

RESOLUTION 17-09-16

RESOLUTION CLARIFYING THE ECONOMIC BENIFITS OF IMPROVED RAIL SERVICE TO THE STATE OF NEVADA BY MEANS OF A LAND FERRY SYSTEM

WHEREAS, the Phase I Land Ferry Economic and Engineering Assessment demonstrated in the attachment to this resolution, forecast a \$3 billion, 40-year, net benefit to the state of Nevada, further assessment is needed to validate these results and learn more about this transportation planning opportunity.

WHEREAS, Pursuant to:

NRS 705.421 Nevada Department of Transportation is required to develop in conjunction with the Public Utilities Commission of Nevada, a state plan for service by rail. The Department of Transportation is also authorized to carry out the plan, including projects to:

- (a) Preserve rail lines;
- (b) Rehabilitate rail lines to improve service; and
- (c) Restore or improve freight service on rail lines which are potentially subject to abandonment.

WHEREAS, Pursuant to NRS 705.423 the Nevada Department of Transportation is authorize to:

- (a) Apply for and accept federal, state, local and private money to develop the state plan for rail service and to carry it out; and
- (b) Enter into compacts, contracts and agreements with other states or groups of states, the Federal Government, railroad corporations, users of railroads or other persons if the Director of the Department of Transportation determines that the compacts, contracts and agreements are consistent with the state plan for rail service and are necessary for the preservation or restoration of rail freight service which is vital to the State, but no state money may be expended to carry out the plan and no compact, contract or agreement may require the expenditure of state money unless previously authorized by the Legislature. The Department of Transportation is also authorized to serve as agent for any county or city upon the request of the governing body of the county or city in applying for and accepting money from public and private sources for railroad purposes and in carrying out any of the statutory powers of the county or city with respect to railroads.

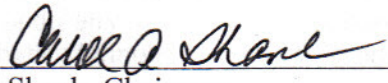
NOW, THEREFORE, BE IT RESOLVED that the Pershing County Board of County Commissioners, to adopt Resolution No. 17-09-16, requesting the following from the Nevada Department of Transportation:

- I. That the Nevada Department of Transportation apply for and accept money from public and private sources for railroad purposes and carry out any of the statutory powers of the county and more specifically fund the Phase II Steel Interstate Draft Scope of Work demonstrated in the attachment to this resolution.
2. That if findings of this study show positive economic benefits to the region, and the State of Nevada that the study becomes part of the Nevada State Rail Plan.

3. That if findings of this study show positive economic benefits to the region, and the State of Nevada that the Nevada Department of Transportation request authorization through the Legislature to carry out the plan and enter into compacts, contract or agreement as necessary to implement the plan.

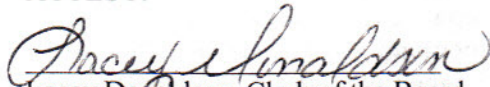
PROPOSED AND ADOPTED this 6th day of September, 2017

PERSHING COUNTY BOARD OF COMMISSIONERS



Carol Shank, Chairman

ATTEST:



Lacey Donaldson, Clerk of the Board

EXECUTIVE SUMMARY

This report presents an economic assessment of the ability of a **Land Ferry** system to alleviate the increasing costs of maintaining the 1-80 transportation corridor in Nevada. The project starts at Fernley, **Nevada** and ends at Wells, **Nevada** for a length of approximately 320 miles. The project scope includes creating a new alignment close to the existing 1-80 highway and the Union Pacific Railroad (UPR) in order to run a Land Ferry system that will help reduce truck traffic along the 1-80 Transportation Corridor.

Approximately 10% to 40% of the current volume in this commercial segment of 1-80 is truck traffic. The alignment has proven to be vital in the decision-making process, since rail installation is very costly. To minimize the cost of the Land Ferry system, it is important to provide an alignment that uses the most effective route while limiting tunneling, excavation, and fills, since these will increase construction costs substantially.

Power generation for the locomotives is another aspect that needs to be addressed carefully. The **University of Nevada, Las Vegas (UNLV)** has looked into four different possible sources of energy, including solar, wind, geothermal, and several forms of diesel. The most economical choice for power generation was determined to be wind energy.

The **Land Ferry** system would not take business away from the existing businesses along the 1-80 corridor. However, it may affect truck drivers, depending on how they are paid and taxed. On the other hand, using a Regional Input-Output Modelling System (RIMS II) model, it was estimated that the project would create over 45,788 jobs during the three-year construction period. Furthermore, the operation of the Land Ferry would create 318 permanent jobs.

This report provides a benefit-cost analysis of the **Land Ferry** project. Using a 40-year analysis period, both user and non-user benefits were quantified and compared to capital costs. The benefits and costs considered in this analysis include savings in travel time saving, reductions of accidents, savings in vehicle operating costs, reductions in vehicle emissions, project capital costs, and project operation and maintenance costs. Results from this analysis are summarized in Table 1.

TABLE 1

Overall Benefits and Costs of the **Land Ferry** Project

Costs	\$4.36B	Net Present Value	\$3.23B
Benefits	\$7.59B	Benefit/Cost Ratio	1.7

As expected for this type of project, most of the benefits are in savings in travel time (\$356.4M), savings in vehicle operating costs (\$1000.4M), reduction of accidents (\$674.7M), and pavement maintenance (\$511.2M). These benefits are a consequence of the shift of trucks from 1-80 to the **Land Ferry**, which leads to an improvement in pavement roughness. Rough pavements cause speed reductions, increase fuel consumption, and increase vehicle maintenance costs. The overall benefit-cost ratio (1.7) implies a cost-effective project.