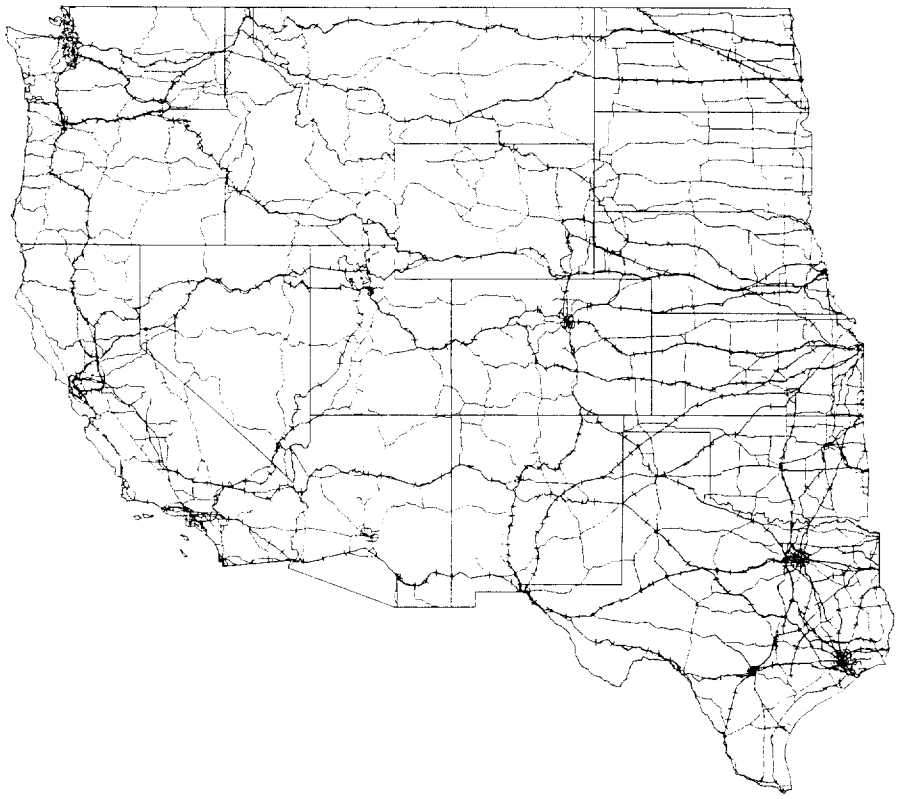
APPENDIX 3-B

Executive Summary,
Western Transportation Trade Network

Executive Summary Report

WESTERN TRANSPORTATION TRADE NETWORK - WTTN



1997

Executive Summary Report
WESTERN TRANSPORTATION TRADE NETWORK STUDY

WTTN

Recognizing that domestic and international trade, and accompanying freight transportation, are essential to the economic prosperity of the western U.S., the Policy Committee of the Western Association of State Highway and Transportation Officials (WASHTO) established a consortium of 17 states under the title "Western Transportation Trade Network" (WTTN). The WASHTO Standing Committee on Planning then developed a "Western Transportation Trade Network Concept Plan," March 1994, which outlined the WTTN mission.

WTTN Mission Statement

The purpose of WTTN is to promote economic growth and to maximize regional trade opportunities among Canada, the United States, and Mexico by defining and implementing a multi-modal transportation and trade network.

WTTN, therefore, is concerned with trade, and the surface transportation systems (highways, rail lines, intermodal facilities), that carry that trade.

The WTTN Concept Paper also identified four WTTN objectives. These objectives were subsequently approved by the WASHTO state department of transportation Chief Administrative Officers at their Annual CAO Spring Workshop in March 1994.

WTTN Objectives

A. Develop a coalition of state DOTs and utilize the input of other interested parties, including private sector and non-profit organizations, to develop a multi-modal transportation trade network in the western United States.

B. Collect an adequate level of information on trade and its impact on the transportation system, in order to forecast and address network deficiencies and needs.

C. Develop a standardized data base of information to support network investment decisions, which are compatible with a GIS interface, related to transportation and trade in the western United States.

D. Define performance objectives of the multi-modal transportation and trade network and identify performance measures descriptive of the network.

THIS WTTN STUDY

To comply with these objectives the WASHTO states plus Nebraska approved an exploratory trade corridor study. This Executive Summary Report briefly summarizes that study. For greater detail, please refer to the full study report, which is on file with each participating state.

STUDY PARTICIPANTS

Study Sponsors -Fourteen states chose to sponsor the study, as represented by each state's transportation agency:

- Arizona Department of Transportation
- California Department of Transportation
- Colorado Department of Transportation
- Idaho Department of Transportation
- Montana Department of Transportation
- Nebraska Department of Roads
- Nevada Department of Transportation
- New Mexico State Highway and Transportation Department
- North Dakota Department of Transportation
- South Dakota Department of Transportation
- Texas Department of Transportation
- Utah Department of Transportation
- Washington State Department of Transportation
- Wyoming Department of Transportation

All participating states provided ideas, guidance, and data. The study's results reflect a general consensus of the states, but should not be assumed to reflect the specific positions or policies of any specific state. This is because some states disagree with certain items contained in the study, and no state was asked to approve or adopt the report. Instead, the report as written reflects the consultant team's work, with certain data and guidance inputs provided by the states.

Lead State - One state was elected by the participating states to administer the study effort, and to serve as contract manager. This role was served by the Colorado Department of Transportation.

Federal Role - The study was initiated by, and initially funded exclusively by, the participating states. As such, it is indicative of the states' desire to voluntarily cooperate and support worthwhile multi-state efforts. Later during the study, the Federal Highway Administration was asked to fund the acquisition of certain freight transport data; FHWA readily agreed to participate.

Consultant Team - A team of three consulting firms assisted with study conduct:

- Wilbur Smith Associates
- Felsburg Holt & Ullevig
- HNTB Corporation

STUDY OBJECTIVES

Within the context of the WTTN mission statement and objectives, the WTTN study has three objectives:

1. Explore trade and freight transportation throughout the western U.S. and, based on these assessments, identify a multi-modal transportation trade network for the western U.S. (the WTTN "trade network").

2. Examine that defined WTTN trade network (rail lines, highways, intermodal facilities) and identify trans-

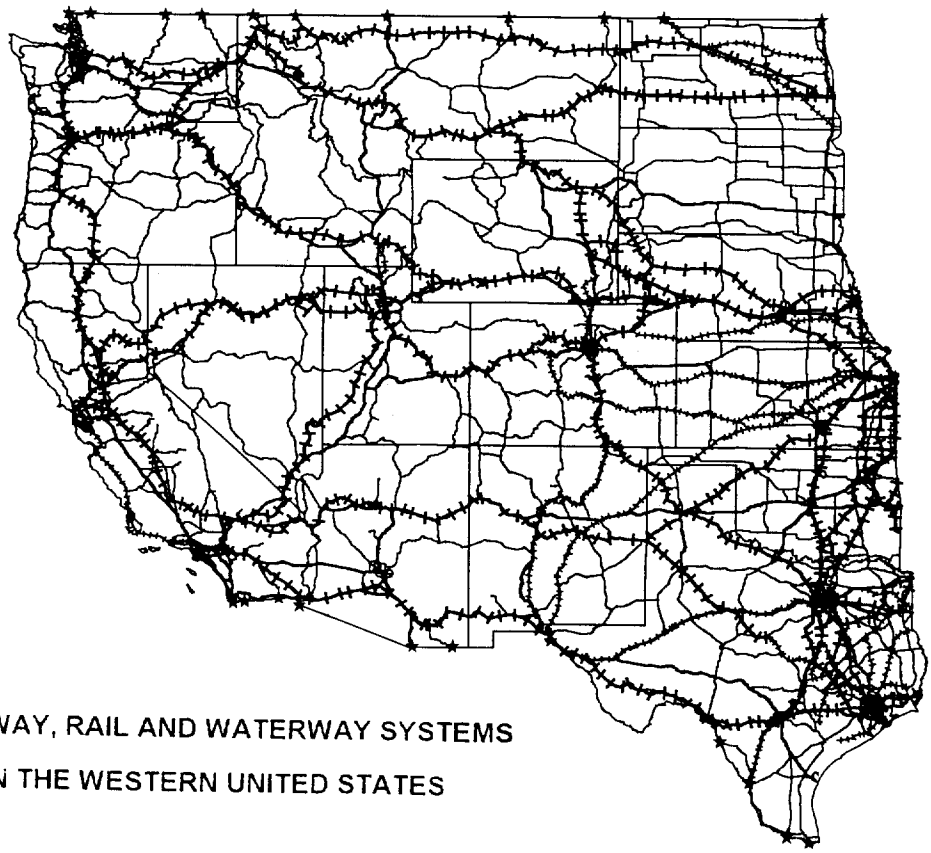
portation infrastructure deficiencies that are adversely affecting trade and freight transportation.

3. Demonstrate that a regional (multi-state) approach to freight transportation, and to trade network needs and opportunities, has merit.

THE REGION'S TRADE ARTERIES

The focus on WTTN is therefore trade, both domestic and international. Trade, as defined herein, refers to freight movement by surface transportation (trucking, railroads, waterways). The WTTN trade network comprises surface transportation corridors that are multi-modal in nature, and that involve economically important corridors which are important to regional, national and international trade. The network is therefore made up of groupings of rail lines, highways, border crossings, ports, airports and intermodal facilities.

The study region, and the major rail lines, highways, and navigable waterways from which the WTTN network is derived, are shown below.



HIGHWAY, RAIL AND WATERWAY SYSTEMS
IN THE WESTERN UNITED STATES

THE REGION'S TRANSPORTATION SYSTEM

One of the challenges confronting the WTTN study was how to decide which highways and which rail lines to include in the trade corridor designation.

The Highway System - Covering one-half of the continental U.S., the West's rural highway system comprises over 1.3 million miles of rural road. This system serves 32 billion annual truck miles, and over 400,000 trucks and 1.5 million truck trailers registered in the 17 state region.

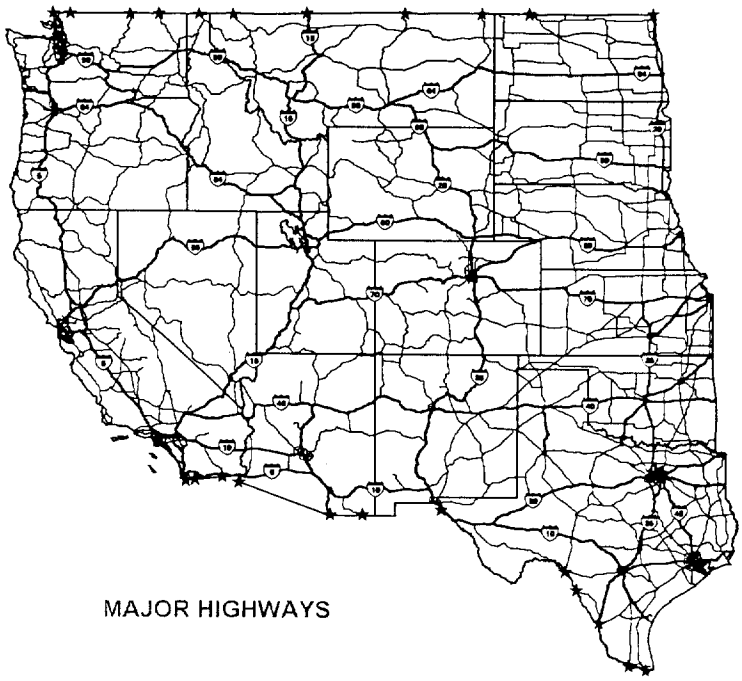
It is estimated that the NHS comprises 4% of the nation's roads, but carries 75% of the heavy truck travel. Therefore, portions of the NHS were considered key elements in the WTTN corridor designation process.

The Railroad System - Several events have occurred that have significantly changed the West's rail system:

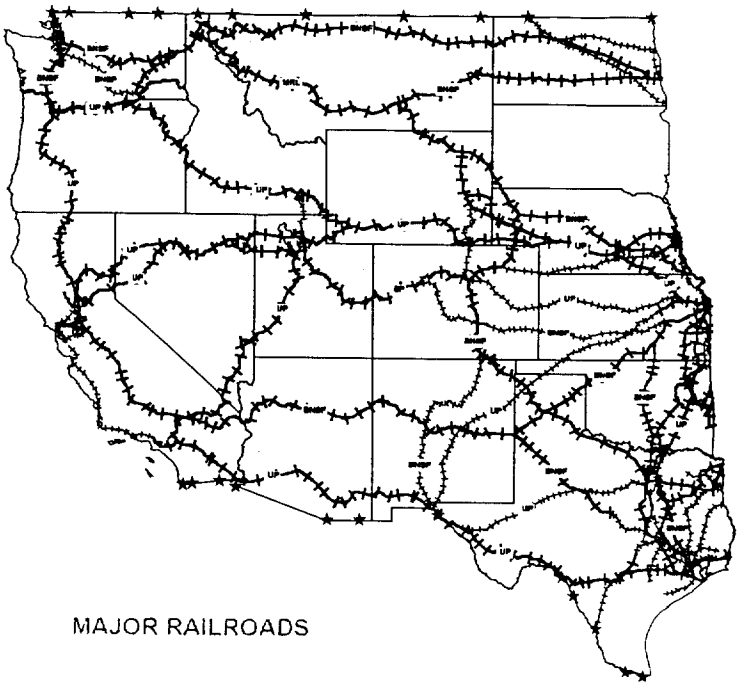
- The railroad's have evolved into long distance, heavy haul carriers wherein branchlines and certain services have declined and major rail lines and major services have been strengthened.

- The repeated waves of railroad mergers have reduced the number of western railroads.

The West has 58,300 miles of trackage, and is dominated by two railroads--the combined Burlington Northern/Santa Fe and the combined Union Pacific/Southern Pacific.



MAJOR HIGHWAYS



MAJOR RAILROADS

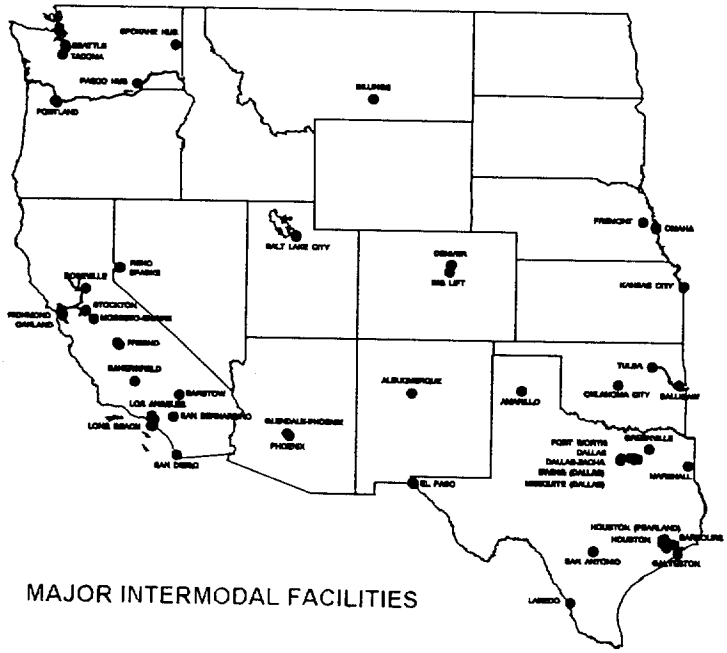
The railroad mainlines are key components of the defined WTTN trade corridors network. The light density rail lines were not viewed as key WTTN corridors.

CONNECTIONS TO INTERMODAL FACILITIES

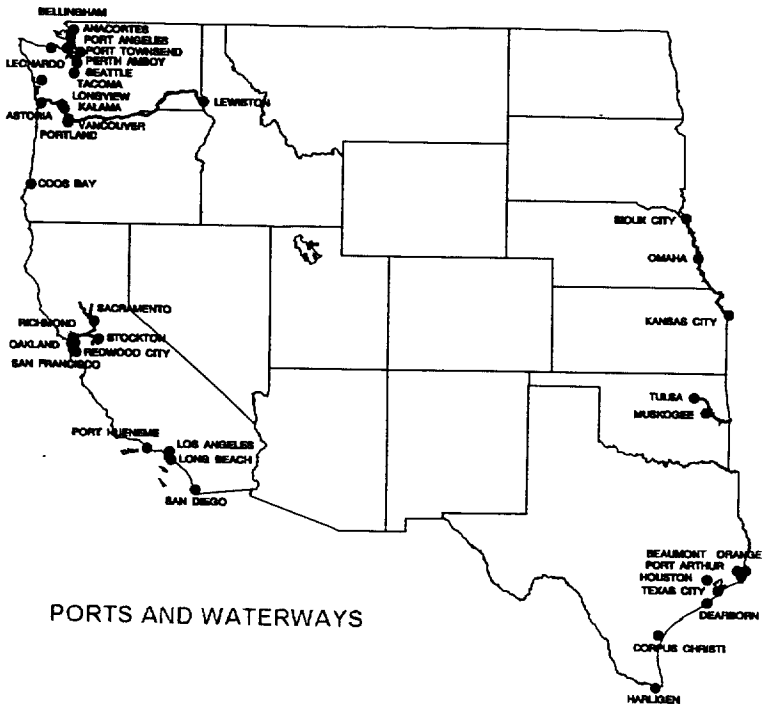
MAJOR AIRPORTS

The process of identifying the WTTN trade corridors also recognized that the trade corridors should service existing and future intermodal freight facilities throughout the region. Care was taken, therefore, to ensure that the trade corridors serve:

- The airports, which handle significant volumes of air cargo.
- The major rail-truck intermodal transfer points, where containers and piggyback truck trailers are handled.
- The seaports and inland river ports, where containers, liquid and dry bulk, and other freight is transferred between modes.



MAJOR INTERMODAL FACILITIES



PORTS AND WATERWAYS

STUDY CONDUCT

The following items are illustrative of work that was conducted in the WTTN Study:

- A study kickoff meeting was held in Albuquerque, as part of the WASHTO Planning Committee's annual meeting.
- The states assembled available freight and transportation studies and data believed relevant.
- Definitions of and criteria regarding what might constitute a trade corridor and a trade network were debated and defined. Procedures to be used to identify WTTN freight corridors were developed.
- Commodity transportation data was obtained. Computer diskettes containing the trade flow data were provided to each Sponsor State.
- Candidate lists of corridors were developed. A second meeting was held in Tacoma where the states debated the WTTN corridor designations, and the final network was agreed upon.
- Freight volumes in each WTTN freight corridor were identified.
- A procedure to identify deficiencies was established, and the states identified the deficiencies in each of their corridors. These were reviewed in the study's third meeting in Denver.
- The draft report was reviewed in the Denver meeting, and the states developed a list of study conclusions.

WHAT IS A WTTN TRADE CORRIDOR?

A cornerstone of the WTTN program is the identification of the trade network itself. The participating states had to deal with such questions as:

- What is a trade corridor?
- How is it defined?
- Are there many such trade corridors in the western states?
- What are the implications of one corridor being designated a trade corridor, and another corridor not being so designated?
- What is a trade network?

After considerable reflection and discussion among the states, the characteristics of a trade corridor became evident, as outlined below.

Characteristics of a WTTN Trade Corridor

- Multi-state in nature
- Connects significant end points
- Wide multi-modal corridors
- Not highway- or rail line-specific
- Carries regionally significant freight
- Serves intermodal facilities
- Serves international border crossings
- Serves important economic centers
- Includes selected NHS highways
- Includes selected railroad mainlines
- Reflects future trade expectations
- All movement directions are relevant
- Connects with out-of-region corridors

WTTN NETWORK

In discussions with the participating states, it was decided, because the WTTN Mission Statement and Objectives called for a single trade network, that a single WTTN, together with a multi-modal "supporting network," should be designated. In this way, all rail lines, and the entire National Highway System (NHS), would be included, at least in the supporting system. These WTTN networks and its supporting system were defined as follows:

Multi-modal Transportation Trade Network (WTTN) is a system of broad geographic bands connecting major endpoints over which regionally-significant interstate freight is carried by one or more modes. These modes are confined to road, waterway and rail. Excluded are pipelines and air cargo.

Supporting Transportation System comprises the remaining highway, rail, air, and other systems within the western region. The supporting system includes all other highways on the NHS, all rail lines, the region's intermodal facilities, ports, airports, and other freight transportation facilities.

These definitions were made to allow the identification of regional freight corridors throughout the WTTN region; they were not intended to concentrate only on the states with high volume freight corridors. The mode of transportation was also not identified in these definitions. Some corridors may have only one surface mode while others may have any combination of road, rail, and waterway routes within them.

TRADE CORRIDOR IDENTIFICATION PROCESS

Based on the corridor characteristics and the network definitions, a six-step process was established whereby the trade corridors were identified. This process was as follows:

1. States provided previous state-specific freight corridor designations, criteria used, and data that might be useful.

2. The consultant reviewed that material, and submitted to the states a procedure, a set of criteria, and a set of definitions to be used to identify a preliminary set of trade corridors.

3. The states used those procedures and criteria, plus other materials and/or criteria that the state felt was important, and identified preliminary sets of freight corridors within the state's boundaries. These preliminary lists of corridors were sent to the consultant.

4. The consultant reviewed each state's corridor designations, and identified contradictions and conflicts that may exist between states.

5. The consultant depicted the rationalized results on suitable mapping and descriptive material.

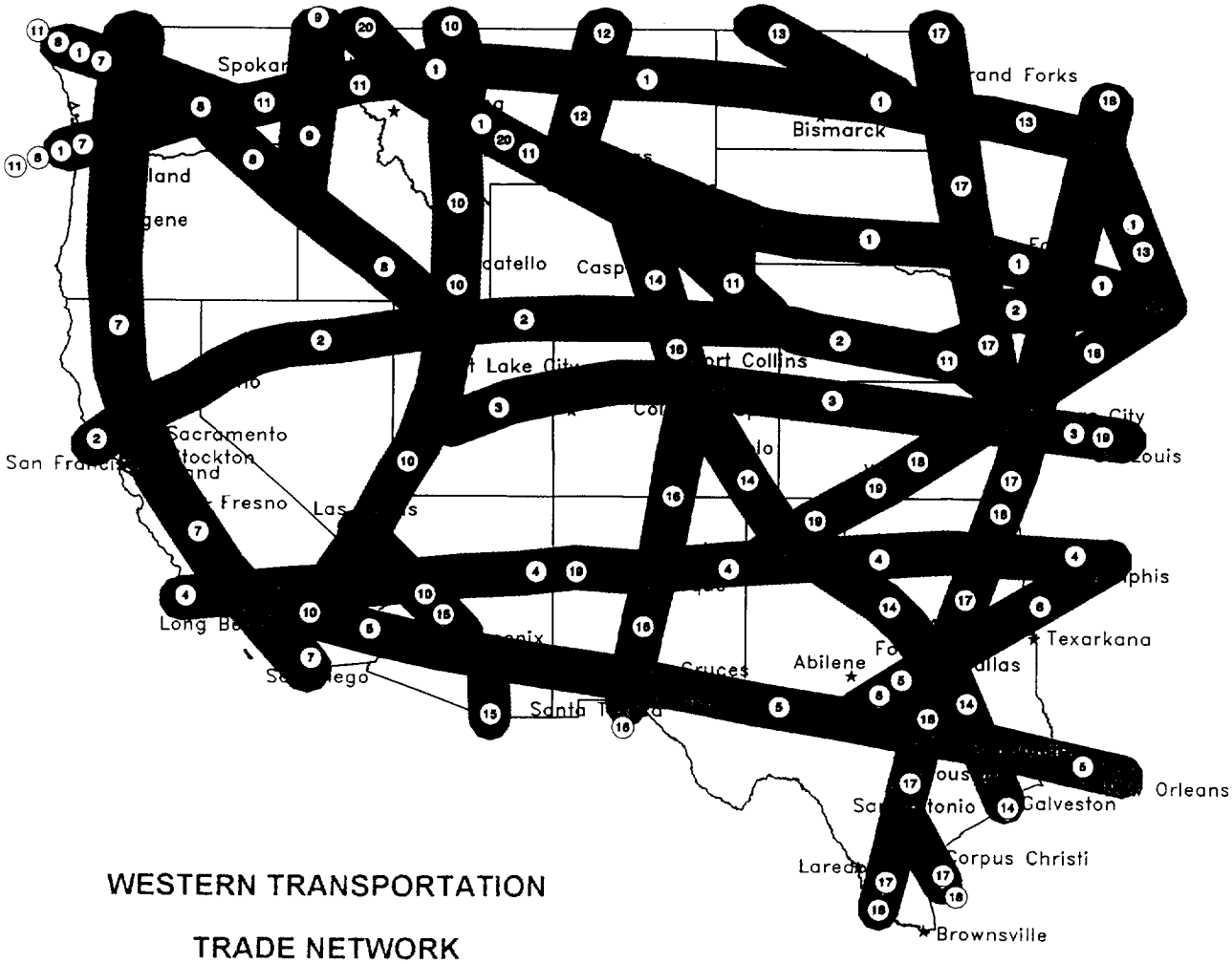
6. The participating states met to review the results and to finalize the WTTN trade corridor designations.

As a result, a set of trade corridors was developed which makes sense on a multi-state basis. Several states desired additional corridors; however, to make certain the trade corridor criteria were consistently applied, only those shown on the map were included.

TWENTY TRADE CORRIDORS WERE IDENTIFIED

The resulting trade network is shown below. These generalized corridor bands are typically multi-modal, typically are multi-state, and cover the entire region. Every state has two or more such corridors. In total, there are 20 corridors, plus countless route combinations.

1. Pacific Northwest-Minneapolis-Chicago
2. San Francisco-Chicago
3. Utah-St. Louis
4. Southern California-Memphis
5. Southern California-New Orleans
6. Texas-Memphis
7. Mexico-Canada (1-5)
8. Pacific Northwest-Utah
9. Boise-Canada
10. New Mexico-Canada (Canamex)
11. Pacific Northwest-Kansas City
12. Montana-Canada
13. Canada-Minneapolis-Chicago
14. Wyoming-Galveston
15. Mexico-Arizona
16. Mexico-Casper
17. Mexico-Canada (Central)
18. Mexico-Upper Midwest
19. New Mexico-St. Louis
20. Montana-Canada



WESTERN TRANSPORTATION

TRADE NETWORK

WTTN TRADE CORRIDOR CONCLUSIONS

Considerable effort was expended to identify the major trade corridors of the western U.S. This designation process yielded a number of trade corridor conclusions.

1. The trade corridors are all multi-state and/or international in nature. Cooperative and coordinated multi-state approaches to the transportation corridors may therefore have merit and may in fact be essential.

2. While some trade corridors dominate in terms of tonnage moved or value handled, everything is relative. On a proportionate basis, a less used corridor in a sparsely populated state could be relatively more economically significant to that state than is a heavily travelled route in a heavily populated state. Hence, there is a need for trade corridor designations throughout the western U.S.

3. The interrelationships in trade movements suggest that it is too simplistic to regard trade as comprising a series of individual trade corridors. Instead, as is the case with passenger transportation, the WTTN is a true "trade network" -- just as the name implies.

4. Because so much freight moves between states, deficiencies or activities in one state can affect trade activities in another state. Therefore, regional (multi-state) approaches and sharing of information between states are important to the creation of an efficient regional freight system.

5. Trade generally moves from origin to destination without regard for state and even international borders. The private sector makes its plans and carries its freight with little attention to such boundaries. States, however, tend to be constrained by such boundaries since their planning and funding is limited to their single state. Improved decisions regarding multi-state trade would be possible if the states were able to develop multi-state trade corridor planning and program approaches.

6. Multi-state highway corridor coalitions (interest groups) are becoming increasingly prevalent. These groups are corridor specific and multi-state in nature. Multi-state corridor-specific coordination by the states might be a timely approach. To reflect the multi-state nature of trade corridors, the U.S. should develop some type of legal mechanism whereby multi-state corridors can be cooperatively planned, programmed and funded by the states. The "Multistate Agreements for Trade Corridor Planning" provisions of NEXTEA are applicable to this conclusion.

7. If additional work is to be done relative to regional freight issues, it may be that the WTTN trade corridors should be grouped, with the states working together to deal with these trade corridor packages. WASHTO and the Western Governor's Association might seek such approaches.

8. The technical advances offered by Commercial Vehicle Operations (CVO) and other Intelligent Transportation System (ITS) approaches to improving freight transportation efficiency especially lend themselves to multi-state approaches to corridor evaluation.

9. The states should put the trade corridor provisions of NEXTEA to good, productive use.

DEFICIENCIES IN THE TRADE CORRIDORS

Freight transportation users of the trade corridors operate under various types of policy, procedural, operational and physical constraints. This WTTN study focuses only on the physical, and asks whether or not there are physical constraints in the individual trade corridors that adversely affect trade and freight transportation efficiency. Such physical constraints are viewed as corridor deficiencies, and are identified in the study on a corridor by corridor basis.

Physical deficiencies were developed and defined within six categories, for both highway and rail modes. The deficiency types, from the freight perspective, are as follows:

Trade Corridor Deficiency Definitions

	Highway Constraints	Rail Constraints
Capacity	▸ Too few traffic lanes. ▸ Large number of signalized intersections. ▸ Urban area congestion. ▸ Significant areas of speed restriction. ▸ Inadequate passing lanes.	▸ Single track versus dual track operation. ▸ Speed limit restrictions for urban areas. ▸ Lack of central traffic control. ▸ Numerous highway grade crossings.
Safety	▸ High number of access points. ▸ Inadequate protection features. ▸ Hazardous conditions along highway. ▸ Lack of rest areas.	▸ High number of at-grade crossings.
Geometrics and Surface Conditions	▸ Long/steep grades. ▸ Weight restrictions. ▸ Vehicle height restrictions. ▸ Inadequate lane/shoulder widths. ▸ Poor pavement conditions. ▸ Substandard vertical/horizontal curves. ▸ High highway maintenance activity. ▸ Restricted use of tunnels/highways.	▸ Long/steep grades. ▸ Weight restrictions. ▸ Engine/wagon height restrictions. ▸ Inadequate bankings; curve radii. ▸ Inadequate condition of rails/railbed. ▸ Obsolete signaling.
Intermodal Connections	▸ Proximity to intermodal facilities. ▸ Inadequate connection to other modes. ▸ Congestion at intermodal centers.	▸ Proximity to intermodal facilities. ▸ Inadequate connection to other modes. ▸ Additional cost of transfer.
Environmental and Community Impacts	▸ Weather and lack of alternative routes. ▸ Air quality and movement restrictions. ▸ Environmentally sensitive areas. ▸ Creation of a barrier bisecting communities. ▸ Proximity of sensitive noise receptors.	▸ Environmentally sensitive areas. ▸ High liability cost for accidents (spills). ▸ Special equipment required. ▸ Creation of a barrier through communities.

CORRIDOR DEFICIENCY CONCLUSIONS

Each participating state analyzed the trade corridors, and identified the deficiencies in each corridor. These deficiencies are listed in the study's Final Report, and summarized as follows:

1. Every defined WTTN trade corridor has some identified transportation infrastructure deficiencies. From the freight perspective, therefore, there is work to be accomplished in every WTTN corridor.

2. Geometrics/surface conditions and capacity/congestion deficiencies are noted in 80% of the WTTN highway routes.

3. According to the states, 15 of the 18 WTTN corridors with rail lines have some type of noted deficiency. Therefore, the WTTN states should be concerned about both the highway systems and the rail systems, as well as the intermodal facilities and services.

4. The defined deficiencies are of concern to the freight industry because physical distribution inefficiencies and uncertainties can result from the infrastructure deficiencies. The freight industry should be given a significant voice in the identification of deficiencies, projects and programs that affect them.

5. There are insufficient funds available to the states, federal and local agencies, to effectively deal with this magnitude of infrastructure deficiencies. Therefore, priorities and prioritization processes are needed -- within corridors, between corridors, within and between modes, between projects of various types, and within and between the participating WTTN states. The states do not collectively have a procedure whereby trade-oriented projects or investments can be prioritized.

6. Public investment in transportation infrastructure in the WTTN corridors is but a small part of the total economic cost of freight transportation. The larger part is the huge cost of using that infrastructure, especially the cost of shipping and carrying goods to market. A balance between public investment costs and the costs of freight carriage is necessary.

7. Of considerable concern to efficient freight transportation in the west is the declining appropriation and dedication of federal funds for transportation infrastructure. As funding declines, inefficiencies in trade must surely follow .

8. There are transportation deficiencies in the west that already affect efficient freight transportation. Congress needs to do everything in its power to appropriate the full funds authorized for transportation purposes by the Intermodal Surface Transportation Act of 1991.

9. Portions of the western U.S. have economies which require an efficient and safe railroad network. Although the rail system is privately owned, there is still a role for the public sector. The Local Rail Freight Assistance and the Rail-Highway Crossing programs are needed, and Congress is encouraged to fund these worthwhile programs.

10. The evolution of some forms of freight transportation has moved from cost-based decisions to speed based and delivery reliability based decisions. Speed and reliability imply an efficient transportation system.

Top 50 Truck Tonnage Origins/Destinations To Western States

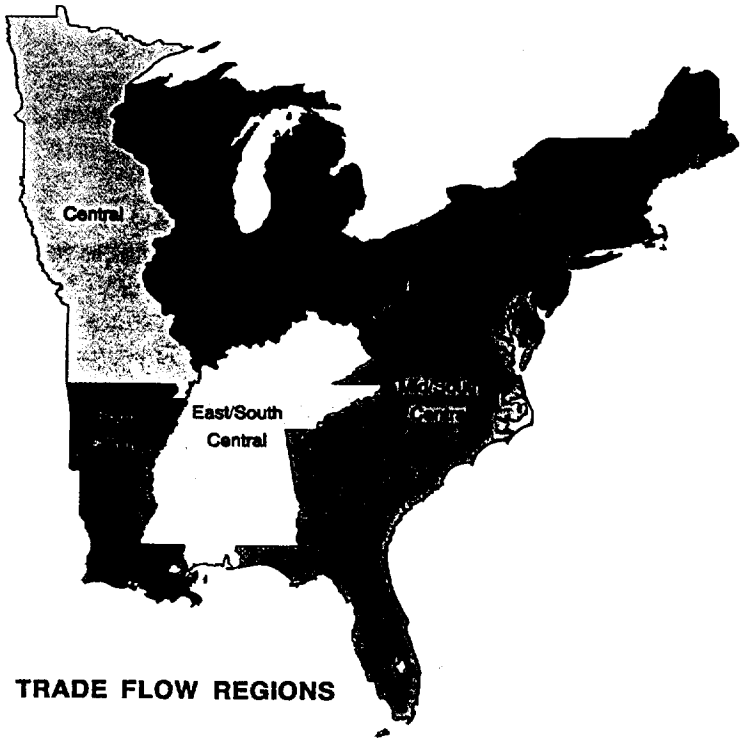
Origin	Destination	Annual Tons (000)
East/North Central	Los Angeles	6,281
East/North Central	Albuquerque	3,489
South Central	Dallas-Fort Worth	3,101
East/North Central	San Francisco Bay	2,923
East/North Central	Dallas-Fort Worth	2,881
South Central	Houston	2,743
East/North Central	Salt Lake City	2,705
Northeast	Los Angeles	2,703
East/North Central	Denver	2,520
East/North Central	Houston	2,497
Central	Sioux Falls	2,459
South Central	Texarkana	2,383
Central	Omaha	2,289
East/North Central	Wichita	2,103
Central	Wichita	1,801
Central	Fargo-Moorhead	1,614
East/South Central	Dallas-Fort Worth	1,594
Mid/South Atlantic	Los Angeles	1,490
Northeast	Dallas-Fort Worth	1,339
East/South Central	Houston	1,289
East/South Central	Los Angeles	1,288
East/North Central	El Paso	1,286
Central	Grand Island	1,256
Northeast	Houston	1,209
East/North Central	Omaha	1,197
Mid/South Atlantic	Dallas-Fort Worth	1,181
Central	Grand Forks	1,155
East/North Central	Boise City	1,137
East/North Central	Oklahoma City	1,128
Northeast	San Francisco Bay	1,122
East/North Central	Pocatello-Idaho Falls	1,049
South Central	Tulsa	1,039
East/North Central	Tulsa	985
Mid/South Atlantic	Houston	963
Central	Denver	949
South Central	Oklahoma City	920
Central	Lincoln	915
South Central	Tyler-Longview	886
East/North Central	Seattle	853
East/North Central	Topeka	834
South Central	Los Angeles	830
Central	Topeka	821
South Central	San Antonio	798
Central	Tulsa	755
Central	Dallas-Fort Worth	721
Central	Los Angeles	718
East/North Central	Colorado Springs	713
South Central	Denver	712
East/North Central	Spokane	669
East/North Central	San Antonio	667
Total Top 50		78,980
All Other		47,358
Total within West		126,339

WESTERN U.S. COMMODITY FLOWS

An important element in the WTTN study was the development of a commodity movement data base. Commodity flow data was developed from three principal sources:

- U.S. Census of Transportation -- state-to-state flows by commodity type.
- Reebie Associates -- place (BEA) to place flow data by commodity type and mode.
- Cross Border -- flows to/from Mexico and Canada.

Tables on these pages present example trade flow data for the major origin / destinations. A complete diskette of all freight flow data has been developed and provided to each participating state.



TRADE FLOW REGIONS

Top 50 Truck Tonnage Origins/Destinations Within Western States

Origin	Destination	Annual Tons (000)
Seattle	Portland	23,630
Eugene	Portland	16,692
Los Angeles	San Francisco Bay	9,098
Portland	Eugene	8,703
San Francisco Bay	Los Angeles	8,374
Dallas-Fort Worth	Houston	7,690
Los Angeles	San Diego	7,519
Grand Junction	Denver	7,353
Houston	Dallas-Forth Worth	7,145
Phoenix	Tucson	6,498
Redding	Eureka	5,187
Missoula	Spokane	4,665
San Francisco Bay	Sacramento	4,617
Los Angeles	Fresno-Bakersfield	4,523
Houston	San Antonio	4,257
Eureka	Redding	3,857
San Francisco Bay	Fresno-Bakersfield	3,786
San Francisco Bay	Stockton-Modesto	3,625
Stockton-Modesto	San Francisco Bay	3,620
Spokane	Boise	3,618
Beaumont	Houston	3,234
Tyler-Longview	Houston	3,188
Dallas-Fort Worth	San Antonio	3,112
Oklahoma City	Tulsa	3,086
San Antonio	Houston	3,024
Tulsa	Oklahoma City	3,022
San Diego	Los Angeles	2,999
Portland	Seattle	2,982
Denver	Colorado Springs	2,925
Seattle	Richland	2,891
Sacramento	San Francisco Bay	2,703
Tyler-Longview	San Antonio	2,599
Waco-Temple	Dallas-Forth Worth	2,554
Waco-Temple	Houston	2,521
Salt Lake City	Los Angeles	2,279
Colorado Springs	Denver	2,220
Portland	Los Angeles	2,144
Waco-Temple	San Antonio	2,123
Houston	Tyler-Longview	2,083
Dallas-Fort Worth	Tyler-Longview	2,015
Los Angeles	Sacramento	2,011
Yakima	Portland	2,010
Fresno-Bakersfield	San Francisco Bay	1,985
El Paso	Albuquerque	1,971
Fresno-Bakersfield	Los Angeles	1,887
Tyler-Longview	Dallas-Fort Worth	1,876
Missoula	Boise City	1,874
Texarkana	Houston	1,863
Houston	Beaumont	1,781
Denver	Grand Junction	1,746
Total Top 50		217,187
All Other		212,603
Total within West		429,789

Top 50 Rail Tonnage Origins/Destinations Within Western States

Origin	Destination	Annual Tons (000)
Cheyenne-Casper	Houston	16,892
Cheyenne-Casper	Tulsa	11,189
Cheyenne-Casper	Topeka	11,026
Albuquerque	Phoenix	8,452
San Antonio	Houston	6,956
Cheyenne-Casper	Texarkana	5,137
Salt Lake City	Los Angeles	5,000
Cheyenne-Casper	San Antonio	4,885
Cheyenne-Casper	Amarillo	4,860
Cheyenne-Casper	Grand Island	4,766
Cheyenne-Casper	Omaha	4,656
Cheyenne-Casper	Lubbock	4,451
Grand Junction	Denver	3,512
Cheyenne-Casper	Denver	3,434
Houston	Los Angeles	3,367
Scottsbluff	Tulsa	3,074
Topeka	Tulsa	2,983
Cheyenne-Casper	Wichita Falls	2,952
Austin	Houston	2,944
Cheyenne-Casper	Lincoln	2,934
Fresno-Bakersfield	Los Angeles	2,561
Salt Lake City	Portland	2,555
Seattle	Portland	2,531
Portland	Los Angeles	2,377
Bismarck	Aberdeen	2,340
Great Falls	Portland	2,283
El Paso	Houston	2,233
Cheyenne-Casper	Colorado Springs	2,166
Salt Lake City	Las Vegas	1,917
Salt Lake City	Reno	1,911
Spokane	Portland	1,801
Oklahoma City	Dallas-Fort Worth	1,777
Grand Junction	Houston	1,656
Cheyenne-Casper	Richland	1,591
Billings	Seattle	1,536
Oklahoma City	Houston	1,455
Albuquerque	Tucson	1,448
Grand Junction	Colorado Springs	1,431
Portland	Seattle	1,391
Omaha	Los Angeles	1,355
Minot	Portland	1,340
Wichita	Houston	1,325
Cheyenne-Casper	Wichita	1,306
Salina	Houston	1,257
Sioux Falls	Seattle	1,225
Los Angeles	Dallas-Fort Worth	1,224
Dallas-Forth Worth	Los Angeles	1,204
Grand Island	Denver	1,196
Los Angeles	Houston	1,097
Houston	Dallas-Fort Worth	1,080
Total Top 50		164,061
All Other		139,855
Total within West		303,916

NOTE: Origin and Destination refer to Bureau of Economic Analysis (BEA) zones.

Source: Transearch database, Reebie Associates (1994)

NEXT STEP/IMPLEMENTATION PROCESS

The WTTN concept and study represents one of the first state (as opposed to federally initiated) attempts at regional (multi-state) voluntary investigation of freight transportation. In this sense, it was experimental, and its results are mixed. It caused the participating states to get together and deliberate and coordinate; it was a learning exercise; and, it defined and investigated certain elements of the western states' freight system.

This experimental study represented an initial step into the issues of regional freight, trade corridors, and voluntary coordination among the states. If it is to be effective, more elaboration, greater detail and additional work may be needed if the states are to benefit from this initial trade assessment. Following are a number of possible "next steps," as suggested for consideration by various WTTN study participants.

1. This study identified trade origin/destination pairs, modes, and commodities. To make this data more useful to the states, these trade flows could be assigned to the specific WTTN corridors, modes and routes. Such an assignment process would, for the first time ever, allow the states to know what freight is out on their highways and rail lines.

2. Many changes are occurring which affect trade and freight transportation. These include significant port changes on the west coast, NAFTA, the Mexican economy, the migration of people, the railroad mergers, CVO and ITS. Trade forecasts and other future events could be addressed in future studies.

3. A next logical step would be to establish specific performance objectives in each trade corridor. These would be developed in close liaison with the private sector freight industry, and could provide the states with insights concerning where the freight industry would most be interested in projects and programs.

4. If performance objectives are established, a next step might then be to identify how well each corridor is performing relative to its objectives. Performance could be monitored, as could causes of performance deficiency.

5. Implicit in this study is the theory that if deficiencies in the WTTN corridors are dealt with, the freight industry, interstate and international trade, and the WTTN states' economies will benefit. Such benefits, their types, their magnitudes and which actions might cause the benefits to occur, remain to be demonstrated. That could be an element in any next step.

6. Any next step could also lead to the creation of multi-state corridor coalitions, task forces, or even legal authorities or entities that could deal with corridor-specific issues.

7. Intermodal facilities and services are an important element in the physical distribution process. This initial WTTN study was only able to identify intermodal facilities. A logical next step would be to assess these intermodal facilities, their performance, their deficiencies, and their needs.

8. The Western Freight Partnership suggested by the Western Governors Association should be supported. This is a logical forum for ensuring that private sector concerns and issues are considered in the public sector transportation decision process. The best way

for the states to understand freight industry issues and needs is to have a dialogue with representatives of the freight industry. State specific, corridor specific and multi-state regional dialogue with the trade industry are all to be encouraged.

9. The general public needs to be informed of the serious transportation issues confronting the western states, the implications for the inefficient movement of freight, and how those inefficiencies will affect the general populace. The public should also come to understand that many freight transportation projects can effectively reduce highway congestion during peak commuter periods.

10. Improved communications may therefore be at the heart of any attempt to improve trade and freight transportation efficiency. This should include:

    - Improved communications between the states and among the state agencies responsible for providing portions of the freight transportation infrastructure.

    - Improved communications between the state representatives and the freight transportation community.

    - Improved communications with the general public, who should be made aware of the challenges concerning freight transportation in the WTTN states.

11. Intelligent Transportation Systems (ITS) offer new methods of improving freight transportation efficiency, especially for motor carriers. ITS and CVO initiatives in the trade corridors should be explored.

12. The most inefficient aspect of freight transportation (economic regulation of carriers) has been dealt with (economic deregulation is, for all practical purposes, accomplished). It is now time to deal with the state operational and safety rules and regulations, the border crossings, and the physical deficiencies identified in this WTTN study.

This study was conducted in 1996, prior to ISTEA reauthorization. In this sense it anticipated that Congress and the U.S. Department of Transportation might be interested in fostering policies and investments intended to improve domestic and international trade.

About the time that this WTTN study was being completed, the Administration's proposals relative to the National Economic Crossroads Transportation Efficiency Act (NEXTEA) were being developed. The U.S. Department of Transportation's NEXTEA proposal includes a Trade Corridor and Border Crossing Planning program, with requested funds of $45 million per year. That proposal, as it was submitted to Congress and as it existed at the time that this WTTN study document was written (March 25, 1997), is described on the next page.

If this Trade Corridor Planning program is ultimately included in NEXTEA, the WTTN study work by the western states should enable the western states, collectively and individually, to put the new federal trade corridors program to good, productive use.

NEXTEA TRADE CORRIDOR PROPOSAL

Section 1030: (b) Trade Corridor Planning Incentive Grants

"(1) GRANTS – In order to encourage cooperative multi-state corridor planning and analysis, the Secretary shall make grants to States for the purpose of performing, within the framework of their statewide transportation planning process, planning for the safe and efficient movement of goods along and within international or interstate trade corridors of national importance. Such corridors shall be cooperatively identified by the States along the corridor. Priority should be given to corridors of which the private sector is particularly supportive.

(2) CORRIDOR PLANS -- As a condition of receiving a grant under paragraph (3) of this subsection, the State shall assure the Secretary that, in cooperation with the other States along the corridor, a plan for corridor improvements will be submitted to the Secretary not later than 24 months after receipt of such grant. Corridor planning performed under subsection (c) of this section shall be coordinated with transportation planning being done by the States and metropolitan planning organizations along the corridor, and where appropriate, with transportation planning being done in Mexico and Canada.

(3) MULTISTATE AGREEMENTS FOR TRADE CORRIDOR PLANNING -- The consent of Congress is hereby given to any 2 or more States to enter into multistate agreements not in conflict with any law of the United States, for cooperative efforts and mutual assistance in support of interstate trade corridor planning activities and to establish such agencies, joint or otherwise, as such States may deem desirable for making such agreements effective."

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