependent on rail service. The Wootan Farm and Ranch Center has a contract with the Armour Company to supply feed to 25-30 growers who raise approximately 2 million turkeys annually. The ability to honor this multi-year contract is contingent upon access to rail services for obtaining low-cost feed. The company expects that the loss of rail service would place it at a cost disadvantage, which might result not only in loss of the contract to a more competitive bidder elsewhere when the present one expires, but also in many of the turkey growers being forced to relocate or cease operations because of the high cost of feed.

TABLE 3

SELECTED CHARACTERISTICS OF RAIL USERS ON THE LLANO-SCOBEE RAIL LINE

<u>Company</u>	<u>1977 Sales (\$MM)</u>	<u>Employees</u>	<u>Principal Line of Business</u>
Wootan Farm and Ranch Center	6.0	13	Manufacture and sale of livestock feed
Llano Feed and Supply Co.	0.8	5	Retail feed dealer
Thompson-Hayward Chemical Co.	n.a.	11	Manufacture of agricultural chemicals
Buttery Hardware	9.6	77	Retail hardware and building supplies
Premier Granite Quarries	0.7	33	Manufacture and wholesale of monument stones
Central Texas Electric Co-op, Inc.	5.3	89	Electric utility
Donop Feed	n.a.	5-10 <sup>e</sup>	Retail feed dealer
Hasse Bros. Feed Co.	n.a.	<u>5-10<sup>e</sup></u>	Retail feed dealer
		238-248	

---

e = Estimated

Source: Interview data and Arthur D. Little, Inc. estimates.

Currently turkey raising accounts for about 80% of Wootan's volume of business. The manufacture of liquid feed supplement accounts for most of the rest of the company's business. The company produces all of the liquid feed supplement used by Swift and Company in Texas. No other firms in Central Texas produce this product, which is distributed throughout the State and other parts of the Southwest. Loss of rail service would mean an increase in the cost of bringing in some ingredients from outside Texas. This added transportation cost would make it more difficult for the Wootan Farm and Ranch Center to compete, especially if it had to rely on truck shipments for out-of-state markets.

The Llano Feed and Supply Company has stated that rail freight costs enable it to keep its feed competitive with other dealers in the region. The firm expects that the added costs of motor freight would result in declining sales, since the company would be forced to pass along the higher costs to its customers. In summary, the two largest users of rail freight in Llano - the Wootan Farm and Ranch Center and Llano Feed and Supply Company - expect to experience higher costs, which would be reflected in higher prices, and which in turn would adversely affect their sales (one of the firms estimates that up to 80% of its sales would be lost).

The Premier Granite Company receives both granite blocks and other supplies from points in the Southeast, Midwest and North. Out-of-state blocks are estimated to account for about 30% of total sales. All silicon carbide, an abrasive used in the cutting and polishing of the stone, is received by rail from New York State. This amounts to about 100 tons or roughly 15% of the inbound rail shipments. The company reports that trucking silicon carbide would increase production costs.

Thompson-Hayward Chemical Company manufactures herbicides and various other agricultural chemicals at its Llano facility. The company receives 15 to 25 cars at Llano. Some of these products, for example, sodium chlorate--reportedly are received only by rail. Most outbound shipments are by truck; however, about 60 tons of weed-killing compounds were shipped by rail in 1977.

The Buttery Hardware Company is a retailer and wholesaler of hardware and building supplies. This company receives a small proportion of building materials by rail. In 1973 and 1977, six to eight cars per year of building materials were received. Most of the company's receipts and shipments have been handled by truck because of convenience and lower cost. Now that a new warehouse has been completed, the company expects to increase its use of rail up to 25 carloads by 1979. Reliance on rail could increase even more in future years. The hardware company is the only one of the users situated across the river from the railroad terminus and siding. This means that materials are transferred from rail to truck, then transported a mile to the company and unloaded.

The users of rail freight service in Llano are in important sectors of the local economy. The mining and processing of granite is one of the important manufacturing activities in the county. The manufacture and distribution of livestock feed are significant for area ranches, as is the distribution of hardware and building supplies. The loss of rail service to rail users could have adverse indirect effects on other activities, such as ranching and turkey growing which are the principal economic activities in the area.





## II. REVENUES AND COSTS ATTRIBUTABLE TO THE RAIL LINE

### a. Revenues

Revenues attributable to the branch are predominantly derived from terminated traffic, which accounts for about 99% of all traffic traversing the line. Only one user in Llano reported any outbound shipments during 1977. These consisted of inter-plant transfers to out-of-state facilities owned by the corporation. On the basis of shipper interviews, it was determined that the majority of shipments originated in the Midwest, primarily in the states of Illinois, Iowa and Kansas. Other shipments are originated at points as far away as Buffalo, New York. Approximately one-third of inbound shipments are originated within the state of Texas, consisting primarily of commercial feeds shipped from the Dallas/Fort Worth area. A lesser freight tonnage is originated at Houston.

On the basis of this information, the average distance moved per ton of revenue freight was estimated at approximately 740 miles, an average haul approximately 30% greater than the Southern Pacific system average of 570 miles, based on Form R-1 data. Freight tonnage terminated or originated on the branch is estimated to account for approximately 14.1 million net ton-miles. On this basis, revenues attributable to the branch, both on the line and beyond the line, were estimated at \$330,714 in 1977, as shown in the attached Revenue and Cost Estimation Sheet.

### b. Expenses

Total operating expenses, including maintenance-of-way and equipment and both on- and off-branch transportation expenses, were estimated at \$267,977 for the Llano-Scobee segment. Transportation expenses accounted

for 50% of the operating expenses. The contribution of off-branch transportation expenses to the operating expenses is expected to be high, given the length of haul estimated for traffic attributable to the segment. Tax expense attributable to the line is estimated at \$59,634 for 1977. Other expenses were estimated at \$33,790. A major component of the "other expenses" category was equipment rentals, which accounted for about two-thirds of this expense.

Expense total attributable to the branch line is estimated at approximately \$361,401.

c. Comparison of Revenues and Expenditures

The estimated revenues of \$330,714 yield an operating loss of \$30,687 for 1977.

In response to an opportunity to review the estimated results of the Llano-Scobee segment analysis, SP made available a copy of its detailed R-6 branch line worksheet for the segment. The results, shown in Table 4, are substantially at variance with the estimated results discussed above. Direct comparison is not possible, in fact because the time period is not specified, but also because there are inconsistencies that we are unable to resolve. For example, fuel expense alone is claimed to be \$77,648--nearly 55% of reported revenues of \$142,385; by contrast, other light density lines (e.g., Alice-Falfurrias) show fuel expenses well below 10% of revenues. In addition, the SP Llano-Scobee data for "on-branch service units" show that an average of 2.5 locomotive miles are claimed for every one car mile, whether loaded or empty.

TABLE 4

## LLANO-SCOBEE

BRANCH LINE R-6 WORKSHEET DATA PROVIDED BY SOUTHERN PACIFIC  
(Time period unknown)

Line mileage: 25.07  
 Carloads : 250 ea.  
 Revenue tons: 12,000 ea.

<u>R-6</u> <u>Schedule</u>	<u>Item</u>	<u>Amount</u>	<u>Line</u> <u>No.</u>
A	<u>Revenues</u>		1
	Freight	\$133,567	2
	Other	8,818	3
	Total	\$142,385	4
B1	<u>On-Branch Expenses</u>		5
	Maintenance of way	\$ 43,399	6
	Maintenance of equipment	34,530	7
	Traffic	-	8
	Transportation	135,916	9
	Sub Total	\$213,845	10
B2	<u>Tax Accruals</u>	\$ 7,578	11
B3	<u>Computed On- and Off- Branch Expenses</u>		12
	Locomotive ROI	\$ 12,824	14
	Car costs	5,593	15
	Fringe benefits	15,701	16
	Sub Total	\$ 34,118	17
B4	<u>Off-Branch Avoidable Expenses</u>		18
	Terminal costs	\$ 24,943	19
	Car costs	20,971	20
	Gross ton-mile costs	45,094	21
	Sub Total	\$ 91,008	22
B5	<u>All Other Avoidable Expenses</u>		23
	Working capital	\$ 8,838	24
	Administrative costs	-	25
	Sub Total	\$ 8,838 <sup>1</sup>	26
	<u>Total Expenses</u> (Lines 10, 11, 17, 22,26)	\$355,387	27
	<u>Operating Results</u> (Line 4 minus Line 27)	(\$213,002)	28 29
	Return on Value	\$270,946	30

<sup>1</sup>Excludes claimed foregone tax benefit in the amount of \$224,900.

Source: Southern Pacific Transportation Company R-6 Worksheet for unspecified period during 1977.

Further, the operating data on which the expenses are based charge the segment with 313 train round-trips, or the equivalent of one train a day in each direction, six days per week; however, shippers indicate that three-times weekly service is actually provided. Thus, substantial clarification of operating and financial data will be necessary to determine SP's actual estimate of results on the segment.

REVENUE AND COST ESTIMATION SHEET

Line: Llano-Scobee

Railroad: Southern Pacific

Miles: 25.07

1977 Carloads & Tonnage:

333 cars (13.3 cars per mile); 19,073 tons

A. Revenues:

\$330,714

1. Basis of estimate: System average revenue per net ton mile of \$0.0234 used to estimate revenue. Average haul estimated at 741 miles. [19,073 x 741 x \$0.0234 = \$330,714]

2. Description of O&T and Bridge Traffic: Originating traffic accounted for less than 1% of cars traversing the line. Terminating traffic principally originates in the Midwest; therefore, the average haul was estimated on the basis of railroad miles between Midwest points and Llano.

B. Expenses:

1. Maintenance of Way      \$ 71,525

Basis: Branch M/W expense per mile, as reported in R-6, is \$2,853.00.<sup>1</sup> This branch line average expense, applied to subject branch yields estimated M/W expense. [\$2,853/mi. x 25.07 mi. = \$71,525]

2. Maintenance of equipment      \$ 57,663

Basis: System average M/E expense per net ton mile = \$0.00408, based on R-1 data. Net ton miles attributable to the branch equals 11,443,800. [\$.00408 x 19,073 x 746 = \$57,663]

3. Transportation:  
On-branch      \$ 14,666  
Off-branch      124,123  
                                 \$138,789

Basis: On-branch transportation expenses per locomotive unit mile of \$1.95 based on R-6 data. Annual trips estimated at 150, based on interview data. Total round trip distance on the branch is 50.14 miles. [\$1.95 x 150 x 50.14 = \$14,666]

Basis: Off-branch transportation expenses per net ton mile is \$0.00909, a system average based on R-1 data. Net ton miles off-branch estimated at 13,694,933. [13,694,933 x \$0.00909 = \$124,123]

Operating expense      \$267,977  
Sub-total

4. Estimated Taxes  
Payroll      \$ 27,365

Basis: System-wide labor cost as a percentage of operating expense used to estimate branch line labor cost. Payroll taxes add 16.73% to system average cost of labor compensation. Proportion assumed constant for branch line. [\$330,714 x .4946 x .1673 = \$27,365]

<sup>1</sup>This is higher than the per mile expense encountered on other lines.

Other than Federal	<u>\$ 32,269</u>	<u>Basis:</u> Average tax expense per mile of road derived from R-1 data for Texas is \$1,287.17. [ $\$1,287.17/\text{mile} \times 25.07 \text{ miles} = \$32,269$ ]
Tax Sub-total	<u>\$ 59,634</u>	
5. Equipment Rentals	\$ 21,048	<u>Basis:</u> System average rental expense per loaded car miles (\$0.0853) and loaded car miles attributable to the branch used to estimate the expense [ $\$0.0853 \times 333 \times 741 = \$21,048$ ]
6. Other Expenses	\$ 9,435	<u>Basis:</u> Pro rate of branch line other avoidable costs. <u>Note:</u> exludes foregone tax benefit reported by Southern Pacific.
7. Management Fee	<u>\$ 3,307</u>	<u>Basis:</u> 1% of revenues
EXPENSE TOTAL	\$361,401	
NET RESULT:	<u>(\$ 30,687)</u>	

### III. REVIEW OF THE CONDITION OF RAIL PLANT, EQUIPMENT AND FACILITIES

#### a. History of the Line

The Llano-Scobee segment was constructed in 1892 as an extension of the Austin and Northwestern Railroad (A&N). The A&N was built in the 1890's to haul granite from Burnet and Marble Falls to the State capital which was then under construction in Austin. The extension connected Llano with Fairland, then a junction point on the A&N. In the early 1900's, the line was acquired by Houston and Texas Central, which was later absorbed into the Southern Pacific system. The Llano-Scobee line is presently part of the SP system.

#### b. Description of the Layout of the Branch Line Stations

There are no stations on the Llano-Scobee line. Sidings in Llano serve the Wootan Farm and Ranch Center and Llano Feed and Supply. Premier Granite and Thompson-Hayward Chemical Company also have sidings. Until recently the line was served by an agent from the Llano Depot.

#### c. Physical Characteristics

The line is constructed of 90-pound rail, of 33-foot lengths. A spot check indicated that joints are staggered, with some evidence of heavy wear on the rails. The alignment appeared good.

The ballast, which consists of gravel, was observed to cover the ties in some places, but generally appeared to provide adequate drainage.

The condition of the trackage generally appeared to be good. Ties were spaced at 19 per length of rail. The age of the majority of ties is estimated to be between 10 years and 25 years. Fewer than 10% of the ties appeared to be defective. Observed defects included rotting

and sponginess; some ties were broken across the middle.

About 90% of the tie plates were observed to be securely spiked. Nearly one-third of the angle bars in one section were observed to be secured by loose bolts. Vegetation along the tracks and between ties indicated relatively infrequent use.



#### IV. ECONOMIC AND OPERATIONAL ANALYSIS OF PRESENT AND FUTURE FREIGHT SERVICE NEEDS

##### a. Economic Overview

##### 1. Definition of the Impact Area

The Llano-Scobee rail line is located in Llano and Burnet Counties which are northwest of Austin, Texas. Abandonment of the line would eliminate all rail service in Llano County. Burnet County would continue to have rail service east of Scobee.

##### 2. Population and Economic Trends

###### ● Overview of Trends and Projections in the Austin BEA Regional Area

Llano and Burnet Counties are located at the northwestern end of the 16-county Austin BEA Regional Area (Figure 4).<sup>1</sup> The population of Llano and Burnet Counties accounted for only 3% of the Austin area's population in 1970. Therefore, overall trends in the Austin area have only general implications for traffic on this rail segment. Nevertheless, it is the smallest area for which long-term economic forecasts have been made consistent with state and national forecasts.

The Austin BEA area had a population of nearly 560,000 in 1970. About 46% of the people live in the City of Austin, the State's capital. State government is a major economic factor for the area, but education, tourism, research and science-oriented manufacturing are also significant.

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<sup>1</sup>BEA Economic Areas defined in OBERS, Projections of Economic Activity in the United States, Volume II.

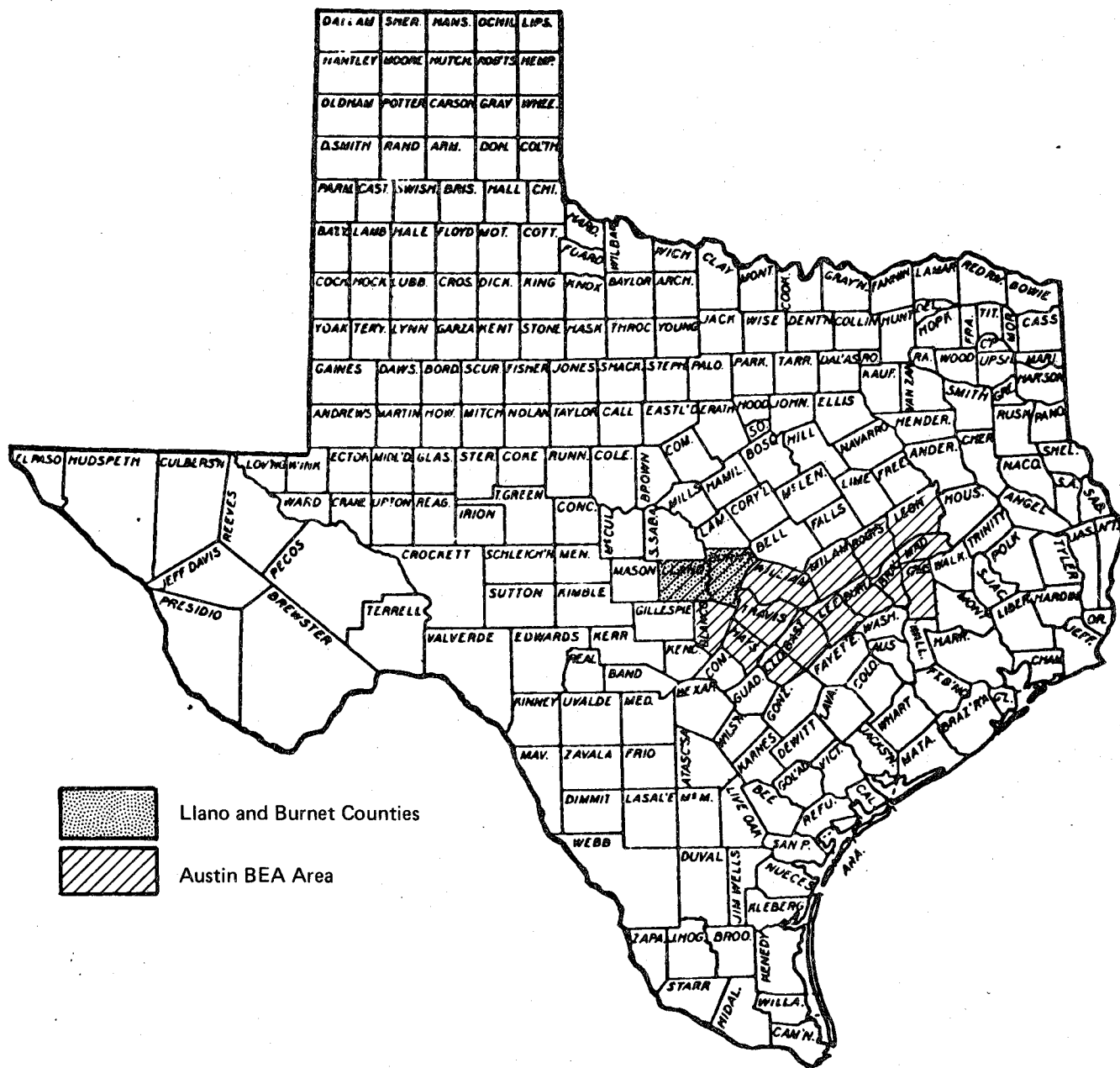


FIGURE 4 LOCATION OF LLANO AND BURNET COUNTIES AND AUSTIN BEA AREA

- Employment Trends and Projections

Total employment in the Austin BEA region was 145,575 in 1950; by 1966 it had increased by 25% to 181,595 (see Table 5). This was below the 38% rate experienced by the State as a whole. For the 1966 to 1980 period, employment in the region is expected to increase 35%, which is higher than the State's expected increase of 25%. During the 1980 to 2000 period, employment in the region is expected to increase by 35%.

In 1970, the Austin BEA Area had 8% of its employment in agriculture (compared to 4% for Texas) and 40% in finance, insurance, real estate and services (compared to 30% for Texas). Austin's manufacturing sector is small relative to that of the State; in 1970 it was 9% compared to 17% for the State. As can be seen from Table 5, it is the service sector that is expected to experience the most rapid growth in Austin, increasing from 34% in 1966 to 40% by 2000. On the other hand, agricultural employment in both the Austin area and in the State is projected to decline. The decline in agricultural employment in Austin from 18,000 in 1966 to 8,400 by 2000 is expected to be due mainly to increased mechanization. Recent trends in the Llano and Burnet County area indicate that agricultural production has increased. In 1971, total harvested acreage was 14,500 and this increased 27%, to 18,525 in 1976.

- Demographic Characteristics and Trends in Llano and Burnet Counties

The population of Llano and Burnet Counties was 24,400 in 1975 with 36% (8,696) in Llano County and 64% (15,706) in Burnet County (see Table 6). This is three percent of the Austin BEA Region's population. The population

Table 5

EMPLOYMENT STRUCTURE, TRENDS AND PROJECTIONS  
IN THE AUSTIN BEA REGIONAL AREA 1950-2000

	<u>1950</u>	<u>Percent Distri- bution</u>	<u>1966</u>	<u>Percent Distri- bution</u>	<u>1980</u>	<u>Percent Distri- bution</u>	<u>1990</u>	<u>Percent Distri- bution</u>	<u>2000</u>	<u>Percent Distri- bution</u>
Agriculture	35259	24.2%	18063	9.9%	11500	4.7%	9300	3.3%	8400	2.5%
Mining	1478	1.0	1424	0.8	1300	0.5	1200	0.4	1200	0.4
Construction	12639	8.7	13682	7.5	20600	8.4	23500	8.3	27300	8.3
Manufacturing	7846	5.4	16816	9.3	21500	8.7	25300	9.0	30100	9.1
Transportation & Utilities	8559	5.9	7976	4.4	10300	4.2	11900	4.2	14000	4.2
Wholesale & Retail Trade	28223	19.4	34737	19.1	49300	20.0	56600	20.0	65900	19.9
Finance, Insurance, and Real Estate	3674	2.5	9009	5.0	13000	5.3	15000	5.3	17600	5.3
Services	37224	25.6	61118	33.7	92300	37.6	109400	38.8	130800	39.5
Government	10673	7.3	18770	10.3	26000	10.6	30100	10.7	35600	10.8
TOTAL	145575	100.0%	181595	100.0%	245800	100.0%	282300	100.0%	330900	100.0%

Source: OBERS Projections of Economic Activity in the United States, Volume II BEA Economic Areas, U.S. Department of Commerce and the U.S. Department of Agriculture, Washington, D.C. 1972

TABLE 6

POPULATION OF LLANO AND BURNET COUNTIES 1900-1975

	<u>Total Llano and Burnet Counties</u>	<u>Llano County</u>	<u>City of Llano</u>	<u>City of Llano as Percent of Llano County</u>	<u>Burnet County</u>
1900	17,829	7,301	-	-	10,528
1910	17,255	6,520	1,687	25.9 %	10,755
1920	14,859	5,360	1,645	30.7	9,499
1930	15,893	5,538	2,124	38.4	10,355
1940	16,767	5,996	2,658	44.3	10,771
1950	15,733	5,377	2,960	55.0	10,356
1960	14,505	5,240	2,656	50.7	9,265
1970	18,399	6,979	2,608	37.4	11,420
1975	24,402	8,696	2,956	34.0	15,706

Source: U.S. Census of Population and the Texas Almanac, 1978/1979.

growth of the two-county area has been erratic. In 1900, the two-county population was 17,829, a low of 14,505 was reached in 1960 but since then, both counties have grown. Their combined population increased by 27% between 1960 and 1970, and by 33% between 1970 and 1975. Burnet County, which is closer to the Austin metropolitan area, has grown faster than Llano County.

Since 1950, the City of Llano, the county seat, has been growing more slowly than the county as a whole. In 1950, the City accounted for 55% of the county's population; by 1975, it had declined to only 34%. Kingsland, the other town on the rail line in Llano County, had a population of 1,500 in 1970. Together, Llano and Kingsland accounted for 51.2% of the county's population in 1975. Scobee, the end point of the line segment subject to abandonment, has no population.

Population forecasts indicate that the two-county area will continue to grow through the year 2000. From 1970 to 1980, growth is expected to exceed that of the Austin BEA region and the State. This seems reasonable considering the strong population growth experienced over the 1970 to 1975 period. After 1980, the population of the two-county area is expected to grow less rapidly than the Austin BEA region and the State (Table 7).

- Economic Characteristics and Trends in Llano and Burnet Counties

The principal economic sectors in Llano and Burnet Counties are granite mining, stone processing, services, trade and construction. Agribusiness, which includes ranching, farming, feed manufacturing, fertilizer, and related activities, is also an important sector. The development of several recreational lakes in the two-county area has resulted in increased recreation and tourism activity.

TABLE 7

POPULATION TRENDS AND FORECASTS IN LLANO AND BURNET COUNTIES,  
AUSTIN BEA REGIONAL AREA, AND THE STATE OF TEXAS  
1960-2000

	<u>Percent Population Increase</u>			
	<u>1960-1970</u>	<u>1970-1980</u>	<u>1980-1990</u>	<u>1990-2000</u>
<u>Two County Area</u>	26.8%	30.4%	14.6%	14.9%
Burnet	23.3	33.1	17.1	16.9
Llano	33.2	26.1	10.2	11.3
<u>Austin BEA Regional Area</u>	23.7%	28.0%	21.7%	22.6%
<u>State of Texas</u>	16.9%	19.7%	16.4%	17.2%

Note: Percent increases are for each ten-year period.

SOURCE: Population Projections, Texas Water Development Board (now Texas Department of Water Resources), 1976.

In 1970, employment in the two-county area was nearly 3,000 (Table 8). From 1970 to 1975, employment increased 24% with significant gains in most sectors, except agriculture and manufacturing, which declined 16%. Larger gains occurred in Burnet County than Llano County.

Table 9 compares the employment structure of the two-county area to the Austin BEA region and the State of Texas. Relative to the State, Llano and Burnet Counties are high in agriculture and construction, and low in manufacturing. The other sectors are close to the State's average in their employment distribution.

Unemployment in the two-county area is very low. In 1976, the average unemployment rate in the two-county area was 3.6%, in Llano County 2.9%, and in Burnet County 4.0% (see Table 10). The same year the average unemployment rate in Texas was 5.7%, while the national average was 7.7%.

#### ● Agricultural Characteristics

Agricultural production has fluctuated in recent years. Harvested acreage increased 27% between 1971 and 1976. Burnet County accounted for 85% of the area's harvested acreage in 1976. The largest harvested acreage is for sorghums but the acreages for hay, wheat and oats are also significant (Table 11).

In terms of cash generated, livestock is a much more significant sector of agriculture than crops. In 1976, livestock accounted for 93% of cash receipts from farm marketing (\$16.3 million) and crops for 7% (\$1.2 million). Total 1976 cash receipts from farm marketing reached \$17.7 million, an increase of 34% over 1971 receipts of \$13.2 million (Table 12).



TABLE 8

EMPLOYMENT IN LLANO AND BURNET COUNTIES 1970 and 1975

	<u>Two-County Area</u>		<u>Llano County</u>		<u>Burnet County</u>	
	<u>1970</u>	<u>1975</u>	<u>1970</u>	<u>1975</u>	<u>1970</u>	<u>1975</u>
Mining	98	141	21	7 <sup>e</sup>	77 <sup>e</sup>	134
Contract Construction	132	322	69	87	63	235
Manufacturing	243	203	63	70	180	133
Public Utilities	90	106	42	31	48	75 <sup>e</sup>
Wholesale Trade	108	148	83	112	25	36
Retail Trade	799	986	342	360	457	626
Finance, Insurance, Real Estate	119	257	47	89	72	168
Services <sup>1</sup>	545	602	172	195	373	407
Other	30	82	15 <sup>e</sup>	18	15 <sup>e</sup>	64 <sup>e</sup>
SUBTOTAL <sup>2</sup>	2164	2847	854	969	1310	1878
Agriculture <sup>3</sup>	831	831	342	342 <sup>e</sup>	489	489 <sup>e</sup>
GRAND TOTAL	2995	3678	1196	1311	1799	2367

Note: <sup>1</sup>Includes government employment

e = estimated.

Sources: <sup>2</sup>1970 and 1975 County Business Patterns, (excludes self-employed persons, farm employees, domestic workers, and railroad employees. Data are reported for county of employment).

<sup>3</sup>1970 Census of Population. Data on agricultural employment are not available for 1975 from the Census therefore, the 1970 levels were used. With generally declining agricultural employment, it is likely that this somewhat overstates agricultural employment in 1975.

TABLE 9  
 COMPARISON OF THE EMPLOYMENT STRUCTURE OF LLANO AND BURNET COUNTIES,  
 THE AUSTIN AREA AND THE STATE OF TEXAS: 1970

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	Percent of Total Employment		
	Two-County Area <sup>1</sup>	Austin BEA Region <sup>2</sup>	Texas <sup>2</sup>
Agriculture	13.1%	8.4%	4.4%
Mining	2.9	0.7	2.4
Construction	13.0	7.8	7.0
Manufacturing	4.2	9.1	17.4
Transportation & Utilities	6.0	4.3	6.4
Wholesale & Retail Trade	23.3	19.4	20.9
Finance, Insurance, Real Estate, Services & Other	37.5	39.9	29.9
Government	(3)	10.4	11.6
Total	100.0 %	100.0 %	100.0 %

<sup>1</sup>U.S. Census of Population, 1970

<sup>2</sup>OBERS, Projections of Economic Activity in the United States, Volume II,  
 (data for 1970 is interpolated)

<sup>3</sup>Included with Services

TABLE 10

UNEMPLOYMENT IN LLANO AND BURNET COUNTIES  
AND THE STATE OF TEXAS: 1970 and 1976

	<u>1970</u>	<u>1976</u>
<b>Total Two-County Area:</b>		
Number of Unemployed	85	296
Percent Unemployed	1.6	3.6
<b>Llano County:</b>		
Number of Unemployed	30	84
Percent Unemployed	1.5	2.9
<b>Burnet County:</b>		
Number of Unemployed	55	212
Percent Unemployed	1.6	4.0
<b>State of Texas:</b>		
Percent Unemployed	3.6	5.7

Source: Texas Employment Commission.

TABLE 11  
HARVESTED ACREAGE IN 1971 AND 1976  
Llano and Burnet Counties

	1971			1976		
	<u>Total Two-County Area</u>	<u>Llano</u>	<u>Burnet</u>	<u>Total Two-County Area</u>	<u>Llano</u>	<u>Burnet</u>
Wheat	50	--	50	3,700	--	3,700
Oats	1,100	200	900	3,100	300	2,800
Sorghums	8,200	1,000	7,200	6,100	700	5,400
Other Hay, Except Sorghums	4,100	500	3,600	4,500	700	3,800
Peanuts	850	850	--	1,125	1,125	--
Other	250		250			
Total	14,550	2,550	12,000	18,525	2,825	15,700

Source: Texas County Statistics, U.S. Department of Agriculture/Statistical Reporting Service.

TABLE 12

FARM MARKETING CASH RECEIPTS  
FROM LIVESTOCK AND CROPS IN  
LLANO AND BURNET COUNTIES  
1971 and 1976

	Cash Receipts from Farm Marketing (\$M)					
	1971			1976		
	<u>Total Two- County Area</u>	<u>Llano</u>	<u>Burnet</u>	<u>Total Two- County Area</u>	<u>Llano</u>	<u>Burnet</u>
Total Crops & Livestock	\$ 12,736	\$ 7,394	\$ 5,342	\$ 17,498	\$11,703	\$5,795
Crops	195	118	77	1,191	506	685
Livestock	12,541	7,276	5,265	16,307	11,197	5,110
Government Payments	462	133	329	227	96	131
Total	\$ 13,198	\$ 7,527	\$5,671	\$17,725	\$11,799	\$5,926

Source: Texas County Statistics, U.S. Department of Agriculture/Statistical Reporting Service.

- Other Characteristics

Llano County is known to contain mineral resources that could be exploited, including jetty stone, dolomite, and iron ore ballast. At the time of the field survey, none of these commodities was being shipped by rail. Subsequently, however, an as yet unidentified company has been negotiating to purchase and develop limestone mineral reserves in western Burnet County in the vicinity of Fairland. Current plans call for shipping an estimated 1,450,000 tons of crushable grade limestone over the eastern portion of the Llano-Scobee line and on to the Houston and San Antonio areas. A granite quarry operator has also recently signed a contract to supply 1,000 railcars of jetty stone to be hauled over the subject line during 1979.

### 3. Implications of Trends for Future Rail Traffic

The mineral resources in Llano and Burnet Counties have important implications for future rail traffic moving over the Llano-Scobee rail segment. Granite, dolomite, and iron ore ballast deposits are low value, heavy density commodities that can often be economically developed only if rail is available. Production of these minerals in the impact area has been cyclical. The granite in the area had been produced in large quantities during the construction of the capitol in Austin and in the growth of the principal metropolitan areas in Texas. Granite quarrying halted almost entirely for a number of years as sources were developed closer to urban markets. It now appears that Llano's granite is competitive again, as is the region's dolomite. This implies potential for a very significant increase in traffic at least in the short and medium future.

Trends in other economic sectors, particularly agriculture and manufacturing, do not appear to suggest significant increases in rail traffic.

b. Current and Projected Rail Operations and Freight Traffic

1. Current Rail Operations

According to rail users in Llano, service on the rail line is provided three times per week, on Monday, Wednesday and Friday. Service has been more frequent in the past but was cut back to the present schedule early in 1978. The service provided by the railroad was characterized by most rail users as good.

2. Rail Users

Rail freight traffic generated by most current users is not likely to increase much above the 333 carloads of 1977 in the near future (Table 13). Wootan Farm and Ranch Center has planned to install a pellet mill, which the firm expects would increase its use of rail service.

Estimates of future traffic for existing shippers are presented in Table 13. Because of the present threat of abandonment, it is assumed in the table that the proposed addition of a feed pelletizing mill at the Wootan Farm and Ranch Center will not occur before 1980, but that current contracts requiring the receipt of bulk materials would remain in force through that time. Moderate growth is projected for the firm and rail use is expected to increase proportionately. Two other firms--Premier Granite and Central Texas Electric Co-op--expect to increase rail traffic over 1977 levels, but their use will still remain below 1973 levels. The Electric Co-op is assumed to require two

TABLE 13

PROJECTED USE OF LLANO-SCOBEE RAIL  
LINE BY EXISTING SHIPPERS

	<u>1980</u>	<u>Total Car Loads</u>
Central Texas Electric Co-op		3
Premier Granite		10
Thompson-Hayward Chemical		17
Wootan Farm and Ranch Center		215
Buttery Hardware		25
Hasse Bros.		2
Dunop Feed		7
Llano Feed & Supply		<u>90</u>
TOTAL (1)		369

(1) A granite quarry operator recently reported receiving a contract for 1,000 carloads of stone to be delivered over the next 12 months. In addition, a limestone development project could generate rail traffic of 15,000 cars per year beginning in the summer of 1980.

Source: Arthur D. Little, Inc. estimates, based on survey of shippers.



transformers and a shipment of transmission poles in 1980. Buttery Hardware has been increasing its wholesale supply business, especially heavy goods, which the firm expects will increase its rail use appreciably. It is expected that use by other current users will remain constant or decline slightly.

Thus any major increases in freight traffic depend on the emergence of new rail users. A granite quarry operator recently reported receiving a contract for 1,000 carloads of jetty stone to be delivered over the next 12 months. Although this represents a major increase in traffic over the next year, it is not yet clear whether this level of traffic will be sustained by the quarry. Another possibility exists--the development of a dolomite deposit along the rail line. At present, no specific plans exist to exploit this deposit because of the proposed abandonment of the line. However, an agent for an industrial prospect claims the firm would ship 15,000 carloads per year if it received assurances of continued rail service.

Without new rail users, the projected level of traffic for 1980 does not appear sufficient for the line to be operated profitably. With the possible addition of 16,000 railcars carrying jetty stone and limestone, the annual breakeven traffic volume would be met many times over.



## V. ANALYSIS OF THE IMPLICATIONS OF ABANDONMENT

### a. Relationship of the Line Segment and its Traffic to the State Rail System and its Rail Traffic

The Llano-Scobee segment is designated as part of SP 199 in the U.S. Department of Transportation Final Standards, Classification and Designation of Lines of Class I Railroads in the United States. It appears as a Category A branchline, indicating that it carries from 1-5 million gross tons of traffic per year. It connects with SP 031 at Fairland, also a Category A branchline which continues into Austin.

The segment represents about 0.8% of the miles of road of the Southern Pacific system in the State of Texas and provides all rail services to Llano County. Abandonment would eliminate the railroad as a transport alternative there. Burnet County would continue to be served by the SP which connects with rail lines serving Austin and other points.

Commodities presently terminated on the segment are used by the basic economic activities in Llano County, but very little rail freight is originated in the County.

### b. Relationship of the Line Segment to Highways, Waterways and Other Modes of Transportation

Llano County and the City of Llano are served by Texas Highways 16, 29 and 71 (Figure 2). Farm Road 1431 roughly parallels the route of the SP segment between Llano and Scobee. While the rail line terminates at Llano, the highway continues in a westerly direction (Figure 2). State Highway 16 is a north-south route. The Llano River also roughly parallels the SP route between Llano and Lake Lyndon B. Johnson, near the Llano-Burnet County line. The Lake is used for

recreational purposes but, for the most part, the river is not navigable by commercial craft.

The Llano County Airport is located about two miles from the City. The airport is for small planes only; scheduled air carrier service is not available. Several motor freight lines, including Southern Pacific motor lines, hold certificates to serve Llano. Service provided by these carriers varies from daily to three times weekly.

c. Special Consideration

Key sectors of the local economy by the abandonment include manufacturing and wholesale and retail trade. In addition, mining and ranching would be indirectly affected through impacts on firms which provide services to these sectors or process their finished products. As noted previously, mineral resource development projects would be curtailed.

Llano has no underground source of water. In times of severe drought, the Llano River runs dry and water has been brought into the City by rail.

## VI. RELATIVE ECONOMIC, SOCIAL, ENVIRONMENTAL AND ENERGY COSTS AND BENEFITS

### a. Identification of Alternatives

The abandonment of the Llano-Scobee rail line would adversely affect major feed suppliers in an area heavily dependent on ranching and turkey growing and would preclude at least one major mineral resource development.

Therefore, the one realistically feasible alternative is considered to be continuation of all service on the line. Since the Llano-Scobee line appears to be marginally unprofitable for the SP at present, this alternative could require provision of a temporary operating subsidy for the purpose of retaining service until such time as anticipated increases in rail traffic could develop. A potential limestone development along the line in Burnet County is the reason for optimism in this regard. If that project proceeds as intended, the limestone traffic could begin as early as the summer of 1980 and possibly eliminate the need for any subsidy. In the meantime, a subsidy of at least \$30,700, excluding return-on-investment considerations might be required.

Retention of service by means of a short-line operation was initially considered as a possible alternative but not subjected to detailed analysis because of the low traffic density and because any short line would remain entirely dependent on the SP system for its connections.

### b. Economic, Social, Environmental and Energy Costs and Benefits

Table 14 compares the likely impacts of abandonment of the Llano-Scobee line with those of the alternative to abandonment considered. The specific economic, energy, environmental and community impacts presented in the table include:

TABLE 14

SOCIO-ECONOMIC IMPACTS OF ABANDONMENT  
OF THE LLANO-SCOBEE RAIL LINE

	Annual Impact	
	Abandonment	Continue Service with an Operating Subsidy
<b>ECONOMIC IMPACTS</b>		
<u>Employment Changes</u>		
Direct employment		
Current	-9	0
Future	-9 <sup>1</sup>	0
Unemployment		
Number	up to 9	0
Rate	+0.3%	0
Payroll		
Current	-\$90,000	0
Future		0
<u>Transportation Costs<sup>2</sup></u>		
Additional cost of transporting goods - Current	+\$58,726 <sup>1</sup>	0
Additional cost of transporting goods - Future	+\$62,345 <sup>1</sup>	0
Capital cost of facilities and equipment - Current	+\$ 7,000 <sup>3</sup>	-
Capital cost of facilities and equipment - Future	0	-
<u>Investment<sup>2</sup></u>		
Amount of investment "lost" (companies)		
Current		
Future (foregone)	-\$250,000	0
<u>Taxes<sup>2</sup></u>		
Amount of local taxes "lost" (companies)		
Current	0	0
Future	-\$399	0
Amount of railroad taxes "lost"		
Current	-\$3,089	0
Future		
<u>Other Public Costs<sup>2</sup></u>		
Increase in unemployment benefits	+\$2,916	0
<b>ENERGY IMPACTS</b>		
<u>Net change in fuel consumption (gallons per year)</u>		
Current	+ 7,724 <sup>1</sup>	0
Future	+ 8,190 <sup>1</sup>	0

TABLE 14 (continued)

	Annual Impact	
	Abandonment	Continue Service with an Operating Subsidy
ENVIRONMENTAL IMPACTS		
<u>Net change in emissions (pounds per year)</u>		
<u>Current</u>		
HC	183	0
NO <sub>x</sub>	2,858	0
CO	1,910	0
SO <sub>x</sub>	154	0
Particulates	79	0
<u>Future</u>		
HC	193 <sup>1</sup>	0
NO <sub>x</sub>	3,030	0
CO	2,025	0
SO <sub>x</sub>	83	0
Particulates	163	0
<u>Impact on Air Quality</u>	Insignificant	None

## COMMUNITY IMPACTS

<u>Change in Population</u>	Reduced growth	0
<u>Change in Development Potential</u>	May adversely influence indus- trial develop.	0

SUBSIDY COSTS<sup>2</sup>

<u>Operating Subsidy</u>	0	\$30,687
<u>Capital Subsidy</u>	0	0

<sup>1</sup>Does not include impacts associated with granite quarry operator that recently reported a major contract for shipping stone.

<sup>2</sup>All dollars are 1977 constant dollars.

<sup>3</sup>A one-time expenditure of \$70,000 depreciated over 10 years.

Source: Estimates based on shipper interviews and other data.

- Employment - Net change in direct employment resulting from the loss of jobs in businesses adversely affected by abandonment less the increase in jobs due to additional workers employed in trucking (or other activities).
- Payroll - The net change in payroll estimated to be associated with the change in employment.
- Unemployment - The net change in unemployment anticipated as a result of the abandonment.
- Transportation Costs - Additional costs of transporting goods by alternative mode (e.g., truck) to the nearest rail head including annualized capital costs for new transportation facilities such as trucks and loading docks.
- Investment - Investment lost (especially in recently constructed rail facilities) and future investment that would not be made should rail service be abandoned.
- Taxes - Local taxes lost (or in the long term, foregone) due to abandonment of the rail line, closing of certain plants, or decisions to cancel planned investment.
- Other Public Costs - Increase in unemployment compensation.
- Energy - Net change in fuel consumption due to a shift to alternative transportation modes.



- Environmental Effects - Change in air emissions such as increase in hydrocarbons, nitrous oxides, carbon monoxide and particulates due to change in fuel consumption resulting from modal shift.
- Community Effects - Change in development potential and population that is likely to occur in the Impact Area as a result of the cumulative effects of abandonment.

The direct economic effects of abandonment would be experienced in Llano County and primarily in the City of Llano. Other nearby shippers in Llano and Mason Counties also might be directly or indirectly affected. There are no current shippers located on the rail segment in Burnet County so there are not expected to be significant impacts in this county.

Loss of rail service would result in employment cutbacks in Llano. These would result from a substantial reduction in operations expected by the largest rail user, Wootan Farm and Ranch Center and in the possible reduction in or elimination of the operations of up to 25 turkey growers in the County, employing as many as 100 people. The loss of rail service and the need to transfer to truck delivery would cause an increase in costs of feed. This could lead to a loss by Wootan of a major contract with Armour Company to supply feed to turkey growers in the county. Since this contract accounts for about 80% of the company's current volume of business, termination of the contract could result in a reduction of Wootan to about one-third of its current size and the loss of about nine employees. This could raise total unemployment in the county from 84 to 93. This increase would raise the unemployment rate for the county by 0.3%.

Since the feed produced by Wootan is supplied to 20-25 turkey growers, each raising between 50,000 and 500,000 birds, the increased cost of feed and the possible loss of contract could cause these turkey growers to relocate or go out of business. Apparently, no firm closer than Fort Worth has the capacity to supply the necessary feed.

It is assumed that the impacts on other current rail users would not be as severe. Adjustments probably would be made in current operating procedures that would result in no further net job loss, either currently or in 1980. Most of the other rail users are not as dependent on rail service as Wootan.

In the event of abandonment, the operating costs for transporting goods and materials would be expected to increase by almost \$60,000 for all rail users in Llano. Wootan would account for nearly three-fourths of this increased cost. In the short-term, the total increase in transportation costs, including both operating and capital costs (for trucks, loading facilities, etc.) would be about \$130,000. In the longer term, total transportation costs would be expected to exceed \$132,000. The one-time capital cost of facilities needed to shift from rail to truck is estimated to be \$70,000 and the annual operating increase, to be \$62,345. Wootan would bear nearly 90% of this cost increase.

The annual tax loss to the county if the line were abandoned is estimated to be about \$3,500. Approximately 80% of the decrease in tax receipts would result from the loss of railroad property tax revenue. The remaining portion of property taxes "lost" would be accounted for

by future expansion cancelled as a result of the abandonment. It is possible that some of the tax loss can be offset by taxes paid by new users, although such taxes will be less due to the probable use for farming and grazing.

Public costs for unemployment and welfare would increase in the short term by as much as \$3,000 as a direct result of increased unemployment occurring due to the abandonment.

In the event of abandonment, fuel consumption would increase as a result of greater dependence on motor freight by current rail users. This increase is expected to total approximately 7,700 gallons of diesel fuel, based on current ton-miles hauled. Future increased consumption is expected to reach about 8,200 gallons by 1980. This would result in the generation of air contaminants. However, the increase is not expected to cause a significant deterioration in air quality in the two-county area.

Current projections of population growth indicate a slowdown during the period 1980-2000 (Table 7). If a line were abandoned, it is expected that the rate of population growth would be further reduced, because economic expansion would occur at a slower pace. Existing rail-related business would experience slightly higher costs, which would adversely offset their market positions regionally.

The possibility of rail abandonment is perceived to limit the development potential of the area. The lack of railroad infrastructure might make the community less attractive to certain types of potential industrial development. An industrial commission was recently established to bring new industry to Llano.

One immediate effect of abandonment would be to curtail a dolomite development project being considered by an as yet unidentified company at a site served by the eastern portion of the subject line. In addition, a jetty stone quarry, with a rail spur off the line, has generated rail traffic in previous years; the owners have recently signed a contract to supply 1,000 carloads by rail during 1979, and expect future contracts requiring use of rail.

All of the impacts of abandonment would be avoided by the alternative. The actual amount of any operating subsidy required under this alternative would be negotiated between the railroad and other parties. If this were to occur before projected increases in rail traffic occurred, the amount shown in Table 14 must be viewed as the minimum, since it excludes return on investment considerations for the carrier.

VII. EVALUATION OF METHODS FOR ACHIEVING ECONOMIES IN THE COST OF RAIL SERVICE OPERATIONS ON LINES ON WHICH SERVICE WILL BE CONTINUED

Cutbacks in service were already instituted in 1978 as a method of achieving economies in the cost of providing rail service on this line. Since consolidation, pooling and joint use of equipment and facilities are not possible for this line, further service cutbacks are the only available method of achieving economies. Service might be further reduced to an on-call basis (less than three trains per week) although this might not result in sufficient reduction in costs to make the line profitable (Section II).

City of Llano officials note that because the rail line extends into the City, the carrier must maintain about seven grade crossings at some expense. As a cost saving measure, these officials suggest that the segment of track in the City be abandoned and a team loading facility be built outside of the City. Apparently, this recommendation was made directly to the SP, but the carrier has not yet responded to this suggestion.



## VIII. COMPETITIVE OR OTHER EFFECTS ON OR BY PROFITABLE RAILROADS

### a. Competition

Since no other rail line serves Llano County, the loss of rail service cannot reduce competition between lines. Intermodal competition would be reduced, since the only remaining transportation alternative is motor freight.

### b. Profitability

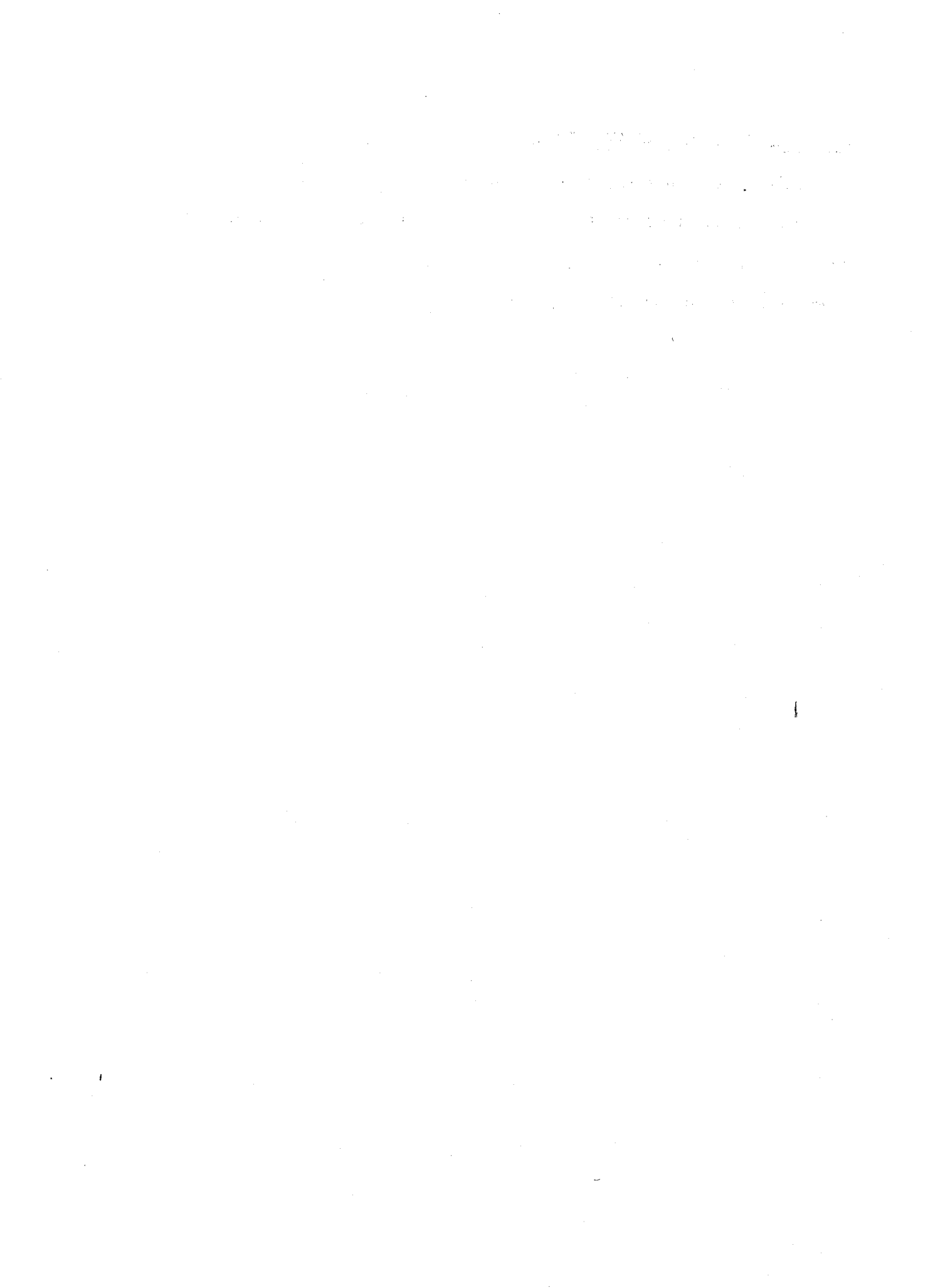
The profitability of the parent railroad company would be affected slightly in the near term, through reductions in losses, by revenues generated by sale of the right-of-way and any salvaged materials recovered from the trackage. The SP is presently profitable system-wide.





## IX. CONSIDERATIONS RELATED TO RAIL BANKING

This line is not recommended for rail banking, since the future economic potential of certain key sectors (e.g., agriculture and fossil fuel development, etc.) is considered limited and none is presently directly dependent on rail services.



X. DESCRIPTION OF THE ALTERNATIVES EVALUATED TOGETHER WITH AN ANALYSIS OF THE RELATIVE ADVANTAGES, DISADVANTAGES, AND COSTS ASSOCIATED WITH EACH ALTERNATIVE

a. Brief Description of Alternatives

Abandonment of the Llano-Scobee line would eliminate rail as an alternative (to truck) form of transportation for Llano and would so increase transportation costs for the largest user (Wootan Farm and Ranch Center) that this user expects to lose an estimated 80% of its market. This would result not only in the loss of nine jobs and increase unemployment in Llano County from 84 to 93, or an increase of 0.3% in the total unemployment rate, but potentially in the loss of as many as 100 jobs among turkey growers in the County. Abandonment would place a limitation on future industrial development (although the extent is unknown), and would apparently preclude any possibility of development of a dolomite deposit and other mineral reserves in Llano County and the portion of Burnet County served by the line. Most of Burnet County, where Scobee is located, would continue to receive service from SP.

Abandonment would improve the profitability of the Southern Pacific Railroad by reducing the current annual loss estimated at \$30,687.

Continuation of operation with a subsidy to the SP sufficient to offset losses and to provide a reasonable return on investment, would leave the competitive positions of Wootan Farm and Ranch Center and Llano Feed and Supply unchanged. Since an operating subsidy would be available for a maximum of three years, at the end of this time, abandonment would occur, unless new traffic sufficient to permit the line to operate profitably had materialized. In view of the development

potential of the dolomite deposit and the opportunity for significant granite traffic cited earlier, the three-year delay in abandonment would permit sufficient time to see whether such traffic could materialize. (The total amount of potential traffic is unknown. The realtor handling the site where the deposit is said to be located, claims that as much as 1 million tons of dolomite annually might result, whereas the granite operator now has 1,000 carload contract.)

b. Movement of Existing and Future Traffic by Rail and Alternative Modes

Traffic moving by truck and serving Llano and the surrounding area can use Texas Highways 16, 29, and 71 and Farm Road 1431, which parallels the route followed by the SP segment between Llano and Scobee. Highway 16 is a north-south route.

c. Identification of Costs Associated with Alternative

An operating subsidy would amount to \$30,687 to cover current operating losses plus an adequate return on investment to be negotiated. If the granite traffic develops and is sustained, no subsidy may be needed.

d. Selection Process

Because of the favorable outlook for this rail line and, in particular, the possibility of a major dolomite project requiring rail service, the continuation of service alternative is judged to merit serious consideration.

In view of the opportunity to minimize the impact of abandonment on the two major Llano shippers, particularly Wootan Farm and Ranch

Center and the local turkey growing industry that they support, and to evaluate the dolomite and granite potential, utilization of a short-term operating subsidy is suggested should public assistance be required to ensure continued operation of the line. Abandonment of the Llano-Scobee rail line would result in significant public impacts.



XI. CONCLUSION OF THE STATE AS TO WHETHER THE ALTERNATIVE SHOULD  
BE SELECTED FOR FEDERAL OR STATE ASSISTANCE

If the SP files an application to abandon the Llano-Scobee rail line, the segment is recommended for inclusion in the Certified Program of Projects, pending a cost-benefit evaluation of all possible projects. The condition of the rail line is generally good and the outlook for future rail traffic, particularly crushable limestone from reserves in the eastern portion of Burnet County and jetty stone from a quarry in Llano County, suggests that the line would be capable of achieving long-term viability upon termination of a project. It is further recommended that the Railroad Commission of Texas monitor the status of the proposed dolomite project and the volume of traffic carried on the line.





XII. STATEMENT OF THE STATE'S FUTURE ROLE ON EXPIRATION OF FEDERAL ASSISTANCE

When federal assistance expires (at the end of three years), if sufficient new traffic has not materialized to increase the profitability of the line sufficiently for SP to continue service without subsidy, it appears that some form of surcharge would be the only means of continuing operation. This surcharge, to be borne entirely by the shippers, would result in increased costs to the shippers, but would be considerably lower than the costs associated with trucking. The State should not play a role except to help negotiate a surcharge. It should be noted that one major shipper has already indicated a willingness to pay a surcharge.

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**Railroad Commission of Texas**

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Mack Wallace, *Commissioner*

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