

FINAL REPORT

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ECONOMIC REVIEW

FOR A

RAILROAD SERVING SAN JUAN COUNTY

NEW MEXICO

NOVEMBER 1983

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prepared by

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## FINAL REPORT - RECOMMENDATIONS

This report is necessarily general in nature since the scope of our work was to briefly look at the economic possibilities for a railroad in the Four Corners region. From our review of the factors, and the observations in the three days spent in the area, we conclude that the time may be approaching, over the next 3 to 5 year period, for the economic justification of a common carrier short line railroad serving San Juan County.

We are proposing that such a line could be built, with guarantees from the largest single revenue source companies namely the coal lease operators. They would be the ones that would provide the base revenues, and the volume, to make the railroad viable. Side benefits would accrue to the region in lower transportation charges for farm commodities and general cargo. At present, the area could use low cost transportation and, in fact, must have it if it is to enjoy economic growth. By themselves, general commodities cannot support the construction costs, at present they would come close to covering operating expenses from the existing traffic base, if the debt service on the railroad construction costs were removed.

This would be hard to justify if it weren't for the vast number of coal leases in the area. Once a railroad is assured, the coal companies could actively begin marketing their product, taking the necessary steps to be competitive with other coal sources throughout the west. It stands to reason that these companies did not enter into these leases without the idea of marketing their coal outside of this area.

We have included with this report a letter from The Rubel Company outlining certain

types of financing that could be available. This letter is included for informational purposes only, but does focus on certain important aspects necessary to progress such a venture.

We are proposing that the railroad run due south along, or adjacent to the present route of New Mexico state highway 371, joining with current or proposed Santa Fe Railway building plans. With such a north-south "spine line" individual coal leases would be within easy spur line access.

While this report makes some specific route recommendations, it is not our intent to indicate that such land would be available for the construction. The determination of what land is available can best be left to the legal advice of the County Counsel, State, and Federal authorities.

At the conclusion of this report we have listed some important preliminary activities that we recommend the County enter into immediately. These discussions will determine how much of a commitment future users of the service are prepared to undertake.

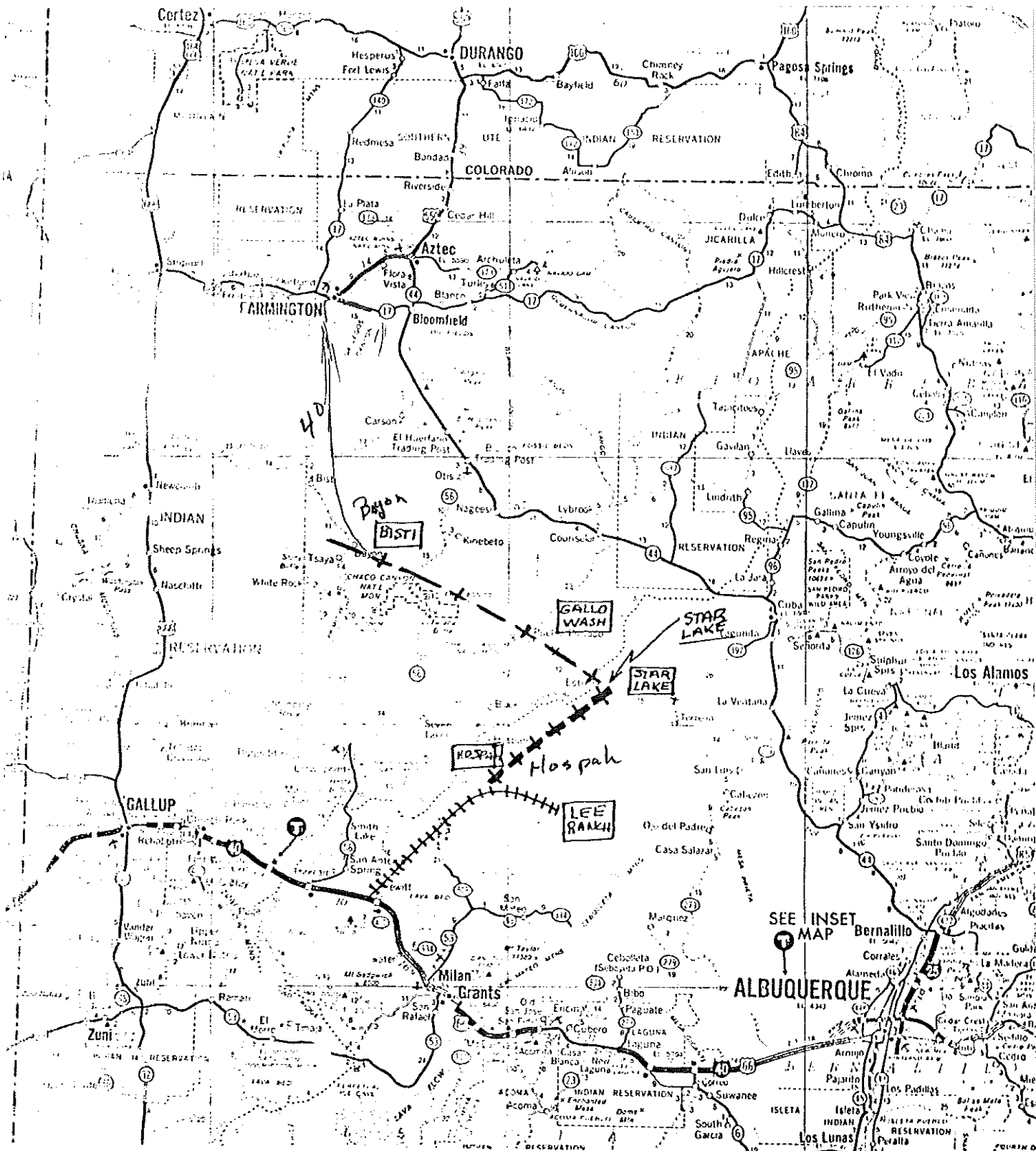
## CURRENT AND PROPOSED RAIL CONSTRUCTION - MAP ATTACHED

The attached map attempts to portray the known activities both planned, and under construction in the area at present. The key shown on the bottom of the map depicts some of the coal leases, as well as the "phasing program" that the Santa Fe is likely to follow in the construction of its rail lines.

**Phase 1** - A contract has been let by the Santa Fe for a coal spur from a point on their mainline two miles west of Prewitt, New Mexico. It is my understanding that this line will follow a somewhat longer route (by 4 miles) from the originally conceived Star Lake Railroad alignment. This line will not be built to the full length of the original proposal but will be sufficient for the near term requirements. All of the land has been acquired and construction should be complete by late 1984. The line will serve the Lee Ranch leases of Santa Fe Coal Company.

**Phase 2** - The current construction will not serve the Hospah leases and, it is expected, this phase would reach those leases and proceed northeast to Star Lake, serving the leases at that point. This was to have been the original phase one termination point. The construction timetable for this extension is indefinite and would depend for the most part on the markets for coal in this area.

**Phase 3** - Once reaching Star Lake it is expected this phase would follow an alignment northwesterly serving the Gallo Wash leases as well as several others along the route. This would take the line just north of Chaco Canyon with the proposed terminus at the Bisti coal leases.



**KEY TO MAP**

- +++++ Santa Fe Railway coal spur committed to construction September 1983.
- +++++ Second phase - Santa Fe Railway to serve Hospah #1 & #2 leases and terminate at Star Lake
- + - + - + - Third phase - Star Lake to Bisti line
- ☐ Coal Lease location

## DISCUSSION OF ROUTE FOR FARMINGTON LINE

The phase 1 end of rail to Star Lake is approximately 25 miles, and Star Lake to the Bisti lease (Bayon) is 40 miles. At Bayon, it is approximately 40 miles to the proposed railhead in south Farmington. The terrain from Bayon to Farmington is gentle and the construction should not be difficult. I would recommend that the line should generally follow state route 371 for most of this portion, with digressions only to insure that the railroad did not encounter any gradients in excess of 1% (1 foot in a hundred) for southbound train movements.

The determination as to how far south the Farmington line would have to be built will depend on the Santa Fe's timetable for phase 2 and 3 construction. The demand for coal will impact this decision and should be beneficial for the traffic potential of the Farmington line as well.

If the Santa Fe built to Star Lake it could be feasible that the line running south from Farmington would join them there, since most of the coal leases operated by Santa Fe would be in that area, or further south. The Farmington line could pick up any of the coal lease traffic from Star Lake north, thus helping to support the independent companies that would be competing for contracts with Santa Fe Coal.

Star Lake lies on the Continental Divide, thus construction would be easier west and north of that terminal than it would be building a line directly south to join the main line of the Santa Fe at Thoreau. The route due south could run into some major construction costs in crossing the Divide in the Crown Point-Thoreau area.

It must be remembered that the line will be built for general commodity traffic, with the high expectation of providing an all rail route for the coal leases. This dictates that the grades with the loads, in other words the south bound trips, should not be exposed to any gradient, if possible. This lowers the operating expense, since fewer locomotives are necessary to handle tonnage trains if grades are reduced. It is prudent to spend additional monies to eliminate grades during construction, because grades will tend to increase costs in the operating stage.



## DISCUSSION OF PROPOSED FARMINGTON TERMINAL

It would be my recommendation that a general commodity terminal be established on the high ground south of Farmington. Such a location would give access to downtown areas, and major highways, via the new alignment of route 371. (It would prove to be very expensive to construct a rail line from the bluff into the river valley. Once there, the line would encounter urban buildup, and the necessary land for all rail functions would not be available.)

Due to the flat nature of the ground on the bluff, a suitable rail yard could be constructed. I would recommend that the railroad headquarters and maintenance facilities be adjacent. Included in the maintenance area would be a shop for servicing the fleet of locomotives and cars necessary to support the operation. A piggyback terminal could be established at this site, for trans-shipment of loaded highway trailers to all points in the west.

A large grain elevator could be located at this point to serve as the farmers cooperative for storage, and shipment, of the farming products produced in the lower portion of Colorado and northwestern New Mexico, as well as, southeastern Utah.

Warehousing could be built, and leased to food distributing companies at this same rail head. Trucks could then move from this point to all sections of the Four Corners area. This would save considerable expense over the current Denver distribution arrangement.

There are a number of ravines associated with the bluff. I would explore the use of one such ravine to economically locate a trans-load point for coal moving north on the line. This coal could come from the current Sun Belt Coal operation located along highway 371 near Bisti. Since the new line would be adjacent to this working coal lease, the railroad could (via a short spur) serve this operation. At present, coal is trucked from this mine to the San Juan Power Plant of New Mexico Public Service, northwest of Farmington. This operation involves approximately 100 miles per move and this truck movement could be reduced to less than 20 miles if the railroad were present.

I envision a set of 15 one hundred ton hopper cars being loaded during the day, at the mine, and brought north in the evening for dumping overnight at a ravine storage area, from which the trucks would move the coal to final destination the following day. A storage capacity of the 3000 tons in the ravine bin would allow flexibility in the truck loading and delivery. The storage coal could be discharged into trucks driven under the bin. The rail haul and storage system would reduce the cost of transportation by approximately 50%.

Other commodities could include bulk cement batch plants and fertilizer blending facilities. There could also be a farm machinery distribution and unloading facility to allow these large items to reach the area by rail.

Additional land could be set aside in the area for industrial development, given the abundance of natural gas and water. Potential industrial developers would not locate a major plant without the availability of rail transportation.

## RELATIONS WITH CONNECTING CARRIERS

The Santa Fe Railroad has been the sole operator in this area since the Rio Grande narrow gauge ceased serving the Farmington area in the 1950's. Fortunately, for any short line railroad that is reliant upon a one trunk line connection, the Santa Fe is probably the most cooperative major carrier in the United States. Much can be said for rail service to enhance industrial development of an area but, if the shortline serving the area cannot negotiate rates with the trunk line, then the service is not cost competitive and the need for the railroad diminishes.

I would expect, from my conversations with the Santa Fe, that they would be happy to cooperate and work with you on establishing rates which will prove compensatory for both lines. They must be approached from the business standpoint of a shortline railroad ready to provide all service, not looking to Santa Fe for help every time something goes wrong. I think you would prefer it that way as well, because the more independent, the better you are able to meet your customers needs and the lower the cost of your operation. It is anticipated that a shortline would be able to provide transportation at less, cost per mile, than a trunk line. You would be accomplishing this because of the lower labor costs associated with reduced overheads, and the efficiencies inherent in a shortline's flexible working rules.

The railroad would be expected to deliver all cars to a pre-established interchange with the Santa Fe. The exact location would depend on the Santa Fe's plans for building into the Star Lake area. Coordination between the roads would allow fast movement of trains once they were received by the connecting railroad.

When coal begins to move outbound, pooling arrangements for motive power could be worked out so that the need to keep individual railroad's locomotives on their own property would no longer exist. The utilities purchasing the coal would be expected to provide the necessary rolling stock. This is common industry practice.

Rates could be established, either by setting through rates from point of origin to destination, with the short line receiving a division (percent of the rate), or by using existing Santa Fe rates from points on their present line and applying a surcharge to cover the extra haul distance. If the latter method were decided upon, it would be my recommendation that all coal, as an example, would have the same shortline charge, so that companies at the north end would not be at a disadvantage over those located closer to the Santa Fe connection.

When coal starts to move, unit trains of 100 cars (10,000 tons) could move outbound at a shortline rate of \$2.00 per ton, gross revenues would be \$20,000 per train. If volumes reached levels of 5 trains per day this source alone would reach \$30,000,000 annually. This is not inconceivable, given the number of individual coal leases in the area. Any movements of this magnitude or more will depend on the demand in the southwest, as well as the export market to Pacific Rim countries.

30 mi

## PRELIMINARY ACTIVITIES TO DETERMINE USER INTEREST

It is our recommendation that the County of San Juan begin discussions with the following potential users of the proposed short line railroad.

Coal companies now holding leases and not working such leases - Approach these companies to determine their plans on the basis that a railroad will be in place to serve their properties. What guarantees would they be willing to make to help finance such a venture? What guarantees would they provide for the use of the railroad and at what rate would they feel they could support the transportation of their product?

Coal companies now actively mining coal in the area - <sup>?</sup> Would Sun Belt use the railroad for northbound hauls of coal with trans-load facilities as outlined elsewhere in this report? Does Utah International anticipate selling coal outside the area over the next ten year period? If so, and given a competitive rate with all coal companies on the line, would they be willing to guarantee some of the financial obligations. If a "spine line" were built, would <sup>?</sup> Consolidation Coal use the service and would they be willing to enter into the same financial arrangements as the other producers.

Agricultural Producers - Would Navajo Agriculture Industries, given the competitive advantages of a railroad, be able to expand the number of acres currently under production? Would the Ute Mountain Tribe agree to a cooperative elevator located at Farmington for the storage and marketing of their farm products? Same request of the Southern Ute Tribe after completion of the Animas-La Plata project. Is

there interest among the pinto bean producers of the Cortez, Colorado area? What advantages would there be to area farmers in having fertilizer plants located at the rail head?

**Forest Products** - How much lumber and wood products now move out of the area by truck that could be rail hauled?

**Inbound Power Plant Supplies** - Would Arizona Public Service and Public Service of New Mexico commit to using the railroad for inbound materials as well as minerals for pollution control? What volumes are we talking about?

**Distribution Industries** - If a rail head existed at Farmington, and warehousing was available for lease, would major food and other retail chains use the service rather than current distribution arrangements? What rail traffic volume would be expected?

**New Industries** - What companies could be encouraged to locate new facilities in the area, given the local availability of raw materials (water, natural gas, etc.) What rail volume would they be anticipating?

**Oil Refineries** - What are the refineries distribution patterns at present?

**Other Potential** - There are other freight movements taking place throughout the county road system. Coal moves from Colorado to railroad re-load points such as Gallup and Bernalillo. Who are these companies and what effect would lower rail rates have on their current method of transporting their products?

We have attempted to outline a few of the many possibilities for rail served customers. One has to approach the potential customer as though a railroad exists and would he utilize the service to gain lower transportation costs. On this basis the list of candidates is limitless. The key factor is, given a railroad, which of these potentials clients are prepared to support the operation with firm contracts.

In addition to the customer base, it will be necessary to visit with the Santa Fe to outline your plans and determine their timetable for area construction. This meeting should be held at any early date since the final form of a new railroad will be based on their plans, as outlined elsewhere in the report.

A very recent development has taken place involving the Santa Fe and the Southern Pacific. These two major carriers are proposing to merge under the name of Santa Fe Southern Pacific Corporation. It is expected that this application will be filed before the Interstate Commerce Committee in the spring of 1984 following ratification by both company's stockholders in December of 1983. This pending merger will certainly be of interest to San Juan County, and these ICC proceedings should be closely followed.

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December 1, 1983

Mr. J. L. Layton  
J L Industries, Inc.  
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Dear Jim:

You have asked my opinion as to the financability of a new railroad to be built to serve the needs of San Juan County, New Mexico. You have told me that this proposed railroad would be a common carrier serving coal, agricultural and other shippers or receivers. You have also advised that the proposed new railroad would connect with the Santa Fe at some point not yet determined.

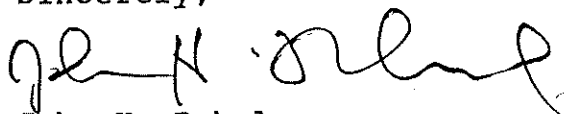
To the extent that creditworthy parties, e.g., shippers, receivers, San Juan County, the State of New Mexico, could and would stand behind this project financially, it is financeable. Several alternative financial instruments might be employed:

Taxable Bond Issue  
Tax Exempt Bond Issue  
Leveraged or Finance Type Lease

Which of these instruments is appropriate and at what cost can only be determined when the scope of the project is better defined and when it is known whose credit stands behind the project. In addition, Federal and/or State law, and changes thereto, can radically effect the manner in which a project like this can be financed.

The RUBEL Company would be pleased to work with you and your clients in exploring how this project might come to be. Please let me know how we may be of further service.

Sincerely,



John H. Rubel

JHR:jw



**PRELIMINARY ECONOMIC REVIEW**

**FOR A**

**RAILROAD SERVING SAN JUAN COUNTY**

**OCTOBER 1983**

prepared by

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## GENERAL DISCUSSION

This is a preliminary report on the economic viability of common carrier rail service in the Four Corners area of New Mexico. It has long been known that the San Juan county area with Farmington, New Mexico as the commercial center, has been the farthest point in the continental United States from any standard gauge common carrier railroad.

It is our opinion that the economic indicators may now be present for the justification of such a railroad in the next three to five year period. History tells us that the railroads built for the development of the west were in place prior to the location of industry and the need for movement of the natural resources. Railroads have always been considered as the volume carriers for overland transportation. It is obvious that this areas' economic viability, in the future, must depend on basic industries capable of producing products, be they commodities such as wheat, corn, beans, natural resources such as coal, or manufactured goods. The railroad proposed for the San Juan County area would be a multiple commodity common carrier short line operation with its headquarters in the Farmington area.

The topography of San Juan County, and its sister county to the south McKinley, appears such that there should be no major obstacle to the construction of a north - south railroad connecting with the Santa Fe main east - west line across New Mexico.

One recommendation for a railroad would be a "spine" line, to initially serve the Farmington, Four Corners region. As coal leases are developed on either side of the railroad, short spur lines would be built from the spine line to individual coal leases. In

this manner, a coal company would be assured of a short route to a common carrier railroad, as opposed to the expensive alternative of each coal operator building his own long line to connect with the Santa Fe.

## BENEFITS

San Juan County's exportable economic base has long been one industry, namely, the natural gas discovery of the fifties. In more recent times, the federal government has subsidized the development of a significant farming industry. If this industry is to prosper and be self supporting, it must have a means of moving its product to the markets of the world. The 110,000 acres set aside for this purpose could be greatly enlarged if markets existed for the grains produced. The Mexican market alone could consume all of the products grown in the area, since this producing region is the closest to our neighbors to the south of any major United States producing area, with a railroad to transport the commodities.

With the impending passage of legislation for irrigation of the Animas La Plata Project, additional crops will be grown and I would envision a cooperative arrangement for the farmers to store and market their products from elevators at Farmington rail head. Lower cost inbound movements of farm machinery, fertilizers, etc. would make the farmer more cost competitive in the market place.

With lower cost rail transportation available, a series of warehouses could be built and leased to supermarket chains for the distribution of food stuffs to the four state area. Intermodal shipments could be loaded on piggyback cars for movement throughout the United States, thus saving the added expense of rebuilding and upgrading a highway system. In addition, the highways of San Juan County are currently being used to transport coal, lumber products and wood chips to rail heads at Gallup and Bernalillo, New Mexico. In some cases these commodities are merely passing through the county from points of origin in southwestern Colorado. With a reload point at Farmington over 270 miles of roundtrip truck moves could be avoided.

The oil and gas drilling industry would benefit by receiving its supplies of pipe, and drilling mud by rail. With the ready availability of natural gas and abundant water, new industries requiring these natural resources could be encouraged to locate in the basin. It is a known fact that major industries such as paper, petrochemical, steel fabricating, cement and the like will not consider locating off of a rail line. All of their competitors are rail oriented and thus, to be competitive, they must be as well.

The limestone currently trucked from Arizona, for use in the pollution control equipment at the Four Corners Power Plant, could come in by rail. In addition, all of the heavy equipment for these power plants could move over this same route.

A new industry in support of the railroad could be developed. This would be a car repair facility to maintain the large number of utility owned coal cars necessary for the transportation of this product. I would expect this operation to bring in at least 50 jobs and the railroad could be expected to employ a like amount of people. As the coal traffic increased the railroad could double its employment.

Within five years of construction, I would expect the coal traffic to be 10 unit trains per day each consisting of 100 cars for a total of 100,000 tons per working day. Potential markets would be the Texas area and export to the Pacific Rim countries through the port of Los Angeles.

I would envision this new railroad to be a "state of the art" showcase for rail transportation in the United States with the latest innovations to set the standards for railroads of the future. This property would be the largest independent common carrier to start up operation in the United States since 1910. The publicity of such an undertaking would have nationwide coverage and the effects on locating potential industry could be dramatic.

## RECOMMENDATIONS

It is my recommendation that discussions be held at an early date with the Santa Fe to determine their plans for the region and to enter into preliminary negotiations for freight rates and divisions of revenues with them.

I would expect the Santa Fe to be receptive to such a plan and, as a consequence, they should be willing to work with an independent carrier. If they were to build and operate such a property it would cost them more than if it were built and operated as a short line railroad.

I would begin immediate discussions with various potential shippers within the four state area to secure their thoughts on this project.

The cost of a common carrier railroad will depend on the distance necessary to carry such track to a connection with the Santa Fe. The worst case condition would be approximately 90 miles and it could be as low as 55 miles. My preliminary estimate would be around \$800,000 a mile for engineering, grading, and construction of the track structure. The acquisition of land is not included in the above estimates.

J. L. Layton

10/24/83

350,000  
Rates  
- 1-2-3-4