



## **A HISTORY OF ROAD CLOSURES ALONG HIGHWAY 1, BIG SUR MONTEREY AND SAN LUIS OBISPO COUNTIES, CALIFORNIA**



**Highway 1 along the Big Sur Coast  
From San Carpoforo Creek in San Luis Obispo County  
To the Carmel River in Monterey County  
SLO-1-71.4/74.3  
MON-1-0.0/72.3**

**Prepared for: Caltrans District 5  
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## 1 INTRODUCTION

This report addresses the historical and evolving relationship between the people of Big Sur and the Coast Highway, focusing especially upon the impact of frequent road closures on the people of the area. It addresses the question of why the highway was built, i.e. the transportation need the highway was designed to fulfill. It also discusses changes in the population and traffic along Highway 1 through the Big Sur country after the highway was completed. It traces the known instances of major closures along the highway and characterizes these in terms of the location, length, and cost of the closure. Finally, the report closes with interpretive comments on the effects of the closures on the people who live and work in the area, as well as the tens of thousands who visit the area. A map of the study area for the history of road closures along Highway 1 is presented in **Figure 1**. The identified road closures along Highway 1 are summarized in tabular form in **Table 1** at the end of this report; this table is organized geographically by post mile. The closures are discussed in greater detail in Section 2, which includes citations and other data too lengthy to fit into the table. This section is presented chronologically.

### 1.1 WHY HIGHWAY 1 WAS BUILT

Highway 1 was brought into the State Highway System in 1919 by a vote of the people of California. The route was historically called the Carmel-San Simeon Highway, a name that will be used throughout the historical section of this report.

The decision to build the Carmel-San Simeon Highway came about, at least in part, through campaigning by local citizens. This was not an unusual situation. Historically, alignments were adopted into the State Highway System through a variety of means. In the earliest years, routes were adopted by the Legislature on a piecemeal basis, even before there was a formal structure for a highway agency to maintain these roads. In the early 20<sup>th</sup> century, the Legislature placed a series of bond measures on statewide ballots to finance state highway construction. These measures identified the routes that would be built, using the revenue from the bonds. Many of the most important state routes were adopted through this bond measure mechanism. In 1923, the Legislature passed a gasoline tax that endowed the Division of Highways with a dependable source of revenue, freeing it from bond financing.<sup>1</sup>

At various times, the Division of Highways, the California Highway Commission, and the Legislature had different policies for prioritizing route adoptions. One longstanding policy, for example, gave preference to roads that connected county seats. One of the most important single events in the history of the State Highway System was passage of an act in 1933 that brought thousands of miles of county roads into the system, nearly doubling state mileage with one stroke of the pen. Until the creation of the California Transportation Commission (CTC) in 1972, the same year in which the Division of Highways was renamed the California Department of Transportation (Caltrans), the routes were taken into the state system by an act of the Legislature; for this reason, these routes were typically called “legislative routes.” The 1972 act charged the CTC, among other things, with approving new routes into the State Highway System.<sup>2</sup>

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<sup>1</sup> The Division of Highways was founded in 1895 and has gone by various names through the years, including Bureau of Engineering. Its modern name, acquired in 1972, is the California Department of Transportation, or Caltrans.

<sup>2</sup> The route adoption system has changed a great deal over time. This complex evolution is summarized in Raymond Forsyth and Joseph Hagwood, *One Hundred Years of Progress: A Photographic Essay on the Development of the California Transportation System* (Sacramento: California Transportation Foundation, 1996).

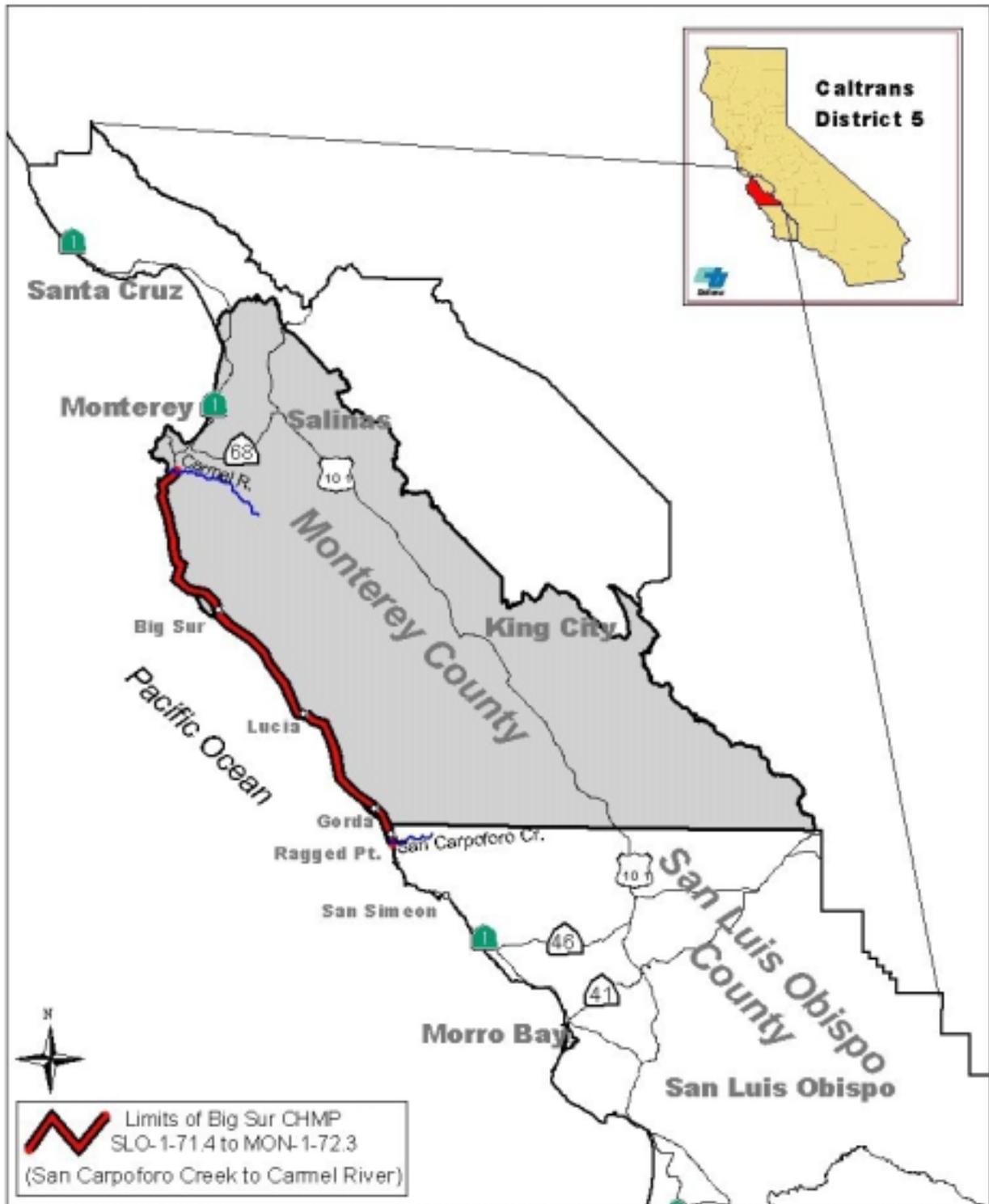


Figure 1. Map of the Big Sur Coast Highway Management Plan Area

Although there were formal methods for adopting highways into the state system, those methods were not beyond the influence of citizen groups that advocated for roads in specific locations. This should come as no surprise, given the great value that is derived from having a state highway to carry goods and people to and from a locality. It is likely that every state highway was adopted with some degree of lobbying on the part of potential beneficiaries. The Carmel-San Simeon Highway formally became part of the State Highway System when it was included among numerous such routes in the Third Highway Bond Issue, which was approved by California voters in July 1919.<sup>3</sup>

The records of the Division of Highways indicate that Senator Elmer S. Rigdon of Cambria, San Luis Obispo County, was the most active advocate for adopting this route. As recounted in numerous sources, including the dedication ceremony at the completion of the highway, Sen. Rigdon had been influenced by Dr. John Roberts, a physician from Monterey who served the permanent settlers along what would become the Carmel-San Simeon Highway. In his travels to this remote area, Dr. Roberts had gathered information about the route and had helped convince Sen. Rigdon that it was feasible and necessary to build a road through the area. In 1917, Sen. Rigdon was able to secure a small appropriation for a survey of the alignment, as part of a larger bill for highway surveys throughout the state. These surveys helped convince the Highway Commission that the route was feasible. It was included as part of the 1919 bond measure, and has been part of the State Highway System since that time.<sup>4</sup>

We cannot say with certainty what Dr. Roberts and Sen. Rigdon had in mind when they lobbied successfully on behalf of a highway through this rugged part of California. Rosiland Sharpe Wall, who knew Dr. Roberts when he was elderly, devotes several chapters to him in her book *A Wild Coast and Lonely*. In Wall's interpretation, Dr. Roberts had several motives for advocating a road through the area. As the only medical provider in the area, he was aware of the hardships caused to local settlers from their extreme isolation. But he also appreciated the tourist potential for the area. She writes:

He [Dr. Roberts] felt that a highway would not only make life easier for the inhabitants of the region, especially those around Lucia, but would make this scenic landscape accessible to everyone. As it was, no one knew its beauty save those who lived there. It belonged, he felt, to the state, the nation, the world.<sup>5</sup>

In his book, John Woolfenden echoes these sentiments. "On his trips into the Big Sur country over wagon roads and trails," he writes, "Dr. Roberts became entranced with the scenic beauties around him and determined that these should be enjoyed by others."<sup>6</sup>

The tourist potential of the area had already been explored, even before the highway was built. By 1910, the Pfeiffer family, which had homesteaded in the area in the late 1860s, established Pfeiffer's Ranch Resort near the end of the Coast Road, at the site of today's Pfeiffer Big Sur State Park. Other small resorts developed near the end of the Coast Road as well, long before

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<sup>3</sup> The legislative history of the Carmel-San Simeon Highway is summarized in a long article on its opening: Lester H. Gibson, "A Dream Come True," *California Highways and Public Works* (July 1937), 1-3, 14-15.

<sup>4</sup> Lester H. Gibson, "A Dream Come True," *California Highways and Public Works* (July 1937). Although adopted in 1919, the road was not completed for nearly 20 years. Minor highway segments were completed in the early 1920s, mostly in San Luis Obispo County. Construction was shut down due to technical and financial problems and was not resumed until the early 1930s. For practical purposes, Highway 1 was built during the 1930s, not the 1920s.

<sup>5</sup> Rosiland Sharpe Wall, *A Wild Coast and Lonely – Big Sur Pioneers* (San Carlos, CA: Wide World Publishing, 1989), 86-87. As the developer for the city of Seaside, Roberts was certainly aware of how an area could be transformed through development.

<sup>6</sup> Woolfenden, *Big Sur: A Battle for the Wilderness*, 100.

the state's Carmel-San Simeon Highway had been completed. It took many years to construct the highway, and new resorts were built along its length as it progressed. In many instances, the developers of the resorts were the old families that had previously pursued agricultural and extractive industries, before the highway was completed. Members of the Pfeiffer family, for example, built several resorts in the Big Sur River area, as did the Harlan family in the Lucia area, where the family had resided for generations before the coming of the highway. Howard Wall built a resort in the mid-1930s on land he owned near the Bixby Bridge.

It appears, then, that the sponsors of the road were aware of its tourist potential, judging from experience along the end of the Coast Road and the logic of the situation, recognizing the natural beauty of the area. It would have been difficult to predict, however, exactly how popular the area would become. This was true of Highway 1 as well as other State Highways that were built through wilderness areas, such as U.S. 50, U.S. 40, and State Route 70. The Carmel-San Simeon Highway transformed the population and economy of the Big Sur area, but in a manner that was similar to the effects of many other state highways from the 1920s and 1930s that passed through wilderness areas. Each of the other wilderness highways induced a recreational economy along the roadway access. The Big Sur highway was somewhat unusual in the degree of isolation that existed before the highway and the difficulties that have been encountered in maintaining the road. It was not, however, unique in this regard. The Feather River Highway (Route 70 in Plumas County), for example, was built about the same time as the Carmel-San Simeon Highway. It passed through very remote areas and has been a challenge to maintain due to bad weather and unstable hillsides.

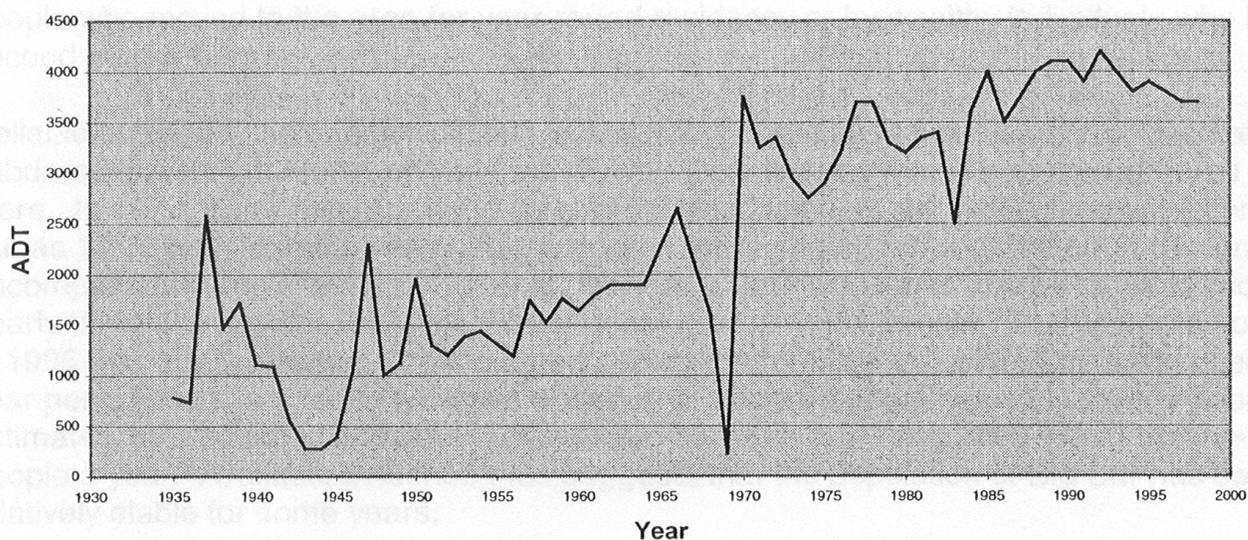
There is no indication in the historic record that the sponsors of the highway saw this as a seasonal road, one that might be closed in the winter in the same manner that secondary roads over the Sierra Nevada are allowed to close during the winter months. Available evidence suggests that the sponsors of the road, especially Rigdon and Roberts, saw a dual purpose for it: providing a safe year-round road for use by permanent residents of the area, and providing access for tourists to use this wonderful scenic area.

## **1.2 TRAFFIC INCREASES ALONG THE HIGHWAY 1 CORRIDOR**

The Carmel-San Simeon Highway has never carried a great deal of traffic, relative to many other state highways. Caltrans and its predecessor organization, the California Division of Highways, have measured traffic flow on the Big Sur stretch of Highway 1 on an annual basis, beginning in 1935. Between 1935 and 1946, the count was a one-day total, conducted on the second Sunday in July. Beginning in 1947 and continuing to the present, traffic volumes were measured in terms of average daily traffic (ADT) counts. This amount is defined as the total traffic volume for the year, divided by 365 days. Although there are several points along Highway 1 in Monterey and San Luis Obispo counties in which traffic counts were conducted, this study used numbers recorded at the Big Sur River Bridge, at Milepost 46.60 in Monterey County. This point was selected because it is located near the center of the study area, and because the location of the recordation point has remained the same throughout the entire 1935-1998 period for which data are reported. ADT figures may differ at different points but the trends are generally consistent along the highway.

**Figure 2** below presents the traffic counts for the highway at the Big Sur River Bridge, between 1935 and 1998. The ADT figures parallel our understanding of the economic and population increases in the area. The ADT was over 2,500 in 1937, the year the highway opened, but dropped to 1,462 the next year, presumably as the novelty of the new road wore off. The traffic count fell to miniscule numbers during the gasoline rationing of World War II, with a low of 274

in 1943. These counts are consistent with anecdotal information regarding the loneliness of Big Sur during the war years. The numbers rose dramatically in 1946 and increased steadily during the remainder of the post-war era. (There is a dip in 1947, which is probably attributable to the change in methods for counting traffic.) The steady increase during the 1960s probably reflects several trends, including the opening of several major attractions in the area, especially the Esalen Institute. The increase of traffic during the 1960s also coincides with what some local historians call the “hippie era” of Big Sur history, in which, according to one historian, “itinerant” youths visited the Big Sur area in great numbers.<sup>7</sup> Informal accounts also point to the 1964 filming of “The Sandpiper” in Big Sur as providing a tremendous boost in public awareness of the area. By 1970, the count reached a level of 3,700. For the most part, the notable trend was a steady increase between 1946 and about 1964, a dramatic increase during the 1960s, and a continued steady rate of growth in the ADT since about 1970.



**Figure 2. Big Sur Highway 1 ADT Counts**

There are anomalous figures here and there, such as the spike in the late 1940s that reflects the lifting of gasoline rationing and construction of new resorts in the area. The count of 220 in 1969 probably reflects a major closure during that year. (See Section 2.2 below; the road was closed for more than three months the entire length from Big Sur to San Simeon.)

The traffic numbers of the last 30 years seem to indicate that growth in usage of the road by tourists and permanent residents has grown steadily since the 1960s. However, as discussed further below, the popularity of Big Sur as a national and international tourist attraction has also increased greatly, especially in the last two decades. It would be reasonable to assume, then, that traffic counts in recent years would have increased at a correspondingly rapid rate. One possible explanation for the steady – rather than rapid – increases in traffic flow is that local traffic from permanent residents has leveled out. Since the early 1970s, state and federal agencies and non-profit organizations have purchased large blocks of land in the area, while the counties and the California Coastal Commission have severely limited new construction in the

<sup>7</sup> Tomi Kay Lussier, *Big Sur: A Complete History and Guide* (Monterey: Big Sur Publications, 1979), 52.

area. These measures have greatly slowed new development in the Big Sur region, and doubtless have impacted the rate of increase in traffic counts since that time.

### **1.3 POPULATION GROWTH ALONG THE HIGHWAY 1 CORRIDOR**

Completion of the Carmel-San Simeon Highway set in motion a transformation of the character as well as the size of the local population. First, the older families began to cease their cattle, mining, and lumbering operations almost immediately. Many did so by selling their land to the state or to private parties interested in developing the land for tourist uses. Second, as noted, tourist facilities began to be built almost immediately. The State Park at Pfeiffer Big Sur was one of the most noteworthy early developments, occurring even before the road was completed. There were important developments in the private sector as well. Third, the area began to be settled on a more permanent basis, either by people who moved to the area for year-round residency or by wealthy individuals who bought second homes there.

Reliable population figures are difficult to assemble because Big Sur is not a recognized subdivision within Monterey or San Luis Obispo County and there are no incorporated areas there. In 1979, Tomi Kay Lussier, a local writer and historian, estimated the population of Big Sur as 1,200 people, but gives neither a source for the figure nor a definition of the land encompassed in the estimate.<sup>8</sup> In 1990, Monterey County Census Tract 115, which comprises nearly the entire Big Sur coastline, had a population of 1,391 people. The estimated population in 1995 was 1,500 people. The projected population for 2006 is 1,592. The trend over this 15-year period, then, is a minor increase of about 13 people a year.<sup>9</sup> Using Lussier's population estimates, the projected increase in population between 1979 and 2006 would be about 14.5 people a year. Available evidence thus suggests that the population of Big Sur has been relatively stable for some years.

After the highway was completed, the economy and population of Big Sur were influenced by two factors: the development of tourist-oriented facilities; and the construction of permanent and summer homes. These are discussed separately below.

#### **1.3.1 Increase In Permanent Tourist-Oriented Facilities**

As noted, tourist-oriented facilities were constructed along the Carmel-San Simeon Highway, even before the highway had been completed. The earliest of these resorts suffered enormously during World War II, when auto-based tourism all but disappeared with gasoline rationing. The pace of development picked up briskly after 1945 and was well established by the mid-1950s. Newer tourist facilities were constructed during the 1960s and again in recent years. We gain a sense of how this aspect of the economy changed by tracking the history of some of the various tourist-oriented facilities along the route.

*Big Sur Lodge.* This was the site of one of the early resorts in this area, the Pfeiffer's Ranch Resort, built in 1910. The current facilities of the Big Sur Lodge, however, were assembled after the Pfeiffer ranch was acquired by the California Department of Parks and Recreation in 1934; most of the current buildings date to the 1960s.

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<sup>8</sup> Lussier, *Big Sur*, 4.

<sup>9</sup> Association of Monterey Bay Area Governments, "1997 Regional Population and Employment Forecast for Monterey, San Benito, and Santa Cruz Counties," November 12, 1997.

*Big Sur River Inn.* This lodge was founded in 1934, in anticipation of completion of the highway. It was started by a relative of the Pfeiffer family, which built the first resort in the area at the site of Big Sur Lodge.

*Deetjen's Big Sur Inn.* It was built in 1936, contemporaneous with the opening of the highway. It has been in continuous operation since it was opened, and has been listed in the National Register of Historic Places as an excellent example of the types of operations that were constructed shortly after the road was completed.

*Lucia Lodge.* The Lucia Lodge was built in the late 1930s to take advantage of the highway traffic through the area. It shut down during World War II but has been in continuous operation since it reopened after the war.

*Gorda Springs Cottages.* There has been some type of tourist-oriented facility at Gorda since the highway opened. The current facilities, however, are relatively new, despite the presence of a few buildings there that date to the 1930s and 1940s.

*Nepenthe.* This restaurant has a long association with the tourist trade in the area. A log cabin was built at this site in the 1920s for the Trails Club, a private group. Various individuals occupied this cabin after the club closed, including Lynda Sargent and, briefly, Henry Miller. Rita Hayworth and Orson Wells bought the log cabin in the early 1940s, hoping to use it as a retreat, but they never occupied it. They sold it in 1947 to the Fassett family, which built the current restaurant.

*Glen Oaks Motel.* This resort was built in 1956. Its architecture has been described as a blend of California mission adobe, coastal redwood, and western ranch style.

*Ripplewood Resort.* This resort was in place by the late 1930s or early 1940s.

*New Camaldoli Hermitage.* This is not technically a tourist facility but does bring visitors to the area. It was founded by Benedictine priests in 1958. It is a hermitage for priests but is available for Catholic retreats as well.<sup>10</sup>

*Esalen Institute.* The Esalen Institute was founded in the early 1960s. Although it has been in operation for a relatively short period of time, it is a major generator of traffic to the area and is used on a year-round basis.

*Ventana Inn.* This facility opened in 1974 but was upgraded in recent years.<sup>11</sup>

*Ragged Point Inn.* This property was established in the early 1960s.

*Post Ranch Inn.* This property was completed in recent years, although it retains portions of the old Post Ranch, one of the early pioneer settlements in the region.

*Henry Miller Library.* The Henry Miller Library was founded as a library in 1981, upon the death of Henry Miller. Emil White, an Austrian who had befriended Miller before either lived at Big Sur, founded the library. In about 1944, Miller hired White to act as his personal secretary, bringing him to Big Sur. Miller moved out of Big Sur in 1962 but White remained there until his death in 1989. He built this building as a cabin in 1966. The building was used only as a

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<sup>10</sup> From the website: [www.contemplation.com](http://www.contemplation.com).

<sup>11</sup> *San Jose Mercury News*, November 21, 1999.

residence until 1981, when White transformed it into the Henry Miller Memorial Library to memorialize the death of his friend. White died in 1989, deeding the library to the Big Sur Land Trust. The building today is a bookstore and library, focusing on Miller and other writers of the area.

It will be observed that resorts and other tourist facilities listed above opened in this area in three distinct periods or waves: during the late 1930s and mid-1940s; during the 1950s and 1960s; and in recent years. The trend over time has been toward more expensive accommodations. The most recent facilities, Ventana Inn and Post Ranch Inn, offer accommodations that range in price from \$400-800 a night. The older facilities, such as the Big Sur Lodge, Glen Oaks Motel, and the Gorda Springs cottages, are less than half as expensive, some at less than \$100 per night.

The numerous businesses along Carmel-San Simeon Highway associated with the tourist trade have always been dependent upon the highway for their livelihood, more now than ever. Within the last two decades Big Sur has become a truly international destination that attracts visitors on a year-round basis. Because of these factors, tourist-oriented businesses along the highway are more sensitive to road closures now than in the past, when tourism tended to be limited to the summer months, and when the majority of the visitors came from other parts of the state. These trends are discussed further in Section 3, below.

### **1.3.2 Permanent Residents and Summer Homes**

There have been small numbers of permanent residents at Big Sur since the Pfeiffer family moved there in the late 1860s. The character of the permanent residency changed dramatically, however, with completion of the highway. The older, pre-highway families were chiefly involved in agriculture and extractive industries, while the permanent residents after 1937 were increasingly associated with the tourist trade, or were retirees, artists, or the owners of summer cabins.

It is always dangerous to attempt to classify the population of an area because people are complex and inherently defy categorization. Nonetheless, it does appear that the current populations of the area can be understood as falling into two general groups: those who inhabit the area year-round and those who are short-term residents or transients. A majority of the permanent residents are associated with the tourist industry – resort owners and long-term employees – or the artistic community, although many more residents work in other capacities both inside and outside of Big Sur. Short-term residents or transients consist primarily of owners of summer homes and temporary residents, many of whom are short-term employees of the tourist facilities.

Initially, the bulk of the tourist facilities were owned by the older families who previously had owned ranches, mills, and mines. In time, however, these older facilities changed hands and new facilities were constructed. A few of these operations have remained in family ownership for many years, as is the case with the Nepenthe restaurant complex, which has been family owned since it opened in 1949.

The artist community represents a special chapter in the history of this area. It is impossible to discuss the Big Sur population without mentioning what has sometimes been called a “Bohemian” group of writers and artists. The history of the use of the area by artists is a

complicated one, directly related to the earlier artist settlements in Carmel.<sup>12</sup> Robinson Jeffers, the poet and a Carmel resident, did much to popularize Big Sur in the American imagination, although he never lived there. It was the arrival of the writer and painter, Henry Miller, in Big Sur in the early 1940s that did the most to cement an association between the area and the artistic community. It should be noted that Miller came to the area during World War II, when the local economy was stagnant, following an initial boom in the mid-1930s. If there is a correlation between artist settlement and low rents, the arrival of an artist community during World War II makes sense. The artist settlement was scattered throughout the coastline, but achieved a critical mass on Partington Ridge, well away from the highway. Artists, including Miller, also lived in other parts of the area.

The presence of an artistic community was well established, even before 1950. In a 1949 article on the opening of the Nepenthe restaurant, a writer for "What's Doing" observed that outside visitors mingled with the local Bohemians at the event: "Solid citizens, bankers, ranchers, real estate men and women mingled freely with sandaled and jeaned and corduroy-shorted writers and painters and musicians and sculptors who took a few hours away from work to wish the Fassetts well on their opening day."<sup>13</sup>

The 1949 article captured the eclectic mix of people that populated Big Sur at the time. That mix persisted for several decades and is present today, although to a lesser degree. The long trend in housing at Big Sur has been toward ever more expensive homes, with many owned as retreats by the wealthy. A few wealthy individuals bought parcels in the area during the 1940s. Nicholas Roosevelt, a cousin of Theodore Roosevelt, settled on Partington Ridge during the 1940s. For the most part, however, this phenomenon awaited the arrival of electric service in the late 1940s and early 1950s.<sup>14</sup> It appears that electricity, as much as the highway, opened the area for more permanent investments by private individuals. By 1955, the transformation was underway, as noted in a lengthy article in a Carmel newspaper. It noted: "The housing situation [at Big Sur] is unusual. There are the rich landowners, the independently wealthy Partington Ridge group, the Innkeepers, the renting artists, and drifters."<sup>15</sup> This eclectic mix persists even today, although the trend appears to favor wealthy investors rather than artists and drifters.

Throughout the 1960s, wealthy and well-known people began to settle the area. Linus Pauling moved to the southern part of the Big Sur in 1963. Margaret and Nathaniel Owings moved to the area in 1958 (Nathaniel Owings was the "O" in the internationally known architectural firm of Skidmore, Owings, Merrill, or SOM).<sup>16</sup> Pauling and Owings actually lived in their homes; however, by the 1970s the trend was toward construction of expensive part-time residences for people such as Kim Novak, Ted Turner, Jill Eikenberry, Joan Fontaine, and Ryan O'Neal. In 1999, the Monterey County assessor noted regarding the Big Sur housing market: "The segment of the market that is increasing is the people who are willing to spend a lot of money, like movie stars, Hollywood producers, famous musicians and accomplished screenwriters."<sup>17</sup> Many of the people mentioned by the county assessor are artists and to that extent continue the artistic heritage that began with Lillian Bos Ross and Henry Miller. The extraordinarily high cost

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<sup>12</sup> Kevin Starr discusses the development of a Bohemian culture in Carmel and Big Sur in *The Dream Endures: California Enters the 1940s* (New York: Oxford Press, 1997).

<sup>13</sup> "What's Doing," May 1949, 14.

<sup>14</sup> "This is Big Sur," *Carmel Pacific Spectator Journal* (December 1955).

<sup>15</sup> "This is Big Sur," *Carmel Pacific Spectator Journal* (December 1955).

<sup>16</sup> Margaret Owings died in 1999 and the Owings home, "Wild Bird," is listed for sale on-line at \$6,750,000. [www.bigsurhomes.com](http://www.bigsurhomes.com).

<sup>17</sup> "Changing Face of Big Sur Real Estate: Rising Land Costs Force Locals Out as Big Money Moves In," *San Jose Mercury News*, March 1, 1999.

of housing, however, favors artists associated with the film or recording industry rather than struggling writers.

The purchasers of very expensive homes and the developers of high-end resorts probably have a somewhat different attitude with respect to the road closures that chronically affect access to the region. The pre-highway settlers were inured to the isolation of the area. Many of the earliest resort developers were from the same pioneer families and were likely patient with the fact that the highway was closed from time to time. The first group of artists in the area arrived before most homes had electricity and were accustomed to living in rather primitive conditions. It is likely that the owners of new homes or old homes that are now much more expensive are less accustomed to these hardships and less patient with the persistent road closures.

## 2 CHARACTER OF ROAD CLOSURES OVER TIME

### 2.1 METHODS FOR ROAD CLOSURE RESEARCH

The following chronological history of road closures for the Carmel-San Simeon Highway spans from 1935 to the middle of 2000. The intent of this study was to compile a list of road-closing events, detailing the cause, location, duration, and cost of each closure. For the purposes of this study, a road-closing event was one that closed the road to through traffic in both directions; one-way closures were not counted. The list was composed from disparate sources, including Caltrans records, personal reminiscences, journal articles, and newspaper articles, the latter providing the majority of information. It should be noted that this chronology is not complete; it is abundantly clear that road closures along the Big Sur stretch of Highway 1 are commonplace events, and there is no doubt some closures have occurred that are not documented, or the documentation has not yet been uncovered.

The list is most complete during the 1980s and 1990s, owing to the fact that two local newspapers, the *Salinas Californian* and the *San Jose Mercury News*, are indexed. The *San Francisco Chronicle*, indexed between 1950 and 1980, was particularly useful for the 1970s, and to a lesser extent the 1950s and 1960s. *California Highways and Public Works (CH&PW)*, the journal of the California Division of Highways (later Caltrans), is indexed for 1937 to 1967 and provided valuable information for the 1940s and 1950s. Because no local newspapers in the vicinity of Big Sur are indexed prior to 1950, *CH&PW* is the primary source of information for that period.

Although articles derived from indexed publications comprise the basis for the study, several other sources of information were also vitally important for filling data gaps and corroborating information from the articles. The Caltrans Transportation Library, Sacramento, provided several useful resources including a wide range of annual reports, maintenance records and reports, internal memoranda, and District 5 newsletters. The library also maintains subject files for Monterey County and Highway 1. Other important resources include the maintenance records of Herb Filipponi, Caltrans District 5 maintenance engineer (retired), as well as the daily logs and blasting records of John Duffy, who has served as a Caltrans District 5 engineering geologist from 1989 to the present. Also helpful were the reminiscences of Don Harlan, long-time resident of Big Sur and former road maintenance worker, and Jim Krenkel, Caltrans District 5 Lead Maintenance Worker, who has worked in the area for over thirty years. Kenneth Wright, retired California Highway Patrol officer and local business owner, also provided personal recollections. Finally, Caltrans District 5 Historian, Bob Pavlik, provided several articles and other documents containing useful road closure information.

Data for these closures are presented chronologically in textual form below. **Table 1**, at the end of this report, provides a summary presentation of the data arranged geographically. The closures are listed by county, route, and post mile – from south to north. Photographs are presented for some of the closures that depict the severity and nature of the events.

## **2.2 CHRONOLOGY OF ROAD CLOSURES**

### *Closure in 1935*

Location: Twenty mile stretch beginning 40 miles south of Monterey, extending toward San Luis Obispo.<sup>18</sup>

Time of Year: October.

Cause of Closure: Threat of landslides.

Length of Closure: Unknown.

Cost: Unknown.

Comment: This closure pre-dates the official opening of the Carmel-San Simeon Highway, but it is indicative of the fact that the alignment is historically unstable and susceptible to landslides.

### *Closure in 1938*

Location: Unknown.

Time of Year: January-March.

Cause of Closure: Landslides from heavy rain.

Length of Closure: Unknown.

Cost: Unknown.

Comment: Severe storms in the winter of 1938 caused extensive damage to highways throughout the state. The Division of Highways' *California Highways and Public Works* simply comments that the rains "...added many thousands of yards of slides on the Carmel-San Simeon road, State Route 56." No other details were given.<sup>19</sup>

### *Closure in 1940*

Location: Unknown.

Time of Year: February.

Cause of Closure: Flooding.

Length of Closure: Unknown.

Cost: Unknown.

Comment: The Salinas Morning Post reported: "Other [Monterey County] roads also were reported open, with the exception of the Carmel-San Simeon route, which has been previously closed during the wet weather."<sup>20</sup>

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<sup>18</sup> "Twenty Mile Section of San Simeon-Carmel Highway Not Open," *California Highways and Public Works* (October 1935), 7.

<sup>19</sup> T.H. Dennis, "Disastrous Winter Floods Caused \$8,000,000 Damage to State Highways and Bridges," *California Highways and Public Works* (April 1938), 1, 9.

<sup>20</sup> "Roads Flooded After Rains," *Salinas Morning Post*, February 2, 1940.

*Closure in 1941*

Location: All along the highway.  
Time of Year: February and March.  
Cause of Closure: Rock and mudslide.<sup>21</sup>  
Length of Closure: Unknown.  
Cost: Unknown.

Comment: Donald Harlan, former Caltrans Foreman and longtime resident of the Lucia area, recalls that this was one of the wettest winters he had ever experienced. Indeed, during the 1940-1941 season gauges at Cold Spring near Partington Ridge recorded 160 inches of rainfall, a record that would stand until the storms of 1983. Road closures due to slides and slipouts occurred all along the new highway, prompting some state officials to contemplate abandoning the highway altogether.<sup>22</sup>

*Closure in 1952*

Location: "Big Slide" (approximately one mile south of Lucia), Monterey County Milepost 20.0.<sup>23</sup>  
Time of Year: August 14.  
Cause of Closure: Slide, resulting from earthquake disturbance.  
Length of Closure: Six weeks.  
Cost: Unknown.

Comment: This is one of the better-documented early closures and also one of the more unusual, in that the closure occurred in the summertime and was the result of an earthquake, rather than fire or rain. This remained an active slide area for years following the earthquake.<sup>24</sup>

*Closure in 1955*

Location: All along the highway. Specifics mentioned: San Carpojo (Carpoforo) Bridge; White Creek Bridge (Duck Pond); Mill Creek Bridge; major slide at Redwood Canyon (**see photograph below**).<sup>25</sup>  
Time of Year: December.  
Cause of Closure: Washouts from flood damage.  
Length of Closure: Eight months (reopened August 1956).<sup>26</sup>  
Cost: Estimated at \$312,000.

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<sup>21</sup> T.H. Dennis, "\$2,500,000 Storm Damage to Highways in February and March," *California Highways and Public Works* (April 1941), 11-12.

<sup>22</sup> Interview with Donald Harlan, May 29, 2001; Letter report from the Big Sur Historical Society, July 20, 2001.

<sup>23</sup> "Huge Slide on Sign Route 1 South of Lucia," *California Highways and Public Works* (November-December 1952), 56; Interview with Donald Harlan.

<sup>24</sup> Interview with Donald Harlan.

<sup>25</sup> *California Highways and Public Works* (January-February, 1956), 16.

<sup>26</sup> Reminiscences of Don Harlan, former highway maintenance worker and longtime resident of Big Sur.



**Slide at Redwood Canyon, December 1955**

(Photograph reprinted from: *California Highways & Public Works*, January-February 1956)

*Closure in 1958*

Location: Road closed three miles south of San Luis Obispo-Monterey County line to Big Sur.<sup>27</sup>  
Time of Year: March and April.  
Cause of Closure: Landslide, resulting from flood damage.  
Length of Closure: Unknown.  
Cost: Unknown.

*Closure in 1963*

Location: South of Big Sur, exact location unknown.<sup>28</sup>  
Time of Year: January.  
Cause of Closure: Slides due to flood damage.  
Length of Closure: Estimated two weeks.  
Cost: Unknown.

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<sup>27</sup> "Two Major Sierra Highways Blocked," *San Francisco Chronicle*, April 4, 1958.

<sup>28</sup> "Peninsula Relaxes After Storm," *Monterey Peninsula Herald*, February 2, 1963.

*Closure in 1965*

Location: Near Cape San Martin, Monterey County Milepost 11.0 (approximate).<sup>29</sup>

Time of Year: January 17.

Cause of Closure: Mountain slide.

Length of Closure: Estimated 10 days.

Cost: Unknown.

Comment: The *San Francisco Chronicle* reporter noted: "Slides normally close the highway in this area every winter especially after heavy rains, because of the unstable nature of the mountains fronting the ocean."

*Closure in 1968*

Location: Castro Canyon, Monterey County Milepost 43.0 (approximate).<sup>30</sup>

Time of Year: December 15-16.

Cause of Closure: Slides from flooding.

Length of Closure: Approximately one day.

Cost: Unknown.

*Closures in 1969*

A series of winter storms battered the Northern California coastline over a three-month period, causing numerous slides south of Big Sur.<sup>31</sup>

Location: Various locations south of Big Sur. The road was closed between Big Sur and San Simeon.

Time of Year: January-March. The road was first closed on January 19.

Cause of Closure: Rock and mudslides due to flooding.

Length of Closure: Approximately three months. In mid-March the State Division of Highways estimated reopening the road the following week.

Cost: Unknown.

*Closure in 1970*

Location: Salmon Creek, Monterey County Milepost 2.2.<sup>32</sup>

Time of Year: September 27.

Cause of Closure: Forest fire ("Buckeye Fire").

Length of Closure: Less than one day.

Cost: Unknown.

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<sup>29</sup> "Slide Shuts No. 1 South of Big Sur," *San Francisco Chronicle*, January 18, 1965.

<sup>30</sup> "Rain, Wind Gusts Pelt Peninsula," *Monterey Peninsula Herald*, December 16, 1968.

<sup>31</sup> "Heavy Peninsula Rain," *Monterey Peninsula Herald*, January 20, 1969; "Highway 1 Still Blocked In South County," *Monterey Peninsula Herald*, March 13, 1969.

<sup>32</sup> "South Coast Fire Raging," *Monterey Peninsula Herald*, September 28, 1970.

*Closures in 1972*

Comment: This was one of the most disastrous floods in the history of the region because of losses to property. A large fire in August was followed by heavy, early rains resulting in devastating mudslides in Big Sur.

Location: Near Andrew Molera State Park, Monterey County Milepost 52.0.<sup>33</sup>

Time of Year: August 1-6.

Cause of Closure: Forest fire ("Molera Fire").

Length of Closure: Highway closed and reopened several times during the week.

Cost: Unknown.

Location: Big Sur Village, Monterey County Milepost 48.5 (approximate).<sup>34</sup>

Time of Year: October 14.

Cause of Closure: Mudslide.

Length of Closure: One day.

Cost: Unknown.

Location: Big Sur Village (called the "Molera Slide"), Monterey County Milepost 48.5 (approximate). **See photograph below.**

Time of Year: November 15.<sup>35</sup>

Cause of Closure: Mudslide.

Length of Closure: Unknown.

Cost: Unknown.

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<sup>33</sup> "Big Sur Blaze Spreads to Forest," *San Francisco Chronicle*, August 2, 1972; "Big Sur Fire – Still Out of Control," *San Francisco Chronicle*, August 4, 1972; Jim Krenkel Interview.

<sup>34</sup> "Storm, Mud Slide Devastate Big Sur," *San Francisco Examiner*, October 15, 1972.

<sup>35</sup> "Slides Smash Big Sur," *San Francisco Chronicle*, November 16, 1972; "Fire + Rain = Mudflows: Big Sur, 1972," *California Geology* (June 1973).



**The Molera Slide, Big Sur Village, November 1972**  
*(Photograph by Pat Hathaway, Pat Hathaway Photograph Collection, Monterey)*

*Closures in 1973.*

Location: Lafler Canyon, Monterey County Milepost 40.7.<sup>36</sup> **See photograph below.**

Time of Year: February 11.

Cause of Closure: Rock and mudslide.

Length of Closure: Unknown.

Cost: \$479,000.<sup>37</sup>

Comment: Bob Huss, Caltrans maintenance worker, died when his skip loader plunged into the ocean at Lafler Canyon.

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<sup>36</sup> "Boulders Bury Victim at Big Sur," *San Francisco Chronicle*, February 12, 1973.

<sup>37</sup> Caltrans, "Completed Contracts – July 1, 1973 to June 30, 1974," *State Highway Program Financial Statements & Statistical Reports* (1974), 62.



**Slide at Lafler Canyon, February 1973**

*(Photograph by Pat Hathaway, Pat Hathaway Photograph Collection, Monterey)*

Location: Limekiln Creek, Monterey County Milepost 21.0.<sup>38</sup>

Time of Year: March.

Cause of Closure: Rockslide.

Length of Closure: Unknown.

Cost: Unknown.

*Closures in 1974*

Location: Near Redwood Gulch, Monterey County Milepost 5.0.<sup>39</sup>

Time of Year: January 6.

Cause of Closure: Mudslide.

Length of Closure: One day.

Cost: Unknown.

Location: Vicente Creek, Monterey County Milepost 25.9.<sup>40</sup>

Time of Year: April.

Cause of Closure: Slides due to heavy rain.

Length of Closure: Unknown.

Cost: Unknown.

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<sup>38</sup> Kenneth Wright, "Chronology of Highway One Road Closures and Issues, 1970 to 2000," compiled from personal recollections, 2000.

<sup>39</sup> "Storm End Near, Forecasters Say," *Monterey Peninsula Herald*, January 7, 1974.

<sup>40</sup> Recollections of Kenneth Wright.

*Closures in 1978*

In August 1977 the Marble Cone Fire blazed through the wilderness near Big Sur. This fire did not close Highway 1; however, between January and April 1978 heavy rains caused numerous road-closing mudslides in areas weakened by the fire.

Location: Near Partington Point, Monterey County Milepost 38.0 (approximate).<sup>41</sup>  
Time of Year: January.  
Cause of Closure: Mudslide.  
Length of Closure: Unknown.  
Cost: Unknown.

Location: Various locations.  
Time of Year: February.  
Cause of Closure: Flooding and slides.  
Length of Closure: Unknown.  
Cost: Unknown.

Comment: About the February mudslides, Caltrans wrote, "All the measures taken this fall to minimize potential runoff problems [in the Big Sur area] after the Marble Cone fire seem to be working. Our problems on Highway 1 have been more serious, however, in other areas. It seems like every location, where we have had trouble in the past, has acted up again. The slides slid, the slipouts slipped and the sinks sank. We've been lucky to generally maintain at least one lane open in many locations."<sup>42</sup>

*Closure in 1982*

Location: Near Redwood Gulch, Monterey County Milepost 5.0 (approximate).<sup>43</sup>  
Time of Year: January.  
Cause of Closure: Numerous small landslides.  
Length of Closure: Approximately one month.  
Cost: Unknown.

*Closures in 1983*

A series of storms in the winter of 1983 caused four major road-closing slides between January and April. The March slide north of Big Sur closed the road between Big Sur and Monterey for approximately two months. Another major March slide, occurring south of Big Sur near Julia Pfeiffer Burns State Park, was at the time the largest slide to affect a state highway; it took over a year to completely clear that slide and reopen the road between Big Sur and San Simeon.<sup>44</sup>

Location: Limekiln Creek, Monterey County Milepost 21.0.<sup>45</sup>  
Time of Year: January 23.  
Cause of Closure: Landslide and rockslide.

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<sup>41</sup> Caltrans District 5, *Cinco Lineas*, January 23, 1978.

<sup>42</sup> Caltrans District 5, *Cinco Lineas*, March 1, 1978.

<sup>43</sup> "Storm Topples Trees, Power Lines," *Monterey Peninsula Herald*, January 5, 1982.

<sup>44</sup> Caltrans, "Highway 1 Slide Update," *District 5 Coastline*, September 1983.

<sup>45</sup> "A Heavy Storm Hits Bay Area," *San Francisco Chronicle*, January 24, 1983; Herb Filipponi, Caltrans District Maintenance Engineer, "Memorandum: Highway 1 Closures," January 25, 1988.

Length of Closure: Four days.  
Cost: Unknown.

Location: "Cow Cliffs" (near Big Creek), Monterey County Milepost 29.0 (approximate).<sup>46</sup>  
Time of Year: January 29.  
Cause of Closure: Landslide and rockslide.  
Length of Closure: Unknown.  
Cost: Unknown.

Location: Sycamore Draw, Monterey County Milepost 39.29.  
Time of Year: January.  
Cause of Closure: Landslide.  
Length of Closure: Approximately eight months.  
Cost: Unknown.

Comment: This slide and the Pfeiffer Burns Slide (see below) effectively trapped the residents of Partington Ridge for several months. In April 1983, this slide claimed the life of Ernest "Skinner" Pierce, a heavy equipment operator from Morro Bay, when he and his grader were hit by a mudslide.

Location: North of Point Sur, Monterey County Milepost 56.6 (approximate).<sup>47</sup> **See photograph below.**  
Time of Year: March.  
Cause of Closure: Mudslides and washouts.  
Length of Closure: Approximately two months.  
Cost: Unknown.

Location: Near the entrance of Julia Pfeiffer Burns State Park, Monterey County Milepost 36.0.<sup>48</sup> **See photograph below.**  
Time of Year: March  
Cause of Closure: Mudslides.  
Length of Closure: The road south of Big Sur was reopened to local traffic over one year later on March 21, 1984; it officially reopened to through traffic on April 11, 1984.  
Cost: Approximately \$10 million.

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<sup>46</sup> "Slide Closes Highway 1," *San Francisco Chronicle*, January 31, 1983.

<sup>47</sup> "Storms Ease Up – State Toll May Hit \$200 Million," *San Francisco Chronicle*, March 5, 1983; "The Big Sur Slide," *Monterey Life*, March 1984; "For Big Sur Residents, the Road Goes Somewhere," *Los Angeles Times*, April 9, 1984.

<sup>48</sup> "Storms Ease Up – State Toll May Hit \$200 Million," *San Francisco Chronicle*, March 5, 1983; "The Big Sur Slide," *Monterey Life*, March 1984; "For Big Sur Residents, the Road Goes Somewhere," *Los Angeles Times*, April 9, 1984.



**Slide north of Point Sur, March 1983**

*(Photograph by Pat Hathaway, Pat Hathaway Photograph Collection, Monterey)*



**Slide at Julia Pfeiffer Burns State Park, March 1983**

*(Photograph reprinted from: Caltrans District 5 Coast Line, September 1983)*

*Closures in 1985*

Location: Limekiln Creek, Monterey County Milepost 21.3.<sup>49</sup>  
Time of Year: February 8.  
Cause of Closure: Landslide.  
Length of Closure: Two days.  
Cost: Unknown.

Location: San Luis Obispo-Monterey county line to Julia Pfeiffer Burns State Park.<sup>50</sup>  
Time of Year: July.  
Cause of Closure: "Rat Creek" and "Gorda" forest fires.  
Length of Closure: Twelve days: closed July 7 and reopened July 20.  
Cost: Unknown.

*Closures in 1986*

Location: Captain Cooper School, north of Big Sur, Monterey County Milepost 49.0.<sup>51</sup>  
Time of Year: February.  
Cause of Closure: Mudslide.  
Length of Closure: Unknown.  
Cost: Unknown.

Location: Wing Gulch (near Lucia), Monterey County Milepost 29.5.<sup>52</sup>  
Time of Year: February.  
Cause of Closure: Road slip-out due to flooding.  
Length of Closure: Five days.  
Cost: Unknown.

Location: Redwood Gulch, Monterey County Milepost 5.7.<sup>53</sup>  
Time of Year: March.  
Cause of Closure: Landslides.  
Length of Closure: 68 days (closed March 17, reopened May 23).<sup>54</sup>  
Cost: Unknown.

Comment: The slide at Redwood Gulch covered about 300 feet of the highway, and closed the road from Ragged Point to Julia Pfeiffer Burns State Park.<sup>55</sup>

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<sup>49</sup> Herb Filipponi, Caltrans District Maintenance Engineer, "Memorandum: Highway 1 Closures," January 25, 1988; Telephone interview with Jim Krenkel, Caltrans District 5 Maintenance Lead Worker, May 29, 2001.

<sup>50</sup> "Fires Consume 154 Houses, 230,000 Acres Across the State," *San Jose Mercury News*, July 9, 1985; "Crews Halt Blaze's Advance on Big Sur," *San Jose Mercury News*, July 11, 1985.

<sup>51</sup> "Big Sur Digging Out After Slides Cut Off Highway 1 Traffic," *San Jose Mercury News*, February 20, 1986.

<sup>52</sup> "Big Sur Digging Out After Slides Cut Off Highway 1 Traffic," *San Jose Mercury News*, February 20, 1986; Herb Filipponi, Caltrans District Maintenance Engineer, "Memorandum: Highway 1 Closures," January 25, 1988; Jim Krenkel Interview.

<sup>53</sup> "Highway 1 Blocked: Closing by Big Sur Could Last Months," *San Jose Mercury News*, March 22, 1986; Caltrans, "State Route 1 in Big Sur Closed," *CT Newsrelease* (March 21, 1986), 1-2; Jim Krenkel Interview.

<sup>54</sup> Herb Filipponi, Caltrans District Maintenance Engineer, "Memorandum: Highway 1 Closures," January 25, 1988.

<sup>55</sup> Caltrans, "State Route 1 in Big Sur Closed," *CT Newsrelease* (March 21, 1986), 1-2.

*Closure in 1987*

Location: Hot Springs Creek Bridge, Monterey County Milepost 32.70.<sup>56</sup>  
Time of Year: February.  
Cause of Closure: Landslide.  
Length of Closure: Three days.  
Cost: Unknown

*Closure in 1989*

Location: Near Villa Creek, Monterey County Milepost 7.0.<sup>57</sup>  
Time of Year: December 10, 1989.  
Cause of Closure: Rock on highway.  
Length of Closure: One day.  
Cost: Unknown.

*Closures in 1991*

Location: Wheelbarrow Road, Monterey County Milepost 25.0 (approximate).<sup>58</sup>  
Time of Year: March 27, 1991.  
Cause of Closure: Preventative scaling of the hillside.  
Length of Closure: Less than one day.  
Cost: Unknown.

Location: Partington Cove, Monterey County Milepost 38.0 (approximate).<sup>59</sup>  
Time of Year: March 28, 1991.  
Cause of Closure: Preventative scaling of the hillside.  
Length of Closure: Less than one day.  
Cost: Unknown.

Location: Wheelbarrow Road, Monterey County Milepost 25.0 (approximate).<sup>60</sup>  
Time of Year: September 17, 1991.  
Cause of Closure: Rock fall on roadway.  
Length of Closure: One day.  
Cost: Unknown.

Location: About 10 miles south of Big Sur to Ragged Point in San Luis Obispo County.<sup>61</sup>  
Time of Year: December 29.  
Cause of Closure: Mudslides.  
Length of Closure: Unknown.  
Cost: Unknown.

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<sup>56</sup> Herb Filipponi, Caltrans District Maintenance Engineer, "Memorandum: Highway 1 Closures," January 25, 1988; Jim Krenkel Interview.

<sup>57</sup> Blasting Records of John Duffy, Caltrans District 5 Senior Engineering Geologist, 1989-present.

<sup>58</sup> Daily Logs of John Duffy, Caltrans District 5 Senior Engineering Geologist, 1989-present.

<sup>59</sup> John Duffy, Daily Logs.

<sup>60</sup> John Duffy, Daily Logs.

<sup>61</sup> "Third Straight Rainy Day Brings Traffic Problems," *San Jose Mercury News*, December 30, 1991.

*Closures in 1992*

Location: South Forty, Hurricane Point, Monterey County Milepost 58.0.<sup>62</sup>  
Time of Year: March 6, 1992.  
Cause: Rock blocking the roadway.  
Length of Closure: One day.  
Cost: Unknown.

Location: Mud Creek, Monterey County Milepost 62.0.<sup>63</sup>  
Time of Year: October 21, 1992.  
Cause: Rockslide.  
Length of Closure: One day.  
Cost: Unknown.

*Closures in 1993*

In January, two separate rockslides – occurring at the same location but on two separate occasions – closed Highway 1 near Lucia. This is the same place where a major rockslide closed the highway for over a year in 1983-1984.

Location: “Big Slide,” south of Lucia, Monterey County Milepost 20.4.<sup>64</sup>  
Time of Year: January 3.  
Cause of Closure: Rockslide.  
Length of Closure: Two days.<sup>65</sup>  
Cost: Unknown.

Location: “Big Slide,” south of Lucia, Monterey County Milepost 20.4.  
Time of Year: January 14.  
Cause of Closure: Rockslide.  
Length of Closure: Road closed intermittently through March.<sup>66</sup>  
Cost: Unknown.

*Closure in 1994*

Location: San Luis Obispo County Milepost 74.0.<sup>67</sup> **See photograph below.**  
Time of Year: February 18, 1994.  
Cause of Closure: Rockslide.  
Length of Closure: Several days.  
Cost: Unknown.

Comment: Kenneth Wright, retired California Highway Patrol officer, recalls that the road south of Lucia was closed intermittently during March and February.<sup>68</sup>

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<sup>62</sup> John Duffy, Blasting Records.

<sup>63</sup> John Duffy, Daily Log.

<sup>64</sup> “Rock Slide Closes Highway 1 Near Big Sur,” *San Jose Mercury News*, January 4, 1993.

<sup>65</sup> “Crew Clears Slide Below Big Sur; Highway 1 Reopens,” *San Jose Mercury News*, January 6, 1993; John Duffy, Daily Log.

<sup>66</sup> Recollections of Kenneth Wright, 2000.

<sup>67</sup> John Duffy, Blasting Records.

<sup>68</sup> Recollections of Kenneth Wright, 2000.



**Rockslide near San Luis Obispo County Line, February 18, 1994**  
(*Photograph from Caltrans District 5 Maintenance Records*)

*Closures in 1995*

Location: Hot Springs Creek, Monterey County Milepost 32.7.<sup>69</sup>

Time of Year: March 10.

Cause of Closure: Landslide.

Length of Closure: Approximately one week.

Cost: Unknown.

Location: Carmel River Bridge, Monterey County Milepost 72.28.

Time of Year: March 12.

Cause of Closure: Bridge destroyed from flooding.

Length of Closure: Temporary one-lane bridge reopened bridge on March 17; permanent bridge restored in May 1995.<sup>70</sup>

Cost: Unknown.

<sup>69</sup> "Flood of '95," Salinas Californian, March 11, 1995.

<sup>70</sup> "Little Rain But Little Relief: Monterey Becomes an Island," *San Jose Mercury News*, March 13, 1995; "Coastal Tourism Takes a Hit: Will Visitors Return as Roads Reopen?" *San Jose Mercury News*, March 15, 1995; "Crop Loss Raising Produce Prices, But Travel Improves as Spans Hit by Flood Reopen on Highway 1," *San Jose Mercury News*, March 17, 1995.

*Closures in 1996*

Location: At Wheelbarrow Road, Monterey County Milepost 25.0.<sup>71</sup>  
Time of Year: February 18.  
Cause of Closure: Landslide.  
Length of Closure: Approximately one week.  
Cost: Unknown.

Location: At Wheelbarrow Road, Monterey County Milepost 24.9-25.0.<sup>72</sup>  
Time of Year: February 26.  
Cause of Closure: Rockslide.  
Length of Closure: Two to three days.  
Cost: Unknown.

Location: Between Malpas Creek and Pacific Valley (about 35 mile stretch).<sup>73</sup>  
Time of Year: October 19.  
Cause of Closure: Forest fire (called the "Sur Fire").  
Length of Closure: One day.<sup>74</sup>  
Cost: Unknown.

Location: "Old Faithful," Monterey County Milepost 40.1.  
Time of Year: December 12.  
Cause of Closure: Rockslide.  
Length of Closure: One day.  
Cost: Unknown.

Location: "Big Slide," south of Lucia, Monterey County Milepost 20.4.<sup>75</sup> **See photograph below.**  
Time of Year: December 15, 1996.  
Cause of Closure: Rockslide.  
Length of Closure: One or two days.  
Cost: Unknown.

Comment: About the December 15 slide, Caltrans engineers wrote, "The bulk of the approximate 50 cubic yard slide was removed by maintenance forces." Rock needed to be blasted and removed in order to finish the job on the same or the next day.<sup>76</sup>

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<sup>71</sup> John Duffy, Daily Log.

<sup>72</sup> John Duffy, Daily Log.

<sup>73</sup> "Big Sur Fire Shuts Two Parks, Highway 1," *San Jose Mercury News*, October 20, 1996.

<sup>74</sup> "Visitors Back at Big Sur as Firefighters Gain on Wind-fed Blaze," *San Jose Mercury News*, October 21, 1996; "Road Reopened as Big Sur Fire Is Kept at Bay," *Los Angeles Times*, October 21, 1996.

<sup>75</sup> John Duffy, Blasting Records.

<sup>76</sup> John Duffy, Blasting Records.



**Rockslide at “Big Slide,” December 15, 1996**  
(*Photograph from Caltrans District 5 Maintenance Records*)

*Closures in 1997*

Location: Gorda, Monterey County Milepost 10.1.<sup>77</sup> **See photograph below.**

Time of Year: January 2.

Cause of Closure: Landslide.

Length of Closure: One month (road reopened on February 3).

Cost: A \$5.5 million project to permanently repair the highway was completed in October.

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<sup>77</sup> Caltrans, *Caltrans Annual Report: Weathering the Storm* (1997-1998), 36; John Duffy, Daily Log; Jim Krenkel Interview.



**Aerial view of landslide at Gorda, January 2, 1997**  
(Photograph reprinted from: *Caltrans Annual Report, 1997/1998*)

Location: Limekiln Creek, Monterey County Milepost 21.4.<sup>78</sup>

Time of Year: September 14.

Cause of Closure: Preventative scaling operations.

Length of Closure: Road was closed intermittently over the course of five days.

Cost: Unknown.

#### *Closures in 1998*

The *El Niño* storms of January-February 1998 caused the most damage to the Carmel-San Simeon road in its history. In all, about 40 different sections of the highway were closed due to flooding and landslides. It was this series of slides that prompted the undertaking of the Big Sur Coast Highway Management Plan.

Locations: Road closed at approximately 40 locations. Some of the named points of closure are: Duck Pond (two miles south of Gorda); Wing Gulch; Soberanes Point; north of the Granite Canyon Bridge; Old Coast Road; Hurricane Point; and "Grandpa's Elbow" (**see photograph below**).<sup>79</sup>

Time of Year: January-February.

Cause of Closures: Mudslides and slip-outs from flooding.

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<sup>78</sup> John Duffy, Daily Log.

<sup>79</sup> "A Broken Lifeline: Highway 1 Slides Isolate Big Sur, Block Vital Tourism," *San Jose Mercury News*, February 12, 1998; "The El Nino-ravaged Northern Section of State Highway 1," *Caltrans Update* (April 6, 1998); "Sur Coast Photo Ops," [www.surcoast.com](http://www.surcoast.com).

Length of Closure: Approximately three months. The first closures occurred on February 2; the final section of road at Duck Pond was reopened on May 21, reestablishing the link between San Simeon and Carmel. Roadwork continued until October.<sup>80</sup>  
Cost: \$32 million for all projects along the 70-mile stretch.<sup>81</sup>



**Mudslide at Grandpa's Elbow, 1998**  
(Photograph courtesy James Kimball, [www.surcoast.com](http://www.surcoast.com))

*Closure in 1999*

Location: Hurricane Point, Monterey County Milepost 58.0 – 59.0 (approximate).<sup>82</sup>  
Time of Year: Last week of March or first week of April.  
Cause of Closure: Landslide.  
Length of Closure: Approximately three months.  
Cost: Unknown.

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<sup>80</sup> Recollections of Kenneth Wright.

<sup>81</sup> Caltrans, *Caltrans Annual Report: Ramping Up for the Millennium* (1998-1999).

<sup>82</sup> John Duffy, Daily Log; recollections of Kenneth Wright.

*Closures in 2000*

Location: Limekiln Creek (“Pitkin’s Curve”), Monterey County Milepost 21.0.<sup>83</sup> **See photograph below.**

Time of Year: February 14.

Cause of Closure: Landslide resulting from storm damage.

Length of Closure: Three and a half months (reopened in May).

Cost: Estimated \$3 million.

Comment: A secondary landslide occurring during the repair of the February 14 slide on March 12 caused an additional \$400,000 in damage.

Location: Big Creek, Monterey County Milepost 28.0.<sup>84</sup>

Time of Year: March 9.

Cause of Closure: Landslide resulting from storm damage.

Length of Closure: Approximately one week.

Cost: Unknown.



**Landslide at Pitkin’s Curve, March 24, 2001**

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<sup>83</sup> Caltrans, *California Department of Transportation Journal: 1999-2000 Annual Report Issue* (July-September 2000).

<sup>84</sup> Caltrans Memorandum, “Significant Issues or Actions for Week of March 20-26,” March 14, 2000; John Duffy, Daily Log.

(Photograph courtesy James Kimball, [www.surcoast.com](http://www.surcoast.com))

### **3 THE EFFECTS OF ROAD CLOSURES ON THE PEOPLE OF BIG SUR**

As shown in Section 2, road closures have been an undeniable fact of life in Big Sur. Highway 1 is the lifeblood of this settlement of about 1,600 people (in 2001) and an indispensable access artery for the tens of thousands who visit the area. Well-documented closures occurred in the 1930s, even before the road was fully opened, and have continued on a regular and predictable basis every few years since then. Although the population and economy of the area were radically transformed by the roadway and by other external factors, the road closures continued, irrespective of the stage of evolution in the region.

#### **3.1 EFFECT OF ROADWAY DEVELOPMENT**

As a general rule, all state highways have transformed the areas through which they pass, especially if the area was isolated before the highway was constructed. This was the case with the Carmel-San Simeon Highway and with many other state highways as well. The completion of the Carmel-San Simeon Highway helped transform the Big Sur Country from an isolated community based in agriculture and extractive industries to an economy and culture that was based in tourism and resort living. The pre-highway population is not known but the figure was probably quite small, likely less than 100. The traffic counts were similarly quite small, in that only small portions of the area were accessible by automobile.

The transformation caused by the highway surely could have been predicted. The seeds of a tourist industry at Big Sur reach back to the late 19<sup>th</sup> century with Slate's Hot Springs, a resort that lured paying guests for a brief period during the 1880s. A major development in the early 20<sup>th</sup> century was the establishment of Pfeiffer's Ranch Resort in 1910, at the end of the Coast Road, or Old Coast Road as it is called today. The fact that resorts would be created in response to that very crude roadway foretold that much greater tourist development would occur when a more dependable highway was constructed.

The transformation began almost immediately. The Pfeiffer family set a new wave of tourism in motion when it sold much of its land to the state for use as a State Park. This sale occurred in 1934, while the highway was under construction. Other resorts, including a lodge at Lucia and Deetjen's Big Sur Inn, were constructed before or shortly after the coming of the highway.

Before the Carmel-San Simeon Highway was completed, there were so few people in Big Sur that it was possible for nearly everyone to know everyone else in the area. The coming of the highway, however, signaled to the long-term residents of the area that the rural era was over. Rosiland Sharpe Wall, whose family lived near Bixby Creek during the era of highway construction, remarks:

One of the strangest things about the Sur is the almost total absence of ghost stories. One would think that in a place where so many things had gone on, there would be "ghosts." Perhaps this is due to the fact that the landscape has been, as it were, wiped clean of the past. Almost none of the old buildings and relics remain. After my mother tore down the old Gilkey house in Mill Creek (Bixby Creek), Harry Hunt tore down the Arborlado [Abelardo] Cooper House in Little Sur, then the John J.B. Cooper house on Little Sur hill towards Big Sur. These examples were soon followed by almost everyone on the Coast after the highway went through in 1927...Old shacks and barns

fell apart as did the ruined boat landings, and what time and weather did not do, the forest fires did.<sup>85</sup>

The destruction of the remnants of the old way of life was followed quickly by the building of new, predominantly tourist-oriented buildings. Several generations of the older families were involved in the tourist trade. During the 1930s the Sharpe family tore down an older resort on the Coast Road, called Rainbow Lodge, and built the Bixby Inn along the new highway. The facility now known as the River Inn was initially operated by Ellen Brown, a daughter of Florence Pfeiffer. In 1937, Florence took over the operation. In 1943, another daughter, Esther Pfeiffer Ewoldsen, took over the inn and would continue to own it for many years.<sup>86</sup> The Post family also opened a restaurant (and dude ranch), located at Rancho Sierra Mar. Not all of the resorts, however, were built by members of the pioneer families. Newer families and individuals arrived who were attracted to the area specifically because of its tourist potential. F.E. DeLamater established the Lucia Lodge in 1936. That same year Helmuth Deetjen, a native of Norway, settled in the Big Sur and established his hotel, Deetjen's Big Sur Inn, which is one of the best-preserved facilities from that era.

Almost as instantaneously, the Big Sur area began to attract wealthy part-time residents. The first of the newcomers was the colony at Coastlands established in 1926. They had a meeting house or club house called the Trails Club built by the indispensable Sam Trotter. This cabin was later bought by the Fassett family who made it their home while they established Nepenthe, the famous restaurant below. Ronald Colman, the movie actor, arrived in the late 1920s and bought a ranch below Anderson Creek. Other celebrities who bought property in the area included Lathrop Brown, Henry Miller, Jock and Isodora Stevens, and Nicholas Roosevelt.<sup>87</sup>

There was a brief hiatus during the gasoline rationing of World War II, when some of the older businesses failed. The Sharpe family, for example, abandoned its inn at Bixby Bridge during the war. Many other businesses, including the Lucia Lodge, also suspended operations during this period. During the war, Henry Miller moved to the Big Sur area, probably in part because there was little demand for housing and rents were therefore quite inexpensive.

During the late 1940s, 1950s, and 1960s, the costs of homes in the area rose dramatically, and Big Sur became a mix of the very wealthy, remnant elements of the artistic community, owners of tourist facilities, and others. As an illustration of the rise in property values, the Coast Gallery, begun nearly 50 years ago, was recently listed for sale for \$12 million.<sup>88</sup> Private residences have accelerated in value even more quickly. One real estate agent noted that a five-acre parcel with a coast view that would have sold for \$55,000 in 1974 would sell for \$400,000 in 1999. An area real estate service lists a variety of homes for sale in December 2000, none priced at less than \$2.5 million.<sup>89</sup>

As early as the 1930s, public agencies began to buy up available parcels along the Big Sur coast, to preserve its scenic values. The California Department of Parks and Recreation, for example, purchased the Pfeiffer Ranch in 1934. This trend continued during the 1970s, 1980s, and 1990s as the U.S. Forest Service, California Department of Parks and Recreation, and especially the Big Sur Land Trust, purchased large tracts of land for the purposes of

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<sup>85</sup> Wall, *A Wild Coast and Lonely*, 182.

<sup>86</sup> <http://www.bigsurriverinn.com>.

<sup>87</sup> Wall, *A Wild Coast and Lonely*, 203-204.

<sup>88</sup> *San Jose Mercury News*, May 29, 1999.

<sup>89</sup> *San Jose Mercury News*, March 1, 1999; [www.bigsurhomes.com](http://www.bigsurhomes.com).

conservation. In some cases, Big Sur residents led the drive for this preservation. Margaret Owings, for example, played a major role in the public acquisition of lands in the area; she lived in a home on the Big Sur coast until her death in 1999. These acquisitions helped save scenic qualities in the area, but likely contributed to higher real estate values through a diminution of supply.

The trend over time has been toward more expensive construction, in both the commercial and residential areas. This is reflected in the cost of homes, as well as in the costs for tourist accommodations. The popularity of Big Sur has extended far beyond California and even the United States. The area was recently identified by *National Geographic Traveler* magazine as one of the world's fifty "places of a lifetime," and newer resorts there have been recognized as among the top ten "hideaway" resorts in the world.<sup>90</sup> To no small degree, Big Sur belongs to the world as a recognized treasure.

### **3.2 EFFECT OF ROADWAY CLOSURES HISTORICALLY**

Road closures along the Carmel-San Simeon Highway have occurred regularly since its inauguration. According to one local history, "[the] winter of 1981...marks the first year that Big Sur was not cut off from the world by a major slide on Highway One."<sup>91</sup> The highway has always been the primary link to the outside world, leading to Carmel and Monterey in the north, and Cambria and San Luis Obispo in the south. There is no doubt that road closures have always been disruptive to the lifestyles of Big Sur's residents and businesses. The effects of road closures are timeless to some degree because they have resulted in severe isolation and economic hardships for the residents and business owners, irrespective of the period in which they occurred.

Although some aspects of road closures are constant, it seems that these events were historically less problematic to the residents and businesses, when compared to more recent years. One reason for this difference stems from the rugged lifestyles of the early inhabitants, especially in the first half of the century. Prior to 1950 the majority of the region was not electrified, and dial telephones did not reach Big Sur until 1957.<sup>92</sup> Many people did not own automobiles. Therefore, even with the coming of the highway, Big Sur still retained many of its rural and solitary characteristics. In the face of the already rugged environment, the impacts of a road closure – although always real – were probably felt less severely by those earlier residents.

Additionally, it was not until the mid-1950s that Highway 1 was truly envisioned as a year-round roadway. Up until that time, gates were in place at the northern and southern extremes of the Carmel-San Simeon Highway that were regularly closed during the winter. While local traffic was often permitted, tourist and through traffic was prohibited on a much more regular basis.<sup>93</sup> Only in recent decades, as winter tourism to Big Sur increased and the number of businesses catering to those tourists grew, did the pressure to keep the highway open as much as possible increase accordingly.

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<sup>90</sup> "Fifty Places of a Lifetime," *National Geographic Traveler* (October 1999); *San Jose Mercury News*, October 17, 1999.

<sup>91</sup> Big Sur Historical Society, *Recipes for Living in Big Sur* (Big Sur: Big Sur Historical Society, 1981), 71.

<sup>92</sup> *Recipes for Living in Big Sur*, 71.

<sup>93</sup> Interview with Donald Harlan, May 29, 2001; Interview with John Duffy, May 24, 2001.

### **3.3 EFFECT OF RECENT CLOSURES ON BUSINESSES**

In recent decades, the popularity of Big Sur as a year-round tourist attraction has risen dramatically. In dry years, Big Sur merchants and resort operators have looked forward to attracting visitors who normally would have vacationed at ski resorts. Furthermore, the typical tourist is much more likely than ever before to be an out of state or international traveler. On top of this, for a variety of reasons operating costs have increased substantially within the last decade. This combination of factors has had the effect of amplifying the impact of closures on local businesses. While it is beyond dispute that road closures have always had a direct effect on the various citizens of Big Sur, it is equally evident that the economic impact of road closures has grown increasingly burdensome over time, culminating in the great closures of 1998, which exacted a far greater toll than closures in earlier years.

One quality that is difficult to measure statistically is the worldwide fame of the Big Sur coast as a tourist attraction. Big Sur has gained increasing attention over the years on a national and international basis. Anecdotal information suggests that the Big Sur area has gained worldwide attention as a destination resort. As noted previously, in 1999 *National Geographic Traveler* magazine picked Big Sur as one of the top 50 “must see” tourist locations in the world. It was one of two American entries in the “Country Unbound” category, and one of a small group of American entries in any category.<sup>94</sup> Also in 1999, a prestigious travel publication listed the Post Ranch Inn and Ventana Inn as among the top 10 resorts in the United States, with Post Ranch Inn earning the top spot.<sup>95</sup> In a 50-year retrospective on the history of the Nepenthe Restaurant, also in 1999, the owners looked back upon the increasingly diverse and international clientele that had visited the restaurant over time, especially after the 1964 filming of “The Sandpiper” at the site.<sup>96</sup> While the total number of visitors may be relatively stable, the status of the area as a world-class destination appears to be gaining momentum. The worldwide demand for accommodations at Big Sur appears to have increased in recent years, a fact that is probably reflected in the high cost for staying in the area. The top resorts listed in the 1999 survey, for example, are also the most expensive resorts in Big Sur.

The essential point is that Big Sur has gained fame as a world treasure. This worldwide fame is something of a double-edged sword for the owners of resorts in the area, in that news about road closures also travels on a worldwide basis. In the view of one business owner, the news of road closures is always broadcast widely while the news of the reopening of roads gets lesser coverage.<sup>97</sup> Vacation plans, particularly those involving foreign travelers, are generally made long in advance of the trip. Once cancelled, those vacation plans are generally not reinstated as soon as the road has been reopened. Thus, the effects of the road-closing event have a longer duration than the actual period of the closure, affecting a much wider clientele than may be supposed.

Observations from various resort operators in Big Sur also reflect the belief that the impacts of road closures have grown more severe within the last decade. In a lengthy interview for this report, Kirk Gafill, manager of Nepenthe, assessed the numerous factors that determine the profitability of businesses in Big Sur. During the 1990s, the volume of business in terms of total visitors was essentially flat. He attributes this fact to the balancing of numerous factors: the American recession in part of that decade (which deterred local visitors); the favorable

<sup>94</sup> “Fifty Places of a Lifetime,” *National Geographic Traveler* (October 1999); *San Jose Mercury News*, October 10, 1999.

<sup>95</sup> *San Jose Mercury News*, October 17, 1999. The rating came from a poll of readers of the Andrew Harper’s Hideaway Report.

<sup>96</sup> *San Jose Mercury News*, April 18, 1999.

<sup>97</sup> Telephone interview with Kirk Gafill, May 25, 2001.

exchange rate, American versus European currencies (which increased international visits); and road closures (which decreased the overall number of visits). In his view, the region was fortunate even to achieve flat rates of business volume, given the impact of the recession and the terrible closures of that decade. The costs of doing business have also risen steadily, owing to a number of factors, including the cost of labor and energy. With rising costs and essentially flat volume, profit margins shrank during the 1990s. Under these conditions, the road closures were far more burdensome during the 1990s than in the past, at least in terms of profitability. He also notes that there were decidedly different impacts, depending upon the location of the closure, north or south of his business. As a general rule, a road closure to the south of Nepenthe resulted in a 20 to 30 percent loss of business for the restaurant. Because a majority of its visitors traveled to Nepenthe from Monterey and other points north, a closure in that direction affected business so profoundly that it simply closed its doors for the duration of the road closure.<sup>98</sup>

A similar assessment was made by Kenneth Wright, owner and operator of the Glen Oaks Motel. Mr. Wright points to similar factors that have decreased the profit margin for businesses in Big Sur, including higher labor and energy costs, balanced against an essentially flat volume of business. During the 1990s, the closures were especially burdensome, in part because they were the worst closures in the history of the highway, and in part because they came at a time when profit margins were shrinking.<sup>99</sup>

For businesses in the Big Sur, then, the road closures have always had a negative impact, with the types of burdens changing with the circumstances of the tourism industry. The closures of the 1990s were especially onerous due to a wide array of circumstances, not the least of which is the fact that the word of the closures spread to a wider audience, owing to the increasingly international interest in the area. If resort reservations were made entirely by Californians rather than, say, Europeans, the possibility was greater that those reservations could be modified on a short notice when the roadway was reopened. To this extent, the worldwide fame of the area and the increasingly international clientele has exacerbated the impact of road closures.

### **3.4 EFFECT OF RECENT CLOSURES ON BIG SUR COMMUNITIES**

Although not everyone in Big Sur derives income from the tourist industry, as discussed above it is clear that resorts, restaurants, and other roadside businesses form the cornerstone of the local economy. When major road closure events occur, such as those in 1983 and 1998 in which the communities of Big Sur were essentially cut off for months at a time, there is a definite economic ripple effect throughout the community. Along with the business owners, those most directly affected by the closures of tourist-oriented businesses are the employees, the majority of whom are temporarily laid off for the duration of the closure. Big Sur residents who work in Carmel or Monterey also face unemployment unless they temporarily relocate or can find a way to commute to their jobs, either by hiking over a road closure and getting picked up on the other side, or driving a long, circuitous route to the south.

Faced with the loss of income for indefinite periods of time, some unemployed workers choose to leave Big Sur, either temporarily or permanently. Those who decide to stay meet their basic needs through a variety of means. Some find other forms of employment, which usually means performing maintenance and handy work at businesses that have closed. Some collect

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<sup>98</sup> Telephone interview with Kirk Gafill, May 25, 2001.

<sup>99</sup> Telephone interview with Kenneth Wright, May 25, 2001.

Disaster Unemployment Insurance, while others may depend on relief from food banks or other organizations such as the Red Cross.

The people of Big Sur take pride in their self-sufficiency, resiliency, and community spirit. During emergency situations, locals band together, pooling resources and offering one another support and company. Volunteers operate ambulance services, food banks, and other relief services. Available electric generators are rotated through the community, providing power to those without (this is particularly important for residences with electric water pumps – the generators provide the power to fill storage tanks). Restaurants and resorts regularly share their food and facilities with those in need, especially their out-of-work employees. The resiliency of the community is evidenced by the fact that in 1998, when ordered by the county to show adequate supplies or leave the area, only seven Big Sur residents left.<sup>100</sup> For those who do decide to stay, however, the situation is often precarious. There are immediate logistical and safety concerns that must be addressed, such as evacuation measures, emergency medical response, and establishing a supply line into the cut off communities. For more than two decades, the Big Sur Volunteer Fire Brigade (BSVFB) has taken the lead role in responding to the emergencies that arise from road closure events. Formed in 1977, the BSVFB today consists of nearly 60 volunteers trained to respond to a variety of emergency situations including structure fire, wild fire, medical first response, and high angle rescue. Unlike similar units elsewhere in the state, the BSVFB does not have a tax base, and therefore is largely dependent upon government grants and private fund raising.<sup>101</sup>

In the winter of 1983, road closures to the north and south of the town of Big Sur completely isolated its residents for approximately two weeks. The BSVFB took the lead, setting up an operations center at the U.S. Forest Service offices that was staffed well into the night for the first two weeks. Volunteers at the center fielded questions and provided information to the community, and assisted in the coordination of evacuations and food supply missions. It was quickly established that the first priority was to evacuate non-residents (tourists, hotel guests) and people who could not sustain themselves because of age or illness. Big Sur at the time was part of the Military Assistance Program, in which the nearby army base at Fort Ord would supply helicopters for emergency support. In the earliest days of the 1983 emergency in Big Sur, however, helicopters were in short supply because they were responding to other emergencies in the greater Monterey area. A squad of “Flying Doctors,” based in Salinas, volunteered their time and aircraft and flew in to pick up the stranded tourists. The fixed-wing aircraft landed on the flats by the Point Sur Lightstation.<sup>102</sup>

Within days the evacuations were completed, so the focus was shifted to bringing in food, fuel, and other essential supplies. It took nearly two weeks for electric power to be restored to the entire coast, so refrigerated food supplies quickly ran out. Propane fuel was also an important commodity that was in short supply. It was needed to run the generators that many businesses and residents kept on hand. With helicopters now available, the U.S. Army and National Guard began running daily supply missions. On the return trip the helicopters removed garbage that was rapidly accumulating. Helicopter airlifts were also critical in emergency medical situations.

It took two weeks to clear the highway to the north of the town of Big Sur enough to allow extremely limited local traffic. The helicopter operations were suspended (to this part of the coast at least), and for the next two months, until the road was completely repaired, escorted convoys were allowed to pass on a weekly basis. The convoys originated in the morning at the

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<sup>100</sup> *San Jose Mercury News*, February 12, 1998.

<sup>101</sup> Telephone interview with Frank Pinney, Chief of the Big Sur Volunteer Fire Brigade, September 13, 2001.

<sup>102</sup> Telephone interview with Mary Trotter, September 12, 2001.

south end of Little Sur River, and the return trip later that evening would start at the north end of Hurricane Point. With the absence of helicopter support, these convoys were critical to keeping Big Sur well supplied. The trips became community-wide shopping excursions. Many people made the journey into town and shopped for themselves, but many more placed orders with volunteers who shopped for them.<sup>103</sup>

The 1983 road closures were not limited to the North Coast, in the vicinity of the town of Big Sur. In fact, communities to the south were subject to even longer periods of isolation. A two- or three-mile stretch of the highway at Partington Ridge was cut off in both directions for nearly three months. National Guard helicopter missions were required for that entire period, flying in weekly to replenish supplies and remove trash. The road at Julia Pfeiffer Burns State Park was closed for an entire year, which placed even more burdens on people who lived south of the slide but worked on the north side. Getting from Lucia to the town of Big Sur, for example, required a trip across the Santa Lucia Mountains by way of Nacimiento-Fergusson Road to Highway 101, north to Monterey, then south to Big Sur – a journey of several hours.

The storms of 1998 were just as devastating to Highway 1 in Big Sur as the 1983 storms, perhaps more so. The road was closed in roughly 40 places, and communities on both the South Coast and North Coast were cut off in both directions for weeks – even months – at a time. Again, locals faced the logistical problems of establishing a regular supply of food, fuel, and other necessary goods, businesses were forced to close, and laid-off employees lost their regular wages.

Although cut-off residents faced the same basic set of problems in 1998 that they did in 1983, conditions were somewhat improved because of advancements in technology and lessons learned from the past. In 1983, for example, the phone systems had been completely disabled along the coast, and service was not totally restored for two weeks. By 1998, the Big Sur telephone exchange was connected to a microwave relay tower – run by electric generator – that operated even when the regular phone lines were down. The proliferation of cellular phones and fax machines also helped facilitate communications with the outside world. In addition, by 1998 many more residences and businesses were equipped with gas-powered generators, solar power, or a combination of both.

Another change between 1983 and 1998 was the creation of the Incident Command Structure (ICS), a part of the statewide Standardized Emergency Management System. While the BSVFB still acted as the lead agency (the chief, Frank Pinney, was designated “Incident Commander”), it was now part of a coordinated response structure that included all agencies affected by the emergency. Where in 1983 the BSVFB response to the road closure emergencies was loosely organized and task oriented, in 1998 it was part of a larger organizational structure designed to facilitate “priority setting, interagency cooperation, and the efficient flow of resources and information.”<sup>104</sup>

As was the case in 1983, in 1998 evacuation of non-residents was the first priority and supply missions were second. Helicopter support, supplied by the National Guard out of Monterey, figured prominently in both operations. After evacuations had been completed, the helicopters began daily missions in which food, fuel, and mail were airlifted to Pfeiffer Big Sur State Park, where the food was distributed to businesses by truck. The Monterey Food Bank also established a distribution center in the park. The food bank provided non-perishable goods,

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<sup>103</sup> Telephone interview with Mary Trotter, September 12, 2001.

<sup>104</sup> For more information on the Standardized Emergency Management System, see the Governor’s Office of Emergency Services website at [www.oes.ca.gov](http://www.oes.ca.gov).

baby formula, diapers, pet food, and other necessary supplies. The mail was delivered to the post office in Big Sur, and parcel delivery services, such as UPS and Federal Express, set up a handful of distribution centers along the coast. Medical supplies and prescription medication were distributed at the Big Sur Health Center (BSHC), which remained open seven days a week.<sup>105</sup>

During those periods that Big Sur was cut off as a result of road closures, the role of the BSHC – the community’s sole health care provider – became even more important. The regular duties of the staff, which included a physician and physician’s assistant, were greatly expanded. They saw many patients who were not part of their normal clientele (those who would make regular trips to Monterey for health care, for example), and regularly made welfare visits to people without phone service. The center also served as the community pharmacy. Prescription medication, ordered from the pharmacy in Monterey, was flown in via helicopter. After the highway was opened to limited local traffic, medication and other supplies were brought in with the weekly caravan.<sup>106</sup>

In addition to the above effects, major road closures have often caused hardships for schools and their students. Middle and high school students on the North Coast, for example, normally attend school in Carmel. In 1983 and 1998, during the first two weeks of the closures, before the weekly convoys had been established, those students who had not evacuated went to school at temporary classrooms set up at the state park or at the Captain Cooper elementary school. Teachers were flown in by helicopter and were quartered at Big Sur hotels (which were otherwise empty). When the highway was reopened for weekly convoys, the students still faced difficult conditions. If they chose to make the journey to Carmel, they could not return until the following week. Many stayed with friends or family. Others elected to remain in Big Sur, and continued their schooling at home.

On the South Coast, the Pacific Valley School, the only school in the area, has had to face similar problems. Road closures regularly block access to the school from one or both directions. In some cases parents choose to home school their children for the duration of the closure. Other students stay with host families that have access to the school, then return home on the weekends. In more extreme years, when road closures force the school to close entirely, temporary satellite schools are established in places like the Esalen Institute and the Big Sur Grange. In the worst cases, students simply cannot attend school for days or weeks at a time. This has a severe economic impact on the Pacific Valley School, a small school that relies heavily on Average Daily Attendance (A.D.A.) funding. During the closures of 2000, for example, the school lost \$105,000, which equates to approximately 17-20% of their annual budget.<sup>107</sup>

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<sup>105</sup> Personal interview with Laura Moran, manager of Deetjen’s Big Sur Inn, September 6, 2001.

<sup>106</sup> Personal interview with Sharen Charey, Physician Assistant, Big Sur Health Center, September 6, 2001.

<sup>107</sup> Personal interview with James Kimball, Operations Manager, Pacific Valley School, September 5, 2001.

## **4 CONCLUSIONS**

Over a long period of time (from the mid-1930s to the present), road closures have been one of the few constants of life in Big Sur. The population and economy of the area have always been in flux, as is true of all other parts of California. Road closures at any given point in time have affected the people and businesses that were in the area. The numbers of resorts and permanent residents have grown over the years, and the value of the investment in those homes and businesses has grown at a much faster rate. To that extent, the impact of the closures has grown more severe in recent years, as more expensive homes and resorts have been built and used on a more year-round basis. On the other hand, technological and organizational improvements over the years, coupled with the community's ability to galvanize in the face of adversity, have improved Big Sur's ability to deal with such events. Nonetheless, the historic record suggests that closures will continue into the future on a reasonably predictable basis, with major closures coming in clusters that coincide with wet weather patterns and summertime fire events. If the level of investment and use at Big Sur continues to grow, the severity of the impact of closures will also increase correspondingly.

**Table 1. Identified Road Closures Along Highway 1, Big Sur (by Post Mile)**

<b>LOCATION</b>	<b>DATE</b>	<b>CAUSE OF CLOSURE</b>	<b>CLOSURE LENGTH</b>	<b>COST</b>
SLO-1-P.M. 72.3 San Carpoforo Bridge	December 1955	Flood damage	Unknown	Unknown
SLO-1-P.M. 74.0 Near county line	February 18, 1994	Rockslide	Several days	Unknown
SLO-1-P.M. 74.3 County line	January 1998	Flood damage	Unknown	Unknown
MON-1-P.M. 2.2 Salmon Creek	September 27, 1970	Forest fire	Less than one day	Unknown
MON-1-P.M. 5.0 Near Redwood Gulch	January 6, 1974	Mudslide	One day	Unknown
MON-1-P.M. 5.0 (approximate) Near Redwood Gulch	January 1982	Several mudslides	Approximately one month	Unknown
MON-1-P.M. 5.7 Redwood Gulch	March 17, 1986	Landslides	68 days (reopened May 23, 1986)	Unknown
MON-1-P.M. 7.0 Near Villa Creek	December 10, 1989	Rock on highway	One day	Unknown
MON-1-P.M. 8.0 Duck Pond	January 1998	Slides from storm damage	Approximately three months (reopened on May 21)	Unknown
MON-1-P.M. 8.45 Duck Pond	December 1955	Flood damage	Unknown	Unknown
MON-1-P.M. 10.1 Gorda	January 2, 1997	Landslide	One month (road reopened February 3)	\$5.5 million

<b>LOCATION</b>	<b>DATE</b>	<b>CAUSE OF CLOSURE</b>	<b>CLOSURE LENGTH</b>	<b>COST</b>
MON-1-P.M. 11.0 (approximate) Cape San Martin	January 17, 1965	Mountain slide	About ten days	Unknown
MON-1-P.M. 18.46 Mill Creek Bridge	December 1955	Flood damage	Unknown	Unknown
MON-1-P.M. 20.0 "Big Slide"	August 14, 1952	Rockslides from earthquake	Six weeks	Unknown
MON-1-P.M. 20.4 "Big Slide"	January 3, 1993	Rockslide	Two days	Unknown
MON-1-P.M. 20.4 "Big Slide"	January 14, 1993	Rockslide	Intermittent through March 1993	Unknown
MON-1-P.M. 20.4 "Big Slide"	December 15, 1996	Rockslide	One or two days	Unknown
MON-1-P.M. 21.0 Limekiln Creek	March 1973	Rockslide	Unknown	Unknown
MON-1-P.M. 21.0 Limekiln Creek	January 23, 1983	Landslide and rockslide	Four days	Unknown
MON-1-P.M. 21.0 Limekiln Creek	February 14, 2000	Landslide from storm damage	Three and a half months (reopened in May)	Estimated \$3 million
MON-1-P.M. 21.3 Limekiln Creek	February 8, 1985	Landslide	Two days	Unknown
MON-1-P.M. 21.4 Limekiln Creek	September 14, 1997	Preventative scaling (maintenance)	Closed intermittently over five days	Unknown

<b>LOCATION</b>	<b>DATE</b>	<b>CAUSE OF CLOSURE</b>	<b>CLOSURE LENGTH</b>	<b>COST</b>
MON-1-P.M. 23.0 "Grandpa's Elbow"	January-February 1998	Flood damage	Unknown	Unknown
MON-1-P.M. 25.0 (approximate) At Wheelbarrow Road	March 27, 1991	Preventative scaling (maintenance)	One day	Unknown
MON-1-P.M. 25.0 (approximate) At Wheelbarrow Road	September 17, 1991	Rock on highway	One day	Unknown
MON-1-P.M. 25.0 At Wheelbarrow Road	February 18, 1996	Landslide	About one week	Unknown
MON-1-P.M. 25.0 At Wheelbarrow Road	February 26, 1996	Rockslide	Two or three days	Unknown
MON-1-P.M. 25.9 Vicente Creek	April 1974	Mudslide	Unknown	Unknown
MON-1-P.M. 28.0 Big Creek	March 9, 2000	Landslide from storm damage	Approximately one week	Unknown
MON-1-P.M. 29.0 (approximate) Cow Cliffs	January 29, 1983	Landslide and rockslide	Unknown	Unknown
MON-1-P.M. 29.5 Wing Gulch	February 1986	Slip-out due to flooding	Five days	Unknown
MON-1-P.M. 32.7 Hot Springs Creek	February 1987	Landslide	Three days	Unknown
MON-1-P.M. 32.7 Hot Springs Creek	March 10, 1995	Landslide	Approximately one week	Unknown

<b>LOCATION</b>	<b>DATE</b>	<b>CAUSE OF CLOSURE</b>	<b>CLOSURE LENGTH</b>	<b>COST</b>
MON-1-P.M. 36.0 Julia Pfeiffer Burns State Park, entrance	March 1983	Mudslides	One year (officially reopened April 11, 1984)	Estimated \$10 million
MON-1-P.M. 38.0 (approximate) Partington Point "Vortex" Slide	December 1955	Flood damage	Eight months	Unknown
MON-1-P.M. 38.0 (approximate) Partington Point "Vortex" Slide	January 1978	Mudslide	Unknown	Unknown
MON-1-P.M. 38.0 (approximate) Partington Point "Vortex" Slide	March 28, 1991	Preventative scaling (maintenance)	Less than one day	Unknown
MON-1-P.M. 39.29 Sycamore Draw	January 1983	Landslide	Approximately eight months	Unknown
MON-1-P.M. 40.1 "Old Faithful"	December 12, 1996	Rockslide	One day	Unknown
MON-1-P.M. 40.7 Lafler Canyon	February 11, 1973	Rock and mudslide	Unknown	\$479,000
MON-1-P.M. 43.0 (approximate) Castro Canyon	December 15, 1968	Slides from flooding	About one day	Unknown
MON-1-P.M. 48.5 (approximate) Big Sur Village	October 14, 1972	Mudslide	One day	Unknown
MON-1-P.M. 48.5 (approximate) Big Sur Village	November 15, 1972	Mudslide	Unknown	Unknown
MON-1-P.M. 49.0 Captain Cooper School, Big Sur	February 1986	Mudslide	Unknown	Unknown

<b>LOCATION</b>	<b>DATE</b>	<b>CAUSE OF CLOSURE</b>	<b>CLOSURE LENGTH</b>	<b>COST</b>
MON-1-P.M. 52.0 Near Andrew Molera State Park	August 1, 1972	Forest fire	Road closed intermittently for one week	Unknown
MON-1-P.M. 56.6 (approximate) North of Point Sur	March 1983	Mudslides and washouts	Approximately two months	Unknown
MON-1-P.M. 58.0 South Forty, Hurricane Point	March 6, 1992	Rock on roadway	One day	Unknown
MON-1-P.M. 58.0- 59.0 (approximate) Hurricane Point	March/April 1999	Landslide	Approximately three months	Unknown
MON-1-P.M. 58.0 Hurricane Point	January-February 1998	Flood damage	Unknown	Unknown
MON-1-P.M. 62.0 Mud Creek	October 21, 1992	Rockslide	One day	Unknown
MON-1-P.M. 64.4 Granite Canyon Bridge	January-February 1998	Flood damage	Unknown	Unknown
MON-1-P.M. 65.5 Soberanes Point	January-February 1998	Flood damage	Unknown	Unknown
MON-1-P.M. 72.28 Carmel River Bridge	March 12, 1995	Bridge closure due to flooding	Five days (temporary bridge completed on March 17)	Unknown

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## **5.3 INTERVIEWS, REMINISCENCES, AND PERSONAL RECORDS**

Daily Logs and Maintenance Blasting Records of John Duffy, Caltrans District 5 Senior Engineering Geologist. Records span from 1989 to the present.

Pat Hathaway Historical Photograph Collection, Monterey, California.

Personal interview with Nicki Ehrlich, Big Sur Arts Center. September 4, 2001.

- Personal interview with James Kimball, Operations Manager, Pacific Valley School. September 5, 2001.
- Personal interview with Sharen Charey, Physician Assistant, Big Sur Health Center. September 6, 2001.
- Personal interview with Plasha Fielding, Nepenthe employee. September 6, 2001.
- Personal interview with Laura Moran, Manager of Deetjen's Big Sur Inn. September 6, 2001.
- Telephone interview with Del Hollinger, Caltrans District 5 Project and Design Engineer (retired). May 25, 2001.
- Telephone interview with Kirk Gafill, General Manager of Nepenthe. May 25, 2001.
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