

DEPARTMENT OF  
TRANSPORTATION

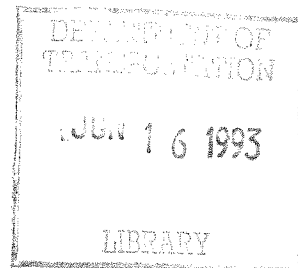
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AN ASSESSMENT OF THE FEASIBILITY  
OF  
DEVELOPING A NATIONAL SCENIC HIGHWAY SYSTEM  
REPORT  
To  
CONGRESS

Federal Highway Administration  
U.S. Department of Transportation  
Washington, D.C.

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## SUMMARY AND RECOMMENDATIONS

This report presents a discussion of issues, costs, and recommendations from a study of the feasibility of developing a national scenic highway system. It was carried out in accordance with the provisions of section 134(a) of the Federal-Aid Highway Act of 1973.

The report was prepared by the Federal Highway Administration and draws heavily upon work of the contractor, The Institute for Analysis and Fact Research Incorporated, and the advice and guidance of an advisory committee composed of members from the U.S. Department of Transportation, U.S. Department of Housing and Urban Development, U.S. Department of the Interior, U.S. Department of Agriculture, American Association of State Highway and Transportation Officials, and the Commission on Highway Beautification. It is based on information provided by 49 States, District of Columbia, Puerto Rico, Forest Service, National Park Service, Bureau of Land Management, and Bureau of Indian Affairs. Other public and private groups were also consulted in the preparation of the report.

The report identifies five major issue areas regarding scenic highways. These include national designation, corridor protection and scenic enhancement, complementary facilities, urban emphasis and energy efficiency, and national connectivity.

Based on an analysis of the issue areas and three alternatives regarding the extent of a potential program, a preferred effort is recommended which involves designation of high quality scenic highways and an investment of approximately \$0.8 to \$1.8 billion over a period of 10 to 20 years, for protection and enhancement of scenic resources along these highways, selective addition of complementary facilities, emphasis on routes near urbanized areas, and any actions which might reduce the energy utilization resulting from expanded development of scenic highways.

It was concluded that there are no technical barriers to the feasibility of establishing a national system of scenic highways. The States, appropriate Federal land agencies, and the Federal Highway Administration have the organizational and professional competence to implement a scenic highway program. The basic issue, therefore, is one of desirability with respect to national objectives and priorities.

In view of national objectives for the conservation of energy resources, it is not found desirable or in the national interest to propose Federal legislation which would establish a new categorical grant program and provide funds exclusively for the construction or reconstruction of scenic highways. The basic highway construction costs should be funded from existing Federal-aid programs using normal Federal-aid highway procedures.

However, with respect to national objectives seeking to protect and enhance environmental resources, it is found desirable to propose Federal legislation which would provide a program for the designation of existing high quality scenic highways and for the protection and enhancement of scenic resources on and adjacent to these highways. Such a program is desirable if these perishable qualities are not to deteriorate in the face of future development.

In view of the above findings, it is recommended that the Congress consider legislation as follows:

- (1) Authorize the Secretary of Transportation to establish criteria for the designation of existing scenic highway routes on Federal-aid highway systems.
- (2) Authorize the States, local governments, and, where appropriate, Federal land agencies to designate scenic highways in cooperation with each other and subject to the approval of the Secretary.
- (3) Authorize the Secretary to approve as Federal-aid projects, the acquisition, restoration, preservation, and enhancement of scenic resources on or adjacent to designated scenic highways including limited development of publicly owned and controlled rest and recreation facilities.
- (4) Authorize each State, subject to the approval of the Secretary, to use funds from their annual Federal-aid highway apportionments exclusive of the Interstate System for incremental scenic projects within or adjacent to the right-of-way using normal Federal participation rates.

## INTRODUCTION

This report summarizes the results of a study conducted in response to the Federal-Aid Highway Act of 1973 that called for "a full and complete investigation and study to determine the feasibility of establishing a national system of scenic highways and to link together and make more accessible to the American people recreational, historic, scientific, and other similar areas of scenic interest and importance." At the outset, it was decided to chart a number of alternatives which address different issues involved in scenic highways.

A nationwide inventory of scenic highway resources was prepared by means of a survey of highway officials of the 49 States, the District of Columbia, Puerto Rico, and Federal agencies that control highways, such as the National Park Service and the U.S. Forest Service. The resulting inventory provided the data base for research and analysis.

For the purposes of this project, a highway was considered to qualify as scenic if it offers exceptional visual qualities by virtue of the general landscape and other special features such as lakes, rivers, and unusual buildings. This definition necessarily embraces an area broader than the immediate right-of-way and for the most part implies more than a grand view.

A scenic highway may be any highway—a road, street, parkway, and occasionally a freeway or an expressway—traversing areas of relatively high value from an aesthetic, recreational, historical, scientific, or cultural standpoint. The areas should be such that they would merit national, State, regional, or metropolitan recognition as recreational or tourism destinations. They may offer a variety of terrain and land use, but should be representative of the natural features and landscape of their region.

In order that scenic highways may serve as many people as possible, they should be considered for their proximity to urban areas and their capacity to serve urban populations. In addition, a scenic highway must adhere to standards of safety and environmentally sound design, with a reasonable assurance of long-term protection of the scenic attributes within sight of the roadway.

### Study Organization

The study was conducted by the Federal Highway Administration through contract with the Institute for Analysis of Los Angeles, California, and Fact Research Incorporated of Washington, D.C. An Interagency Advisory Committee reviewed and advised on all phases of the project. The Committee included representatives of the Office of the Secretary of Transportation (including Policy, Plans, and International Affairs

and Environment, Safety, and Consumer Affairs), the Urban Mass Transportation Administration, the Federal Highway Administration, the National Park Service, the Bureau of Outdoor Recreation, the U.S. Forest Service, the Department of Housing and Urban Development, the American Association of State Highway and Transportation Officials, and the Commission on Highway Beautification.

#### Why a National Scenic Highway Study

Approximately one-third of all U.S. automobile travel is for social and recreational purposes. More than half of this travel occurs on weekends. Population growth, combined with increasing per capita income and leisure time, has contributed to a demand for such travel.

These and other factors point up the problem facing many Americans on vacations or holiday outings. Too often, they find too many cars and too many people. This is particularly true on weekends within a few hours' driving time of metropolitan areas, but in recent years heavy visitation also has at times dimmed the pleasures of the once-virginal Yellowstone and Yosemite National Parks for thousands and have forced authorities to consider or adopt restrictive measures.

Overcrowding occurs at peak periods not only at recreational areas, but also on the roads leading to them, diminishing the value of some otherwise satisfactory scenic or recreational routes. The quality of the routes are further threatened by the absence of either State or Federal minimum standards preserving the scenic qualities of many such routes when they run outside the boundaries of special jurisdictions and by inadequate information to motorists on alternative routes of comparable quality that might help to disperse the traffic. Gasoline shortages followed by rising gasoline costs have added further complications in some places and have driven home anew the comparative scarcity of public recreational resources in or near heavily populated areas.

A single, coordinated national program of scenic highways does not exist at present. There are bits and pieces of Federal, State, and local programs that concern scenic highways, but few of these efforts are of sufficient magnitude or are coordinated so that significant progress can be achieved. Concerted action appears necessary to unify the scattered efforts of Federal, State, and local agencies.

Thus, a national scenic highway study was undertaken to answer some of the more fundamental policy and program issues. A number of issues were addressed early in the study based on the congressional mandate, review of prior scenic highway activities, and input of the interagency advisory committee. Specifically, these issues concerned the feasibility and desirability of: designating a system of primarily existing scenic highways; taking selected actions to protect and enhance scenic qualities

along these routes; providing complementary facilities such as rest stops and walking and biking trails; taking actions which can reduce energy requirements; emphasizing scenic routes accessible to urban areas; and providing attention to connectivity of recreation, historic and other scenic areas where not provided by other systems. The designation and protection of existing scenic highway corridors with exceptional visual qualities emerged as the primary focus because of potential loss over time of valuable national scenic resources.

#### Current Scenic Enhancement Activities

At the Federal level, funding for scenic enhancement or protection of the Nation's highways comes from the Highway Beautification Program and through enhancement activities in the regular Federal-aid program (e.g., Section 319(a) of Title 23, U.S. Code, providing for landscaping and roadside development). The funding for the Highway Beautification Program has emphasized control of outdoor advertising along Interstate and primary highways. By 1974 all States had passed billboard control legislation, and efforts are underway to remove billboards in violation of the law. Most Highway Beautification Program funds for scenic enhancement have gone for rest area construction. With the exception of the Federal-Aid Highway Act of 1973 which provided limited funds for construction and acquisition of right-of-way and easements for the development of parkways and a national scenic and recreational highway, the acquisition of scenic lands and easements outside the normal right-of-way is not presently possible with money from the highway trust fund.

At the State level, scenic enhancement activities have not been extensive, and few States have comprehensive scenic highway programs. The common reasons are lack of funds, lack of legislation, and low priority for scenic highway programs. Most efforts are aimed at meeting requirements of Federal legislation (i.e., billboard and junkyard control as stipulated by the 1965 Highway Beautification Act) or involve projects for which Federal funding is available. Ongoing activities are usually not related primarily to scenic highways but apply to all routes. Many States indicate, however, considerable interest in scenic highway matters, stressing that the scenic quality of a route is an important element of any highway project.

The more common State-financed activities, tried or currently being undertaken, include:

- placement of signs along routes;
- scenic enhancement activities, such as through use of license plate revenues, and State fuel tax revenues;
- purchase of easements; and
- local zoning laws.

### Results of State Survey

A comprehensive survey to gather data from the States and Federal agencies on scenic highways and current programs was initiated early in the study. States were requested to nominate specific routes or segments of routes conforming to guidelines and criteria detailed in a manual accompanying the questionnaire. The information requested included:

- (1) Highway identification and routing information.
- (2) Physical and descriptive data on the highway and its administrative/functional classification.
- (3) Predominant characteristics of the highway, including information on terrain, land types, ecology, special natural and manmade features, and aesthetic impact.
- (4) Number and capacity of existing and proposed complementary and recreation facilities.
- (5) Highway design, use, and accessibility data.
- (6) Cost information and priority rating criteria.
- (7) Narrative information to aid in the overall assessment of scenic highway programs.

Approximately 93,000 miles of highways were submitted, of which about 81,000 miles are existing roads. Detailed information on each route formed a data base for the analysis.<sup>1/</sup>

A total of 1,781 routes were submitted, with an average route length of 52 miles. These comprised 2,838 segments (routes were subdivided into segments at natural terrain, jurisdictional, geographic, or other boundaries or when their length exceeded 100 miles), with an average length of 33 miles per segment.

Of the total segments submitted, 2,454 or about 86 percent correspond to existing routes, while 384 are proposed.

Parkways (scenic highways restricted to noncommercial traffic, with full or partial control of access, usually located within a park or a long narrow area of parklike character) comprised 187 segments or about 7 percent

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<sup>1/</sup> See Appendix A for summary of State-submitted miles and costs. Since they had limited time to prepare their responses to the survey, many States requested that their data be considered preliminary. Oklahoma did not respond to the survey.



of the total while other scenic roads totalled 2,651 segments. The average parkway length was 25 miles, as compared with 33 miles for all scenic highways.

The characteristics of the State submissions with respect to functional class, jurisdiction, and aid status are summarized in Figure 1. These characteristics show that 78 percent of the routes are on existing Federal-aid highway systems; 85 percent of the routes are functionally classified as arterials or collectors; and 78 percent are under the jurisdiction of State or Federal agencies.

#### APPROACH AND METHODOLOGY

Using a multi-step approach, the primary purpose of the study was to identify the Nation's most important scenic roadways; their specific qualities; measures for preserving, enhancing, and more effectively utilizing these facilities; associated costs, and major issues included in possible implementation of a scenic highway program.

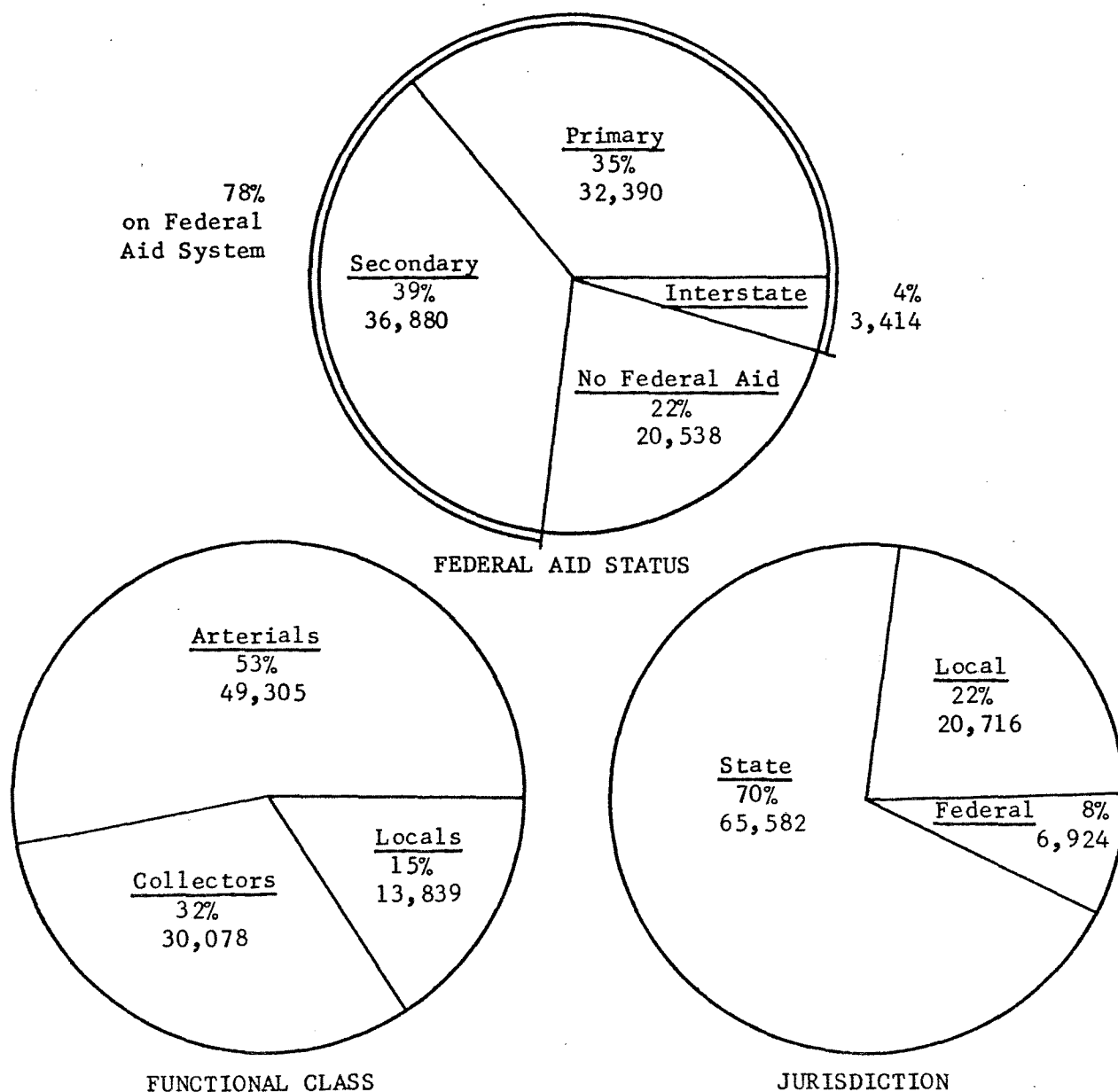
The States were asked to select and rank scenic routes according to the following criteria provided in a survey manual:

- the scenic quality of the corridor;
- need for protection of corridor and ecology;
- service to major population centers;
- economic feasibility;
- availability and variety of complementary facilities;
- availability of other scenic routes and recreation resources in the area;
- access to parks and recreation areas;
- providing connectivity among recreation facilities;
- access to major highways - commuter and nonrecreation travel needs;
- potential for conserving energy and meeting user needs;
- public demand for development (e.g., enhancement or protection of scenic highway corridors);
- suitability for use by other modes.

From the State data three alternatives were evaluated as a means of determining costs and impacts over a range of possible programs.

	<u>Miles</u>
(1) High Priority Existing Routes	28,101
(2) High Priority Existing and Proposed Routes and Additional Important Existing Routes	60,295
(3) All Submitted Routes	93,222

FIGURE 1: MILEAGE DISTRIBUTION BY JURISDICTIONAL/FUNCTIONAL/AID STATUS  
(All Routes Submitted by States - 93,222 Miles)



The desirable scenic and recreation objectives to be met by scenic highways were then discussed by the advisory committee and analyzed by the contractor. The purpose of the analysis was to determine what actions are required, associated costs to meet the set of desirable objectives, and impacts of such actions. Physical descriptors were assembled to relate routes to objectives set for each issue area (e.g., acres of easements for corridor protection). Using these descriptors it was then possible to establish which miles required a high, medium, or low intensity action. For example, the intensity of corridor protection action was determined by the ecological condition of the land traversed by the route segment. Thus, a very fragile ecological state called for high intensity protective action, moderately fragile land would receive medium intensity action, and land that is ecologically resistant would get a low intensity of action.

A limitation of the quantitative measurement was recognized, in that it depends on the use of national average factors. A prescribed number of trees per mile is relevant only as it indicates average intensity of landscaping action for a nationwide system. Because of wide variations in topography and climate, actions on a specific highway mile must be determined on site by a highway engineer or a landscape architect.

#### THE ISSUE AREAS

From a preliminary analysis of several issues and discussions with the Interagency Advisory Committee, five major issue areas were selected for detailed analysis, and they in turn represent several subsidiary issues. Rather than cover the hundreds of possible combinations, the strategy was to focus on a few which seem to encompass a sound range of policy considerations. The analysis was conducted from a national perspective, drawing upon the State route and segment data. The attempt was to analyze issues as alternative subjects of primary attention, intending as a result to be able to prescribe a preferred course of action.

The issue areas evaluated are:

- National designation of scenic routes, which would require minimal investment and would call for designating certain existing highways or highway segments as components of a national system. Special signs could be erected, maps and brochures could be published, and a media promotion program could call attention to the system.
- Scenic enhancement and corridor protection, in which attention would be directed to preserving and enhancing the scenic qualities of selected highway corridors. Various means would be considered, to include purchase of additional rights-of-way or the procurement of scenic easements.

- Complementary facilities, aimed at improving scenic highway use by upgrading condition of existing facilities--e.g., overlooks, picnic areas, walkways, bicycle paths, and water facilities--and adding new ones.
- Urban emphasis and energy efficiency, to improve and protect scenic resources within an hour's travel time of major population centers. These actions could also provide opportunities for conserving fuel.
- National connectivity, a minimum program in which emphasis would be to improve access to recreation areas and to link recreation resources, including scenic highways themselves, historical, scientific and cultural sites to one another.

As a part of the study, analyses were made on a national basis in which each of these five issue areas would receive emphasis with the others being treated with lower priority.

The various dimensions within each issue area were the subject of a detailed evaluation. In each case, an attempt was made to define the general objective of a national system of scenic highways as it relates to the issue area. An overview of the issue areas, together with a listing of the dimensions analyzed within each, is presented in Figure 2. The objectives are discussed more fully in the following paragraphs.

#### National Designation

This emphasis would provide for national designation by the States and local areas of the Nation's most important scenic resources. Possible additional efforts, under national designation, are:

- (1) Signs and markers to identify designated routes.
- (2) Maps and brochures to guide the way along the routes.
- (3) A public relations campaign to promote use of the routes.

In combination, these are designed to fulfill the objective of improving the quality of experience for the user and to make a larger segment of the population aware of the scenic and recreational opportunities available on designated scenic highways.

Although this action may have a high user benefit, there could be negative impacts due to diversion of additional traffic to scenic routes. The potential increase in traffic could increase pollution along these routes with resulting effects on flora and fauna. If there were additional traffic generated (as separate from diverted), increased consumption of fuel would result.

FIGURE 2: OVERVIEW OF ISSUE AREAS

Issue Areas	General Objectives	Dimensions Analyzed
NATIONAL DESIGNATION	<ul style="list-style-type: none"> <li>- Enhance general awareness of scenic highways, cultural and historic places, etc.</li> <li>- Improve quality of scenic highway experience</li> <li>- Close information gap on available experiences and facilities</li> </ul>	<ul style="list-style-type: none"> <li>- Signs and markers: <ul style="list-style-type: none"> <li>Route</li> <li>Directional</li> <li>Complementary facilities</li> <li>Information displays</li> </ul> </li> <li>- Maps and brochures: <ul style="list-style-type: none"> <li>National maps</li> <li>State maps</li> <li>Route maps and brochures</li> </ul> </li> <li>- Media actions: <ul style="list-style-type: none"> <li>Information centers</li> <li>Publicity and advertising</li> <li>User aids</li> </ul> </li> </ul>
CORRIDOR PROTECTION AND SCENIC ENHANCEMENT	<ul style="list-style-type: none"> <li>- Preserve highly scenic corridors</li> <li>- Enhance scenic quality of corridors</li> <li>- Protect ecology and land forms</li> </ul>	<ul style="list-style-type: none"> <li>- Scenic enhancement and preservation: <ul style="list-style-type: none"> <li>Easements</li> <li>Landscaping--trees and shrubs planted, trees removed</li> <li>Billboard control</li> <li>Junkyard screening and removal</li> </ul> </li> <li>- Corridor protection: <ul style="list-style-type: none"> <li>Restraints--access control</li> <li>Ecological stabilization--use of shrubs and other plants, drainage</li> </ul> </li> </ul>
COMPLEMENTARY FACILITIES	<ul style="list-style-type: none"> <li>- Promote multiple use of scenic corridors for recreation</li> <li>- Enhance quality of recreation experience</li> <li>- Increase availability and types of complementary facilities</li> </ul>	<ul style="list-style-type: none"> <li>- Scenic highway support facilities: <ul style="list-style-type: none"> <li>Scenic overlooks</li> <li>Rest stops</li> </ul> </li> <li>- Recreation facilities: <ul style="list-style-type: none"> <li>Picnic areas</li> <li>Water recreation facilities</li> <li>Cultural/historic sites</li> <li>Walkways/bikeways</li> <li>Campgrounds</li> </ul> </li> </ul>
URBAN EMPHASIS AND ENERGY EFFICIENCY	<ul style="list-style-type: none"> <li>- Improve quality of urban recreation and scenic highway experiences</li> <li>- Fulfill greater percentage of urban recreation needs within urban boundaries</li> <li>- Conserve energy without reducing urban service</li> </ul>	<ul style="list-style-type: none"> <li>- Urban service: <ul style="list-style-type: none"> <li>Designation of incremental urban miles</li> <li>Additional lanes</li> <li>Operation of scenic bus service</li> </ul> </li> <li>- Energy efficiency <ul style="list-style-type: none"> <li>Bus lanes</li> <li>Increase in vehicle occupancy</li> <li>Bikeways</li> <li>Closer-in complementary facilities</li> </ul> </li> </ul>
NATIONAL CONNECTIVITY	<ul style="list-style-type: none"> <li>- Connect more people to recreation areas</li> <li>- Provide scenic experience for non-recreation everyday driving</li> </ul>	<ul style="list-style-type: none"> <li>- Recreation connectivity: <ul style="list-style-type: none"> <li>Additional lanes</li> <li>Operation of buses</li> </ul> </li> <li>- Urban and arterial connectivity: <ul style="list-style-type: none"> <li>Additional lanes</li> <li>Operation of buses</li> </ul> </li> </ul>

### Corridor Protection and Scenic Enhancement

The objective is to assure protection of the corridor, which may extend some distance on each side of the highway, and to take full advantage of the aesthetic attributes and recreational opportunities of the corridor. Several scenic objectives were envisioned, the first being aimed at preservation of the scenic quality of corridors in their current state by acquisition of interests outside the normal right-of-way such as through easements. Also considered were landscaping actions for scenic enhancement such as plantings of trees and shrubs or possibly selective tree removal to expose visual features, the removal of billboards according to highway beautification codes, the screening or removal of junkyards, and placement of roadside art.

Other actions could be prescribed to protect the ecology of the corridor such as planting to prevent erosion and providing adequate drainage to prevent erosion; and building of fences or natural dividers to restrain visitors from damaging fragile plant life, animal habitats, and delicate terrain features.

Lack of attention to these corridors could result in deterioration of the scenic resources.

### Complementary Facilities

Seven classes of facilities were evaluated, divided into two general types:

- support facilities including scenic over-looks and rest stops which serve transient needs of travelers; and
- recreation facilities including picnic areas, water recreation sites, cultural and historic sites, walkways and bikeways, and campgrounds which are located in the corridor and offer a scenic and recreation experience of slightly longer duration.

In the case of support facilities, the objective was defined in terms of making available sufficient capacity along scenic routes to afford users an opportunity to adequately interact with scenic and recreation surroundings, break the monotony of long-distance travel, and have access to needed amenities.

The negative aspects of such actions are possible damage to surrounding flora and fauna through construction and use of additional complementary facilities.

### Urban Emphasis and Energy Efficiency

Attention was given in the State survey to designation and protection of scenic routes within reasonably close access to urban population. In the analysis, particular attention was given to scenic routes within one-hour travel time of urbanized areas. The objective was to provide recreation and scenic opportunities closer to major population centers. This objective has as its underlying assumption that scenic roads relatively close would result in shorter recreation trips for a given recreation demand and therefore reduce energy consumption. To further reduce energy consumption, some portion of scenic travel by buses and bicycles in lieu of automobile travel was evaluated. This could be accomplished through actions such as promotion of scenic bus service, provision of additional walk and bikeways, or through incentives such as pricing to encourage higher occupancy vehicles. Attention to corridor protection on these routes was considered to be highly important because of potential loss of these resources through development or increased use.

Disadvantages of this emphasis could result from generation of additional recreation travel in these scenic corridors with negative effects on adjacent environmental features and on energy resources.

### National Connectivity

The connectivity issue was considered primarily from the aspect of the extent to which scenic highways might improve accessibility to recreation destinations. The issue of recreation connectivity resulted from congressional interest in exploring the feasibility of a national network of interconnected scenic highways linking together National Parks, monuments, historic and scientific sites, and other points of scenic, cultural, and recreation interest.

Also considered in the analysis was the connectivity of scenic routes for provision of urban access to recreation and other destinations, and scenic access between urban areas.

Analysis revealed that the Interstate System provided, to a large extent, the national connectivity of parks, historic and other sites envisioned above and also the connectivity of urban areas. There were a number of scenic roads or parkways identified as providing scenic experiences in or near urban areas or providing recreation access or connectivity for which corridor protection seems especially warranted.

The emphasis under this issue area generally implies upgrading or provision of new facilities to improve recreation access. Analysis and discussion did not support this concept. The primary emphasis emerged

to be one of protecting or better utilizing existing scenic routes without investment in additional highway capacity.

# ALTERNATIVES ANALYZED

A percentage distribution of miles for each of the three alternatives by jurisdiction, functional class, and Federal-aid status is provided in Table 1. Seventy to 80 percent of submitted miles are under State jurisdiction and less than 10 percent under Federal jurisdiction. Over half of the miles are arterials and less than 15 percent are local roads. The larger size efforts, particularly Alternative III, incorporate significantly more local roads and lower level functional systems. Three to 4 percent of the miles are Interstate highways and well over three-fourths are on the Federal-aid system.

In Alternative I, for example, 87 percent of the submitted miles were on the Federal-aid system. The distribution of these on-system miles are about equally divided between primary and secondary highways. This high percentage of on-system mileage suggests that current funding arrangements could be used to accomplish most scenic highway objectives.

TABLE 1: PERCENTAGE DISTRIBUTION OF MILEAGE BY JURISDICTION, CLASSIFICATION AND FEDERAL-AID STATUS FOR ALTERNATIVES

	Alternative I 28,101 Miles	Alternative II 60,295 Miles	Alternative III 93,222 Miles
	(percent)	(percent)	(percent)
<u>Jurisdiction</u>			
State	79	78	70
Local	17	17	22
Federal	4	5	8
<u>Functional Class</u>			
Arterials	65	60	53
Collectors	27	30	32
Locals	8	10	15
<u>Federal-Aid Status</u>			
Interstate	3	4	4
Primary	43	40	35
Secondary	<u>41</u>	<u>41</u>	<u>39</u>
Total On Federal-Aid Systems	87	85	78



PROBABLE COST OF ALTERNATIVES

Tentative estimates have been made of the cost of carrying out each of the three alternatives.

The estimates were based on standard factors from the State submittals, adjusted for the fact that some States did not submit cost information, while others included the total cost of highway construction, rather than incremental costs of making a highway scenic. The adjusted cost factors for medium intensity action were:

Investment Cost Per Mile (\$000)

	<u>ROW Land</u>	<u>Corridor Land</u>	<u>Highway Cost</u>	<u>Land- scaping</u>	<u>Compl. Facil.</u>	<u>Total</u>
Existing	20.0	10.0	28.0	5.0	8.5	71.5
Proposed	33.0	14.0	275.0	12.0	18.0	352.0

Cost for low and high intensity actions were derived from these values.

Cost for the three alternatives by total cost, right-of-way and highway construction cost only, and incremental costs only are shown in Table 2.

All estimates are in 1974 dollars and represent total investment cost which would be spread over a period of several years.

<u>TABLE 2: PROBABLE COST OF ALTERNATIVES</u> (Billions of Dollars)			
	Alternative I 28,101 miles	Alternative II 60,395 miles	Alternative III 93,222 miles
Total Cost	\$2.2	\$6.1	\$10.0
Normal right-of-way and highway cost	1.4	4.3	7.3
Designation, protec- tion, enhancement, and complementary facil- ities (i.e., incre- mental costs only)	0.8	1.8	2.7

In the analysis, the costs for each alternative were further stratified for the different issue emphasis areas to show how the costs would vary. The difference in cost among issue areas is relatively insignificant compared to the difference between incremental and total costs.

#### A PREFERRED EMPHASIS

A preferred emphasis based on the preceding analysis and general consensus of the Interagency Advisory Committee is summarized below:

We believe this preferred emphasis is justified in light of the concern for conservation of resources. This emphasis supports objectives of the Department of Transportation and legislation such as the National Environmental Policy Act.

- fostering environmental improvements along existing scenic highways, through scenic enhancement and acquisition of interest in scenic resources adjacent to the highway;
- providing relatively low cost recreational opportunities through the development of incremental complementary facilities while at the same time taking care to avoid damaging the ecology surrounding these facilities;
- devoting special attention to the needs of urbanized areas by designating and improving scenic routes within 1-hour travel time of major metropolitan areas;
- devoting attention to any actions which could reasonably be undertaken to reduce the inherently fuel intensive nature of recreation driving, for example, by developing scenic bus service.

As with any new undertaking, it probably is logical to proceed cautiously with the undertaking of a scenic highway program. For that reason, national designation has been suggested as an appropriate first step to be supplemented in limited degree by the procurement of easements, landscaping, and complementary facilities. The effort may well be envisioned as supplemental to, and as an additional incentive for, undertaking improvement of inherently aesthetically pleasing highways. The efforts undoubtedly should begin with the highest rated existing scenic routes.

CONCLUSIONS AND RECOMMENDATIONS

We find no technical barriers to the feasibility of establishing a national system of scenic highways. The States, appropriate Federal land agencies, and Federal Highway Administration have the organization and professional competence to implement a scenic highway program. The basic issue, therefore, is one of desirability with respect to national objectives and priorities.

In view of national objectives for the conservation of energy resources, we do not find it desirable or in the national interest to propose Federal legislation which would establish a new categorical grant program and provide exclusive funds for the construction or reconstruction of scenic highways. The basic highway construction costs should be funded from existing non-Interstate Federal-aid programs using normal Federal-aid highway procedures.

However, with respect to national objectives seeking to protect and enhance environmental resources, we do find it desirable and in the national interest to propose Federal legislation which would provide a program for the designation of high quality scenic highways and for the protection and enhancement of scenic resources on and adjacent to these highways. Such a program is desirable if those perishable qualities are not to deteriorate in the face of future development.

In view of the above findings, we recommend that the Congress consider legislation as follows:

- (1) Authorize the Secretary of Transportation to establish criteria for the designation of existing scenic highway routes on Federal-aid highway systems.
- (2) Authorize the States and local governments and, where appropriate, Federal land agencies to designate scenic highways in cooperation with each other and subject to the approval of the Secretary.
- (3) Authorize the Secretary to approve Federal-aid projects for the acquisition, restoration, preservation, and enhancement of scenic resources on or adjacent to designated scenic highways including limited development of publicly owned rest and recreation facilities.
- (4) Authorize each State, subject to the approval of the Secretary, to use funds from their annual Federal-aid highway apportionments exclusive of the Interstate System for incremental scenic projects within or adjacent to the right-of-way using normal Federal participation rates.

APPENDIX A

STATE SUBMITTED MILES AND DOLLARS

	State Submitted Data				Basic Data				Ratios	
					Population		Total State Mileage		State Data to Basic Data	
	Scenic Miles	% Total	Total Investment Dollars (Millions)	% Total	1990	% of National	1990	% of National	% Scenic Miles % Pop.	% Scenic Mi. % Total Mi.
Alabama	800	0.86	100.9	0.84	4,387	1.70	80,883	2.06	0.51	0.42
Alaska	4,779	5.14	557.8	4.66	389	0.15	21,647	0.55	34.27	9.35
Arizona	2,921	3.13	170.6	1.42	2,737	1.06	44,079	1.12	2.95	2.79
Arkansas	2,893	3.11	41.7	0.35	2,345	0.91	77,441	1.97	3.42	1.58
California	3,504	3.77	1.6	0.01	29,040	11.27	213,111	5.44	0.33	0.69
Colorado	4,965	5.34	338.3	2.83	2,759	1.07	91,400	2.33	4.99	2.29
Connecticut	963	1.03	2.3	0.02	3,949	1.53	22,190	0.56	0.67	1.84
Delaware	202	0.22	14.4	0.12	735	0.28	5,289	0.13	0.79	1.69
Florida	1,068	1.15	471.2	3.94	10,338	4.01	103,843	2.65	0.29	0.43
Georgia	1,546	1.66	121.2	1.01	5,758	2.23	101,665	2.59	0.74	0.64
Hawaii	320	0.34	8.1	0.07	946	0.37	3,854	0.10	0.92	3.40
Idaho	3,040	3.27	9.7	0.08	870	0.34	43,812	1.12	9.62	2.92
Illinois	1,658	1.78	205.9	1.72	13,480	5.23	137,064	3.49	0.34	0.51
Indiana	717	0.77	298.3	2.49	6,106	2.37	93,090	2.37	0.32	0.32
Iowa	4,587	4.93	1,029.0	8.60	2,998	1.16	117,489	2.99	4.25	1.65
Kansas	643	0.69	26.8	0.22	2,568	1.00	128,731	3.29	0.69	0.21
Kentucky	408	0.44	35.8	0.30	3,630	1.41	71,501	1.82	0.31	0.24
Louisiana	952	1.02	34.6	0.29	4,851	1.88	62,754	1.60	0.54	0.64
Maine	330	0.35	0.1	0.001	1,130	0.44	21,929	0.56	0.80	0.63
Maryland	282	0.30	498.8	4.17	5,127	1.99	30,583	0.78	0.15	0.38
Massachusetts	1,564	1.68	74.6	0.62	6,547	2.54	33,835	0.86	0.66	1.48
Michigan	1,964	2.11	574.1	4.80	10,427	4.04	125,138	3.19	0.52	0.66
Minnesota	2,092	2.25	89.0	0.74	4,460	1.73	129,956	3.32	1.30	0.68
Mississippi	1,176	1.26	181.6	1.51	2,842	1.10	65,590	1.67	1.15	0.75
Missouri	2,427	2.61	925.7	7.74	5,303	2.06	119,686	3.05	1.27	0.86
Montana	1,627	1.75	176.4	1.47	860	0.33	69,851	1.78	5.30	0.98
Nebraska	1,582	1.7	67.1	0.56	1,636	0.63	102,966	2.62	2.70	0.65
Nevada	1,177	1.26	30.8	0.26	694	0.27	22,935	0.58	4.67	2.17
New Hampshire	343	0.37	1.4	0.04	1,025	0.40	14,437	0.37	0.93	1.00
New Jersey	632	0.68	177.8	1.49	9,457	3.67	42,154	1.07	0.19	0.64
New Mexico	1,735	1.86	11.0	0.09	1,558	0.60	57,233	1.46	3.10	1.27
New York	4,914	5.28	299.5	2.50	22,235	8.63	114,309	2.91	0.61	1.81
North Carolina	2,713	2.92	1,024.5	8.56	6,168	2.39	96,465	2.46	1.22	1.19
North Dakota	1,441	1.55	208.2	1.74	728	0.28	84,343	2.15	5.54	0.72
Ohio	1,701	1.83	91.8	0.77	13,096	5.08	122,176	3.12	0.36	0.59
Oklahoma	46		2.4		2,828	1.10	114,704	2.92		
Oregon	4,882	5.25	391.1	3.27	2,478	0.96	99,885	2.55	5.47	2.06
Pennsylvania	1,561	1.68	629.4	5.27	12,915	5.01	125,021	3.19	0.34	0.53
Rhode Island	389	0.42	56.7	0.47	1,025	0.40	5,799	0.15	1.05	2.80
South Carolina	538	0.58	80.2	0.67	3,182	1.23	66,102	1.68	0.47	0.35
South Dakota	1,807	1.94	14.9	0.12	753	0.29	74,253	1.89	6.69	1.03
Tennessee	2,124	2.28	133.9	1.12	4,727	1.83	78,842	2.01	1.25	1.13
Texas	561	0.60	17.9	0.15	14,314	5.55	292,754	7.47	0.11	0.08
Utah	5,082	5.46	856.4	7.17	1,466	0.57	38,480	0.98	9.58	5.57
Vermont	267	0.29	4.0	0.03	495	0.19	14,948	0.38	1.53	0.76
Virginia	1,288	1.38	591.3	4.95	5,951	2.31	70,046	1.79	0.60	0.77
Washington	3,001	3.23	58.2	0.49	3,839	1.49	75,525	1.92	2.17	1.63
West Virginia	866	0.93	855.8	7.16	1,778	0.69	37,951	0.97	1.35	0.96
Wisconsin	6,229	6.69	301.8	2.52	5,176	2.01	106,201	2.71	3.33	2.47
Wyoming	652	0.70	74.5	0.62	416	0.16	40,547	1.03	4.38	0.68
District of Columbia	60	0.05	6.6	0.06	890	0.34	1,125	0.03	0.15	1.67
Puerto Rico	213	0.23	18.7	0.16	4,424	1.72	7,861	0.20	0.13	1.15
National Total	93,222	100.00	11,997.6	100.00	257,836	100.00	3,923,763	100.00	-	-