



Feasibility Study
Sacramento to
San Francisco Section

PONY EXPRESS

NATIONAL HISTORIC TRAIL

United States Department of the Interior
National Park Service



Printed on Recycled Paper

658/D-6

FEASIBILITY STUDY FOR THE PONY EXPRESS TRAIL
Sacramento to San Francisco Section

PONY EXPRESS

NATIONAL HISTORIC TRAIL

February 1997

United States Department of the Interior
National Park Service



SUMMARY

The amendment to the National Trails System Act that created the California and Pony Express National Historic Trails directed the secretary of the interior to "undertake a study of the land and water route used to carry mail from Sacramento to San Francisco, California, to determine the feasibility and suitability of designation of such route as a component of the Pony Express National Historic Trail." The National Park Service, Denver Service Center (DSC), conducted the study of the Sacramento to San Francisco section of the Pony Express route for the secretary of the interior. Using the criteria outlined in the legislation, the DSC study evaluated this section of the trail on the basis of location, national significance, and potential for recreational use or historical interest. The significance of this route could not be evaluated apart from the St. Joseph, Missouri to Sacramento route. Congress confirmed the significance of this route in the 1992 legislation. This study identifies the proposed trail route, areas near the trail, the characteristics that make the proposed trail worthy of designation, and the current status of landownership and use. It also includes an Environmental Assessment of the impacts associated with its designation as a portion of the national historic trail. The legislation also directs the study to address potential land acquisition and development, but due to the current conditions along the proposed route, the study recommends no land acquisition or development.

The *Feasibility Study for the Pony Express Trail, Sacramento to San Francisco Section* is being published as an addendum to the 1987 *Eligibility / Feasibility Study for National Historic Trail Authorization, California and Pony Express Trails*. Based on the findings of this study, the National Park Service recommends that the Sacramento to San Francisco section of the Pony Express route be added as a component of the Pony Express National Historic Trail.



CONTENTS

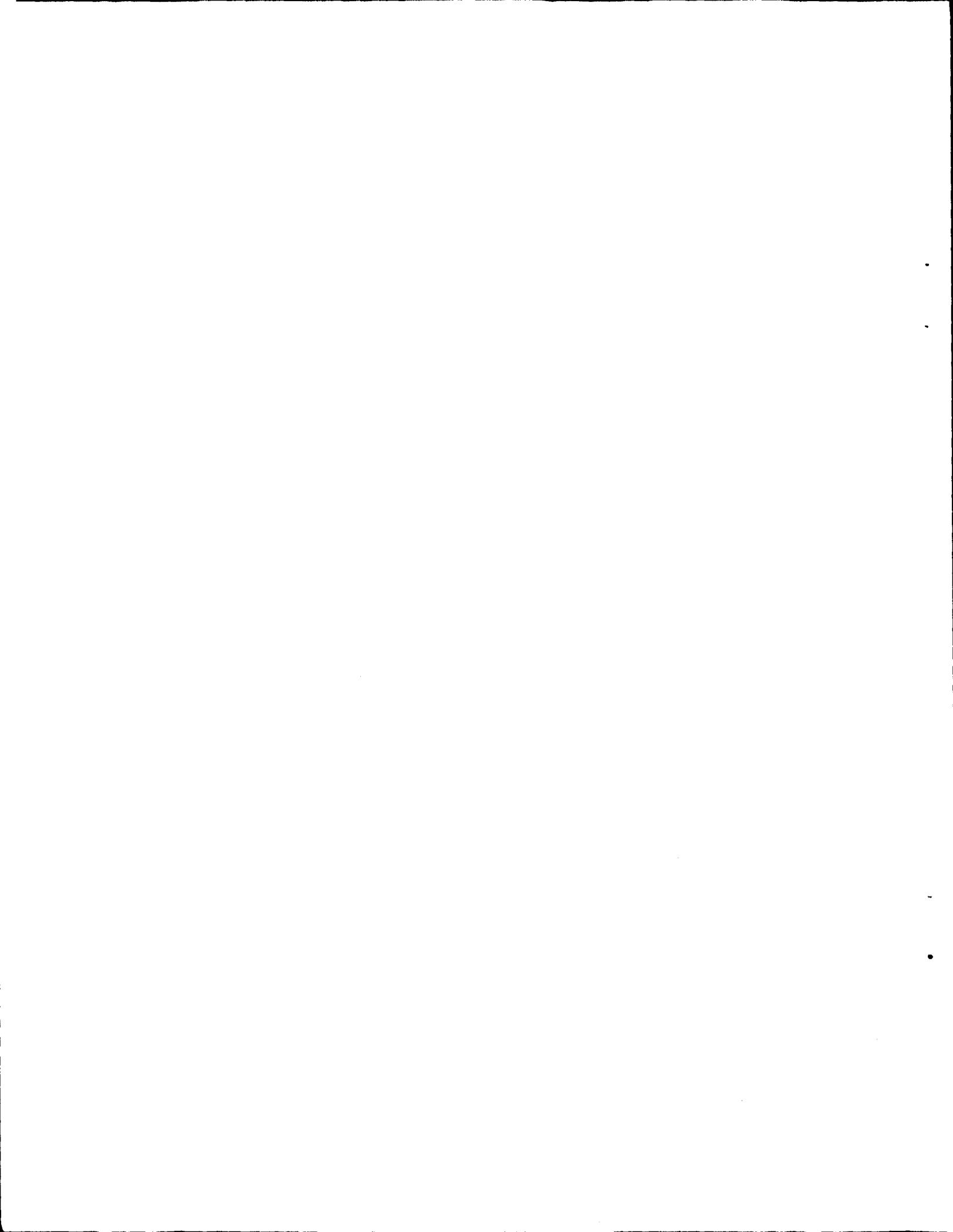
Purpose of the Study	1
Historical Background	1
Eligibility of the Trail Section	3
Criteria for National Historic Trail Authorization	3
Characteristics That Make the Sacramento to San Francisco Section of the Pony Express Trail Route a Worthy Addition to the National Trails System	4
Conclusion	4
Existing Conditions	7
Landownership	7
Land Use	8
Threats to Trail Resources	8
Current Public Use, Development, and Access	11
Public Support	11
Physical Capability to Develop the Trail Section	11
Costs to Establish, Maintain, and Operate the Trail Section	13
Land Use Compatibility	13
Affected Environment	14
Environmental Consequences	16
Preparers	18

MAPS

Pony Express Trail	5
Landownership Along the Pony Express Trail	9

TABLES

1: Land Ownership Along the Sacramento to San Francisco Pony Express Trail Section	7
2: Land Use Along the Sacramento to San Francisco Pony Express Trail Section	8



PURPOSE OF THE STUDY

In August 1984 Congress directed the Department of the Interior to study the feasibility and desirability of adding the Pony Express Trail to the national trails system. The National Park Service, as the agency charged with completing the study, determined that the trail should be added to the system. Private individuals and groups documented an additional historic section of the Pony Express Trail from Sacramento to San Francisco and sought to have it added to the Pony Express National Historic Trail. Public Law 102-328 (August 3, 1992) amended the National Trails System Act to authorize the Pony Express Trail and "subsequent route changes." The 1992 legislation described the trail as extending 1,900 miles from St. Joseph, Missouri to Sacramento, California. The amended National Trails System Act also directed the secretary of the interior to

undertake a study of the land and water route used to carry mail from Sacramento to San Francisco, California, to determine the feasibility and suitability of designation of such a route as a component of the Pony Express National Historic Trail.

This report examines the eligibility, feasibility, and desirability of including the Sacramento to San Francisco trail section as part of the Pony Express National Historic Trail. Management alternatives for the Pony Express National Historic Trail were developed in the 1987 *Eligibility / Feasibility Study*. If this trail section is incorporated as part of the Pony Express Trail, the new section would be managed under the same concept as the rest of the trail. A comprehensive management plan is currently being prepared for the entire Pony Express National Historic Trail.

HISTORICAL BACKGROUND

By the late 1850s California and Oregon had both entered the Union as states, and thousands more Americans were streaming west to exploit gold and silver strikes in Colorado and Nevada. The need to develop communication between the states east of the Mississippi and the far West became a pressing issue. Some prominent Californians had for some time contemplated the creation of a mounted courier service to carry mail between the Missouri River and the Pacific coast.

The Missouri freighting firm of Russell, Majors, and Waddell became interested in establishing a pony express after suffering disastrous losses as a government contractor during the short-lived Utah War between the Mormons and the United States government. In the winter of 1859 William Russell encountered California Senator William Gwin in Washington, D.C. Gwin went to work on Russell to sell the idea of a pony express. A speculator by nature, and desperate in the bargain, Russell pitched the idea to his partners, Alexander Majors and William Waddell. Russell overcame his partners' misgivings, and the firm announced the creation of the Central Overland California and Pike's Peak Express Company, more commonly known as the Pony Express. The new endeavor was not intended to provide a permanent communication system between the east and the Pacific coast, but to demonstrate the year-round feasibility of the central overland route. If it succeeded in transporting mail between the

east and west throughout the year, it could lead to the award of a lucrative contract for conventional mail carriage between Missouri and California.

Despite many obstacles, the new firm managed to begin service a few months after its formation. On April 3, 1860, the first riders departed St. Joseph, Missouri, and San Francisco, California. The mail pouches they carried were transported to the eastern and western ends of the route within hours of the 10-day period that Russell and his partners guaranteed for its service. The new courier service functioned remarkably well, bolstering the company's claims that the central overland route was a practical one for year-around communication. Continued success would strengthen the firm's case for a conventional mail contract.

In the meantime, however, Russell, Majors, and Waddell had to keep their pony express alive. Even when all factors worked in their favor, the handful of letters that the riders carried generated only a fraction of the revenue needed to support their operation. The eruption of war with the Paiute Indians of Nevada suspended pony express service for weeks at a time and compounded management problems. It became readily apparent that without a substantial government subsidy, the Pony Express would quickly collapse.

To stave off financial ruin, Russell raised funds using the firm's government assurances from the Mormon War. With cash in hand, Russell began paying old creditors with funds borrowed from new creditors. When he exhausted the credit value of the assurances, Russell next turned to using government bonds put at his disposal by a relative of Secretary of War John B. Floyd's wife. In using these bonds for collateral, Russell graduated from questionable business ethics to outright embezzlement. When the bonds were called in for payment, Russell's pyramid of debt disintegrated.

The ensuing scandal ruined Secretary Floyd, and the firm of Russell, Majors, and Waddell. Russell avoided a prison term, however, and the federal government ended up covering the firm's enormous losses. Russell resigned as president of the Central Overland California and Pike's Peak Express Company on August 26, 1861. The pony express continued in operation until November of that year, when it was finally discontinued. The completion of the overland telegraph line eliminated the need for such a service.

This short-lived venture has maintained a powerful hold on the American imagination. Its struggles and collapse in the midst of a spectacular scandal have largely been overshadowed by an image of a robust, daring endeavor. What began as a longshot gamble to win a government contract has now metamorphosed in our collective consciousness as a farsighted effort that united a nation on the brink of civil war.

Myths and fantasies aside, the pony express earned a significant place in American history. It created a new and faster communication link between the east and the Pacific coast and demonstrated the viability of the central overland route. The pony express played an important role in maintaining communication between the federal government and California in the months immediately before the start of the Civil War. Communication via the pony express helped blunt efforts to push that state toward secession. Finally, it has come to symbolize America's rapid expansion to the Pacific rim in the antebellum era. Through this process the United States secured its conquest of the American west.

THE ROUTES

The route of the Pony Express Trail from Sacramento to San Francisco is composed of a water section and a land section (see Pony Express Trail map). Originally, the pony express land route was planned to terminate at Sacramento, where the mail would be transferred to a steamboat and travel by water down the Sacramento River to San Francisco. This original water route for the final leg of the pony express was used in all but about 20 instances when the arrival of the express rider did not mesh with the schedule of the river boats and the express riders simply missed the boat. Since the river boat schedules were not as frequent as we would expect today, an alternate means to bring the mail to San Francisco was necessary. The result was an alternative overland route.

The water route proposed for addition to the Pony Express National Historic Trail began at Sacramento and proceeded down the Sacramento River to the cutoff channel known as Steamboat Slough, which shortened the water route by about 6.5 miles and rejoined the Sacramento River 17 miles above its confluence with the San Joaquin River. From there the river boats proceeded through Suisun Bay and the Carquinez Strait to San Pablo Bay, and then across San Francisco Bay to dock at North Point in San Francisco. From there the riders made their way up Telegraph Hill to the Alta Telegraph/Wells Fargo building, which served as the western terminus of the pony express.

The overland route proposed for addition to the Pony Express National Historic Trail is described by Tom Crews in a 1992 study commissioned by the Contra Costa County [California] Historical Society. The overland route began in Sacramento at the "I" Street bridge over the Sacramento River. Riders proceeded west and southwest from Sacramento through the present-day cities of Davis, Vacaville, and Fairfield to the city of Benicia. At Benicia the express rider would board a ferry for the 2-mile boat ride southeast across Carquinez Strait to the city of Martinez. At Martinez, the express rider would continue overland through the towns of Vine Hill, Pacheco, Pleasant Hill, Walnut Creek, Lafayette, and Orinda. He would cross the San Pablo ridge and descend between the cities of Berkeley and Piedmont to Oakland, at what is now the Oakland Inner Harbor at Jack London Square. From there the express riders would take a ferry across San Francisco Bay to North Point in San Francisco, disembark, and ride up Telegraph Hill to the Alta Telegraph/Wells Fargo building.

ELIGIBILITY OF THE TRAIL SECTION

Criteria for National Historic Trail Authorization

To be designated as a National Historic Trail or a section of a National Historic Trail, the proposed route must meet the following criteria laid out in the National Trails System Act:

- The trail [section] must be a route established by historic use and be historically significant as a result of that use. The route need not currently exist as a discernable trail to qualify, but its location must be sufficiently known to permit evaluation of public recreation and historical interest potential. A designated trail should generally accurately follow the historic route.

- The trail [section] must have national significance with respect to any of several broad facets of American history such as trade and commerce, exploration, migration and settlement, or military campaigns. To qualify as nationally significant, the trail section must have had far-reaching effects on broad patterns of American culture, including trails significant in the history of Native Americans.
- The trail [section] 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 sections 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.

Characteristics That Make the Sacramento to San Francisco Section of the Pony Express Trail Route a Worthy Addition to the National Trails System

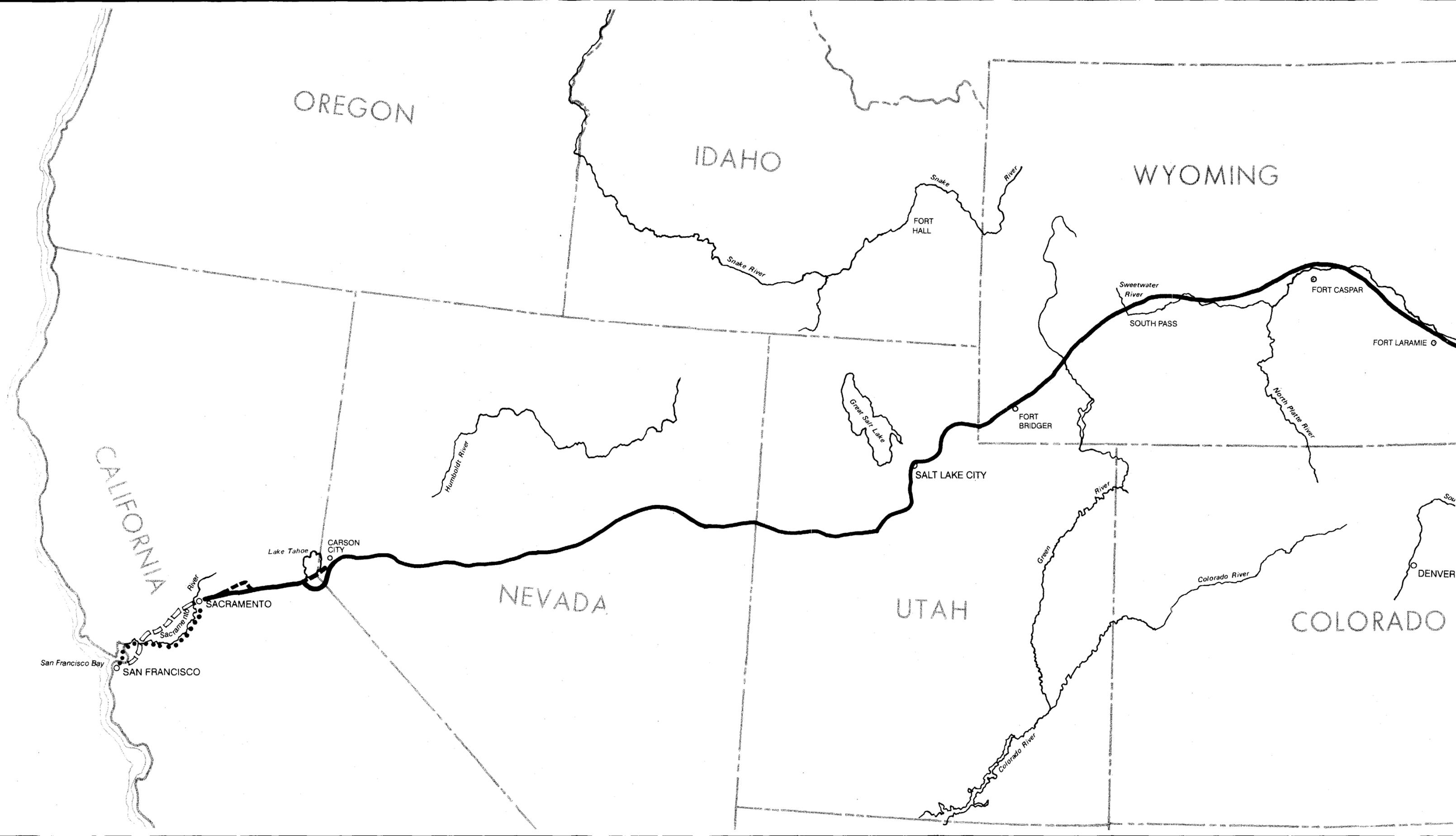
Resource Integrity. The overland and water routes of this trail section are among the best documented routes used by the pony express. The region between Sacramento and San Francisco was relatively well-populated in 1860. The newspapers in the communities along this trail section documented the efforts of the pony express, which traveled the established roads and waterways. These routes were established by that historic use and are significant because of that use. Not only are the paths of each of the routes known, but both paths are accessible and easily seen today. The overland route in this section did not vary like the trail east of Sacramento because this region was more settled and developed with roads, towns, and infrastructure. There are few remaining authentic historic resources that date to the period of the Pony Express Trail or functioned as a part of the trail's operation.

National Significance. The operation of the pony express significantly influenced communication and ultimately trade and commerce, migration and settlement, and military campaigns. The route currently has significant potential for public recreation and historical interest based on historic interpretation and appreciation.

Potential for Public Use. This trail section has potential for public recreational use as a motor tour and a route for historic interpretation and appreciation. There is little development potential along this section and few opportunities for pedestrian use outside of the communities along the section route. This section could easily be marked. It is not possible to predict the potential for public use of the historic route on private lands. There are few remaining historic trail resources aside from the route itself, so planning public use around a historic facility or resource is not likely, although public use of the historic route occurs now.

Conclusion

Based on national significance, resource integrity, and potential for public use, this study finds that the land and water routes of the Sacramento to San Francisco section are legitimate parts of the Pony Express Trail, and it is recommended that those routes be authorized as part of the Pony Express Trail.



OREGON

IDAHO

WYOMING

CALIFORNIA

NEVADA

UTAH

COLORADO

San Francisco Bay
SAN FRANCISCO

SACRAMENTO

Lake Tahoe
CARSON CITY

SALT LAKE CITY

FORT BRIDGER

FORT HALL

Sweetwater River

SOUTH PASS

FORT CASPAR

FORT LARAMIE

North Platte River

Humboldt River

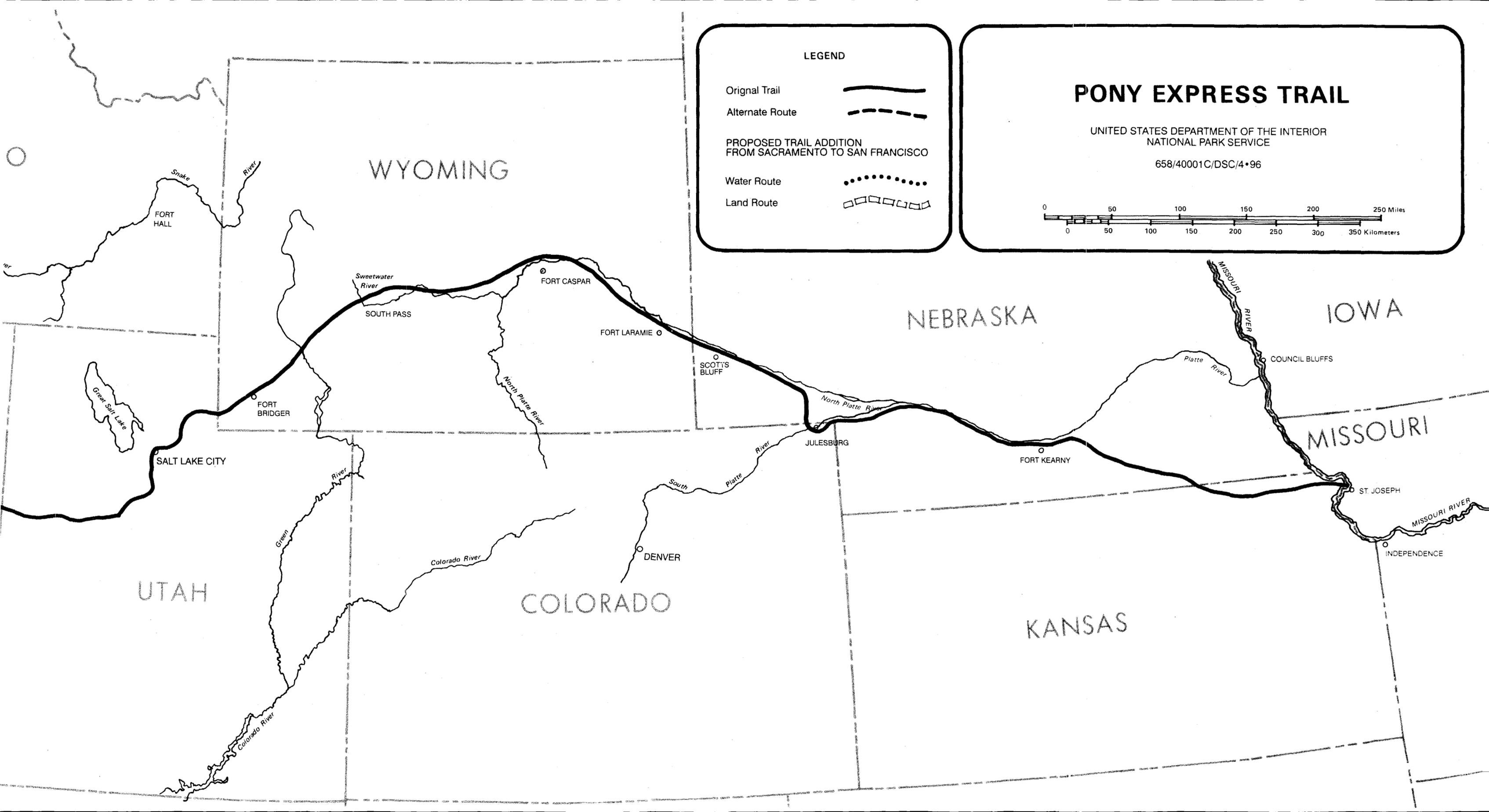
Great Salt Lake

Green River

Colorado River

Colorado River

DENVER



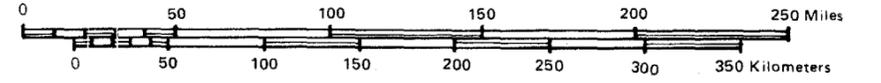
LEGEND

- Original Trail 
- Alternate Route 
- PROPOSED TRAIL ADDITION FROM SACRAMENTO TO SAN FRANCISCO
- Water Route 
- Land Route 

PONY EXPRESS TRAIL

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

658/40001C/DSC/4•96



FEASIBILITY AND DESIRABILITY

The determination of feasibility is based on an evaluation of whether or not it is physically possible to develop a trail along a route being studied and whether the development of a trail would be financially feasible. The desirability of establishing such a trail considers the costs to establish, maintain, and operate the trail; conflicting land uses; the existing supply of public trail opportunities; and support for the trail by entities that would be affected by the trail if established.

Developing a trail along the San Francisco to Sacramento section of the pony express route has been determined to be both feasible and desirable.

EXISTING CONDITIONS

Landownership

Landownership along the Sacramento to San Francisco section of the Pony Express Trail was determined from U.S. Geological Survey topographic maps and Bureau of Land Management surface management status maps. The general landownership categories along the route include government — federal, state, and local — and private (see map, p. 9). When known, the responsible level of government or agency in charge of the property is indicated, along with the property's use. Urbanized areas were considered to be privately owned. The number of miles of each general landownership category along the trail are presented in table 1. The total mileage may not match the total trail mileage because there can be more than one use adjacent to any section of the trail, for example, there could be agriculture on one side of the trail and urban development on the other.

The delineated overland trail route from Sacramento to San Francisco is approximately 100 miles long. Within that 100 mile length, 2.1 miles are in public ownership, 9.1 miles are ferry routes over Carquinez Strait, San Pablo Bay, and San Francisco Bay, and 90 miles are privately owned or within the urbanized development area of cities.

TABLE 1: LAND OWNERSHIP ALONG THE SACRAMENTO TO SAN FRANCISCO
PONY EXPRESS TRAIL SECTION

OWNERSHIP CATEGORY	MILEAGE	USE
Private: Individuals and Urban Development Areas	90.0	Commercial, Industrial, Residential
Water Sections: Benicia -Martinez / Carquinez Strait	1.9	Ferry Route
Oakland-San Francisco / San Francisco Bay	7.2	Ferry Route
Public: Local / County / Regional	0.0	N/A
State	2.1	Berkeley Campus, Other
Federal	0.0	N/A

Land Use

Existing land uses along the route were identified with the assistance of local planning agencies to determine the general patterns of development along the trail route (see Land Use map). The general land use categories described include agriculture, forest land, rangeland, urban development, desert shrub land (mostly ungrazed), protected public lands, and water sections. Where possible the local planning jurisdictions provided future land use designations along the route so that informed decisions for trail development and interpretation could be made compatible with local growth plans and patterns.

Along the 100-mile length of the overland trail route from Sacramento to San Francisco are 45.6 miles of agricultural land use, 46.4 miles of urban development, 8 miles of protected state lands such as parks and wildlife refuges, and 9.1 miles of ferry routes over Carquinez Strait, San Pablo Bay, and San Francisco Bay. Land use is further described in Table 2.

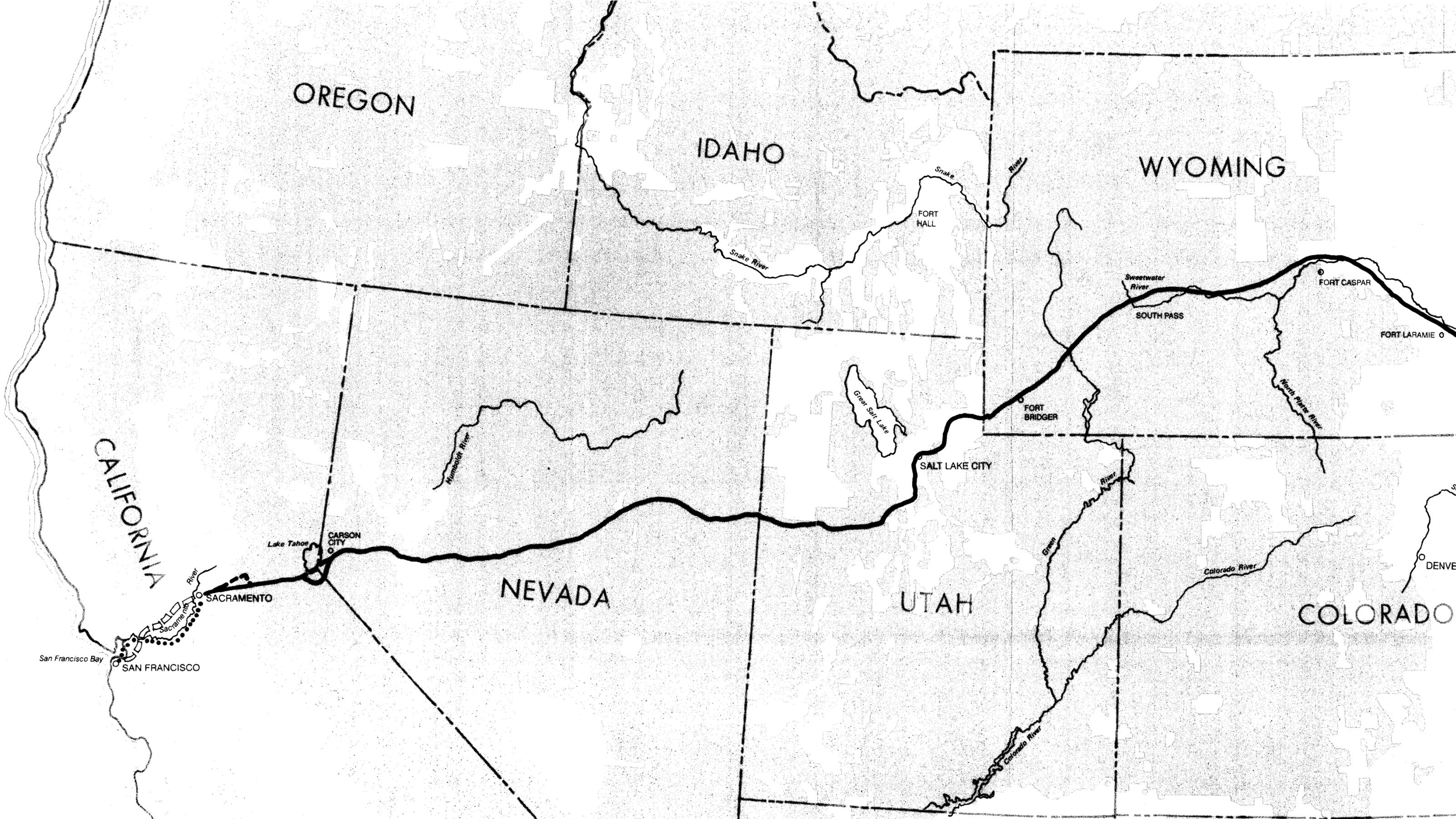
TABLE 2: LAND USE ALONG THE SACRAMENTO TO SAN FRANCISCO
PONY EXPRESS TRAIL SECTION

LAND USE CATEGORY	MILEAGE ¹
Agriculture	45.6
Forest land	0.00
Rangeland	0.00
Urban Development	46.4
Desert Shrub land (Mostly Ungrazed)	0.00
Protected Public Lands (parks, open space, refuges, etc.)	8.0
Water Sections: Benicia–Martinez / Carquinez Strait; San Pablo Bay / Oakland–San Francisco / San Francisco Bay	9.1

1. The total mileage of land uses exceeds the total length of the trail section because in some places the same use may be adjacent to the route on both sides, while in other places there are different land uses on each side of the route.

Threats to Trail Resources

Threats to the resources along this trail section are the same as those identified in the 1987 *Feasibility Study*. Nearly all of the section is beneath or immediately adjacent to heavily traveled highways, including two interstates. No pristine, discrete sites related to the trail section remain along the route, and individuals can travel most of its length in private vehicles. Similarly, the water route can be traveled by private or commercial watercraft.



OREGON

IDAHO

WYOMING

CALIFORNIA

NEVADA

UTAH

COLORADO

San Francisco Bay
SAN FRANCISCO

SACRAMENTO

Lake Tahoe
CARSON CITY

SALT LAKE CITY

FORT BRIDGER

FORT HALL

FORT CASPAR

FORT LARAMIE

DENVER

Snake River

Snake River

Sweetwater River

SOUTH PASS

North Platte River

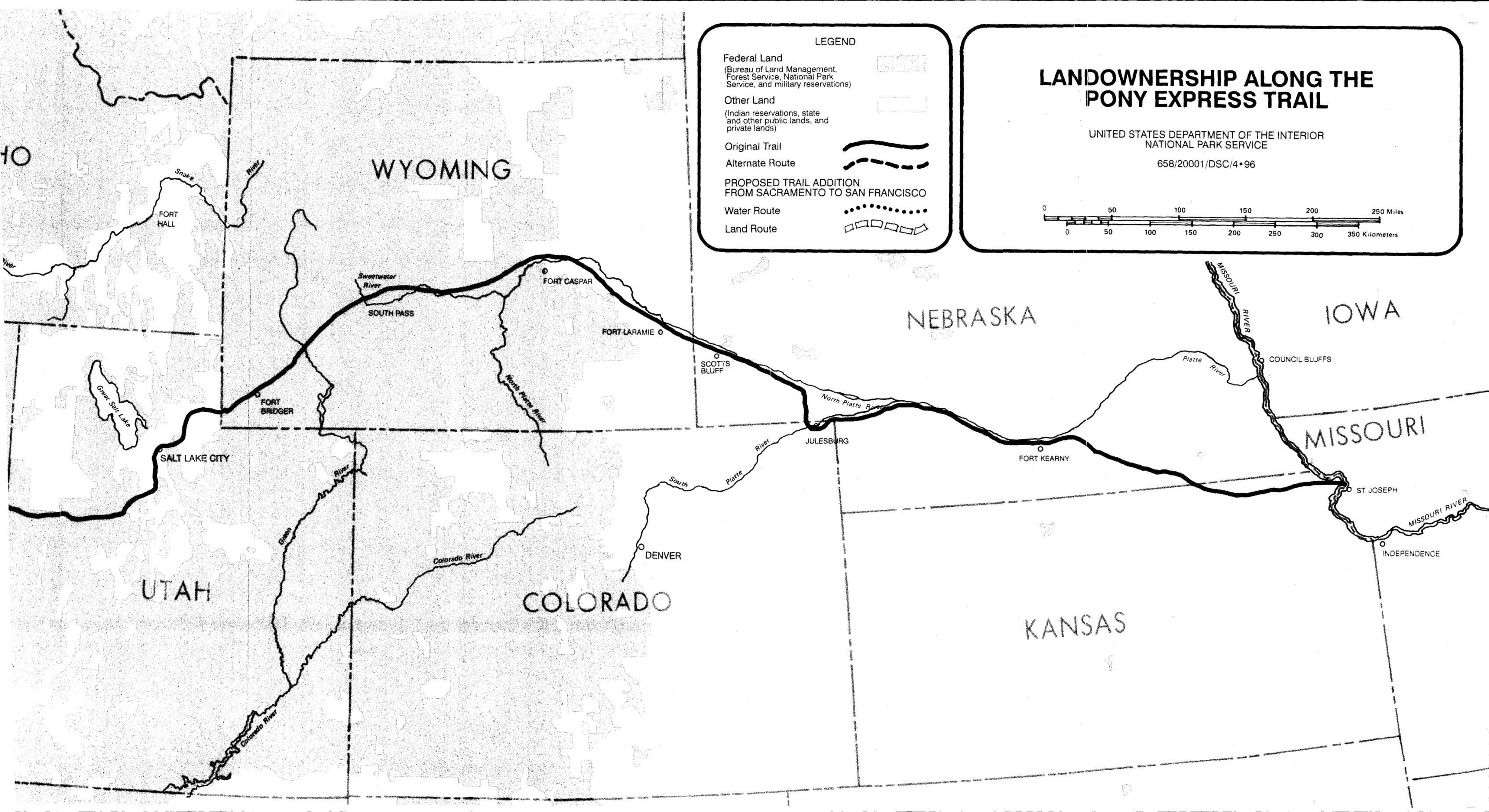
Humboldt River

Great Salt Lake

Green River

Colorado River

Colorado River



LEGEND

- Federal Land
(Bureau of Land Management, Forest Service, National Park Service, and military reservations)
- Other Land
(Indian reservations, state and other public lands, and private lands)
- Original Trail
- Alternate Route
- PROPOSED TRAIL ADDITION FROM SACRAMENTO TO SAN FRANCISCO
- Water Route
- Land Route

LANDOWNERSHIP ALONG THE PONY EXPRESS TRAIL

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

658/20001/DSC/4•96

0 50 100 150 200 250 Miles
0 50 100 150 200 250 300 350 Kilometers

WYOMING

NEBRASKA

IOWA

UTAH

COLORADO

KANSAS

MISSOURI

FORT HALL

SALT LAKE CITY

FORT BRIDGER

Sweetwater River

SOUTH PASS

FORT CASPAR

FORT LARAMIE

SCOTT'S BLUFF

JULESBURG

FORT KEARNY

DENVER

COUNCIL BLUFFS

ST. JOSEPH

INDEPENDENCE

Snake River

Great Salt Lake

Utah River

Colorado River

North Platte River

South Platte River

North Platte River

Platte River

Missouri River

Missouri River

Current Public Use, Development, and Access

Present and Projected Uses. Current trail-related public use along this Pony Express Trail section occurs at historic sites along the route, which are commemorated by historic markers. The majority of the 100-mile section is along or beneath modern highway and water routes connecting San Francisco and Sacramento. Public use is intense; however, most of it is not trail related, and many route travelers are probably unaware of the route's relationship to a historic trail. An alternate trail section used for one pony express ride is a 12-mile-long cutoff between the cities of Lafayette and Martinez. Nearly 4 miles of this cutoff is protected within the boundaries of present day Briones Regional Park.

Uses on the along the Pony Express Trail section are not anticipated to change. People will continue to visit parks along the trail section and travel along parallel and overlapping modern highways. Additional trail markers and interpretive waysides may be installed along the overland section by either local jurisdictions or interested private organizations. No physical development by the National Park Service is anticipated or recommended.

Recreational Activities and Interpretive Programs. Recreational activities and interpretive programs for this section would generally be the same as those described in the 1987 *Feasibility Study*.

Access to Trail Sections. Nearly all of this trail section is accessible to motor vehicles because it lies beneath modern highway routes or runs parallel to them. The once-used Lafayette to Martinez cutoff is the only section that is inaccessible to motor vehicles; however, one-third of it is accessible to hikers in Briones Regional Park. Pedestrian and bicycle access is available within the various communities through which the trail section passes.

Public Support

The San Francisco Bay area and the Sacramento Valley have broad constituencies that support open space and trail development. There is significant public interest specifically in this section of the Pony Express Trail. The study team consulted with numerous groups, including the local chapters and representatives of the National Pony Express Association, the Pony Express Trails Association, and the Contra Costa County Historical Society, all of whom have expressed keen interest in the designation of this section of the pony express route.

Physical Capability to Develop the Trail Section

The intense urban development, physical landforms, and long-established land uses along the overland portions of this trail section make it extremely unlikely that any development can be undertaken. Most of the overland section is within established highway rights-of-way that serve huge traffic and population volumes. These traffic arteries are essential to the economies of the region and the communities along this trail section. There is no space within the rights-of-way for trail development, and such a use by hikers and bicyclists would not be compatible with the high-speed motor vehicle traffic along these routes.

One portion of an original pony express route exists on public land as part of a trails system maintained by the East Bay Regional Parks. The Briones Regional Park includes about 4 miles of an alternate route for the pony express. The park is in a rural setting that is completely screened from any urban development or modern intrusions and retains a remarkable degree of integrity that evokes the historic scene of the pony express. One of the trails in the park follows the historic route of the pony express. Because it is currently protected in the East Bay Regional Park system, no federal action is required to preserve this setting. Should this section of the pony express route be designated as a portion of the national historic trail, it is recommended that the National Park Service and the Long Distance Trails Office enter into a cooperative agreement with the East Bay Regional Park District to provide technical assistance for interpretive media and signs on the trail section in Briones Regional Park.

Similarly, the historic pony express route between Oakland and Orinda crosses Fish Ranch Road Pass, where it intersects the East Bay Skyline National Trail. This junction occurs at the convergence of Claremont Canyon, Sibley Volcanic, and Tilden Parks — three units in the Park system. Although the trails within these parks do not exactly parallel the route of the pony express, portions of the trails fall in the pony express corridor. Moreover, the rural landscape accessible from these trails evokes the character of the historic setting of the pony express, an important consideration in the designation of a national historic trail. Finally, the National Trails System Act directs the agency undertaking the suitability / feasibility study to examine lands and areas adjacent to such trails, which might be utilized "for scenic, historic, natural, cultural, or developmental purposes." Because these lands are already protected and maintained by the East Bay Regional Park District, no federal acquisition or development of these parklands would be undertaken. It is recommended that, under the cooperative agreement with the park district, the National Park Service could provide technical assistance for interpretation and signs along the appropriate trail sections.

Developing trails on lands near the rights-of-way is unlikely because only about 2 of the 100 miles of this section are in public ownership. Nine miles are water sections, and 90 miles are in private ownership. The use of private land would require an extensive number of partnership agreements and might not result in a continuous trail. This would be expensive to negotiate and monitor, and if not a continuous route the resulting confusion could restrict public interest and use of the trail. Land acquisition defeats the spirit and intent of the trail's enabling legislation and would be expensive along this heavily developed corridor.

Trail development has already taken place on certain parts of the overland trail section. The city of Davis has established itself as a national leader in the development of bicycle and pedestrian recreational trails. Significant portions of the city's bicycle trails network parallel the pony express, from the outskirts of Sacramento, through the city of Davis, and west toward Dixon and Vacaville. Visitors using these trails would have the opportunity to follow exactly the routes taken by pony express riders almost 150 years ago. Because these trails are already maintained and protected by the city of Davis, Department of Public Works, minimal federal action would be required. It is recommended that the Long Distance Trails Office create a cooperative agreement with the Department of Public Works and the city's Historical Resources Commission to provide technical assistance for interpretation and signs along the appropriate bicycle and pedestrian trails.

The eastern terminus of this section, the point from which both the steamboats carrying pony express mail and the riders departed, is in the Old Sacramento National Historic District. A very high percentage of the buildings in the district date from the pony express era, including the building that served as the Wells Fargo office. Currently, there is limited interpretation of the history of the pony express in the historic district. Although no federal property acquisition or development is necessary in the historic district, the National Park Service could enter into a cooperative agreement with the city of Sacramento to provide technical assistance to enhance interpretation of the pony express as it related to the Old Sacramento Historic District.

Currently, opportunities to experience the water route of the pony express trail section are limited. Excursion boats provide tours on the river near Sacramento, including the steamboat slough, which was used by steamboats carrying pony express mail. Ferry service still operates between Oakland and San Francisco near the historic landing sites used by pony express riders. Also, tourists can drive motor vehicles on the Sacramento River levee between Sacramento and Rio Vista, a distance of about 40 miles. Two free automobile ferry crossings along this section put visitors on the river and enhance the overall visitor experience. In addition, there are public access points along the river for private boaters, and Interpretive signs could be placed in these areas. Since there are no authentic sites or resources to preserve, marking the route is the best and most compatible development action. It preserves private property rights, minimizes NPS expenses, and still achieves the interpretive and commemorative goals

Costs to establish, Maintain, and Operate the Trail Section

Minimal costs will be associated with establishing this section as part of the Pony Express Trail. It would be added by a declaration of the secretary of the interior. The National Park Service would provide technical assistance and expertise in formulating the content of wayside exhibits. However, there would be no NPS operating costs because the Park Service would not own or develop any portion of the route. The only maintenance activities would be associated with the upkeep and replacement of the wayside interpretive exhibits and would be the responsibility of the local jurisdictions who installed them. Beyond these requirements, the management of this section would be as stated for the rest of the Pony Express Trail.

Land Use Compatibility

Current land uses and trail development are compatible, and no additional development is proposed. However, should development recommendations emerge at a later date, compatibility should be established based on visitor use, natural resource, and cultural resource determinants such as visitor safety, visitor experience, noise, wetlands/floodplains, interpretation, and access.

AFFECTED ENVIRONMENT

Natural Resources

Physiography The Pony Express route between Sacramento and San Francisco falls within two physiographic provinces - the California Coastal Chaparral Forest and Shrub and the California Dry Steppe. The first province constitutes the narrow band of coastal plain and low mountains between San Francisco and the hills west of Oakland. Elevations range from sea level to 2,400 feet. The second province incorporates the Central Valley, the flat, alluvial plain that lies between the Coastal Range and the Sierra Nevada. This area is marked by broad, nearly level valleys bordered by gently graded alluvial fans, terraces and the lower foothills of the surrounding uplands.

Climate The climate in the California Coastal province is characterized by hot, dry summers, and rainy, mild winters. Annual temperatures range from 50 to 65 degrees F. Annual precipitation ranges from 10 to 50 inches, with a pronounced summer drought.

The climate of the Dry Steppe province is characterized by hot, dry summers and mild winters. Annual temperatures average 60 to 67 degrees F. Precipitation levels are lower than the coastal province, ranging from less than 10 inches to 30 inches. Most precipitation falls as rain in the winter months. Evaporation in the dry summer months often exceeds precipitation, resulting in water shortages.

Soils Alfisols and Mollisols are the predominate soils in the Coastal province. Entisols are found in the lower elevations of the Dry Steppe province, with alfisols dominating at higher elevations.

Water resources and floodplains The Coastal province most dominant water resources are San Francisco Bay and the Sacramento River. Numerous smaller rivers and streams flow into the bay and the river. The bay is marked by extensive marshes and estuaries. The area also features many lakes and reservoirs.

The Sacramento River and its enormous floodplain also serves as the dominant water resource in the Dry Steppe province. The Sacramento's major tributaries include the San Joaquin, Feather, and American Rivers.

Vegetation The coastal province features well-defined plant communities. Several tree species are endemic in the region, including the Monterey cypress, Torrey pine, Monterey pine, and Bishop pine. The coastal plains and larger valleys have sagebrush and grassland communities. Diverse broadleaf riparian forests are found along streams.

In the Central Valley, native grasses have largely been replaced by introduced annual grasses such as brome, fescue, and barley. Greasewood, picklewood, salt grass, and shadscale are found along the rivers. Tule marshes border the lower reaches of the Sacramento River.

Fauna Animals found in the heavily urbanized Coastal province include the brushy rabbit and the opossum, North America's only marsupial. Coastal California is a major migration route for both water fowl and land birds. Numerous species inhabit the coastal estuaries, lagoons, and mudflats from midsummer through winter and spring.

The Dry Steppe province features a diverse animal population. Common species include the beechy ground squirrel, cottontail, California mouse, kangaroo rats, and several subspecies of mule deer. Predators include the coyote and bobcat. Common birds include the mourning dove, horned lark, mockingbird, loggerhead shrike, lesser goldfinch, red-shafted flicker, and the scrub jay. The California quail is numerous in areas where brush or rock outcroppings provide cover. Raptors include the golden eagle, red-tailed hawk, and Cooper's hawk.

Threatened and Endangered Species

Information regarding threatened and endangered species in California has been compiled in a technical appendix and is available upon request.

Cultural resources

Numerous historic districts and individual sites are found along the route between Sacramento and San Francisco. The only known extant resources relating to the Pony Express are the structures which make up the Old Sacramento Historic District, and the landscape within Briones Regional Park.

The locations of Pony Express stations at Benicia, Martinez, and Oakland have been identified, as has the location of the Alta Telegraph office, the Pony Express terminus in San Francisco. Additional research may uncover new information regarding related resources, including any significant landscapes associated with the Pony Express.

Socioeconomic Environment

In 1993 California was the most populous state in the nation with a population of 31,216,900. In 1980 the state had a population of 23,796,800. California's population growth rate of 31.2% was more than double the national average of 13.4% during this time period.

The 1993 per capita personal income (PCPI) was \$21,895 and was 105% of the national average. The state ranked 12th in the United States in PCPI. Growth in PCPI averaged 4.5% annually during the time period 1983 through 1993. This rate of growth was noticeably lower than the national average.

California ranked first in the country in total personal income (TPI), over \$683.5 billion, and accounted for 12.7% of the national total. During the period, 1983 - 1993, TPI grew in California at an annual rate of 6.7%; this rate was higher than the national average of 6.5% annually.

Employment earnings increased from approximately \$259.3 billion in 1983 to nearly \$500.9 billion in 1993, an average annual growth rate of 6.8%. In 1993, the largest economic sectors in terms of earnings were services (31.2%), state and local government (11.8%), and durable goods manufacturing (10.4%)

Unemployment and poverty rates were similar to the national averages. California's 1990 unemployment rate was 6.6%. One person out of eight (12.5%) living in California was living below the poverty level in 1990.

ENVIRONMENTAL CONSEQUENCES

Natural Resources

The designation of the Sacramento-San Francisco segment of the Pony Express Trail as a National Historic Trail poses only minimal impacts to natural resources along the trail route. The majority of the land route would be designated as an auto tour route on established federal, state, and county highways. Much of the route passes through heavily urbanized areas that currently experience consistently heavy automobile traffic. The projected traffic increases resulting from the trail designation are expected to be light and have only a minimal impact on overall traffic flow.

Visitor traffic on the water route would pose no impacts on the natural resources along the trail route. While it might trigger some additional water travel, these additions are unlikely to have more than a minimal impact on Sacramento River traffic.

The route designation would result in no large-scale construction or other development that would pose significant adverse impacts on vegetation, soils, water resources, or wildlife in any portion of the trails corridor. Development would be limited to placement of signs marking the trail and wayside exhibits interpreting the history of the Pony Express, particularly as it pertains to California. Development of trail marking or interpretive signs would be preceded by cooperative agreements between the National Park Service and the appropriate state or local agencies involved. These cooperative agreements would require that any development would be undertaken in compliance with the guidelines of the National Environmental Policy Act (NEPA) to ensure that any adverse impacts would be avoided or mitigated to the greatest degree possible.

Cultural Resources

The designation of this portion of the Pony Express Trail as a national historic trail poses only minimal impacts for cultural resources, including cultural landscapes in the trails corridor. Visitor use would be limited to driving the auto tour route, hiking and biking on established pedestrian trails or in designated state and regional parks, and boating on portions of the Sacramento River. No appreciable adverse impacts will result from the development of interpretive waysides and installation of signs along the auto tour route. Cooperative agreements between the National Park Service and the California state historic preservation

office and other appropriate state and local agencies would precede any undertaking or development. The cooperative agreements would require that these actions be undertaken in compliance with the appropriate sections of the National Historic Preservation Act to ensure that any adverse impacts would be avoided or mitigated to the greatest degree possible.

Potential beneficial impacts arising from this action include helping to increase awareness of the role of the Pony Express in California's history and creating a constituency for the preservation of any remaining resources, including historic landscapes, that are related to the Pony Express.

Socioeconomic Conditions

The designation of this portion of the Pony Express Trail would have no noticeable impacts on the regional economy. While such a designation might trigger some additional tourism, such an increase in all likelihood would have a minimal impact on the large and complex economy of the San Francisco Bay area and the region between the bay area and Sacramento. However, some smaller communities along the route may realize some benefit as a result of increased spending by tourists following the auto tour route.

PREPARERS

DENVER SERVICE CENTER, NATIONAL PARK SERVICE

Tom Thomas, Historian
Keith Payne, Landscape Architect

INTERMOUNTAIN FIELD DIRECTORATE, NATIONAL PARK SERVICE

Jere Krakow, Superintendent, Long Distance Trails Office

CONSULTANTS

Meredith Kaplan, Planner, Pacific Field Directorate, National Park Service
Joe Nardone, Executive Director, Pony Express Trails Association
Tom Crews, National Pony Express Association
Walter Harmon, National Pony Express Association
Dr. James Schaebel, Department of History, University of the Pacific
Roy Bloss, Contra Costa County Historical Society
George Cardiner, National Pony Express Association
Tim Buscos, Department of Public Works, Davis, California
East Bay Regional Parks District



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

Publication services were provided by the graphics staff, Resource Planning Group, Denver Service Center. NPS D-6 / July 1996

