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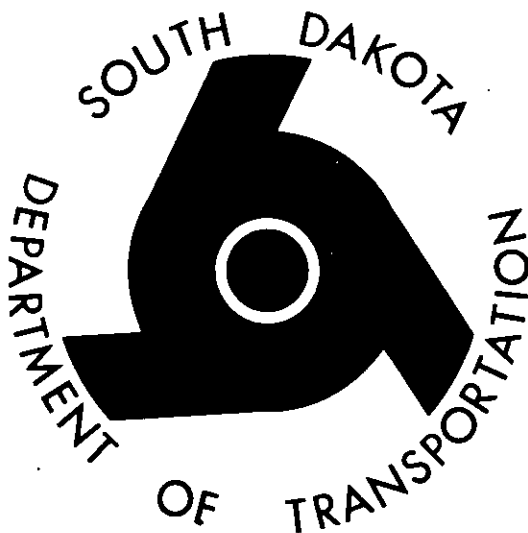
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RAILPLAN

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SOUTH DAKOTA

and to highway 661



S. D. DEPT. OF TRANSPORTATION

VOL. II

MARCH 1978

RAILPLAN SOUTH DAKOTA
VOLUME II

0026

Submitted to the
FEDERAL RAILROAD ADMINISTRATION
U.S. DEPARTMENT OF TRANSPORTATION

This document is the official state
Railroad Plan for the State of South
Dakota. It was prepared by the South
Dakota Department of Transportation,
the Designated State Agency, and
endorsed by Richard F. Kneip, Governor
of the State of South Dakota.

March 1978

SD Department of Transportation
Division of Railroads
Transportation Building
Pierre, South Dakota 57501

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at a cost of \$3.99 per copy.

RAILPLAN South Dakota, Volume II contains several areas worth explaining at the onset to eliminate confusion and misinterpretation later.

RAILPLAN South Dakota, Volume II was prepared for South Dakota by a consulting firm to determine viability on twenty-five (25) light density branch lines. The importance of each line as documented under Items 12 and 13 for each line assessment is based on viability and cost of discontinued service. The State of South Dakota used viability as only one of several criteria for prioritizing rail lines. The final line priority is documented in Chapter VII of Volume I.

The rehabilitation calculations are rough estimates, in that physical inspection on these lines was not performed. The consultant used the approach of upgrading the line by being heavy on tie replacement and ballast and avoided any rail relay. Most lines in South Dakota have light rail, therefore this type of rehabilitation will not (in most cases) be sufficient to handle the large jumbo hopper cars. The State will have the tendency to put strong emphasis on rehabilitation projects of a magnitude to handle the 263,000 lb loads at a speed of approximately 25 mph.

The work "potential" in this text is potential for all modes of transportation in the given study area. Traffic on some lines can actually exceed the estimated potential if there are shippers on the line which were missed in the analysis or if the estimated share of the market is greater than calculated. The potential for rail traffic on six major cities in South Dakota were not included in this analysis due to the complexity of the data collection activity. These cities included Sioux Falls, Rapid City, Aberdeen, Watertown, Huron and Mitchell.

The traffic in the following line analysis does not include bridge traffic on the lines as this information was not available.

Viability could be improved on several of the lines if they were segmented. However, it was determined to limit the utilization of segmentation in this first RAILPLAN and to study this choice in more detail during the continuing planning process.

The following are comments on specific lines as documented:

1. Line MW24 - Elk Point to Mitchell. Traffic shown on this line does not include overhead traffic or Mitchell traffic. Abandonment of the Burlington Northern line from Yankton to Sioux Falls would add several hundred carloads annually to this segment. Also what happens on the Napa to Platte line could have a definite impact on this line.

/1 Federal Directive § 266.15 (c)(4)(i) through (viii)

/2 Federal Directive § 266.15 (c)(4)(xi)

2. Line MW26-Madison to the Minnesota border. The segment from Madison to Egan has been designated as in ICC Category 2 while the part from Egan to the Minnesota border has been designated as in ICC Category 1.

3. Line CN17-Canby, Minnesota to Gary, South Dakota. The costs and analysis for this line includes only one mile and one station (Gary). It is 10 miles to Canby, the closest station with traffic. When calculating using 10 miles instead of 1 mile, this line would show a loss.

4. Line MW23-Sioux Falls to Sioux Falls Jct. The non-revenue traffic on this line amounts to about 4,000 cars per year to the Milwaukee Road for ballast for its own use. A portion of the operating expense should be assigned to this traffic relieving revenue traffic of the full burden of supporting this line.

5. Line CN15-Redfield to Frankfort. This is a one shipper line which also has elevators in other areas including Redfield. To date we have not received any shipper response or support on this line.

6. Line IC01-Cherokee, Iowa to Sioux Falls, South Dakota. Shippers using this line also include a meat-packing plant at Luverne, Minnesota which used the line for piggyback trailer loads and also there were numerous miscellaneous freight receivers in Sioux Falls who used the backhaul of what would otherwise be empty trailers. Since this time the piggyback operation has ceased and trucks are used to operate all the way to market, reducing Sioux Falls traffic substantially.

GLOSSARY OF TERMS

Accelerated Maintenance - to perform maintenance on a line in a magnitude that represents accumulated deferred maintenance.

Bridge Traffic - Traffic which does not originate or terminate on the line being studied but passes over the line.

BN - Burlington Northern Inc.

CMSP & P - Chicago, Milwaukee, St. Paul and Pacific Railroad Co. commonly referred to as Milwaukee Road.

CNW - Chicago & North Western Transportation Co.

FRA - Federal Railroad Administration

FRA Track Class - Classifications which set the maximum allowable operating speed for safety according to condition of track. Speeds for freight trains are as follows:

<u>FRA Class 1</u>	<u>10 MPH</u>
<u>FRA Class 2</u>	<u>25 MPH</u>
<u>FRA Class 3</u>	<u>40 MPH</u>
<u>FRA Class 4</u>	<u>60 MPH</u>

ICC - Interstate Commerce Commission

ICG - Illinois Central Gulf Railroad Co.

MILW - Milwaukee Road (same as CMSP & P)

Originating Traffic - Rail traffic which originates on the rail line being studied.

Rail Banking - This involves placing a rail line which has been approved for abandonment in "moth balls" until such time when it becomes feasible, because of increased agriculture production or natural resource development, to put the line back into rail service.

Ratio of PV - This ratio is obtained by dividing the present value of discontinuing service by the present value of continuing rail service.

Segmentation - The process of dividing a rail line and continue service on only part of the line.

SL - Soo Line Railroad Co.

Terminating Traffic - Rail traffic which has its destination on a particular line under study.

4-R Act - Railroad Revitalization and Regulatory Reform Act of 1976.

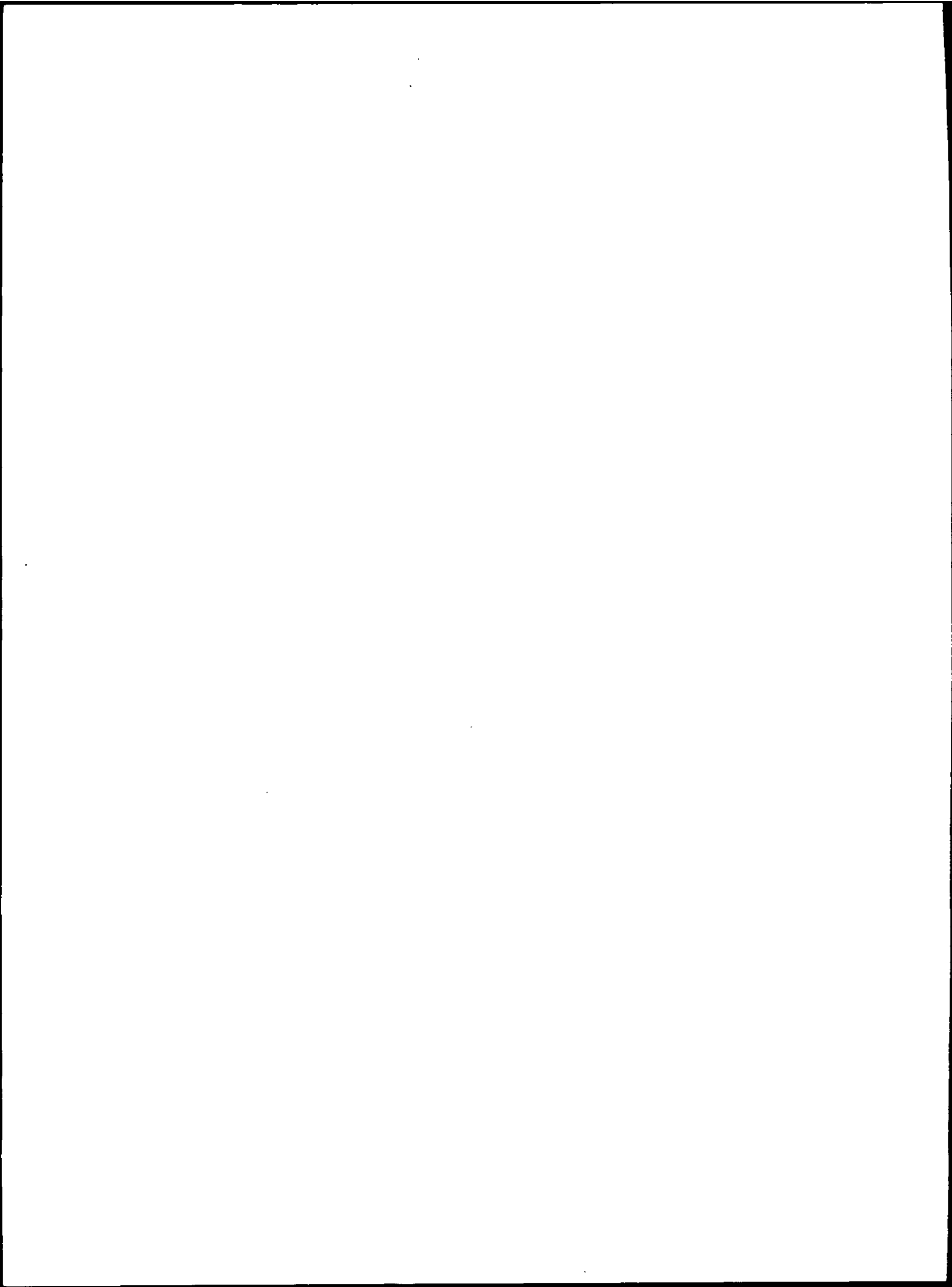
803 Program - A section of the 4-R Act which establishes the national program of Federal financial assistance for light density rail service and directs the states to develop statewide rail plans.

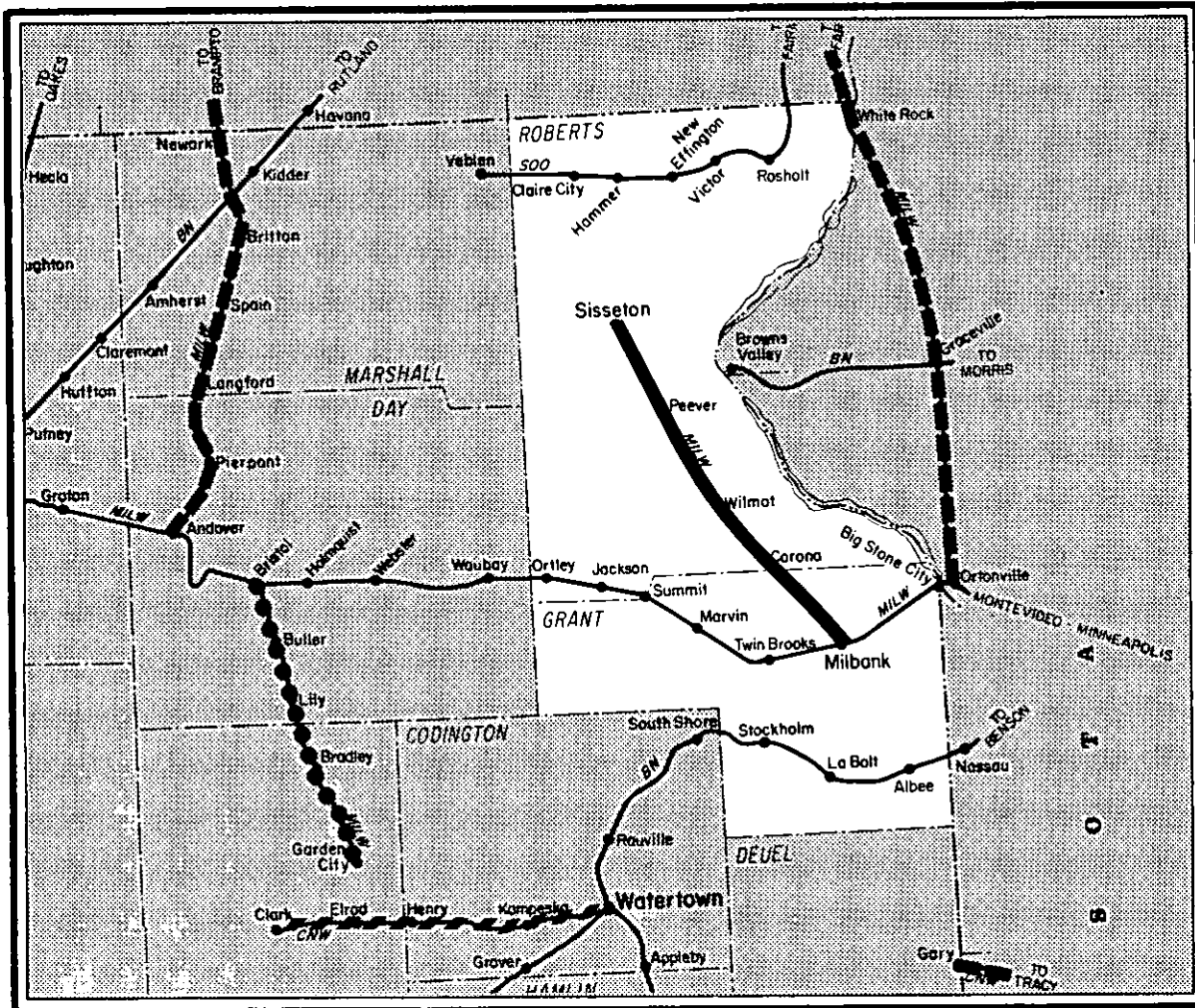
§ 266.15 (c)(4)(i) - These are references to Federal Guidelines (4-R Act) for contents necessary for state rail plans.

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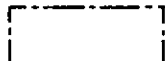
MW - Milwaukee Road
 CN - Chicago & North Western
 BN - Burlington Northern
 SL - Soo Line
 IC - Illinois Central Gulf

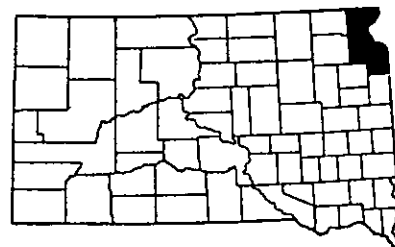




Line MW04, Millbank to Sisseton, operated by the CMSP&P is 37.1 miles long, connecting at Millbank with the CMSP&P line from Montevideo, MN. to Aberdeen. Line MW04 is in ICC category 2, (potentially subject to abandonment and under further study by the railroad).

LEGEND

-  Millbank — Sisseton
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line MW04 Millbank - Sisseton (MILW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	<u>Carloads</u>		<u>Tons</u> ^{1/}	
	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>
Originating	987	1,040	78,856	83,090
Terminating	134	143	6,606	7,050
Total	<u>1,121</u>	<u>1,183</u>	<u>85,462</u>	<u>90,140</u>

Shippers located on or near this line include 6 grain elevators with a total capacity of 1,077,180 bushels, 8 fertilizer dealers, 4 dealers of farm machinery and several other businesses shipping such commodities as lumber and petroleum products.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 207,000
Maintenance of Equipment	47,443
Traffic and Transportation	47,241
Taxes	3,338
Administration	6,920
Miscellaneous	0
Return on Value	9,443
Off Branch Costs	297,524
Total Avoidable Cost	618,909
Revenue	692,031
Profit	<u>73,122</u>

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CMSP&P properties in the region and existing rail weight (60 lb/yard) and FRA Track Class (II).

Rehabilitation to Class II ²⁵	\$ 1,409,800
Rehabilitation to Class III ^{40 mph}	1,780,800
Accelerated Maintenance	563,920

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that virtually all rail suitable traffic is presently moving by rail. Small growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 1.0 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 16,870	\$ 33,863	\$ 16,870	\$ 33,863
Sales Loss	10,773	21,628	10,773	21,628
Unemployment Payments	NA	NA	NA	NA
Tax Loss	1,105	2,219	1,105	2,219
Transport Cost Inc. (Annual)	357,102	1,387,704	58,990	231,180
Transport Cost Inc. ^{1/} (Capital)	0	0	224,936	899,744
Total Economic Impact	\$ 385,850	\$1,445,414	\$ 312,674	\$1,188,634
<u>Environmental & Energy</u>				
Truck-trips/day	18	18	71	71
Truck-mi/day	3,492	3,492	9,097	9,097
Truck-hrs/day	63	63	9	9
Additional Gal. of Fuel	132,622	530,488	9,097	36,388
<u>Other Impacts</u>				
Primary Jobs Lost	5	5	5	5
Secondary Jobs Lost	3	3	3	3
Local Outmigration	23	23	23	23

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 52 times annually (on a scheduled basis) by 1 locomotive and a crew of 4 operating from Millbank. The line is presently classified as FRA Class II with a timetable speed of 25 mph.

A reduced service frequency will not satisfy existing demand. A change to Track Class III is not economically productive. ~~A change to Track Class I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements.~~

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF THE LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

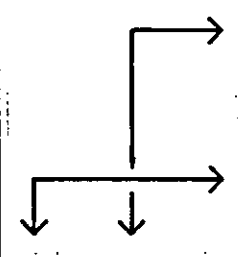
Should rehabilitation or accelerated maintenance be accomplished (either to Class I or II standards), ~~this line should operate profitably.~~ No further support, either State or Federal, will be required to operate this line.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF PV ALT. A.	RATIO OF PV OF PV ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	109252	69778	1279410	90545		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	86073	57524	1051807	74437		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	(-18010)	(-30746)	(-474119)	(-33554) (-9439)	***** (1.48)	***** (1.22)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	(-18010)	(-29962)	(-464984)	(-32907) (-2447)	***** (1.04)	***** (0.86)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(-18010)	(-28968)	(-449850)	(-31836) (-21048)	***** (8.60)	***** (7.07)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(-18010)	(-12736)	(-401442)	(-28410) (9473)	***** (9.56)	***** (7.86)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS II	(-18010)	(-32834)	(-491943)	(-34815) (-10701)	***** (1.51)	***** (1.24)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(-18010)	(-14824)	(-419267)	(-29672) (8212)	***** (11.03)	***** (9.06)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS II	(-18010)	(-55276)	(-672182)	(-47571) (-23456)	***** (1.92)	***** (1.58)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS II	(-18010)	(-22915)	(-405222)	(-28678) (-4564)	***** (1.37)	***** (1.13)



NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line should return a moderate profit (approximately \$18,010 per quarter) to the CMSP&P. With accelerated maintenance, this return decreases to approximately \$12,700 in the final quarter of the four-year program period. If the track were rehabilitated, the return should increase to approximately \$29,000 (Class 1) or \$30,700 (Class 2) per quarter. The return over the full program period would then range from \$401,000 (with accelerated maintenance) to \$474,000 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth.
- B. Unless the actual costs captured in the CMSP&P branchline accounting system prove to be substantially greater than the cost estimates developed by the Department, no economic basis exists for line abandonment (unless track conditions have deteriorated to the point where the CMSP&P feels it can no longer physically provide rail service). Whether the CMSP&P will seek abandonment is unknown. If sought, the Department will oppose the application through the ICC abandonment process in order to establish the true profitability of the line.
- C. The main need is to improve the track structure sufficiently to permit efficient, safe, long-term generation. Accelerated maintenance costs have been estimated at up to \$563,900. Rehabilitation has been estimated at up to approximately \$1,409,800 for Class 2. These costs appreciably exceed the anticipated return (over four years) by 41 to 197 percent. The Department is awaiting the receipt of a more "detailed" engineering cost estimate from the CMSP&P for accelerated maintenance or rehabilitation to Class 2 conditions. (In many cases, these estimates may be less than those used for branchline assessment purposes.) Thus the real issue is obtaining required capital funding -- from federal, state, or local governments, shippers, or the owning railroad. The preferable solution would be to rehabilitate the track rather than simply to seek funds for accelerated maintenance. Such upgrading would eliminate major maintenance expenditures for ten years or more and represents a more efficient use of capital monies. Rehabilitation to Class 2 standards would permit the continuation or slight improvement of present operating speeds for over the long term. A number of possibilities will be explored for accomplishing the required rehabilitation, including the possibility of a long-term "negotiated" solution between government, shippers, and the owning railroad (e.g., the owning railroad guarantees the long-term operation of the line in return for a loan or grant to upgrade the line).

12. (Continued)

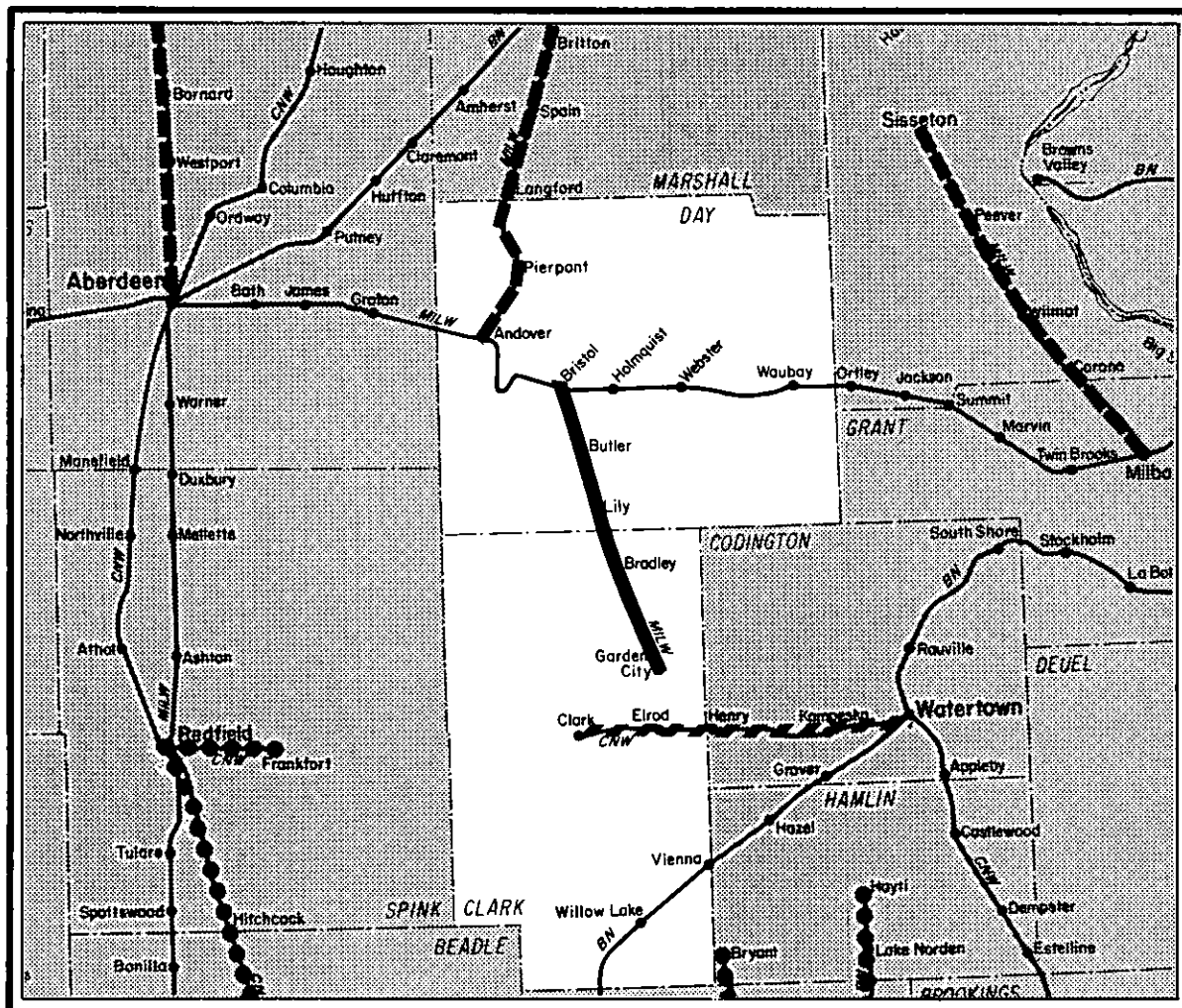
- D. Thus, present intent is to keep this line in operation, preferably through arrangements outside of the ICC abandonment/Section 803 process. Line retention depends to a large extent upon the amount of interest that can be generated locally in agreeing to and participating in a long-term solution for this line, including shipper commitment to use rail service.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA






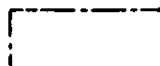
The decision to oppose abandonment of service from Millbank to Sisseton is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

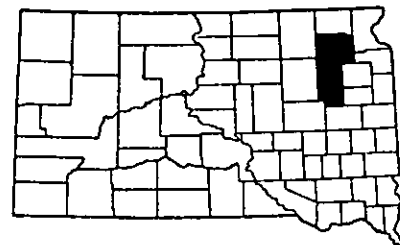
- There is potential for viable operation.
- The social and economic impacts of abandonment are large.



Line MW05, Bristol to Garden City, operated by the CMSP&P is 29.0 miles long, connecting at Bristol with the CMSP&P line from Montevideo, MN. to Aberdeen. Line MW05 is in ICC category 1 with anticipated filing of abandonment within 3 years.

LEGEND

-  Bristol — Garden City
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line MW05 Bristol - Garden City (MILW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	<u>Carloads</u>		<u>Tons^{1/}</u>	
	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>
Originating	232	138	26,440	15,727
Terminating	6	4	360	240
Total	238	142	26,800	15,967

Shippers located on or near this line include 3 grain elevators with a total capacity of 428,000 bushels, 4 fertilizer dealers, 1 dealer of farm machinery, and several other businesses shipping such commodities as petroleum and scrap materials.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structure	\$ 150,000
Maintenance of Equipment	11,927
Traffic and Transportation	24,375
Taxes	2,840
Administration	1,758
Miscellaneous	0
Return on Value	7,635
Off Branch Costs	64,198
Total Avoidable Cost	262,733
Revenue	175,799
(Deficit)	(86,934)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CMSP&P properties in the region and existing rail weight (56 and 75 lb/yard) and FRA Track Class (II).

Rehabilitation to Class II	\$ 1,102,000
Rehabilitation to Class III	1,392,000
Accelerated Maintenance	440,800

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated ~~that approximately 40 percent of rail suitable traffic is presently moving by rail.~~ Moderate growth in rail traffic might be ~~expected with effective promotion of continued~~ rail service. In addition, improved farming methods, such as the increased use of ~~irrigation~~ may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 0.2 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, ~~local impact may be more significant~~ (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service may be feasible on this line. See Part 12D for details. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 10,542	\$ 21,164	\$ 10,542	\$ 21,164
Sales Loss	1,555	3,126	1,555	3,126
Unemployment Payments	NA	NA	NA	NA
Tax Loss	482	971	482	971
Transport Cost Inc. (Annual)	83,189	326,021	7,919	31,045
Transport Cost Inc. ^{1/} (Capital)	0	0	86,900	347,608
Total Economic Impact	95,768	351,282	107,398	403,914
<u>Environmental & Energy</u>				
Truck-trips/day	4	4	17	17
Truck-mi/day	910	910	78	78
Truck-hrs/day	17	17	2	2
Additional Gal. of Fuel	35,841	143,364	1,950	7,800
<u>Other Impacts</u>				
Primary Jobs Lost	3	3	3	3
Secondary Jobs Lost	2	2	2	2
Local Outmigration	13	13	13	13

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 52 times annually (on a scheduled basis) by 2 locomotives and a crew of 4 operating from Bristol. The line is presently classified as FRA Class II with a timetable speed of 20 mph.

A reduced service frequency may be possible which will reduce operating costs on this line. A change to Track Class III is not economically productive. A change to Track Class I, although results in somewhat higher operating costs may be justified by significantly reducing capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

It is anticipated that operation of this line will still require subsidy by the end of the four year program. If operation is funded under the 803 program and subsidy requirements are reduced, consideration will be given to continuing service. Otherwise service will be discontinued.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF ALT. A.	RATIO OF PV OF PV OF ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	20702	16979	311287	22030		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	30063	19471	327505	25305		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	(21412)	(6243)	(162731)	(11517)	(0.26)	(2.20)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	(21412)	(6865)	(170006)	(12031)	(0.21)	(2.10)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(21412)	(7591)	(181159)	(12821)	(0.48)	(0.55)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(21412)	(20758)	(225252)	(15941)	(0.48)	(1.59)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS II	(21412)	(-380)	(112531)	(7964)	(0.27)	(3.18)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(21412)	(14136)	(175053)	(12389)	(0.52)	(2.04)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS II	(21412)	(3491)	(140514)	(9944)	(0.26)	(2.54)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS II	(21412)	(7131)	(170542)	(12069)	(0.26)	(2.10)

NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS.
 NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line incurs a moderate loss (approximately \$21,400 per quarter) to the CMSP&P. This loss decreases depending upon the amount of accelerated maintenance or rehabilitation performed. The loss over the full program period would be \$225,000 with accelerated maintenance. These estimates do not include capital investment and assume zero traffic growth. This line would still not be profitable were traffic to increase by ten percent per year or were traffic to increase to its maximum potential (as estimated by the University of South Dakota).
- B. Since the line incurs a net cost, the Department anticipates that an abandonment application will be filed by the CMSP&P. If the line is indeed unprofitable, the Department will not oppose such an application.
- C. The cost (present value for the first four years) of discontinuing rail service has been estimated at \$311,000 (trucking for the entire distance) and \$358,000 (trucking to the nearest rail line). Assuming that the former alternative would be chosen by shippers, the "ratio" of the cost of discontinuing rail service to continuing rail service under accelerated maintenance would be 1.38 or 0.48 depending upon whether accelerated maintenance costs are included or not. Since the ratios fall above and below 1.00, a case can be made for continuing rail service under the Section 803 program, but not for substantial improvements to present track structure through accelerated maintenance.
- D. Partitioning of this line so that service might be supplied more efficiently is an option which should be considered to reduce capital and/or operating costs.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

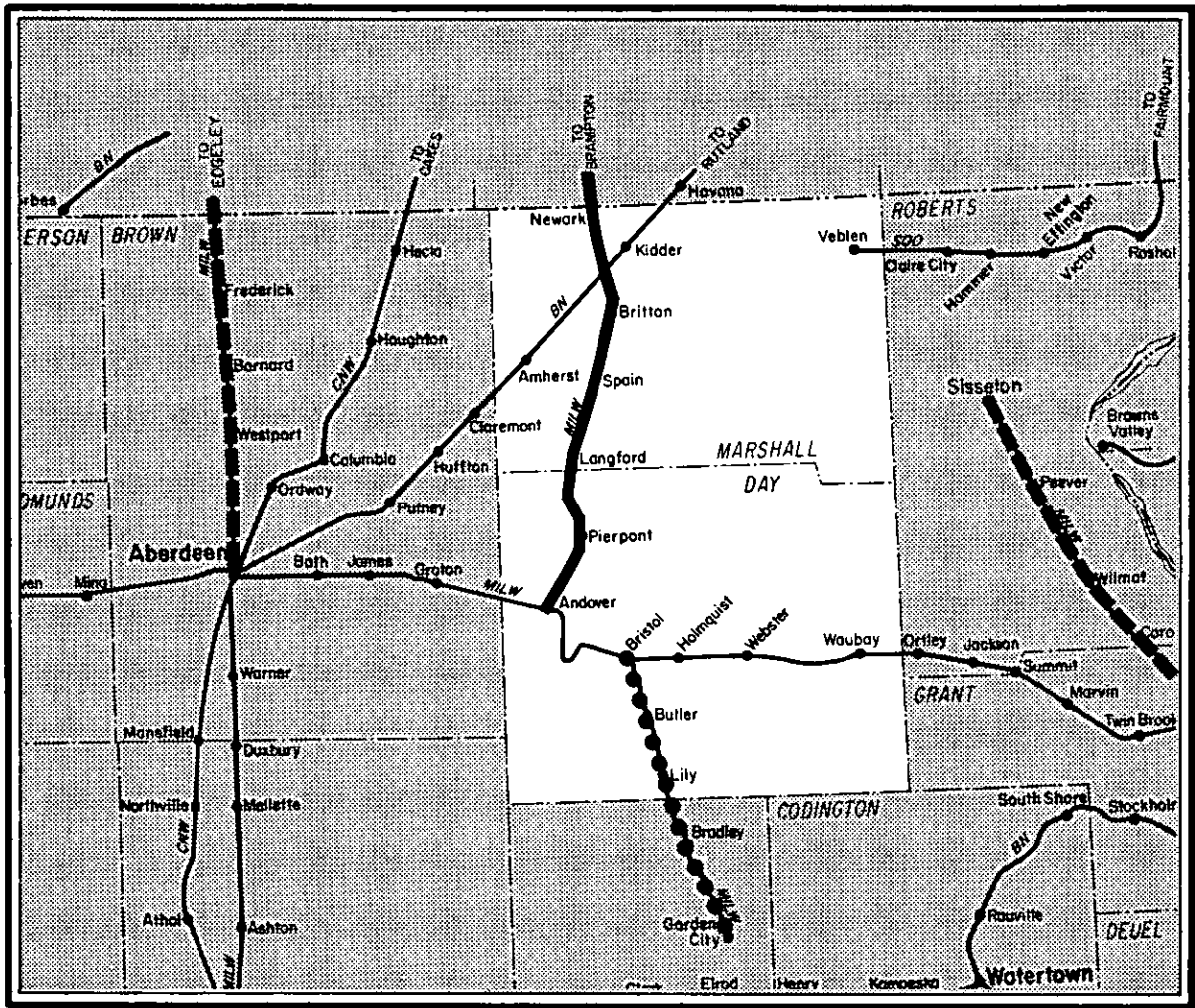
13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA

The decision not to oppose abandonment of service from Bristol to Garden City is based on the following criteria as established by Rail-plan South Dakota - Planning Work Statement.

- Shipper support and interest is not present.
- There is little or no potential for viable operation.
- The social and economic impacts of abandonment are small.
- Through traffic is not served by this route.







Line MW06

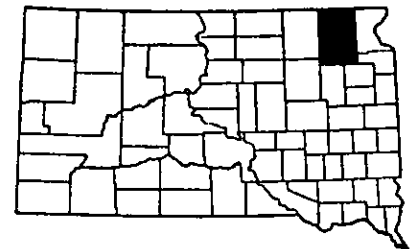
Andover — Brampton, ND



Line MW06, Andover to Brampton, ND, operated by the CMSP&P with 42.9 miles of line located in South Dakota. It connects at Andover with the CMSP&P line from Montevideo, MN to Aberdeen. Line MW06 is in ICC Category 2, (potentially subject to abandonment and under further study by the railroad).

LEGEND

-  Andover — Brampton, ND
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line MW06 Andover - Brampton, ND (MILW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	Carloads		Tons ^{1/}	
	1974	1975	1974	1975
Originating	919	724	73,293	57,741
Terminating	184	177	19,625	18,878
Total	1,103	901	92,918	76,619

Shippers located on or near this line include 3 grain elevators with a total capacity of 977,600 bushels, 6 fertilizer dealers, 2 dealers of farm machinery and several other businesses shipping such commodities as lumber and farm products. (Note: because of the proximity of Brampton, ND to the South Dakota border, the entire line is analyzed herein.)

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 201,940
Maintenance of Equipment	42,129
Traffic and Transportation	53,753
Taxes	3,030
Administration	7,928
Miscellaneous	0
Return on Value	10,919
Off Branch Costs	241,925
Total Avoidable Cost	561,629
Revenue	792,832
Profit	231,203

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CMSP&P properties in the region and existing rail weight (56 lb/yard) and FRA Track Class (II).

Rehabilitation to Class II	\$ 1,630,200
Rehabilitation to Class III	2,059,200
Accelerated Maintenance	652,080

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 80 percent of rail suitable traffic is presently moving by rail. Small growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 0.9 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	0	0	0	0
Sales Loss	20,399	40,947	20,399	40,947
Unemployment Payments	NA	NA	NA	NA
Tax Loss	815	1,638	815	1,638
Transport Cost Inc. (Annual)	375,908	1,476,335	66,095	259,019
Transport Cost Inc. ^{1/} (Capital)	0	0	254,588	1,018,352
Total Economic Impact	\$397,122	\$1,518,920	\$341,897	\$1,319,956
<u>Environmental & Energy</u>				
Truck-trips/day	17	17	66	66
Truck-mi/day	4,325	4,325	322	322
Truck-hrs/day	79	79	8	8
Additional Gal. of Fuel	75,818	303,272	8,063	32,252
<u>Other Impacts</u>				
Primary Jobs Lost	0	0	0	0
Secondary Jobs Lost	0	0	0	0
Local Outmigration	0	0	0	0

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 52 times annually (on a scheduled basis) by 2 locomotives and a crew of 4 operating from Andover. The line is presently classified as FRA Class II with a timetable speed of 20 mph.

~~A reduced service frequency will not satisfy existing demand. A change to Track Class III is not economically productive. A change to Track Class I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements. (See Table 1)~~

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

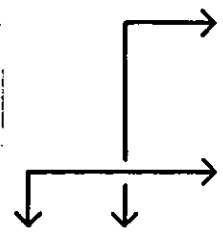
~~Should rehabilitation or accelerated maintenance be accomplished (either to Class I or II standards), this line should operate profitably. No further support, either State or Federal, will be required to operate this line.~~

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF PV ALT. A.	RATIO OF PV OF PV ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	113023	73615	1343916	95110		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	91347	64229	1167337	82613		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	(-56947)	(-57759)	(-980218)	(-49371)	(2.37)	(2.06)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	(-56947)	(-56897)	(-970226)	(-68663)	(1.37)	(1.19)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(-56947)	(-55528)	(-949874)	(-67223)	(*****)	(*****)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(-56947)	(-36246)	(-887216)	(-62789)	(*****)	(*****)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS II	(-56947)	(-62441)	(-1020019)	(-72187)	(2.55)	(2.21)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(-56947)	(-40929)	(-927017)	(-65605)	(*****)	(*****)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS II	(-56947)	(-89720)	(-1238275)	(-87633)	(4.32)	(2.78)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS II	(-56947)	(-47603)	(-890864)	(-63047)	(2.05)	(1.78)



NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

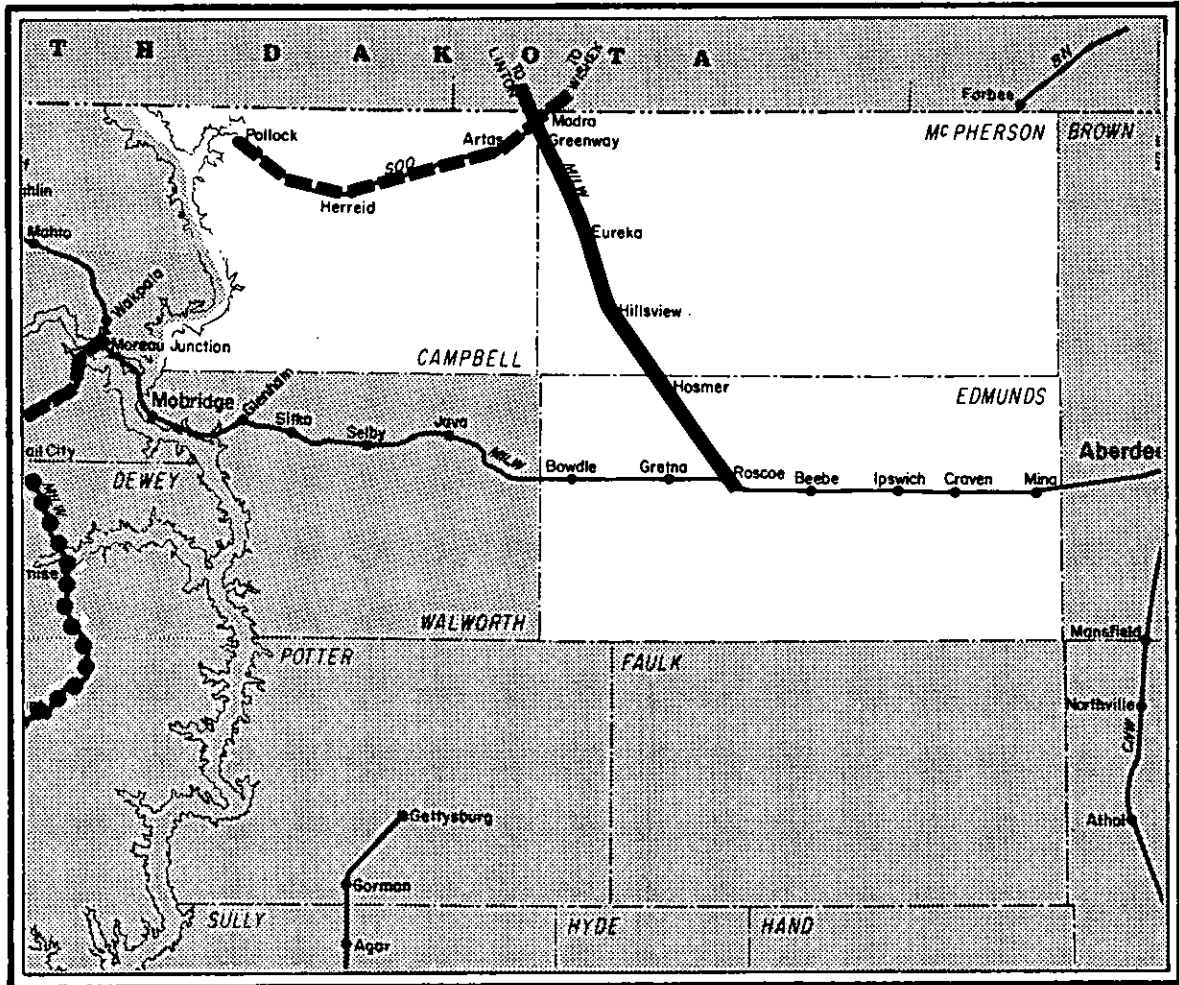
- A. Based upon "typical" traffic and DOT cost computations, this line ~~should return a moderate to large profit (approximately \$56,900 per quarter) to the CMSP&P. Despite accelerated maintenance, this return would decrease to approximately \$36,200 in the final quarter of the four-year program period.~~ If the track were rehabilitated, the return should decrease to approximately \$55,500 (Class 1) or increase to \$57,800 (Class 2) per quarter. ~~The return over the full program period would then range from \$887,000 (with accelerated maintenance) to \$980,000 (rehabilitation to Class 2 standards).~~ These estimates do not include capital investment and assume zero traffic growth.
- B. Unless the actual costs captured in the CMSP&P branchline accounting system prove to be substantially greater than the cost estimates developed by the Department, ~~no economic basis exists for line abandonment (unless track conditions have deteriorated to the point where the CMSP&P feels it can no longer physically provide rail service).~~ ~~Whether the CMSP&P will seek abandonment is unknown.~~ If sought, the Department will oppose the application through the ICC abandonment process in order to establish the true profitability of the line.
- C. ~~The main need is to improve the track structure sufficiently to permit efficient, safe, long-term operation. Accelerated maintenance costs have been estimated at up to \$652,080. Rehabilitation has been estimated at up to \$1,630,000 for Class 2. capital costs for accelerated maintenance can be recovered through operating profits within the four-year program period, and Class 2 rehabilitation costs recovered within an additional four-year period.~~
- D. ~~Present intent is to keep this line in operation outside of the ICC abandonment/Section 803 process. Because of the high profitability of the line, there is no justification for discontinuing service. If necessary, the state will pursue a negotiated solution whereby the railroad would be furnished with short-term loan for rehabilitation.~~

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA







The decision to oppose abandonment of service from Andover to Brampton, ND is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

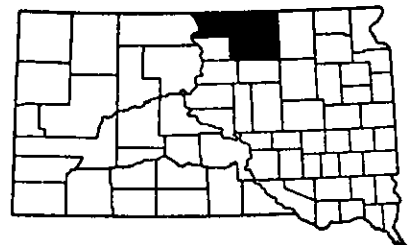
- Shipper support and interest is present.
- There is potential for viable operation.
- The social and economic impacts of abandonment are large.



Line MW08, Roscoe to Linton, ND, operated by the CMSP&P with 40.3 miles of line located in South Dakota. It connects at Roscoe with the CMSP&P line from Aberdeen to Mobridge. Line MW08 is in ICC Category 2 (potentially subject to abandonment and under further study by the railroad).

LEGEND

-  Roscoe — Linton, ND
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line MW08 Roscoe - Linton, ND (MILW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	Carloads		Tons ^{1/}	
	1974	1975	1974	1975
Originating	400	332	31,920	26,494
Terminating	98	54	5,559	3,063
Connecting	1	0	70	0
Total	499	386	37,549	29,557

Shippers located on or near this line include 5 grain elevators with a total capacity of 1,037,850 bushels, 3 fertilizer dealers, 4 dealers of farm machinery and several other businesses shipping such commodities as coal.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 204,500
Maintenance of Equipment	20,923
Traffic and Transportation	26,902
Taxes	2,557
Administration	4,222
Miscellaneous	0
Return on Value	10,257
Off Branch Costs	138,262
Total Avoidable Cost	407,623
Revenue	<u>422,167</u>
Profit	14,544

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CMSP&P properties in the region and existing rail weight (56 and 65 lb/yard) and FRA Track Class (II).

Rehabilitation to Class II	\$ 1,531,400
Rehabilitation to Class III	1,934,400
Accelerated Maintenance	612,560

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 60 percent of rail-suitable traffic is presently moving by rail. Moderate growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 0.4 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77	Four Year 6/78	First Year 7/77	Four Year 6/78
<u>Economic</u>				
Personal Income Loss	\$ 115,991	\$ 232,812	\$ 115,991	\$ 232,812
Sales Loss	33,890	68,024	33,890	68,024
Unemployment Payments	NA	NA	NA	NA
Tax Loss	5,993	12,033	5,993	12,033
Transport Cost Inc. (Annual)	172,239	674,991	22,874	89,646
Transport Cost Inc. ^{1/} (Capital)	0	0	194,408	777,632
Total Economic Impact	\$ 328,113	\$ 987,860	\$ 373,156	\$1,180,147
<u>Environmental & Energy</u>				
Truck-trips/day	9	9	33	33
Truck-mi/day	2,851	2,851	182	182
Truck-hrs/day	52	52	5	5
Additional Gal. of Fuel	106,812	427,248	4,617	18,468
<u>Other Impacts</u>				
Primary Jobs Lost	35	35	35	35
Secondary Jobs Lost	20	20	20	20
Local Outmigration	141	141	141	141

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 52 times annually (on an "as needed" basis) by 1 locomotive and a crew of 4 operating from Roscoe. The line is presently classified as FRA Class II with a timetable speed of 25 mph.

A reduced service frequency will not satisfy existing demand. A change to Track Class III is not economically productive. A change to Track Class I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

~~Should rehabilitation be accomplished,~~ this line should operate profitably. No further support, either State or Federal, will be required to operate this line.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV ALT. A.	RATIO OF PV ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	125932	43325	882868	62481		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	135094	52992	1052290	74471		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	(-3582)	(-16604)	(-234070)	(-16565)	(0.72)	(0.86)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	(-3582)	(-15605)	(-222219)	(-15727)	(0.55)	(0.65)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(-3582)	(-15265)	(-215422)	(-15246)	(2.03)	(2.42)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(-3582)	(2959)	(-155125)	(-10978)	(2.07)	(2.47)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS II	(-3582)	(-30934)	(-346901)	(-24550)	(0.80)	(0.95)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(-3582)	(-11371)	(-267956)	(-18963)	(2.82)	(3.36)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS II	(-3582)	(-26116)	(-310872)	(-22001)	(0.77)	(0.92)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS II	(-3582)	(-13563)	(-207308)	(-14671)	(0.71)	(0.84)

NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line ~~should return a small profit (approximately \$3,600 per quarter to the CMSP&P. With accelerated maintenance, this line would lose approximately \$3,000 in the final quarter of the four-year program period. If the track were rehabilitated, the return should further increase to approximately \$16,600 (Class 2) per quarter.~~ The return over the full program period would then range from \$155,000 (with accelerated maintenance) to \$234,000 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth.
- B. Unless the actual costs captured in the CMSP&P branchline accounting system prove to be substantially greater than the cost estimates developed by the Department, no economic basis exists for line abandonment (unless track conditions have deteriorated to the point where the CMSP&P feels it can no longer physically provide rail service). Whether the CMSP&P will seek abandonment is unknown. If sought, the Department will oppose the application through the ICC abandonment process in order to establish the true profitability of the line.
- C. The main need is to improve the track structure sufficiently to permit efficient, safe, long-term generation. ~~Accelerated maintenance costs have been estimated at up to \$652,080. Rehabilitation has been estimated at up to approximately \$1,630,200 for Class 2. These costs appreciably exceed the anticipated return (over four years) by 321 to 596 percent.~~ The Department is awaiting the receipt of a more "detailed" engineering cost estimate from the CMSP&P for accelerated maintenance or rehabilitation to Class 2 conditions. (In many cases, these estimates may be less than those used for branchline assessment purposes.) Thus the real issue is obtaining required capital funding -- from federal, state, or local governments, shippers, or the owning railroad. The preferable solution would be to rehabilitate the track rather than simply to seek funds for accelerated maintenance. Such upgrading would eliminate major maintenance expenditures for ten years or more and represents a more efficient use of capital monies. Rehabilitation to Class 2 standards would permit the continuation or slight improvement of present operating speeds for over the long term. A number of possibilities will be explored for accomplishing the required rehabilitation, including the possibility of a long-term "negotiated" solution between government, shippers, and the owning railroad (e.g., the owning railroad guarantees the long-term operation of the line in return for a loan or grant to upgrade the line).

12. (Continued)

- D. ~~Thus, present intent is to keep this line in operation, preferably through arrangements outside of the ICC abandonment/Section 803 process.~~ Line retention depends to a large extent upon the amount of interest that can be generated locally in agreeing to and participating in a long-term solution for this line, including shipper commitment to use rail service.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

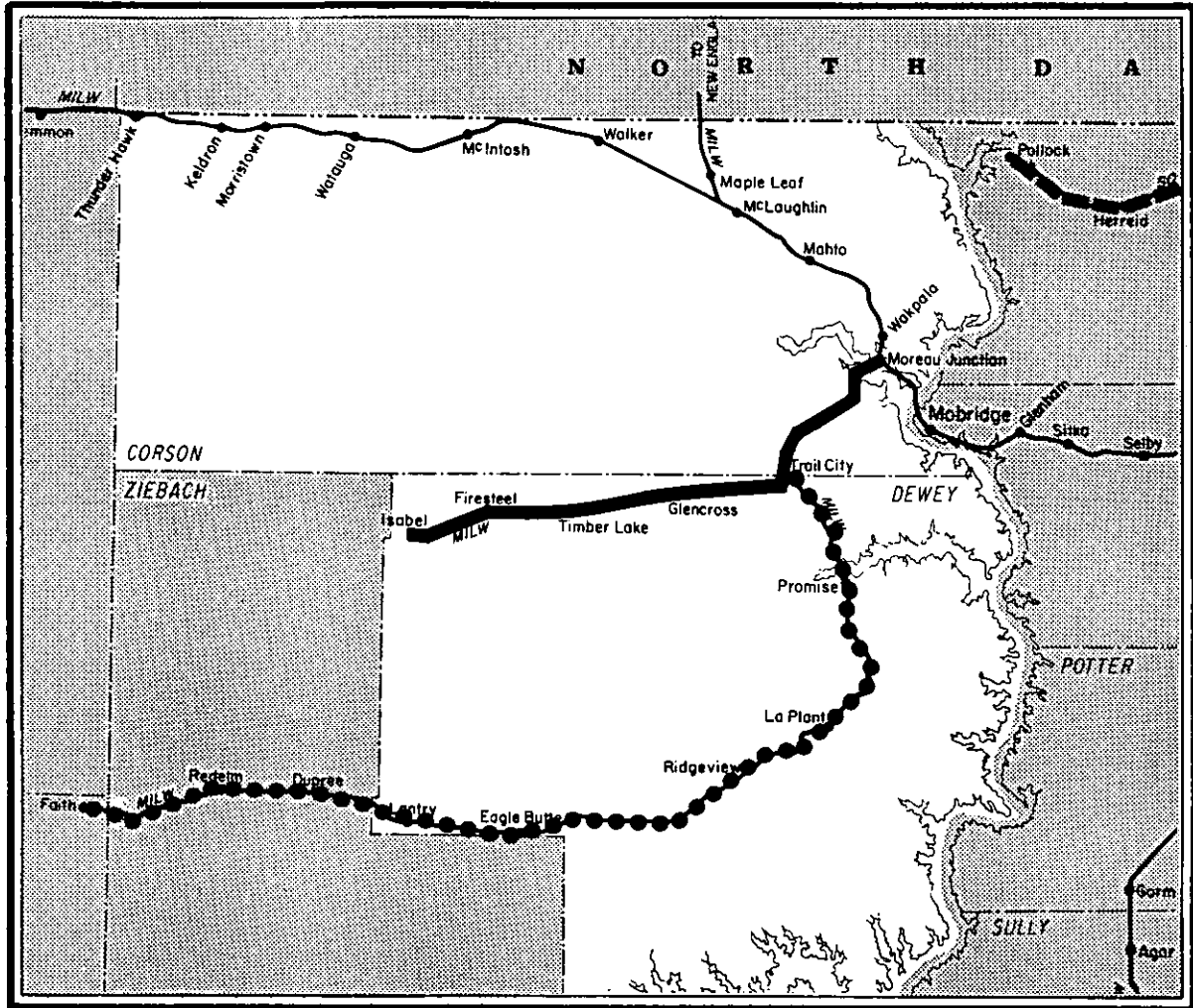
13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA

The decision to oppose abandonment of service from Roscoe to Linton is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

- ~~There is potential~~ for viable operation.
- The social and economic impacts of abandonment are large.







Line MW09-MW10

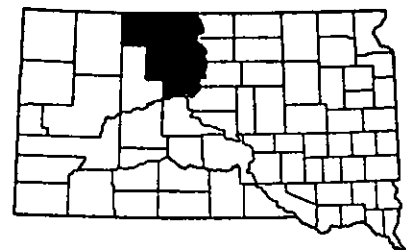
Moreau Jct. — Isabel



Line MW09-10, Moreau Jct. to Isabel, operated by the CMSP&P is 54.9 miles long, connecting at Moreau Jct. with the CMSP&P line from Mobridge to Marmarth, ND. Line MW9-10 is in ICC category 2, (potentially subject to abandonment and under further study by the railroad).

LEGEND

-  Moreau Jct. — Isabel
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line MW9-10 Moreau Jct. - Isabel (MILW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	<u>Carloads</u>		<u>Tons^{1/}</u>	
	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>
Originating	236	111	18,833	8,859
Terminating	94	61	4,900	3,180
Total	330	172	23,733	12,038

Shippers located on or near this line include 4 grain elevators with a total capacity of 454,620 bushels, 1 fertilizer dealer, and 2 dealers of farm machinery.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 289,500
Maintenance of Equipment	15,539
Traffic and Transportation	22,072
Taxes	3,101
Administration	2,874
Miscellaneous	0
Return on Value	13,973
Off Branch Costs	87,847
Total Avoidable Cost	434,906
Revenue	287,418
(Deficit)	(147,488)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CMSP&P properties in the region and existing rail weight (65 lb/yd) and FRA Track Class (II).

Rehabilitation to Class II	\$ 2,086,200
Rehabilitation to Class III	2,635,200
Accelerated Maintenance	834,480

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 80 percent of rail suitable traffic is presently moving by rail. Moderate growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 0.3 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 16,870	\$ 33,863	\$ 16,870	\$ 33,863
Sales Loss	4,024	8,080	4,024	8,080
Unemployment Payments	NA	NA	NA	NA
Tax Loss	834	1,677	834	1,677
Transport Cost Inc. (Annual)	114,782	449,829	35,282	138,274
Transport Cost Inc. ^{1/} (Capital)	0	0	106,284	425,140
Total Economic Impact	\$136,510	\$493,449	\$163,294	\$607,034
<u>Environmental & Energy</u>				
Truck-trips/day	3	3	11	11
Truck-mi/day	2,366	2,366	332	332
Truck-hrs/day	43	43	8	8
Additional Gal. of Fuel	88,663	354,652	8,299	33,196
<u>Other Impacts</u>				
Primary Jobs Lost	5	5	5	5
Secondary Jobs Lost	3	3	3	3
Local Outmigration	23	23	23	23

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 26 times annually (on an "as needed" basis) by 1 locomotive and a crew of 4 operating from Mobridge. The line is presently classified as FRA Class II with a timetable speed of 25 mph.

A reduced service frequency will not satisfy existing demand. A change to Track Class III is not economically productive. A change to Track Class I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

Rail Banking is recommended for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

This line will require a ~~small continuing subsidy~~ even after rehabilitation if traffic demand does not increase. During the subsidy period, effort will be made to stimulate increases in traffic. Should this, together with some cost cutting measures, result in profitable operation, service would be continued at no further cost to the state. If profitable operation is not achieved, consideration will be given to discontinuing service.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF PV ALT. A.	RATIO OF PV OF PV ALT. B.
A. ARANDONHEIT - TRUCK FOR ENTIRE RAIL DISTANCE	41874	23440	437520	30964		
B. ARANDONHEIT - TRUCK TO NEAREST RAIL LINE	46882	29140	527620	38048		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	36327 (36327)	8190 (8190)	244452 (2224778)	17300 (99765)	1.79 (0.20)	2.20 (0.24)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	36327 (36327)	9993 (9993)	266360 (2767826)	18850 (123017)	1.64 (0.16)	2.02 (0.19)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	36327 (36327)	8248 (8248)	246802 (1132733)	17466 (54359)	1.77 (0.39)	2.18 (0.47)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	36327 (36327)	34841 (34841)	351998 (1144130)	24911 (80970)	1.24 (0.38)	1.53 (0.47)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS II	36327 (36327)	1560 (1560)	189566 (2169893)	13416 (95881)	2.31 (0.20)	2.84 (0.25)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	36327 (36327)	28210 (28210)	297112 (1089245)	21027 (77086)	1.47 (0.40)	1.81 (0.49)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS II	36327 (36327)	-3689 (-3689)	148539 (2128867)	10512 (92977)	2.95 (0.21)	3.62 (0.25)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS II	36327 (36327)	11964 (11964)	277657 (2257983)	19650 (102115)	1.58 (0.19)	1.94 (0.24)

NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line could incur a moderate loss (approximately \$36,300 per quarter) to the CMSP&P. With accelerated maintenance, this loss should decrease to approximately \$34,841 in the final quarter of the four-year program period. If the track were rehabilitated, the loss should further decrease to approximately \$8,200 (Class 2) per quarter. The loss over the full program period would then range from \$352,000 (with accelerated maintenance) to \$244,000 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth. On the other hand, if traffic could be increased by ten percent per year, then the line would earn a profit of \$3,700 per quarter after rehabilitation to Class 2 standards.
- B. This line must be classified as marginal. If the actual costs captured in the CMSP&P branchline accounting system prove to be significantly less than the cost estimates developed by the Department, then the line is likely to be profitable with no economic basis for abandonment. If the actual costs are greater than or approximately equal to the estimated costs, then the Department anticipates that an abandonment application will be filed by the CMSP&P. If filed, the Department may oppose the application through the ICC abandonment process in order to establish the true extent of the unprofitability of all reasonable operating configurations and to provide a sound basis for any forthcoming offer of financial assistance.
- C. The cost (present value for the first four years) of discontinuing rail service has been estimated at \$438,000 (trucking for the entire distance) and \$538,000 (trucking to the nearest rail line). Assuming that the former alternative would be chosen by shippers, the "ratio" of the cost of discontinuing rail service to continuing rail service under accelerated maintenance would be 1.24 or 0.38 depending upon whether accelerated maintenance costs are included or not. Since the ratios fall above and below 1.00, a case can be made for continuing rail service under the Section 803 program, but not for substantial improvements to present track structure through accelerated maintenance.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

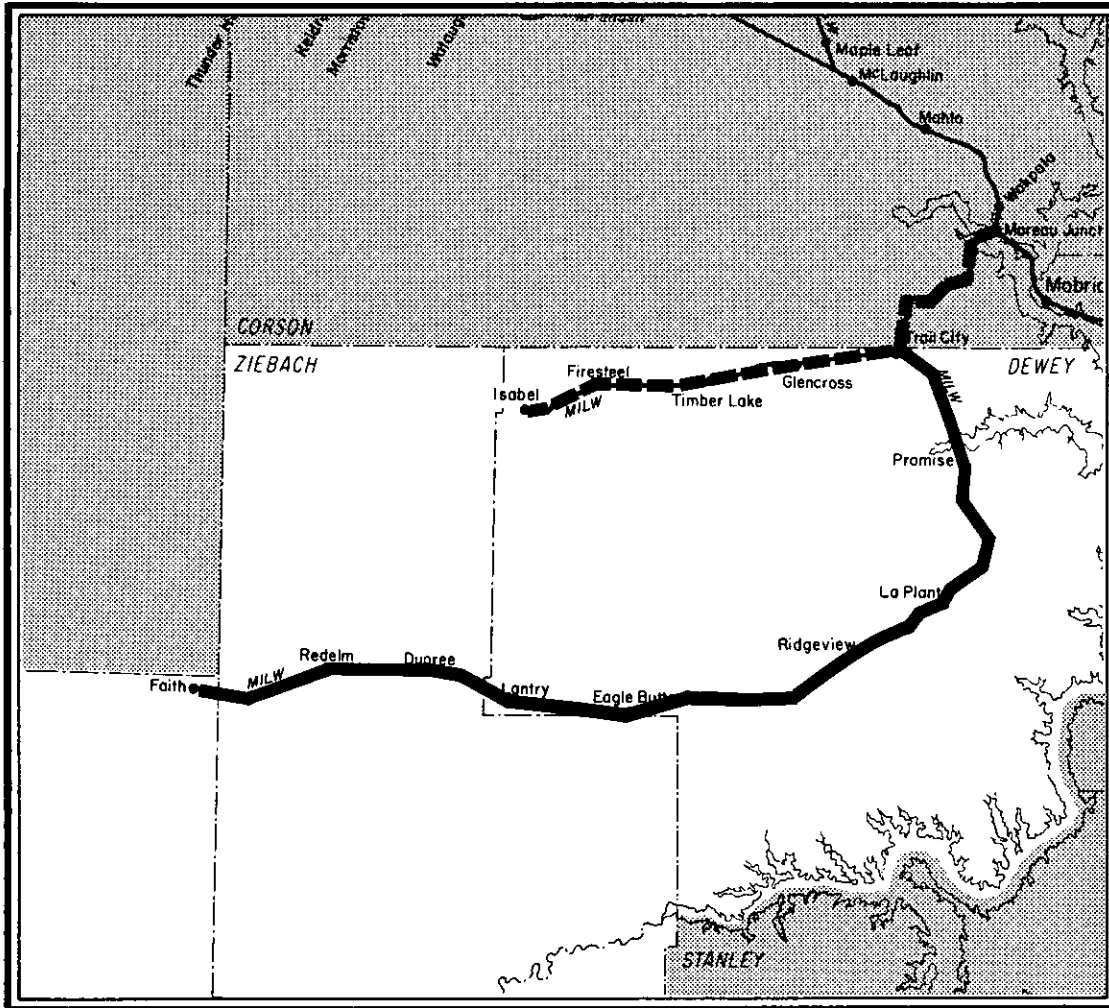
13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA

The ~~decision not to oppose abandonment of service~~ from Moreau Jct. to Isabel is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

- Shipper support and interest is not present.
- The social and economic impacts of abandonment are small.
- Through traffic is not served by this route.







Line MW11

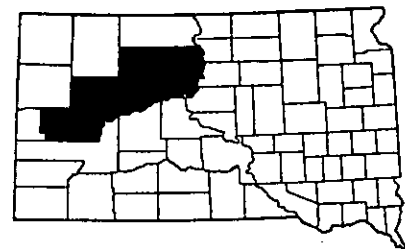
Trail City — Faith



Line MW11, Trail City to Faith, operated by the CMSP&P is 106.1 miles long, connecting at Trail City with the CMSP&P line from Moreau Jct. to Isabel. Line MW11 is in ICC category 1 with anticipated filing of abandonment within 3 years.

LEGEND

-  Trail City — Faith
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line MW11 Trail City-Faith (MILW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	Carloads		Tons ^{1/}	
	1974	1975	1974	1975
Originating	216	54	11,640	2,910
Terminating	94	41	5,065	2,209
Total	310	95	16,705	5,119

Shippers located on or near this line include 7 grain elevators with a total capacity of 1,038,840 bushels, 5 fertilizer dealers, and several other businesses shipping such commodities as dairy products, cement, and coal.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 541,000
Maintenance of Equipment	18,625
Traffic and Transportation	34,732
Taxes	7,011
Administration	2,825
Miscellaneous	0
Return on Value	27,005
Off Branch Costs	97,703
Total Avoidable Cost	748,901
Revenue	282,489
(Deficit)	(466,411)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CMSP&P properties in the region and existing rail weight (65 lb/yd) and FRA Track Class (II).

Rehabilitation to Class II	\$ 4,031,800
Rehabilitation to Class III	5,092,800
Accelerated Maintenance	1,612,720

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 20 percent of rail suitable traffic is presently moving by rail. Considerable growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 0.3 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 6,324	\$ 12,698	\$ 6,324	\$ 12,698
Sales Loss	1,956	4,341	1,956	4,341
Unemployment Payments	NA	NA	NA	NA
Tax Loss	165	334	165	334
Transport Cost Inc. (Annual)	121,233	475,110	47,129	184,699
Transport Cost Inc. ^{1/} (Capital)	0	0	200,948	803,792
Total Economic Impact	\$129,678	\$492,483	\$256,522	\$1,005,864
<u>Environmental & Energy</u>				
Truck-trips/day	6	6	21	21
Truck-mi/day	2,754	2,754	496	496
Truck-hrs/day	50	50	12	12
Additional Gal. of Fuel	66,979	267,916	12,531	50,124
<u>Other Impacts</u>				
Primary Jobs Lost	2	2	2	2
Secondary Jobs Lost	1	1	1	1
Local Outmigration	10	10	10	10

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 26 times annually (on an "as needed" basis) by 2 locomotives and a crew of 4 operating from Trail City. The line is presently classified as FRA Class II with a timetable speed of 25 mph.

A reduced service frequency will not satisfy existing demand. A change to Track Class III is not economically productive. A change to Track Class I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements. (See Table 1)

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

Rail Banking is recommended for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

~~It is anticipated that operation of this line will require substantial subsidies by the end of the four year program.~~ Abandonment will not be opposed.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF ALT. A, ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	35786	23811	435854	30846	
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	65562	49195	889074	62920	
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	109954 (109954)	51265 (51265)	1089322 (4916715)	77106 (236478)	0.40 (0.09) (0.82 (0.18)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	109954 (109954)	54745 (54745)	1131813 (5966166)	80099 (281412)	0.39 (0.07) (0.79 (0.15)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	109954 (109954)	51390 (51390)	1094253 (2806416)	77441 (148739)	0.40 (0.16) (0.81 (0.32)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	109954 (109954)	102769 (102769)	1297365 (2828240)	91812 (200156)	0.34 (0.15) (0.69 (0.31)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS II	109954 (109954)	207813 (207813)	-271371 (3555825)	-19205 (140167)	***** (0.12) (0.25)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	109954 (109954)	156308 (156308)	-63527 (1467350)	-496 (103845)	***** (0.30) (0.61)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS II	109954 (109954)	42342 (42342)	1017479 (4844674)	72007 (231380)	0.43 (0.09) (0.87 (0.18)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS II	109954 (109954)	54109 (54109)	114547 (4941742)	78877 (238249)	0.39 (0.09) (0.80 (0.18)

NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line incurs a large loss (approximately \$110,000 per quarter) to the CMSP&P. This loss decreases depending upon the amount of accelerated maintenance or rehabilitation performed. The loss over the full program period would range from \$1,297,000 (with accelerated maintenance) to \$1,089,522 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth. This line would still not be profitable were traffic to increase by ten percent per year or were traffic to increase to its maximum potential (as estimated by the University of South Dakota).
- B. Since the line incurs a net cost, the Department anticipates that an abandonment application will be filed by the CMSP&P. If the line is indeed unprofitable, the Department will not oppose such an application.
- C. The cost (present value for the first four years) of discontinuing rail service has been estimated at \$436,000 (trucking for the entire distance) and \$889,000 (trucking to the nearest rail line). Assuming that the former alternative would be chosen by shippers, the "ratio" of the cost of discontinuing rail service to continuing rail service under accelerated maintenance would be 0.34 or 0.15, depending upon whether accelerated maintenance costs are included or not. Since both ratios are less than 1.00, a case cannot be made for continuing rail service and accomplishing accelerated maintenance under the Section 803 program.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

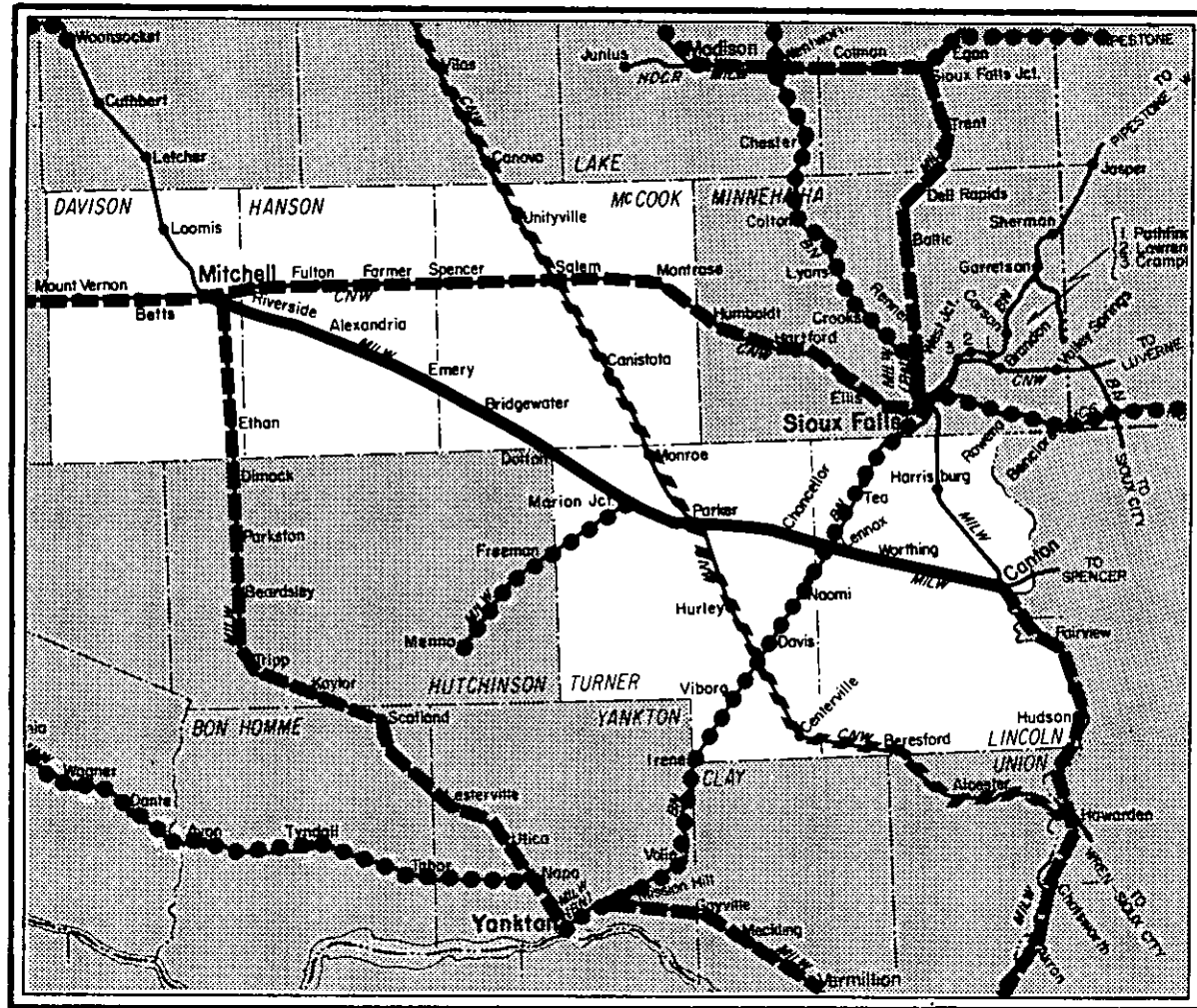
13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA

The decision not to oppose abandonment of service from Trail City to Faith is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

- Shipper support and interest is not present.
- There is little or no potential for viable operation.
- The social and economic impacts of abandonment are small.
- Through traffic is not served by this route.







Line MW15

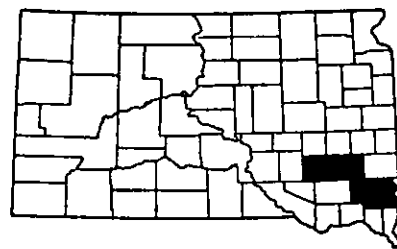
Canton — Mitchell



Line MW15, Canton to Mitchell, operated by the CMSP&P is 79.2 miles long, connecting at Canton with the CMSP&P line from Sioux City, IA. to Sioux Falls and at Mitchell with several CMSP&P lines, including the line from Mitchell to Wolsey. Line MW15 is in ICC category 2 (potentially subject to abandonment and under further study by the railroad).

LEGEND

-  Canton — Mitchell
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line MW15 Canton - Mitchell (MILW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	Carloads		Tons ^{1/}	
	1974	1975	1974	1975
Originating	820	390	65,163	30,992
Terminating	327	310	18,023	17,086
Connecting	53	40	3,710	2,800
Total	1,200	740	86,896	50,878

Shippers located on or near this line include 11 grain elevators with a total capacity of 1,248,910 bushels, 11 fertilizer dealers, 5 dealers of farm machinery, and several other businesses shipping such commodities as lumber.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 411,000
Maintenance of Equipment	72,392
Traffic and Transportation	88,856
Taxes	13,805
Administration	5,822
Miscellaneous	0
Return on Value	20,158
Off Branch Costs	226,718
Total Avoidable Cost	838,751
Revenue	593,537
(Deficit)	(245,214)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CMSP&P properties in the region and existing rail weight (75 and 90 lb/yard) and FRA Track Class (II).

Rehabilitation to Class II	\$ 3,009,600
Rehabilitation to Class III	3,801,600
Accelerated Maintenance	1,203,840

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 40 percent of rail suitable traffic is presently moving by rail. Moderate growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 1.0 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 312,124	\$ 626,477	\$ 312,124	\$ 626,477
Sales Loss	71,247	143,003	71,247	143,003
Unemployment Payments	NA	NA	NA	NA
Tax Loss	15,333	30,779	15,333	30,779
Transport Cost Inc. (Annual)	314,607	1,232,926	99,090	388,335
Transport Cost Inc. ^{1/} (Capital)	0	0	344,660	1,378,649
Total Economic Impact	\$ 713,311	\$2,033,185	\$ 842,454	\$2,567,243
<u>Environmental & Energy</u>				
Truck-trips/day	12	12	46	46
Truck-mi/day	1,227	1,227	157	157
Truck-hrs/day	22	22	4	4
Additional Gal. of Fuel	30,670	122,680	5,966	23,864
<u>Other Impacts</u>				
Primary Jobs Lost	94	94	94	94
Secondary Jobs Lost	54	54	54	54
Local Outmigration	381	381	381	381

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 104 times annually (on an "as needed" basis) by 1 locomotive and a crew of 4 operating from Mitchell. The line is presently classified as FRA Class II with a timetable speed of 25 mph.

~~A reduced service frequency~~ should be considered on this line as a means to reduce operating costs. A change to Track Class III is not economically productive. A change to Track Class I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

It is anticipated that operation of this line will still require subsidy by the end of the four year program. If operation is funded under the 803 program and subsidy requirements are reduced, consideration will be given to continuing service. Otherwise service will be discontinued.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF PV ALT. A.	RATIO OF PV OF PV ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	291260	86676	1821924	128939		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	318763	113267	2293018	162278		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	60425 (60425)	19538 (19538)	484542 (3341411)	34291 (153257)	3.76 (0.55)	4.73 (0.69)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	60425 (60425)	20569 (20569)	495673 (4104349)	35079 (185352)	3.68 (0.44)	4.63 (0.56)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	60425 (60425)	25901 (25901)	569829 (1847900)	40327 (93549)	3.20 (0.99)	4.02 (1.24)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	60425 (60425)	37985 (37985)	639691 (1782434)	45271 (126144)	2.85 (1.02)	3.58 (1.29)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS II	60425 (60425)	26109 (26109)	144435 (3001304)	10222 (129188)	12.61 (0.61)	15.88 (0.76)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	60425 (60425)	12337 (12337)	299584 (1442329)	21202 (102074)	6.08 (1.26)	7.65 (1.59)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS II	60425 (60425)	3026 (3026)	351220 (3208088)	24856 (143822)	5.19 (0.27)	6.53 (0.71)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS II	60425 (60425)	24802 (24802)	530701 (3387569)	37558 (156524)	3.43 (0.54)	4.32 (0.68)

NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line ~~incurs a large loss~~ (approximately \$60,400 per quarter) to the CMSP&P. This loss decreases depending upon the amount of accelerated maintenance or rehabilitation performed. The loss over the full program period would range from \$640,000 (with accelerated maintenance) to \$485,000 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth. This line would still not be profitable were traffic to increase by ten percent per year or were traffic to increase to its maximum potential (as estimated by the University of South Dakota).
- B. Since the line incurs a net cost, the Department anticipates that an abandonment application will be filed by the CMSP&P. If the line is indeed unprofitable, the Department will not oppose such an application.
- C. The cost (present value for the first four years) of discontinuing rail service has been estimated at \$1,822,000 (trucking for the entire distance) and \$2,293,000 (trucking to the nearest rail line). Assuming that the former alternative would be chosen by shippers, the "ratio" of the cost of discontinuing rail service to continuing rail service under accelerated maintenance would be 2.75 or 1.01, depending upon whether accelerated maintenance costs are included or not. Since these ratios are greater than 1.00, a strong case can be made for continuing rail service and accomplishing accelerated maintenance under the Section 803 program.
- D. A concurrent need is to improve the track structure sufficiently to prevent further deterioration of present track conditions. Accelerated maintenance costs have been estimated at up to \$1,203,840. The Department is awaiting a more detailed "engineering" cost estimate from the CMSP&P. If sufficient funds are available (after meeting higher priority needs), the Department will utilize Section 803 funding to carry out accelerated maintenance.
- E. Thus, present intent is to keep this line in operation using Section 803 funding if required and available. Line retention depends to a large extent upon the amount of interest that can be generated locally to participate in the Section 803 program and in shipper commitments to increase present usage of rail service.

12. (Continued)

- F. An issue of some importance to the future of this line is the existence of competitive rail services between Mitchell and Sioux City. Presently the CMSP&P offers two routes, one via Yankton (MW24) and one via Canton (MW15-MW22). Because of this situation it appears that the future of these segments may be interconnected. The CMSP&P may desire to preserve one route for the purposes of system connectivity and service to Omaha and points east. Any rail service continuation decision made by the state, however, will depend primarily on the existence of local traffic on these lines, since connecting traffic appears to be minimal.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

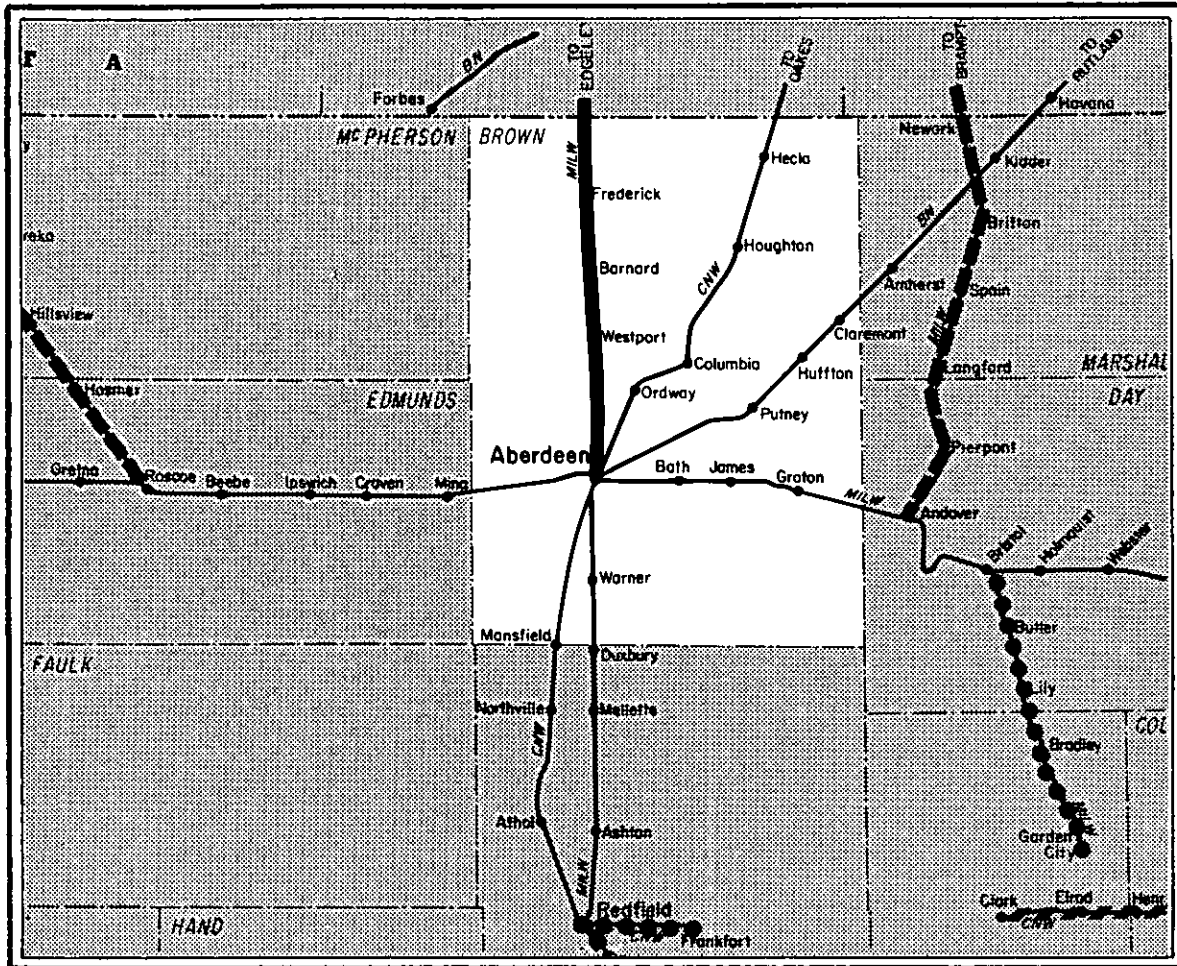
13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA

The decision to pursue Section 803 support for service from Mitchell to Canton is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

- The social and economic impacts of abandonment are large.







Line MW18

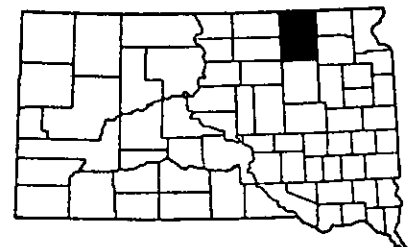
Aberdeen — Edgeley, ND



Line MW18, Aberdeen to Edgeley, ND, operated by the CMSP&P is 31.6 miles long, connecting at Aberdeen with the CMSP&P line from Montevideo, MN. to Mobridge. Line MW18 is in ICC category 2 (potentially subject to abandonment and under further study by the railroad).

LEGEND

-  Aberdeen — Edgeley, ND
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line MW18 Aberdeen - Edgeley, ND (MILW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	<u>Carloads</u>		<u>Tons^{1/}</u>	
	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>
Originating	180	138	14,364	11,012
Terminating	56	17	2,982	905
Total	236	155	17,346	11,917

Shippers located on or near this line include 5 grain elevators with a total capacity of 352,580 bushels, and 3 fertilizer dealers.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 166,500
Maintenance of Equipment	9,842
Traffic and Transportation	17,864
Taxes	2,707
Administration	1,445
Miscellaneous	0
Return on Value	8,043
Off Branch Costs	53,980
Total Avoidable Cost	260,381
Revenue	144,534
(Deficit)	(115,847)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CMSP&P properties in the region and existing rail weight (56 and 60 lb/yard) and FRA Track Class (II).

Rehabilitation to Class II	\$ 1,200,800
Rehabilitation to Class III	1,516,800
Accelerated Maintenance	480,320

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 30 percent of rail suitable traffic is presently moving by rail. Considerable growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 0.2 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 0	\$ 0	\$ 0	\$ 0
Sales Loss	1,501	3,018	1,501	3,018
Unemployment Payments	NA	NA	NA	NA
Tax Loss	58	120	58	120
Transport Cost Inc. (Annual)	82,760	324,334	18,093	70,916
Transport Cost Inc. ^{1/} (Capital)	0	0	104,444	417,788
Total Economic Impact	\$ 84,319	\$327,472	\$ 124,096	\$491,842
<u>Environmental & Energy</u>				
Truck-trips/day	2	2	8	8
Truck-mi/day	681	681	99	99
Truck-hrs/day	12	12	2	2
Additional Gal. of Fuel	51,091	204,364	4,778	19,112
<u>Other Impacts</u>				
Primary Jobs Lost	0	0	0	0
Secondary Jobs Lost	0	0	0	0
Local Outmigration	0	0	0	0

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 52 times annually (on a scheduled basis) by 1 locomotive and a crew of 4 operating from Aberdeen. The line is presently classified as FRA Class II with a timetable speed of 25 mph.

A reduced service frequency will not satisfy existing demand. A change to Track Class III is not economically productive. A change to Track Class I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

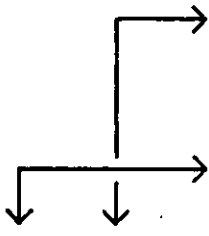
It is anticipated that operation of this line will require substantial subsidies by the end of the four year program. If operation is funded under the 803 program and subsidy requirements are reduced, consideration will be given to continuing service. Otherwise service will be discontinued.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF ALT. A.	RATIO OF PV OF PV OF ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	22851	15967	289556	20492		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	21358	24149	424552	30753		
C. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	(28534)	(10839)	(250402)	(17721)	1.16 (0.21)	1.74 (0.31)
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	(28534)	(11651)	(260068)	(18405)	1.11 (0.17)	1.67 (0.26)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(28534)	(11775)	(263532)	(18650)	1.10 (0.37)	1.65 (0.56)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(28534)	(26179)	(312305)	(22102)	0.93 (0.38)	1.39 (0.57)
G. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS II	(28534)	(-781)	(169850)	(12020)	1.70 (0.22)	2.56 (0.33)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(28534)	(14559)	(231753)	(16401)	1.25 (0.42)	1.88 (0.63)
I. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS II	(28534)	(8668)	(232875)	(16481)	1.24 (0.21)	1.87 (0.32)
J. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS II	(28534)	(11541)	(256573)	(18158)	1.13 (0.21)	1.69 (0.31)



NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

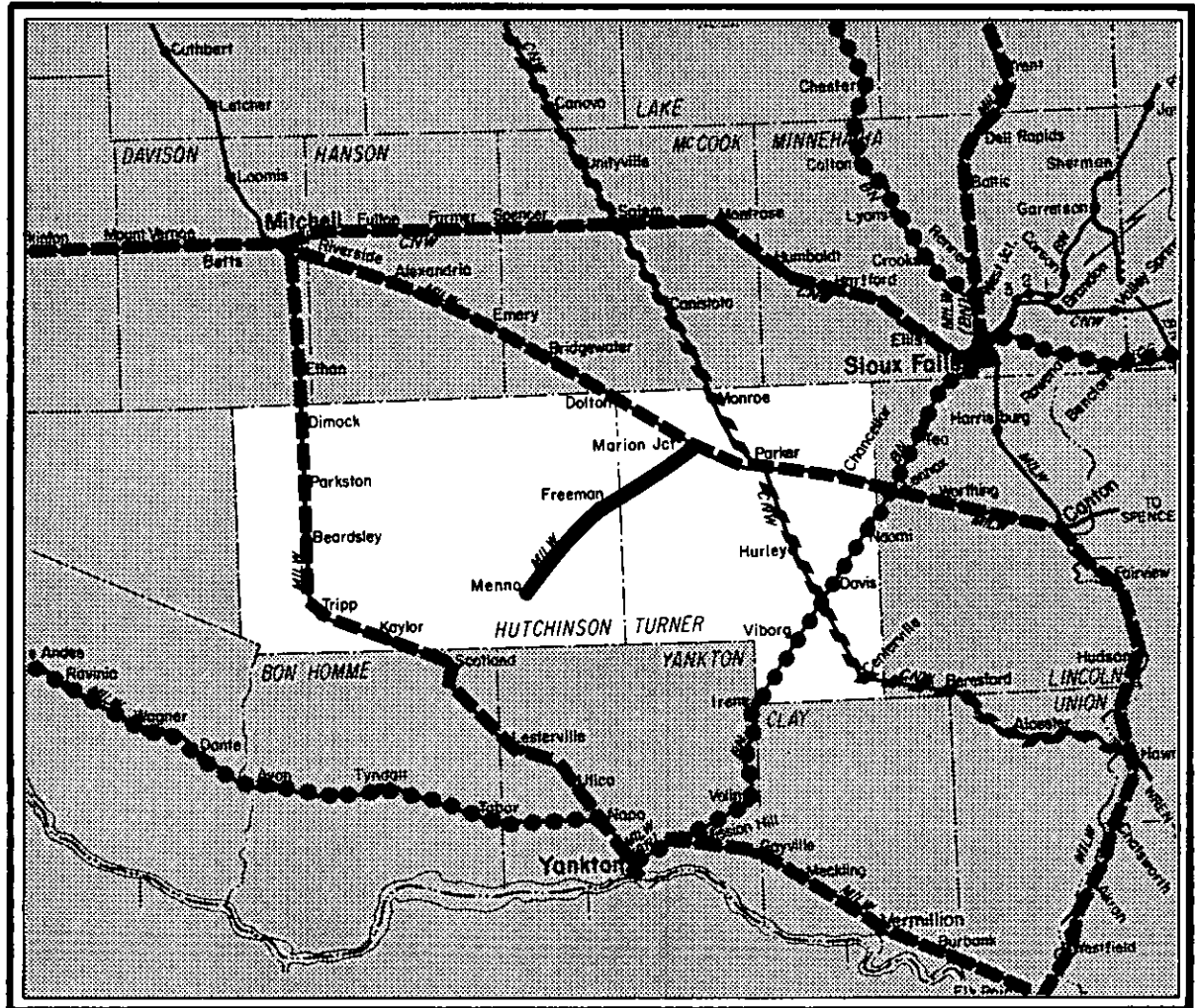
- A. Based upon "typical" traffic and DOT cost computations, this line incurs a moderate loss (approximately \$29,000 per quarter) to the CMSP&P. This loss decreases depending upon the amount of accelerated maintenance or rehabilitation performed. The loss over the full program period would range from \$312,000 (with accelerated maintenance) to \$250,000 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth. This line would still not be profitable were traffic to increase by ten percent per year or were traffic to increase to its maximum potential (as estimated by the University of South Dakota).
- B. Since the line incurs a net cost, the Department anticipates that an abandonment application will be filed by the CMSP&P. If the line is indeed unprofitable, the Department will not oppose such an application.
- C. The cost (present value for the first four years) of discontinuing rail service has been estimated at \$290,000 (trucking for the entire distance) and \$435,000 (trucking to the nearest rail line). Assuming that the former alternative would be chosen by shippers, the "ratio" of the cost of discontinuing rail service to continuing rail service under accelerated maintenance would be 0.93 or 0.38, depending upon whether accelerated maintenance costs are included or not. Since both ratios are less than 1.00, a case cannot be made for continuing rail service and accomplishing accelerated maintenance under the Section 803 program.
- D. This line segment extends out of state into North Dakota; a detailed analysis was done for the South Dakota portion only. Although this demonstrated that service was unprofitable, the traffic at the three North Dakota stations appears to be substantial and may generate enough profits to cover any losses sustained on the remainder of the line. For this reason, the analysis offered here is tentative and any decision made should be subject to cooperative arrangements between the two states and the CMSP&P.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA







The decision not to oppose abandonment of service from Aberdeen to Edgeley is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

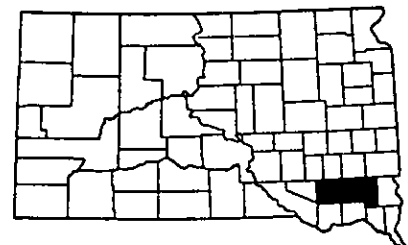
- Shipper support and interest is not present.
- There is little or no potential for viable operation.
- The social and economic impacts of abandonment are small.



Line MW19, Marion Jct. to Menno, operated by the CMSP&P is 21.3 miles long, connecting at Marion with the CMSP&P line from Canton to Mitchell. Line MW19 is in ICC category 1 with anticipated filing of abandonment within 3 years.

LEGEND

-  Marion Jct. — Menno
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line MW19 Marion Jct. - Menno (MILW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	<u>Carloads</u>		<u>Tons^{1/}</u>	
	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>
Originating	309	200	18,377	11,895
Terminating	120	102	7,137	6,066
Total	429	302	25,514	17,961

Shippers located on or near this line include 4 grain elevators with a total capacity of 422,000 bushels, 8 fertilizer dealers, 5 dealers of farm machinery, and several other businesses shipping such commodities as lumber and cement.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 97,980
Maintenance of Equipment	18,874
Traffic and Transportation	30,364
Taxes	1,880
Administration	2,032
Miscellaneous	0
Return on Value	5,421
Off Branch Costs	97,792
Total Avoidable Cost	254,343
Revenue	203,152
(Deficit)	(51,191)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CMSP&P properties in the region and existing rail weight (60 lb/yard) and FRA Track Class (I).

Rehabilitation to Class I	\$ 639,000
Rehabilitation to Class II	1,065,000
Rehabilitation to Class III	1,278,000
Accelerated Maintenance	255,600

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 30 percent of rail suitable traffic is presently moving by rail. Considerable growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 0.4 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 16,870	\$ 33,863	\$ 16,870	\$ 33,863
Sales Loss	17,187	34,500	17,187	34,500
Unemployment Payments	NA	NA	NA	NA
Tax Loss	1,360	2,734	1,360	2,734
Transport Cost Inc. (Annual)	145,381	569,743	21,822	85,526
Transport Cost Inc. ^{1/} (Capital)	0	0	141,720	566,880
Total Economic Impact	<u>\$180,798</u>	<u>\$640,840</u>	<u>\$198,959</u>	<u>\$723,503</u>
<u>Environmental & Energy</u>				
Truck-trips/day	7	7	26	26
Truck-mi/day	686	686	145	145
Truck-hrs/day	13	13	4	4
Additional Gal. of Fuel	23,871	95,484	3,594	14,376
<u>Other Impacts</u>				
Primary Jobs Lost	5	5	5	5
Secondary Jobs Lost	3	3	3	3
Local Outmigration	23	23	23	23

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 26 times annually (on a scheduled basis) by 1 locomotive and a crew of 4 operating from Marion. The line is presently classified as FRA Class I with a timetable speed of 10 mph.

A reduced service frequency will not satisfy existing demand. A change to Track Class II or III is not economically productive. Rehabilitation to Track Class I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements. (See Table 1)

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

It is anticipated that operation of this line will still require subsidy by the end of the four year program. If operation is funded under the 803 program and subsidy requirements are reduced, consideration will be given to continuing service. Otherwise service will be discontinued.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS OF FIRST QUARTER (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF ALT. A.	RATIO OF PV OF PV OF ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	57145	30210	568650	40244	
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	59152	34447	64329	45387	
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(12609)	(3875)	(98331)	(32218)	5.78 (0.81) 6.52 (0.91)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	(12609)	(3262)	(89724)	(6350)	6.34 (0.52) 7.15 (0.58)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	(12609)	(3814)	(96300)	(6815)	5.90 (0.43) 6.66 (0.49)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(12609)	(13274)	(136263)	(9643)	4.17 (1.50) 4.71 (1.69)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS I	(12609)	(-7423)	(17983)	(1273)	31.62 (0.91) 35.66 (1.03)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(12609)	(1977)	(55915)	(3957)	10.17 (1.90) 11.47 (2.15)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS I	(12609)	(1289)	(77453)	(5481)	7.94 (0.83) 8.28 (0.94)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS I	(12609)	(4721)	(105778)	(7486)	5.38 (0.80) 6.06 (0.90)

NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS (*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS (I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line ~~incurs a small loss~~ (approximately \$12,600 per quarter) to the CMSP&P. This loss decreases depending upon the amount of accelerated maintenance or rehabilitation performed. (For example, the line incurs an operating loss of approximately \$3,900 with rehabilitation to Class 1 standards.) The loss over the full program period would range from \$136,000 (with accelerated maintenance) to \$90,000 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth. ~~This line would still not be profitable were traffic to increase by ten percent per year or were traffic to increase to its maximum potential~~ (as estimated by the University of South Dakota).
- B. Since the line incurs a net cost, the Department anticipates that an abandonment application will be filed by the CMSP&P. If the line is indeed unprofitable, the Department will not oppose such an application.
- C. The cost (present value for the first four years) of discontinuing rail service has been estimated at \$569,000 (trucking for the entire distance) and \$641,000 (trucking to the nearest rail line). Assuming that the former alternative would be chosen by shippers, the "ratio" of the cost of discontinuing rail service to continuing rail service under accelerated maintenance would be 4.17 or 1.50, depending upon whether accelerated maintenance costs are included or not. Since these ratios are substantially greater than 1.00, a strong case can be made for continuing rail service and accomplishing accelerated maintenance under the Section 803 program.
- D. The future of this line is dependent on that of the Mitchell-Canton (MW15) segment of the CMSP&P, (Potentially subject to abandonment and under study). Without service between Mitchell and Canton, there is no access to the rail network. Continuation of service on the line segment between Marion Jct. and Parker would allow access to the CNW system, however.
- E. A concurrent need is to improve the track structure sufficiently to prevent further deterioration of present track conditions. Accelerated maintenance costs have been estimated at up to \$255,600. The Department is awaiting a more detailed "engineering" cost estimate from the CMSP&P. If sufficient funds are available (after meeting higher priority needs), the Department will utilize Section 803 funding to carry out accelerated maintenance.

12. (Continued)

- F. ~~Thus, present intent is to keep this line in operation using Section 803 funding if required and available.~~ Line retention depends to a large extent upon the amount of interest that can be generated locally to participate in the Section 803 program and in shipper commitments to increase present usage of rail service.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

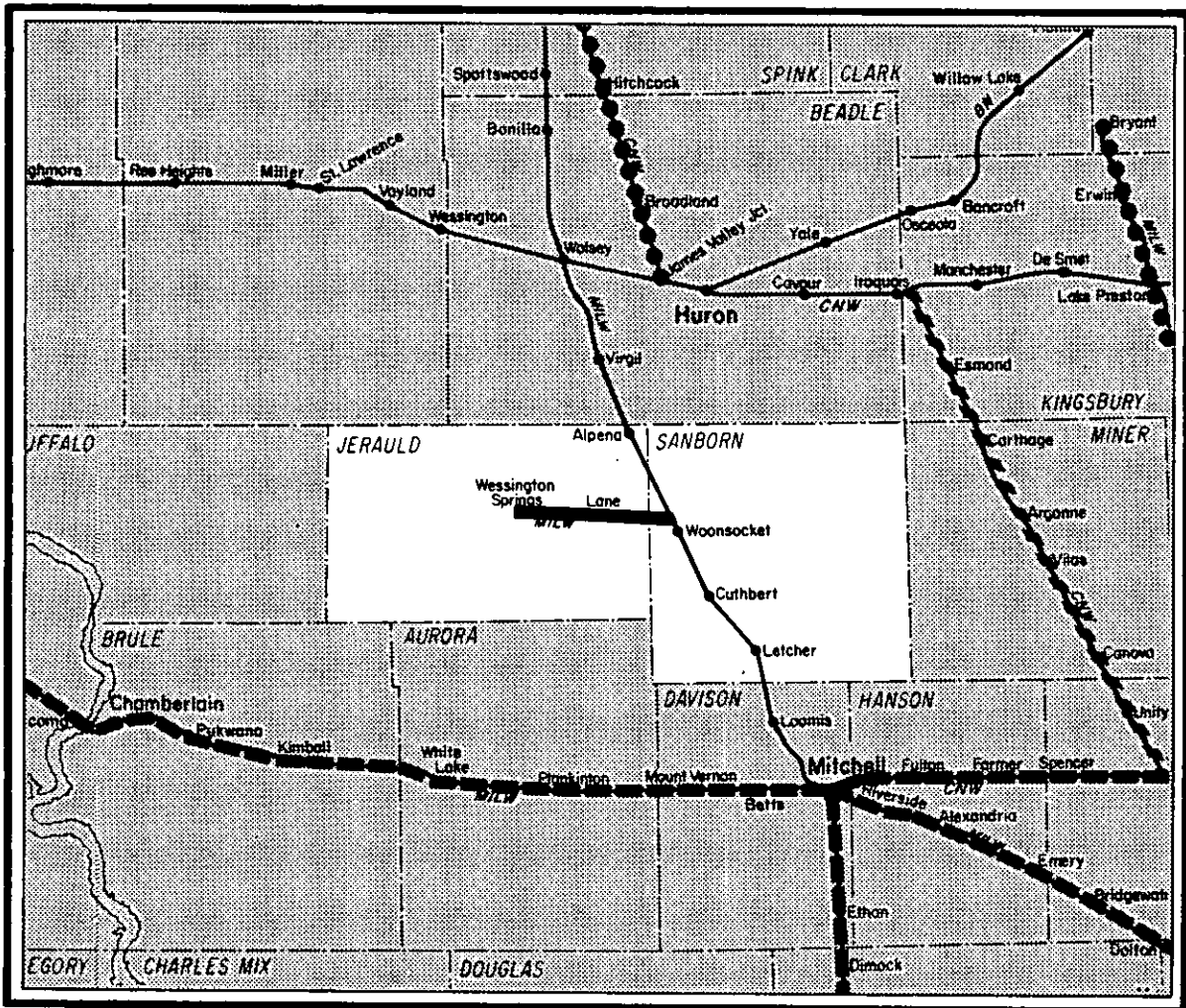
13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA

The decision to pursue Section 803 support for service from Marion Jct. to Menno is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

- The social and economic impacts of abandonment are large.







Line MW20

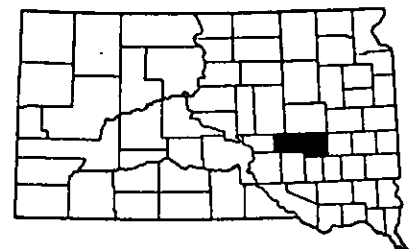
Woonsocket — Wessington Springs



Line MW20, Woonsocket to Wessington Springs, operated by the CMSP&P is 15.1 miles long, connecting at Woonsocket with the CMSP&P line from Mitchell to Wolsey. Line MW20 is in ICC Category 1 with anticipated filing of abandonment within 3 years.

LEGEND

-  Woonsocket — Wessington Springs
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line MW20 Woonsocket - Wessington Springs (MILW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	<u>Carloads</u>		<u>Tons^{1/}</u>	
	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>
Originating	262	126	21,887	10,526
Terminating	52	37	4,041	2,875
Total	314	163	25,928	13,401

Shippers located on or near this line include 6 grain elevators with a total capacity of 592,000 bushels, 3 fertilizer dealers, 1 dealer of farm machinery, and several other businesses shipping such commodities as feed, salt and wood products.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 69,460
Maintenance of Equipment	12,007
Traffic and Transportation	12,267
Taxes	2,103
Administration	1,941
Miscellaneous	0
Return on Value	3,843
Off Branch Costs	72,092
Total Avoidable Cost	173,713
Revenue	194,136
Profit	(20,423)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CMSP&P properties in the region and existing rail weight (60 lb/yard) and FRA Track Class (II).

Rehabilitation to Class II	\$ 573,800
Rehabilitation to Class III	724,800
Accelerated Maintenance	229,520

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area ~~indicated that virtually all rail suitable traffic is presently moving by rail.~~ Small growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 0.3 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7777 - 6/78	Four Year 7777 - 6/81	First Year 7777 - 6/78	Four Year 7777 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 33,742	\$ 67,727	\$ 33,742	\$ 67,727
Sales Loss	3,717	7,464	3,717	7,464
Unemployment Payments	0	0	0	0
Tax Loss	1,497	3,007	1,497	3,007
Transport Cost Inc. (Annual)	109,191	427,922	23,799	93,238
Transport Cost Inc. ^{1/} (Capital)	0	0	167,776	671,112
Total Economic Impact	\$ 148,147	\$ 506,120	\$ 230,531	\$ 842,578
<u>Environmental & Energy</u>				
Truck-trips/day	5	5	20	20
Truck-mi/day	1,018	1,018	157	157
Truck-hrs/day	19	19	4	4
Additional Gal. of Fuel	38,078	152,312	3,713	14,852
<u>Other Impacts</u>				
Primary Jobs Lost	10	10	10	10
Secondary Jobs Lost	6	6	6	6
Local Outmigration	42	42	42	42

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 26 times annually (on an "as needed" basis) by 2 locomotives and a crew of 4 operating from Mitchell. The line is presently classified as FRA Class II with a timetable speed of 20 mph.

A reduced service frequency will not satisfy existing demand. A change to Track Class III is not economically productive. A change to Track Class I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

Should rehabilitation be accomplished, this line should operate profitably. No further support, either State or Federal, will be required to operate this line.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF ALT. A.	RATIO OF PV OF PV OF ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	49350	23507	449788	31832		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	67936	40193	766717	52846		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	(5030)	(-7872)	(-123855)	(-8765)	***** (1.07)	***** (1.77)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	(5030)	(-7372)	(-117787)	(-8336)	***** (0.79)	***** (1.31)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(5030)	(-7869)	(-123375)	(-8731)	***** (3.76)	***** (6.21)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(5030)	(-630)	(-92820)	(-6569)	***** (3.60)	***** (5.97)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS II	(5030)	(-11068)	(-150478)	(-10649)	***** (1.14)	***** (1.89)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(5030)	(-3626)	(-119443)	(-8453)	***** (4.57)	***** (7.59)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS II	(5030)	(-14868)	(-180341)	(-12763)	***** (1.23)	***** (2.05)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS II	(5030)	(-5642)	(-104242)	(-7377)	***** (1.02)	***** (1.70)

NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line should return a small profit (approximately \$5,000 per quarter) to the CMSP&P. With accelerated maintenance, this return decreases to approximately \$400 in the final quarter of the four-year program period. If the track were rehabilitated, the return should increase to approximately \$8,000 (Class 2 per quarter). The return over the full program period would then range from \$92,800 (with accelerated maintenance) to \$124,000 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth.
- B. Unless the actual costs captured in the CMSP&P branchline accounting system prove to be substantially greater than the cost estimates developed by the Department, no economic basis exists for line abandonment (unless track conditions have deteriorated to the point where the CMSP&P feels it can no longer physically provide rail service). Whether the CMSP&P will seek abandonment is unknown. If sought, the Department will oppose the application through the ICC abandonment process in order to establish the true profitability of the line.
- C. The main need is to improve the track structure sufficiently to permit efficient, safe, long-term operation. Accelerated maintenance costs have been estimated at up to \$229,520. Rehabilitation has been estimated at up to \$573,800 for Class 2. These costs appreciably exceed the anticipated return (over four years) by 107 to 362 percent. The Department is awaiting the receipt of a more "detailed" engineering cost estimate from the CMSP&P for accelerated maintenance or rehabilitation to Class 2 conditions. (In many cases, these estimates may be less than those used for branchline assessment purposes). Thus the real issue is obtaining required capital funding ---- from federal, state, or local governments, shippers, or the owning railroad. The preferable solution would be to rehabilitate the track rather than simply to seek funds for accelerated maintenance. Such upgrading would eliminate major maintenance expenditures for ten years or more and represents a more efficient use of capital monies. Rehabilitation to Class 2 standards would permit the continuation or slight improvement of present operating speeds for over the long term. A number of possibilities will be explored for accomplishing the required rehabilitation, including the possibility of a long-term "negotiated" solution between government, shippers, and the owning railroad (e.g., the owning railroad guarantees the long-term operation of the line in return for a loan or grant to upgrade the line).

12. (Continued)

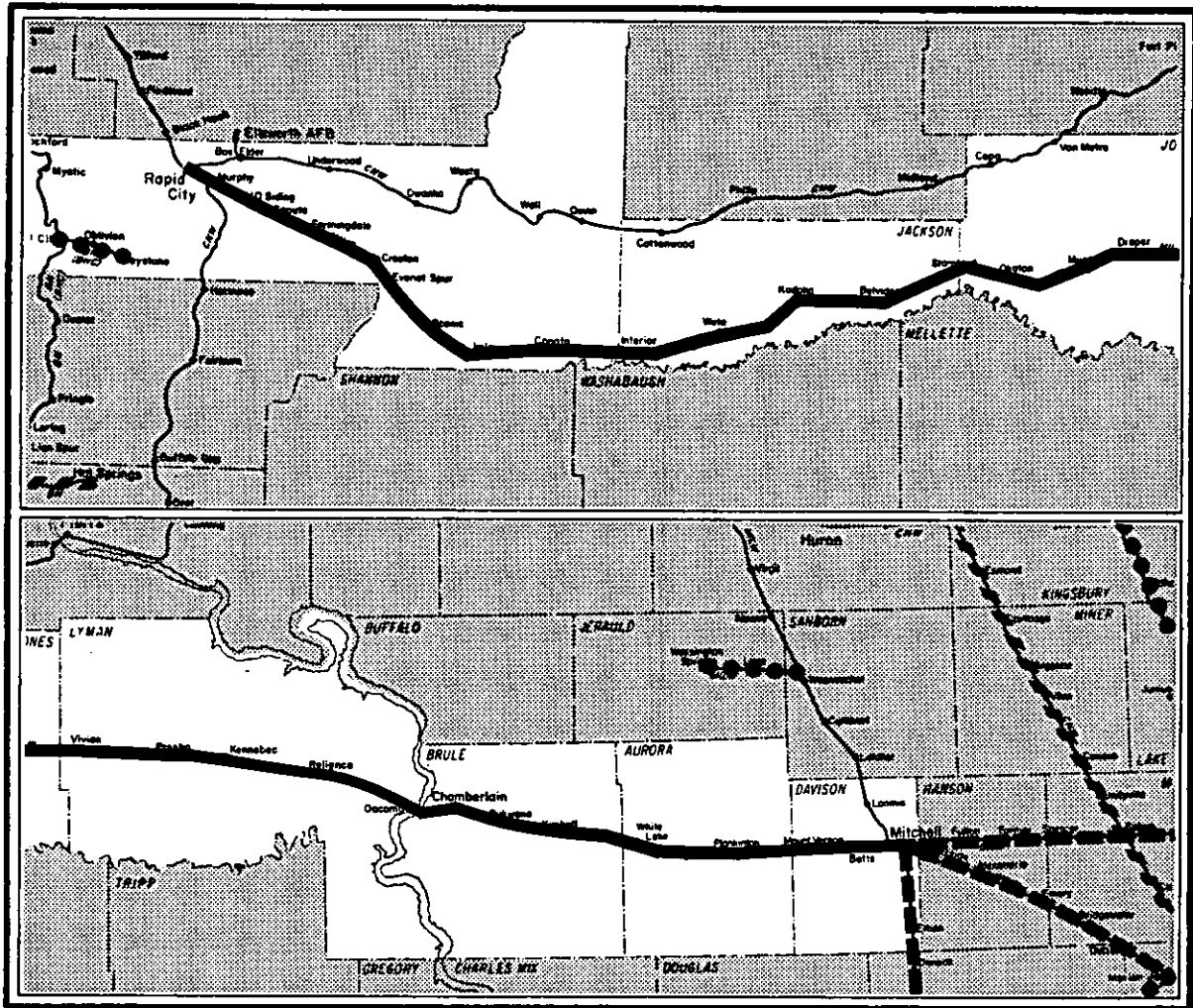
- D. Thus, present intent is to keep this line in operation, preferably through arrangements outside of the ICC abandonment/Section 803 process. Line retention depends to a large extent upon the amount of interest that can be generated locally in agreeing to and participating in a long-term solution for this line, including shipper commitment to use rail service. To date there has been a great deal of shipper interest generated on this line.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA







The decision to oppose abandonment of service from Woonsocket to Wessington Springs is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

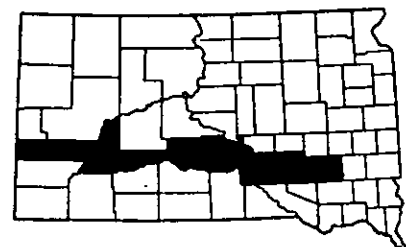
- Shipper support and interest is present.
- There is potential for viable operation.



Line MW21, Mitchell to Rapid City, operated by the CMSP&P is 286.3 miles long, connecting at Rapid City with the CNW line from Chadron, NB to Rapid City and at Mitchell with the CMSP&P line from Mitchell to Wolsey. Line MW21 is in ICC Category 2, (potentially subject to abandonment and under further study by the railroad).

LEGEND

-  Mitchell — Rapid City
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line MW21 Mitchell - Rapid City (MILW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	<u>Carloads</u>		<u>Tons^{1/}</u>	
	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>
Originating	5,486	3,899	354,739	252,119
Terminating	2,841	2,064	146,330	106,309
Connecting	127	25	7,644	1,505
Total	8,454	5,988	508,713	359,933

Shippers located on or near this line include 21 grain elevators with a total capacity of 4,043,200 bushels, 21 fertilizer dealers, 6 dealers of farm machinery, and several other businesses shipping such commodities as beverages, forest products, petroleum products and cement and other mined commodities.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 1,465,500
Maintenance of Equipment	416,683
Traffic and Transportation	567,696
Taxes	41,073
Administration	55,995
Miscellaneous	0
Return on Value	72,793
Off Branch Costs	2,393,035
Total Avoidable Cost	5,012,775
Revenue	5,642,478
Profit	(629,703)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CMS&P properties in the region and existing rail weight (65, 75 and 85 lbs/yard) and FRA Track Class (III).

Rehabilitation to Class III	\$ 10,306,800
Accelerated Maintenance	4,122,720

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that virtually all rail suitable traffic is presently moving by rail. Small growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 7.0 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service may be feasible on this line. See Part 12D for details. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 18,979	\$ 38,096	\$ 18,979	\$ 38,096
Sales Loss	58,511	117,442	58,511	117,442
Unemployment Payments	NA	NA	NA	NA
Tax Loss	3,098	6,221	3,098	6,221
Transport Cost Inc. (Annual)	2,917,927	11,435,120	1,262,017	4,945,743
Transport Cost Inc. ^{1/} (Capital)	0	0	1,515,940	6,063,760
Total Economic Impact	\$2,998,515	\$11,596,879	\$2,858,545	\$11,171,262
<u>Environmental & Energy</u>				
Truck-trips/day	73	73	288	288
Truck-mi/day	64,240	64,240	12,982	12,982
Truck-hrs/day	1,168	1,168	325	325
Additional Gal. of Fuel	493,150	1,972,600	27,813	111,252
<u>Other Impacts</u>				
Primary Jobs Lost	6	6	6	6
Secondary Jobs Lost	3	3	3	3
Local Outmigration	5	5	5	5

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 156 times annually (on a scheduled basis) by 3 locomotives and a crew of 6 operating from Mitchell. The line is presently classified as FRA Class III with a timetable speed of 30 mph.

A reduced service frequency will not satisfy existing demand. Changing to Track Class I or II, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

Should rehabilitation or accelerated maintenance be accomplished, this line should operate profitably. No further support, either Federal, or State, will be required to operate this line.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF PV ALT. A. ALT. B.
A. ABANDONMENT TRUCK FOR ENTIRE RAIL DISTANCE	818915	564660	10255681	725800	
B. ABANDONMENT TRUCK TO NEAREST RAIL LINE	751370	559901	9875204	698873	
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	-154993 (-154994)	222203 (-222202)	-3537109 (6246658)	-250323 (157093)	***** (1.64) (1.58)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	-154993 (-154994)	215472 (-215471)	-3440974 (3625075)	-243519 (50725)	***** (2.83) (2.72)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	-154993 (-154994)	150643 (-150642)	-2587185 (-1228331)	-183096 (-126511)	***** (*****) (*****)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	-154993 (-154994)	59829 (-59829)	-2784969 (1128535)	-197094 (79867)	***** (9.09) (8.75)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS III	-154993 (-154994)	322597 (-322596)	-4379277 (5410490)	-307499 (97917)	***** (1.90) (1.83)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	-154993 (-154994)	160223 (-160223)	-3621143 (292365)	-256270 (20691)	***** (35.08) (33.78)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS III	-154993 (-154994)	440578 (-440578)	-5309054 (4474711)	-375724 (31691)	***** (2.29) (2.21)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS III	-154993 (-154994)	152229 (-152229)	-2922118 (6861648)	-206800 (200616)	***** (1.49) (1.44)

NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, ~~this line should return a large profit~~ (approximately \$155,000 per quarter) to the CMSP&P. With only accelerated maintenance, this return should decrease to approximately \$60,000 in the final quarter of the four-year program period. If the track were rehabilitated, the return should increase to approximately \$ 222,000 (Class 3) per quarter. The return over the full program period would then range from \$2,785,000 (with accelerated maintenance) to \$3,537,000 (rehabilitation to Class 3 standards). These estimates do not include capital investment and assume zero traffic growth.
- B. Unless the actual costs captured in the CMSP&P branchline accounting system prove to be substantially greater than the cost estimates developed by the Department, no economic basis exists for line abandonment (unless track conditions have deteriorated to the point where the CMSP&P feels it can no longer physically provide rail service). Whether the CMSP&P will seek abandonment is unknown. If sought, ~~the Department will oppose the application~~ through the ICC abandonment process in order to establish the true profitability of the line.

C.

The main need is to improve the track structure sufficiently to permit efficient, safe, long-term operation. Accelerated maintenance costs have been estimated at up to \$4,123,000. Rehabilitation has been estimated at up to \$10,306,800 for Class 3. These costs exceed the anticipated return(over four years) for Class 3. Lowering to Class 1 or 2 would cause operating costs to increase somewhat, but the line would still earn a profit of (\$151,000 per quarter in the final quarter of the four-year period). The Department is awaiting the receipt of a more "detailed" engineering cost estimate from the CMSP&P for accelerated maintenance or rehabilitation to Class 3 conditions. (In many cases these estimates may be less than those used for branchline assessment purposes.) Thus the real issue is obtaining required capital funding -- from federal, state, or local governments, shippers, or the owning railroad. The preferable solution would be to rehabilitate the track rather than simply to seek funds for accelerated maintenance. Such upgrading would eliminate major maintenance expenditures for ten years or more and represents a more efficient use of capital monies. A number of possibilities will be explored for accomplishing the required rehabilitation, including the possibility of a long-term "negotiated" solution between government, shippers, and the owning railroad (e.g., the owning railroad guarantees the long-term operation of the line in return for a loan or grant to upgrade the line).

12. (Continued)

- D. ~~Over half (4,560 carloads, 54 percent) of the traffic generated by this line originates or terminates in Rapid City. Approximately 14 percent of the line's traffic is generated at Chamberlain, and there is significant potential for added traffic at this location, since it is under study as a site for a coal-fired electric generating plant. The segment between Reliance and Kodoka generates large amounts of grain and is responsible for some 26 percent of the line's traffic.~~
- E. ~~Thus, present intent is to keep this line in operation, preferably through arrangements outside of the ICC abandonment/Section 803 process. There are two major options:~~
- ~~The entire line at Class 1 (10 mph) track standards only. The reduced speed would cause higher operating costs although the line would still earn substantial profits. In this way, any capital cost requirements could be covered by profits.~~
 - ~~Partitioning of this line so that service might be retained on only the most profitable segments is an option which should be considered to reduce capital and/or operating costs. The segment from Mitchell to Murdo (a crew change point) might continue to be served by the CMSP&P. This 139-mile segment generates 3,280 carloads and should earn a profit if maintenance and service levels are adjusted accordingly. At the same time, Rapid City traffic might be picked up by the CNW (although the feasibility of this depends on the exact location of shippers, sidings and track connections). This strategy would retain up to 7,840 carloads or 93 percent of the traffic on this line.~~

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

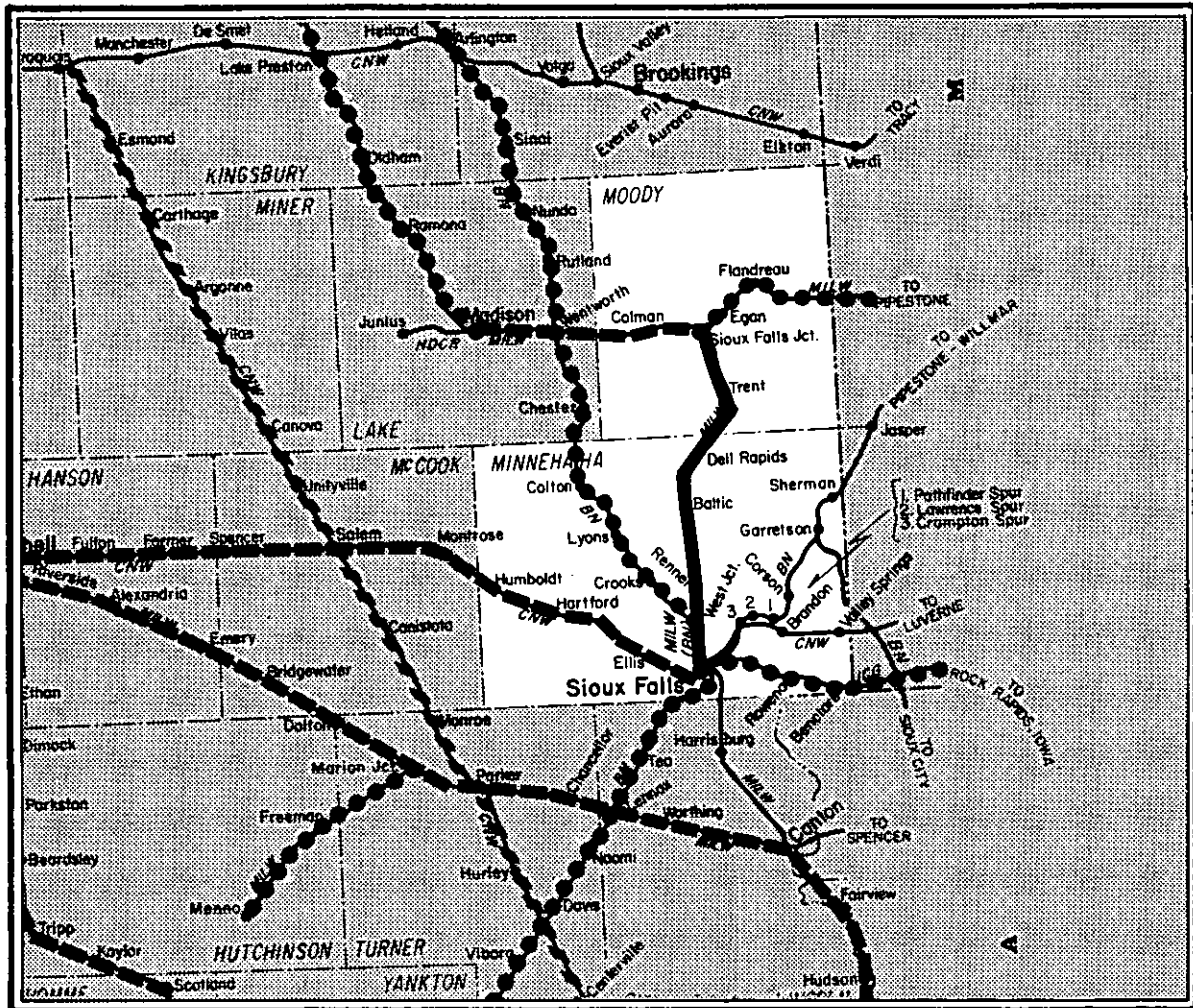
13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA

The decision to oppose abandonment of service from Mitchell to Rapid City is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

- Shipper support and interest is present.
- There is potential for viable operation.
- The social and economic impacts of abandonment are large.






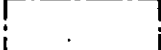
Line MW23

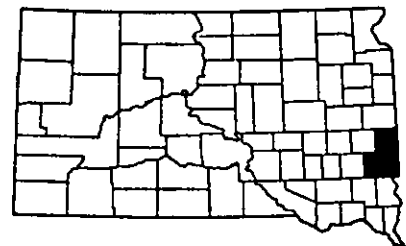
Sioux Falls — Sioux Falls Jct.



Line MW23, Sioux Falls to Sioux Falls Jct., operated by the CMSP&P is 32.3 miles long, connecting with several lines at Sioux Falls. Line MW23 is in ICC Category 2, (potentially subject to abandonment and under further study by the railroad).

LEGEND

-  Sioux Falls — Sioux Falls Jct.
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line MW23 Sioux Falls - Sioux Falls Jct. (MILW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	Carloads		Tons ^{1/}	
	1974	1975	1974	1975
Originating	2,884	2/	211,616	-
Terminating	110	2/	5,064	-
Total	2,994	2,252	216,680	162,980

Shippers located on or near this line include 4 grain elevators with a total capacity of 1,059,700 bushels, 10 fertilizer dealers, 1 dealer of farm machinery, and several other businesses shipping such commodities as scrap materials.

^{1/} Estimated.

^{2/} Information not reported by railroad.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 171,500
Maintenance of Equipment	56,225
Traffic and Transportation	125,933
Taxes	7,373
Administration	7,914
Miscellaneous	0
Return on Value	8,221
Off Branch Costs	622,887
Total Avoidable Cost	1,000,053
Revenue	791,437
(Deficit)	(208,616)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CMSP&P properties in the region and existing rail weight (65 lb/yard) and FRA Track Class (II).

Rehabilitation to Class II	\$ 1,227,400
Rehabilitation to Class III	1,550,400
Accelerated Maintenance	490,960

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 70 percent of rail suitable traffic is presently moving by rail. Moderate growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 1.2 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 86,466	\$ 173,550	\$ 86,466	\$ 173,550
Sales Loss	173,729	348,700	173,729	348,700
Unemployment Payments	NA	NA	NA	NA
Tax Loss	10,406	20,890	10,406	20,890
Transport Cost Inc. (Annual)	1,048,987	4,110,895	865,849	3,393,195
Transport Cost Inc. ^{1/} (Capital)	0	0	297,232	1,188,935
Total Economic Impact	\$1,319,588	\$4,654,035	\$1,433,682	\$5,125,270
<u>Environmental & Energy</u>				
Truck-trips/day	11	11	42	42
Truck-mi/day	1,047	1,047	277	277
Truck-hrs/day	19	19	7	7
Additional Gal. of Fuel	39,245	156,980	6,937	27,748
<u>Other Impacts</u>				
Primary Jobs Lost	26	26	26	26
Secondary Jobs Lost	15	15	15	15
Local Outmigration	106	106	106	106

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 260 times annually (on an "as needed" basis) by 1 locomotive and a crew of 4 operating from Sioux Falls. The line is presently classified as FRA Class II with a timetable speed of 25 mph.

A reduced service frequency should be investigated as a means to reduce operating costs on this line. A change to Track Class III is not economically productive. A change to Track Class I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

It is anticipated that operation of this line will require substantial subsidies by the end of the four year program. If operation is funded under the 803 program and subsidy requirements are reduced, consideration will be given to continuing service. Otherwise service will be discontinued.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF PV ALT. A.	RATIO OF PV OF PV ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	420143	218975	4130582	292323		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	444589	242428	4546279	321743		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	51383 (51383)	28592 (28592)	571289 (1736396)	40430 (88948)	7.23 (2.38)	7.96 (2.62)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	51383 (51383)	27066 (27066)	550443 (2022164)	38955 (100241)	7.50 (2.04)	8.26 (2.25)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	51383 (51383)	38973 (38973)	707611 (1228844)	50078 (71782)	5.84 (3.36)	6.42 (3.70)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	51383 (51383)	44271 (44271)	634562 (1100608)	44908 (77890)	6.51 (3.75)	7.16 (4.13)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS II	51383 (51383)	43243 (43243)	690326 (1835437)	48855 (97372)	5.98 (2.23)	6.59 (2.45)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	51383 (51383)	58923 (58923)	733600 (1219644)	33333 (86315)	5.48 (3.39)	6.03 (3.73)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS II	51383 (51383)	45169 (45169)	705138 (1879246)	49903 (98420)	5.86 (2.21)	6.45 (2.43)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS II	51383 (51383)	23555 (23555)	526969 (1692076)	37294 (85811)	7.84 (2.44)	8.63 (2.69)

NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
NOTE: ASTERISKS(****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line incurs a moderate to large loss (approximately \$51,400 per quarter) to the CMSP&P. This loss decreases depending upon the amount of accelerated maintenance or rehabilitation performed. The loss over the full program period would range from \$635,000 (with accelerated maintenance) to \$550,000 (rehabilitation to Class 3 standards). These estimates do not include capital investment and assume zero traffic growth. ~~This line would still not be profitable were traffic to increase by ten percent per year or were traffic to increase to its maximum potential (as estimated by the University of South Dakota).~~
- B. Since the line incurs a net cost, the Department anticipates that an abandonment application will be filed by the CMSP&P. If the line is indeed unprofitable, the Department will not oppose such an application.
- C. The cost (present value for the first four years) of discontinuing rail service has been estimated at \$4,131,000 (trucking for the entire distance) and \$4,546,000 (trucking to the nearest rail line). Assuming that the former alternative would be chosen by shippers, the "ratio" of the cost of discontinuing rail service to continuing rail service under accelerated maintenance would be 6.51 or 3.75, depending upon whether accelerated maintenance costs are included or not. Since these ratios are substantially greater than 1.00, a strong case can be made for continuing rail service and accomplishing accelerated maintenance under the Section 803 program.
- D. A concurrent need is to improve the track structure sufficiently to prevent further deterioration of present track conditions. Accelerated maintenance costs have been estimated at up to \$490,960. The Department is awaiting a more detailed "engineering" cost estimate from the CMSP&P. If sufficient funds are available, (after meeting higher priority needs), the Department will utilize Section 803 funding to carry out accelerated maintenance.
- E. The primary problem in the operation of this line is not the quantity of traffic, which is substantial, but the fact that nearly 62 percent of this traffic is cement, sand, ores and minerals, which are apparently shipped for short distances and results in very low revenues for the CMSP&P (about \$210 per car). If a means can be found for increasing revenues per carload (e.g., a surcharge to the shipper, the profitability picture on this line could become more favorable.

12. (Continued)

- F. The major shipper on this line has indicated interest in rail service continuation on this line and is considering acquisition if abandonment is approved.
- G. Thus, present intent is to keep this line in operation using Section 803 funding if required and available. Line retention depends to a large extent upon the amount of interest that can be generated locally to participate in the Section 803 program and in shipper commitments to increase present usage of rail service.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

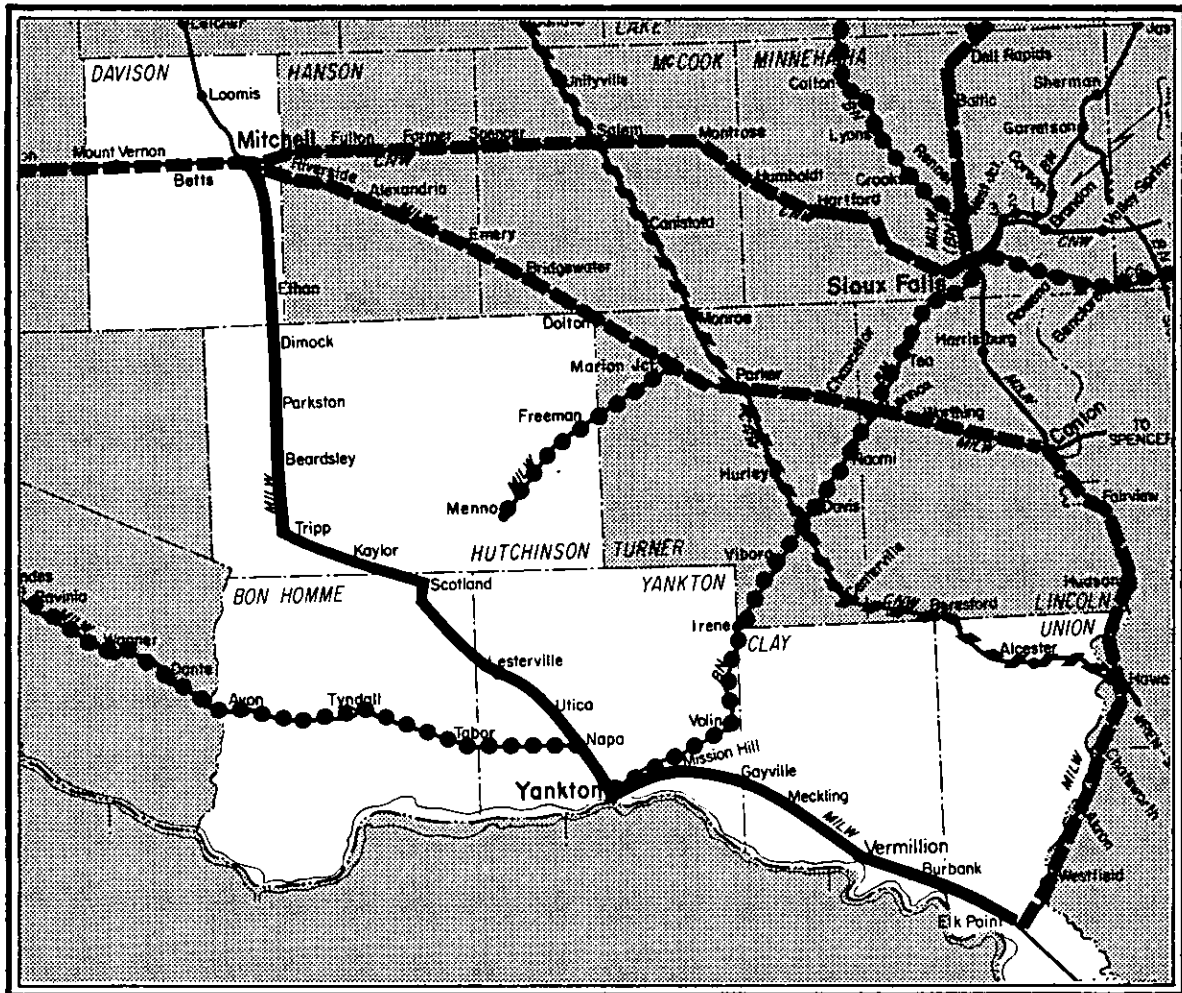
13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA

The decision to pursue Section 803 support for service from Sioux Falls to Sioux Falls Jct. is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

- Shipper support and interest is present.
- There is potential for viable operation.
- The social and economic impacts of abandonment are large.






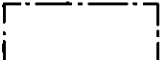
Line MW24

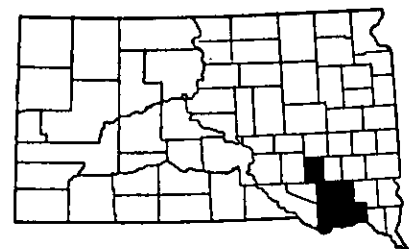
Elk Point — Mitchell



Line MW24, Elk Point to Mitchell, operated by the CMSP&P is 116.7 miles long, connecting at Elk Point with the CMSP&P line from Elk Point to Sioux City, IA. Line MW24 is in ICC Category 2, (potentially subject to abandonment and under further study by the railroad).

LEGEND

-  All Other Lines
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line MW24 Elk Point - Mitchell (MILW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	Carloads		Tons ^{1/}	
	1974	1975	1974	1975
Originating	1,377	704	91,403	46,730
Terminating	576	531	51,225	47,223
Connecting	2	1	136	68
Total	1,955	1,236	142,764	94,021

Shippers located on or near this line include 17 grain elevators with a total capacity of 2,150,776 bushels, 27 fertilizer dealers, 6 dealers of farm machinery, and several other business shipping such commodities as farm products, cement, and lumber.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 662,580
Maintenance of Equipment	87,625
Traffic and Transportation	196,318
Taxes	23,063
Administration	11,281
Miscellaneous	0
Return on Value	29,702
Off Branch Costs	610,959
Total Avoidable Cost	1,621,528
Revenue	1,129,182
(Deficit)	(492,346)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CMSP&P properties in the region and existing rail weight (85 and 90 lb/yard) and FRA Track Class (III).

Rehabilitation to Class III	\$ 4,201,200
Accelerated Maintenance	1,680,480

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that virtually all rail suitable traffic is presently moving by rail. Small growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 1.8 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 63,266	\$ 126,988	\$ 63,266	\$ 126,988
Sales Loss	17,578	35,284	17,578	35,284
Unemployment Payments	NA	NA	NA	NA
Tax Loss	3,233	6,491	3,233	6,491
Transport Cost Inc. (Annual)	1,421,092	5,569,146	376,681	1,476,188
Transport Cost Inc. ^{1/} (Capital)	0	0	615,736	2,462,945
Total Economic Impact	\$1,505,169	\$5,737,909	\$1,076,494	\$4,107,896
<u>Environmental & Energy</u>				
Truck-trips/day	69	69	269	269
Truck-mi/day	5,346	5,346	3,201	3,201
Truck-hrs/day	97	97	80	80
Additional Gal. of Fuel	79,849	319,396	200,088	800,352
<u>Other Impacts</u>				
Primary Jobs Lost	19	19	19	19
Secondary Jobs Lost	11	11	11	11
Local Outmigration	77	77	77	77

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 156 times annually (on a scheduled basis) by 2 locomotives and a crew of 5. The line is presently classified as FRA Class III with a timetable speed of 40 mph.

Service originates three times a week, one-way, from Sioux City and Mitchell.

~~Reduced service frequency should be considered on this line as a way to reduce operating costs.~~ A change in Track Class to Class II or I will not reduce operating costs but may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

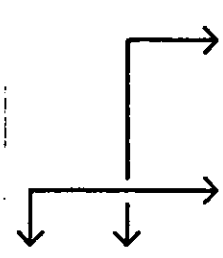
~~It is anticipated that operation of this line will require substantial subsidies by the end of the four year program.~~ If operation is funded under the 803 program and subsidy requirements are reduced, consideration will be given to continuing service. Otherwise service will be discontinued.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF PV ALT. A.	RATIO OF PV OF PV ALT. B.
A. ARANDONMENT TRUCK FOR ENTIRE RAIL DISTANCE	422160	277966	5077057	359306		
B. ARANDONMENT TRUCK TO NEAREST RAIL LINE	295717	199073	2634526	257217		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	121270	48497	1093307	77515	4.64	3.32
	(121270)	(48497)	(5083307)	(243584)	(1.00)	(0.71)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	121270	52870	1153743	81792	4.39	3.14
	(121270)	(52870)	(4035963)	(201731)	(1.26)	(0.90)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	121270	85813	1588760	112437	3.20	2.29
	(121270)	(85813)	(2142649)	(135502)	(2.37)	(1.70)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	121270	110297	1344697	95165	3.78	2.70
	(121270)	(110297)	(2939894)	(208058)	(1.73)	(1.24)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS III	121270	46736	1080307	76454	4.70	3.36
	(121270)	(46736)	(5068305)	(242522)	(1.00)	(0.72)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	121270	108537	1329697	94103	3.82	2.73
	(121270)	(108537)	(2924893)	(206996)	(1.74)	(1.24)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS III	121270	33038	970489	68682	5.23	3.75
	(121270)	(33038)	(4928487)	(234750)	(1.02)	(0.73)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS III	121270	53563	1139861	80669	4.45	3.19
	(121270)	(53563)	(5127859)	(246737)	(0.99)	(0.71)



NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line incurs a large loss (approximately \$121,000 per quarter) to the CMSP&P. This loss decreases depending upon the amount of accelerated maintenance or rehabilitation performed. The loss over the full program period would range from \$1,345,000 (with accelerated maintenance) to \$1,095,000 (rehabilitation to Class 3 standards). These estimates do not include capital investment and assume zero traffic growth. This line would still not be profitable were traffic to increase by ten percent per year or were traffic to increase to its maximum potential (as estimated by the University of South Dakota).
- B. Since the line incurs a net cost, the Department anticipates that an abandonment application will be filed by the CMSP&P. If the line is indeed unprofitable, the Department will not oppose such an application.
- C. The cost (present value for the first four years) of discontinuing rail service has been estimated at \$5,078,000 (trucking for the entire distance) and \$3,635,000 (trucking to the nearest rail line). Assuming that the latter alternative would be chosen by shippers, the "ratio" of the cost of discontinuing rail service to continuing rail service under accelerated maintenance would be 2.70 or 1.24, depending upon whether accelerated maintenance costs are included or not. Since these ratios are substantially greater than 1.00, a strong case can be made for continuing rail service and accomplishing accelerated maintenance under the Section 803 program.
- D. A concurrent need is to improve the track structure sufficiently to prevent further deterioration of present track conditions. Accelerated maintenance costs have been estimated at up to \$1,680,480. The Department is awaiting a more detailed "engineering" cost estimate from the CMSP&P. If sufficient funds are available (after meeting higher priority needs), the Department will utilize Section 803 funding to carry out accelerated maintenance.
- E. This line is located in a high grain producing region. Much of the grain produced is apparently already being transported by truck directly to grain terminals. The future of this line depends to a large degree on improving the competitive position of rail service with respect to other transport modes.

12. (Continued)

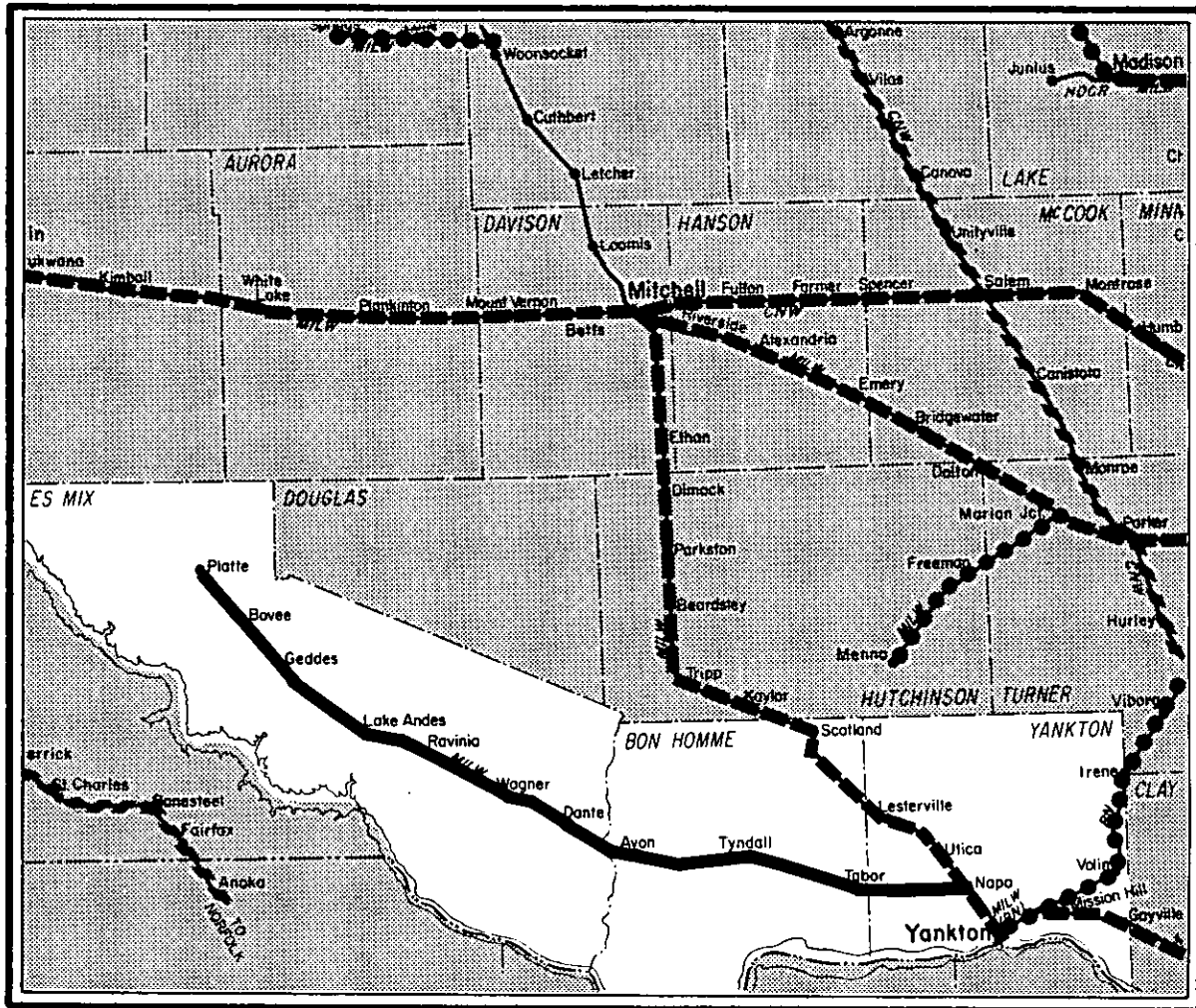
- F. An issue of some importance to the future of this line is the existence of competitive rail services between Mitchell and Sioux City. Presently the CMSP&P offers two routes, one via Yankton (MW24) and one via Canton (MW15-MW22). Because of this situation it appears that the future of these segments may be interconnected. The CMSP&P may desire to preserve one route for the purposes of system connectivity and service to Omaha and points east. Any rail service continuation decision made by the state, however, will depend primarily on the existence of local traffic on these lines, since connecting traffic appears to be minimal.
- G. Some shipper interest is being generated in the Yankton area. Continued shipper interest and support may be crucial to continued service on this line.
- H. Thus, present intent is to keep this line in operation using Section 803 funding if required and available. Line retention depends to a large extent upon the amount of interest that can be generated locally to participate in the Section 803 program and in shipper commitments to increase present usage of rail service.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA






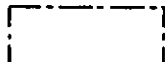
The decision to pursue Section 803 support for service from Elk Point to Mitchell is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

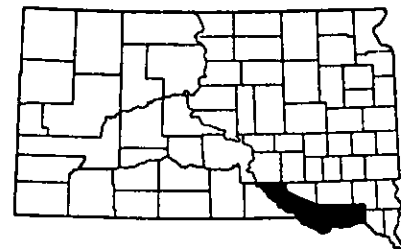
- Shipper support and interest is present.
- The social and economic impacts of abandonment are large.



Line MW25, Napa to Platte, operated by the CMSP&P is 82.4 miles long, connecting at Napa with the CMSP&P line from Elk Point to Mitchell. Line MW25 is in ICC Category 1 with anticipated filing of abandonment within 3 years.

LEGEND

-  Napa — Platte
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line MW25 Napa - Platte (MILW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	Carloads		Tons ^{1/}	
	1974	1975	1974	1975
Originating	818	696	61,456	52,291
Terminating	317	208	23,816	15,627
Total	1,135	904	85,272	67,918

Shippers located on or near this line include 13 grain elevators with a total capacity of 1,227,980 bushels, 15 fertilizer dealers, 9 dealers of farm machinery and several other businesses shipping such commodities as farm products, cement, and chemicals.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 413,500
Maintenance of Equipment	48,798
Traffic and Transportation	56,668
Taxes	10,670
Administration	5,288
Miscellaneous	0
Return on Value	20,972
Off Branch Costs	205,014
Total Avoidable Cost	760,910
Revenue	528,846
(Deficit)	(232,064)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CMSP&P properties in the region and existing rail weight (60 and 75 lb/yard) and FRA Track Class (II).

Rehabilitation to Class II	\$ 3,131,200
Rehabilitation to Class III	3,955,200
Accelerated Maintenance	1,252,480

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 40 percent of rail suitable traffic is presently moving by rail. Considerable growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 1.0 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 90,683	\$ 182,016	\$ 90,683	\$ 182,016
Sales Loss	25,652	51,492	25,652	51,492
Unemployment Payments	NA	NA	NA	NA
Tax Loss	4,650	9,339	4,650	9,339
Transport Cost Inc. (Annual)	393,680	1,542,800	158,130	619,707
Transport Cost Inc. ^{1/} (Capital)	0	0	353,248	1,412,992
Total Economic Impact	\$ 514,665	\$1,785,647	\$ 632,363	\$2,275,546
<u>Environmental & Energy</u>				
Truck-trips/day	73	73	19	19
Truck-mi/day	1,520	1,520	2,313	2,313
Truck-hrs/day	28	28	58	58
Additional Gal. of Fuel	115,637	462,548	46,723	186,892
<u>Other Impacts</u>				
Primary Jobs Lost	27	27	27	27
Secondary Jobs Lost	16	16	16	16
Local Outmigration	110	110	110	110

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 52 times annually (on an "as needed" basis) by 1 locomotive and a crew of 4 operating from Sioux City. The line is presently classified as FRA Class II with a timetable speed of 25 mph.

A reduced service frequency will not satisfy existing demand. A change to Track Class III is not economically productive. A change to Track Class I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

~~It is anticipated that operation of this line will still require subsidy by the end of the four year program.~~ If operation is funded under the 803 program and subsidy requirements are reduced, consideration will be given to continuing service. Otherwise service will be discontinued.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF PV ALT. A.	RATIO OF PV OF PV ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	167792	83465	1585875	112233		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	192078	107908	2017915	142809		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	(57159)	(18541)	(458085)	(32419)	(0.46)	(0.59)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	(57159)	(20666)	(483402)	(34211)	(0.37)	(0.48)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(57159)	(20947)	(491869)	(34810)	(0.87)	(1.11)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(57159)	(58541)	(619502)	(43842)	(0.88)	(1.12)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS II	(57159)	(-40672)	(36920)	(2613)	(0.93)	(0.67)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(57159)	(-672)	(198337)	(14036)	(1.14)	(1.45)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS II	(57159)	(594)	(313183)	(22164)	(0.48)	(0.61)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS II	(57159)	(24268)	(508477)	(35985)	(0.46)	(0.58)

NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

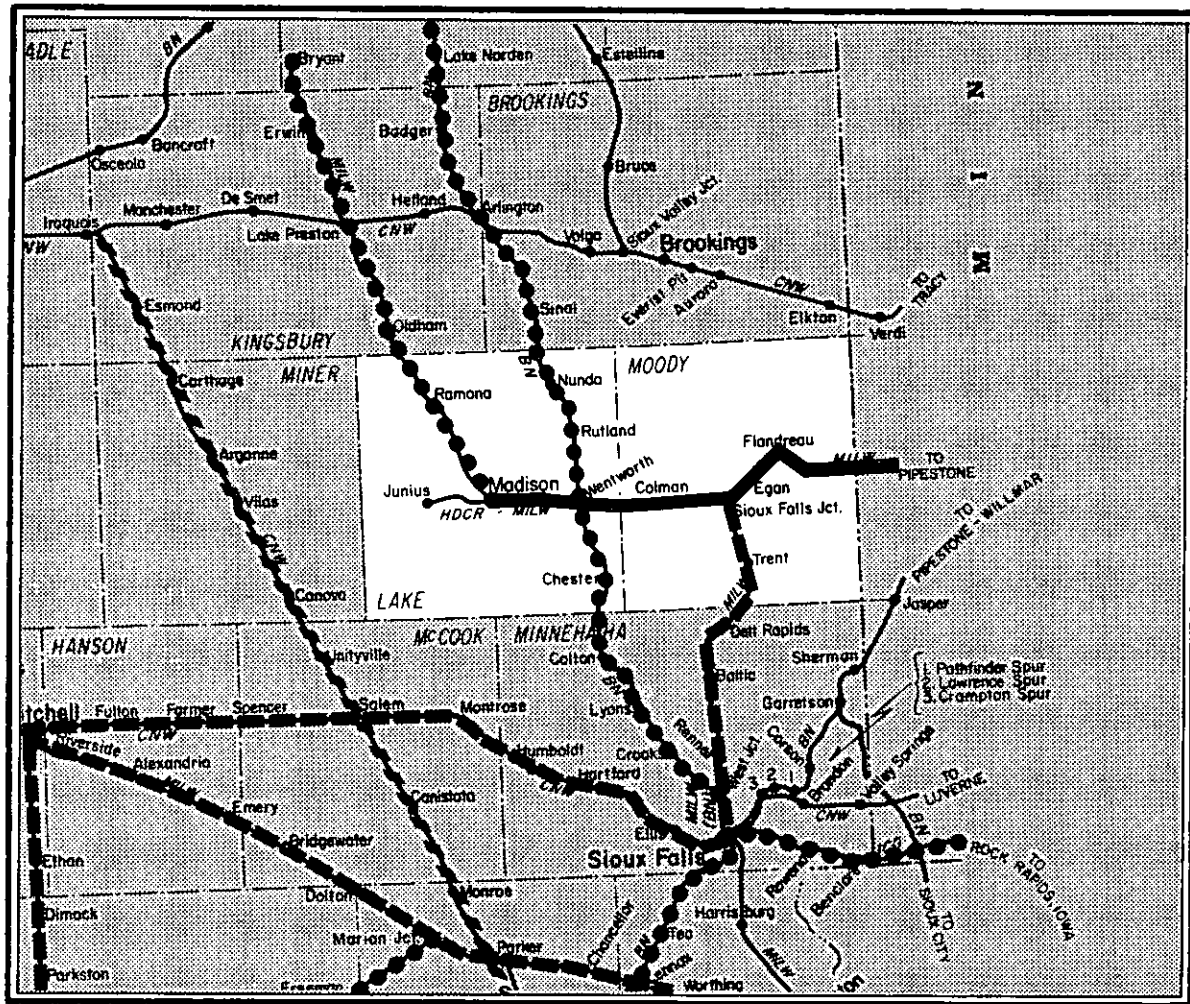
- A. Based upon "typical" traffic and DOT cost computations, this line ~~incurs a moderate to large loss~~ (approximately \$57,200 per quarter) to the CMSP&P. This loss decreases depending upon the amount of accelerated maintenance or rehabilitation performed. The loss over the full program period would range from \$620,000 (with accelerated maintenance) to \$458,000 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth. This line would still not be ~~profitable were traffic to increase by ten percent~~ per year or were traffic to increase to its maximum potential (as estimated by the University of South Dakota).
- B. Since the line incurs a net cost, the Department anticipates than an abandonment application will be filed by the CMSP&P. If the line is indeed unprofitable, the Department will not oppose such an application.
- C. The cost (present value for the first four years) of discontinuing rail service has been estimated at \$1,586,000 (trucking for the entire distance) and \$2,018,000 (trucking to the nearest rail line). Assuming that the former alternative would be chosen by shippers, the "ratio" of the cost of discontinuing rail service to continuing rail service under accelerated maintenance would be 2.56 or 0.88, depending upon whether accelerated maintenance costs are included or not. Since the ratios fall above and below 1.00, a case can be made for continuing rail service under the Section 803 program, but not for substantial improvements to present track structure through accelerated maintenance.
- D. The future of this line is inevitably tied to that of the CMSP&P line between Mitchell - Yankton - Elk Point (MW24). This line, which is presently under study by the railroad as a potential candidate for abandonment (ICC Category 2), is the connection by which access to the regional rail network is gained. Should MW24 be abandoned, service from Napa - Platte would surely be abandoned as well.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA

The decision to pursue Section 803 support for service from Napa to Platte is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

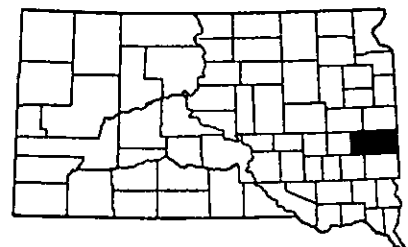
- Shipper support and interest is present.
- The social and economic impacts of abandonment are large.



Line MW26, Jackson, MN to Madison, operated by the CMSP&P is 38.2 miles long, connecting at Madison with the CMSP&P line from Madison to Bryant. Line MW26 is in ICC Category 2, (potentially subject to abandonment and under further study by the railroad).

LEGEND

- Jackson, MN — Madison
- Anticipated Filing of Abandonment Within 3 Years
- Potentially Subject to Abandonment and Under Further Study
- ///////** Abandonment Application Pending Before the ICC
- All Other Lines
- Local Impact Area



BRANCHLINE ANALYSIS

Line MW26 Jackson, MN - Madison (MILW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	<u>Carloads</u> <u>1976</u>	<u>Tons^{1/}</u> <u>1976</u>
Originating	405	30,669
Terminating	491	29,585
Total	896	60,254

Shippers located on or near this line include 8 grain elevators with a total capacity of 2,537,150 bushels, 18 fertilizer dealers, 5 dealers of farm machinery, and several businesses shipping such commodities as farm products, lumber and mineral products.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 199,500
Maintenance of Equipment	35,115
Traffic and Transportation	50,876
Taxes	6,632
Administration	5,427
Miscellaneous	0
Return on Value	9,723
Off Branch Costs	208,430
Total Avoidable Cost	515,703
Revenue	542,738
Profit	(27,035)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CMSP&P properties in the region and existing rail weight (65 lb/yard) and FRA Track Class (II).

Rehabilitation to Class II	\$ 1,451,600
Rehabilitation to Class III	1,833,600
Accelerated Maintenance	580,640

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 60 percent of rail suitable traffic is presently moving by rail. Moderate growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 0.4 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service may be feasible on this line. See Part 12D for details. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 0	\$ 0	\$ 0	\$ 0
Sales Loss	31,212	62,649	31,212	62,649
Unemployment Payments	NA	NA	NA	NA
Tax Loss	1,247	2,505	1,247	2,505
Transport Cost Inc. (Annual)	302,417	1,185,151	61,720	241,878
Transport Cost Inc. ^{1/} (Capital)	0	0	470,128	1,880,512
Total Economic Impact	\$334,876	\$1,250,305	\$564,307	\$2,187,544
<u>Environmental & Energy</u>				
Truck-trips/day	14	14	54	54
Truck-mi/day	3,227	3,227	229	229
Truck-hrs/day	59	59	7	7
Additional Gal. of Fuel	121,139	484,556	7,483	29,932
<u>Other Impacts</u>				
Primary Jobs Lost	0	0	0	0
Secondary Jobs Lost	0	0	0	0
Local Outmigration	0	0	0	0

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 78 times annually (on an "as needed" basis) by 2 locomotives and a crew of 4 operating from Jackson. The line is presently classified as FRA Class II with a timetable speed of 25 mph.

A reduced service frequency should be investigated as a means to reduce operating costs on this line. A change to Track Class III is not economically productive. A change to Track Class I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

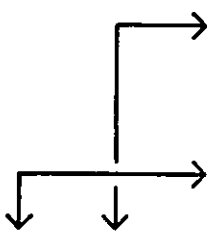
Should rehabilitation be accomplished, this line should operate profitably. No further support, either State or Federal, will be required to operate this line.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF ALT. A.	RATIO OF PV OF PV OF ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	97420	60116	1107182	78356		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	149123	106598	1934296	136891		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(-6659)	(-19464)	(-283049)	(-20032)	(1.01)	(1.77)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	(-6659)	(-19073)	(-279065)	(-19750)	(0.76)	(1.32)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(-6659)	(-15970)	(-236376)	(-16728)	(2.91)	(5.09)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(-6659)	(-920)	(-208218)	(-14736)	(3.23)	(5.64)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS II	(-6659)	(-47172)	(-502600)	(-35569)	(1.26)	(2.21)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(-6659)	(-28628)	(-427768)	(-30273)	(8.97)	(15.67)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS II	(-6659)	(-39639)	(-445952)	(-31560)	(1.19)	(2.08)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS II	(-6659)	(-13034)	(-226484)	(-16028)	(0.96)	(1.68)



NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line ~~should return a small to moderate profit~~ (approximately \$6,700 per quarter) to the CMSP&P. With accelerated maintenance, this return would decrease to approximately \$900 in the final quarter of the four-year program period. If the track were rehabilitated, the return should increase to approximately \$19,500 (Class 2) per quarter. The return over the full program period would then range from \$208,000 (with accelerated maintenance) to \$283,000 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth.
- B. Unless the actual costs captured in the CMSP&P branchline accounting system prove to be substantially greater than the cost estimates developed by the Department, no economic basis exists for line abandonment (unless track conditions have deteriorated to the point where the CMSP&P feels it can no longer physically provide rail service). Whether the CMSP&P will seek abandonment is unknown. If sought, the ~~Department will oppose the application through the ICC abandonment process~~ in order to establish the true profitability of the line.
- C. The main need is to improve the track structure sufficiently to permit efficient, safe, long-term generation. Accelerated maintenance costs have been estimated at up to \$580,640. Rehabilitation has been estimated at up to approximately \$1,451,600 for Class 2. These costs appreciably exceed the anticipated return (over four years) by 179 to 413 percent. The Department is awaiting the receipt of a more "detailed" engineering cost estimate from the CMSP&P for accelerated maintenance or rehabilitation to Class 2 conditions. (In many cases, these estimates may be less than those used for branchline assessment purposes.) Thus the real issue is obtaining required capital funding -- from federal, state, or local governments, shippers, or the owning railroad. The preferable solution would be to rehabilitate the track rather than simply to seek funds for accelerated maintenance. Such upgrading would eliminate major maintenance expenditures for ten years or more and represents a more efficient use of capital monies. Rehabilitation to Class 2 standards would permit the continuation or slight improvement of present operating speeds for over the long term. A number of possibilities will be explored for accomplishing the required rehabilitation, including the possibility of a long-term "negotiated" solution between government, shippers, and the owning railroad (e.g., the owning railroad guarantees the long-term operation of the line in return for a loan or grant to upgrade the line).

12. (Continued)

- D. Partitioning of this line so that service might be retained on only the most profitable segments is an option which should be considered to reduce capital and/or operating costs.

The segment from Madison to Egan (853 carloads - 96 percent of the total for this line) should be profitable and would be efficiently and inexpensively served by the BN or CMSP&P.

- E. The continuation of service on this line, particularly on the segment between Madison and Wentworth, may have some effect on the continued viability of the CMSP&P line between Madison and Bryant (MW27). Abandonment of the Madison-Wentworth segment would eliminate the direct connection into the CMSP&P system for Madison-Bryant traffic and would probably pave the way for eventual abandonment or transfer of the latter.

- F. Thus, present intent is to keep this line in operation, preferably through arrangements outside of the ICC abandonment/Section 803 process. Line retention depends to a large extent upon the amount of interest that can be generated locally in agreeing to and participating in a long-term solution for this line, including shipper commitment to use rail service.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

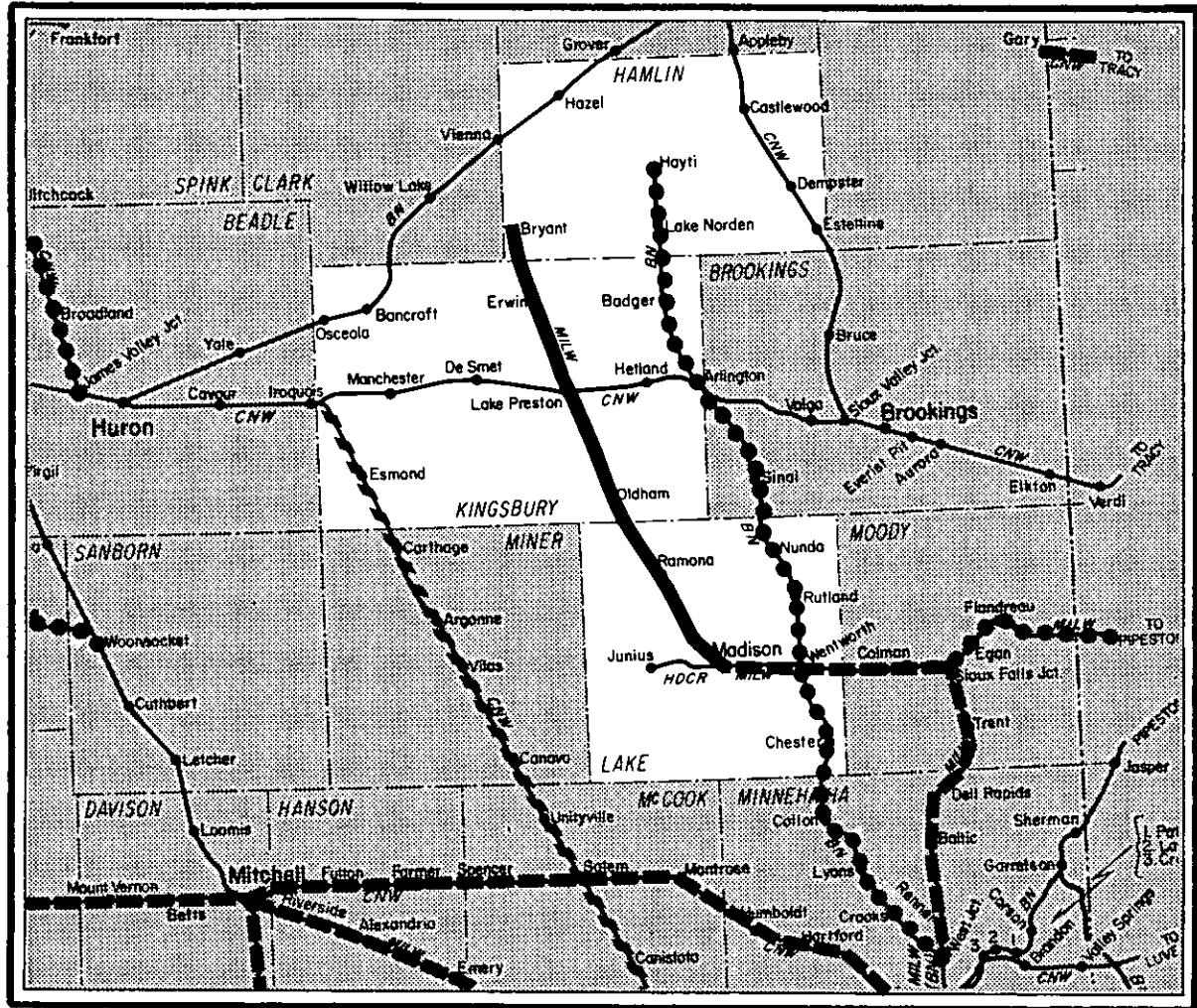
13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA

The decision to oppose abandonment of service from Madison to Jackson, MN is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

- Shipper support and interest is present.
- There is potential for viable operation.
- The social and economic impacts of abandonment are large.







Line MW27

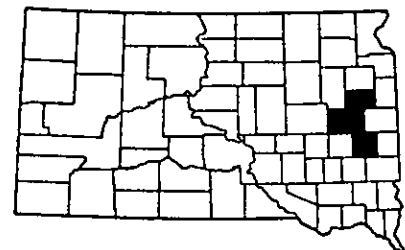
Madison — Bryant



Line MW27, Madison to Bryant, operated by the CMSP&P is 47.5 miles long, connecting at Madison with the CMSP&P line from Jackson, MN to Madison. Line MW27 is in ICC Category 1 with anticipated filing of abandonment within 3 years.

LEGEND

-  Madison — Bryant
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line MW27 Madison - Bryant (MILW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	<u>Carloads</u>		<u>Tons^{1/}</u>	
	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>
Originating	465	255	37,107	20,349
Terminating	34	15	2,394	1,056
Connecting	2	2	150	150
Total	501	272	39,651	21,555

Shippers located on or near this line include 4 grain elevators with a total capacity of 624,100 bushels, 5 fertilizer dealers, and 1 dealer of farm machinery.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 242,000
Maintenance of Equipment	53,481
Traffic and Transportation	43,666
Taxes	7,819
Administration	2,454
Miscellaneous	0
Return on Value	12,090
Off Branch Costs	95,454
Total Avoidable Cost	456,963
Revenue	245,548
(Deficit)	(211,414)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CMSP&P properties in the region and existing rail weight (65 and 56 lb/yard) and FRA Track Class (II).

Rehabilitation to Class II	\$ 1,805,000
Rehabilitation to Class III	2,280,000
Accelerated Maintenance	722,000

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 60 percent of rail suitable traffic is presently moving by rail. Moderate growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 0.4 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service may be feasible on this line. See Part 12D for details. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 4,216	\$ 8,465	\$ 4,216	\$ 8,465
Sales Loss	2,810	5,282	2,810	5,282
Unemployment Payments	NA	NA	NA	NA
Tax Loss	272	549	272	549
Transport Cost Inc. (Annual)	175,438	687,538	21,871	85,718
Transport Cost Inc. ^{1/} (Capital)	0	0	140,088	560,352
Total Economic Impact	\$182,736	\$701,834	\$169,257	\$660,366
<u>Environmental & Energy</u>				
Truck-trips/day	9	9	35	35
Truck-mi/day	1,449	1,449	206	206
Truck-hrs/day	27	27	6	6
Additional Gal. of Fuel	50,985	203,940	5,082	20,328
<u>Other Impacts</u>				
Primary Jobs Lost	1	1	1	1
Secondary Jobs Lost	1	1	1	1
Local Outmigration	7	7	7	7

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 52 times annually (on a scheduled basis) by 2 locomotives and a crew of 4 operating from Madison. The line is presently classified as FRA Class II with a timetable speed of 25 mph.

A reduced service frequency should be investigated to reduce operating costs. A change to Track Class III is not economically productive. A change to Track Class I, although resulting in somewhat higher operating costs, would reduce capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

Rail Banking is recommended from Madison to Lake Preston.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

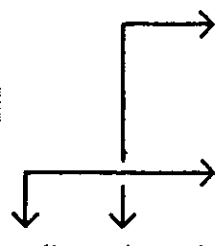
It is anticipated that operation of this line will require substantial subsidies by the end of the four year program. If operation is funded under the 803 program and subsidy requirements are reduced, consideration will be given to continuing service. Otherwise service will be discontinued.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF ALT. A.	RATIO OF PV OF PV OF ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	50422	34100	62087	43935		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	44035	32262	58375	41313		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	(52073)	(25268)	(224257)	(37447) (108796)	1.17 (0.28)	1.10 (0.26)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	(52073)	(26080)	(538330)	(38098) (128224)	1.15 (0.23)	1.08 (0.22)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(52073)	(28309)	(570174)	(40352) (72271)	1.09 (0.46)	1.02 (0.44)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(52073)	(48326)	(622178)	(44032) (92535)	1.00 (0.47)	0.94 (0.45)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS II	(52073)	(18273)	(474050)	(33549) (104898)	1.31 (0.28)	1.23 (0.27)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(52073)	(41331)	(567100)	(40134) (88637)	1.09 (0.50)	1.03 (0.47)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS II	(52073)	(20625)	(491638)	(34793) (106143)	1.26 (0.28)	1.19 (0.26)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS II	(52073)	(26769)	(542329)	(38381) (109730)	1.14 (0.28)	1.08 (0.26)



NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line incurs a moderate to large loss (approximately \$52,100 per quarter) to the CMSP&P. This loss decreases depending upon the amount of accelerated maintenance or rehabilitation performed. The loss over the full program period would range from \$622,000 (with accelerated maintenance) to \$529,000 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth. This line would still not be profitable were traffic to increase to its maximum potential (as estimated by the University of South Dakota).
- B. Since the line incurs a net cost, the Department anticipates that an abandonment application will be filed by the CMSP&P. If the line is indeed unprofitable, the Department will not oppose such an application.
- C. The cost (present value for the first four years) of discontinuing rail service has been estimated at \$621,000 (trucking for the entire distance) and \$584,000 (trucking to the nearest rail line). Assuming that the latter alternative would be chosen by shippers, the "ratio" of the cost of discontinuing rail service to continuing rail service under accelerated maintenance would be 0.94 or 0.45, depending upon whether accelerated maintenance costs are included or not. Since both ratios are less than 1.00, a case cannot be made for continuing rail service and accomplishing accelerated maintenance under the Section 803 program.
- D. Partitioning of this line so that service might be supplied more efficiently is an option which should be considered to reduce capital and/or operating costs.

The segment from Lake Preston to Bryant (17.2 mi, 242 carloads - 48 percent of the total for this line) would be more efficiently and inexpensively served by the CNW.

Similarly, transfer of the connecting station traffic at Lake Preston (CNW) may be possible (although the feasibility of this depends on the exact location of shippers, sidings and track connections). Thus up to 35 carloads (7 percent) might be retained with little or no operating or capital cost.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

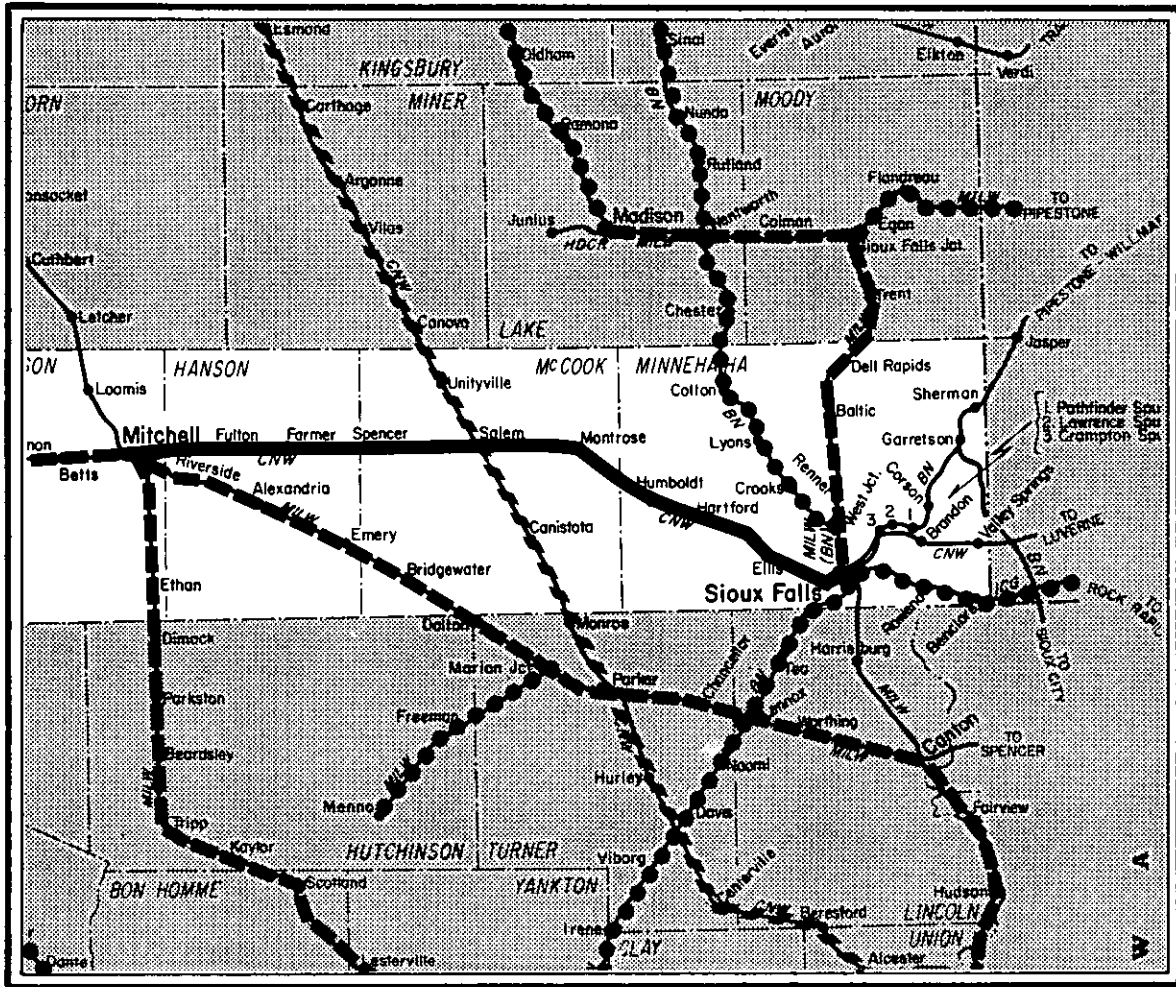
13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA

The decision (not) to oppose abandonment of service from Madison to Bryant is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

- Shipper support and interest is not present.
- There is little or no potential for viable operation.
- The social and economic impacts of abandonment are small.
- Through traffic is not served by this route.







Line CN10

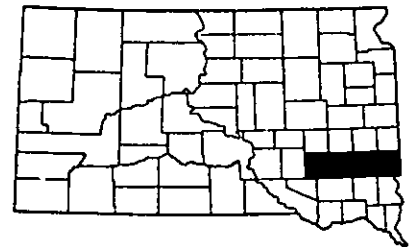
Sioux Falls — Mitchell



Line CN10, Sioux Falls to Mitchell, operated by the CNW is 65.2 miles long, connecting at Sioux Falls with the CNW line from Sioux Falls to Luverne, MN. Line CN10 is in ICC Category 2, (potentially subject to abandonment and under further study by the railroad).

LEGEND

-  Sioux Falls — Mitchell
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line CN10 Sioux Falls - Mitchell (CNW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	<u>Carloads</u>		<u>Tons^{1/}</u>	
	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>
Originating	1,102	732	81,856	54,373
Terminating	443	396	28,419	29,383
Total	1,545	1,128	110,275	83,756

Shippers located on or near this line include 10 grain elevators with a total capacity of 990,800 bushels, 11 fertilizer dealers, and 1 dealer of farm machinery.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 311,420
Maintenance of Equipment	49,118
Traffic and Transportation	162,065
Taxes	5,989
Administration	6,713
Miscellaneous	0
Return on Value	16,595
Off Branch Costs	265,385
Total Avoidable Cost	817,285
Revenue	671,263
(Deficit)	(146,022)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CNW properties in the region and existing FRA Track Class (I).

Rehabilitation to Class II	\$ 3,260,000
Rehabilitation to Class III	3,912,000
Accelerated Maintenance	782,900

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 50 percent of rail suitable traffic is presently moving by rail. Moderate growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 1.3 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 48,505	\$ 97,357	\$ 48,505	\$ 97,357
Sales Loss	10,975	22,031	10,975	22,031
Unemployment Payments	NA	NA	NA	NA
Tax Loss	2,377	4,775	2,377	4,775
Transport Cost Inc. (Annual)	505,137	1,979,596	260,254	1,019,925
Transport Cost Inc. ^{1/} (Capital)	0	0	295,072	1,180,288
Total Economic Impact	\$566,994	\$2,103,759	\$617,183	\$2,324,376
<u>Environmental & Energy</u>				
Truck-trips/day	19	19	76	76
Truck-mi/day	2,312	2,312	382	382
Truck-hrs/day	42	42	10	10
Additional Gal. of Fuel	60,926	243,704	7,211	28,844
<u>Other Impacts</u>				
Primary Jobs Lost	14	14	14	14
Secondary Jobs Lost	9	9	9	9
Local Outmigration	61	61	61	61

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 104 times annually (on a scheduled basis) by 1 locomotive and a crew of 4 operating from Sioux Falls. The line is presently classified as FRA Class I with a timetable speed of 10 mph.

A reduced service frequency will not satisfy existing demand. A change to Track Classes 2 or 3 result in reduced operating costs but at considerable capital expense.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

Rail Banking is recommended for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

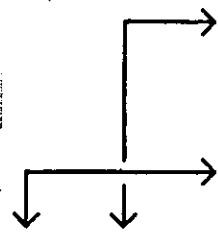
~~It is anticipated that operation of this line will still require subsidy by the end of the four year program.~~ If operation is funded under the 803 program and subsidy requirements are reduced, consideration will be given to continuing service. Otherwise service will be discontinued.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF ALT. A.	RATIO OF PV OF PV OF ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	166699	100920	1863393	131873		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	174170	112112	2027564	145615		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(35966)	(7492)	(234061)	(16565)	(0.89)	(0.98)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	(35966)	(1007)	(147600)	(10446)	(0.57)	(0.63)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	(35966)	(1544)	(152701)	(10807)	(0.48)	(0.53)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(35966)	(36265)	(350173)	(24782)	(1.71)	(1.88)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS I	(35966)	(8684)	(243335)	(17221)	(0.89)	(0.98)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(35966)	(37457)	(359447)	(25438)	(1.69)	(1.87)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS I	(35966)	(8159)	(239451)	(16946)	(0.89)	(0.98)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS I	(35966)	(7364)	(232938)	(16485)	(0.89)	(0.98)



NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line ~~incurs a moderate loss~~ (approximately \$36,000 per quarter) to the CNW. This loss decreases depending upon the amount of accelerated maintenance or rehabilitation performed. The loss over the full program period would range from \$350,000 (with accelerated maintenance) to \$148,000 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth. ~~This line would still not be profitable were traffic to increase by ten percent per year or were traffic to increase to its maximum potential~~ (as estimated by the University of South Dakota).
- B. ~~Since the line incurs a net cost, the Department anticipates that an abandonment application will be filed by the CNW. If the line is indeed unprofitable, the Department will not oppose such an application.~~
- C. ~~The cost (present value for the first four years) of discontinuing rail service has been estimated at \$1,863,000 (trucking for the entire distance) and \$2,058,000 (trucking to the nearest rail line). Assuming that the former alternative would be chosen by shippers, the "ratio" of the cost of discontinuing rail service to continuing rail service under accelerated maintenance would be 5.32 or 1.71, depending upon whether accelerated maintenance costs are included or not. Since these ratios are substantially greater than 1.00, a strong case can be made for continuing rail service and accomplishing accelerated maintenance under the Section 803 program.~~
- D. A concurrent need is to improve the track structure sufficiently to prevent further deterioration of present track conditions. Accelerated maintenance costs have been estimated at up to \$782,400. The Department is awaiting a more detailed "engineering" cost estimate from the CNW. If sufficient funds are available (after meeting higher priority needs), ~~the Department will utilize Section 803 funding to carry out accelerated maintenance.~~
- E. ~~This line is located in a high grain producing region. Much of the grain produced is apparently already being transported by truck directly to grain terminals. The future of this line depends to a large degree on improving the competitive position of rail service with respect to other transport modes.~~
- F. ~~Thus, present intent is to keep this line in operation using Section 803 funding if required and available. Line retention depends to a large extent upon the amount of interest that can be generated locally to participate in the Section 803 program and in shipper commitments to increase present usage of rail service.~~

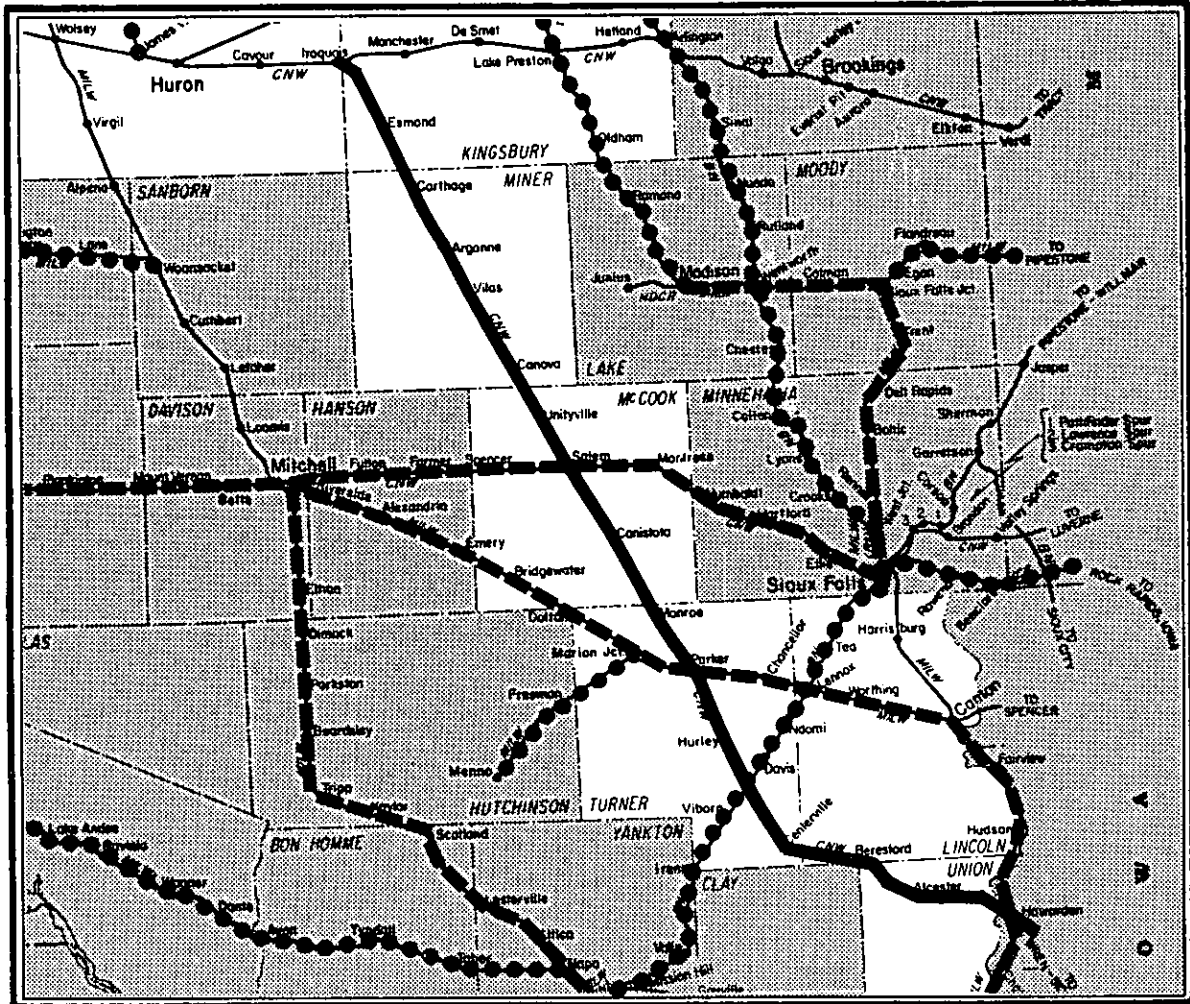
12. (Continued)

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA







The decision to pursue Section 803 support for service from Sioux Falls to Mitchell is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

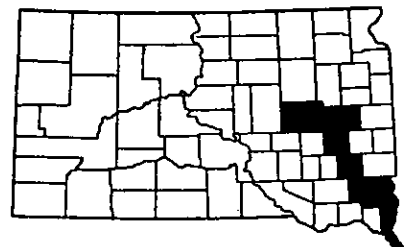
- o The social and economic impacts of abandonment are large.



Line CN11, Iroquois to Wren, IA, operated by the CNW with 125.3 miles of line located in South Dakota. It connects at Wren with the CNW line from Wren, IA to Sioux City, IA. Line CN11 is in ICC Category 3 with an abandonment application pending before the ICC.

LEGEND

-  Iroquois — Wren, IA
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



alaska

BRANCHLINE ANALYSIS

Line CN11 Iroquois - Wren, IA (CNW)
Line CN11 (Part) Salem - Hawarden (CNW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	Carloads		Tons ^{1/}	
	1974	1975	1974	1975
Originating	2,220	765	129,904	39,169
Terminating	204	188	37,085	13,081
Total	2,424	953	161,989	52,250

Shippers located on or near these lines include 20 grain elevators with a total capacity of 3,053,267 bushels, 34 fertilizer dealers, 6 dealers of farm machinery, and numerous other businesses shipping such commodities as petroleum products, scrap iron, rock and gravel, cement and wood products.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

	CN11	CN11 (Part)
Maintenance of Way & Structures	\$ 576,380	\$ 423,147
Maintenance of Equipment	18,888	65,199
Traffic and Transportation	232,363	103,351
Taxes	16,620	14,061
Administration	13,082	11,233
Miscellaneous	44,410	37,572
Return on Value	31,891	19,945
Off Branch Costs	479,002	361,774
Total Avoidable Cost	1,412,636	1,036,283
Revenue	1,073,741	1,073,741
(Deficit) Profit	(104,386)	37,458

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

The following rehabilitation cost estimates are composite figures derived from cost estimates developed by the CNW and Trans-Action Associates and based on inspections made on the line. The line is presently classed as FRA Track Class III with rail weights of 80, 90 and 110 lbs/yard.

	CN11	CN11 (Part)
Rehabilitation to Class III	4,510,800	1,982,000
Accelerated Maintenance	1,804,320	793,000

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 50 percent of rail suitable traffic is presently moving by rail. Moderate growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 2.0 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service may be feasible on this line. See Part 12E for details. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 149,735	\$ 300,539	\$ 149,735	\$ 300,539
Sales Loss	215,079	476,990	215,079	476,990
Unemployment Payments	NA	NA	NA	NA
Tax Loss	15,493	31,100	15,493	31,100
Transport Cost Inc. (Annual)	778,665	3,051,528	170,262	667,255
Transport Cost Inc. ^{1/} (Capital)	0	0	449,012	1,796,050
Total Economic Impact	\$1,158,972	\$3,860,157	\$ 999,581	\$3,271,934
<u>Environmental & Energy</u>				
Truck-trips/day	30	30	117	117
Truck-mi/day	2,871	2,871	983	983
Truck-hrs/day	52	52	25	25
Additional Gal. of Fuel	139,930	559,720	33,762	135,048
<u>Other Impacts</u>				
Primary Jobs Lost	45	45	45	45
Secondary Jobs Lost	26	26	26	26
Local Outmigration	183	183	183	183

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 104 times annually (on a scheduled basis) by 2 locomotives and a crew of 4 operating from Iroquois. The line is presently classified as FRA Class III with a timetable speed of 30 mph.

A reduced service frequency will not satisfy existing demand. A change to Track Class I or II, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

See Part 12.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

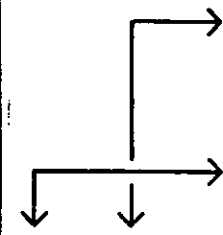
Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost-benefit estimates are given in Table 1.

12. OVERALL BRANCHLINE ASSESSMENT

- A. The Department considers it inevitable that the segment from Salem to Iroquois will be abandoned, since it presently has no attributable traffic or revenue. Shippers and interested persons have organized and formed a corporation which may make an offer to purchase the segment from Salem to Hawarden, IA. For this reason the analysis is done in two parts, one for the entire line (CN11) and a second for the Salem-Hawarden segment (CN11 (Part)).

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

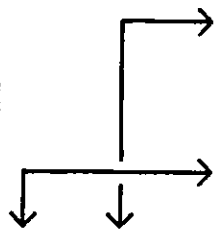
ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF PV ALT. A.	RATIO OF PV OF PV ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	41698	175906	3437076	243244		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	365589	147744	2915870	206358		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	72533	28134	634378	44895	5.42	4.60
	(72533)	(28134)	(3781513)	(101603)	(0.91)	(0.77)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	72533	30538	669378	47372	5.13	4.36
	(72533)	(30538)	(2942305)	(88328)	(1.17)	(0.99)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	72533	56741	1014747	71814	3.39	2.87
	(72533)	(56741)	(1451847)	(79690)	(2.37)	(2.01)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	72533	98896	999624	67913	3.58	3.04
	(72533)	(98896)	(2218475)	(157003)	(1.55)	(1.31)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS III	72533	42473	100553	7116	34.18	29.00
	(72533)	(42473)	(3247689)	(63824)	(1.06)	(0.90)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	72533	29032	426862	30209	8.05	6.83
	(72533)	(29032)	(1685714)	(119299)	(2.04)	(1.73)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS III	72533	-3030	381193	26977	9.02	7.65
	(72533)	(-3030)	(3528328)	(83686)	(0.97)	(0.83)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS III	72533	37966	720878	51017	4.77	4.04
	(72533)	(37966)	(3868012)	(107725)	(0.89)	(0.75)



NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV ALT. A.	RATIO OF PV ALT. B.
A. ABANDONMENT TRUCK FOR ENTIRE RAIL DISTANCE	416998	175906	3437076	243244		
B. ABANDONMENT TRUCK TO NEAREST RAIL LINE	365589	147744	2915870	206358		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	(-7030)	(-39917)	(-556010) (1325234)	(-39349) (-5451)	***** (2.59)	***** (2.20)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	(-7030)	(-40268)	(-558263) (800419)	(-39509) (-15026)	***** (4.29)	***** (3.64)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(-7030)	(-31163)	(-437205) (-175921)	(-30941) (-26233)	***** (*****)	***** (*****)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(-7030)	(3859)	(-363584) (388916)	(-25731) (27524)	***** (8.84)	***** (7.50)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS III	(-7030)	(-140139)	(-1315846) (565399)	(-93123) (-59225)	***** (6.08)	***** (5.16)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(-7030)	(-96244)	(-1123304) (-370804)	(-79497) (-26242)	***** (*****)	***** (*****)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS III	(-7030)	(-84260)	(-914813) (966433)	(-64742) (-30843)	***** (3.56)	***** (3.02)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS III	(-7030)	(-25845)	(-432199) (1449047)	(-30587) (3311)	***** (2.37)	***** (2.01)



NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS (I.E. PROFIT)
NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. (Continued)

- B. Based upon "typical" traffic and DOT cost computations, Line CN11 incurs a large loss (approximately \$72,500 per quarter) to the CNW. This loss decreases depending upon the amount of accelerated maintenance or rehabilitation performed. (For example, the line incurs an operating loss of approximately \$98,900 with accelerated maintenance). The loss over the full program period would range from \$960,000 (with accelerated maintenance) to \$634,000 rehabilitation to Class 3 standards). These estimates do not include capital investment and assume zero traffic growth. This line would still not be profitable were traffic to increase by ten percent per year or were traffic to increase to its maximum potential (as estimated by the University of South Dakota).
- C. Based upon "typical" traffic and DOT cost computations, Line CN11 (Part) should return a small profit (approximately \$7,000 per quarter) to the railroad. With accelerated maintenance only, this line would lose approximately \$3,900 in the final quarter of the four-year program period. The return over the full program period would then range from \$364,000 (with accelerated maintenance) to \$558,000 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth.
- D. Unless the actual costs prove to be substantially greater than the cost estimates developed by the Department, no economic basis exists for abandonment of segment CN11 (Part) (unless track conditions have deteriorated to the point where service can no longer be physically provided).

On the other hand, the Salem-Iroquois segment of CN11 is obviously unprofitable and service should be discontinued.

- E. The main need on CN11 (Part) is to improve the track structure sufficiently to permit efficient, safe, long-term operation. Accelerated maintenance costs to Class 2 have been estimated at up to \$792,729. Rehabilitation has been estimated at up to \$1,431,316 for Class 2. The capital costs for Class 2 operation considerably exceed the four-year return. The real issue is obtaining required capital funding -- from Federal, state or local governments, shippers, or the owning railroad. The preferable solution would be to rehabilitate the track rather than simply to seek funds for accelerated maintenance. Such upgrading would eliminate major maintenance expenditures for ten years or more and represents a more efficient use of capital monies. Rehabilitation to Class 2 standards would permit the continuation or slight improvement of present operating speeds for over the long term. A number of possibilities will be explored for accomplishing the required rehabilitation, including

12. (Continued)

the possibility of a long-term, "negotiated" solution between government, shippers, and the owning railroad (e.g., the owning railroad guarantees the long-term operation of the line in return for a loan or grant to upgrade the line).

- F. Line CN11 has already been approved for abandonment by the ICC. The present intent is to keep Line CN11 (Part) in operation, preferably through arrangements outside of the ICC abandonment/Section 803 process (although recent events indicate that this may not be possible). Line retention depends to a large extent upon the amount of interest that can be generated locally in agreeing to, and participating in a long-term solution for this line, including shipper commitment to use rail service.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

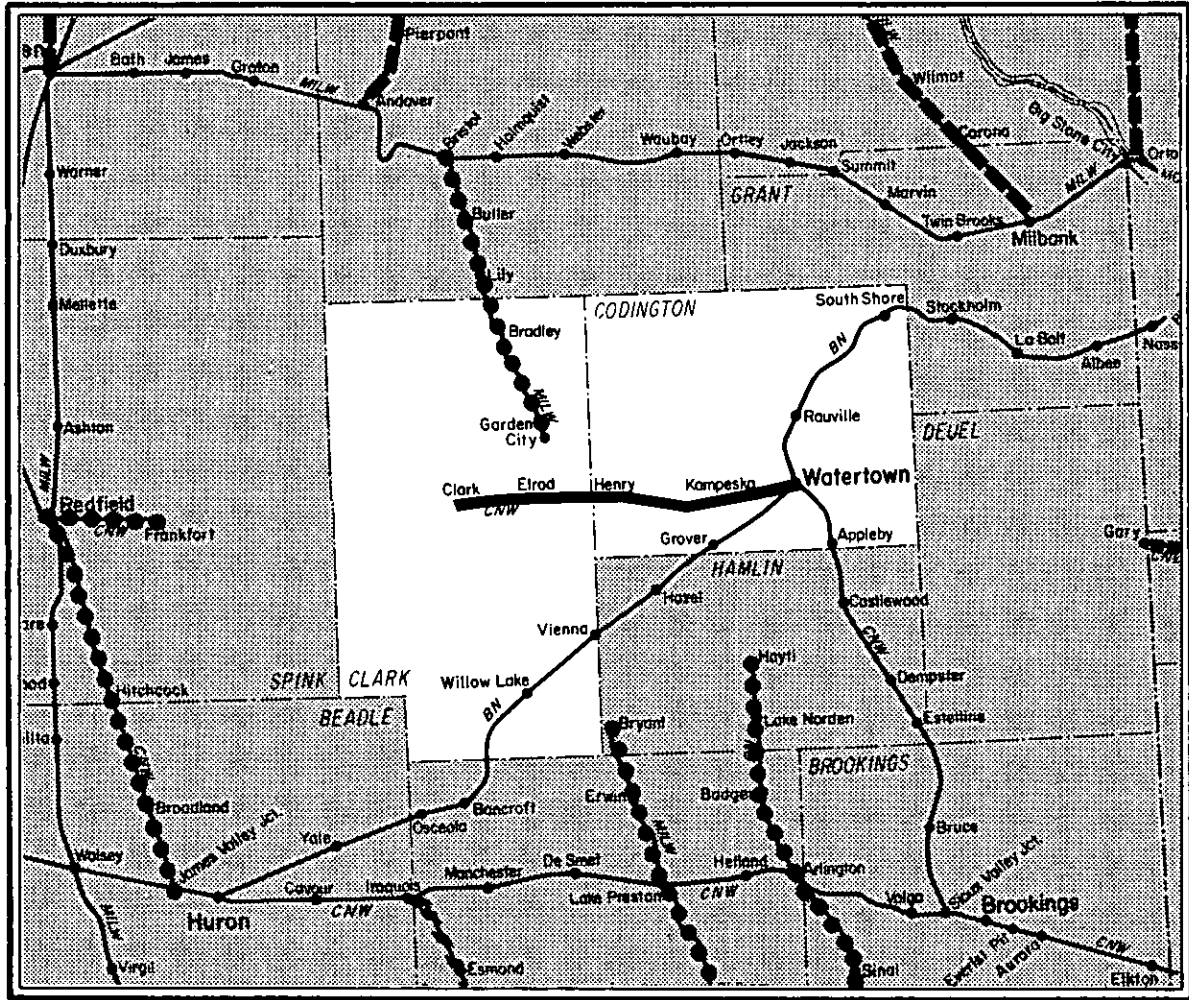
13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA

The decision to oppose abandonment of service from Salem to Hawarden, IA is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

- Shipper support and interest is present.
- There is potential for viable operation.
- The social and economic impacts of abandonment are large.







Line CN13

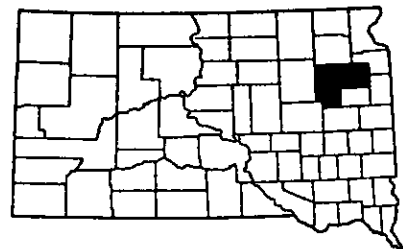
Watertown — Clark



Line CN13, Watertown to Clark, operated by the CNW is 28.6 miles long, connecting at Watertown with the CNW line from Sioux Valley Jct. to Watertown line CN13 was filed for abandonment but the ICC denied this request in 1977.

LEGEND

-  Watertown — Clark
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line CN13 Watertown - Clark (CNW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	<u>Carloads</u>		<u>Tons</u>	
	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>
Originating	330	286	18,376	2,408
Terminating	79	51	3,436	15,804
Total	409	337	21,812	18,212

Shippers located on or near this line include 12 grain elevators with a total capacity of 969,100 bushels, 8 fertilizer dealers, 3 dealers of farm machinery, and several other businesses shipping such commodities as scrap iron, coal, lumber, and potato products.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 89,019
Maintenance of Equipment	2,802
Traffic and Transportation	20,791
Taxes	6,217
Administration	2,394
Miscellaneous	7,852
Return on Value	7,279
Off Branch Costs	99,011
Total Avoidable Cost	235,365
Revenue	239,425
Profit	(4,060)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

The following rehabilitation cost estimates are derived from estimates prepared by the CNW and Trans-Action Associates, Inc. and are based on the condition of the line at the existing FRA Track Class (I) and rail weight (72 lb/yard).

Rehabilitate to Class II	\$ 365,398
Rehabilitate to Class III (1)	3,125,743
Accelerated Maintenance	97,000

(1) Includes replacing all rail.

Note: These estimates should be viewed as approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 20 percent of rail suitable traffic is presently moving by rail. Considerable growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 0.3 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 200,350	\$ 402,130	\$ 200,350	\$ 402,130
Sales Loss	123,459	247,800	123,459	247,800
Unemployment Payments	NA	NA	NA	NA
Tax Loss	12,951	25,997	12,951	25,997
Transport Cost Inc. (Annual)	186,147	729,495	20,026	78,489
Transport Cost Inc. ^{1/} (Capital)	0	0	148,353	791,220
Total Economic Impact	\$ 522,907	\$1,405,422	\$ 505,139	\$1,545,636
<u>Environmental & Energy</u>				
Truck-trips/day	4	4	15	15
Truck-mi/day	906	906	106	106
Truck-hrs/day	16	16	3	3
Additional Gal. of Fuel	33,963	135,852	2,644	10,576
<u>Other Impacts</u>				
Primary Jobs Lost	60	60	60	60
Secondary Jobs Lost	35	35	35	35
Local Outmigration	244	244	244	244

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 52 times annually (on a scheduled basis) by 1 locomotive and a crew of 4 operating from Watertown. The line is presently classified as FRA Class I with a timetable speed of 10 mph.

A reduced service frequency should be investigated as a means to reduce operating costs on this line. A change to Track Class II or III is not economically productive. Maintaining Track Class I would result in somewhat higher operating costs, but may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

This line will require a small continuing subsidy even after rehabilitation if traffic demand does not increase. During the subsidy period, effort will be made to stimulate increases in traffic. Should this, together with some cost cutting measures, result in profitable operation, service would be continued at no further cost to the state. If profitable operation is not achieved, consideration will be given to discontinuing service.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV ALT. A.	RATIO OF PV OF PV ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	224817	57955	1263189	89396	
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	229304	65082	1386569	98128	
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(-1000)	(-756)	(-17191) (176264)	(-1217) (2269)	(7.17) (7.87)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	(-1000)	(-645)	(-16622) (1340807)	(-1176) (23283)	(0.94) (1.03)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	(-1000)	(375)	(-4.89) (1624725)	(-296) (29055)	(0.78) (0.85)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(-1000)	(12482)	(36227) (128036)	(2564) (9061)	34.87 (9.87) (38.27) (10.83)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS I	(-1000)	(-76727)	(-462029) (-268573)	(-32698) (-29212)	(*****) (*****) (*****) (*****)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(-1000)	(-63490)	(-408610) (-316801)	(-28918) (-22420)	(*****) (*****) (*****) (*****)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS I	(-1000)	(-7009)	(-67682) (125774)	(-4790) (-1304)	(10.04) (11.02)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS I	(-1000)	(1245)	(410) (193866)	(29) (3515)	(6.52) (7.15)

NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS

NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line should return a small profit (approximately \$1,000 per quarter) to the CNW. With accelerated maintenance, this line loses approximately \$12,500 in the final quarter of the four-year program period. If the track were rehabilitated, the return is approximately \$600 (Class 2) per quarter. The return over the full program period would then range from a loss of \$36,200 (with accelerated maintenance) to a profit of \$16,622 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth.
- B. Unless the actual costs captured in the CNW branchline accounting system prove to be substantially greater than the cost estimates developed by the Department, no economic basis exists for line abandonment (unless track conditions have deteriorated to the point where the CNW feels it can no longer physically provide rail service). Whether the CNW will seek abandonment is unknown. If sought, the Department will oppose the application through the ICC abandonment process in order to establish the true profitability of the line.
- C. The cost (present value for the first four years) of discontinuing rail service has been estimated at \$1,263,000 (trucking for the entire distance) and \$1,387,000 (trucking to the nearest rail line). Assuming that the former alternative would be chosen by shippers, the "ratio" of the cost of discontinuing rail service to continuing rail service under accelerated maintenance would be 21.5 or 8.4 depending upon whether accelerated maintenance costs were included or not. Since these ratios are substantially greater than 1.00, a strong case can be made for continuing rail service and accomplishing accelerated maintenance under the Section 803 program.
- D. The main need is to improve the track structure sufficiently to permit efficient, safe, long-term operation. Accelerated maintenance costs have been estimated at up to \$96,700. Rehabilitation has been estimated at up to \$365,398 for Class 2. These costs appreciably exceed the anticipated return (over four years. Thus, the real issue is obtaining required capital funding -- from federal, state, or local governments, shippers, or the owning railroad. The preferable solution would be to rehabilitate the track rather than simply to seek funds for accelerated maintenance. Such upgrading would eliminate major maintenance expenditures for ten years or more and represents a more efficient use of capital monies. Rehabilitation to Class 2 standards would permit the continuation or slight improvement of present operating speeds for over the long term. A number of possibilities will be explored for accomplishing the required rehabilitation, including the possibility of a long-term "negotiated" solution between government, shippers, and the owning railroad (e.g., the owning railroad guarantees the long-term operation of the line in return for a loan or grant to upgrade the line).

12. (Continued)

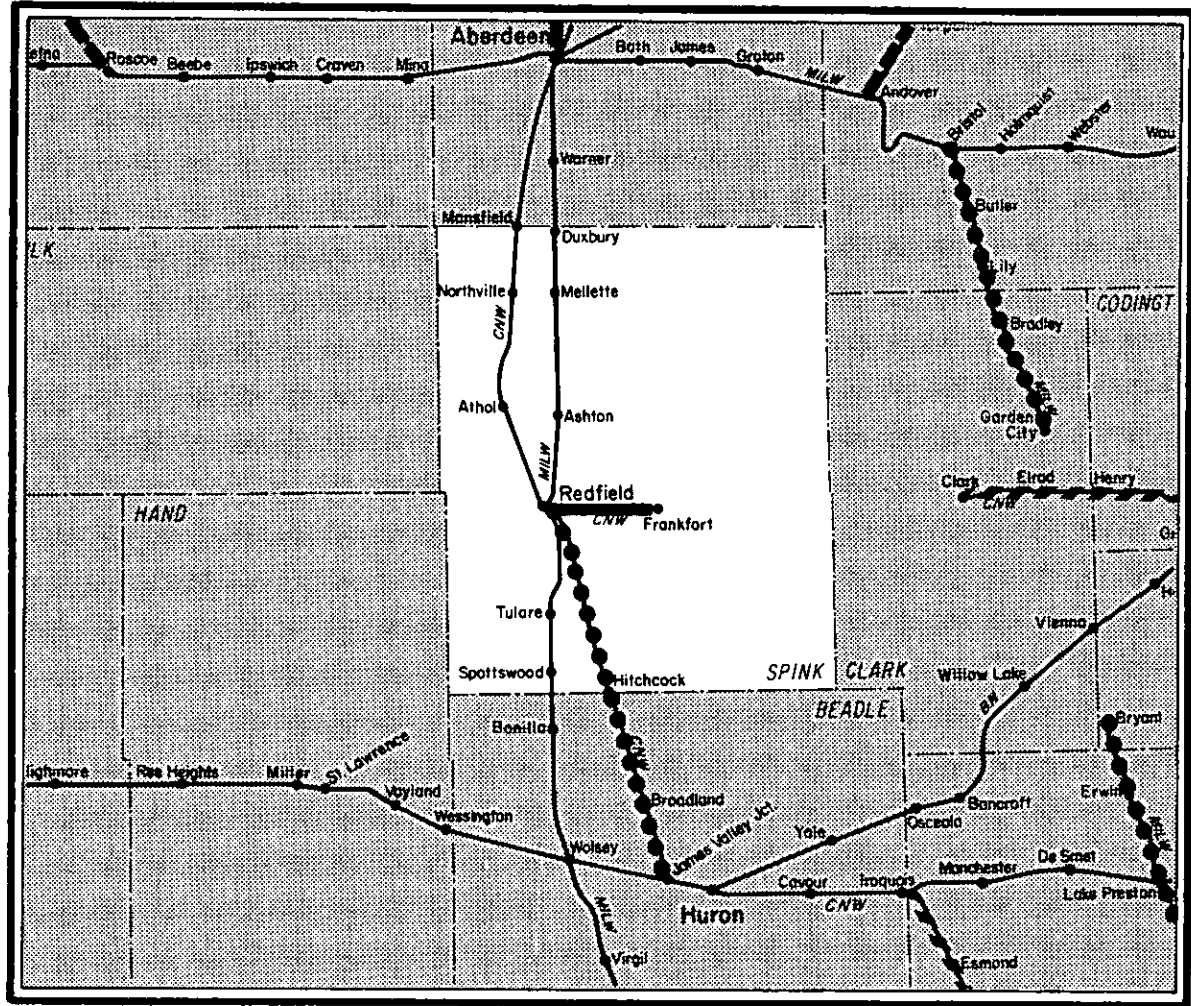
- E. Permission to abandon this line was denied by the ICC in 1976. However, it is likely that another abandonment application will be submitted by the CNW sometime in the future. Service on this line remains in jeopardy, therefore. In response to this situation, the shippers on the line have organized and may be in a position to tender an offer for purchase of the line, if necessary, in the future.
- F. Thus, present intent is to keep this line in operation using Section 803 funding if required and available. Line retention depends to a large extent upon the amount of interest that can be generated locally to participate in the Section 803 program and in shipper commitments to increase present usage of rail service.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA






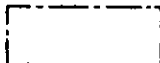
The decision to oppose abandonment of service from Watertown to Clark is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

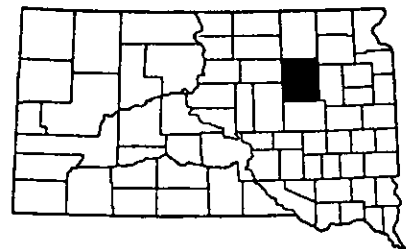
- Shipper support and interest is present.
- There is potential for viable operation.
- The social and economic impacts of abandonment are large.



Line CN15, Redfield to Frankfort, operated by the CNW is 9.7 miles long, connecting at Redfield with the CNW line from James Valley Jct. to Aberdeen. Line CN15 is in ICC Category 1 with anticipated filing of abandonment within 3 years.

LEGEND

-  Redfield — Frankfort
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line CN15 Redfield-Frankfort (CNW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	Carloads		Tons ^{1/}	
	1974	1975	1974	1975
Originating	281	207	21,272	15,645
Terminating	8	4	570	302
Total	289	211	21,842	15,947

Shippers located on or near this line include 1 grain elevator with a total capacity of 498,000 bushels, and 1 fertilizer dealer.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 44,620
Maintenance of Equipment	8,819
Traffic and Transportation	14,420
Taxes	1,546
Administration	1,374
Miscellaneous	0
Return on Value	2,469
Off Branch Costs	82,640
Total Avoidable Cost	155,888
Revenue	137,378
(Deficit)	((18,510))

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CNW properties in the region and existing rail weights (72 and 90 lb./yard) and FRA Track Class (I).

Rehabilitation to Class II	\$ 485,000
Rehabilitation to Class III	582,000
Accelerated Maintenance	116,400

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 80 percent of rail suitable traffic is presently moving by rail. Moderate growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 0.2 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	0	0	0	0
Sales Loss	1,444	2,900	1,444	2,900
Unemployment Payments	NA	NA	NA	NA
Tax Loss	55	115	55	115
Transport Cost Inc. (Annual)	99,563	390,181	11,828	46,360
Transport Cost Inc. ^{1/} (Capital)	0	0	194,964	779,856
Total Economic Impact	\$101,062	\$393,196	\$208,291	\$829,231
<u>Environmental & Energy</u>				
Truck-trips/day	5	5	20	20
Truck-mi/day	1,160	1,160	112	112
Truck-hrs/day	21	21	3	3
Additional Gal. of Fuel	47,215	188,760	2,720	10,880
<u>Other Impacts</u>				
Primary Jobs Lost	0	0	0	0
Secondary Jobs Lost	0	0	0	0
Local Outmigration	0	0	0	0

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 52 times annually (on an "as needed" basis) by 1 locomotive and a crew of 4 operating out of Redfield. The line is presently classified as FRA Class I with a timetable speed of 10 mph.

Although this line is served on an "as needed" basis, effort should be made to reduce service frequency, as this will reduce operating costs significantly. Rehabilitation to Class II will reduce operating costs but not by nearly enough to justify the additional capital expenditure.

Consolidation, pooling or joint use are not feasible to this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

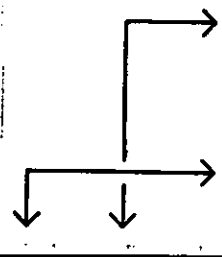
This line will require a small continuing subsidy even after rehabilitation if traffic demand does not increase. During the subsidy period, effort will be made to stimulate increases in traffic. Should this, together with some cost cutting measures, result in profitable operation, service would be continued at no further cost to the state. If profitable operation is not achieved, consideration will be given to discontinuing service.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF ALT. A.	RATIO OF PV OF PV ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	27293	19184	347648	24603		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	51953	40777	732527	51841		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(4559)	(818)	(27814) (304046)	(1968) (13471)	12.50 (1.14)	26.34 (2.41)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(4559)	(596)	(24634) (485022)	(1743) (20915)	14.11 (0.72)	29.74 (1.51)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(0)	(0)	(0)	(0)	0.0 (0.0)	0.0 (0.0)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(4559)	(5099)	(45088) (155581)	(3191) (11011)	7.71 (2.23)	16.23 (4.71)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS I	(4559)	(237)	(23030) (299263)	(1630) (13133)	15.10 (1.16)	31.81 (2.45)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(4559)	(4518)	(40305) (150797)	(2892) (10672)	8.63 (2.31)	18.17 (4.86)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS I	(4559)	(-59)	(20733) (296965)	(1467) (12970)	16.77 (1.17)	35.33 (2.47)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS I	(4559)	(1120)	(30467) (306700)	(2156) (13659)	11.41 (1.13)	24.04 (2.39)



NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line ~~could incur a small loss~~ (approximately \$4,600 per quarter) to the CNW. With accelerated maintenance, this loss should increase to approximately \$5,100 in the final quarter of the four-year program period. If the track were rehabilitated, the loss should decrease to approximately \$800 (Class 2) per quarter. The loss over the full program period would then range from \$45,100 (with accelerated maintenance) to \$24,600 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth. On the other hand, if traffic could be increased by ten percent per year, then the line would earn a profit of \$100 per quarter at Class 1 standards.
- B. This line must be classified as marginal. If the actual costs captured in the CNW branchline accounting system prove to be significantly less than the cost estimates developed by the Department, then the line is likely to be profitable with no economic basis for abandonment. If the actual costs are greater than or approximately equal to the estimated costs, then the Department anticipates that an abandonment application will be filed by the CNW. ~~If filed, the Department may oppose the application through the ICC~~ abandonment process in order to establish the true extent of the unprofitability of all reasonable operating configurations and to provide a sound basis for any forthcoming offer of financial assistance.
- C. The cost (present value for the first four years) of discontinuing rail service has been estimated at \$348,000 (trucking for the entire distance) and \$733,000 (trucking to the nearest rail line). Assuming that the former alternative would be chosen by shippers, the "ratio" of the cost of discontinuing rail service to continuing rail service under accelerated maintenance would be 7.71 or 2.23, depending upon whether accelerated maintenance costs were included or not. ~~Since these ratios are substantially greater than 1.00, a strong case can be made for continuing rail service and accomplishing accelerated maintenance under the Section 803 program.~~
- D. A concurrent need is to improve the track structure sufficiently to prevent further deterioration of present track conditions. Accelerated maintenance costs have been estimated at up to \$116,400 and rehabilitation to Class 2 at \$485,000. The Department is awaiting a more detailed "engineering" cost estimate from the CNW. If sufficient funds are available, the Department will utilize Section 803 funding to carry out accelerated maintenance or rehabilitation to Class 2 standards (the latter is preferred, the former may be a practical necessity with the funds available to the state).

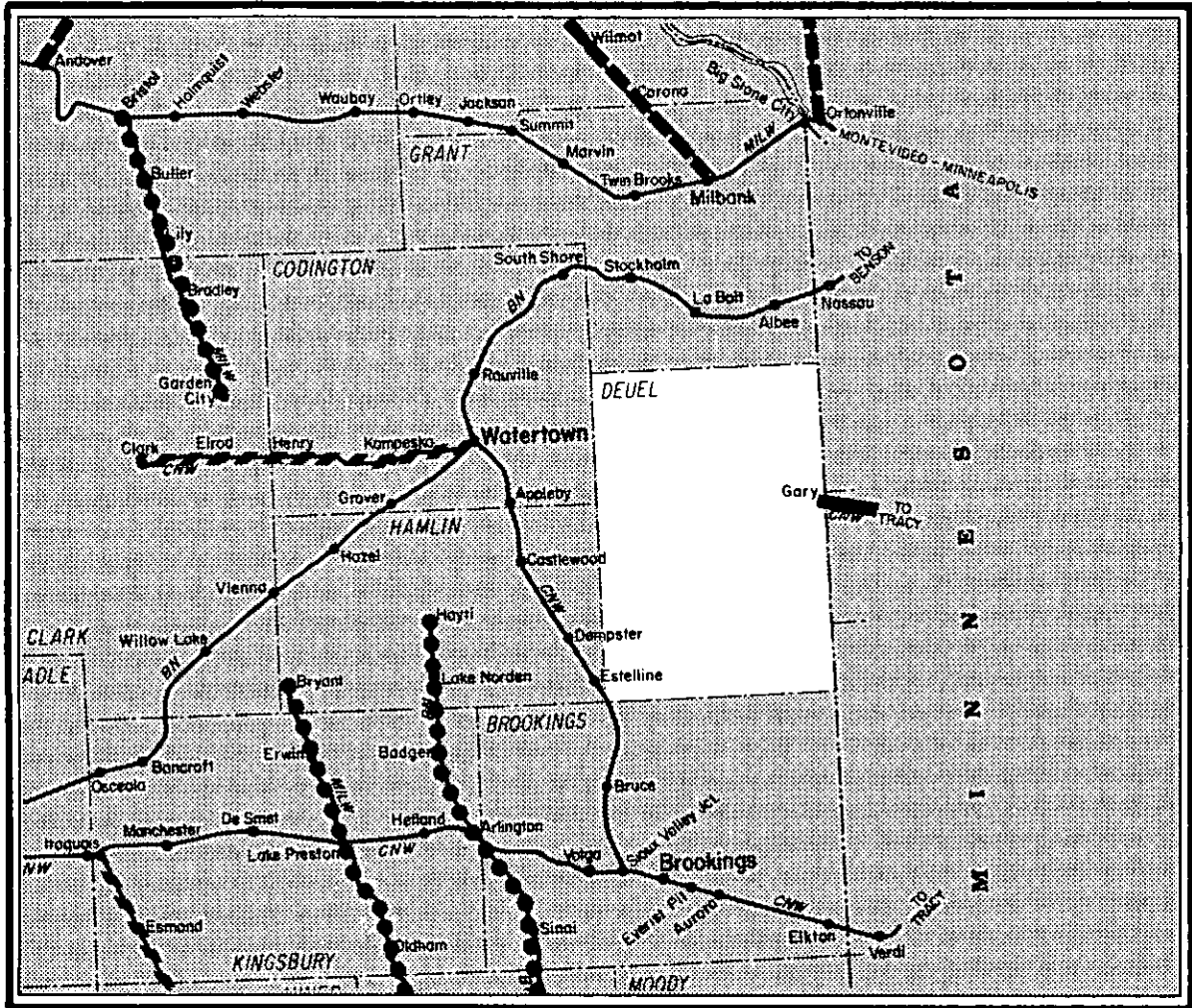
E. Thus, present intent is to keep this line in operation using Section 803 funding if required and available. Line retention depends to a large extent upon the amount of interest that can be generated locally to participate in the Section 803 program and in shipper commitments to increase present usage of rail service.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA






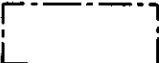
The decision to support continued service from Redfield to Frandfort is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

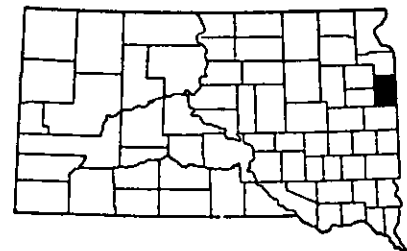
- There is potential for viable operation.
- The social and economic impacts of abandonment are large.



Line CN17, Canby, MN to Gary, operated by the CNW with 1.0 miles of line located in South Dakota. It connects at Tracy with the CNW line from Tracy, MN to Huron. Line CN17 is in ICC Category 2, (potentially subject to abandonment and under further study by the railroad).

LEGEND

-  Canby, MN — Gary
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line CN17 Canby, MN - Gary (CNW)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	Carloads		Tons ^{1/}	
	1974	1975	1974	1975
Originating	110	102	8,327	7,721
Terminating	29	33	1,539	1,751
Total	139	135	9,866	9,472

Shippers located on or near this line include 1 grain elevator with a total capacity of 81,800 bushels, and 1 fertilizer dealer.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 4,600
Maintenance of Equipment	3,835
Traffic and Transportation	4,627
Taxes	207
Administration	650
Miscellaneous	0
Return on Value	254
Off Branch Costs	23,400
Total Avoidable Cost	37,573
Revenue	65,032
Profit	(27,460)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of CNW properties in the region and existing FRA Track Class (I).

Rehabilitation to Class II	\$ 50,000
Rehabilitation to Class III	60,000
Accelerated Maintenance	12,000

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 30 percent of rail suitable traffic is presently moving by rail. Considerable growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 0.1 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 9,488	\$ 19,048	\$ 9,488	\$ 19,048
Sales Loss	943	1,899	943	1,899
Unemployment Payments	NA	NA	NA	NA
Tax Loss	416	838	416	838
Transport Cost Inc. (Annual)	48,285	189,228	10,570	41,437
Transport Cost Inc. ^{1/} (Capital)	0	0	19,388	77,552
Total Economic Impact	\$ 59,132	\$211,013	\$ 40,805	\$ 140,774
<u>Environmental & Energy</u>				
Truck-trips/day	2	2	10	10
Truck-mi/day	450	450	104	104
Truck-hrs/day	8	8	3	3
Additional Gal. of Fuel	421,605	1,686,420	2,609	10,436
<u>Other Impacts</u>				
Primary Jobs Lost	3	3	3	3
Secondary Jobs Lost	2	2	2	2
Local Outmigration	13	13	13	13

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 52 times annually (on a scheduled basis) by 1 locomotive and a crew of 4 operating from Tracy, MN. The line is presently classified as FRA Class I with a timetable speed of 5 mph.

A reduced service frequency will not satisfy existing demand. A change to Track Class II or III is not economically productive. Remaining at Track Class I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

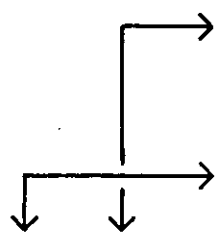
Because this line is located almost completely in Minnesota, its future will be determined primarily by the viability of the Minnesota portion and decisions made by Minnesota. No continuing subsidy would be necessary for the South Dakota line segment since it operates profitably.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)/(FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF ALT. A.	RATIO OF PV OF ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	18506	9973	187193	13248	
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	13239	7071	125056	8850	
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(-6763)	(-5818)	(-102408) (-73930)	(-7247) (-6734)	(*****) (*****)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(-6763)	(-5844)	(-102777) (-55315)	(-7274) (-6418)	(*****) (*****)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(0)	(0)	(0)	(0)	(0.0) (0.0)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(-6763)	(-5260)	(-99101) (-87710)	(-7013) (-6207)	(*****) (*****)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS I	(-6763)	(-22826)	(-220304) (-191826)	(-15591) (-15078)	(*****) (*****)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(-6763)	(-22267)	(-216996) (-205605)	(-15357) (-14551)	(*****) (*****)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS I	(-6763)	(-8995)	(-128060) (-99583)	(-9063) (-8550)	(*****) (*****)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS I	(-6763)	(-4809)	(-93527) (-65049)	(-6619) (-6106)	(*****) (*****)

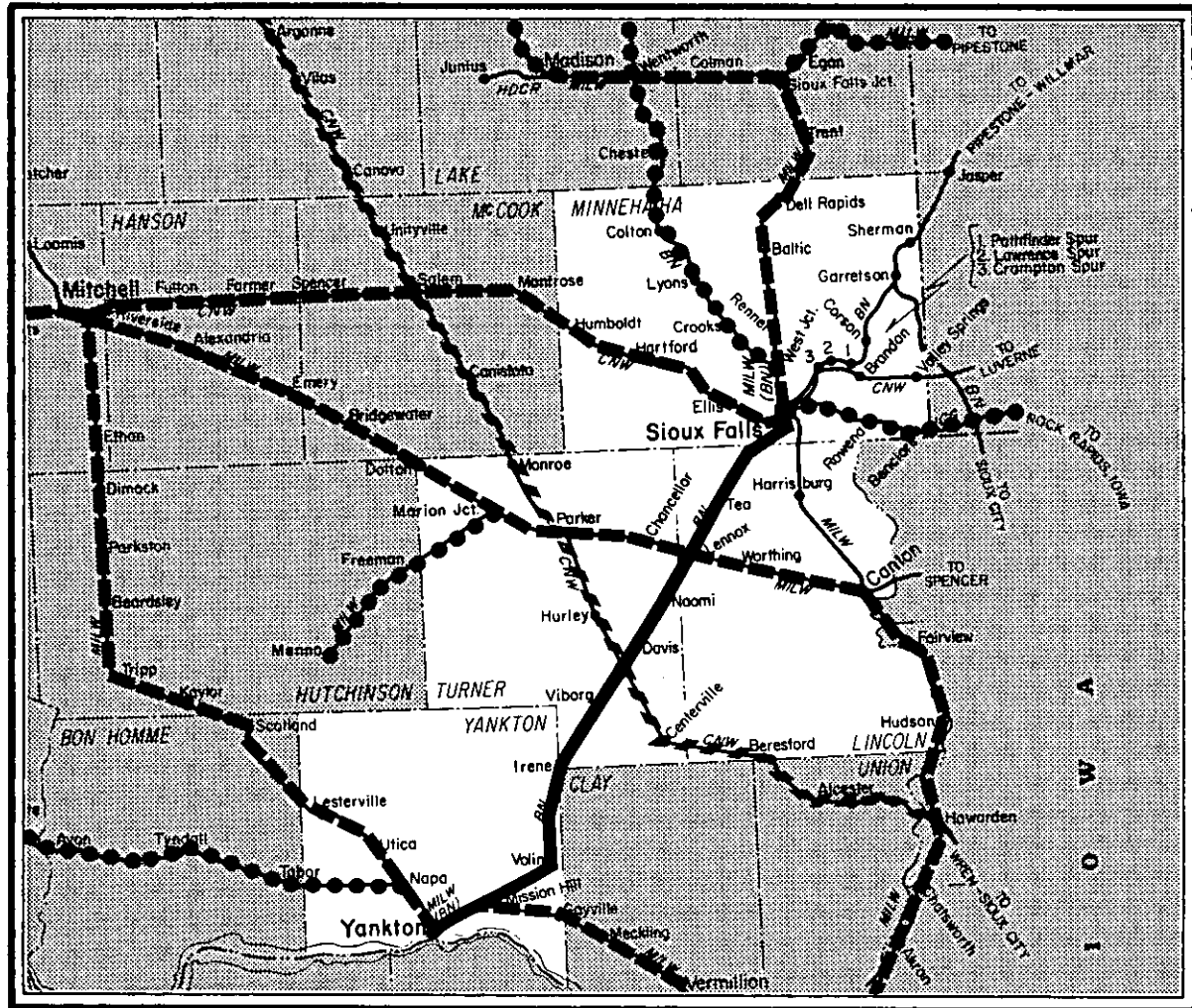


NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Because this line is located almost in its entirety (10 out of 11 miles total) in Minnesota, the Department is not qualified to make any judgment of the long term viability of the entire line. The analysis done relates only to the 1 mile "stub end" and the ~~single freight~~ station (Gary) located in South Dakota.
- B. Based on analysis of the one-mile segment in South Dakota, the line returns a profit (approximately \$6,800 per quarter) to the CNW. This figure may be misleading, however. Since the line "stub ends" in South Dakota, traffic from Gary must move some 11 miles to Canby, MN. Transport of the Gary traffic only, over this distance is clearly uneconomical. (Preliminary estimates indicate a loss of \$6,000 per quarter).
- C. The cost (present value for the first four years) of discontinuing rail service has been estimated at \$187,000 (trucking for the entire distance) and \$125,000 (trucking to the nearest rail line).
- D. A decision concerning the use of Section 803 funds to support continued operation of this line will be based on cooperative arrangements between the two states and the railroad involved. Any decision made by South Dakota will depend on the extent to which Minnesota supports operation and/or rehabilitation on the segment between Canby and the state line. Should this segment continue in operation, South Dakota will oppose abandonment of the segment between Gary and the state line.

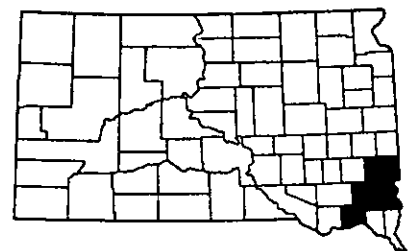
Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.



Line BN04, Sioux Falls to Yankton operated by the BN is 63.1 miles long, connecting at Sioux Falls with the BN line from Sioux Falls to Willmar, MN. Line BN04 is in ICC Category 1 with anticipated filing of abandonment within 3 years.

LEGEND

- Sioux Falls — Yankton
- Anticipated Filing of Abandonment Within 3 Years
- Potentially Subject to Abandonment and Under Further Study
- //////** Abandonment Application Pending Before the ICC
- All Other Lines
- Local Impact Area



BRANCHLINE ANALYSIS

Line BN04 Sioux Falls - Yankton (BN)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	<u>Carloads</u>		<u>Tons</u>	
	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>
Originated	1,043	655	57,317	33,391
Terminated	382	269	16,230	12,016
Total	1,425	924	73,547	45,407

Shippers located on or near this line include 12 grain elevators with a total capacity of 1,424,945 bushels, 27 fertilizer dealers, and 6 dealers of farm machinery.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 396,000
Maintenance of Equipment	47,948
Traffic and Transportation	59,513
Taxes	12,098
Administration	8,753
Miscellaneous	0
Return on Value	16,060
Off Branch Costs	319,279
Total Avoidable Cost	859,651
Revenue	875,324
Profit	(15,673)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of BN properties in the region and existing FRA Track Class (II).

Rehabilitation to Class II	\$ 2,397,800
Rehabilitation to Class III	3,028,800
Accelerated Maintenance	959,120

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately ~~60~~ percent of rail suitable traffic is presently moving by rail. Moderate growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 1.2 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service may be feasible on this line. See Part 12E for details. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 54,831	\$ 110,056	\$ 54,831	\$ 110,056
Sales Loss	20,898	41,949	20,898	41,949
Unemployment Payments	NA	NA	NA	NA
Tax Loss	3,027	6,079	3,027	6,079
Transport Cost Inc. (Annual)	595,930	2,335,403	93,211	365,295
Transport Cost Inc. ^{1/} (Capital)	0	0	212,864	851,468
Total Economic Impact	\$674,686	\$2,493,487	\$ 384,831	\$1,374,847
<u>Environmental & Energy</u>				
Truck-trips/day	26	26	100	100
Truck-mi/day	1,809	1,809	470	470
Truck-hrs/day	33	33	12	12
Additional Gal. of Fuel	67,809	271,236	11,651	46,604
<u>Other Impacts</u>				
Primary Jobs Lost	16	16	16	16
Secondary Jobs Lost	10	10	10	10
Local Outmigration	68	68	68	68

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 52 times annually (on a scheduled basis) by 1 locomotive and a crew of 4 operating out of Sioux Falls. The line is presently classified as FRA Class II with a timetable speed of 25 mph.

A reduced service frequency will not satisfy existing demand. A change to Track Class III is not economically productive. A change to Track Class I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible to this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

Rail Banking is recommended from Yankton to C & NW Xing.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

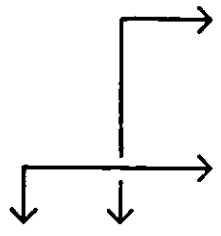
This line should operate profitably at either Class 1 or 2 standards. No further support, either State or Federal, will be required to operate this line.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF ALT. A. ALT. B.	RATIO OF PV OF PV ALT. A. ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	199669	119441	2208923	156327		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	118238	65014	1219543	86308		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	(-3860)	(-39534)	(-534009)	(-37792)	(1.27)	(0.70)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	(-3860)	(-38014)	(-2359062)	(-36520)	(0.94)	(0.52)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(-3860)	(-37259)	(-502504)	(-35562)	(4.28)	(2.36)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(-3860)	(-8903)	(-500049)	(-29044)	(4.42)	(2.44)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS II	(-3860)	(-84713)	(-1381867)	(-32286)	(1.60)	(0.88)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(-3860)	(-54082)	(-770636)	(-54538)	(15.80)	(8.72)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS II	(-3860)	(-75833)	(-1449020)	(-58534)	(1.52)	(0.84)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS II	(-3860)	(-28202)	(-434313)	(-30737)	(1.20)	(0.66)



NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line should return a small profit (approximately \$3,900 per quarter to the BN. With accelerated maintenance, this return should increase to approximately \$8,900 in the final quarter of the four-year program period. The return should further increase to approximately \$37,000 (Class 1) or \$39,000 (Class 2) per quarter. The return over the full program period would then range from \$410,000 (with accelerated maintenance) to \$534,000 (Class 2 standards). These estimates do not include capital investment and assume zero traffic growth.
- B. Unless the actual costs captured in the BN branchline accounting system prove to be substantially greater than the cost estimates developed by the Department, no economic basis exists for line abandonment (unless track conditions have deteriorated to the point where the BN feels it can no longer physically provide rail service). Whether the BN will seek abandonment is unknown. If sought, the Department will oppose the application through the ICC abandonment process in order to establish the true profitability of the line.
- C. The main need is to improve the track structure sufficiently to permit efficient, safe, long-term operation. Accelerated maintenance costs have been estimated at up to \$959,120. Rehabilitation and accelerated maintenance appreciably exceed the anticipated return (over four years). The Department is awaiting the receipt of a more "detailed" engineering cost estimate from the BN for accelerated maintenance or rehabilitation. (In many cases, these estimates may be less than those used for branchline assessment purposes). Thus the real issue is obtaining required capital funding --from federal, state, or local governments, shippers, or the owning railroad. The preferable solution would be to rehabilitate the track rather than simply to seek funds for accelerated maintenance. Such upgrading would eliminate major maintenance expenditures for ten years or more and represents a more efficient use of capital monies. Rehabilitation to Class 2 standards would permit the continuation or slight improvement of present operating speeds for over the long term. A number of possibilities will be explored for accomplishing the required rehabilitation, including the possibility of a long-term "negotiated" solution between government, shippers, and the owning railroad (e.g., the owning railroad guarantees the long-term operation of the line in return for a loan or grant to upgrade the line).

12. (Continued)

- D. This line is located in a high grain producing region. Much of the grain produced is apparently already being transported by truck directly to grain terminals. The future of this line depends to a large degree on improving the competitive position of rail service with respect to other transport modes.
- E. Partitioning of this line so that service might be supplied more efficiently is an option which should be considered to reduce capital and/or operating costs.

The segment from Yankton to Viborg (29.5 mi, 1061 carloads - 74 percent of the total for this line) should be profitable and would be more efficiently and inexpensively served by the CMSP&P or CNW.

The segment from north of Viborg to Lennox (16 mi, 225 carloads - 16 percent of the total for this line) also should be profitable and would be more efficiently and inexpensively served by the CMSP&P or CNW.

Similarly, transfer of the connecting station traffic at Lennox (CMSP&P), Sioux Falls (CNW, CMSP&P), Yankton (CMSP&P), may be possible (although the feasibility of this depends on the exact location of shippers, sidings and track connections). Thus up to 526 carloads (37 percent) might be retained with little or no operating or capital cost.

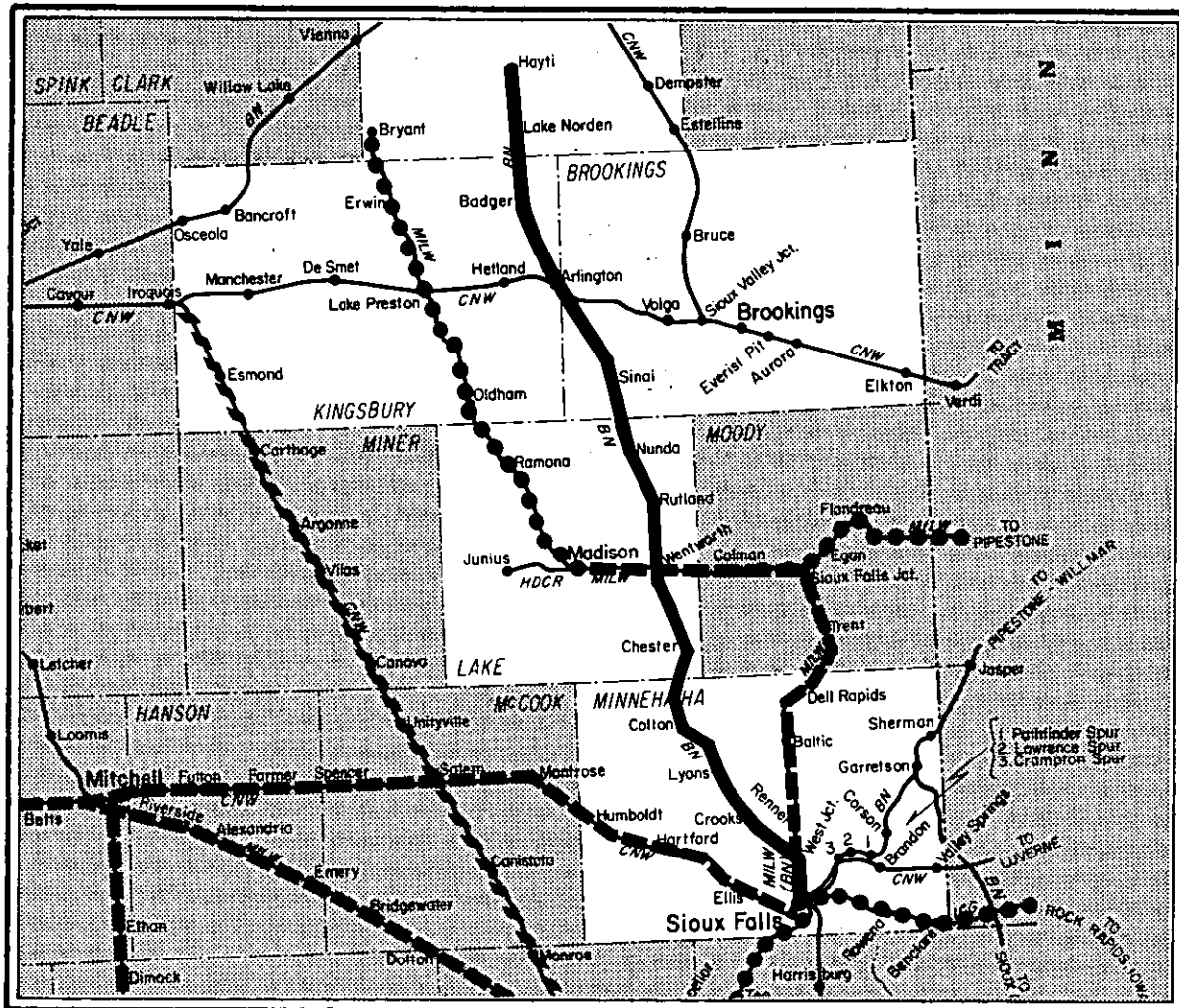
- F. Thus, present intent is to keep this line in operation, preferably through arrangements outside of the ICC abandonment/Section 803 process. Line retention depends to a large extent upon the amount of interest that can be generated locally in agreeing to and participating in a long-term solution for this line, including shipper commitment to use rail service.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA






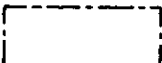
The decision to oppose abandonment of service from Sioux Falls to Yankton is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

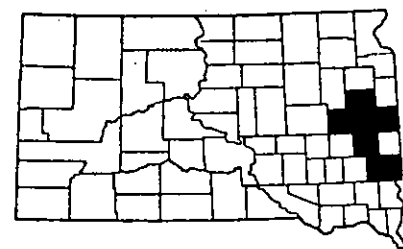
- There is potential for viable operation.
- The social and economic impacts of abandonment are large.



Line BN05, Sioux Falls to Hayti, operated by the BN is 85.6 miles long, connecting at Sioux Falls with the BN line from Sioux Falls to Willmar, MN. Line BN05 is in ICC Category 1 with anticipated filing of abandonment within 3 years.

LEGEND

-  Sioux Falls — Hayti
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line BN05 Sioux Falls - Hayti (BN)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	Carloads		Tons	
	1974	1975	1974	1975
Originating	1,262	681	60,797	34,401
Terminating	122	132	6,962	8,003
Total	1,384	813	67,759	42,404

Shippers located on or near this line include 12 grain elevators with a total capacity of 1,712,800 bushels, 11 fertilizer dealers, and 1 dealer of farm machinery.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 483,000
Maintenance of Equipment	50,013
Traffic and Transportation	40,393
Taxes	9,657
Administration	7,281
Miscellaneous	0
Return on Value	24,587
Off Branch Costs	295,097
Total Avoidable Cost	910,028
Revenue	728,130
(Deficit)	(181,898)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of BN properties in the region and existing FRA Track Class (II).

Rehabilitation to Class II	\$ 3,252,800
Rehabilitation to Class III	4,108,800
Accelerated Maintenance	1,301,120

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 60 percent of rail suitable traffic is presently moving by rail. Moderate growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 1.2 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service may be feasible on this line. See Part 12D for details. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 21,087	\$ 42,329	\$ 21,087	\$ 42,329
Sales Loss	13,784	27,669	13,784	27,669
Unemployment Payments	NA	NA	NA	NA
Tax Loss	1,393	2,799	1,393	2,799
Transport Cost Inc. (Annual)	482,649	1,891,465	54,324	212,900
Transport Cost Inc. ^{1/} (Capital)	0	0	405,700	1,622,800
Total Economic Impact	\$518,913	\$1,964,262	\$496,288	\$1,908,497
<u>Environmental & Energy</u>				
Truck-trips/day	12	12	47	47
Truck-mi/day	1,754	1,754	273	273
Truck-hrs/day	32	32	7	7
Additional Gal. of Fuel	131,338	525,352	13,471	53,884
<u>Other Impacts</u>				
Primary Jobs Lost	6	6	6	6
Secondary Jobs Lost	4	4	4	4
Local Outmigration	26	26	26	26

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 52 times annually (on a scheduled basis) by 1 locomotive and a crew of 4 operating out of Sioux Falls. The line is presently classified as FRA Class II with a timetable speed of 25 mph.

A reduced service frequency will not satisfy existing demand. A change to Track Class III is not economically productive. A change to Track Class I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible to this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

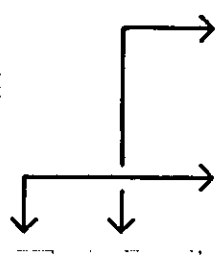
~~Should rehabilitation be accomplished and traffic increased by 10%, this line could earn a profit and require no further support.~~

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF ALT. A,	RATIO OF PV OF PV OF ALT. B,
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	147393	94916	1738496	123034		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	133266	92740	1688061	119465		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	44802 (44803)	-2927 (-2927)	131027 (3218754)	9273 (137852)	13.27 (0.54)	12.88 (0.52)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	44802 (44803)	-157 (-157)	164655 (4064944)	11653 (174069)	10.56 (0.43)	10.25 (0.42)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	44802 (44803)	-2675 (-2675)	136812 (1518162)	9682 (67204)	12.71 (1.15)	12.34 (1.11)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	44802 (44803)	38627 (38627)	298712 (1533800)	21140 (108548)	5.82 (1.13)	5.65 (1.10)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS II	44802 (44803)	-9865 (-9865)	72521 (3160246)	5132 (133712)	23.97 (0.55)	23.28 (0.53)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	44802 (44803)	31688 (31689)	240207 (1475294)	17000 (104407)	7.24 (1.18)	9.03 (1.14)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS II	44802 (44803)	-29152 (-29152)	-80718 (3007007)	-5712 (122867)	***** (0.58)	***** (0.56)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS II	44802 (44803)	5436 (5436)	204602 (3292327)	14480 (143059)	8.50 (0.53)	8.25 (0.51)



NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

A.

Based upon "typical" traffic and DOT cost computations, this line could incur a moderate loss (approximately \$45,500 per quarter) to the BN. With accelerated maintenance, this loss should decrease to approximately \$39,000 in the final quarter of the four-year program period. The loss over the full program period would range from \$299,000 (with accelerated maintenance) to \$131,000 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth. On the other hand, if traffic could be increased by ten percent per year, then the line would earn a profit of \$29,200 per quarter after rehabilitation to Class 2 standards.

B. This line must be classified as marginal. If the actual costs captured in the BN branchline accounting system prove to be significantly less than the cost estimates developed by the Department, then the line is likely to be profitable with no economic basis for abandonment. If the actual costs are greater than or approximately equal to the estimated costs, then the Department anticipates that an abandonment application will be filed by the BN. If filed, the Department may oppose the application through the ICC abandonment process in order to establish the true extent of the unprofitability of all reasonable operating configurations and to provide a sound basis for any forthcoming offer of financial assistance.

C. The cost (present value for the first four years) of discontinuing rail service has been estimated at \$1,738,000 (trucking for the entire distance) and \$1,688,000 (trucking to the nearest rail line). Assuming that the latter alternative would be chosen by shippers, the "ratio" of the cost of discontinuing rail service to continuing rail service under accelerated maintenance would be 5.65 or 1.10, depending upon whether accelerated maintenance costs were included or not. Since these ratios are substantially greater than 1.00, a strong case can be made for continuing rail service and accomplishing accelerated maintenance under the Section 803 program.

D. Partitioning of this line so that service might be retained on only the most profitable segments is an option which should be considered to reduce capital and/or operating costs.

The segment from Arlington to Hayti (21.3 mi, 536 carloads - 39 percent of the total for this line) should be profitable and would be more efficiently and inexpensively served by the CNW.

12. (Continued)

Similarly, transfer of the connecting station traffic at Arlington (CNW), and Wentworth (MILW), may be possible (although the feasibility of this depends on the exact location of shippers, sidings and track connections). Thus up to 92 carloads (7 percent) might be retained with little or no operating or capital cost.

- E. A concurrent need is to improve the track structure sufficiently to prevent further deterioration of present track conditions. Accelerated maintenance costs have been estimated at up to \$1,301,120 and rehabilitation to Class 3 at \$4,108,800. The Department is awaiting a more detailed "engineering" cost estimate from the BN. If sufficient funds are available, the Department will utilize Section 803 funding to carry out accelerated maintenance or rehabilitation to Class 1 standards (the latter is preferred, the former may be a practical necessity with the funds available to the state).
- F. Thus, present intent is to keep this line in operation using Section 803 funding if required and available. Line retention depends to a large extent upon the amount of interest that can be generated locally to participate in the Section 803 program and in shipper commitments to increase present usage of rail service.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA

The decision to support continued service from Sioux Falls to Hayti is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

- There is little or no potential for viable operation.
- The social and economic impacts of abandonment are large.

BRANCHLINE ANALYSIS

Line SL02 Wishek, ND - Pollock (S00)

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	<u>Carloads</u>		<u>Tons</u>	
	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>
Originating	1/	1/	-	-
Terminating	1/	1/	-	-
Total	223	233	13,931	16,849

Shippers located on or near this line include 3 grain elevators with a total capacity of 989,160 bushels, 3 fertilizer dealers, 2 dealers of farm machinery, and several businesses shipping such commodities as coal and petroleum products.

1/ Information not reported by railroad.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 150,880
Maintenance of Equipment	10,044
Traffic and Transportation	29,975
Taxes	1,183
Administration	2,445
Miscellaneous	0
Return on Value	8,348
Off Branch Costs	76,864
Total Avoidable Cost	279,739
Revenue	228,162
(Deficit)	(51,577)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of SL properties in the region and existing FRA Track Class (2).

Rehabilitation to Class II	\$ 1,246,400
Rehabilitation to Class III	1,574,400
Accelerated Maintenance	498,560

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 40 percent of rail suitable traffic is presently moving by rail. Moderate growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 0.2 percent of all traffic originating and terminating in South Dakota in 1974. Although the overall effect on the state transportation requirement is estimated to be small, local impact may be more significant (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service may be feasible on this line. See Part 12D for details. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	\$ 6,324	\$ 12,698	\$ 6,324	\$ 12,698
Sales Loss	4,582	9,200	4,582	9,200
Unemployment Payments	NA	NA	NA	NA
Tax Loss	434	876	434	876
Transport Cost Inc. (Annual)	76,977	301,673	18,833	73,814
Transport Cost Inc. ^{1/} (Capital)	0	0	284,380	1,137,531
Total Economic Impact	\$ 88,317	\$ 324,447	\$314,553	\$1,234,119
<u>Environmental & Energy</u>				
Truck-trips/day	4	4	13	13
Truck-mi/day	1,513	1,513	159	159
Truck-hrs/day	28	28	4	4
Additional Gal. of Fuel	56,766	227,064	4,386	17,544
<u>Other Impacts</u>				
Primary Jobs Lost	2	2	2	2
Secondary Jobs Lost	1	1	1	1
Local Outmigration	10	10	10	10

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 52 times annually (on a scheduled basis) by 1 locomotive and a crew of 4 operating from Wishek. The line is presently classified as FRA Class II with a timetable speed of 20 mph.

A reduced service frequency should be investigated as a means to reduce operating costs on this line. A change to Track Class III is not economically productive. A change to Track Class I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

~~This line will require a small continuing subsidy even after rehabilitation if traffic demand does not increase.~~ During the subsidy period, effort will be made to stimulate increases in traffic. Should this, together with some cost cutting measures, result in profitable operation, service would be continued at no further cost to the state. If profitable operation is not achieved, consideration will be given to discontinuing service.

11. DESCRIPTION OF ALTERNATIVES EVALUATES: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)(FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV OF PV ALT. A.	RATIO OF PV OF PV ALT. R.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	26402	15506	287490	20346	
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	80965	60387	1090763	77194	
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	(12704)	(1482)	(65716) (1248860)	4651 (25970)	4.37 (0.23) 16.60 (0.87)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	(12704)	(2084)	(72616) (1567114)	5139 (32069)	3.96 (0.18) 15.02 (0.70)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(12704)	(3414)	(91874) (621178)	6502 (16040)	3.13 (0.46) 11.87 (1.76)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(12704)	(17967)	(137315) (610575)	9718 (43211)	2.09 (0.47) 7.94 (1.79)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS II	(12704)	(-22512)	(-113004) (1070140)	-7997 (13322)	***** (0.27) ***** (1.02)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(12704)	(-6026)	(-41404) (431836)	-2930 (30563)	***** (0.67) ***** (2.53)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS II	(12704)	(-6730)	(-816) (1182329)	58 (21262)	***** (0.24) ***** (0.92)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS II	(12704)	(4085)	(88620) (1271762)	6272 (27591)	3.24 (0.23) 12.31 (0.86)

NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

- A. Based upon "typical" traffic and DOT cost computations, this line could incur a moderate loss (approximately \$12,700 per quarter) to the Soo Line. With accelerated maintenance, this loss should increase to approximately \$18,000 in the final quarter of the four-year program period. If the track were rehabilitated, the loss should decrease to approximately \$1,500 (Class 2) per quarter. The loss over the full program period would then range from \$137,000 (with accelerated maintenance) to \$65,700 (rehabilitation to Class 2 standards). These estimates do not include capital investment and assume zero traffic growth. On the other hand, if traffic could be increased by ten percent per year, then the line would earn a profit of \$6,700 per quarter after rehabilitation to Class 2 standards.
- B. This line must be classified as marginal. If the actual costs captured in the Soo Line branchline accounting system prove to be significantly less than the cost estimates developed by the Department, then the line is likely to be profitable with no economic basis for abandonment. If the actual costs are greater than or approximately equal to the estimated costs, then the Department anticipates that an abandonment application will be filed by the Soo Line. If filed, the Department may oppose the application through the ICC abandonment process in order to establish the true extent of the unprofitability of all reasonable operating configurations and to provide a sound basis for any forthcoming offer of financial assistance.
- C. The cost (present value for the first four years) of discontinuing rail service has been estimated at \$287,000 (trucking for the entire distance) and \$1,091,000 (trucking to the nearest rail line). Assuming that the former alternative would be chosen by shippers, the "ratio" of the cost of discontinuing rail service to continuing rail service under accelerated maintenance would be 2.09 or 0.47, depending upon whether accelerated maintenance costs are included or not. Since the ratios fall above and below 1.00, a case can be made for continuing rail service under the Section 803 program, but not for substantial improvements to present track structure through accelerated maintenance.
- D. Partitioning of this line so that service might be supplied more efficiently is an option which should be considered to reduce capital and/or operating costs.

The segment from Pollock to Madra (220 carloads - 100 percent of the total for this line) should be profitable and would be more efficiently and inexpensively served by the CMSP&P.

12. (Continued)

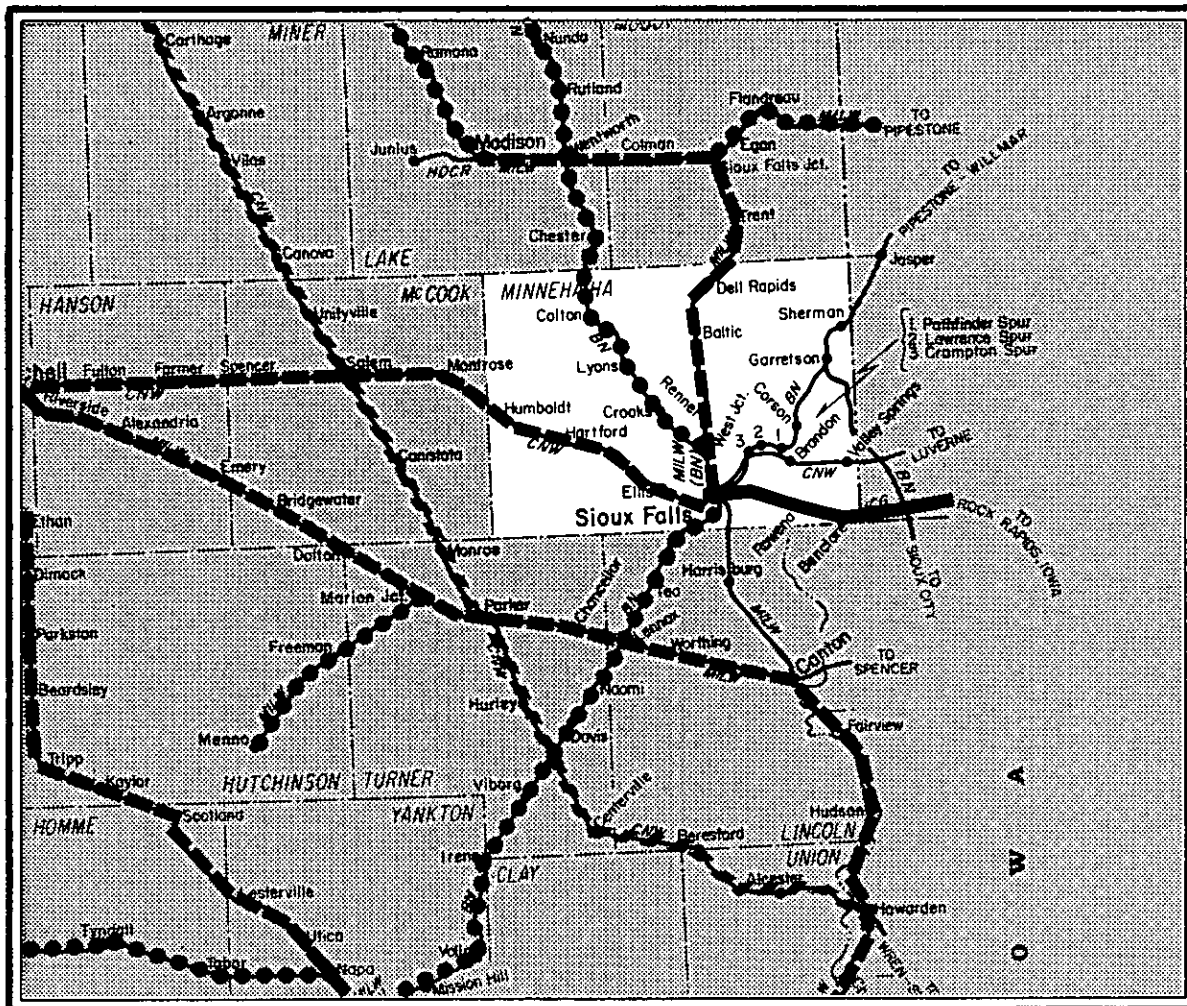
E. This line extends out of state into North Dakota; detailed analysis was done for the South Dakota portion only. Although this demonstrated that service was unprofitable, the traffic on the North Dakota segment appears to be substantial and may generate sufficient profits to cover any losses sustained on remainder of the line. For this reason, the analysis offered here is tentative and any decision made should be subject to cooperative arrangements between the two states and the Soo Line.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA






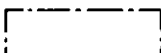
The decision not to oppose abandonment of service from Wishek, ND to Pollock is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

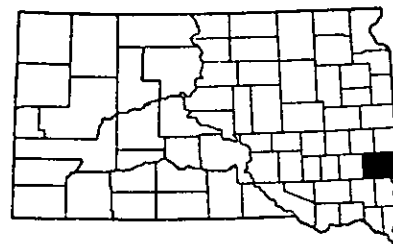
- Shipper support and interest is not present.
- The social and economic impacts of abandonment are small.
- Through traffic is not served by this route.



Line IC01, Cherokee, IA to Sioux Falls, operated by the ICG with 15.0 miles of line located in South Dakota. It connects at Cherokee with the ICG line from Sioux City, IA to Fort Dodge, IA. Line IC01 is in ICC Category 1 with anticipated filing of abandonment within 3 years.

LEGEND

-  Cherokee, IA — Sioux Falls
-  Anticipated Filing of Abandonment Within 3 Years
-  Potentially Subject to Abandonment and Under Further Study
-  Abandonment Application Pending Before the ICC
-  All Other Lines
-  Local Impact Area



BRANCHLINE ANALYSIS

Line IC01 Cherokee, IA (ICG) - Sioux Falls

1. FREIGHT TRAFFIC AND CHARACTERISTICS OF SHIPPERS

	<u>Carloads</u>		<u>Tons^{1/}</u>	
	<u>1974</u>	<u>1975</u>	<u>1974</u>	<u>1975</u>
Originating	3,625	2,316	77,553	46,122
Terminating	2,563	1,897	49,979	34,410
Total	6,188	4,213	127,532	80,532

Shippers located on or near this line include 1 grain elevator with a total capacity of 30,000 bushels.

^{1/} Estimated.

2. REVENUES AND COSTS OF RAIL SERVICE (PROJECTED 1977-1978)

Maintenance of Way & Structures	\$ 114,480
Maintenance of Equipment	72,771
Traffic and Transportation	187,918
Taxes	2,099
Administration	32,288
Miscellaneous	0
Return on Value	5,387
Off Branch Costs	1,336,174
Total Avoidable Cost	1,751,117
Revenue	3,228,764
Profit	(1,477,647)

3. CONDITION OF PLANT, EQUIPMENT AND FACILITIES

No track inspection has yet been performed on this line; however, the following rehabilitation cost estimates have been made based on the general condition of ICG properties in the region and existing FRA Track Class (III).

Rehabilitation to Class III	\$ 540,000
Accelerated Maintenance	216,000

Note: These estimates should be viewed as gross approximations and are used for the purpose of preliminary planning only.

4. FUTURE FREIGHT SERVICE NEEDS

A survey of major products shipped and received in the impact area indicated that approximately 60 percent of rail suitable traffic is presently moving by rail. Moderate growth in rail traffic might be expected with effective promotion of continued rail service. In addition, improved farming methods, such as the increased use of irrigation may lead to further increases in farm shipments from this line in the near future. (For economic analysis of future rail operations see Part 11.)

5. EFFECTS OF ABANDONMENT ON STATE TRANSPORTATION NEEDS

Products shipped on this line account for 5.2 percent of all traffic originating and terminating in South Dakota in 1974. The overall effect on the state transportation requirement is significant, as is local impact (see Part 6).

6. IMPACTS OF SUBSTITUTING ALTERNATE RAIL OR OTHER MODE

Two alternate mode strategies were investigated: trucking for the entire length of the existing rail movement (Case A) and trucking to the nearest team track (Case B). Alternate rail service is not considered feasible on this line. Impacts of these alternatives are as follows:

	Case A		Case B	
	First Year 7/77 - 6/78	Four Year 7/77 - 6/81	First Year 7/77 - 6/78	Four Year 7/77 - 6/81
<u>Economic</u>				
Personal Income Loss	0	0	0	0
Sales Loss	192	389	192	389
Unemployment Payments	NA	NA	NA	NA
Tax Loss	6	0	6	0
Transport Cost Inc. (Annual)	22,480	88,110	1,703	6,659
Transport Cost Inc. ^{1/} (Capital)	0	0	46,980	187,920
Total Economic Impact	\$22,678	\$88,499	\$48,881	\$194,968
<u>Environmental & Energy</u>				
Truck-trips/day	2	2	5	5
Truck-mi/day	108	108	18	18
Truck-hrs/day	2	2	1	1
Additional Gal. of Fuel	2,692	10,768	687	2,748
<u>Other Impacts</u>				
Primary Jobs Lost	0	0	0	0
Secondary Jobs Lost	0	0	0	0
Local Outmigration	0	0	0	0

^{1/} Case B includes amortized construction cost for new grain elevators where needed on alternate branchlines.

7. METHODS OF ACHIEVING ECONOMIES IN LINE OPERATIONS

This line is presently served 260 times annually (on a scheduled basis) by 2 locomotives and a crew of 5 operating from Cherokee, IA. The line is presently classified as FRA Class III with a timetable speed of 40 mph.

A reduced service frequency will not satisfy existing demand. A change to Track Class II or I, although resulting in somewhat higher operating costs, may be justified by significantly reduced capital requirements.

Consolidation, pooling or joint use are not feasible for this line.

8. EFFECTS ON OR BY PROFITABLE CARRIERS

No effect on any profitable carrier is anticipated either from abandonment or subsidization of service on this line.

9. POTENTIAL FOR RAIL BANKING

No rail banking is anticipated for this line.

10. FUTURE OF LINE SUBSEQUENT TO FEDERAL ASSISTANCE PROGRAM

This line should operate profitably under any classification with existing traffic volume. No further support, either State or Federal, will be required to operate this line.

11. DESCRIPTION OF ALTERNATIVES EVALUATED: RESULTS

Two abandonment alternatives were analyzed as well as several "scenarios" for continued operation. The resulting cost benefit estimates are given in Table 1.

TABLE 1 EVALUATION OF ALTERNATIVE IMPLEMENTATION OPTIONS

ALTERNATIVE	PRESENT VALUE OF COSTS (FIRST QUARTER)	PRESENT VALUE OF COSTS (FINAL QUARTER)	PRESENT VALUE OF COSTS (FOUR YEAR TOTAL)	EQUIVALENT UNIFORM QUARTERLY COST (FOUR YEAR TOTAL)	RATIO OF PV ALT. A.	RATIO OF PV ALT. B.
A. ABANDONMENT - TRUCK FOR ENTIRE RAIL DISTANCE	6599	4729	85537	6054		
B. ABANDONMENT - TRUCK TO NEAREST RAIL LINE	2997	2327	41864	2963		
D. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS III	(-350740)	(-292556)	(-5188065)	(-367162)	(*****)	(*****)
E. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS II	(-350740)	(-291404)	(-3172604)	(-366068)	(*****)	(*****)
F. CONTINUED SERVICE - NO TRAFFIC GROWTH, REHABILITATE TO CLASS I	(-350740)	(-284809)	(-5086163)	(-359950)	(*****)	(*****)
G. CONTINUED SERVICE - NO TRAFFIC GROWTH, ACCELERATED MAINTENANCE	(-350740)	(-284612)	(-4950971)	(-364893)	(*****)	(*****)
H. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, REHABILITATE TO CLASS III	(-350740)	(-465119)	(-6564010)	(-464538)	(*****)	(*****)
I. CONTINUED SERVICE - TRAFFIC INCREASES TO POTENTIAL, ACCELERATED MAINTENANCE	(-350740)	(-457175)	(-6531956)	(-462270)	(*****)	(*****)
J. CONTINUED SERVICE - TRAFFIC INCREASES 10% PER YEAR, REHABILITATE TO CLASS III	(-350740)	(-431201)	(-6307506)	(-446385)	(*****)	(*****)
K. CONTINUED SERVICE - TRAFFIC DECREASES 4% PER YEAR, REHABILITATE TO CLASS III	(-350740)	(-248419)	(-4799743)	(-339680)	(*****)	(*****)

NOTE: NUMBERS IN PARENTHESES INCLUDE CAPITAL COSTS
 NOTE: ASTERISKS(*****) INDICATE ALTERNATIVES WITH NEGATIVE COSTS(I.E. PROFIT)

12. OVERALL BRANCHLINE ASSESSMENT

A. Based upon "typical" traffic and DOT cost computations, this line segment should return a large profit (approximately \$351,000 per quarter) to the ICG. With only accelerated maintenance, this return would decrease to approximately \$285,000 in the final quarter of the four-year program period. If the track were rehabilitated, the return should decrease to approximately \$293,000 (Class 3) or \$291,000 (Class 2) per quarter. The return over the full program period would then range from \$5,156,000 (with accelerated maintenance) to \$5,188,000 (rehabilitation to Class 3 standards). These estimates do not include capital investment and assume zero traffic growth.

B. This line extends in its majority (82 out of 96 miles total) out of state into Minnesota and Iowa. On the other hand, nearly 86 percent of its carloads (6,188 out of 7,203) in 1974 originated or terminated in the South Dakota portion of the line, mainly in Sioux Falls.

DOT cost computations indicate that the South Dakota segment earns a large profit. Preliminary calculations show that the out-of-state segment accrues a small loss (in the neighborhood of \$20,000 per quarter). The line as a whole, therefore, earns a large profit despite the long segment which is marginally profitable.

C. Unless the actual costs captured in the ICG branchline accounting system prove to be substantially greater than the cost estimates developed by the Department, no economic basis exists for line abandonment (unless track conditions have deteriorated to the point where the ICG feels it can no longer physically provide rail service). Whether the ICG will seek abandonment is unknown. If sought, the Department will oppose the application through the ICC abandonment process in order to establish the true profitability of the line.

D. The main need is to improve the track structure sufficiently to permit efficient, safe, long-term operation. Accelerated maintenance costs have been estimated at up to \$216,000. Rehabilitation has been estimated at up to \$540,000 for Class 3. These costs are easily covered by the anticipated return (over four years). Rehabilitation costs have been estimated by the State of Iowa at \$4,631,098 for the 70-mile segment within that state. These costs as well could be absorbed by the anticipated return over a four-year period. The Department is awaiting the receipt of a more "detailed" engineering cost estimate from the ICG for accelerated maintenance or rehabilitation

12. (Continued)

to Class 2 or 3 conditions. (In many cases, these estimates may be less than those used for branchline assessment purposes.) Thus the real issue is obtaining required capital funding -- from federal, state, or local governments, shippers, or the owning railroad. The preferable solution would be to rehabilitate the track rather than simply to seek funds for accelerated maintenance. Such upgrading would eliminate major maintenance expenditures for ten years or more and represents a more efficient use of capital monies. Rehabilitation to Class 3 standards would permit the continuation or slight improvement of present operating speeds for over the long term. A number of possibilities will be explored for accomplishing the required rehabilitation, including the possibility of a long-term "negotiated" solution between government, shippers, and the owning railroad (e.g., the owning railroad guarantees the long-term operation of the line in return for a loan or grant to upgrade the line).

E. The major sources of traffic on this line are in the Sioux Falls area. This traffic consists primarily of dressed meat which is piggybacked to Chicago. Fast, reliable service to Chicago is a necessity for shippers of this traffic.

F. Thus, present intent is to keep this line in operation through arrangements outside of the ICC abandonment/Section 803 process. There are three major options:

- Since the line as a whole seems to earn a profit and can support rehabilitation to at least Class 2 out of profits, ICG can simply continue service on the line as is. This will require full cooperation between the three states involved to assure shipper and government commitment and support of continued rail service. This is the preferable option.
- Partitioning of this line so that service might be retained on only the most profitable segments is an option which should be considered to reduce capital and/or operating costs. The segment from Sioux Falls to the state line (15 mi, 6,188 carloads - 100 percent of the total for this line) is profitable and could be served by another railroad out of Sioux Falls. (It could not continue to be served by the ICG since abandonment of the remainder of the line would isolate the segment from the ICG system). Since there is a requirement for fast service to Chicago, the CMS&P and the CNW would probably be the most likely candidates to assume service of this line.

12. (Continued)

- Transfer of the connecting station traffic at Sioux Falls (CMSP&P, CNW, BN) may be possible (although the feasibility of this depends on the exact location of shippers, sidings and track connections). Thus, up to 6,125 carloads (99 percent) might be retained with little or no operating or capital cost.

Note: All costs are given in terms of "present value" which represents costs at time zero (6/77). In this way a time stream of costs can be represented by a single sum, and different alternatives can be compared on a single common basis.

13. RELATIONSHIP OF DECISION TO EVALUATION CRITERIA

The decision to oppose abandonment of service from Sioux Falls to Cherokee, IA is based on the following criteria as established by Railplan South Dakota - Planning Work Statement.

- Shipper support and interest is present.
- There is potential for viable operation.
- The social and economic impacts of abandonment are large.