eligibility/feasibility study environmental assessment for national historic trail authorization



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ELIGIBILITY/FEASIBILITY STUDY and ENVIRONMENTAL ASSESSMENT for NATIONAL HISTORIC TRAIL AUTHORIZATION

CALIFORNIA AND PONY EXPRESS TRAILS Missouri, Iowa, Nebraska, Kansas, Colorado, Wyoming, Utah, Idaho, Nevada, California, Oregon

U.S. Department of the Interior / National Park Service

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# INTRODUCTION

## PURPOSE OF THE STUDY

In August 1984 Congress directed the Department of the Interior to study the feasibility and desirability of adding two trails--the California (Emigrant) Trail and the Pony Express Trail--to the national trails system (Public Law 98-405; 16 U.S.C. 1244(c)(30)). The National Park Service, as the agency charged with completing the study, has compiled available information on the national significance of the trails, historical background, and the potential for public use. This report examines the eligibility of the trails for national trail authorization, and it presents feasible management alternatives. Actual authorization of the trails as components of the national trails system will require passage of legislation by Congress.

## BACKGROUND INFORMATION

#### The National Trails System

In recognition of a growing need for outdoor recreational opportunities, and as an adjunct to recreational needs being served by national parks, wildlife refuges, and forests, Congress passed the National Trails System Act (PL 90-543, as amended; 16 U.S.C. 1241 et seq.) in 1968. The purpose of the act was to develop a system of trails in both urban and rural settings for use by persons of a variety of ages, abilities, interests, and backgrounds.

Originally the act specified three categories of national trails: scenic trails, recreation trails, and connecting or side trails. In 1978, however, historic trails were added as another category. These various trails are defined as follows:

National scenic trails are extended trails that are located to maximize outdoor recreation potential while providing for the conservation and enjoyment of nationally significant scenic, historical, natural, or cultural qualities of areas through which the trails pass.

National recreation trails emphasize the recreational aspects of trail use more than scenic quality, and they must be reasonably accessible to urban areas.

National historic trails are extended trails that follow original trails or routes of travel of national historical significance. They are established to identify and protect a historic route, plus its historic remnants and artifacts, for public use and enjoyment.

National scenic and historic trails can only be authorized by Congress, through amendment of the National Trails System Act. Recreation and connecting or side trails may be designated and established by the secretary of the interior, or the secretary of agriculture, as appropriate.





The amendment of the National Trails System Act authorizing studies of the California and Pony Express trails did not specify which of the three trail categories would be most appropriate. However, due to the clear Congressional and general public intent, and to the unquestioned historic significance of these trails, this study has only considered their qualifications as historic trails.

In its general provisions the National Trails System Act authorizes the use of federal funds for land acquisition for national scenic and national historic trails. For example, such expenditures have been authorized for the Appalachian Trail. However, Congress has generally prohibited the expenditure of funds by Federal agencies for such acquisition in the specific legislative language authorizing most other trails in the system.

#### Criteria for National Historic Trail Designation

The National Trails System Act, as amended, establishes the following criteria for a national historic trail:

(A) It must be a trail or route established by historic use and must be historically significant as a result of that use. The route need not currently exist as a discernible trail to qualify, but its location must be sufficiently known to permit evaluation of public recreation and historical interest potential...

(B) It must be of national significance with respect to any of several broad facets of American history, such as trade and commerce, migration and settlement, or military campaigns. To qualify as nationally significant, historic use of the trail must have had a far-reaching effect on broad patterns of American culture. . .

(C) It must have significant potential for public recreational use or historical interest based on historic interpretation and appreciation. The potential for such use is generally greater along roadless segments developed as historic trails, and at historic sites associated with the trail. The presence of recreation potential not related to historic appreciation is not sufficient justification for designation under this category.

These criteria were evaluated for both the California and Pony Express trails, and the factors that would qualify these trails as national historic trails are described in more detail below.

## ELIGIBILITY OF TRAILS

The value of a particular trail route, segment, or historic site in terms of qualifying for authorization as a national historic trail depends on its significance, integrity, and potential for public use and enjoyment. National historical significance is the major consideration, for without

significance the resource would not be eligible for consideration. Integrity refers to how much of the original historic resource remains identifiable and visible for the public, and can also be interpreted or used. Potential for public use is rated as the least important factor in determining historic trail value because the lack of such potential (for example, lack of access) does not diminish the resource's significance or integrity, nor does it lessen the federal mandate to protect such resources as a part of the nation's cultural heritage and for the benefit of future generations.

#### California Trail

<u>National Significance</u>. The California Trail, including those portions that were pioneered and developed before the 1849 California gold rush, has substantial national significance. The trail was the route of the greatest mass migration in American history, and today the remnants of the trail are reminders of the sacrifices, struggles, and triumphs of early American travelers and settlers. This emigration contributed directly to the occupation, settlement, and development of the western part of the United States, from the Missouri River to the Pacific coast.

The California Trail system was developed over a period of years, and numerous cutoffs and alternative routes were tried to find the "best" in terms of terrain, length, and sufficient water and grass for livestock. But when dealing with a trail system that includes so many routes and cutoffs, the question is whether some portions are historically more significant than others. Given the varying regional perspectives of both the general public and professional historians, there are some genuine differences of opinion. Because of these differences, the process of choosing which segments are significant enough to be established as part of a historic trail became, as Congress intended, a public process.

<u>Resource Integrity</u>. The integrity of trail resources--that is, actual trail ruts or other obvious traces that may be considered for protection, management, and use--is easily described in general terms. The entire trail system, including all cutoffs and alternative routes, is approximately 5,665 miles.\* Based on surveys from 1979 through 1985 for various trail segments (including those for the Oregon Trail), and on figures provided by state and federal land-managing agencies, approximately 20 percent of the complete California Trail system, or about 1,100 miles of trail can still

<sup>\*</sup> Some 1,873 miles of the total 5,665 miles of the California Trail system have already been designated as part of the Oregon and Mormon Pioneer national historic trails. This includes the 1,271 miles of the Oregon Trail which was followed by California emigrants between Independence, Missouri, and Raft River, Idaho; and the 978 miles of the California Trail between Council Bluffs, Iowa, and Salt Lake City which was subsequently used by the Mormon Pioneer emigration of 1847. All three trails were identical for 376 miles between Fort Laramie and Fort Bridger, Wyoming.

be seen in the form of ruts and traces. Most of these ruts and traces are west of Casper, Wyoming, where large tracts of public or private land are still undeveloped. East of Wyoming few traces of the route exist.

An estimated 320 historic sites along the entire California Trail system could be used in public interpretive programs. These include forts, trading posts, natural landmarks that guided emigrants, river crossing sites, campsites, trail junctions, and gravesites. Of these sites, 100 are already associated with the Oregon and Mormon Pioneer national historic trails. Of the 320 sites, 74 (23%) are in federal ownership, 70 (22%) are owned by states, 48 (15%) are under the jurisdiction of cities or counties, and 128 (40%) are privately owned.

The potential for public use of various Potential for Public Use. segments and historic sites is difficult to determine at this time. The greatest potential appears to be generally west of Casper, Wyoming, because so much of this land is publicly owned. Some 1,400 miles and sites on public lands (federal, state, county, or city) are 192 But in many cases a management theoretically accessible to the public. policy, or the lack of a commitment of financial resources by the appropriate agency, are preventing the identification of trail resources on public lands and the development of physical facilities such as access roads, trailheads, or exhibits to allow use. In some situations an agency may simply have failed to take steps to identify resources under its jurisdiction, but in others there are legitimate reasons for not identifying For example, without funding to provide physical such resources. protection of a site from vandalism, it is perhaps wiser to avoid encouraging visitor use. For trail resources on private inholdings within the boundaries of publicly managed lands, it has been difficult to negotiate permanent public access because an agency may not be able to assure landowners that their legitimate rights will not be inadvertently compromised.

The feasibility of marking an automobile route that retraces the approximate route of any of the historic trails is very high because many nearby hard-surfaced public roads already exist. Public roads connecting to the historic trail itself would be difficult to establish because many such roads would have to cross private lands.

The potential for public use of existing historic sites on private land cannot be easily predicted. Some private owners may think that public access is completely incompatible with their own land uses, others may be willing to grant access on a case-by-case basis, and still others may be willing to consider providing permanent public access.

#### Pony Express Trail

National Significance. The trail ridden by the Pony Express from April 1860 through October 1861 represents an episode in the development of the West that has justly captured a place in American history. Organized by private entrepreneurs, the horse-and-rider relay system became the nation's most direct and practical means of east-west communications before the telegraph. The trail proved the feasibility of a central overland transportation route and demonstrated that such a route could be used year-round, thus showing that a cross-country railroad could be built. During its 18 months of operation, the Pony Express carried mail between St. Joseph, Missouri, and Sacramento, California, in the unprecedented time of only 10 days. By providing a link between the eastern states and California just before the Civil War, the Pony Express played a vital role in aligning California with the Union. Perhaps just as important was the individual and collective heroism and determination of Pony Express riders and station masters, which has left generations of Americans with remarkable examples of courage, endurance, and spirit of which the nation can be proud.

<u>Resource Integrity</u>. There are few historic remains of the actual Pony Express Trail because the solitary riders left little physical trace of their passage. Also the trail often changed from week to week because of weather, passability of streams, or danger of Indian attacks. But numerous historic sites are associated with the trail. Apparently the Pony Express used more than 150 stations, of which about a third still show identifiable remains. There are also many other associated forts, trading posts, and stage stations, as well as dozens of reliably known river crossings and natural landmarks, that could be used in a public interpretation program.

Potential for Public Use. Portions of the Pony Express Trail and historic sites already on public land (some 60% of the route and many of the historic sites) are already accessible to the public. The Bureau of Land Management in Nevada and Utah, in particular, has marked, interpreted, and provided access to the trail at numerous locations. In addition, several station sites within each state have been excavated, stabilized, protected, and interpreted.

Marking an automobile route that retraced the approximate historic route of the Pony Express would be feasible in most states. But marking would be more difficult in western Wyoming and eastern Nevada, where relatively few public roads are near the trail. Routes connecting public roads to several long historic trail segments in these two states would be difficult to provide. The potential for public use of existing historic sites on private lands cannot be easily predicted.

#### Conclusion

On the basis of national significance, integrity of resources, and potential for public use, this study concludes that both the California and Pony Express trails are eligible to be authorized as national historic trails.

# FEASIBILITY AND DESIRABILITY

In addition to reaching a conclusion about the eligibility of both trails as national historic trails, this study also considers the feasibility of various management alternatives. The alternatives calling for authorization of a national historic trail would meet the protection and public use mandates of the National Trails System Act.

A preferred alternative (alternative C) was selected for each trail. This preliminary selection indicated the course of action that appeared to be most desirable and realistic in terms of federal participation and funding. It also seemed to best reflect the spirit and intent of the National Trail System Act, which encourages cooperative working relationships with state and local agencies and the private sector to protect and manage trail resources.

The next step in the review process was for the public and appropriate agencies to comment on the alternatives that they thought were the most desirable. On the basis of the information and comments received during the public review period the report has been revised. It has been forwarded to Congress, together with the eligibility determination of the National Park System Advisory Board and the secretary of the interior's recommendation. Congress will make the final decisions about trail authorization and establishment.

## FUTURE PLANNING REQUIREMENTS

If the California and the Pony Express trails were authorized, the next step would be the preparation of a comprehensive management plan for each trail. Prepared under the leadership of the National Park Service, the plans would contain much greater detail on the specific management, development, and use of each trail. They would also define the roles and for federal, state, and county agencies, and for responsibilities participating private citizens or groups, for particular segments, sites, or After the comprehensive management plans are approved, functions. area-specific operational plans would be prepared to define what each agencv would undertake in terms of operations, staffing, and For nonfederal lands along the authorized trail. development. effort and the both the comprehensive planning participation in а strictly on of that plan would be subsequent implementation willing-landowner basis. The comprehensive plans for the California and Pony Express trails would also be coordinated as closely as possible with the existing plans for the Oregon and Mormon Pioneer National Historic Trails wherever the trails coincide, in order to promote management efficiency, cost-effectiveness, and interpretive cohesion for the four trails.

# OVERVIEW OF ALTERNATIVES

### ISSUES ADDRESSED

The following broad issues have been identified during the course of the feasibility and desirability studies for the California and Pony Express trails:

Basic management philosophy--The most important management issue is the extent to which the public and private sectors are to be involved in the initial financing and development of trail resources and support facilities, and in their future protection and operation. A related issue is the scope of authorization itself--whether all possible routes, sites, and structures would be included, and what standards should be set for protecting identified resources.

<u>Routes to be designated</u>--For both the California Trail and Pony Express Trail there must be a specific determination about which of the many well-known routes and cutoffs are worthy of designation from the perspective of national significance, historical integrity, and potential for public use.

Extent of trail resource protection within federal areas--For the trail resources on federal lands, standards need to be established for research, protection, stabilization, or reconstruction of trail traces, station sites, or associated structures. Standards could be uniformly high for all identified resources, or a priority system could be established that would focus attention on the more significant resources.

Extent of trail resource protection outside federal areas--One maior concern is the effect of historic trail designation on trail resources on private lands. Options for protection include federal acquisition of the most significant and threatened resources, and nonacquisition methods, like negotiated cooperative agreements and other cooperative ventures that would link federal agencies with local governments and the private sector. Authorization could actually decrease federal responsibility for resources outside federal lands because the states, counties, and the private sector could assume this responsibility. Some public concern has been expressed as to what extent trail traces should be made passable to four-wheel-drive vehicles and how to protect the legitimate rights of private landowners who do not choose to provide public access to trail segments.

<u>Marking the trail</u>--Options for trail marking include marking only the historic routes themselves, marking automobile routes that generally follow the historic route, or providing more-or-less detailed maps of automobile and connecting routes. Physical development, interpretation, public access, and use--For authorized trails, the appropriate level of facility development (for example, trailheads, information centers, and smaller information/ interpretive facilities) must be identified, as well as funding sources. Decisions are also needed about the level of public access and whether additional public use should be encouraged.

These issues are addressed in various ways by the alternatives described below.

# ALTERNATIVE APPROACHES AND ENVIRONMENTAL CONSEQUENCES

As previously stated, only historic trail authorization is being considered for the California and Pony Express trails, and either or both of them could be authorized. The alternatives for establishment and management, as presented for public review, and the consequences of their implementation, are summarized below. These alternatives relate generally to both the California and Pony Express trails; specific alternatives and routes for each trail are presented in later sections of this report.

#### Alternative A: No Authorization

This alternative would not recommend authorization for either trail. The national significance of the trails is not disputed, and it is clearly important to protect whatever remains of them. However, under this alternative the present level of protection afforded the many resources already on federal lands, coupled with current or anticipated state and private initiatives, would be expected to be adequate.

An administrative consequence of this approach would be to eliminate any NPS role in coordinating the trail management effort. Federal involvement would continue primarily through the Bureau of Land Management and the Forest Service, which already have historic resources under their jurisdiction. Federal support and encouragement of private or state efforts would continue to be minimal.

# Alternative B: Authorization of All Routes and Cutoffs, with Substantial Federal Involvement

All routes and cutoffs of the California Trail, regardless of whether they were constructed before or after the gold rush, would be authorized as a national historic trail. For the Pony Express, the original route and sites with associated plus all station subsequent route changes, Authorization would extend to all would be authorized. structures, All legitimate trail resources routes on federal and nonfederal lands. would be identified, researched, protected, and stabilized. To ensure the protection of nonfederal resources on private inholdings within federal areas, some private properties that contain critical or especially threatened resources could be acquired by the federal government. As the law requires, state and local governments would be encouraged to protect trail resources and to obtain a right-of-way on lands outside federal areas. If, however, the state or local governments failed to act, the approach under alternative B would be for the appropriate federal agency to actively pursue cooperative agreements for trail use, or to acquire lands if necessary.

Visitor centers at trail starting and ending points and at several regional locations, along with additional interpretive exhibits and trailheads, would be developed. Significant federal contributions would be made to activities and programs, such as planning, design, and exhibits. Additional access routes would also be developed, and a wide range of recreational activities would be promoted, consistent with the protection of trail resources.

The secretary of the interior would be charged with overall administrative responsibility for both trails; the National Park Service would be responsible for consultation and coordination of all federal and non-federal plans and actions to protect, interpret, and manage the trails; and local offices of land management agencies, such as the states, the Bureau of Land Management, and the U.S. Forest Service, would be responsible for actual management of the trail within their respective areas.

The consequences of this approach would include high levels of protection for the largest number of historic trail resources. Natural resources (wildlife, vegetation, and soils) could indirectly benefit because of increased protection of historic resources on both federal and nonfederal lands.

Coordinated marking of all routes would enhance public recognition of the historic trail alignments, and it would make it easier for people to retrace the route, either on the actual trail or on nearby public roads. The development of extensive visitor facilities would maximize interpretive opportunities and encourage greater recreational use and enjoyment of the trails. Communities where visitor centers were developed could benefit through increased civic pride and prestige, and increased tourism could have a positive economic benefit.

This alternative represents the most active federal role that could be pursued under the National Trails System Act. Consequently, federal funding contributions would be substantially greater than they are for previously authorized National Historic Trails. Federal costs for initial physical development would be greater than for any other alternative considered. Federal costs for cooperative management agreements or for the acquisition of private lands could be substantial if state and local governments failed to provide the needed level of protection for trail resources.

## Alternative C: Authorization of Continuous High-Value Routes, with Shared Federal, State, and Private Responsibilities

Under this alternative (presented to the public as the preferred alternative) a judgment would be made about the historical significance of various routes, and the most significant segments would be authorized as Responsibilities for management continuous national historic trail. a outside federal areas would rest primarily with states, local governments, and private authorities, with technical assistance and coordination being provided by the National Park Service.\* A priority system for resource protection would be established to ensure that the most significant or threatened historic resources were protected, regardless of the funding The protection of trail resources on private lands (inholdings) source. within federal areas would be principally by cooperative agreement, and acquisition would be used only where this approach failed or where high-value resources were severely threatened.

Private lands outside federal areas would not be acquired by the federal government, even where state or local governments failed to protect resources or acquire them. The preferred method of protection would be for the federal managing agency to negotiate cooperative agreements with private landowners, states or counties, or private societies. These agreements could cover protection, public access, or public facilities, with necessary federal financial support being made available to accomplish any or all of these goals.

This alternative proposes visitor centers as described under alternative B. The centers would provide information and interpretation about the complete trails, and all would be roughly equivalent in size and scope. However, under alternative C the federal contribution would be limited to technical assistance in planning and design, but it would not extend to exhibits or other direct aid. Additional small-scale interpretive sites would be developed at easily accessible points along the trail. For those interpretive sites outside federal areas, technical assistance in planning and design could be provided by the National Park Service. A limited increase in the number of public access roads and trailheads would be proposed, some of which would be developed on nonfederal lands through cooperative agreements.

As in alternative B, the secretary of the interior would be charged with overall administrative responsibility for both trails; the National Park Service would be responsible for consultation and coordination of all federal and non-federal plans and actions to protect, interpret, and manage the trails; and local offices of land management agencies, such as the states, the Bureau of Land Management, and the U.S. Forest Service,

<sup>\*</sup>Throughout this report, the term federal area refers to lands inside the boundaries of U.S. Forest Service and National Park Service units, and areas where the Bureau of Land Management has major land holdings or a continuing management presence.

would be responsible for the actual management of the trail within their respective areas.

Consistent marking of the actual route would take place, and appropriate automobile retracement roads along the route would be signed. However, detailed automobile tour maps would have to be produced through private enterprise. The Park Service would produce a general information brochure for each trail.

The environmental consequences of this alternative would include the protection of the most important historic trail resources within the boundaries of federal lands, with less important federal resources receiving little or no additional protection. For resources outside federal areas the levels of protection would depend on actions by state and local governments or, if no action was taken, on the success of federal negotiations for cooperative agreements. Some indirect natural resource benefits could result from these historic site protection strategies.

Coordinated marking of the relatively few high-value routes would make it easier for visitors to retrace the most important segments of the actual trail. However, following the routes in vehicles would be facilitated only if a suitable map and guide were produced by either federal or state agencies, or by private enterprise.

Visitor facilities would offer more opportunities for interpretation than at present. The communities where visitor centers were developed could receive economic and social benefits. Improving access to resources on nonfederal lands (through negotiated agreements) would increase recreational opportunities for visitors without raising federal costs or dislocating private landowners.

## Alternative D: Authorization of Continuous Routes, with Development Limited to High-Value Segments and Sites within Federal Areas

Under this alternative historic trail authorization would be extended to a full and continuous route for each trail, as required by the National Trails System Act, but federal attention would be focused only on high-value segments or sites within the established boundaries of federally owned land management units. The first priority for federal involvement would be the protection of trail resources within federal areas, and the second priority would be the development of access or interpretive facilities. Resources on nonfederal lands would continue to be the responsibility of their respective private, state, or county owners, and there would be little administrative encouragement for these owners to participate in either the planning or the management of the historic trail.

Trail marking would be confined to federally owned portions, and neither an automobile route retracing the historic trail nor a guide would be federally sponsored. No new visitor centers devoted to trail interpretation would be developed, although the Bureau of Land Management and Forest Service would be encouraged to devote additional space for trail-related exhibits in various existing facilities. Few new developed interpretive sites or trailheads would be established, but a coordinated plan for the interpretation of trail segments on federal lands would be developed to guide the normal upgrading or replacement of exhibits and other facilities.

The secretary of the interior would be charged with overall administrative responsibility for both trails; the National Park Service would be responsible for consultation and coordination of all federal plans and actions to protect, interpret, and manage the trails; and the local offices of land management agencies, such as the Bureau of Land Management and the U.S. Forest Service, would be responsible for the actual management of the trail within their respective areas.

The consequences of this alternative would be to focus whatever additional federal funding became available on the protection of a relatively small number of historic trail resources. This would result in a generally higher standard of protection for federally owned trail traces, stations, and other sites, but it would provide little or no protection for resources on non-federal lands. Some interpretation would probably be provided by state agencies and the private sector on their own initiative. Individual citizens or private groups in particular would be given little or no federal incentive to increase their efforts to provide access to and protection of such trail resources.

The marking only of federal segments and the absence of an automobile route along the historic trail might make it difficult for visitors to appreciate the continuity of the actual trail, and it would probably make locating trail traces or particular sites more difficult.

Although trail routes on federal lands could be better protected, access and use would not be correspondingly expanded under this alternative. Therefore, public appreciation or improved resource protection could increase little or not at all. If state or private entities were discouraged from protecting resources because they perceived a low level of federal interest and they failed to continue existing protection/interpretive activities, then the protection and public use or appreciation of the trails on nonfederal lands might actually decrease.

## THE PROPOSAL

The four alternatives summarized above, and explained in more detail in the following pages, were presented for public review during the period of April 1, to May 30, 1987. At the beginning of the public review period, copies of the draft plan were distributed to 850 agencies, institutions, and individuals on the study's mailing list. As a result of public news releases citing the availability of the plan for review, almost 300 additional copies were requested.

The National Park Service received 924 written responses during the public review period - an extremely high return rate of 81%. Only 5 percent of those responding agreed with the selection of alternative C by the National Park Service as the preferred alternative; 66% preferred alternative B (full authorization of all trail routes and alternatives), and 29% indicated no preference for any particular management alternative, as long as the California and Pony Express Trails were proposed for authorization as National Historic Trails. According to the comments, the reason for this strong preference for alternative B was not the high level of federal involvement implicit in that alternative, but rather the fact that designation of all routes and cutoffs were included in it.

Public meetings were held in eight of the eleven trail states during the public review period. A total of 506 individuals attended the public meetings. Although "votes" were not taken during those meetings, the solid consensus of attendees reflected the same reaction as the written responses: very few favored the National Park Service preferred alternative (C), while the great majority favored authorization of the entire California Trail system, as well as the entire Pony Express trail. (The analysis of public responses may be seen in Appendix A.)

In both written and meeting responses, the public has clearly and overwhelmingly expressed a desire to have the complete Pony Express trail and the complete California Trail system authorized as National Historic Trails. Management concerns, such as the degree of public/private involvement, trail marking, interpretation, or visitor center development, were clearly secondary in the public's mind to the basic desire to seek authorization of the trails. Or, as succinctly stated by one respondent, "I believe it is better to aim high, to establish the largest number of trail sites and segments that can be preserved. Even if money [for development] is lacking now, the framework will have been established for protection [of the trails]. Perhaps more resources will be available later."

Along with additional staff analysis, these comments had a significant influence upon the formulation of this proposal.

#### DESCRIPTION

This study now concludes that it is both feasible and desirable to establish both the entire California Trail system and the entire Pony Express trail as national historic trails. If authorized, the proposal includes all routes and cutoffs of the California Trail system as studied, along a continuous corridor from the Missouri River jumping-off sites of Independence, St. Joseph and Council Bluffs, to terminal points in California and Oregon (see map).\* For the Pony Express trail, the proposal includes both the original route and subsequent route changes (see map). (All routes of both trails, as proposed, have been located on USGS topographic maps [scale 1:250,000]. A limited number of map sets were made available to agencies and individuals during public review.)

Essential features of the proposal that would apply to both trails are described below. The approach is that of alternative B for selection of routes to be authorized, and that of alternative C for all trail management, administrative, resource protection, marking, and physical development, interpretation, public use, and access philosophies. Details of the preferred and other alternatives considered for each trail are found in later sections. It is believed that this approach would provide adequate protection and commemoration of the trails and would be most realistic in terms of present federal administrative policies and funding If properly implemented, such an alternative would meet all availability. basic intentions of the National Trails System Act. The specific details of management, administration, protection, and use of the trails would be further refined in comprehensive management plans prepared after authorization.

#### GENERAL PHILOSOPHY OF MANAGEMENT

The responsibility for managing trail resources would be shared in specified ways between the federal, state, and local governments and the private sector. Federal involvement would continue to be focused on the management and protection of trail resources on federal lands, but various cooperative programs would provide for the protection and use of historic resources on nonfederal lands. Where such programs could be negotiated without cost to the federal government, that approach would be favored. However, the use of federal funds would be recommended to

<sup>\*</sup>PL 98-405, which authorized this eligibility/feasibility study, says that the scope of the California Trail study should be the trail from "Omaha, Nebraska, and Saint Joseph, Missouri, to various points in California." Strictly interpreted, this would exclude consideration of the Applegate trail, a portion of the California Trail system that passes through northern California and terminates in the vicinity of Rickreall and Dallas, Oregon. The governor of Oregon formally requested the National Park Service to include the Applegate trail within the scope of the study. This was considered a reasonable request since it would avoid a separate future study that would require congressional authorization.

help protect important nonfederal trail resources and to provide for their use and interpretation by the general public. In these cases federal funds could be made available under negotiated cooperative agreements.

#### PROPOSED ROUTES

#### California Trail

The proposal would include the following routes for the California National Historic Trail:

Main trail from Independence, Missouri, to Humboldt Sink, Nevada

Eastern Feeder Routes Council Bluffs Road - 1844 St. Joe Road - 1845 Old Fort Kearny Road - 1850

Central Cutoffs and Alternative Routes Sublette Cutoff - 1844 Hastings Cutoff - 1846 Salt Lake Cutoff - 1848 Hudspeth Cutoff - 1849 Childs Cutoff - 1850 Kinney Cutoff - 1850 Seminoe Cutoff - 1850 Slate Creek Cutoff - 1850 Baker-Davis Road - 1852 Dempsey-Hockaday Cutoff - 1856 Lander Road - 1858 Julesburg Cutoff - 1859

Western Routes Truckee Route - 1844 Applegate Trail - 1846 Carson Route - 1848 Lassen Trail - 1848 Beckwourth Trail - 1851 Nobles Road - 1852 Sonora Road - 1852

Authorization of the entire California Trail system would result in a new national historic trail of approximately 5,665 total miles. Of this, approximately 1,100 miles of trail still exists on the ground as trail ruts, traces, and other obvious remnants. About 2,171 miles of this system cross public lands, where most of the physical evidence that exists today is contained. Some 1,873 miles of the system proposed are already designated as part of the Oregon and Mormon Pioneer National Historic Trails. An estimated 320 historic sites along the trail system would eventually be available for public use and interpretation, including sites in both federal and nonfederal ownership. One hundred of these sites

are already associated with the Oregon and Mormon Pioneer National Historic Trails.

## Pony Express Trail

Routes proposed for authorization would include the original Pony Express Trail route from St. Joseph, Missouri to Sacramento, California, as well as the Kingsburgy-McDonald Road (Nevada-California border) and the Green Valley road (California). Authorization would include over 1,855 miles of trail route and about 120 historic sites, including 50 existing Pony Express stations or station ruins.

## ADMINISTRATION

The secretary of the interior would be charged with the overall administration of the trail, and the National Park Service would be responsible for consultation and coordination with the heads of all other affected state and federal agencies. Details of this administrative role would be developed in the comprehensive management plan. Basically the Park Service would coordinate management and marking of the authorized trail system, including participation of nonfederal landowners, negotiation of cooperative agreements to protect nonfederal resources, and acquisition of resources, if necessary. Local offices of land management agencies, such as the states, the Bureau of Land Management, and the U.S. Forest Service, would be responsible for the actual management of the trail within their respective areas.

## RESOURCE PROTECTION

#### Within Federal Areas

Agencies already managing federal lands containing trail resources would be encouraged to amend land classification or use plans to formally recognize the authorized trails as nationally significant historic resources. After approval of a comprehensive management plan, each agency would develop operational plans, including a system for investigating, inventorying, and assigning priorities to historic trail resources for continued or upgraded protection, stabilization, additional research, or no further action.

#### Outside Federal Areas

State and local governments would be expected to assume major responsibilities for the protection of trail resources outside federal areas, as suggested by the National Trails System Act. Such protection could be either through cooperative agreements or acquisition. If the states failed to assume these responsibilities, then for resources identified as being of high value, the federal administrator would actively seek to negotiate with willing landowners (including private individuals, state or local governments, or private groups) to protect trail resources on their lands without acquiring either full or partial title (i.e., without buying either the land or some protective easement). Providing such protection or public access might involve some cost to the landowner; therefore, the negotiated agreement could carry with it appropriate federal funding assistance to accomplish these goals. Such agreements might be particularly appropriate where a state or local governmental agency or nonprofit organization owned land or facilities at some distance from federal lands and where it would be desirable to provide for public use.

#### MARKING THE TRAIL

A coordinated, uniform marking system would be implemented along the entire length of the actual historic route of each trail. On federal lands, marker placement and maintenance would be the responsibility of the respective federal management agency. On nonfederal lands, and where cooperative agreements with landowners had been obtained, markers would be provided by the National Park Service. Installation and maintenance would be the responsibilities of the cooperating state or local government or private entity.

Where the trail follows existing public roads, developed rights-of-way, or waterways, and similar features of man's non-historically related development approximating the original location of the historic route, it may be marked to commemorate the historic route and to facilitate retracement of that route. These roads would be marked with distinctive signs provided by the National Park Service. The private sector would be encouraged to produce a road map and guide for this automobile route.

## PHYSICAL DEVELOPMENT, INTERPRETATION, PUBLIC ACCESS, AND USE

Visitor center facilities would be needed not only at the trail starting and ending points, but also at various points along the trail where a broad interpretive overview of these two trails--and other westward expansion--could be presented. The development of such centers, which may have other community benefits besides serving visitors, would be primarily the responsibility of local governments. When agreement was reached on appropriate locations in the comprehensive plan, the National Park Service would provide technical assistance, such as in site selection, landscape planning, and planning of physical facilities. Land acquisition, construction, staffing, and operation would generally remain the responsibilities of local governments. Materials produced by the National Park Service for use and distribution at the visitor centers would also be made available for use in conjunction with interpretive programs at other trail-related historic sites, whether they were operated by federal, state, or local agencies, or private nonprofit historic trail groups.









Managing agencies should be able to document an increased demand for access and use resulting from additional trail interpretive information and marking. Each federal agency's operation plan would identify additional access roads and trailheads that could be developed, consistent with resource protection needs, if justified by increased demands. The comprehensive plan should identify important nonfederal resources (high-potential route segments and historic sites) both inside and outside federal areas where there is now or might soon be a demand for access or use, or where trail resources were threatened. For those areas the appropriate federal or nonfederal agencies should begin negotiating agreements with willing landowners to provide for protection, access, and use.

#### COST ESTIMATES

At the present level of planning it is extremely difficult to give accurate cost estimates. The following estimates are not based on detailed plans about the type and quality of physical facilities, or on any specific appraised land values. The estimates are meant to be used for comparing the proposal with the various alternatives, and have been prepared with the same unit costs to facilitate these comparisons. Many factors could affect actual costs, including the use of existing facilities for the Oregon and Mormon Pioneer trails.

If both the California and Pony Express trails were authorized, then certain new interpretive facilities that relate to both trails could be shared, thus reducing the total cost for development of both trails. Shared facilities are denoted by an asterisk in the cost tables.

# Table 1: Cost Estimates, Proposal California Trail

	Units	Cost	Federal Share
Construction/New Development	<u></u>		
New visitor centers (3,000 sq ft, one at each end and three in- between; cost shared equally with Pony Express Trail)	5	\$2,500,000*	\$ 63,000*
Additional interpretive roadside stationsminimum roadside station (costs for 3 shared equally with Pony Express Trail, 3 for California Trail alone)	6	175,000*	15,000*
Improvements to existing interpre- tive facilities (3 shared equally with Pony Express Trail)	6	90,000*	23,000*
Additional trailheads (signing and 10-car parking areas; excludes cost of access roads)	15	175,000	58,000
Historic resource protection (for the 124 sites not included in the Oregon and Mormon Pioneer trails) Research/excavation Stabilization Fencing Erosion control on trails Preventing vehicle trespass	35 sites 35 sites 35 sites 10 mi 35 places	140,000 35,000 87,500 20,000 9,000 \$ 291,500	106,000 26,000 66,000 15,000 7,000 \$220,000
Trail markers (initial capital cost and installation of markers where none exist)	2,850 mi	95,000	80,000
Subtotal Construction/New Development		\$3,326,500*	\$459,000*
Land Acquisition and Cooperative Agreements	Units	Cost	Federal Share
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Acquisition of critical inholdings within federal areas (assumes 10% of 2,171 mi in federally owned areas [220 mi] are inholdings, of which 22 mi would be acquired to ensure both access and protection): Acquisition by exchange Acquisition by purchase	15 mi 7 mi	(unknown) \$2,240,000	(unknown) \$2,240,000
Acquisition of segments outside inholdings (all by state or local governments)	(unknown)	)(unknown)	
Costs of negotiated agreements on federal and nonfederal lands: Negotiations Implementation of delegated activities		75,000 <u>100,000</u> <u>\$175,000</u>	37,500 50,000 \$ 87,500
Subtotal Land Acquisition/Cooper Agreements	ative	<u>\$2,415,000</u>	<u>\$2,327,500</u>
Total Capital Costs		\$5,741,500*	\$2,786,500*
Annual Operating Expenses Operation of visitor centers (cost shared equally with Pony Express)	5	\$ 125,000*	
Additional protection and interpretive employees, and travel (costs shared equally with Pony Express Trail): Bureau of Land Management U.S. Forest Service National Park Service Travel, vehicles, supplies Maintenance of facilities and historic sites		15,000* 5,000* 20,000* <u>12,000</u> * \$ 52,000* 50,000	15,000* 5,000* 20,000* <u>12,000</u> * \$ 52,000* 25,000
Markers	replace 10%	10,000	10,000
Total Annual Operating Expenses		\$ 237,000*	\$ 87,000*

\*Cost if shared with Pony Express Trail; if that trail was not authorized, then this figure would have to be increased.

# Table 2: Cost Estimates, Proposal Pony Express Trail

	Units	Cost	Federal Share
Construction/New Development			
Visitor centers (3,000 sq ft each; one at each end and three in-between; costs shared with California Trail)	5	\$2,500,000*	\$ 63,000*
Additional interpretive roadside stationsminimum roadside station (costs for 3 shared with California Trail, 3 for Pony Express Trail alone)	6	175,000*	15,000*
Improvements to existing inter- pretive facilities (3 shared with California Trail)	6	90,000*	23,000*
Additional trailheads (signing and 10-car parking area; ex- cludes cost of access roads)	15	175,000	58,000
Historic resource protection (for 60 stations and sites tentatively identified as significant resources):			
Research/excavation Stabilization Fencing Erosion control on trails Preventing vehicle trespass	15 sites 5 sites 5 sites 10 mi 10 places	60,000 5,000 12,500 20,000 2,500 \$ 100,000	45,000 4,000 9,000 15,000 <u>2,000</u> \$ 75,000
Trail markers (initial capital cost and installation of markers where none exist)	640 mi	22,000	18,000
Subtotal Construction/New Development		\$3,062,000*	\$252,000*

	Units	Cost	Federal Share
Land Acquisition and Cooperative Agreements			
Acquisition of critical inholdings (assumes 10% of 729 mi in federally owned areas [73 mi] are inholdings, of which 7 mi would be acquired to ensure both access and protection) Acquisition by exchange Acquisition by purchase	): 5 mi 2 mi	(unknown) \$ 640,000	(unknown) \$ 640,000
Acquisition of segments outside inholdings (all by states or local governments)	(unknown)	(unknown)	
Costs of negotiated agreements on federal and nonfederal lands: Negotiations Implementation of delegated activ	ities	75,000 <u>125,000</u> \$ 200,000	37,500 62,500 \$ 100,000
Subtotal Land Acquisition/Coope Agreements	rative	\$ 840,000	<u>\$ 740,000</u>
Total Capital Costs		\$3,902,000*	\$ 992,000*
Annual Operating Expenses			
Operation of visitor centers (cost shared equally with California Trail)	5	\$ 125,000*	
Additional protection and inter- pretive employees, and travel (costs shared equally with California Trail): Bureau of Land Management U.S. Forest Service National Park Service Travel, vehicles, supplies		15,000* 5,000* 20,000* <u>12,000</u> * \$ 52,000*	15,000* 5,000* 20,000* 12,000* \$ 52,000*
Maintenance of facilities and historic sites		50,000	25,000
Markers	replace 10%	2,000	2,000
Total Annual Operating Expense	s	\$ 229,000*	\$ 79,000*

\*Cost if shared with California Trail; if that trail was not authorized, then this figure would have to be increased.



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# HISTORICAL BACKGROUND

The California Trail has been aptly described as a great rope stretching from the Missouri River to the California goldfields. But it is a rope considerably frayed at both ends, as well as in the middle (see California Trail System map). Although often associated only with the California gold rush of 1849, the main part of the trail was actually developed during the preceding decade by land-seeking emigrants, the same type of pioneers who also helped open the Oregon Trail. Indeed, some historians argue that if earlier explorers and emigrants had not proved there was a viable wagon route to California prior to the gold rush, the great overland rush in 1849 and the early 1850s might have been impossible. There is little doubt that without the presence of established wagon routes, overland travel during that period would have exacted a terribly high price in terms of human lives.

The California Trail is commonly thought of as a single trail stretching across the western United States, from the Missouri River to Sacramento. But this is misleading, for the trail was actually a collection of competing routes that evolved during the late 1840s. The specific route that emigrants or forty-niners used depended on their starting point in Missouri, their final destination in California, the condition of their livestock and wagons, and yearly changes in water and forage along the different routes.

The California Trail is often confused with the older Oregon Trail and the later Mormon Pioneer Trail, because the three shared a common corridor for much of their lengths, and wagon trains leaving Missouri were often composed of both Oregon-bound and California-bound emigrants. The distinction was probably less important to the emigrants than it now seems to historians. For the traveler it was easily resolved: those heading for Oregon were on the Oregon Trail; those traveling to California were on the California Trail.

The following sections briefly summarize how the California Trail system was developed. The system was opened and gradually improved by numerous parties over the span of a decade, making it possible for new residents to settle the country's farthest western frontier and opening the way for the California gold rush. For this reason, George Stewart, who has written an excellent one-volume synopsis of the California Trail, aptly subtitled his work An Epic with Many Heroes (1962).

# EARLY ROUTES--1841 TO 1844

The first pioneers were the members of the Bidwell-Bartleson party, a group of 35 men, women, and children who left Independence, Missouri, in spring 1841, hoping to travel by wagon to California. In Independence they accidentally met a party of Jesuit priests who were heading towards the Hudson's Bay Company trading post at Fort Hall (Idaho), traveling by way of the American Fur Company trading post known commonly as

Fort Laramie. The party was to be guided by the experienced mountain man Thomas Fitzpatrick.

The route to Fort Hall had already been fairly well established by fur trappers and traders, but it was not known whether families and wagons could make it through. The Bidwell-Bartleson party did, however, reach Soda Springs (Idaho), 1,200 miles from Independence, on August 3, 1841. Along the way, the party had actually grown as a few other late-starting emigrants caught up with them. At Soda Springs the party split. Fitzpatrick, the missionaries, and some emigrants headed northwest towards Fort Hall. The emigrants who continued to Oregon arrived there late in 1841, marking the official opening of the Oregon Trail.

The other party, consisting of 31 men, one woman, and one baby girl, headed resolutely toward California. Without a guide, and with only the western lore they had gained from Fitzpatrick, they had little idea of how to proceed except to keep moving west. After much wandering through present-day northwest Utah and northeast Nevada, they managed to find the Humboldt River, and followed it to its "sink," where it disappeared into the desert floor. From there they headed southwest, found a crossing of the Sierra Nevada near Sonora Pass, and finally stumbled to safety in early October. The trip, however, was a disaster. All the wagons and goods had long been abandoned, and most of the horses and mules either had been slaughtered for food or had died from starvation and thirst. The emigrants arrived in California with nothing but what they carried on their backs.

The following year only indirect progress was made in opening the California Trail, but 125 emigrants made their way into Oregon following the route opened in 1841. Their wagons helped to mark the trail for future California-bound emigrants at least as far as Fort Hall. In addition, Joseph Chiles, a member of the 1841 Bidwell-Bartleson party, returned east in 1842, searching for a better route. Chiles wandered for much of his journey, but he did follow the Humboldt River from its sink up towards Fort Hall, verifying the validity of that portion of the trail. Chiles arrived in Missouri in September, convinced that wagons could be taken all the way into California.

In spring 1843 Chiles left Independence with approximately 30 California-bound emigrants in eight wagons, trailing a party of 100-plus wagons bound for Oregon, some of whom switched over to the Chiles train. At Fort Laramie, Chiles met Joe Walker, another of the famed mountain men, who agreed for \$300 to guide the emigrants to California. Pushing west by way of the newly established trading post of Fort Bridger, the train reached Fort Hall in early September. Then, due to the lateness of the season, the party split.

Chiles took a group of men on horseback to explore for a northern pass over the Sierra Nevada into California, where they arrived in November 1843. The route he pioneered across the Sierra south of Mt. Shasta proved too circuitous for later emigrant travel. In the meantime Walker led the rest of the train southwest, following the Humboldt River to its





sink, and then turned south, finally crossing the south end of the Sierra in early December 1843 by way of Walker Pass. Again wagons had to be abandoned east of the mountains, food supplies were exhausted, and starvation threatened the group.

By the end of 1843 a stretch of 500 miles of the primary route had been defined from Fort Hall to Humboldt Sink. This, together with the established wagon route from Independence to Fort Hall, left only a 250-mile stretch to be opened between the sink and Sutter's Fort.

In 1844 the final piece was put in place. The Stevens party, as it became known, started from Miller's Hollow (renamed Kanesville in 1848, and now known as Council Bluffs), another jumping-off spot upriver from Independence. A group of 46 emigrants headed for Oregon, but a few planned to split off the Oregon Trail at Fort Hall and head for California.

From Council Bluffs to Fort Laramie, the party kept to the north side of the Platte River, along what was later to be known as the Council Bluffs Road, and still later as the Mormon Trail. West of South Pass in southwestern Wyoming the party tried a new cutoff that eliminated the dip down towards Fort Bridger. This was the first of many such variations later collectively called the Sublette cutoff. Just west of Fort Hall, the train swung off the Oregon Trail in the vicinity of the Raft River and headed toward the Humboldt. The trail of Walker's party, broken the year before, was easy to follow.

At the Humboldt Sink, the Stevens party met an Indian named Truckee, who told them by means of sign language of a river that flowed easterly out of the Sierra. This river was only 50 to 60 miles straight west, and along its banks were good grass and trees, but in-between there was desert. Provided with cooked rations and filled water casks, the emigrants made a forced march for two days and a night to become the first to cross the dreaded Forty Mile Desert. In later years that stretch was to become littered with dead stock and abandoned wagons.

After reaching the river, which they named the Truckee, the emigrants followed it straight west through present-day Reno and upwards into Truckee Canyon through the foothills of the Sierra. But as the canyon narrowed, progress became increasingly difficult. Finally, a beautiful lake was reached (later named Donner), beyond which rose the nearly vertical mountain walls. After several days of exploring, the group decided to forge straight ahead. Leaving half their wagons, they worked the remaining wagons around the north shore of the lake and then almost literally carried them up a thousand feet of steep granite slope.

Once the crest was reached, it was relatively easy to work out their descent down the gentler west-side canyons towards Sutter's Fort, where the first group of wagons arrived in mid-December 1844. With the limited success of the Truckee route, the California Trail could be declared open.

# TRAIL DEVELOPMENT BETWEEN 1844 AND 1849

Certain portions of the early routes were improved over several years of trial and error, as more and more emigrants headed toward California. But other portions like the Platte River valley were such natural corridors that they were never really changed. Major improvements to the basic route were made each year from 1845 to 1848, leaving the basic California Trail system fairly well established before the start of the great gold rush years. These improvements are best discussed in geographical order, east to west, rather than chronological order.

### Eastern Feeder Routes

In the east, the new Missouri River towns continued to rival Independence as the favored starting points. Primary among these was St. Joseph, beginning with the opening of the St. Joe Road in 1845. Connecting with the main Oregon-California Trail in northeast Kansas, the St. Joe Road eliminated 90 miles of travel. Both prior to and during the gold rush years, the three river towns of Independence, St. Joseph, and Council Bluffs competed bitterly for the lucrative outfitting trade.

Regardless of their starting point, once the emigrants reached the Platte River in the vicinity of Fort Kearny (established by the U.S. Army in 1848), they were on a stretch of trail that remained essentially unchanged throughout its use. This part of the trail, on both the north and south banks of the river, was aptly called the Great Platte River Road. Likewise, the route from Fort Laramie to South Pass was never significantly improved; this route was the gentlest possible crossing of the Continental Divide, and it made wagon travel across the West feasible.

### Central Cutoffs

<u>Sublette Cutoff</u>. On the other side of South Pass numerous cutoffs and alternatives were developed during the late 1840s. The Sublette cutoff, first used in 1844, gradually gained favor over the older Fort Bridger route because it saved emigrants the long loop down to Fort Bridger and then back up-toward Fort Hall, cutting 65 miles and three days off the trip. Its drawback was lack of good water, including one 50-mile stretch of dry desert known as Sublette Flats. Emigrants continued to use both the Sublette and the Fort Bridger routes, depending on the time of year, reported water and grass conditions along the two routes, and their need for rest and refitting at Fort Bridger. Later the forty-niners, who generally traveled faster than emigrants, showed a preference for the Sublette cutoff.

Hastings Cutoff. In 1846 the ill-fated Hastings cutoff was opened by Lansford W. Hastings, an adventurer who acted "with negligence that was not short of criminal" in leading emigrants astray (Stewart 1862). Based on his travels to Oregon and California and back between 1842 and 1846, Hastings became convinced that the best route to California lay directly through the Great Salt Desert. He hoped to open that route and lead emigrants to California, apparently believing he would then be able to lead a California rebellion against the Mexican government and thereby find fame and fortune. (Unfortunately for him, John C. Fremont did exactly that while Hastings was on the trail.)

In 1846 Hastings began meeting emigrants along the trail between Independence Rock and Fort Bridger and tried to recruit some followers. Most of the early emigrants in the 1846 migration rejected the alternative, since they were making good time and had no reason to risk an unknown route. As the summer wore on, however, late-starting emigrants began to consider a route that was promised to save 150 to 500 miles of travel (Hastings was a little vague on this point). Finally, about 80 wagons decided to try Hastings's new route. The last of them was the Donner-Reed party.

On July 20 Hastings led the first group of 40 wagons southwest out of Fort Bridger, along a nonexistant trail that he had never traveled. With untold labor and much wandering, a trail was cut over the Wasatch Mountains, finally breaking out through the Weber River Canyon into the Salt Lake Valley. Hastings then led the group around the south shore of the lake and headed west across the salt flats. Instead of the 40-mile desert predicted by Hastings, the waterless crossing turned out to be 83 miles, inflicting horrible casualties on both emigrants and stock.

Pushing farther west, Hastings hit the Ruby Mountains. At this point, he was only one day's good journey from the Humboldt River and the main trail, to the northwest. Ignorant of the geography, however, Hastings turned south, skirting the foot of the mountains, and searching for a pass. Finally finding one (now named Overland Pass), Hastings crossed and headed almost due north, desperately seeking the California Trail. When he finally reached it (just west of present-day Elko, Nevada), he discovered that wagon trains that had been far behind him at South Pass were now a week ahead. The Hastings cutoff, which had actually added miles to the journey, was a failure.

The story might have ended there, had not failure turned into disaster, resulting in the most famous tragedy of the entire California Trail The Donner-Reed party, already lagging far behind the majority history. of the 1846 emigration, and already plagued by illness, death, and plain bad luck, followed the Hastings cutoff in a desperate attempt to make up lost time. The party left Fort Bridger on July 31, but they were delayed by the necessity of cutting yet another trail through the Wasatch Mountains, since the Weber River Canyon route pioneered by Hastings They were further delayed by dying oxen and broken was unusable. wagons on the salt flats, and they were in serious trouble before they even reached the junction with the main trail. By this time the vanguard of the 1846 emigration had already crossed the Sierra. Subsequently caught by early October blizzards below the crest of the mountains, the remnants of the Donner-Reed party slowly succumbed to starvation and cannibalism throughout the winter of 1846-47. Forty of the 87 members of the party died that winter in the vicinity of Donner Pass.

As news of the disaster spread, the Hastings cutoff was thoroughly discredited. Except for a few foolhardy gold-rushers in 1849, whose lust for gold outweighed their common sense, the Hastings cutoff was never used again.

Salt Lake Cutoff. The only positive outcome of this disaster was the 40-mile stretch across the Wasatch Mountains cut by the Donner party. Once opened, this proved to be the best route to the Salt Lake Valley. In 1847 it was used by the vanguard of the Mormon pioneers heading toward their new home, and it subsequently became an integral portion of the Mormon Trail.

The Wasatch Mountains cutoff became even more important in 1848, when a chance meeting between some mountain men and a group of Mormons traveling east from California to Salt Lake resulted in the blazing of a trail from the Raft River route of the California Trail down to Salt Lake City. The completion of this loop, from Fort Bridger to Salt Lake and back up to the main trail (soon known as the Salt Lake cutoff) made it feasible for emigrants in need of assistance or supplies to stop at that fast-growing Mormon community after 1848. In later years, particularly during the height of the gold rush, the Salt Lake cutoff was increasingly used, and some gold rushers who jumped off too late in the season even wintered in the Salt Lake Valley.

#### Western Routes

The Humboldt River valley, like the Platte River valley, was a safe and natural travel corridor. Emigrants could use either the north or south bank of the river, but essentially the route was never improved. West of Humboldt Sink, however, several alternative routes were developed in order to avoid the Truckee route and its exhausting climb over the Sierra, and to provide for a wider choice of settlement areas in central and northern California, as well as southern Oregon.

Carson Route. The most significant of the new routes was the Carson route, between Humboldt Sink and Sutter's Fort. It was opened in summer 1848 by a group of Mormons who were returning from California to the Salt Lake Valley. Having heard of the difficulties of the Truckee route, they decided to try a different way back over the mountains. Building a road as they went, and sending scouts out ahead, they discovered an easier pass south of the Truckee route, and reached the summit of the Sierra Nevada at West Pass. From this point, they moved down to a valley they named Hope, found the west fork of the Carson River, followed it down out of the mountains south of Lake Tahoe, and then turned northeast, hitting the Truckee route along the Truckee River. They had accomplished one of the most significant feats of trail opening in the history of the west. Although still not avoiding a crossing of the Forty Mile Desert, the Carson route offered a considerably easier ascent of the eastern side of the Sierra and a much better descent on the western side. Once the Carson route was opened, it quickly eclipsed the rougher Truckee route as the main gateway to California.

<u>Applegate Trail</u>. Like the Carson route, the Applegate trail was opened from west to east. In the spring of 1846, Jessie Applegate, who had emigrated to Oregon in 1843, and a dozen men on horseback left Oregon and headed south and then east, in an attempt to work out a southern wagon route into Oregon. Working carefully, they slowly marked a trail through the forests, and then across the northwest (Nevada) desert, locating waterholes and leaving behind notices to future emigrants describing directions and distances. A daring expedition, it resulted in success when they struck the main California Trail just below the big bend of the Humboldt River. Some of the party then followed the trail east to Fort Hall to publicize the new route and the settlement potential of southern Oregon.

Although never heavily used as a southern emigration route into Oregon, the Applegate trail did have a significant impact on California emigration. The carefully marked portion across the Nevada desert was incorporated two years later by Peter Lassen (see below) as part of his new trail. The upper portion, intended to feed settlers into southern Oregon from the California Trail, actually worked in reverse: When news of the California gold strikes reached Oregon, a small rush ensued, with eager gold-rushers pouring down the Applegate and Lassen trails into northern California.

Lassen Trail. The Lassen trail was the final alternative route to be established before the gold rush of 1849. Like the ill-fated Hastings cutoff, it was opened as a private speculative venture. In 1848 Peter Lassen, who held a land grant about 100 miles north of Sutter's Fort, decided to try to capitalize on the growing California emigration, as Sutter had done, and open a trail to his ranch. In the spring of 1848 Lassen rode east from California, following the main trail to Fort Hall. There he recruited 10 wagons to follow him back to his ranch. As an inducement, he promised to show them a more northern route into California, which would avoid the troublesome ascent of the Sierra necessitated by both the Truckee and Carson routes. He did not tell them that his route was largely imaginary.

About September 1, 1848, Lassen's party came to the junction of the main California route and the new Applegate trail, at a location now known as Lassen's Meadows. Since the Applegate trail was already broken and well marked, Lassen followed it northwest across the desert to Black Rock.

At this point, he was directly east of his ranch, and he could have easily made straight for it. But due to his ignorance of the geography, and the fact that he had never seriously explored his new route, he knew nothing better than to continue to follow the Applegate trail to the northwest through High Rock Canyon, and to a lake which Lassen thought was the headwaters of the Sacramento River.

Here Lassen left the Applegate trail and turned south, through rough, forested, and untracked terrain. At this point the journey turned into a nightmare when the emigrants, with exhausted animals and broken-down wagons, attempted to take advantage of an unknown shortcut. Dead-end

canyons seemed to constantly block the way, requiring miles of backtracking and days of scouting, while food supplies grew ever shorter. Wagons were cut down to two-wheel carts, and starving cattle slaughtered for meat. By October, with no visible progress being made, the emigrants threatened to hang Lassen. Finally, at the end of October, they reached Lassen's ranch. His trail had proved to be no shortcut, having taken a month of extra travel to cover the additional 135 miles of journey caused by the long northern swing. But Lassen had opened a third route into California, which would be heavily used in 1849 by some gold-rushers who were unaware of its disadvantages.

# THE YEARS OF THE GOLD RUSH

On January 24, 1848, a laborer employed at Sutter's Mill recorded the discovery of "some kind of metal that looks like gold" in the mill's tail race. Although this discovery was made early in 1848, it had no effect on overland emigration until the following year, for it took several months for the significance of the discovery to be realized in California, and several more months for the news to travel back east. Although an internal California gold rush ensued in 1848, and many Oregon settlers used the northern end of the Applegate trail and the western portion of the California strikes had been verified and publicized in the eastern press, it was too late in the year for overland travel.

### Use of the Early Routes

By the late spring of 1849, while waiting for the rivers to subside and the prairie grass to grow, thousands of eager gold-seekers were cramming the riverbanks at the three principal starting points--Independence, St. Joseph, and Council Bluffs. In 1849 alone approximately 25,000 overland gold-rushers entered California--almost twice the combined number of overland emigrants who had traveled to Oregon and California between 1841 and 1848. (Only 450 emigrants went to Oregon in 1849). The number nearly doubled again in 1850, when 44,000 gold-rushers took the overland routes to California (see table 3).

Without the backbone of the California Trail in place, the rush of thousands of ill-prepared forty-niners attempting to travel overland would have been unimaginable, and at worst would have spelled disaster. As it was, spring grass on the prairies came out earlier than usual in 1849, providing good stock forage for the first part of the journey, and summer rains in the west were heavier than normal, again providing better forage along the western trails than had been experienced in previous years.

Even with these good forage conditions, and the benefit of relief expeditions launched from California in the fall, the suffering was often intense. The worst calamities befell those who had the misfortune to follow the Lassen trail. Crossing in September 1849, during the height of the emigration, J. Goldsborough Bruff recorded seeing 511 dead oxen, 10

Year	Oregon Trail	<u>California Trail</u>
1840 1841 1842 1843 1844 1845 1846 1847 1848	13 24 125 875 1,475 2,500 1,200 4,000 1,300	0 34 0 38 53 260 1,500 450 400
Total	11,512	2,735
1849 1850 1851 1852 1853 1854 1855 1856 1857 1858 1859 1860	$\begin{array}{r} 450 \\ 6,000 \\ 3,600 \\ 10,000 \\ 7,500 \\ 6,000 \\ 500 \\ 1,000 \\ 1,500 \\ 1,500 \\ 2,000 \\ 1,500 \end{array}$	25,000 44,000 1,100 50,000 20,000 12,000 1,500 8,000 4,000 6,000 17,000 9,000
Total	53,062	200,335

# Table 3: Summary of Western Emigration California and Oregon Trails 1840-1860

Source: Unruh 1979.

horses, nine mules, a cow and a calf, and the graves of a three-year-old girl and a 50-year-old man, in just the 52 miles between Lassen's Meadow and Black Rock.

### Hudspeth Cutoff

In 1849 another important cutoff was opened along the trail. On July 19 Benoni Hudspeth, leading a large train of rushers to California, came to Soda Springs (Idaho) along the main trail. Like many other travelers, Hudspeth was annoyed at the repeated meanderings of the trail. At Soda

Springs he decided to cut out the northern swing up to Fort Hall, and he struck out directly west, aiming for the main trail as it came back down the Raft River.

Unlike most others who tried uncharted shortcuts, Hudspeth was lucky. On July 24 his party intersected the main trail near City of Rocks. Although the Hudspeth cutoff saved only a few miles, and at best two days, it became the preferred route almost immediately. Emigrants and gold-rushers heading for California in subsequent years also used the new cutoff almost exclusively, leaving the road to Fort Hall for use by Oregon-bound emigrants.

# TRAIL MODIFICATIONS AFTER THE GOLD RUSH

Continued refinements were made to the California Trail system throughout the 1850s, as thousands of overland emigrants made their way to the goldfields. More and more alternative routes and cutoffs were developed by both emigrants and commercial promoters. The new routes, as before, were developed at all three areas where cutoffs had been previously developed.

### Eastern Feeder Routes

In the east, the old Fort Kearny Road, sometimes called the Nebraska City Road, was first used in 1850 by emigrants too impatient to wait in line to jump off at Independence, St. Joseph, or Council Bluffs. Opened in 1847 by the U.S. Army as a supply road to the new Fort Kearny, this road left the Missouri River at Nebraska City, about halfway between St. Joseph and Council Bluffs, and ran almost directly northwest to meet the Platte River just east of Fort Kearny.

# Central Cutoffs

<u>Childs Cutoff</u>. At Fort Laramie, where the Council Bluffs Road crossed the North Platte River to join the main trail on the south bank, Andrew Childs pioneered a new route in 1850 by staying on the north bank between Fort Laramie and Casper. It was tougher going than the main route, but it did attract some use by those in later years who wished to avoid the crush of wagon trains on the south bank, to avoid two river crossings, or to avoid contamination from the diseases being spread along the main trail during peak travel years.

<u>Seminoe Cutoff</u>. In 1850 a fur trapper named Seminoe pioneered an alternative route in central Wyoming between Ice Slough and Burnt Ranch. This route stayed on the south side of the Sweetwater River, thereby avoiding three crossings of the river. The Seminoe cutoff, as it became known, was never much of a favorite with emigrants or gold-rushers, who liked to stay near water, but it was used by freighters and others wishing to bypass the slower-moving emigrant wagons.

Other Cutoffs. In 1852 numerous alternatives were pioneered from the Sublette cutoff, as emigrants and gold-rushers sought to take advantage of this shortcut, but wanted to avoid the 50-mile crossing of the waterless Sublette Flats. Two of these were the Slate Creek cutoff between the Green River and Rocky Gap and the Kinney cutoff east of the Green River. These cutoffs were heavily used as soon as they were opened, as was the Baker-Davis road, a later alternative to the Kinney cutoff east of the Green River. In 1856 the Dempsey-Hockaday cutoff was opened just west of Rocky Gap, which saved several miles of travel on the western end of the Sublette. Most of the trail alternatives in this maze between South Pass and the Bear River divide could be used interchangeably.

Finally, with the discovery of gold in Colorado in 1858, the South Platte Trail was quickly developed between the new gold fields and the California Trail in western Nebraska. When Julesburg (Colorado) was established as a major stage station in 1859, most emigrant and freight traffic on the California Trail shifted down through Julesburg. Although this added a few miles to the route, it enabled them to take advantage of the station's amenities, and to avoid the hard ascent of California Hill and the precipitous descent to the North Platte through Ash Hollow.

#### Western Routes

The California Trail was never improved along the Humboldt River basin, but as soon as the trail passed the Humboldt Sink, additional routes were developed. In 1851 and 1852 alone, no fewer than seven new routes were opened into California, to compete with the pre-gold rush choices of the Truckee, Carson, and Lassen cutoffs. Most of these roads were opened from the California side of the mountains to the east, and all were opened as commercial ventures by either towns or private businessmen eager to attract settlers, laborers, and consumers. As George Stewart has said, "All of them [were] passable and not one of them [was] good."

was the The first of the alternative routes Beckwourth Trail. Beckwourth trail, opened in 1851 by Jim Beckwourth, a mulatto trapper. Beckwourth found an easier pass through the Sierra in the spring of that year, and with the backing of the mining operators at Bidwell Bar and the merchants of Marysville, he intercepted trains headed down the Truckee route and guided them into Marysville. His route left the Truckee near present-day downtown Reno, angled northwest and over Beckwourth Pass, and then back down to the southwest through Bidwell Bar to Marysville. It was a shorter route for gold-rushers headed to Bidwell Bar, but a somewhat longer route for those going to Marysville. Although no statistics are readily available to substantiate the use of the Beckwourth trail in succeeding years, it is safe to say that it was occasionally used, but never became a favorite with emigrants or gold-rushers.

Nobles Road. In 1852 the Nobles road was opened in the north, through the efforts of William H. Nobles and with the financial backing of

merchants in Shasta City. Nobles had completed local explorations the previous year and had succeeded, where Peter Lassen had failed, in establishing a shortcut from the big bend of the Humboldt River into California. His route followed the Applegate and Lassen trails as far as Rabbit Hole Springs, and then headed due west, by way of Honey Lake and Badger Pass, down toward Shasta City (near present-day Redding). Because Shasta City was located north of Lassen's ranch, and because the Lassen trail made a wide detour to the north before heading back south, Nobles used a 20-mile section of Lassen's trail in reverse. This route was used in subsequent years by most gold-rushers heading to the Shasta City area mines, and it later became a great favorite for livestock drivers bringing herds of sheep and cattle into California.

Sonora Road. The Sonora road was backed by the merchants and promoters of Sonora, who subscribed funds in July 1852 for a relief expedition for the benefit of stranded and starving gold-rushers. Anyone taking advantage of the relief was expected to head towards Sonora in gratitude. The Sonora road left the Carson route in the vicinity of Fort Churchill, headed south and southwest through Antelope Valley, and then west across the mountains, crossing the summit just south of present-day Sonora Pass in the vicinity of Granite Dome. (The Sonora Road closely places, the paralleled, in route of the Bidwell-Bartleson party of 1841.) Unfortunately, the high, rough road of the pass (elevation 10,000 feet) and the unbroken trail caused more hardships and suffering for those emigrants induced to try it than if they had been left alone. It never became very popular.

<u>Other Routes</u>. Three other route variations that were opened in 1852 were actually improvements of the Truckee and Carson routes rather than new routes. The Henness Pass route was developed as a more direct route from the Truckee route to Marysville. The Placerville County emigrant road was opened off the Truckee route, using Squaw Pass as an alternative crossing of the summit and ending in Auburn. Johnson's cutoff from the Carson route skirted the southern shore of Lake Tahoe and then headed down into Placerville. Use of these new routes varied from year to year, according to the destination the gold-rushers and emigrants had in mind (if any), and the salesmanship of the various promoters sent east to intercept the wagon trains.

The last major cutoff considered a part of the California Trail system was not only a much later route, but was also backed by quite a different promoter, the U.S. government. Spurred by constant complaints of the lack of a really adequate overland route, Congress appropriated \$300,000 in 1857 for the survey and construction of a proposed Fort Kearny, South Pass, and Honey Lake wagon road. Survey work began that year under the primary direction of Frederick W. Lander.

Concentrating on the area west of South Pass, Lander surveyed two potential routes in 1857, both of which avoided as many river and desert crossings as possible. In 1858 he returned to build the road, including the clearing of forests, construction of a level roadbed, and building of bridges across small streams. When opened to travel in 1859, the Lander road saved travelers five days between Burnt Ranch, where it left the main trail, and Fort Hall, where it rejoined. Lander estimated that 13,000 emigrants used the road in 1859, which may be questionable, since only 19,000 emigrants traveled to Oregon and California that year.

The construction of the Lander road, which was the only portion of the proposed Fort Kearny, South Pass, and Honey Lake wagon road that was actually developed, marked the end of one era of travel to the west and the beginning of another. Surveyed, engineered, and constructed roads were destined to begin to replace the wandering wagon trails opened by fur trappers, emigrants, and gold-rushers. However, to a remarkable extent the modern roadways follow these pioneering routes we have come to know as part of the California Trail.

# ESTABLISHMENT AND MANAGEMENT ALTERNATIVES

# ALTERNATIVE A: NO AUTHORIZATION (NO ACTION)

#### Management Philosophy

No routes or segments of the California Trail would be designated as a national historic trail, nor would any further role be pursued by the National Park Service for the coordinated management and protection of trail resources. Any management and protection provided independently by other agencies--federal, state, or local--would continue to be a function of their own internal policies, priorities, and financial resources.

#### Administration

Without authorization of a trail, neither the National Park Service nor any other federal agency would be assigned overall administrative responsibility.

#### Resource Protection

<u>Within Federal Areas</u>. Each federal land management agency would continue to set its own standards and priorities for identification, protection, stabilization, and research of trail resources. Without authorization, there is no reason to believe that resource protection of known trail segments would receive more or less intensive or coordinated attention than at present.

Outside Federal Areas. No efforts other than those routinely undertaken by each federal agency under its existing mandate and existing priorities would be made to ensure the protection of trail resources outside federal areas. In general, these agencies are required to monitor threats to historic resources immediately outside their administrative boundaries only when such threats would directly affect resources inside their administrative boundaries, or when such resources have been identified as nationally significant for some other reason (e.g., national historic landmarks).

#### Marking the Route

No consistent, coordinated marking program for the historic trail would be developed. Each agency--even each administrative region or district--could develop a marker type as well as its own specific route maps (if any) for public distribution.

# Physical Development, Interpretation, Public Access, and Use

No changes in existing development, interpretation, access, or use of the historic trail would be made under the authority of the National Trails System Act. Each federal agency--as well as state or local groups--would propose, fund, and implement public use proposals according to its own priorities and policies. No attempt would be made to coordinate interpretive activities relating to the whole trail.

### ALTERNATIVE B: AUTHORIZATION OF ALL CALIFORNIA TRAIL ROUTES

### Management Philosophy

Under this alternative all routes and cutoffs as described in the "Historical Background" section would be authorized as part of the national historic trail. This approach essentially accepts all parts of the California Trail system as equally significant, and their degree of integrity or potential for public use and development is not considered in terms of qualification. The goal would be the establishment of a continuous trail system on federal and nonfederal lands, with the maximum degree of protection, development, and public use allowable under the enabling National Trails System Act. The historic trail system would be protected to the highest possible standards by undertaking extensive efforts to protect federal trail resources, as well as resources outside federal areas.

### Proposed Routes

Alternative B would include the following routes:

Main trail from Independence, Missouri, to Humboldt Sink, Nevada

- Eastern Feeder Routes Council Bluffs Road - 1844 St. Joe Road - 1845 Old Fort Kearny Road - 1850
- Central Cutoffs and Alternative Routes Sublette Cutoff - 1844 Hastings Cutoff - 1846 Salt Lake Cutoff - 1848 Hudspeth Cutoff - 1849 Childs Cutoff - 1850 Kinney Cutoff - 1850 Seminoe Cutoff - 1850 Slate Creek Cutoff - 1850 Baker-Davis Road - 1852 Dempsey-Hockaday Cutoff - 1856 Lander Road - 1858 Julesburg Cutoff - 1859

Western Routes Truckee Route - 1844 Applegate Trail - 1846 Carson Route - 1848 Lassen Trail - 1848 Beckwourth Trail - 1851 Nobles Road - 1852 Sonora Road - 1852

Designation of the entire California Trail system would result in a new national historic trail of approximately 5,665 total miles. Of this, approximately 1,100 miles of trail still exists on the ground as trail ruts, traces, and other obvious remnants. About 2,171 miles of this system cross public lands, where most of the physical evidence that exists today is contained. Some 1,873 miles of the system proposed under this alternative are already designated as a part of the Oregon and Mormon Pioneer National Historic Trails.

This alternative would include the greatest possible number of existing and potential historic sites, which could be used for interpretation of the trail story to the general public. Although detailed planning for individual historic sites would take place at a later date, it is estimated that approximately 320 historic sites would eventually be available for public use, including sites in both federal and nonfederal ownership. Of these sites, 100 are already associated with the Oregon and Mormon Pioneer National Historic Trails.

# Administration

The secretary of the interior would be charged with the overall administration of the trail, and the National Park Service would be responsible for consultation and coordination with the heads of all other affected state and federal agencies. Details of this administrative role would be developed in the comprehensive management plan. Basically the Park Service would coordinate management and marking of the extensive, authorized trail system, including participation of nonfederal landowners, negotiation of cooperative agreements to protect nonfederal resources, and acquisition of resources, if necessary. Local offices of land management agencies, such as the states, the Bureau of Land Management, and the U.S. Forest Service, would be responsibile for the actual management of the trail within their respective areas.

### Resource Protection

Within Federal Areas. A full range of protection activities would be undertaken by the federal land-managing agencies on federal lands. This includes setting high standards for physical protection, stabilization, and research of all routes and sites along the routes. Specifically, existing trail traces and associated historic sites would be fully protected from threats posed by development on adjacent lands, road building, utility





pipelines and corridors, mining and minerals exploration and development, and excessive stock grazing.

No changes in the basic mandates of federal agencies would be involved (e.g., the multiple-use mandates of the Bureau of Land Management and Forest Service). These agencies, however, would be required to apply the strictest preservation/protection strategies that their existing policies allow so as to ensure the protection of trail-related resources.

Outside Federal Areas. Under alternative B the responsible federal administering agency (the National Park Service) would have a variety of options available to extend the protection and preservation of historic resources to areas outside federal boundaries. In accordance with the National Trails System Act, state and local governments would be encouraged to take steps to protect and provide access to high-value trail resources. If the state and local governments failed to take these steps, then under this alternative the National Park Service would actively seek to protect resources and provide access through cooperative agreements, the acquisition of easements, or fee acquisition by various means, including purchases or exchanges. Although federal implementation of these land protection options would have high priority under this alternative, it would always be executed on a willing-landowner basis.

#### Marking the Trail

A full trail marking program would be undertaken. This would include the marking of existing portions of the actual historic trail route across both public and private lands. The type and appearance of markers would be consistent all along the trail, and they would be similar to those already in use on other national historic trails. Where physical evidence of a trail no longer exists, its apparent location would be marked in such a way as not to disturb current land uses. Trail routes through developed areas such as cities would be marked in a similar manner.

Local marking systems already in place along portions of the trail, such as those emplaced by state or federal agencies, or private trail-marking groups, would not be replaced, but would be augmented by the distinctive symbol of the California National Historic Trail.

To provide opportunities for the motoring public to drive the entire length of the approximate trail route, public roads near the historic route would be marked. This would be done by placing signs along the federal, state, and county roads that most closely follow the actual route of the trail. This retracement route would be related to the actual trail by means of signs and identified connecting routes so that visitors would be able to easily locate major interpretive sites or portions of the trail where they could take short walks.

Trail maps, guides, and brochures that fully show the route of the historic trail, as well as the automobile tour route, would be produced by the federal government and would be readily available to the general

public. In addition to an overall trail brochure listing interpretive sites and information centers, more detailed maps would be produced at state or regional levels to show local trail conditions, access routes, and trailhead locations. Trail information would be keyed both to long-distance hikers who wanted to follow the actual trail, and to motorists who wanted to drive along parallel highways and visit selected historic sites.

## Physical Development, Intepretation, Public Access, and Use

A coordinated program would be undertaken for physical development and interpretation along the California Trail system. This would include five interpretive visitor centers, whose functions would be to relate the California Trail story to the general public and to supply information to all types of potential trail users. These visitor centers would also be able to supply some regional interpretation and information about localized travel and trail conditions. A series of new roadside interpretive sites (providing both full and minimum visitor services) would be developed between the visitor centers, and existing interpretive facilities would be improved. A systemwide interpretive plan would be developed to prevent redundant interpretive messages and to ensure that the most appropriate sites were chosen to illustrate particular interpretive points.

Numerous additional trailheads would be established at sites along the trail that would be appropriate for hiking, horseback-riding, or off-road vehicle driving. (Vehicles would generally be banned from pristine sections of trail ruts, at the discretion of the local land management agency.) Such trailheads would have parking areas, dispensers for trail brochures, and possibly water and restroom facilities. A maximum number of historical interpretive sites would be developed under this alternative, including stabilized or reconstructed remains, guided and self-guided trails, and other staffed or unstaffed interpretive programs.

The federal share in the cost of facility construction and land acquisition would be substantial, but some of these costs would be borne by state and private agencies.

# Cost Estimates

At the present level of planning and detail it is extremely difficult to give accurate cost estimates. The following estimates are not based on detailed projections or plans about the type and quality of physical facilities, or on any specific appraised land values. The estimates are meant to be used for comparing the various alternatives, and they have been prepared with the same unit costs to facilitate these comparisons. Many factors could affect actual costs, including the use of existing facilities for the Oregon and Mormon Pioneer trails, the construction of new visitor centers, or the adaptive use of existing centers. In future comprehensive planning, if the trail was authorized, detailed site and facility specifications would be developed, as well as recommendations for

new facilities or the consolidation of functions with other existing or planned facilities.

Under alternative B the development of cooperative agreements between federal, state, and local governments would be essential. It is therefore very difficult to predict what proportion of the total cost of facility development or land acquisition might ultimately be provided by all these managing authorities. In table 4 the total cost of a specified item is given, followed by a figure for the federal share considered likely under the basic assumptions of alternative B. For example, the federal share in visitor centers would provide for planning, design, supervision, and exhibits, but actual construction and site preparation costs would be the responsibility of others.

If both the California and Pony Express trails were authorized, then certain new interpretive facilities that relate to both trails could be shared, thus reducing the total cost for development of both trails. (Table 4 has been developed on this assumption.) Shared facilities are denoted by an asterisk in the table. If only the California Trail was authorized, then these costs would have to be increased, unless functions were consolidated with some other facilities.

# Table 4: Cost Estimates, Alternative B California Trail

Construction/New Development	Units	Cost	Federal Share
New visitor centers (3,000 sq ft; one at each end and three in-between; cost shared equally with Pony Express Trail)	5	\$2,500,000*	\$ 900,000*
Additional interpretive roadside stations (for each type costs for 5 shared equally with Pony Express Trail, and 5 for California Trail alone): Full roadside stationunstaffed exhibit area, <sup>1</sup> / <sub>2</sub> mi nature trail, restrooms, 4 picnic facilities,	i		
and 15-car parking area	10	1,900,000*	700,000*
Minimum roadside station unstaffed exhibits, 5-car parking area	10	290,000* \$2,190,000*	<u>110,000*</u> \$ 810,000*
Improvements to existing interpretive facilities (costs for 5 shared equally with Pony Express Trail, and 5 for California Trail alone)	10	150,000*	38,000*
Additional trailheads (signing and 10-car parking area; excludes cost of access roads)	30	350,000	232,000
Historic resource protection (for the 220 sites not included along the Oregon or Mormon Pioneer Trail): Research/excavation Stabilization Fencing Erosion control on trails Preventing vehicle trespass	50 sites 50 sites 50 sites 10 mi 50 places	200,000 50,000 125,000 20,000 12,500 \$ 407,500	150,000 37,000 94,000 15,000 9,000 \$ 305,000
Trail markers (initial capital cost and installation of markers where none now exist; signs at 5-, 1-, or ½-mi intervals, as needed)	2,850 mi	95,000	80,000
Auto retracement route signs (initial capital cost and installation at intervals)	1,500 mi	60,000	60,000
Subtotal Construction/New Developm	nent	\$5,752,500	\$2,425,000

	Units	Cost	Federal Share
Land Acquisition and Cooperative Agreements			
Acquisition of high-value inhold- ings in federal areas (assumes 10% of 2,171 mi in federally owned units [220 mi] are inholdings, of which 22 mi would be acquired): Acquisition by exchange Acquisition by purchase	15 mi 7 mi	(unknown)*** \$2,240,000	(unknown)*** \$2,240,000
Acquisition of high-value segments outside federal areas	5 mi	1,600,000	**
Costs of negotiated agreements Negotiations Implementation of delegated activities Subtotal Land Acquisition/Coopera Agreements		50,000	40,000
		50,000 <b>\$</b> 100,000	50,000 90,000
	ati∨e	\$3,940,000	\$2,330,000
Total Capital Costs		\$9,692,500*	\$4,755,000*
Annual Operating Expenses			
Operation of visitor centers (cost shared equally with Pony Express)	5	\$ 125,000*	
Additional federal employees and travel (costs shared equally with Pony Express): Bureau of Land Management U.S. Forest Service National Park Service Travel, vehicles, supplies	5	52,000* 22,000* 50,000* 25,000* \$ 149,000*	52,000* 22,000* 50,000* <u>25,000</u> * \$ 149,000*
Maintenance of facilities and historic sites		160,000	80,000
Markers	replace 10%	10,000	10,000
Retracement signs	replace 20%	12,000	12,000
Total Annual Operating Expenses		\$ 456,000*	\$ 251,000*

\*Cost if shared with Pony Express Trail; if that trail was not authorized, then this figure would have to be increased.

\*\*Federal share only if state and local governments failed to take actions to protect historic resources.

\*\*\*Actual federal costs for acquisition by exchange are unknown, depending upon staff costs for such necessary and legally required services and reports such as land appraisals, surveys, environmental assessments, and mineral reports.

# ALTERNATIVE C: AUTHORIZATION OF A CONTINUOUS, HIGH-VALUE ROUTE

### Management Philosophy

This alternative would propose authorization of a continuous route that included only those components of the California Trail system with the highest value, based on historical significance, integrity, and potential for public use, development, and interpretation. The trail would be authorized on both federal and nonfederal land.

Including only the highest value routes and cutoffs as part of the authorized historic trail would allow for the most effective management and protection, and it would still adequately commemorate the California Trail. Because the historic integrity and potential for public use of all the trail routes and alternatives appear to be relatively equal, the question of comparative value hinges on judgments of historical significance. Under this alternative those routes and cutoffs pioneered before the gold rush of 1849 have been determined to have the highest historical significance, because it was the existence of the pre-1849 trail system that made the 1849 gold rush possible.

Alternative C would emphasize shared responsibility for the management and protection of trail resources by private landowners, state and federal agencies, and trail user groups having ownership, management, or user interests in the proposed trail system. The intent of this alternative would be to create and encourage an environment for federal agencies to work closely with state, local, and private interests in the protection, interpretation, marking, and public use of trail resources on federal as well as nonfederal lands.

There would be less federal involvement under this alternative than under alternative B, although a similar range of management, protection, and development actions would be proposed. Priorities would be established to concentrate action on the resources with the highest values.

Because of this alternative's narrowed federal scope, uniformly high management standards would not be set for all trail resources. Alternative C would set a variety of standards for providing resource protection, public access, interpretation, use, and development on federal lands, all of which would be based on a priority ranking of historical value. Private sector and state agency involvement would be emphasized to extend protection, development, or use to high-value resources on nonfederal lands.

### Proposed Routes

Because they were established before the gold rush, the following portions of the California Trail system appear to have the highest historic value and are proposed for authorization under alternative C:

Main trail from Independence, Missouri, to Humboldt Sink, Nevada

Eastern Feeder Routes Council Bluffs Road - 1844 St. Joe Road - 1845

- Central Cutoffs Sublette Cutoff - 1844 Salt Lake Cutoff - 1848
- Western Routes Truckee Route - 1844 Applegate Trail - 1846 Carson Route - 1848 Lassen Trail - 1848

The Hastings cutoff is excluded from alternative C, even though it was a pre-1849 route, because it was almost never used following the nationwide publicity about the fate of the Donner-Reed party.

Under alternative C approximately 3,821 total miles would be authorized as part of the California National Historic Trail, with 1,114 miles lying within federally managed units. Approximately 764 of the 3,821 miles of trail still exist on the ground, the remainder having been lost because of previous development activities. As in alternative B, the great majority of existing physical trail evidence is on federally managed lands. Of the total mileage proposed under alternative C, 1,873 miles of trail are already established as part of the Oregon and Mormon Pioneer National Historic Trails.

Alternative C would include fewer historic sites that would eventually be interpreted to the general public, reflecting the lower number of trail miles proposed for the system. It is estimated that approximately 224 historic sites would be included under this alternative, of which 100 are already established as part of the Oregon and Mormon Pioneer National Historic Trails.

### Administration

The administration of the historic trail would be similar to alternative B, with the National Park Service being responsible for consulting and coordinating with other agencies, and with those agencies being responsible for the actual management of the trail within their areas. The scope of administrative activities, however, would be somewhat less than under alternative B because fewer miles would be authorized as part of the trail. A specific administrative structure capable of meeting the management and development needs, as described below, would be proposed in the comprehensive management plan.

### Resource Protection

Within Federal Areas. The protection by federal agencies of existing trail traces and historic sites within federal areas would continue to be important. However, standards set for physical protection, preservation, stabilization, and research would be somewhat less than under alternative B, and priorities would be established so that the areas of highest value would receive the greatest care. Existing trail traces and associated historic sites on federal land would be protected as appropriate from external threats, such as mineral exploration and grazing. Overall, federal managing agencies would be required to apply appropriate strategies for preservation/protection.

Outside Federal Areas. The trail would be designated on both federal and nonfederal lands, and this alternative would carry some obligation for cooperating agencies to extend protection to trail resources on nonfederal lands. However, the strategy would emphasize a moderate course that would generally rely on negotiated cooperative agreements with state and private landowners, rather than full fee acquisition, to ensure the necessary protection.

### Marking the Trail

Identification of the historic trail would be similar to alternative B, except the total trail length would be shorter. Consistent, coordinated marking of the actual historic trail would be undertaken, as well as the identification and marking of automobile roads which follow portions of the historic routes which no longer exist on the ground. Private enterprise would be encouraged to produce guides or maps for people wanting to retrace the trail route along the nearest hard-surfaced roads, but the National Park Service would not attempt to establish or mark an auto retracement route along the entire length of the trail. A general information brochure about the California National Historic Trail would be prepared and published by the National Park Service. As in alternative B, local marking systems already in place along portions of the trail Historic Trail.

# Physical Development, Interpretation, Public Access, and Use

Alternative C would propose a smaller federal role in interpretive development than that outlined for alternative B. Broad interpretive themes relating to the trail system would still be presented at visitor centers at each end of the trail and at three points along the trail, and a systemwide interpretive plan would be formulated. However, only modest interpretive development would occur at the more easily accessible historic sites along the trail, principally on state or federal lands. The federal contribution would be limited to technical assistance, such as plan and design reviews and other consultant services that could be provided by the National Park Service. Similar technical assistance would be given in




the development of six additional, small-scale interpretive sites along the trail, and some improvements would be made at existing sites.

Compared to alternative B, less emphasis would be placed on increasing public access to the trail and on trailhead development for long-distance hiking, horse use, or vehicle travel over the actual trail. However, the goal would still be to provide the public with reasonable access to as many high-value segments as possible. Negotiated agreements would be required to some extent to ensure this access. Maximum efforts, including some financial support, would be extended to encourage private landowners, private historical groups, and state or county agencies to provide reliable access outside federal lands, and to provide for the management and development of nonfederal trail resources.

#### Cost Estimates

Cost estimates for development, land acquisition or cooperative agreements, and annual operations under alternative C are shown in table 5. The same assumptions and cautions as described for alternative B would apply. The federal share in the major construction items would be much more limited than under alternative B.

# Table 5: Cost Estimates, Alternative C California Trail

	Units	Cost	Federal Share
Construction/New Development			
New visitor centers (3,000 sq ft, one at each end and three in- between; cost shared equally with Pony Express Trail)	5	\$2,500,000*	\$ 63,000*
Additional interpretive roadside stationsminimum roadside station (costs for 3 shared equally with Pony Express Trail, 3 for California Trail alone)	6	175,000*	15,000*
Improvements to existing interpre- tive facilities (3 shared equally with Pony Express Trail)	6	90,000*	23,000*
Additional trailheads (signing and 10-car parking areas; excludes cost of access roads)	15	175,000	58,000
Historic resource protection (for the 124 sites not included in the Oregon and Mormon Pioneer trails) Research/excavation Stabilization Fencing Erosion control on trails Preventing vehicle trespass	35 sites 35 sites 35 sites 10 mi 35 places	140,000 35,000 87,500 20,000 9,000 \$ 291,500	106,000 26,000 66,000 15,000 7,000 \$220,000
Trail markers (initial capital cost and installation of markers where none exist)	1,000 mi	34,000	28,000
Subtotal Construction/New Development		\$3,265,500*	\$407,000*

Land Acquisition and	Units	Cost	Federal Share
Cooperative Agreements			
Acquisition of critical inholdings within federal areas (assumes 10% of 1,400 mi in federally owned areas [140 mi] are inholdings, of which 7 mi would be acquired to ensure both access and protection): Acquisition by exchange Acquisition by purchase	10 mi 4 mi	(unknown) \$ 640,000	(unknown) \$ 640,000
Acquisition of segments outside inholdings (all by state or local governments)	(unknown)	)(unknown)	
Costs of negotiated agreements on federal and nonfederal lands: Negotiations Implementation of delegated activities		75,000 <u>100,000</u> <u>\$ 175,000</u>	37,500 50,000 \$ 87,500
Subtotal Land Acquisition/Cooper Agreements	ative	<u>\$ 815,000</u>	<u>\$ 727,500</u>
Total Capital Costs		\$4,080,500*	\$1,134,500*
Annual Operating Expenses			
Operation of visitor centers (cost shared equally with Pony Express)	5	\$ 125,000*	
Additional protection and interpretive employees, and travel (costs shared equally with Pony Express Trail): Bureau of Land Management U.S. Forest Service National Park Service Travel, vehicles, supplies Maintenance of facilities and	00	15,000* 5,000* 20,000* <u>12,000</u> * \$ 52,000*	15,000* 5,000* 20,000* 12,000* \$ 52,000*
historic sites	80	50,000	25,000
Markers	replace 10%	4,000	4,000
Total Annual Operating Expenses	i	\$ 231,000*	\$ 81,000*

\*Cost if shared with Pony Express Trail; if that trail was not authorized, then this figure would have to be increased.

### ALTERNATIVE D: AUTHORIZATION OF A CONTINUOUS ROUTE, WITH DEVELOPMENT LIMITED TO HIGH-VALUE SEGMENTS AND SITES WITHIN FEDERAL AREAS

### Management Philosophy

Under alternative D a continuous route would be authorized as a national historic trail, as required by the National Trails System Act, but federal protection and development would be limited to high-value segments and sites already within the boundaries of established, federally owned land management units. Alternative D would emphasize protection as the first priority, and development for interpretation and recreation as the second priority. This approach would result in scattered, federally developed trail segments and historic sites. Almost no federal involvement would occur along the eastern half of the trail, and developed segments in the western half would be disjunct. Options under this alternative would be to designate all routes and cutoffs within federal areas or to designate only the highest value segments (defined in alternative C as those existing before 1849).

There would be no federal encouragement for trail protection and development outside the boundaries of federal units. Therefore, minimum cooperation would be needed with private landowners and state or local governments to manage trail properties unless they were inholdings within federal areas or there were direct connections and interactions with resources on federal lands.

### Proposed Routes

All routes that are on federal and nonfederal lands and that were used before 1849 would be recommended for authorization, but as a matter of policy only those segments lying within the boundaries of existing federally owned units would be provided federal protection and would be developed. Specifically, this would include trail segments and historic sites on inholdings inside BLM, NPS, or USFS management boundaries.

Routes that would be authorized would be identical to those in alternative C (3,821 miles). But only the main trail west of Casper, Wyoming, the Sublette cutoff, the Salt Lake cutoff, and the western terminus routes (the Truckee and Carson routes and the Applegate and Lassen trails) would actually be protected and have visitor facilities. Most portions of these segments are within federally managed areas.

The protected portion of this system would consist of approximately 2,171 miles of trail that are either already federally owned or are on inholdings within federal boundaries. Exact trail mileage to be protected under this alternative would not be determined until field surveys were completed, but protected segments would consist principally of visible traces and tracks. Of the 2,171 miles that would be actively protected under this alternative, 246 miles are already authorized as part of the Oregon and Mormon Pioneer National Historic Trails.





Fewer historic sites would be protected under this alternative than under alternatives B and C. Based on current data, approximately 128 historic sites would eventually be included in the system, 13 of which are already protected as part of the Oregon and Mormon Pioneer trails.

No trail segments or historic sites on state and county lands would be actively protected or developed under federal authorities, although these segments could be developed by state and local governments.

#### Administration

The administration of the trail by the National Park Service would be similar to alternative C, but the scope of administrative activities would be considerably reduced compared to alternatives B and C because protection, development, and interpretation of trail sites and segments outside federal areas would not be actively pursued.

#### Resource Protection

Within Federal Areas. Trail support facilities would only be developed on federal lands, and protection would be exclusively directed to those resources on federal lands. As described for alternative C, priorities would be established to protect trail resources. The highest standards of protection would be applied to the most significant, threatened, and vulnerable resources (trail traces, historic buildings, or other physical remains), and lower standards would be applied to the remaining resources.

As described under alternative C, federal acquisition of inholdings would occur only if resources were severely threatened. The preferred method of protection would be cooperative agreements.

Outside Federal Areas. Trail resources outside federal areas would not be protected under the National Trails System Act. Consistent with the restricted scope of this alternative, the National Park Service would not actively encourage private owners or states and counties to preserve, protect, or provide public access to trail resources on private lands. No additional federally supported trail research or archeological investigation would be undertaken for resources outside federal boundaries.

### Marking the Trail

Alternative D would propose the least extensive program of trail marking, concentrating exclusively on the placement of consistent markers along trail segments within federal land units. No portions of the California Trail that have been lost to development would be marked. An automobile route would not be marked, nor would trail guides or maps be produced.

### Physical Development, Interpretation, Public Access, and Use

No federally supported visitor centers would be developed. Agencies responsible for managing long portions of the designated trail would be encouraged to devote additional space to trail interpretation in existing visitor contact facilities, or to develop at their discretion new facilities to interpret regional themes. Interpretive activities and facilities at existing developed sites on federal lands would continue, but few new sites would be developed. An interagency interpretive plan (effective only for the five western states) would be developed to provide guidelines for the routine replacement or upgrading of existing interpretive exhibits.

Public access to the trail on federal lands would continue essentially as at present. No extraordinary attempts would be made to provide access to currently inaccessible trail segments on private inholdings, except where negotiated agreements to protect resources could also include public access provisions.

### Cost Estimates

Cost estimates, including the federal share, are shown in table 6. The same assumptions and cautions as described for alternative B apply to these estimates.

# Table 6: Cost Estimates, Alternative D California Trail

Construction/New Development	Units	Cost	Federal Share
Improvements to existing visitor facilities (cost of two facilities shared equally with Pony Express Trail)	10	\$150,000*	\$100,000**
Historic resource protection (for the 115 sites not included in the Oregon or Mormon Pioneer trails; assume federal responsibility for 25% of all sites):			
Research/excavation Stabilization Fencing Erosion control on trails Preventing vehicle trespass	50 sites 50 sites 50 sites 10 mi 50 places	200,000 50,000 125,000 20,000 <u>12,500</u> \$407,500	50,000 12,500 31,000 5,000 <u>3,000</u> \$101,500
Trail markers (initial capital cost and installation of markers where none exist)	500 mi	17,000	17,000
Subtotal Construction/New Develop	oment	\$574,500	\$218,500

Land Acquisition and Cooperative Agreements	Units	Cost	Federal Share
Acquisition of critical inholdings within federal areas (assumes 10% of 1,400 mi in federally owned areas [140 mi] are inholdings, of which 1.4 mi are critical and would be acquired to ensure protection): Acquisition by exchange Acquisition by purchase	1.0 mi 0.4 mi	(unknown) \$128,000	(unknown) \$128,000
Acquisition of segments outside inholdings	(unknown	)(unknown)	
Costs of negotiated agreements within federal areas: Negotiations Implementation of delegated activities		20,000 20,000 \$ 40,000	20,000 
Subtotal Land Acquisition/Coope Development	erative	<u>\$168,000</u>	<u>\$168,000</u>
Total Capital Costs		\$742,500*	\$386,000*
Annual Operating Expenses			
Additional protection employees and travel (costs shared equally with Pony Express Trail): Bureau of Land Management U.S. Forest Service National Park Service Vehicles, travel, and supply		15,000* 5,000* 5,000* <u>10,000*</u> \$ 35,000*	15,000* 5,000* 5,000* <u>10,000*</u> \$ 35,000*
Maintenance of facilities and historic sites (on federal land)	80	50,000	50,000
Markers (on federal land)	replace 10%	2,000	2,000
Total Annual Operating Expense	S	\$ 87,000*	\$ 87,000*

\* Cost shared with Pony Express Trail; if that trail was not authorized, then this figure would have to be increased.

\*\*Federal funds that would have to come from within existing BLM or USFS budgets, not from NPS appropriations under the National Trails System Act.



### HISTORICAL BACKGROUND

#### OVERVIEW

After American title to the Oregon territory was negotiated with Great Britain in 1846, and the southwest was acquired from Mexico in 1848, United States territory became continuous from the Atlantic Ocean to the Pacific Ocean. Two years later, in 1850, California was admitted to the Union as the 31st state. But although over a half million emigrants had populated the vast wilderness west of the Rocky Mountains by 1860, major differences in lifestyles and perspectives between the East and West--and painfully slow communications--had created a nation of two separate parts.

As events led to the Civil War, pressure increased on Congress to establish better linkages between East and West. Westerners urged Washington to provide transcontinental mail service and to open roads across unsettled stretches of the country. But for more than a decade the development of communication and transportation facilities by the government was mired in political struggle. The selection of an overland mail route turned into an issue of partisan controversy among advocates favoring a southern passage as opposed to a central overland trail.

In 1855 Sen. William M. Gwin of California introduced a bill in Congress proposing a weekly mail line from St. Louis to San Francisco and the construction of military posts along the central route, but the bill met with southern opposition. Two years later Congress authorized letting a contract to provide overland mail service to California. A 2,700-mile southern route was selected by the contractor. In the east the route started at Memphis, Tennessee, and another route headed south from St. Louis, meeting the eastern route in Arkansas. The route then continued southwestward across Texas, New Mexico, and Arizona. At Yuma, the route forked--one branch led to southern California while the other swung north to San Francisco.

The adoption of this southern route brought protests from supporters of the central route, who maintained the southern trail was too indirect and dubbed it an oxbow route. Although the route was well organized and provided regular service, the journey was slower than what some felt was possible, and the route failed to directly satisfy the needs of Californians. Still, for various reasons the federal government remained convinced that the southern route was the only practical way to carry mail from coast to coast.

To prove the practicability and superiority of a central overland route, and to compete for the overland mail contract, the Central Overland California and Pike's Peak Express Company was started by William R. Russell, in partnership with Alexander Majors and William B. Waddell. Previously, the firm of Majors and Russell had a successful freighting monopoly for transporting military supplies and other goods across the plains to army troops and settlements in the west. Under this new enterprise the firm added stagecoach service to their existing freight line. When the stagecoach operation failed to show a profit, Russell impetuously committed the company to establishing a 10-day horse relay mail express--the birth of the Pony Express. However, financial support was not forthcoming from the federal government.

#### Establishment of the Pony Express

The Central Overland California and Pike's Peak Express Company moved its headquarters from Leavenworth, Kansas, to the Patee House in St. Joseph, Missouri. This became the eastern terminus of the Pony Express, and the B.F. Hastings Building in Sacramento, California, was designated as the western terminus. From there, the mail was to be carried by boat down the Sacramento River to San Francisco. The distance between the termini was over 1,800 miles. Mail was to be carried around the clock in both directions, with departures once each week from either end.

In just over two months the necessary arrangements were made, a remarkable logistic accomplishment. The line had five divisions, with a superintendent assigned to each, as well as a general superintendent. Efficient local operations were the responsibility of each division's station agents, who depended heavily on their superintendents to maintain and supply the line.

Accounts differ as to the actual number of stations built or used, but it seems safe to assume that over 150 were connected with the Pony Express. Beyond Salt Lake City, where the route departed from existing stage and freight lines, new stations had to be constructed. Because of a shortage of timber in parts of the Great Basin, particularly western Utah and Nevada, stations were made of adobe brick or stone. In some instances, dugouts and tents served as temporary shelters. On the eastern segment of the trail, many of the stations were originally part of the company's overland stage stops and were spaced 20 to 25 miles apart. Later, additional stations had to be built in-between at 10- to 15-mile intervals. The distance between stations was based on how far a horse could travel at the fastest sustainable speed over a given terrain before a change was needed. For the entire distance, the average speed was 250 miles in a 24-hour period, or 10.7 miles per hour. Individual riders would change horses at relay (remount) stations, and cover from 75 to 100 miles before reaching a home station where they would be relieved by another rider.

Over 500 of the best horses available were selected for their speed and endurance at a cost of \$150 to \$200 each, three or four times the going rate for an ordinary saddle horse. Specially designed saddles were also made; they were in the form of a unique jockey-type saddle and weighed less than 13 pounds. The leather seat with saddle horn and cantle provided a soft cushion for comfort in riding long distances. Thrown over the saddle, with openings for the horn and cantle, was a rectangular leather blanket called a "mochila" (mail pouch). Four locking "cantinas" (hard leather pockets) were sewn to the mochila and lined with oilskin to protect the mail from the sweat of the horse and rain or snow. During the journey the mochila was switched from horse to horse. Three of the cantina pockets contained "through mail" and were kept locked the entire trip. "Local mail" was placed in the fourth pocket and deliveries were made enroute. Upon arriving at relay stations, Pony Express riders were allowed only two minutes to switch the mochila from one horse to another. In practice the exchange was often made in even less time, in an unbroken stride or without the rider's feet ever touching the ground.

Initially 80 riders were recruited by division superintendents. Upon qualifying, each rider took an oath and was issued a small Bible. In addition to receiving a monthly salary averaging \$50, plus bonuses, each rider was housed and fed at company expense. With some 400 station keepers and stock tenders already employed, operations were ready to begin.

While preparations were being made in the field, administrative offices were being established in New York, Washington, Chicago, and St. Louis to gather mail for forwarding to St. Joseph. Mail rates were initially \$5 an ounce (later reduced to \$1 per ounce), with an additional charge of 10¢ for U.S. postage. Letters were generally written on thin tissue paper. Telegraph messages arriving at each terminus were forwarded at a cost of \$2.45 per communique. Total weight of the dispatches, both letters and telegraph messages, was not to exceed 20 pounds. Heavier mail items, such as magazines and newspapers, were shipped by stagecoach. In total, 34,753 pieces of mail were carried over the 18-month period the Pony Express was in existence--23,356 eastward and 11,397 westward.

### Start of Service

Just two months after the enterprise was formed, the inaugural run of the Pony Express began on April 3, 1860. The scheduled starts from both Missouri and California were slightly delayed through no fault of the company. In the east the mail coming from Detroit on the Hannibal-St. Joseph railroad was two hours late, and in the west the steamer from San Francisco which carried the company's messenger to Sacramento was late. It is reported that this delay made the actual start from the western terminus on April 4, 1860. Following this initial delay, all future dispatches eastward from Sacramento were on schedule.

With the mail off in both directions, the first riders raced across the grueling route. Often the weather was disagreeable, and in many places roads were virtually nonexistent and trails nearly impassable. Yet the chain of intrepid young riders and their hard-pressed mounts made all haste to make up for lost time. The riders passed each other somewhere east of Salt Lake City on April 8, 1860; after nine days and 23 hours the first westbound rider rode into Sacramento, one hour ahead of schedule. The eastbound rider arrived in St. Joseph just minutes short of exactly 10 days.

### Financial Problems and End of Operations

In May and June 1860, just a month after the historic first run, the Pony Express bore the brunt of the Pyramid Lake Indian War. This Paiute uprising was costly in both lives and money. Among the casualties were dozens of station keepers and their assistants, but only one express rider, a young Mexican, is known to have died. In an attempt to stop the Indian raids, several military/civilian expeditions were launched. In one, Maj. William Ormsby of Carson City led a group of 105 volunteers who were ambushed on the morning of May 12, with 76 being lost.

During these two months, and intermittently for weeks to come, 250 miles of the Pony Express trail lay in a virtual state of siege as bands of agressive warriors burned and destroyed station after station. With the resulting loss of revenue, and the subsequent expense of resupplying stations and equipment, the company's losses were estimated as high as \$75,000.

By July service resumed, although conditions remained tense. Тο appease public demands, the Pony Express was extended to а leaving twice-weekly schedule, Sacramento every Wednesday and Saturday. The company, already in deep financial trouble, still hoped to impress Washington officials of the need to grant a contract subsidy. The strain upon the riders as well as field staff under this new schedule increased proportionately. Yet despite the strains, records for speed and endurance of the express carriers kept mounting, as did accounts of the perseverance and devotion to duty of station keepers.

Of all the company's problems and difficulties, the overwhelming trouble remained one of finances. Even though the Pony Express proved the practicability of the central route, no monetary assistance was ever provided by the U.S. government, and every effort to secure financial support through a government subsidy failed. The Central Overland California and Pike's Peak Express Company was on the verge of bankruptcy, and it had been that way since before the Pony Express was started. To further complicate matters, in December 1860 Russell became involved in an \$870,000 bond scandal. Yet the Pony Express continued to run on schedule, although no one is sure how or why. Only some crucial missing records of the company and of co-owner Alexander Majors might ever answer that question.

During late spring and early summer of 1861, telegraph lines were being built from both the east and the west and were coming closer together at a rate of six miles a day. The Pony Express continued carrying mail over its full route, but telegrams were only carried between the narrowing gap between telegraph termini.

On October 26, 1861, coinciding with the completion of the telegraph link, the Pony Express was officially terminated. Riders had made more than 150 round trips, covering over 600,000 miles. In the 18 months that the Pony Express was in operation, nearly 35,000 pieces of mail were transported, the mail was lost only once, one horse died of exhaustion, and one rider was killed.

### Significance of the Pony Express

The Central Overland California and Pike's Peak Express Company not only accomplished its objective of rapidly delivering mail but also set a precedent for transportation and communication in the development of the West. The central overland trail popularized by the Pony Express did become the route followed by the telegraph, and nine years later by the transcontinental railroad. The Pony Express successfully crossed the Great Plains, the Rocky Mountains, the Great Basin, and the Sierra Nevada at unprecedented speeds and provided regular, year-round mail service from the Atlantic to the Pacific. Finally, the Pony Express appeased the demands of the people on the west coast for rapid communication and a sense of contact with events and governmental activities in the east.

Before its demise, the Pony Express had achieved national prominence and carried some of the century's most urgent news dispatches to the West Coast. President Buchanan's message to Congress in December of 1860 was dispatched in 8 days; in March 1861 President Lincoln's inaugural address was carried in 7 days 17 hours; and during April 1861 the West Coast learned of the attack on Fort Sumter and kept abreast of the imminent outbreak of the Civil War.

Overseas, French and German publications produced articles and pictures showing Pony Express riders being chased by Indians. A representative from the London <u>Illustrated News</u> was sent to St. Joseph to do a cover story on these fascinating mail couriers. Many European investors found it speedier to receive business reports by sending them across country on the Pony Express rather than by ship. While England and China were at war, the Pony Express carried official war documents.

### THE PONY EXPRESS ROUTE

The Pony Express Trail is generally defined as the route followed by the Pony Express riders for over 1,800 miles from St. Joseph, Missouri, to Sacramento, California (see Pony Express Trail map). Most of the original trail has been obliterated either by time or human activities, and along many segments the trail's actual route and exact length are matters of conjecture. At only a few places, such as where a narrow mountain pass limits the passageway, can historians be sure of the exact route.

For the most part the eastern segment of the route follows the Oregon, California, and Mormon Pioneer trails through Kansas, Nebraska, and Wyoming. It then follows the Mormon Pioneer Trail and the Salt Lake cutoff of the California Trail from Fort Bridger to Salt Lake City. The western segment, starting from Salt Lake City, departs from the more well-known routes and cuts across central Utah, crossing the Great Basin through central Nevada, then following the Carson River and scaling the Sierra Nevada at Echo Summit. From the summit the trail generally follows what is now old US Highway 50 through Placerville to Sacramento. There are no visible trail ruts definitely attributable to the Pony Express along the eastern portion of the route. In the western states, the majority of the trail has been converted over the years to double track dirt roads typically used by private working ranches, or on federal lands to public jeep trails. Short pristine segments believed to be traces of the original trail can be seen only in Utah and California. However, some tangible evidence of original Pony Express Trail stations and related features can still be identified in each of the states.

### Missouri

As the eastern terminus and headquarters of the Pony Express, St. Joseph has long been known as the "Home of the Pony Express." Both the headquarters building (Patee House) and stable still exist and have been developed as interpretive facilities open to the public.

Although all traces of the actual route through St. Joseph have been covered by development, the route is known and can be retraced for 4 miles to its crossing (originally by ferry) of the Missouri River into Kansas.

### Kansas

The Pony Express route in Kansas covered some 131 miles in the northeastern corner of the state. Initially avoiding the emigrant routes (that is, the St. Joe Road portion of the California Trail), the Pony Express followed a network of established roads and trails until meeting the St. Joe Road and, slightly farther west, the main Oregon-California Trail.

No original traces of the route exist in Kansas, but the route is well documented and is accessible from, or is actually covered by, public roads. A river crossing, a barn, and a station site are considered to be historic resources.

### Nebraska/Colorado

With few exceptions, the Pony Express trail followed the south bank of the Platte River (and the Oregon/California trails) through Nebraska to the junction of the South Platte. Again staying on the south side, the Pony Express followed the South Platte in its short jog into Colorado to Julesburg. Turning northwest, the trail reentered Nebraska and continued back up to the North Platte to rejoin the main emigrant trails through Scottsbluff and on up the North Platte into Wyoming.

Much of the Platte River corridor in Nebraska and Colorado is privately owned, intensively developed agricultural land. This, combined with the development of Interstate 80 and other highways on both the north and south banks, has effectively eliminated original traces of the Pony





Express Trail (as well as the emigrant trails). However, much of the route, including the portion in Colorado and sections crossing rangeland in the Nebraska panhandle, are still reasonably accessible for public use. Although only three of the 37 original Pony Express stations along this stretch are standing, nearly a dozen other station remains and associated historic sites are already developed or are likely candidates for public interpretation.

### Wyoming

Across southern Wyoming the Pony Express followed the Oregon, California, or Mormon trails for almost 470 miles. This route paralleled the North Platte to present-day Casper, then followed the Sweetwater River until crossing the Continental Divide at South Pass. The Pony Express Trail left the Oregon and main California trails at Fort Bridger and followed the Mormon Trail and the Salt Lake cutoff southwestward into Utah. Just west of Casper the route is on BLM lands, and it remains on or adjacent to BLM lands across the rest of the state.

Over the tremendous expanses of sage-covered high plains and along the rolling and sometimes spectacular course of the Sweetwater, the various trails are visible as double-track dirt roads that are generally passable by four-wheel-drive vehicle. Faint wagon traces alongside the existing tracks show where wagons spread out to avoid one another's dust or to find a slightly better grade.

A total of 289 miles of trail (over half the mileage in Wyoming) show evidence of historic resources. Although 39 stations were originally in operation, only a few faint traces of foundations remain today. A total of 12 sites, including the location of some important stations and landmarks, could be used for Pony Express Trail interpretation in Wyoming.

### Utah

The mountainous, winding route through the Wasatch Mountains of northeastern Utah eventually followed the Salt Lake Cutoff of the California Trail, and the Mormon Pioneer Trail down Emigration Canyon into Salt Lake City. From Salt Lake City the route left the Salt Lake cutoff of the California Trail--which looped back northward--and after a short south leg to avoid the lake turned due west. From this point the trail crossed some of the most barren and desolate desert country in the state until it reached the Nevada border in the present-day Goshute Indian reservation.

Of the 238 miles of trail in Utah, about 206 miles are generally accessible to the public. One privately owned 10-mile stretch from Needle Rock to Cache Cave, contains some 5 miles of original single-track trail and 5 miles of primitive double-track. Another stretch believed to be pristine is also on private property in western Utah. Nearly 60 percent of the Utah Pony Express route is still visible as double-track primitive road, but much of the remainder is known to have disappeared under improved and hard-surfaced roads.

Of the 26 station sites in the state, 25 have been located, but few original remains are standing. Three original stations have been restored, and two more sites have been developed as wayside interpretive facilities. These and two more station sites for a total of seven could be used for public interpretation.

#### Nevada

As it entered present-day Nevada (in 1860 it was part of Utah Territory), the Pony Express Trail began its most dangerous, desolate, and lonesome stretch. Through the 456 miles of mostly high desert, the trail made its way due west from water hole to water hole. (Modern US 50 follows the general route, but usually some miles to the south.) The route traversed several mountain ranges and made its way across the rugged and challenging country.

Reaching the relatively easier country around Carson City, the original route dropped south to Genoa and crossed the Sierra Nevada at Echo Summit (along modern-day US 50). A permanent route change after only a few months put the trail slightly north, but still south of Lake Tahoe, to go over Daggets and eventually Johnson Pass, a shorter distance (by 12 miles) and less snowy.

Some 80 percent of the Pony Express Trail in Nevada is on public lands, and the majority of trail is considered double-track jeep trail. These segments can generally be traversed only with horse, motorcycle, or four-wheel-drive vehicle, and they are so remote that extensive planning and effort are needed to retrace them.

Although 28 stations were believed to have been operated in Nevada, only 10 or 11 locations can definitely be located, and only three of these are substantially intact. Considering these stations and several other less-evident stations and some associated historic sites, only nine or ten areas could be considered for continued or future public use and interpretation.

### California

Because of the route change in Nevada, two Pony Express routes existed in California. The original Carson River route crossed Echo Summit, descended the South Fork of the American River to Placerville, and ended in Sacramento. The later Kingsbury-McDonald route over Johnson Pass also eventually reached the South Fork and descended to Placerville, cutting out about 12 miles. Slight route variations occurred west of Placerville because the original terminus in Sacramento was moved to Folsom, and then to Placerville when the telegraph was completed to those cities. About 144 miles of the original trail and 122 miles of the final route are in California. Some 36 miles cross Eldorado National Forest, where a 10-mile segment, one of perhaps only two or three original single-track sections remaining along the entire route, has already been designated as a national recreation trail. Although roads parallel or even overlay the trail along much of the nonfederal portions, there are many points where there are still visible trail remains. The route also passes through several small rustic mining towns and historic communities that predate the Pony Express.

Approximately 60% of the trail in California (88 of the 144-mile original trail or 79 of the 122-mile final route) has been tentatively identified as being accessible to the public. All 15 station sites in California have been marked and designated as historic landmarks. Nine of the 15 station sites and nine additional historic sites might be developed and used as Pony Express interpretive sites. Because public and private agencies in California have been active for years in locating and marking historic sites in the general area, much interpretive development has already occurred.

The original terminus building in Sacramento, the B.F. Hastings Building, still stands and has been restored. Together with nearby Old Sacramento State Historic Park these structures and restored surroundings still present a fitting and genuinely historic scene for the end of an 1,800-mile route that helped change the face of the West.

### ESTABLISHMENT AND MANAGEMENT ALTERNATIVES

### ALTERNATIVE A: NO AUTHORIZATION (NO ACTION)

### Management Philosophy

No portions of the Pony Express trail would be authorized as a national historic trail, and there would be no further NPS involvement in overall administrative activities. However, trail resources already administered by the Bureau of Land Management, U.S. Forest Service, or National Park Service would continue under present management strategies, subject to these agencies' respective internal policies, priorities, and financial resources.

### Administration

Without authorization of a national historic trail, no federal agency would be assigned overall administrative responsibility for the trail.

#### Resource Protection

<u>Within Federal Areas</u>. Each federal land management agency would continue to set its own standards and priorities for protection, stabilization, and research of trail resources. Trail resources not yet identified or protected under current policies would probably not receive federal protection in the future.

Outside Federal Areas. Other than routine actions taken by each federal agency under its existing mandate and priorities, no efforts would be made to ensure the protection of trail resources outside federal areas. In general, federal agencies are required to monitor threats to trail resources immediately outside their administrative boundaries only when such threats would directly affect resources inside their boundaries, or when such resources have other national significance (e.g., national historic landmarks).

### Marking the Route

No consistent, coordinated marking program for the Pony Express Trail would be developed. Each agency--even each administrative region or district--would continue to develop a marker type as well as its own specific route maps (if any) for public distribution.

### Physical Development, Interpretation, Public Access, and Use

No changes in existing development, interpretation, access, or use would be made under the authority of the National Trails System Act. Each federal agency--as well as state or local groups--would propose, fund, and implement public use proposals according to its own priorities and policies. No attempt would be made to coordinate interpretive activities relating to the whole trail.

### ALTERNATIVE B: AUTHORIZATION OF ALL ROUTES USED BY THE PONY EXPRESS

### Management Philosophy

Under this alternative, all components of the Pony Express Trail (both the original route and later changes) would be authorized as a national historic trail. The entire Pony Express Trail system, on both federal and nonfederal lands, would thus receive the maximum degree of protection, development, and public use allowable under the National Trails System Act.

### Proposed Routes

Routes proposed for authorization would include the original Pony Express Trail route of April 1860 from St. Joseph, Missouri, to Sacramento, California, and all subsequent changes used through October 26, 1861. Specifically, the two route changes to be included with the original route would be the Kingsbury-McDonald road (Nevada-California border) and the Green Valley road (California). Authorization would include over 1,855 miles of trail route and about 120 sites, including 50 existing Pony Express stations or station ruins, related structures, and a dozen or so historic sites associated with the trail.

### Administration

The secretary of the interior would be charged with the overall administration of the national historic trail, and the National Park Service as the administering agency would be responsible for consulting and coordinating with the heads of all other affected state and federal Details of this administrative role would be developed in the agencies. comprehensive management plan for the trail. Basically the Park Service would coordinate management and marking of the authorized trail system, nonfederal landowners, negotiation of including participation of cooperative agreements to protect nonfederal resources, and acquisition of resources, if necessary. Local offices of land management agencies, such as the states, the Bureau of Land Management, and the U.S. Forest Service, would be responsible for the actual management of the trail within their respective areas.

### Resource Protection

Within Federal Areas. This alternative would propose a full range of protection activities to be undertaken by federal land-managing agencies within federal areas. This would include setting high standards for the physical protection of existing trail protection, traces and for stabilization, and research at all stations and associated historic sites. All confirmed station sites where visible remains are known would be preserved and appropriately developed. Any threats to resources posed by development on adjacent lands, road building, utility pipelines and corridors, mining and minerals exploration, excessive stock grazing, or other situations would be addressed.

This alternative would not propose changes in the basic mandates of federal agencies involved (e.g., the multiple-use mandates of the Bureau of Land Management or U.S. Forest Service). However, these agencies would be encouraged to apply the strictest preservation/protection strategies allowed by their existing policies so as to ensure the protection of trail-related resources.

Outside Federal Areas. The National Park Service, as the responsible administering agency, would extend protection and preservation to as much of the designated trail system outside federal areas as feasible. As stipulated in the National Trails System Act, the first actions would be to encourage state and local governments to provide protection and access to high-value trail resources. If state and local governments failed to take these steps, the Park Service would actively seek such protection through either cooperative agreements, fee-simple acquisition (by exchange or purchase), or acquisition of easements to ensure the preservation and availability for public use of all significant trail resources now on nonfederal lands. Although federal implementation of these land protection options would have a high priority under this alternative, it would always be executed on a willing-landowner basis.

### Marking the Trail

Under this alternative the entire authorized Pony Express Trail, as well as routes that parallel and provide access to the trail, would be identified with a series of permanent markers consistent in type and appearance along the entire length of the trail, and also similar to markers already in use on other national historic trails. This approach would include the marking of all trail segments on federal lands and, with permission, private lands. Local marking systems already in place along portions of the trail, such as those emplaced by state or federal agencies, or private trail-marking groups, would not be replaced, but would be augmented by the distinctive symbol for the Pony Express National Historic Trail.

Where physical constraints prohibit or limit passage, markers would be placed at strategic locations to visually show the route. Uniform directional signs along highways and roads would be provided to identify





access points to the trail corridor, station sites, historic resources, and other associated points of interest. An automobile route that closely parallels the entire route of the Pony Express Trail would be marked to afford a recreational experience for automobile tourists. Signs would also be posted to mark connecting routes, points where the trail actually crosses a road or where it is covered by the roadway, directions to access points and station sites, interpretive displays, historic sites, and associated points of interest.

Pony Express Trail maps, road maps, and brochures would be produced by the federal government for public information and use. These guides would provide information pertaining to all types of uses, identify station sites and historic sites, and include other pertinent information to enhance users' safety and enjoyment.

### Physical Development, Interpretation, Public Access, and Use

This alternative would propose the development of a systemwide, coordinated interpretive program for the Pony Express Trail and all station sites. The public would be told about the history of the site and area, cultural values, and events that took place at the site or along the immediate trail segment. An interpretive plan would be prepared to outline themes and ensure that programs were not redundant. The plan would also propose appropriate sites to interpret specific themes.

To provide complete information and an integrated interpretive view of the entire trail, this alternative would propose the development of visitor centers in St. Joseph, Missouri, and Sacramento, California, which would be complemented by centers focusing on regional themes at three intermediate locations. Each center would be equipped to fully interpret the Pony Express story through visual aids and written materials. An assortment of literature would be provided to benefit all types of trail users, and regional information, travel and trail conditions, and localized assistance would be available. Interpretive sites along the roads following the historic trail alignment would also be developed, and existing interpretive facilities would be improved. Additional road access and trailheads would be developed at intervals along the entire route, and interpretive information and maps would be provided at trailheads for that trail segment. Parking areas and restroom facilities would generally be provided at each trailhead. Trailhead facilities would be located so as not to adversely affect trail resources.

### Cost Estimates

At the present level of planning and detail it is extremely difficult to give accurate cost estimates. The following estimates are not based on detailed projections or plans about the type and quality of physical facilities, or on any specific appraised land values. The estimates are meant to be a means for comparing the various alternatives, and they have been prepared with the same unit costs to facilitate these comparisons. Many factors could affect actual costs, including the use of existing facilities for the Oregon and Mormon Pioneer trails, the construction of new visitor centers, or the adaptive use of existing centers. In future comprehensive planning, if the trail was authorized, detailed site and facility specifications would be developed as well as recommendations for new facilities or the consolidation of functions with other existing or planned facilities.

Under alternative B the development of cooperative agreements between federal, state, and local governments would be essential. It is, therefore, very difficult to predict what proportion of the total cost of facility development or land acquisition might ultimately be provided by all these managing authorities. In table 7 the total costs of specific items are given, followed by a figure for the federal share considered likely under the basic assumptions of this alternative. For example, the federal share in visitor centers would be to provide planning, design, supervision, and exhibits, while leaving the actual construction and site preparation to others.

If both the California and Pony Express trails were authorized, then certain interpretive facilities that relate to both trails could be shared, thus reducing the total cost for development of both trails. Shared facilities are noted with a asterisk in the following table. However, if the California Trail was not authorized, then these costs would have to be increased.

# Table 7: Cost Estimates, Alternative B Pony Express Trail

Construction/New Development	Units	Cost	Federal Share
Visitor centers (3,000 sq ft; one at each end and three in- between; costs shared equally with California Trail)	5	\$2,500,000*	\$ 900,000*
Additional interpretive roadside stations (for each type, costs for 5 shared equally with California Trail, 5 for Pony Express Trail alone): Full roadside station unstaffed exhibit area, <sup>1</sup> / <sub>2</sub> mi nature trail, restrooms, 4 picnic facilities, and 15-car			
parking area	10	1,900,000*	700,000*
Minimum roadside station unstaffed exhibit area, 5-car parking area	10	<u>290,000</u> * \$2,190,000*	<u>110,000*</u> \$ 810,000*
Improvements to existing inter- pretive facilities (costs for 5 shared with California Trail, 5 for Pony Express Trail alone)	10	150,000*	38,000*
Additional trailheads (signing and 10-car parking area; excludes cost of access roads)	20	232,000	155,000
Historic resource protection (for all 120 stations and associated historic sites): Research/excavation Stabilization Fencing Erosion control on trails Preventing vehicle trespass	30 sites 10 sites 10 sites 10 miles 10 places	120,000 10,000 25,000 20,000 2,500 \$ 177,500	90,000 7,500 19,000 15,000 2,000 \$ 133,500
Trail markers (initial capital cost and installation of markers where none now exist)	640 mi	22,000	18,000
Auto retracement route signs (initial capital cost and installation at intersections and 5-mi intervals)	1,000 mi	40,000	40,000
Subtotal Construction/New Deve	elopment 93	\$5,311,500*	\$2,094,500*

	Units	Cost	Federal Share
Land Acquisition and Cooperative Agreements			
Acquisition of high-value inholdings within federal areas (assumes 10% of 729 mi in federally owned areas [73 mi] are inholdings, of which 7.3 mi would be acquired): Acquisition by exchange Acquisition by purchase	5 mi 2.3 mi	(unknown)** \$ 736,000	(unknown)*** \$ 736,000
		<i> </i>	¢,
Acquisition of high-value segments (e.g., original single-track trail) outside inholdings (320 acres/mi)	5 mi	1,600,000	1,600,000**
Costs of negotiated agreements Negotiations Implementation of delegated activities		50,000 50,000 \$ 100,000	40,000 50,000 \$ 90,000
Subtotal Land Acquisition/Coop Agreements	erati∨e	\$2,436,000	\$2,426,000
Total Capital Costs		\$7,747,500*	\$4,520,500*
Annual Operating Expenses			
Operation of visitor centers (cost shared equally with California Trail)	5	125,000*	
Additional employees and travel (costs shared equally with California Trail): Bureau of Land Management U.S. Forest Service National Park Service Travel, vehicles, supplies		52,000* 22,000* 50,000* 25,000* \$ 149,000*	52,000* 22,000* 50,000* 25,000* \$ 149,000*
Maintenance of facilities and historic sites	100	152,000	76,000
Markers	replace 10%	2,000	2,000
Retracement signs	replace 20%	8,000	8,000
Total Annual Oper	ating Expenses	\$ 436,000*	\$ 235,000*

\*Cost if shared with California Trail; if that trail was not authorized, then this figure would have to be increased.

\*\*Federal share only if state and local governments failed to take actions to protect historic resources.

\*\*\*Actual federal costs for acquisition by exchange are unknown, depending upon staff costs for such necessary and legally required services and reports such as land appraisals, surveys, environmental assessments, and mineral reports.

### ALTERNATIVE C: AUTHORIZATION OF THE ORIGINAL PONY EXPRESS ROUTE

### Management Philosophy

It is recognized that the entire route of the Pony Express is significant, regardless of any remaining physical evidence. Management and interpretation would emphasize this continuity, but as a practical matter, protection, development, and use would be focused on those high-value segments on both federal and nonfederal lands where physical remains can be seen or routes can be clearly identified.

Alternative C would emphasize shared responsibility for the management and protection of trail resources by private landowners, state and federal agencies, and trail user groups having ownership, management, or user interests in the proposed trail system. The intent of this alternative would be to create and encourage an environment for federal agencies to work closely with state, local, and private interests in the protection, interpretation, marking, and public use of trail resources on federal as well as nonfederal lands.

There would be less federal involvement under this alternative than under alternative B, although a similar range of management, protection, and development actions would be proposed. Priorities would be established to concentrate action on the resources with the highest values.

### Proposed Route

Based on the rationale that the original route of April 1860 has more symbolic significance than later route changes, the authorized historic trail would follow only the original route from St. Joseph, Missouri, to Sacramento, California. This action would designate roughly 1,833 continuous miles of national historic trail. Some 50 existing Pony Express station sites and related structures, plus other historic sites, would be included in the designation. The authorizing legislation would recognize the existence of high-value segments, but they would not be specifically identified until the comprehensive management plan determined appropriate protection levels.

### Administration

The administration of the national historic trail would be similar to that described under alternative B, with the National Park Service as the administering agency being responsible for consulting with the heads of all other affected state and federal agencies, and with those agencies being responsible for the actual management of the trail within their areas.

### Resource Protection

<u>Within Federal Areas</u>. Alternative C would not propose as great a federal role as alternative B in the protection of trail resources. This approach would result in somewhat lower standards for protection, stabilization, and research for segments or sites within federal areas. It would also concentrate these efforts on high-value segments, according to a priority ranking of significant sites. Even though low-value segments within federal areas would receive less attention, as part of the designated historic trail they would always receive a minimum level of protection.

<u>Outside Federal Areas</u>. Under this alternative all high-value segments and sites or stations outside federal areas would be protected, but the strategy would rely more heavily upon negotiated cooperative agreements with state and private landowners rather than on full or partial acquisition by the federal government (as under alternative B).

### Marking the Trail

Alternative C would propose a program of historic trail identification similar to that described in alternative B, except that the total trail length would be shorter. Consistent, coordinated marking along the continuous length of the historic route of the Pony Express Trail would be undertaken. Guides or maps may be produced through public or private funding to assist those who wanted to retrace the approximate route of the trail along nearby hard-surfaced roads, but the National Park Service would not attempt to establish or mark an auto retracement route along the entire length of the route.

The National Park Service would produce a general information brochure about the trail. As in alternative B, local marking systems already in place along portions of the trail would be augmented by the distinctive symbol for the Pony Express National Historic Trail.

### Physical Development, Interpretation, Public Access, and Use

Under alternative C broad interpretive themes relating to the significance of the entire trail would be offered only at major interpretive centers at each end of the trail and probably at three points along the trail. The federal contribution would be limited to technical assistance, such as the review of plans and designs or other consultant services that could be provided by NPS staff. Similar technical assistance would be given in the development of perhaps six small-scale interpretive facilities, which would be placed at easily accessible sites along high-value segments. Existing interpretive sites would be improved.

Less emphasis than under alternative B would be placed on increasing public access to the trail and on trailhead development for hiking, horse use, or off-road vehicle travel over the trail. The goal would be to provide reasonable access to all high-value segments of the authorized




trail on both federal and nonfederal lands. Negotiated agreements would be used to secure access on nonfederal lands. Private landowners, private historical groups, and state or county agencies would be encouraged to provide access outside federal lands and to develop and manage trail resources on nonfederal lands.

### Cost Estimates

Cost estimates for alternative C, including the anticipated federal share, are shown in table 8. See alternative B cost estimates for cautions and assumptions.

# Table 8: Cost Estimates, Alternative C Pony Express Trail

	Units	Cost	Federal Share
Construction/New Development			
Visitor centers (3,000 sq ft each; one at each end and three in-between; costs shared with California Trail)	5	\$2,500,000*	\$ 63,000*
Additional interpretive roadside stationsminimum roadside station (costs for 3 shared with California Trail, 3 for Pony Express Trail alone)	6	175,000*	15,000*
	Ũ	1707000	.0,000
Improvements to existing inter- pretive facilities (3 shared with California Trail)	6	90,000*	23,000*
Additional trailheads (signing and 10-car parking area; ex- cludes cost of access roads)	15	175,000	58,000
Historic resource protection (for 60 stations and sites tentatively identified as significant resources):			
Research/excavation Stabilization Fencing Erosion control on trails Preventing vehicle trespass	15 sites 5 sites 5 sites 10 mi 10 places	60,000 5,000 12,500 20,000 2,500 \$ 100,000	45,000 4,000 9,000 15,000 2,000 \$ 75,000
Trail markers (initial capital cost and installation of markers where none exist)	620 mi	21,000	17,000
Subtotal Construction/New Dev	elopment	\$3,061,000*	\$251,000*

	Units	Cost	Federal Share
Land Acquisition and Cooperative Agreements			
Acquisition of critical inholdings (assumes 10% of 707 mi in federally owned areas [71 mi] are inholdings, of which 7.1 mi would be acquired to ensure both access and protection Acquisition by exchange Acquisition by purchase	n): 5 mi 2.1 mi	(unknown) \$ 672,000	(unknown) \$ 672,000
Acquisition of segments outside inholdings (all by states or local governments)	(unknown)	(unknown)	
Costs of negotiated agreements on federal and nonfederal lands: Negotiations Implementation of delegated act	ivities	75,000 125,000 \$ 200,000	37,500 62,500 \$
Subtotal Land Acquisition/Coop Agreements	erative	<u>\$ 872,000</u>	<u>\$ 772,000</u>
Total Capital Costs		\$3,933,000*	\$1,023,000*
Annual Operating Expenses			
Operation of visitor centers (cost shared equally with California Trail)	5	\$ 125,000*	
Additional protection and inter- pretive employees, and travel (costs shared equally with California Trail): Bureau of Land Management U.S. Forest Service National Park Service Travel, vehicles, supplies		15,000* 5,000* 20,000* 12,000*	15,000* 5,000* 20,000* 12,000*
Maintenance of facilities and		\$ 52,000*	\$ 52,000*
historic sites	80	50,000	25,000
Markers	replace 10%	2,000	2,000
Total Annual Operating Expense	es	\$ 229,000*	\$ 79,000*

<sup>\*</sup>Cost if shared with California Trail; if that trail was not authorized, then this figure would have to be increased.

# ALTERNATIVE D: AUTHORIZATION OF A CONTINUOUS ROUTE, WITH DEVELOPMENT LIMITED TO HIGH-VALUE SEGMENTS AND SITES WITHIN FEDERAL AREAS

#### Management Philosophy

Alternative D would propose the authorization of a continuous route as a national historic trail, as required by the National Trails System Act, but federal protection and development would be limited to those trail portions already on or within the boundaries of federal land management units. That is, federal efforts would be confined essentially to those segments already under federal jurisdiction. This alternative would emphasize protection as the first priority, and development for interpretation and recreation as the second priority. Responsibility for the management and development of intervening segments on state, county, or private lands would remain in the hands of those owners.

#### Proposed Route

The original trail from St. Joseph, Missouri, to Sacramento, California, including the Kingsbury-MacDonald and Green Valley route changes in California, would be authorized as the national historic trail. Under this alternative 1,855 miles of trail route would be designated, and about 105 sites, including 50 stations or station ruins, related structures, and a dozen or so other historic sites, would be protected. However, alternative D would effectively limit protection and development to the 729 miles of trail on BLM and USFS lands and inholdings west of Casper, Wyoming, and to the NPS historic sites at Fort Laramie, Wyoming, and Scottsbluff, Nebraska.

#### Administration

The administration of the trail by the National Park Service would be similar to alternative C, but the scope of administrative activities would be considerably reduced compared to alternatives B and C because protection, development, and interpretation of trail segments outside federal areas would not be actively pursued.

#### Resource Protection

Within Federal Areas. Trail support facilities would only be developed on federal lands, and protection would be exclusively directed to those resources on federal lands. As described under alternative C, a priority system for protecting resources would be established. This would identify the most significant, threatened, and vulnerable federal trail resources (trail traces, historic station buildings, or other physical remains) and ensure their protection, while lower protection standards would be applied to the remaining resources. No comprehensive additional trail research or archeological investigation would be undertaken with federal support.





The federal acquisition of inholdings would only occur in situations of extreme resource threat. The preferred protection method would be through cooperative agreements.

Outside Federal Areas. No protection under the National Trails System Act would be extended to trail resources outside federal areas, including those visible segments of remaining single-track traces on private lands. Consistent with the restricted scope of this alternative, the National Park Service would not expend significant efforts to encourage private owners, or state or county governments, to preserve, protect, or provide public access to trail resources on their lands. No additional federally supported trail research archeological investigation or would be undertaken for resources outside federal boundaries.

#### Marking the Trail

Trail markers of consistent design would be placed along existing trail segments only within federal areas. Portions of the Pony Express Trail that have been lost to development would not be marked. Alternative D would not propose either the development of an automobile route retracing the trail or the production of trail guides and maps.

# Physical Development, Interpretation, Public Access, and Use

No new visitor centers for the Pony Express Trail would be developed by the federal government. Agencies that already manage long portions of the designated trail would be encouraged to devote additional space in existing visitor contact facilities to trail interpretation, or to develop new regional facilities at their discretion. Interpretive activities and facilities at specific existing developed sites on federal lands would continue, but few new sites would be developed. An interagency interpretive plan for the four western states would be developed to provide guidelines for the normal replacement or upgrading of existing interpretive exhibits so that eventually there would be some continuity and integration of interpretation along the designated trail.

Public access to the trail on federal lands would continue essentially as at present. No extraordinary attempts would be made to provide access to currently inaccessible trail segments on private inholdings, except where negotiated agreements to protect resources could also include public access provisions.

## Cost Estimates

Cost estimates for alternative D, including the anticipated federal share, are shown in table 9. The same assumptions and cautions as described for alternative B apply to these estimates.

# Table 9: Cost Estimates, Alternative D Pony Express

Construction/New Development	Units	<u>Total Cost</u>	Federal Share
Improvements to existing			
visitor facilities (2 each WY, ID, UT, NV, CA; cost shared equally with California Trail)	10	\$ 150,000*	\$100,000**
Historic resource protection (for the 105 sites not included in the Oregon or Mormon Pioneer Trails; assume federal responsibility for 25% of all sites): Research/excavation Stabilization Fencing Erosion control on trails Preventing vehicle trespass	50 sites 50 sites 50 sites 10 mi 50 places	200,000 50,000 125,000 20,000 12,500 \$ 407,500	50,000 12,500 31,000 5,000 <u>3,000</u> \$101,500
Trail markers (initial capital cost and installation of markers only on federal land)	387 mi	13,000	13,000
Subtotal Construction/New Dev	elopment	\$ 570,500*	\$214,500*
Land Acquisition and Cooperative A	greements		
Acquisition of critical inholdings (assumes 10% of 729 mi in federal ownership [73 mi] are inholdings, of which 3.7 mi are critical and would be acquired to ensure protection):			
Acquisition by exchange Acquisition by purchase	2 mi 1.7 mi	(unknown) \$ 544,000	(unknown) \$544,000
Acquisition of segments outside inholdings	none		
Costs of negotiated agreements within federal lands: Negotiations Implementation of delegated activities		20,000 20,000 \$ 40,000	20,000 20,000 \$ 40,000
Subtotal Land Acquisition/Coop Agreements	perative	<u>\$ 584,000</u>	<u>\$584,000</u>
Total Capital Costs	106	\$1,154,500*	\$798,500*

Annual Operating Expenses	Units	Cost	Federal Share
Additional protection employees and travel (costs shared equally with California Trail):			
Bureau of Land Management U.S. Forest Service National Park Service Vehicles, travel, and supply		15,000* 5,000* 5,000* <u>10,000</u> * \$ 35,000*	15,000* 5,000* 5,000* <u>10,000</u> * \$ 35,000*
Maintenance of facilities and historic sites	80	25,000	25,000
Markers	replace 10%	1,500	1,500
Total Annual Operating	Expenses	\$ 61,500*	\$ 61,500*

\* Cost if shared with California Trail; if that trail was not authorized, then this figure would have to be increased.

<sup>\*\*</sup>Federal funds that would have to come from existing BLM or USFS budgets, not from NPS appropriations under the National Trails System Act.



# REGIONAL SETTING

The conceptual nature of this suitability/feasibility study for national historic trail authorization does not require a lengthy description of the regional environment. The following sections provide only an overview to provide a context for considering the major alternative approaches.

### PHYSICAL ENVIRONMENT

The California and Pony Express trails cross over 1,800 miles of the western United States, from roughly the center of the country to practically the Pacific Ocean. Where these routes begin, the geography consists of broad, flat, low elevation river corridors in Kansas, Nebraska, and eastern Wyoming and high plains and grasslands in western Wyoming. After crossing the Continental Divide at South Pass (7,500 feet elevation) in western Wyoming, the routes enter the diverse Great Basin terrain in northern Utah and Nevada. Along this section rugged mountains alternate with progressively drier sage and scrub desert and alkali flats. Leaving the high deserts of western Nevada, the various routes must climb 6,000 to 8,000 feet over the steep, eastern face of the Sierra Nevada before descending the more gentle western slopes into California's central valley.

The trails enter or cross several of the nation's major river drainages. East of the Rocky Mountains, the Platte, the Missouri, and the Mississippi rivers drain to the Gulf of Mexico. The Colorado River drainage, including the Green River and the Colorado River, flows south into the Gulf of California. The Basin and Range province (i.e., Great Basin) includes the Virgin and White Rivers which drain into the Lower Colorado River. Most of the land area of the Great Basin drains internally, that is, there is no drainage to the ocean. To the west and northwest, the Snake River flows into the Columbia River carrying water to the Pacific Ocean.

Vegetation along the route is as varied as the topography, from woodlands, prairies, and farmlands on the eastern flatlands to the high sagebrush plains of Wyoming and the eastern Great Basin. Although the valley bottomlands of the Great Basin are dotted by deciduous trees, the deserts are dominated by creosote bush and other drought-tolerant species. Coniferous trees (pinyon, juniper, and various pines) are common at higher elevations around the rim of the Great Basin and where the trails cross the Sierra.

As suggested by the diverse topography and vegetation, this broad section of the western United States also exhibits climatic extremes. On the eastern plains the relatively long summers are hot and dry; winters can be severe, with substantial snows and occasional blizzards. The Rocky Mountains, the edges of the Great Basin, and the Sierra Nevada all have relatively cooler and shorter summer seasons, a mild spring and fall, and winters with zero and subzero temperatures. Within the Great Basin itself summers are long, hot, and very dry, and winters are relatively mild.

In general, recreational activity along the trail routes occurs in the spring, early summer, and fall. Winter weather may or may not be suitable for activities such as retracing long sections of the trails by car, or making long cross-country hikes or rides.

#### POPULATION AND ECONOMY

From Missouri to the Wyoming border the landscape is dominated by intensively managed agricultural operations, and the population is distributed among small and medium-sized towns along the Platte and North Platte rivers. Highly developed east-west transportation corridors along these rivers (including I-80) and secondary roads provide easy access from all directions.

In Wyoming the population is widely scattered along the trail route. The small towns and settlements depend principally on ranching and grazing activities for their livelihood, and to a lesser extent on forestry and mineral resources. Western Wyoming in particular is very sparsely populated.

Northern Utah, in the vicinity of Salt Lake City, is relatively densely populated. But west central Utah consists of sparsely populated lands with very little agricultural or other economic base. Across Nevada the network of trail routes and cutoffs crosses some of the least populated areas of the United States, although small service-oriented communities occur near highways. Western Nevada, near the California border, has far more productive lands for dry farming and grazing, and it has a relatively dense urban population, where incomes and living standards are higher than the rest of the state.

Eastern California is dominated by government-owned forestlands or private ranchlands, where either commercial timber operations or grazing and ranching operations predominate. Where the trails end in California's northern central valley, the economies are dominated by intensive agriculture, and the population is centered in cities and towns of modest size whose economies originally focused on farming but are now generally diversified.

#### TRANSPORTATION AND ACCESS

It is not coincidental that the routes followed by the California and Pony Express trails have become major interstate transportation corridors. In fact, Interstate 80 follows the main California Trail route, with minor deviations, for almost its entire length, in many cases taking advantage of the same passes and the gentlest grades once traversed by the emigrant wagon trains.

Where historic and modern travel routes diverge, access to historic trail traces is still relatively easy from the interstate system by way of paved, well-maintained federal, state, and county roads. However, segments of the Pony Express route across northern Nevada, and the Nobles and Applegate trails in northern Nevada, are not readily accessible. Where historic routes are not paralleled by good roads, there is at least access to particular points along the trail. Often in those circumstances the trail remnants are two-track roads that may be (depending on landownership and other factors) open to four-wheel-drive or high-clearance vehicles. Certain portions of the routes that pass through undeveloped BLM or USFS lands may not be accessible to vehicles because of prior decisions by those agencies to designate certain lands as roadless or wilderness areas.

The towns and cities along the present-day paved roads provide minimum services and overnight accommodations.

#### MINERAL AND ENERGY RESOURCES

There are significant oil and gas resources along the trail routes in southern and southwestern Wyoming, as well as oil shale deposits which may have considerable future value. Wyoming also contains potentially significant deposits of coal, uranium, trona, and other industrial and metallic minerals. The South Pass Mining District, in particular, has potentially significant gold, silver, and iron resources.

Hard-rock minerals and important metals such as gold, silver, and iron are still produced in north central Nevada and eastern California. Seasonal oil and gas seismic exploration, and exploration for dispersed gold deposits occurs throughout northern Nevada. Geothermal resources exist along both the California and Pony Express trail routes in Nevada, particularly in the vicinity of the Black Rock Desert, and in the Simpson Pass area near Fallon.

Crude or refined oil product pipelines and natural gas pipelines parallel or cross the trail routes at several locations. Most such crossings are in Wyoming or western Nebraska.

Hydroelectric power generation is relatively undeveloped along the routes. Several generating facilities along the Platte River supply power eastward; facilities have also been constructed on many rivers on the west slope of the Sierra. Transmission lines cross the trail routes at perhaps a dozen points.

#### CURRENT RECREATION RESOURCES

Along the eastern half of the trails public recreation focuses on fishing and boating on rivers and river impoundments. Agricultural lands and mixed agricultural lands and woodlands along the rivers provide good bird-watching areas and opportunities for waterfowl and grassland bird shooting, plus some deer hunting. Antelope, elk, and deer hunting are popular in open areas from central Wyoming into Utah.

On national forest and BLM lands recreational activities range from off-road or rough-road vehicle use to horseback riding, hiking and backpacking, rock hounding, camping, photography, and exploration. Specific trail-related recreational use is described in the "Existing Conditions" chapter.

Federal lands available for recreational activities include some eight national forests that are crossed by main or cutoff routes. The National Park Service administers two sites immediately on or near the routes: Scotts Bluff National Monument on the North Platte in western Nebraska, and Fort Laramie National Historic Site in eastern Wyoming.

#### EXISTING CONDITIONS

#### LANDOWNERSHIP AND LAND USES

#### California Trail

Approximately 2,170 miles (38%) of the 5,665-mile California Trail network are on federal lands. The Bureau of Land Management administers 1,534 miles (27%) of the trail system, which represents the majority of the federal lands. The Forest Service administers 486 miles (8.6%), primarily in California. Other federal agencies manage 80 miles, including portions now flooded by federal impoundment projects.

States and their political subdivisions administer 1,158 miles (20.4%) of the trail system. The majority of this mileage is within rights-of-way of state- and county-owned roads and highways.

Private ownership totals 2,336 miles (41%). The routes also cross Indian reservations for 71 miles.

Table 10 summarizes landownership along the California Trail, including all cutoff routes. (Ownership reflects present administration, which in a few cases, such as public lands under lease or withdrawal, may differ from the legal owner). The Landownership map depicts general patterns of federal and nonfederal landownership along the trail. (Details of land areas in mixed ownership, such as the alternating public and private "checkerboard" lands patterns along railroad rights-of-way in southwestern Wyoming and other areas, are not depicted on the map.)

	Federal		Nonfederal				
	BLM	USFS	Other	Indian	State	Private	Total
lowa and Nebraska					207	740	1 007
Missouri and Kansas					327	740	1,067
					5	128	133
Wyoming	556	31			94	407	1,088
Idaho	58	35		65	82	217	457
Utah	111	4			124	110	349
Nevada	691				177	268	1,136
California	63	416		6	155	354	994
Oregon	55		<u> </u>		194	112	361
Total	1,534	486	80*	71	1,158	2,336	5,665
Percentage of Total	27.1	8.6	1.4	1.3	20.4	41.2	100

Table 10: Landownership along the California Trail System (in miles)

Source: BLM land status maps; NPS 1975 and 1978.

\*Includes Bureau of Reclamation and other miscellaneous federal lands.

Major land uses along the trail route include grazing, agriculture, forestry, and urban development. Table 11 categorizes land use by state for the entire route. The most prominent use is rangeland in Wyoming, Idaho, Utah, and Nevada, whereas agriculture is the major land use along the route in Nebraska, Kansas, California, and Oregon. In California and Oregon the route also traverses extensive tracts of forestland. Urban areas, a relatively small proportion of the route, include St. Joseph, Omaha, Salt Lake City, Reno, Sacramento, Eugene, and Salem.

	Agriculture	Forestland	Rangeland	Urban Development	Desert Shrubland (mostly ungrazed)
lowa and					
Nebraska	648	16	193	90	
Missouri and Kansas	122			10	
Wyoming	220	72	730	62	
Idaho	148	62	210	34	
			107	65	46
Utah	103	25			
Nevada	95	28	750	85	148
California	303	425	100	128	
Oregon	123	135	40	64	
Totals	1,762	763	2,130	538	194

Table 11: Major Land Uses along the California Trail (in miles)

Source: Geological Survey 1970.

#### Pony Express Trail

For 698 miles (38%), the Pony Express Trail is in private ownership. The route crosses Indian lands for 12 miles (1%) in eastern Nevada. The remaining 1,145 miles (61%) are on land owned either by federal, state, or local governments (see table 12 and Landownership map).

Of the 729 miles (39%) that are federally owned, the Bureau of Land Management administers 650 miles (35%). The Forest Service administers lands along 75 miles (4%), most of which are in California. The Bureau of Reclamation and other miscellaneous federal agencies account for about 4 miles. States and their political subdivisions administer 416 miles (22 percent) of the Pony Express Trail, the majority being where the trail lies within rights-of-way of state- and county-owned roads and highways.





		Federal		Nonfederal			
	BLM	<u>USFS</u>	Other	Indian	State <u>&amp; City</u>	<u>Private</u>	Total
Missouri and Kansas	-	-		-	5	127	132
Nebraska	-	-		-	131	313	444
Colorado	-	-		-	-	16	16
Wyoming	213	-		-	70	170	453
Utah	132	1		-	71	36	244
Nevada	305	18		12	58	16	409
California		<u>56</u>	<u> </u>		_81	_20	<u>157</u>
Total	650	75	4*	12	416	698	1,855
Percentage of Total	35	4	0	1	22	38	100

Table 12: Landownership along the Pony Express Trail (in miles)

Source: BLM land status maps; NPS 1975 and 1978.

\*Includes Bureau of Reclamation and other miscellaneous federal lands.

Major land uses along the trail include rangeland, agriculture, forests, urban development, and desert (see table 13). Rangeland is the dominant use (49%) along the route, followed by agriculture (29%), and combinations of other land uses.

Table 13: Major Land Uses along the Pony Express Trail (in miles)

	Agriculture	Forestland	Rangeland	Urban Development	Desert Shrubland (mostly ungrazed)
Missouri					
and Kansas	122	-	-	10	-
Nebraska	314	8	88	34	-
Colorado	16	-	-	-	-
Wyoming	68	6	357	22	_
Utah	15	34	93	38	64
Nevada	-	8	357	24	20
California			_10	_70	-
Totals	535	133	905	198	84

Source: Geological Survey 1970.

# THREATS TO TRAIL RESOURCES

Existing and potential threats to historic trail resources are considered in two categories: discrete sites related to the trails and the linear trails themselves. Threats to specific historic sites, such as gravesites, historic buldings and ruins, and natural feature landmarks, are generally the same as threats to historic resources elsewhere. Specific sites on public lands are protected under existing federal and state historic preservation laws. Unless the owners of private lands with historic such resources, sites on private lands are not protected under federal or state legislation. Such sites may be subject to threats from the gradual encroachment of urban development, new transportation corridors, and industrial and agricultural activities. In such cases a public education process may be needed to convince the private owner of the value of a specific historic resource.

Threats to "linear" historic resources, such as long stretches of original trail traces, are relatively new challenges for historical preservationists and land managers. Because the boundaries of these resources are difficult to define, they are hard to designate as historic resources.

Without this designation such resources are not protected under federal legislation, and they are still subject to adverse impacts from agriculture, industry, transportation, and urban growth. These threats are most significant along western portions of the trails, where most of the existing physical trail traces are located. The problem is intensified by the "linear" nature of these resources. It is considerably more difficult, for example, to protect a 35-mile stretch of trail ruts that may have several landowners than it is to protect an isolated gravesite or historic structure that has one owner.

## CURRENT PUBLIC USE, DEVELOPMENT, AND ACCESS

## California Trail

Present and Projected Uses. Detailed estimates of current public uses or accurate projections of future uses are difficult to obtain because there are thousands of miles of trail and hundreds of historic sites in 11 states on lands owned or managed by various federal, state, local, and private agencies, as well as individuals. Also the level and nature of public use of resources associated with the trail differ considerably. Some visitors simply stop at major historic sites, while others actually ride or hike along the trail. As an example, visitation figures for major sites such as Fort Laramie National Historic Site and Sutter's Fort State Park have averaged around 300,000 per year over the last decade. Visitation at less known sites, such as the Susan Hail grave or Lassen's Meadow, is much lower, although collectively visitor use at all these sites is substantial.

Cross-country use of the trail system is exceedingly difficult to calculate. Based on very limited data and some estimates obtained from federal and state agencies and trail user groups, it is estimated that between 150,000 and 200,000 visitors use cross-country portions of the trail each year. If this rough estimate is combined with actual and estimated visitation at all the historic sites associated with the California Trail system, total public use could be several million per year. As with the Oregon and Mormon Pioneer trails, use could rise appreciably if the California Trail was authorized as a national historic trail, particularly if such authorization was followed by some facility developments and the publication of maps and brochures.

<u>Recreational Activities</u>. Recreational uses vary according to the nature of the historic resources. For example, Sutter's Fort, a major historic site in Sacramento, attracts both history-oriented tourists and trail buffs, plus large numbers of school groups. Historic sites in more rural areas are visited primarily by vacationing families and occasional tour groups. The typical activities include visiting museums, looking at interpretive exhibits, and walking along short self-guided trails.

Cross-country trail users constitute a special category of visitors who are willing to take the time and effort to retrace the actual wagon routes. Whether as individuals or as groups, these visitors are the most consistent users of the cross-country portions of the trail system, returning year after year to hike or ride along different portions of the trail. A surprisingly large number of these visitors have the ultimate goal of retracing the entire Oregon and California trail systems, from one end to the other. A small percentage of them hike cross-country, some ride horseback, but most use four-wheel-drive vehicles. Some motorcycles are undoubtedly used, as are an increasing number of nonmotorized "mountain" bicycles.

Interpretive Programs. The development of interpretive centers, historic sites, access points, and trailheads along the California Trail system, including those portions already established as part of the Oregon and Mormon Pioneer trails, has been inconsistent and uncoordinated. No major visitor interpretive centers along the California Trail currently relate the story of the historic emigrant trails. However, the cities of Independence, St. Joseph and Council Bluffs have plans to develop such The National Park Service operates several major historic sites centers. along the trail, but none interprets the entire spectrum of westward That function is, however, the specific objective of the migration. Jefferson National Expansion Memorial in St. Louis. Each of the states crossed by the California Trail has some historic sites and parks associated with the trail, but none focuses on the overall history of the trail, and interpretive themes and plans vary widely. Federal agencies such as the Bureau of Land Management and the U.S. Forest Service maintain a few interpretive sites, most of which date from the Bicentennial, but the interpretive stories are locally oriented. ln summary, there is no overall effort along the trail to provide a coordinated interpretive story of westward migration.

Access to Trail Segments. There are few developed trailheads or marked access points to help the public find and follow portions of the California Trail that still exist. Individuals or groups must locate and follow most trail segments on their own. This may not be a serious drawback for the dedicated and highly motivated groups of trail buffs who already know the trail well, and who often assist state and federal personnel in locating and surveying portions of the trail. But it is a serious obstacle for the potentially much larger numbers of interested visitors who do not have the information needed to find the trail.

#### Pony Express Trail

Present and Projected Uses. Most current public use along the Pony Express Trail occurs at existing historic sites with interpretive development, such as staffed interpretive centers and reconstructed historic structures, or at unstaffed roadside exhibits. These sites are administered by public and private agencies, including the National Park Service, Bureau of Land Management, U.S. Forest Service, and various state, county, municipal, or private entities. Fort Laramie National Historic Site in Wyoming was visited by 89,700 during 1984. Other historic sites (and 1984 visitation) along the trail include the Patee House and Pony Express stable at St. Joseph, Missouri (75,000); Fort Bridger, Wyoming (87,115); Fort Casper, Wyoming (19,000); Camp Floyd State Historic Monument, Utah (19,232); and Fort Churchill, Nevada (85,988). In 1984 combined visitation at these sites was over 375,000.

As part of the 1976 Bicentennial, the Bureau of Land Management marked the Pony Express Trail and developed permanent interpretive roadside facilities in Wyoming, Utah, and Nevada. No total figures are available, but 1982 total recreational use probably amounted to 28,000 visits on BLM lands in Utah. The annual visitation estimate at the Cold Springs, Sand Springs, and Shell Creek roadside displays in Nevada is 24,500. A segment in Eldorado National Forest is designated as a national recreation trail, but no separate use figures are available.

Recreational Activities and Interpretive Programs. Much of the existing use involves multipurpose sites such as highway rest areas, state parks, and historic sites, which may commemorate several historic events. No information is available to accurately determine the percentage of total use attributable only to the Pony Express Trall or its interpretation.

The National Pony Express Association has organized Pony Express rerides along various segments since 1966. The first reride along the entire Pony Express route took place in 1980. In 1985 the route was retraced in both directions. Over 500 members have participated in these activities. Local riding clubs also organize rides along the trail. No accurate estimates are available for these other groups, or for individual horseback riders, those in four-wheel-drive vehicles, motorcyclists, or hikers who are known to use various portions of the actual route. Cross-country segments of the route that are near urban areas or in scenic areas and that are already marked as interpretive trails attract the largest number of hikers and horseback riders. Cross-country segments covering large distances in remote rangeland areas are more appealing for horseback travel than for hiking. Travel by four-wheel-drive vehicles and snowmobiles occurs along segments where permitted.

Access to Trail Segments. In remote sections access is possible only by foot, horse, or four-wheel-drive vehicle, but in other areas the trail closely parallels hard-surfaced road systems. Most visitors use standard, two-wheel-drive passenger automobiles to retrace the trail segments, and usually the approximate route on nearby public roads is followed rather than the unpaved two-track road.

## PUBLIC INTEREST AND ATTITUDES

The record of public interest in both the California and Pony Express trails on the part of special interest groups is long, vocal, and widespread. Associations such as the Oregon-California Trails Association, the National Pony Express Association, and numerous state and private historical societies have long been on record as active trail users, enthusiasts of trail history, and educators of public opinion.

Interest by individuals in existing known trail resources is evident from the public use reports compiled by both federal and state land-managing agencies. Roadside exhibits, as well as state and private museums that focus on trail-related themes, are popular. Increasing numbers of people or small groups are retracing the routes either by automobile or even by horse or wagon. Substantial interest in bicycling, horseback riding, and four-wheel-drive vehicle use on some segments has been reported.

Public involvement as part of the present trail study has indicated a high degree of interest in some level of national trail authorization. Almost 1200 individuals, private historical groups, societies, and user organizations, along with federal and state agencies and academic institutions, have made specific requests to be on the mailing list for this study.

Some public concern has been expressed as to what extent trail traces should be made passable to four-wheel-drive vehicles, how to protect the legitimate rights of private landowners who do not choose to provide public access to trail segments, and to what extent the federal government should be involved in protecting nonfederal trail resources.

The most visible expressions of public interest in the California Trail have come from the 1400-member Oregon-California Trails Association, which has been an active user-group as well as a proponent of trail protection for several years. Historical societies in virtually all the states crossed by the trail, along with some special interests or concerns, have expressed support for historic trail designation. User-group organizations such as horseback riders, hiking clubs, or four-wheel-drive groups have so far shown considerable interest in and support for the concept of creating a national historic trail.

The record of public interest in the Pony Express Trail is largely parallel to that for the California Trail. The single most active and vocal group is the National Pony Express Association, which has a total of 600 members in the eight states crossed by the trail. The group's activities and related events have done more to increase public awareness than any other private or federal program. The association in particular has long been a proponent of formal trail designation, and it has promoted model legislation and called for national trail studies.

It is harder to sample individual users, but roughly 54% (or 615) of the entries on the study's mailing list are individuals. It is assumed that the current lack of public information about the trail, and the relatively few access points, contribute to a general lack of knowledge about trail resources and recreational opportunities.

To date the relationships between private landowners along the trail and individual users and groups have been generally positive. Most landowners are both aware and proud of the piece of American history which they own, but they may well draw a distinction between physically protecting trail resources on their own and providing public access so that others may visit the resources. In some cases a positive attitude towards public use could change if some thoughtless visitor cut a fence or left a gate open.

Landowner attitudes are also influenced by the sensitivity and concern of those with whom they deal. Private trail constituency groups, such as the Oregon-California Trails Association, have tried to seek and coordinate case-by-case permission to cross private lands, and they have had a great deal of success. It appears that most private landowners and ranchers have few reservations concerning granting specific permission to private individuals and groups seeking access.

Federal and state agencies have had less success in dealing with private landowners. Both federal and state agencies have had few problems in obtaining specific permission for short-term access rights, but to date very few private landowners have been willing to enter negotiations for permanent public access agreements or easements. Some reluctance may be attributed to the lack of a consistent nationwide effort by a federal agency to pursue such an objective.

# ENVIRONMENTAL CONSEQUENCES

Tables 14 through 19 summarize the environmental consequences of the various alternative approaches to authorizing and managing the two trails. Both the California and the Pony Express trails are treated in the same tables because the alternative approaches are very similar. Where impacts differ, they are identified. The environmental factors that are analyzed are described briefly below.

#### HISTORIC RESOURCES

Two kinds of resources are considered. First are physical remains of the trails themselves (that is, traces of single or double tracks that have been reliably identified as original, alternative, or cutoff trails or routes). Second are associated historic sites, including station buildings, roadhouses, and adjacent structures (regardless of the state of their research, stabilization, or reconstruction), as well as associated natural landmarks of special significance to the original trail users. Impacts are presented in table 14.

#### NATURAL RESOURCES

The effects on natural resources include those on wildlife, vegetation, soils, and air and water quality. The effects of activities on the trails themselves (e.g., hiking, horseback riding, driving), plus the anticipated effects of the development of adjacent interpretive or service facilities and of new or improved access roads, must also be considered (see table 15).

## PUBLIC ACCESS AND RECREATIONAL USE

The access and recreational use category describes how alternative actions would affect public efforts to obtain information about the trails and to locate and gain access to sites and segments (see table 16). The effects on visitors of having various activities, services, and facilities provided for recreational use along the trails are also analyzed.

#### LANDOWNERSHIP AND LAND USES

This category deals with the effects each approach would have on landownership along the trail corridor or on influencing land uses in the immediate area of the authorized trail (see table 17).

# LOCAL ECONOMIES

Any of the alternatives authorizing national historic trails would likely have an effect on local economies, including construction, food service, accommodations, and other tourist-related sectors. These effects are described in table 18. The impacts of authorization on established, economically productive practices, such as grazing and the use of forest, mineral, and energy resources are also discussed.

# ESTIMATED COSTS

Table 19 summarizes the more detailed development and management cost estimates appearing in earlier sections for each alternative.

#### Table 14: Effects on Historic Resources

Alternative A No trail authorization

Alternative B

Authorization of all routes, cutoffs, and changes

Alternative C

Authorization of original Pony Express route and continuous high-value California Trail routes

#### Alternative D

Authorization of continuous routes, with development limited to federal areas There would be no coordinated research, protection, stabilization, or management of trail traces or associated historic sites and landmarks. All such resources within federal areas would continue to receive their present degree of protection from the managing agency. Protection priorities currently range from high in actively managed areas to zero in areas where trail resources have never been identified. Overall management on federal lands would probably continue to reflect the multiple use mandates of both BLM and USFS. Although federal agencies already have obligations to protect historic resources, the level and priority of treatment is unavoidably linked to the public's perception of how significant, threatened, and attractive those resources are. Failure to authorize any trail resources as nationally significant would likely be interpreted as lack of public interest, therefore removing incentives to encourage protection. Trail resources on private and nonfederal lands would be protected at the discretion of individual landowners, whose interest in resource protection and financial backing could be limited and varied.

The uniformly high priority given to research, protection, stabilization, and even reconstruction of trail resources would give maximum protection to the largest number of segments and sites. Poorly known sites would be better defined and examined, vandalism and artifact removal controlled, and more accurate historical information collected so that the significance of trail resources could be more properly determined. Realistically, however, this broad protection approach might result in unacceptably low levels of protection because public funds for both acquisition and protection would likely be too limited to meet the high protection standards on all sites.

The establishment of a priority system to identify and protect only the most valuable and significant trail resources and historic sites would probably result in more cost-effective protection of sites all along the trails. However, some lower value segments or sites, especially those on nonfederal lands that were not designated, could suffer abuse and damage and ultimately be lost. The protection of some segments on nonfederal lands as a result of negotiated agreements and shared management would stretch public funds and could stimulate private initiatives to protect resources. Negotiated agreements could stimulate good rapport between federal agencies and private owners, who might otherwise resent federal acquisition as a solution to protection problems.

This alternative would effectively limit attention and available financial resources to the western half of the trails, where most high-value trail resources not yet protected by previous designations are located. This concentration of resources on federal lands would probably result in a relatively high level of protection for these sites. Where high-value resources exist outside federal ownership, lack of federal involvement would leave fewer mechanisms available to others to influence resource preservation. If state or county authorities did not provide protection, nonfederal trail resources could be harmed or destroyed. This latter situation might be even more likely if the limited federal involvement was interpreted as a lack of overall public interest in the trail, resulting in less local support for private or state initiatives.

#### Table 15: Effects on Natural Resources

#### Alternative A No trail authorization

Effects on natural resources (wildlife, vegetation, soils, air, and water) along the trails would continue as at present. On federal lands the extent of effects would depend on the overall mandate of the responsible agency and more specifically on the local units' land classification strategies and permitted uses in particular land classes. Without formal authorization as national historic trails, trails on BLM or USFS land could be discounted in local land use use classification; therefore, other factors (e.g., suitability for grazing, logging, and minimally restricted vehicular-based recreation) could influence land use decisions, rather than the protection of historic trail resources.

#### <u>Alternative B</u> Authorization of all routes, cutoffs, and changes

By identifying all routes, segments, and sites as suitable for historic trail authorization, this alternative could indirectly benefit natural resources all along the various trail corridors. Federal agencies would be expected to protect historic resources even at the expense of the multiple-use options in their mandates, and this would indirectly provide additional protection of natural resources along the trail routes. Protection would be extended to nonfederal historic trail resources (through acquisition or cooperative agreements), and therefore some protection of natural resources would also follow. However, depending on the extent of recreational activities and support development, some natural resource impacts could be accelerated, such as wildlife displacement due to increased human presence, soil erosion due to vehicular use, and vegetation disturbance accompanying new access, trailhead, and interpretive facility construction.

Effects on natural resources would be similar to those under alternative B except that authorization of only the highest value segments and sites would limit the impacts to fewer areas. By allowing certain private activities to continue on federal land (e.g., grazing and mining), except where such activities would directly threaten historic trail resources, less indirect beneficial impacts on soils, vegetation, and erosion control could be expected. Little or no acquisition to protect nonfederal resources would also mean fewer indirect benefits on natural resources. However, fewer recreational activities and support facilities might lead to fewer negative impacts, such as wildlife disturbance, soil erosion, and vegetation removal.

#### Alternative D

Alternative C

Authorization of original

Pony Express route and continuous high-value

California Trail routes

Authorization of continuous trails, with development limited to federal areas

Negative or positive impacts on natural resources would generally be limited to federal lands and would be similar to those described above for B and C. Federal opportunities to influence land use on private lands would be limited, and both historic and natural trail resources outside federal areas could suffer.

Table 16: Effects on Public Access and Recreational Use

Alternative A No trail authorization Without national historic trail authorization there would be few initiatives to alter or improve current access, trailheads, or the extent and quality of interpretive services or recreation facilities, either on federal or nonfederal lands. This alternative could be interpreted as lack of public support for new access points and additional recreational uses, resulting in less incentive for federal and nonfederal owners to provide access.

> This alternative would result in the greatest emphasis on access and recreational use. On federal lands this would mean additional or improved access roads from nearby highways to existing, expanded, or new trailhead parking and interpretive sites. On nonfederal lands it would mean negotiated public access agreements, purchased easements, and even acquisition of lands to ensure public access. Development of new visitor centers and trailheads would reflect a strong national commitment to historic trail use, would extend interpretive and recreational opportunities to the maximum number of users, and would encourage additional use.

The effects would be similar to those under alternative B, but there would be fewer access and use opportunities because only the highest value resources would be developed. Using cooperative agreements rather than fee acquisition to provide access might not ensure unrestricted or long-term public access. Fewer large- or small-scale visitor facilities might result in fewer visitor contacts, fewer new recreational opportunities, and only modest increases in overall use.

This alternative would place low priorities on improving access or additional recreation and interpretive facilities. Little encouragement and no financial incentives would be provided to states, private historical groups, or private landowners, so their commitment to ensuring public access or intepretive opportunities would not be guaranteed, and few increases would be anticipated.

Alternative B

Authorization of all routes, cutoffs, and changes

Alternative C

Authorization of original Pony Express route and continuous high-value California Trail routes

#### Alternative D

Authorization of continuous trails, with development limited to federal areas

Alternative A No trail authorization

No additional impact on present federal agency policies for land acquisition would occur. Without national historic trail authorization it might be difficult for federal agencies to justify the acquisition of private inholdings to protect trail resources.

#### Alternative B

Authorization of all routes, cutoffs, and changes

Because this alternative would authorize the maximum number of historic segments and sites on nonfederal lands, and because some land acquisition would be permitted outside the boundaries of federal areas, there would be potential for decreased private landownership along the trail corridors. Landowners thus involved would lose opportunities for land uses they might feel were more appropriate or profitable, but they would be compensated for this loss. Land uses on private lands for which easements had been acquired could change without outright purchase. Land uses even on federally owned lands might also be changed to afford more protection to historic resources.

#### Alternative C

Authorization of original Pony Express route and continuous high-value California Trail routes

Impacts on private landowners would be much less than those described under alternative B because the approach would favor negotiated cooperative agreements over the acquisition of full or partial interests. However, some land use changes would result from the implementation of these agreements. In a few cases where real and specific threats to authorized resources occurred on inholdings within federal areas, agencies would proceed to negotiate acquisition (primarily through exchange), and some landowners would thus be prevented from undertaking land uses they might consider more appropriate or profitable.

#### Alternative D

Authorization of continuous trails, with development limited to federal areas

Impacts on private landowners would be limited to the acquisition of inholdings within the boundaries of federal units or lands immediately adjacent to them (in the BLM checkerboard land areas) if negotiated agreements could not be used or failed to provide adequate protection to trail resources. Because development would not extend beyond the boundaries of existing federal areas, there would be no changes in land uses along trail corridors outside federal boundaries.

#### Table 18: Effects on Local Economies

#### Alternative A No trail authorization

<u>Alternative B</u> Authorization of all routes, cutoffs, and changes

Alternative C

Authorization of original Pony Express route and continuous high-value California Trail routes

#### Alternative D

Authorization of continuous trails, with development limited to federal areas Without national historic trail authorization, the local economies of towns and villages along trail routes would presumably continue their present trends. Any expectation of economic changes that could have been raised by the study process would not be realized.

To the extent that new facilities and increased information drew additional recreational visitors, local economies would be stimulated in service sectors (e.g., food and overnight accommodations). If specific activities such as horseback riding and four-wheel-drive vehicle touring became more popular, sectors serving these users--including guided trips and rental horses or vehicles--would benefit. Trail authorization could be capitalized on by some communities as a special focus to draw tourism and therefore increase general revenues. Because trails are linear and visitors would generally not focus their interest and activities at one point, no one area or community would be expected to see dramatic economic benefits, but the collective benefits could be considerable. The development of facilities would be maximized under this alternative, and there would be both short-term construction economic spin-offs in labor and equipment sales, plus long-term operation spin-offs (staffing) in those communities where visitor centers were developed. Land acquisition (and other protection methods) could adversely affect some specific economic activities, for example, grazing or mineral/energy development, where these activities may be commercially viable uses.

Impacts on tourism would be similar to those described for alternative B, except fewer communities would be affected. Fewer new facilities and information services would mean fewer short- and long-term spin-offs related to construction and staffing. Less acquisition would remove less land from commercial grazing or mineral/energy development, but some use restrictions could accompany negotiated cooperative agreements. Realistically, the extent of such adverse effects would be small because uses would be restricted only in areas immediately around a particular historic site rather than along a whole corridor.

Because the priority would be protection rather than development, trail-related facilities on federal lands would probably not stimulate local tourism. If such benefits occurred, they would be limited to communities and areas near federal lands. Little restriction on economic use of nonfederal lands would be expected except on those inholdings that might be acquired or be subject to negotiated agreements for specific protection objectives under the present authority of federal agencies.

#### Table 19: Summary of Cost Estimates

	Number of Trail Miles Authorized	Construction/ New Development*	Land Acquisition	Total Capital Cost (construction plus acquisition)*	Capital Cost per Authorized Mile*	Annual Operation*
<u>California Trail</u>						
Alternative A	None	0	0	0	0	N/A
Alternative B Total Federal Portion	5,665 2,171	\$5,752,500 2,425,000	\$3,940,000 2,330,000	\$9,692,500 4,755,000	\$1,710 2,190	\$456,000 251,000
Alternative C Total Federal Portion	3,821 1,114	3,265,500 407,000	815,000 727,500	4,080,500 1,134,500	1,068 1,018	231,000 81,000
Alternative D Total Federal Portion	3,821 2,171	574,500 218,500	168,000 168,000	7 <b>42</b> ,500 386,000	195 180	87,000 87,000
Pony Express Trail						
Alternative A	None	0	0	0	0	N/A
Alternative B Total Federal Portion	1,855 729	5,311,500 2,094,500	2,436,000 2,426,000	7,747,500 4,520,500	4,175 6,200	436,000 235,000
Alternative C Total Federal Portion	1,833 729	3,061,000 251,000	872,000 772,000	3,933,000 1,023,000	2,146 1,403	229,000 79,000
Alternative D Total Federal Portion	1,855 729	570,500 214,500	584,000 584,000	1,154,500 798,500	620 1,100	61,500 61,500

\*Some costs would be shared between the two trails; if one of the trails was not authorized, then the costs for the other trail would have to be increased.

### APPENDIX A: CONSULTATION AND COORDINATION

#### CONSULTANTS

The following agencies and organizations were consulted during the formulation of the draft study of the California and Pony Express trails. Copies of the draft plan were also submitted to the Governors and Congressional delegations of all 11 trail states.

#### Federal Agencies

Bureau of Land Management, U.S. Department of the Interior California State Office Folsom District Susanville District Redding Resource Area Ukiah District Idaho State Office **Burley** District Idaho Falls District Nevada State Office Battle Mountain District Carson City District Elko District Ely District Winnemucca District Utah State Office Salt Lake City District Wyoming State Office Casper District **Rawlins** District Rock Springs District Bureau of Reclamation, U.S. Department of the Interior Upper Colorado Region, Salt Lake City U.S. Fish and Wildlife Service, U.S. Department of the Interior Regional Director, Denver Department of Defense Hill Air Force Base, Utah Forest Service, U.S. Department of Agriculture California El Dorado National Forest Modoc National Forest Plumas National Forest Stanislaus National Forest Shasta-Trinity National Forest Idaho Caribou National Forest

Nevada Humboldt National Forest Tahoe National Forest Toivabe National Forest Utah Wasatch National Forest Wyoming Bridger-Teton National Forest Shoshone National Forest State and Local Agencies California Department of Parks and Recreation State Historic Preservation Officer State Lands Commission State Senate Mayor, Folsom Board of Supervisors, Plumus County Board of Supervisors, Alpine County Board of Supervisors, El Dorado County Idaho Department of Parks and Recreation State Historical Society Mayor, Jerome lowa Department of Natural Resources State Historical Department Kansas Department of Transportation State Historical Society Missouri Division of Parks, Recreation, and Historic Preservation Landmarks Commission Mayor, St. Joseph Nebraska Department of Economic Development Game and Parks Commission State Historical Society Nevada Department of Conservation and Natural Resources Department of Commerce Division of State Parks Commission on Tourism Department of Minerals Department of Wildlife Division of State Lands Division of Water Resources Office of Community Services State Historic Preservation Officer
Oregon Douglas County Museum Lane County Board of Commissioners Oregon Historical Society Oregon State Parks Department Polk County Board of Commissioners State Historic Preservation Officer Utah Department of Transportation Division of Parks and Recreation Division of State Lands and Forestry State Historical Society State Historic Preservation Officer State Planning Coordinator Wyoming Archives, Museums, and Historical Department Department of Environmental Quality Planning Coordinator's Office Recreation Commission State Highway Department

### Private Organizations and Societies

National Pony Express Association Oregon-California Trails Association

### MAILING LIST

As of June 1987 there are 1129 individuals, agencies, and private organizations are on the active mailing list for this study. These are tabulated as follows:

Category	Number	Percentage of Total
Congressional contacts	67	6
Federal agencies	123	11
State agencies	107	9
Local governments	38	3
Private organizations, societies,		
museums	142	13
Private citizens	615	54
Media contacts	15	1
Private businesses, corporations	22	2
	1129	100

### SUMMARY OF PUBLIC RESPONSE

Written responses were received from 924 of 1129 individuals, agencies, and groups on the study's mailing list. The following is a summary of those responses, indexed by state and by the alternative preferred by the respondent.

State	<u>Alt A</u>	<u>Alt B</u>	<u>Alt</u> C	Alt D	<u>No Pref</u>	Total
lowa Missouri Kansas Nebraska Colorado Wyoming Utah Idaho Nevada California Oregon Other*	1	9 22 15 22 30 32 4 65 69 188 70 85	10 3 2 9 1 4 3 8 1 8	1	60 1 11 6 45 1 3 124 7 4	9 92 16 36 32 48 50 70 70 76 320 78 97
Total	1	611	49	1	262	924
00	0%	66%	5%	0%	29%	100%

NOTES: Alt A - No Federal Action

- Alt B Full federal involvement; all routes and cutoffs included Alt C (NPS preferred) - Moderate federal involvement; original Pony Express and pre-Gold Rush California trails only
- Alt D Implementation in federal lands only
- No Preference includes all respondents who favored designation of National Historic Trails, but who did not indicate a preference for any particular alternative. The greatest percentage in this category were Pony Express respondents, who were more concerned with trail authorization than with the degree of federal involvement Of total mail received, 361 were postcards, 563 were letters.

\*In addition to responses received from the 11 trail states, mail was also received from 24 non-trail states, as follows: Arkansas (1), Arizona (8), Florida (1), Georgia (2), Hawaii (1), Illinois (9), Indiana (3), Kentucky (1), Maryland (2), Massachusetts (2), Michigan (3), Minnesota (5), Montana (2), New Jersey (5), New Mexico (5), New York (2), Ohio (2), Oklahoma (1), Pennsylvania (1), South Dakota (2), Tennessee (3), Texas (5), Washington (25), Wisconsin (3), U.S. Department of the Interior, Bureau of Land Management (1), U.S. Department of Transportation (1), U.S. Department of Energy (1).

### SUMMARY OF PUBLIC MEETING ATTENDANCE

506 individuals attended the eight public meetings held during the public review period.

St. Joseph, Missouri	134
Omaha, Nebraska	12
Rock Springs, Wyoming	15
Salt Lake City, Utah	28
Burley, Idaho	42
Reno, Nevada	126
Sacramento, California	78
Roseburg, Oregon	71
	506

### SUMMARY OF INSTITUTIONAL RESPONSES

Written responses were received from 120 federal, state, and local governmental agencies, and from private historical societies and groups. The following is a summary of those responses.

Alternative Preferred

Alternative C

### IOWA

### State Agencies

lowa State Historical Department (SHPO)	Alternative B
lowa Department of Natural Resources	Alternative B

### MISSOURI

State Agencies

Division of Parks, Recreation & Historic Preservation Alternative C (SHPO)

#### Local Governments

Mayor, City of St. Joseph

#### Historical Societies & Others

St. Joseph Area Chamber of Commerce Alternative C Northwest District Elementary Principals Association No Preference St. Joseph, Museum Hill Neighborhood Association No Preference St. Joseph Preservation, Inc. Alternative C St. Joseph, Covenant Hill Association No Preference St. Joseph Elementary Principals Association No Preference St. Joseph Riverfront Corporation No Preference St. Joseph Riverfront Park Commission No Preference

St. Joseph YMCA St. Joseph National Trails Commission Pony Express Historical Association (528)*	Alternative C Alternative C Alternative C
KANSAS	
Marysville Chamber of Commerce	No Preference
NEBRASKA	
State Agencies	
Governor Nebraska State Historical Society (SHPO) Nebraska Department of Economic Development	Alternative C Alternative C Alternative B

### Historical Societies & Others

Old Council Bluff(s) Historical Recovery &	No Preference
Development Group	
Nebraska Division, National Pony Express	Alternative B
Association (125)	
Douglas County Historical Society	Alternative B

### COLORADO

Alternative C
Alternative B

### WYOMING

Federal Agencies	
Bridger-Teton National Forest	Alternative C, w/Lander Road
Rawlins District, Bureau of Land Management	Alternative C

<sup>\*</sup>Numbers in parenthesis are total membership in that group/society, as reported in public response

# State Agencies

Governor Wyoming Recreation Commission Wyoming State Highway Department Wyoming Department of Environmental Quality Wyoming State Archives, Museums, &	Alternative C Alternative C Alternative C Alternative C
Historical Department (SHPO)	Alternative C, w/Lander Road
Historic Societies & Others	
Fort Laramie Historical Association Sweetwater County Historical Society (180)	Alternative D Alternative B
UTAH	
Federal Agencies	
Hill Air Force Base	No Preference, w/Hastings Cutoff
Utah State Office, Bureau of Land Management	No Preference
State Agencies	
Utah State Planning Coordinator Utah Parks & Recreation Division of State History (SHPO)	No Preference No Preference Alternative C, w/Hastings Cutoff
Historical Societies & Others	
National Pony Express Association (600) Utah Statewide Archeological Society Daughters of Utah Pioneers	No Preference No Preference No Preference

## <u>IDAHO</u>

# Federal Agencies

Caribou National Forest	Alte
Burley District, Bureau of Land Management	Aíte
· · · · · ·	W,

Idaho State Office, Bureau of Land Management

Alternative C Alternative C, w/Hudspeth Cutoff Alternative C, w/all trails

### State Agencies

Idaho State Historical Society (SHPO)	Alternative B
Local Governments	
Mayor, City of Jerome	Alternative B
Historical Societies & Others	
Lava Area Development Group Hagerman Valley Historical Society Friends of Striker Ranch, Inc. Jerome County Historical Society Burley Area Chamber of Commerce South Bannock County Historical Society	Alternative B Alternative B Alternative B Alternative B Alternative B Alternative B
NEVADA	
Federal Agencies	
Nevada State Office, Bureau of Land Management	Alternative C

# Nevada State Office, Bureau of Land Management Alternative C Toiyabe National Forest Alternative C

### State Agencies

Governor	Alternative B
Division of State Parks	Alternative C
Division of Historic Preservation & Archeology (SHPO)	Alternative B
Division of State Lands	Alternative C
Department of Commerce	Alternative B
Department of Minerals	No Preference
Commission on Tourism	Alternative C,
	w/all trails

Historical Societies & Others

Churchill County Museum AssocaitionAlternative BChurchill County Chapter, Nevada Archeological<br/>Society (23)Alternative BToiyabe Chapter, Sierra Club (2,200)Alternative BBoy Scouts of America, Troop 341No PreferenceE Clampus Vitus (Nevada division)Alternative BCarson Valley Historical SocietyAlternative B

### CALIFORNIA

### Federal Agencies

California State Office, Bureau of Land Management Alternative C

State Agencies

Governor Alternative C State Lands Commission Alternative C, w/all trails President, California State Senate Alternative B Committee on Natural Resources & Wildlife, Alternative B California State Senate Local Governments Mayor, City of Folsom No Preference Board of Supervisors, Plumas County Alternative B Board of Supervisors, Alpine County Alternative C Board of Supervisors, El Dorado County No Preference Historical Societies & Others Campbell Historical Museum Association Alternative B California-Nevada Chapter, Oregon-California Alternative B Trails Association Truckee-Donner Historical Society Alternative B The Golden Chain Council of the Mother Lode, Inc. Alternative B California Association of 4-Wheel Drive Clubs, Inc. Alternative B San Joaquin County Historical Society (600) Alternative B Council on America's Military Past Alternative B President, Oregon-California Trails Association (1400) Alternative B Folsom County Historical Society No Preference Mount Lassen Historical Society Alternative B Historical Society of Alpine County Alternative B Alpine County Chamber of Commerce No Preference Heritage Trails Fund Alternative B Tahoe Rim Trails Fund Alternative B Sierra County Historical Society Alternative B El Dorado County Historical Society Alternative B Trails West, Inc. (130) Alternative B Sonoma County Historical Society Alternative B Pollock Pines-Camino Chamber of Commerce No Preference Mariposa Museum & History Center Alternative B Lake County Historical Society Alternative B Nevada County Historical Society Alternative C Tuolumne County Historic Society Alternative B Grand Council, E Clampus Vitus (50,000) Alternative B

### OREGON

#### State Agencies

Governor Oregon (State) Trail Advisory Council Oregon Parks & Recreation Division (SHPO) No Preference Alternative B Alternative B

### Local Governments

Mayor, City of Canyonville Lane County Board of Commissioners Polk County Board of Commissioners	No Preference Alternative B No Preference
Historical Societies & Others	
Applegate Pioneer Museum Benton County Historical Resources Commission	Alternative B Alternative B
South Oregon Historical Society	Alternative B
Northwest Chapter, Oregon-California Trails Association	Alternative B
Historic Preservation League of Oregon	Alternative B
Oregon Lewis & Clark Trail Commission	Alternative B
Pacific Crest Trails Conference	Alternative B
Lane County Historical Society	Alternative B
South Umpqua Historical Society (200)	Alternative B
Benton County Historic Society & Museum	Alternative B
Favell Museum of Western Art & Artifacts	Alternative B
Douglas County Historical Resource Review Commission	Alternative C, w/all trails

# WASHINGTON, D.C.

Department of the Interior, Bureau of Land	Alternative C
Management	
Department of Transportation	Alternative C
Department of Energy	No Preference

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# Thomas Jefferson Memorial Foundation, Inc.

P. O. Box 316, Charlottesville, Virginia 22902

804-293-2158

August 11, 1987

The Honorable Donald Paul Hodel Secretary of the Interior Washington, D.C. 20240

Dear Mr. Secretary,

I am pleased to inform you that the National Park System Advisory Board has reviewed the National Park Service's proposed study reports on the California and Pony Express Trails. Based on criteria under the Historic Sites Act of 1935, the Board found that both trails are of national historic significance and are eligible for addition to the National Trails System as national historic trails.

This letter constitutes the Board's recommendation and should be included in the study report when it is transmitted to the Congress for its consideration.

Sincerely yours,

Daniel P. Jordan

Daniel P. Jordan, Chairman National Park System Advisory Board

DPJ:bb

A NONPROFIT CORPORATION PRESERVING AS A NATIONAL MEMORIAL MONTICELLO, THE HOME AND BURIAL PLACE OF THOMAS JEFFERSON AT CHARLOTTESVILLE, VIRGINIA

### FINDING OF NO SIGNIFICANT IMPACT

### ENVIRONMENTAL ASSESSMENT NATIONAL TRAIL FEASIBILITY STUDY

### California Trail and Pony Express Trail lowa, Missouri, Kansas, Nebraska, Wyoming, Colorado, Utah, Idaho, Nevada, Oregon, California

The National Park Service has prepared an eligibility/feasibility study and environmental assessment addressing the impacts of establishing the California National Historic Trail and the Pony Express National Historic Trail as components of the national trails system. The California Trail would consist of multiple routes extending from Independence and St. Joseph, Missouri, and Council Bluffs, Iowa, through Kansas, Nebraska, Colorado, Wyoming, Utah, Idaho, and Nevada, to various points in California and Oregon. The Pony Express Trail would extend from St. Joseph, Missouri, through Kansas, Nebraska, Colorado, Wyoming, Utah, and Nevada, to Sacramento, California.

The proposed trails will include all routes and cutoffs of the California Trail as studied, and both the original route and subsequent route changes of the Pony Express Trail. Management of the trails, including protection of resources, trail marking, physical developments, interpretation, and public access and use, would involve a moderate level of federal funding and involvement, as outlined in the draft study's preferred alternative (alternative C).

Trail impacts could potentially affect cultural resources because of the cultural/historic nature of the California and Pony Express Trails. A systematic inventory and evaluation of all archeological and historical resources has not been done along the study route. Preparation of the comprehensive plan for management, following authorization, would include planning for the protection of all identified sites.

Compliance with section 106 of the National Historic Preservation Act is considered to be premature before selection of a final route on the ground, subsequent congressional authorization, and preparation of a comprehensive management plan. If the trail is authorized, the resulting comprehensive plan for management would be submitted for section 106 compliance review. National historic trail designation should not adversely affect cultural resources listed on or eligible for listing on the National Register.

The assessment has been reviewed, resulting in the following conclusions:

 The Department of the Interior Manual (516 DM 6, Appendix 7.3 A. (3)) includes national trail proposals among listed actions that normally require preparation of an environmental impact statement (40 CFR 1502.3). A preliminary evaluation of potential impacts, however, resulted in the conclusion that an environmental assessment was appropriate to determine if significant (40 CFR 1508.27) impacts were present.

2. The proposed actions will not have a significant (40 CFR 1508.27) effect on the human environment. Negative environmental impacts that could occur are minor and temporary in effect. There are no adverse impacts on public health, public safety, rare or endangered species, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, cumulative effects, or elements of precedence were identified. Implementation of the actions will not violate any federal, state, or local law.

Based on the foregoing, it has been determined that implementation of the proposal will not constitute a major federal action that will significantly affect the quality of the human environment, and that an environmental impact statement is not required and will not be prepared. Since the proposed action is one that normally requires preparation of an environmental impact statement, this finding of no significant impact has been made available for public review for 30 days in accordance with 40 CFR 1501.4(e)(2), prior to its approval.

RESPONSIBLE OFFICIAL Acting Associate Director Planning and Development

### SELECTED REFERENCES

AMESBURY, ROBERT 1967 <u>Nobles' Emigrant Road</u>. Pyramid Printing Co.

- BLOSS, ROY S.
  - 1959 <u>Pony Express</u>: <u>The Great Gamble</u>. Berkeley, CA: Howell-North.
- BRADLEY, GLENN D. 1971 <u>The Story of the Pony Express</u>. Ann Arbor, MI: Gryphon Books.
- BUREAU OF LAND MANAGEMENT, U.S. DEPARTMENT OF THE INTERIOR 1975 "Nevada Pony Express Route - Bicentennial Action and Interim Recreation Management Plan," by Bicentennial Pony Express coordinators. Carson City, Battle Mountain and Ely Districts.
  - 1976 "The Pony Express in Nevada," by Dorothy Mason. Carson City District Office.
  - 1979 "The Pony Express in Central Nevada: Archeological and Documentary Sources," by Donald L. Hardesty. Cultural Resource Series, monograph #1. Nevada.
  - 1979 "The Pony Express Stations of Utah in Historical Perspective," by Richard E. Fike and John W. Headley. Cultural Resource Series, monograph 2. Utah.
  - 1980 Emigrant Trails in the Black Rock Desert: A Study of the Fremont, Applegate-Lassen, and Nobles' Routes in the Winnemucca District. Contributions to the Study of Cultural Resources, technical report no. 6. Reno.
- CHAPMAN, ARTHUR 1931 <u>The Pony Express</u>. New York: A.L. Burt Company.
  - 1971 <u>The Pony Express: The Record of a Romantic Adventure in</u> Business. New York: Cooper Square Publishers, Inc.
- CURRAN, HAROLD 1982 <u>Fearful</u> <u>Crossing</u>: <u>The Central</u> <u>Overland</u> <u>Trail</u> <u>through</u> Nevada. Reno: Great Basin Press.
- DAVIS, RICHARD M.
  - 1975 "The First Emigrant Crossing of the Sonora Pass." <u>Chispa:</u> <u>The Quarterly of the Tuolumne County Historical Society</u>, 14 (April-June):493-508.

DRIGGS, HOWARD R.

- 1935 <u>The Pony Express Goes Through</u>: <u>An American Saga Told by</u> Its Heroes. New York: Frederick A. Stokes Company.
- FLEMING, L.A., and A.R. STANDING
- 1965 "The Road to Fortune: The Salt Lake Cutoff." <u>Utah</u> <u>Historical Quarterly</u>, 33 (Summer): 248-71.
- GEOLOGICAL SURVEY, U.S. DEPARTMENT OF THE INTERIOR 1970 The National Atlas. Washington, DC.
- HARSTAD, PETER T. 1968 "The Lander Trail." Idaho Yesterdays, 12 (Fall):14-28.
- HOWARD, ROBERT WEST, ROY E. COY, FRANK C. ROBERTSON, and AGNES WRIGHT SPRING
- 1960 <u>Hoofbeats of Destiny</u>. New York: The New American Library.
- HELFRICH, DEVERE
  - 1971 <u>The Applegate Trail</u>. Klamath Echoes, publication 9. Klamath Falls, OR: Klamath County Historical Society.
    - 1976 <u>The Applegate Trail: Part II</u>, <u>West of the Cascades</u>. Klamath Echoes, publication 14. Klamath Falls, OR: Klamath County Historical Society.
- HELFRICH, DEVERE, HELEN HELFRICH, and THOMAS HUNT
  - 1984 <u>Emigrant Trails West: A Guide to Trail Markers Placed by</u> Trails West, Inc., along the California, Applegate, Lassen, and Nobles' Emigrant Trails in Idaho, Nevada, and California. Klamath Falls, OR: Craft Printers.
- LAVENDER, DAVID
  - 1963 <u>Westward Vision: The Story of the Oregon Trail</u>. Lincoln: University of Nebraska Press.
- MATTES, MERRILL J.
  - 1969 <u>The Great Platte River Road</u>: <u>The Covered Wagon Mainline</u> via Fort Kearny to Fort Laramie. Lincoln: Nebraska State Historical Society.
- MATTES, MERRILL, and PAUL HENDERSON 1960 "The Pony Express: Across Nebraska from St. Joseph to Fort Laramie." Nebraska History, vol. 41, no. 2.
- NATIONAL PARK SERVICE, U.S. DEPARTMENT OF THE INTERIOR 1975 <u>The Oregon Trail: A Potential Addition to the National Trails</u> System. Washington, DC.

- 1978 The Mormon Trail: A Study Report. Washington, DC.
- 1980 <u>Emigrant (Applegate/Lassen) Trail: Reconnaissance Survey</u>. Denver Service Center.
- 1987 Route maps, California and Pony Express Trails. A series of 47 USGS topographic maps, scale 1:250,000. Denver Service Center.
- PIERSON, JAMES R. 1960 <u>The Pony Express Trail</u>, <u>1860-1861</u>. St. Joseph, MO: Pony Express Productions.
- REINFELD, FRED 1966 Pony Express. Lincoln: University of Nebraska Press.
- SETTLE, RAYMOND W., and MARY LUND SETTLE 1955 Saddles and Spurs: The Pony Express Sad
  - 955 <u>Saddles and Spurs: The Pony Express</u> Saga. Lincoln: University of Nebraska Press.
  - 1966 War Drums and Wagon Wheels: The Story of Russell, Majors and Waddell. Lincoln: University of Nebraska Press.
- SMITH, WADDELL F.
  - 1960 <u>The Story of the Pony Express</u>. San Francisco: Hesperian House.
- STEWART, GEORGE R.
  - 1962 <u>The California Trail: An Epic with Many Heroes</u>. New York: McGraw-Hill.
- UNRUH, JOHN D., JR.
  - 1979 <u>The Plains Across:</u> <u>The Overland Emigrants and the</u> <u>Trans-Mississippi West</u>, <u>1840-1860</u>. Urbana: University of Illinois Press.

WINTHER, OSCAR OSBURN

1945 <u>Via Western Express</u> and <u>Stagecoach</u>. Stanford: Stanford University Press.

### STUDY TEAM

### STUDY TEAM

- Denis Davis, Denver Service Center Park Planner (Team Captain)
- John Latschar, Denver Service Center Historian (California Trail)
- Alan Robinson, Denver Service Center Park Planner (Team Captain)
- Carole A. Madison, Rocky Mountain Region Outdoor Recreation Planner (Pony Express Trail)
- P. Kay Salazar, Rocky Mountain Region Outdoor Recreation Planner (Graphics/Analysis)

CONSULTANTS (Regional Office Trail Coordinators)

Tom Gilbert, Midwest David Olsen, Western Gordon Atkins, Pacific Northwest Ruth Anderson, Pacific Northwest

As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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