historic resource study

VOLUME 2 OF 3

historical narrative

YOSEMITE

NATIONAL PARK / CALIFORNIA
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<td>Carroll Clark Community Center, El Portal, 1985</td>
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<td>El Portal Hotel, rear, 1984</td>
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<td>El Portal Hotel, front and side, 1984</td>
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List of Historical Base Maps


No. 4. Yosemite National Park, showing roads, structures, sites, and archeological and historic districts, DSC, 1987.
A. Overview

Stephen T. Mather, having accepted the challenge of his old college friend Secretary of the Interior Franklin K. Lane to take over the direction and unification of the national park system, devoted his next fourteen years to America's national parks. Closely linked with Mather's name during this period was that of Horace Albright, the young Interior Department lawyer who became Mather's assistant. Mather served as Assistant Secretary of the Interior for two years, beginning in 1915, and as Director of the National Park Service from 1917 until 1929. Albright then served in that capacity until his resignation in 1933 to become president of the American Potash Company. During the crucial early years of the Park Service, Mather and Albright proved phenomenally successful in acquiring increased appropriations and the public support necessary to develop more and better park facilities:

Indeed the effectiveness of their promotion was not due to new ideas per se; John Muir, J. Horace McFarland, R.B. Marshall, Mark Daniels, and others had long since laid the rhetorical basis for justifying the national parks in an urban, industrial society. Mather's and Albright's original contribution was the institutionalization of the national park idea within the political and legal framework of the federal government. Henceforth an attack on a reserve would not be an affront to it alone, but to the very fabric of American society.  

From the beginning, Mather determined to closely link in the public mind the relationship between national parks and the American economy. He believed it imperative to fully and efficiently develop park resources for the pleasure of the public, which would in turn result in profits for the public through increased tourist dollars. In view of the strong

1. Runte, National Parks, 102.
influence of utilitarian-minded preservationists, it seemed necessary in order to strengthen the position of the national parks to associate scenic protection with economic growth. Aesthetic conservationists still hoped to find ways to use scenic areas without destroying their basic values. They realized, however, that some concession had to be made to provide for the comforts and convenience of tourists in order to get them into the parks for longer periods of time so that they would come to appreciate them and rally to their defense.²

In his endeavors to popularize the national park idea, Mather's practical business experience proved invaluable. He was, once again, selling a product to the American public, although scenic beauty would prove a somewhat harder commodity to sell than borax. Based on the argument that national parks would ultimately stimulate the economy if properly managed, Mather's first steps involved streamlining his organization, handling estimates and appropriations in a businesslike manner, installing trained park personnel and nonpolitical superintendents, and improving the visitor experience by eliminating toll roads, admitting autos, improving accommodations, and inaugurating educational facilities and opportunities. His educational program became a direct outgrowth of this need to help people better understand the phenomena represented in the various national parks. The auto camps and housekeeping camps in the national parks resulted from his desire to provide accommodations for all classes of visitors. In Yosemite, ultimately, accommodations included the plush Ahwahnee Hotel, the medium-class Yosemite Lodge, the permanent tent camp at Curry, which also offered housekeeping facilities, and the seasonal camps of the High Sierra—ensuring something for everyone's tastes.

². See discussion of preservationist thinking after the Hetch Hetchy defeat and establishment of the National Park Service in ibid., 84-103.
One of the most important accomplishments of Mather's tenure involved recognizing problem areas and organizational deficiencies and establishing divisions in his new bureau to address and correct them. Both Mather and Albright recognized the need for broader and sounder policies based on serious study of the issues and current data. One of the more important of these new divisions was that of landscape architecture, established to ensure the harmonization of park structures with their environment. That unique advisory group concerned itself with devising ways of constructing buildings, campgrounds, roads, and the like with minimal sacrifice of natural scenery. Their advice on engineering projects and other scenic questions, such as vista-cutting, would prove invaluable. The various chiefs of that division in Mather's time—Charles D. Punchard, Daniel R. Hull, and Thomas C. Vint, all trained architects—accomplished designs of maximum harmony with the landscape using native stone and timber.

The changes in Yosemite during Mather's administration of the Park Service proved to be dramatic and beneficial to the visitor, many of them being precedent setting in terms of policy and programs. The purchase of the Tioga Road has been mentioned to improve access and sightseeing opportunities, as well as the establishment of the D.J. Desmond Company in an attempt to remove concession haggling and put Yosemite's visitor services on a stable footing. Other significant actions from 1916 until his death included the improvement of roads, the relocation of Yosemite Village, construction of the Rangers' Club—an architectural prototype for future park structures, and initiation of an interpretive and educational program that would be emulated by all other parks. Mather's approach to the national parks is best described as visitor oriented. His attempts to increase the attractions of Yosemite resulted in the encouragement of


Illustration 66.

Automobile map of Yosemite National Park, 1917.

From Report of the Director of the National Park Service, 1917.
Illustration 67.

Automobile guide map of roads in Yosemite Valley, 1917.

outdoor sports, such as hiking, fishing, skiing, and camping, and the endorsement of more artificial entertainments such as dancing, tennis, golf, and swimming. This philosophy of the director resulted in extensive expansion of the recreational aspects of the valley and high country.

In 1916 Washington B. "Dusty" Lewis became the first administrator of Yosemite under the new National Park Service bureau. Originally with the U.S. Geological Survey, he became one of the most popular superintendents in national-park history. A good engineer . . . handsome and personable and blessed with a handsome and personable wife, he was exactly what Mather wanted for Yosemite. . . .

Lewis stayed in Yosemite for eleven years and guided into place many of the elements of today's modern park system as conceived of by Stephen Mather.

B. Roads, Trails, and Bridges

1. Season of 1916
   a) Existing Roads and Trails

In the fall of 1916 Washington B. Lewis, Supervisor of Yosemite National Park, sent the Superintendent of National Parks a list of all the existing roads and trails within the limits of the park:

5. Ibid., 246.
<table>
<thead>
<tr>
<th>Name of Road</th>
<th>Between</th>
<th>Length in Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pohono Rd.</td>
<td>Pohono Bridge &amp; Bridal Veil Checkpoint Station</td>
<td>.90</td>
</tr>
<tr>
<td>Bridal Veil Rd.</td>
<td>Bridal Veil Checkpoint Station &amp; El Capitan Bridge</td>
<td>.65</td>
</tr>
<tr>
<td>Cathedral Rocks Rd.</td>
<td>El Capitan Bridge &amp; Camp Ahwahnee</td>
<td>2.70</td>
</tr>
<tr>
<td>Ahwahnee Rd.</td>
<td>Camp Ahwahnee &amp; Sentinel Bridge</td>
<td>.85</td>
</tr>
<tr>
<td>Happy Isles Rd.</td>
<td>Sentinel Bridge &amp; Happy Isles</td>
<td>2.10</td>
</tr>
<tr>
<td>Mirror Lake Rd.</td>
<td>Happy Isles &amp; Mirror Lake</td>
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</tr>
<tr>
<td>Royal Arch Rd.</td>
<td>Mirror Lake Rd. &amp; Indian Creek</td>
<td>1.60</td>
</tr>
<tr>
<td>Le Conte Rd.</td>
<td>Kenneyville &amp; Camp Curry</td>
<td>.70</td>
</tr>
<tr>
<td>Lost Arrow Rd.</td>
<td>Indian Creek &amp; El Capitan Camp</td>
<td>1.20</td>
</tr>
<tr>
<td>Sentinel Bridge Rd.</td>
<td>Sentinel Bridge &amp; Grizzly Hotel site</td>
<td>.20</td>
</tr>
<tr>
<td>El Capitan Rd.</td>
<td>El Capitan Camp &amp; El Capitan Bridge</td>
<td>3.20</td>
</tr>
<tr>
<td>Black Springs Rd.</td>
<td>El Capitan Bridge &amp; Pohono Bridge</td>
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<tr>
<td>Clark's Bridge Rd.</td>
<td>Camp Curry &amp; Mirror Lake Rd.</td>
<td>.40</td>
</tr>
<tr>
<td>Sequoia Lane</td>
<td>Sentinel Bridge &amp; Kenneyville</td>
<td>.90</td>
</tr>
<tr>
<td>El Portal Rd.</td>
<td>El Portal &amp; Pohono Bridge</td>
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</tr>
<tr>
<td>Wawona Rd.</td>
<td>Bridal Veil Checkpoint Station &amp; Ft. Monroe</td>
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<tr>
<td>Big Oak Flat Rd.</td>
<td>El Capitan Bridge to park line near Tuolumne Big Trees</td>
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</tr>
<tr>
<td>Tioga Rd.</td>
<td>Aspen Valley Checkpoint Station to Tioga Pass</td>
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<tr>
<td>Mariposa Big Trees Rd.</td>
<td>Within Mariposa Grove</td>
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## Non-Government-Owned Roads

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<th>Name of Road</th>
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<th>Length in Miles</th>
</tr>
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<tbody>
<tr>
<td>Wawona Rd.</td>
<td>Ft. Monroe &amp; park boundary (Washburn)</td>
<td>17.00</td>
</tr>
<tr>
<td>Glacier Point Rd.</td>
<td>Chinquapin to Glacier Point (Washburn)</td>
<td>14.00</td>
</tr>
<tr>
<td>Coulterville Rd.</td>
<td>Yosemite Valley &amp; Hazel Green</td>
<td>12.00</td>
</tr>
<tr>
<td>Crane Flat Cut-off Rd.</td>
<td>Crane Flat &amp; Hazel Green. (Mariposa Co. Rd.)</td>
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</tr>
<tr>
<td>Davis Rd.</td>
<td>El Portal &amp; Crane Flat (Big Trees Auto Stage Co.)</td>
<td>3.00</td>
</tr>
<tr>
<td>Hetch Hetchy Rd.</td>
<td>Hog Ranch to Hetch Hetchy Valley (Built by C. &amp; Co. of S.F. Govt. property on completion of HH project)</td>
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## Government-Owned Trails

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<tr>
<td>Glacier Point Short</td>
<td>Camp Ahwahnee &amp; Glacier Point</td>
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<tr>
<td>Glacier Point Long</td>
<td>Glacier Point &amp; Happy Isles via Nevada Falls</td>
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<tr>
<td>Clouds Rest</td>
<td>Nevada Falls &amp; Clouds Rest</td>
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<tr>
<td>Yosemite Falls</td>
<td>Floor of valley and Porcupine Flat via Yosemite Point, including branch to Eagle Peak</td>
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</tr>
<tr>
<td>Lake Tenaya</td>
<td>Mirror Lake &amp; Lake Tenaya</td>
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</tr>
<tr>
<td>North Dome</td>
<td>Junction with Lake Tenaya Trail at Snow Creek &amp; Yosemite Point</td>
<td>8.00</td>
</tr>
<tr>
<td>New Hetch Hetchy</td>
<td>Top of Yosemite Falls &amp; old Hetch Hetchy trail near Canyon Ranch</td>
<td>17.00</td>
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<tr>
<td>Sunrise</td>
<td>Clouds Rest Trail and Tuolumne Soda Springs via Sunrise Mountain</td>
<td>18.0</td>
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<tr>
<td>Mono Pass</td>
<td>Tioga Rd. above Soda Springs and Mono Pass</td>
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<td>Between</td>
<td>Length in Miles</td>
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<tr>
<td>----------------------</td>
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<tr>
<td>Lyell Fork</td>
<td>Soda Springs &amp; junction of Lyell Fork and Ireland Creek</td>
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<tr>
<td>Donohue Pass</td>
<td>Junction of Lyell Fork and Ireland Creek and Donohue Pass</td>
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<td>Rafferty Creek</td>
<td>Mouth of Rafferty Creek &amp; Tuolumne Pass</td>
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<td>Vogelsang Pass</td>
<td>Tuolumne Pass &amp; Merced Lake via Vogelsang Pass &amp; McClure Fork of Merced</td>
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<td>Loop</td>
<td>Fletcher Lake &amp; McClure Fork of Merced via Fletcher Creek</td>
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<td>Sunrise Trail &amp; Merced Lake</td>
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<td>Eagle Peak &amp; Gentry's via El Capitan</td>
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<td>Aspen Valley &amp; Hog Ranch Rd.</td>
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</tr>
<tr>
<td>Smith Meadow</td>
<td>Ackerson Meadows &amp; Smith Meadows, including branch to Hog Ranch</td>
<td>10.0</td>
</tr>
<tr>
<td>Old Hetch Hetchy</td>
<td>Hog Ranch &amp; Hetch Hetchy</td>
<td>12.0</td>
</tr>
<tr>
<td>Poopenaut</td>
<td>Hetch Hetchy Trail, 2 mi. east of Hetch Hetchy</td>
<td></td>
</tr>
<tr>
<td>Lake Eleanor</td>
<td>Hog Ranch &amp; Lake Eleanor</td>
<td>9.0</td>
</tr>
<tr>
<td>Flora Lake</td>
<td>Lake Eleanor &amp; Hetch Hetchy</td>
<td>11.0</td>
</tr>
<tr>
<td>Beehive</td>
<td>Lake Eleanor &amp; Flora Lake</td>
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</tr>
<tr>
<td>Beehive Short</td>
<td>Junction Lake Eleanor Trail &amp; junction Lake Vernon &amp; Jack Main Canyon Trail on Moraine Ridge, including loop to &amp; around Laurel Lake</td>
<td>8.0</td>
</tr>
<tr>
<td>Lake Vernon</td>
<td>Junction Lake Eleanor Trail &amp; Beehive Trail</td>
<td>2.0</td>
</tr>
<tr>
<td>Jack Main Canyon</td>
<td>Junction Beehive &amp; Jack Main Canyon Trail &amp; Tiltill Valley via Lake Vernon</td>
<td>8.0</td>
</tr>
</tbody>
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535
<table>
<thead>
<tr>
<th>Name of Trail</th>
<th>Between</th>
<th>Length in Miles</th>
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</thead>
<tbody>
<tr>
<td>Tilden Lake</td>
<td>Junction Tilden Lake &amp; Jack Main Canyon Trail &amp; Tiltill Valley via Tiltill Mountain</td>
<td>16.0</td>
</tr>
<tr>
<td>Jack Main Cut-Off</td>
<td>Jack Main Canyon Trail &amp; Tilden Lake Trail</td>
<td>4.0</td>
</tr>
<tr>
<td>Tiltill Valley</td>
<td>Hetch Hetchy Valley &amp; Tiltill Valley</td>
<td>6.0</td>
</tr>
<tr>
<td>Rancheria</td>
<td>Tiltill Valley at Rancheria Creek &amp; junction Kerrick Canyon Trail</td>
<td>20.0</td>
</tr>
<tr>
<td>Pleasant Valley &amp; Rodgers Canyon</td>
<td>Junction Rancheria Trail &amp; Matterhorn Canyon via Pleasant Valley, Rodger's &amp; Smedberg Lake &amp; Benson Pass</td>
<td>18.0</td>
</tr>
<tr>
<td>Benson Lake</td>
<td>Junction Rodger's Canyon Trail &amp; junction Kerrick Canyon Trail via Benson Lake &amp; Seavy Pass</td>
<td>9.0</td>
</tr>
<tr>
<td>Kerrick Canyon</td>
<td>Junction Tilden Lake Trail &amp; Buckeye Pass via Stubblefield &amp; Kerrick canyons</td>
<td>16.0</td>
</tr>
<tr>
<td>Burro Pass &amp; Rock Island Pass</td>
<td>Junction Kerrick Canyon Trail &amp; Miller Lake Trail in Matterhorn Canyon via Rock Island &amp; Burro passes</td>
<td>20.0</td>
</tr>
<tr>
<td>Miller Lake</td>
<td>Matterhorn Canyon &amp; Virginia Canyon</td>
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<tr>
<td>Virginia Pass</td>
<td>Junction McGee Lake &amp; Cold Canyon Trail &amp; Miller Lake Trails &amp; Virginia Pass</td>
<td>7.0</td>
</tr>
<tr>
<td>McGee Lake &amp; Cold Canyon Trail</td>
<td>Lake Tenaya &amp; junction Miller Lake Trail in Virginia Canyon via McGee Lake, White Cascades, and Cold Canyon</td>
<td>16.0</td>
</tr>
<tr>
<td>Alkali Creek</td>
<td>White Cascades &amp; Cold Canyon Trail at Elbow Hill via Alkali Creek</td>
<td>5.0</td>
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<tr>
<td>Mt. Conness Branch</td>
<td>Alkali Creek Trail &amp; Mt. Conness Trail</td>
<td>3.0</td>
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<td>Mt. Conness</td>
<td>Soda Springs &amp; Mt. Conness</td>
<td>8.0</td>
</tr>
<tr>
<td>Dog Lake</td>
<td>Soda Springs &amp; Dog Lake</td>
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<td>Soda Springs</td>
<td>White Cascades &amp; Soda Springs via Tuolumne River</td>
<td>5.0</td>
</tr>
<tr>
<td>Forsyth Pass</td>
<td>Lake Tenaya &amp; Cloud's Rest</td>
<td>6.5</td>
</tr>
<tr>
<td>Name of Trail</td>
<td>Between</td>
<td>Length in Miles</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Sunrise Branch</td>
<td>Forsyth Pass &amp; Sunrise trails</td>
<td>2.5</td>
</tr>
<tr>
<td>Tioga Road</td>
<td>Yosemite Falls Trail at Castle Rocks &amp; Tioga Rd. near Porcupine Flat</td>
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</tr>
<tr>
<td>Ten Lakes</td>
<td>White Wolf &amp; Ten Lakes</td>
<td>10.0</td>
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<tr>
<td>New Buck Camp</td>
<td>Glacier Point Long Trail, 2 miles south of Glacier Point &amp; Buck Camp via Buena Vista Mountain</td>
<td>16.0</td>
</tr>
<tr>
<td>Water Wheel Falls</td>
<td>White Cascades &amp; Point within one-half mile of top of Water Wheel Falls Trail^b</td>
<td>3.0</td>
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</tbody>
</table>

b) Anticipated Visitation Requires New Construction

Both Assistant Secretary of the Interior Mather and Secretary of the Interior Lane determined early in 1916 that tourists should be induced to visit the nation's parks, not only during but after the war. Mather, especially, recognized early the automobile's potential to increase use of the national parks and thereby strengthen their position in American society. The Park Service eventually followed the policy that the minimum number of roads needed in a park would be built, but of as good a class as could be obtained. This would be, of course, dependent on government appropriations. To give the parks higher visibility, Mather conducted an educational campaign with the help of Robert Sterling Yard, former editor of The Century Magazine, and the Sunday New York Herald, and newly appointed publicity director for the parks. Until 1911, the Interior Department had only published park

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6. W.B. Lewis, Supervisor, Yosemite National Park, to Superintendent of National Parks, Department of the Interior, 28 October 1916, in Separates File, Yosemite-Roads, Y-20, #8, Yosemite Research Library and Records Center. (Lewis did not yet serve as superintendent of Yosemite National Park. Because Congress did not fund the National Park Service until 1917, a new organization could not be formed until that time, even though President Woodrow Wilson had signed the act creating the Park Service in August 1916.)
regulations and superintendents' annual reports. Yard's National Park Portfolio and a stream of enthusiastic articles dramatically increased travel to the parks during 1916.\(^7\) Mather and Lane believed that travel could be further encouraged by providing accommodations for tourists of all economic levels and perfecting means of travel to and through park areas.

Road conditions in Yosemite at this time posed a major problem. Of the approximately 103 miles of road that the government controlled in 1916, only about one mile had a good hard surface. The two miles of "water-bound" macadam road on the valley floor contained bad ruts, while the approximately five miles of road surfaced with river gravel, which pulverized quickly under wear, required heavy sprinkling to keep down the dust. The remainder of the park road system consisted of narrow, dirt tracks with sharp curves and steep grades. Reconstruction of the El Portal road continued during this time. The one-way travel restriction on valley roads rigidly adhered to at the beginning of the 1916 season was gradually phased out as workers eliminated dangerous curves and widened narrow stretches. (One-way traffic continued to be enforced on the Big Oak Flat and Wawona grades because of their steepness.) Although speed limits remained in effect, every relaxation of restraints brought in more motorists who stayed longer. Park officials began suggesting at this time that the increasing travel required dignified gateways at the several entrances to the park, particularly where the Wawona, El Portal, and Tioga roads entered the boundaries. These would not appear, however, for several more years.

After improved roads brought them into the national parks and improved accommodations persuaded them to stay awhile, visitors would begin looking around for the best way to see the area's sights.

\(^7\) Mather and Yard later split over several issues concerned with park management. Yard criticized both Mather's predator extermination program and the "honky-tonk" atmosphere of Yosemite's concession operations. Fox, John Muir and the American Conservation Movement, 203-4.
One of the primary emphases of the National Park Service in its early years in Yosemite concerned continuation of the backcountry trail-building program initiated earlier by Major Benson and carried out by Gabriel Sovulewski in an effort to introduce tourists to the backcountry. It differed from earlier army efforts in that trails were designed less for access and patrol purposes than for recreational use by tourists. Laborers placed trails in more scenic places, such as river canyons, and built them to higher standards, so that they often resembled roads in terms of width and method of construction. Explosives reduced labor costs and solved topographical problems. Modern machinery gradually facilitated trail construction and maintenance, and the earlier work in native stone and timber gradually gave way to steel, cement, and prefabricated wooden construction.

As workers dispensed with the old methods, however, characterized by skilled labor, hand tools, and draft animals, backcountry trail work became more environmentally incompatible. The new trails not only changed the character of backcountry use, but also severely impacted the ecology of the region. Little consideration existed for the effects of that type of trail building on the wilderness, and over the next several years, a variety of trails—relocations or newly built ones—began to impact the wilderness along with backcountry patrol cabins and High Sierra camps. Although occasional individuals raised questions about trail width and drainage and the long-term effects of construction activity in the backcountry, conservation of a pristine wilderness was not then the critical issue it is today, and attitudes changed slowly. Not until a new period of trail reconstruction and restoration began in the early 1970s, using a blend of old methods and tools and new ideas, did Yosemite backcountry trail work become flexible enough to adapt to the difficult problems posed by the rough Sierra terrain and inexpensive enough to be
used under severe budget restrictions, while at the same time managing to please wilderness lovers concerned with environmental compatibility.

In 1916 only about 175 of the 650 miles of park trail were considered in good condition, requiring only minor improvements. In fact some of the trails, such as those to Yosemite Fall, Nevada Fall, and up Tenaya Canyon, were considered of first-class construction. One hundred forty-five miles of park trail were judged only fair, while the remaining 280 miles needed reconstruction. Those were principally in the northern part of the park, north of the Grand Canyon of the Tuolumne, an area just beginning to show measurable visitation. The park recommended three new trail projects: an extension of the Washburn Lake trail to join the Isberg Pass trail near Harriet Lake; a trail from the McClure Fork of the Merced, three-fourths of a mile above its junction with the latter, to Tuolumne Pass, via Babcock and Emeric lakes; and replacement of the trail from that same point of origin to Tuolumne Pass via Vogelsang Pass.

During the 1916 season, laborers constructed about five miles of footpaths on the valley floor, primarily paralleling the existing roads but also closely following the contour of the land, so that they often possessed steep grades and sharp curves. As time passed and the


9. The former McClure Fork of the Merced River appeared as Lewis Creek on USGS maps in 1944. Named for W.B. Lewis, former park superintendent, it had been called Maclure Fork, the name also of a tributary of the Lyell Fork flowing from Maclure Glacier about one mile southeast. The new name eliminated some of the confusion engendered by the duplication. Decisions of the United States Geographic Board, No. 30--June 1932, Yosemite National Park, California (Washington: Government Printing Office, 1934), 14; Browning, Place Names, 134. The Board of Geographic Names ratified the name Vogelsang Pass in 1932, although it does not appear on maps. It is one-half mile south of Vogelsang Lake. Ibid., 228.
roads were improved, sprinkled, and later paved, foot traffic became disinclined to use the paths and switched to the smoother roads. That did not pose a serious problem in the early days of light traffic, but as autos increased, the combination of hikers and motor cars on the roads began to cause problems. It ultimately became essential to provide paved walks alongside the roads in the valley.

During the 1916 and 1917 seasons, workers also laid out several miles of bridle paths on the valley floor. Those narrow trails again followed the contour of the country. Because they were dusty and only accommodated single-file traffic, horseback riders also began leaving the bridle paths and following the sprinkled, and later paved, roads, creating dangerous situations. At the same time, reconstruction of valley roads often wiped out many stretches of path. It became obvious the park needed a more modern system of horse routes.

Bridges in the valley posed another problem. In 1916 only the El Capitan Bridge, a combined steel and wood truss structure, had a safe loading capacity of more than six tons. Sentinel Bridge, on the other hand, over which most valley traffic passed, had been condemned three years earlier for loads over three tons. This caused great inconvenience to the park maintenance staff, because heavy road building and sprinkling equipment could only pass from one side of the valley to the other over the El Capitan Bridge. That resulted in excessive cost to transportation companies in the park as well, who had to send all freight trucks and heavy passenger vehicles bound for destinations on the north side of the valley via the LeConte Road and Stoneman Bridge—an extra two-mile haul.

c) John Muir Trail

Work on the John Muir Trail continued in 1916, during which time crews began working up the Middle Fork of the Kings River to a point just south of Muir Pass. In 1917 a $10,000 appropriation enabled construction of two bridges across the San Joaquin River and more work south of Muir Pass. Although the 1919 and 1921 legislatures voted
additional appropriations, Governor Stephens vetoed both measures and work stopped. No more funds came until 1926, which subsidized seventeen more miles of trail north from the Selden Pass area. In 1927 and 1929 crews accomplished trail work across Silver Pass, Fish Creek, and past Virginia and Purple lakes to Devils Postpile National Monument. The stretch of trail from Crabtree Meadows to the summit of Mt. Whitney was completed during 1930. Work also began that year on a new, more direct crossing of the Kings-Kern Divide at Foresta Pass, boundary between Sequoia National Forest and Sequoia National Park. The original route selected by McClure had been followed closely, with only minor relocations.\(^{10}\)

2. **Season of 1917**

The year 1917 proved important in Yosemite history, producing general improvements parkwide relative to roads and trails, visitor accommodations, travel facilities and transportation services, campgrounds, and utilities and sanitation. Those accomplishments had been made possible by an increase in tourism, resulting in greater revenues, and by larger congressional appropriations as that body responded to the mounting popular interest in national parks. Officials expended the bulk of the funds available in 1917 in construction, maintenance, and improvement of the park road and trail systems, both on the valley floor and in outlying areas. Several thousand dollars enabled continuing work on the El Portal road, which would connect at El Portal with a road constructed by the state and cooperating counties as part of the state highway system. In connection with that work, in 1917 the lower wooden timber truss bridge over Cascade Creek, built in 1907-1908, was replaced by a concrete structure. The upper bridge, built at the same time, was also in process of replacement.

Another benefit accrued to Yosemite travel in the summer of 1917. At that time the Yosemite Stage and Turnpike Company turned

over to the Department of the Interior, in return for certain transportation privileges in the park, title to the Wawona toll road system connecting Wawona with Fort Monroe, including its lateral to Glacier Point from the old Chinquapin stage station. The department then eliminated travel charges, except for the automobile fee. The Mariposa County Board of Supervisors declared the Coulterville Road free to the public about 1917, and performed a small amount of improvement work on it over the next two years. Later the former owners won back title to the road, but subsequently did not make repairs or collect tolls. Ultimately the portion of that road inside the park became abandoned. Mariposa County continued to maintain the road outside the park, from Coulterville to Hazel Green and Crane Flat.

During this 1916 to 1930 period, California's highway system was undergoing rapid development and improvement for automobile traffic. When the federal government took over the Big Oak Flat and Tioga roads in 1915 and the Wawona Road in 1917, it made only such improvements as seemed necessary to make them passable. As fast as money could be obtained from Congress, those mountain roads, which obviously were not suitable for the increased auto travel using them, were improved. As stated earlier, prior to the late 1920s, roadwork consisted only of repair, maintenance, and minor improvement because of the expense of paving and lack of sufficient appropriations. The improvements were undertaken in connection with maintenance work only and primarily involved widening the roadway to provide turnouts so that two cars could pass, reduction of some of the sharpest curves and steepest grades, and replacement of old cutouts and bridges. No funds existed to relocate or rebuild roads.

Tourist visitation to Yosemite had always occurred on a seasonal basis. By long tradition, Yosemite's waterfalls had been a major spring visitation draw.
Illustration 68.

Map of Yosemite Valley and adjacent region. Note the Carlin Trail, used by cattlemen, from Aspen Valley to Ackerson Meadow. Hall also mentions a seldom-used "Packers' Trail" beginning about one mile north of Aspen Valley and bearing north to Hetch Hetchy.

tourist attraction, with much smaller patronage in the valley during the summer months. In 1917 the Park Service made a concerted effort to publicize other attractions in the park during other times of the year. Motorboating on the Merced River was allowed in the summer of 1917 for the first time in an effort to expand visitor activities, and the famous Glacier Point firefall was again authorized in an attempt to draw more crowds. It seemed logical that, with the park open in winter to motorists and train travelers and with a new hotel projected for the valley floor, Yosemite might soon even become famous as a winter resort.

3. **Seasons of 1918-19**

By 1918 practically all the primary park roads had been gravel covered and widening and straightening of routes had begun. During the 1918 season, construction began on three new trails: because snow often covered Vogelsang Pass, crews constructed an alternate route between Merced Lake and Tuolumne Meadows via Babcock and Emeric lakes to the divide at Tuolumne Pass; another new trail left the Tioga Road at the Yosemite Creek bridge and proceeded eight miles to Ten Lakes Basin on the south rim of Tuolumne Canyon; the last, the Ledge Trail, climbed Glacier Point behind Camp Curry, an improvement of the earlier, exceedingly steep trail that nevertheless cut the distance between the valley and Glacier Point to less than two miles. Finally in 1918 workers built a new Sentinel Bridge across the Merced River just east of Yosemite Village. Of reinforced concrete beams and native granite, the three-span, two-lane bridge measured ninety-seven feet long and twenty-three feet wide. The superintendent noted during that season increased visitor appreciation of the high country north of the valley, as evidenced by extensive camping throughout the higher mountains.

In the 1919 season the Sierra Club enabled climbers to more easily scale Half Dome by providing a stairway to the summit. It consisted of two sections, the first a 600-foot stretch of zigzag trail and stone steps on the small dome. On the second, 800-foot section up the incline on the large dome, a double handrail of steel cables set into a double line of steel posts set in turn into sockets drilled in the granite
every ten feet assisted the ascent. Experts from the Sierra Club accomplished the work with the park meeting part of the expense.

4. **The 1920s Period**
   a) Improvement of Roads and Trails Continues

   Trail marking has always been a difficult task. The state of California had used painted signs, white on blue and green on white, to mark trails. Many of these continued in use into the late 1920s. Possibly because of the loss of several of them, the civilian rangers began tacking shakes to trees at each trail junction displaying directions printed on them with lumberman crayons. The Sierra Club marked trail junctions with painted coffee can lids in the mid-1920s to make them easier to find. In the 1920s trail measuring involved attaching an odometer to a bicycle wheel. A long handle attached to the spokes reached to the saddle. Subsequent marking involved nailing small round tin tags with numbers and letters on them identifying specific trails. In 1927 the Park Service made green signs of porcelain-covered metal. A few of these still mark restrooms and maintenance roads. In 1930 the old signs at the Mariposa Grove were removed and replaced with wooden slabs bearing the names of important trees and necessary statistics.

   During the 1920-21 season, work crews completed trails from Harden Lake on the Tioga Road to Pate Valley in the bottom of the Grand Canyon of the Tuolumne River and down that canyon from Glen Aulin to the lower of the Waterwheel Falls. In addition to constructing trails in the Tuolumne Canyon, laborers completed two bridges for saddle and pack animals: a fifty-foot double-span one at Glen Aulin seven feet wide and a fifty-five-foot single-span one at Pate Valley also seven feet wide. A masonry-faced arch bridge over Yosemite Creek in Yosemite Valley and a reinforced concrete beam bridge over the Merced River near Happy Isles were among the improvements of the 1921 fiscal year. The North Road across El Capitan Meadow was raised in 1922 to prevent its
flooding and the road from Camp Curry over Clark's Bridge to Mirror Lake was widened in 1923. 12

By 1923 the highway from Merced to the gateway of Yosemite National Park had been paved through Merced County and graded and graveled in Mariposa County to its termination at Briceburg. In 1924 the California State Highway Commission installed a convict camp at Briceburg on the Merced River, whose residents began construction on the last seventeen-mile section of the All-Year Highway to El Portal. Also that year the park reopened the section of the Pohono Trail between Fort Monroe and the Pohono Bridge that had been abandoned for many years. This action enabled visitors from the valley to make the trip to Glacier Point on foot or horseback without using the Wawona Road. A new bridge on the trail was erected over Bridalveil Creek. This same year workers cut a stone stairway out of the rock wall to replace the wooden stairs on the Vernal Fall Mist Trail. Laborers also finished most of the trail from Pate Valley to Waterwheel Falls through the Tuolumne Canyon that year. In addition they built a new two-span bridge over the Tuolumne River on the trail to Soda Springs, a single-span structure over Rodgers Canyon Creek on the Tuolumne Canyon trail, and a bridge over Return Creek. The park also reconstructed approximately three miles of the Mariposa Grove road system, while the remaining three miles remained essentially as when constructed in the 1870s.

In 1925 trail crews completed two miles of new trail from the junction of the Pohono Trail at Bridalveil Creek on the south rim of the valley to the junction of the Glacier Point-Wawona trail via Alder Creek. A branch extended to Bridalveil Meadow and the Glacier Point road. By April workers had almost completed the trail through Muir Gorge so that hikers could pass from Waterwheel Falls down the Grand

Canyon of the Tuolumne to Pate Valley. (The Sierra Club had regularly used this canyon trail for years and had marked their own route and installed a register at Muir Gorge.) An improved trail through there had been one of John Muir's greatest wishes, and through the urging of the Sierra Club, Director Mather had become interested in the project, construction of which had been directed by Gabriel Sovulewski. The Tuolumne Canyon trail was finally completed in September. New bridges included one on the Snow Creek Trail, one for saddle and pack animals over a branch of the Tuolumne River at Pate Valley, and another one over Rancheria Creek on the trail to Tiltill and Hetch Hetchy valleys.

b) Hetch Hetchy Area

Another problem that Mather faced near the start of his parks administration revolved around the city of San Francisco's road and trail responsibilities under the Raker Act, which city and county representatives had in 1913 declared their willingness to perform. After the war Mather began insisting that the city meet its obligation by constructing good concrete roads. He and City Engineer O'Shaughnessy talked considerably of the matter but had not resolved the impasse by the time of Mather's death in 1930.

During the summer of 1925 the board of supervisors of the city and county of San Francisco passed a resolution directing the city Board of Public Works to remove the Hetch Hetchy Railroad tracks and related apparatus between Mather and Damsite and to resurface the roadway to make it available for vehicular traffic. The park deemed this an important action from an administrative standpoint and also to open up the northern part of the park to tourist travel. Since June 1923, according to park superintendent W.B. Lewis, the railroad had only been used for propaganda purposes, bringing in people who used the city's services to impress them with the importance of the reservoir as a water supply and to build up public opinion against utilizing the Tuolumne watershed for tourist purposes. The Park Service then wanted the city to construct a scenic road around the north side of the reservoir (never constructed) to provide access to the trail system leading up the Grand
Canyon of the Tuolumne and into the northern part of the park. The Park Service and the city decided not to allow tourist travel over the steep and narrow roadbed from Hetch Hetchy to Lake Eleanor, which contained dangerous switchbacks. On 19 September 1925 the new nine-mile auto road between Mather Station and the Hetch Hetchy dam officially opened to the public, an event regarded as heralding a new era of development for the Hetch Hetchy region.

c) Auxiliary Valley Roads

The auxiliary valley roads received little attention prior to 1920 when the park constructed a new road behind the present New Village to the government barns and storehouse. Also that year a new road was completed west of Yosemite Lodge and in 1921 an access road was provided for new employee cottages. In 1919 the Mirror Lake road had been realigned. The road through Camp 7 was built in 1921, dissecting the camp, and another ran across Cook's Meadow by 1924. The New Village construction of the mid-1920s resulted in additional road building in that area, including auxiliary roads to the government barns, shops, and housing. Roadways in the campgrounds were also extended in the mid-1920s. The alternate route to the Old Village—the south branch of the South Road—became an auxiliary route as traffic to the Old Village decreased. The most significant era in increasing total miles of auxiliary roads occurred from 1929 to 1938. Final construction of auxiliary roads in the lower valley included a new route to the river from the North Road at the east end of El Capitan, a new road into Bridalveil Meadow, and an


15. Ibid., 51.
access road to the new sewage plant opposite Bridalveil Fall. The alternate route to the Old Village site was finally eliminated.  

One of the main objectives of the development program initiated by construction of the New Village was to move facilities off the main valley highways. The present main circuit roads on both sides of the valley and crossing the valley resulted from this planning. The new Ahwahnee Hotel would be placed on a spur road. The new South Side Road was built at a distance from Camp Curry with a spur road into the camp. In the same way, the New Village was built on a loop road so that only those desiring services there had to enter the area. The main road bypassed that village.  

d) The Park Service Initiates a Road-Building Program  
By 1924 Yosemite auto travelers still suffered over 138 miles of rutted wagon road, as did visitors to all of the national parks. Puny Congressional appropriations over the past several years did not begin to cover the costs of maintaining or building roads in rugged mountain terrain, during short working seasons, and under the extreme care that had to be taken to preserve scenic values. By 1924, however, need for better roads had become acute. Finally, after some astute lobbying, the 1924 Congress voted the Park Service its first real road-building authorization—seven and a half million dollars for a three-year program. Although this appropriation would not begin to cover the cost of roads of the standard needed in the future, Mather intended to use the money as far as it went to improve current roads by widening, reducing grades, and eliminating curves, and to build roads in parks where none existed.  

All national park road planning since 1917 had emanated from the office of George E. Goodwin, Chief Engineer of the National Park Service in Portland, Oregon. Around 1925, however, the Park Service and the Bureau of Public Roads made an agreement under which major park roads would be built and maintained. The Bureau's Senior Highway Engineer Frank A. Kittredge, who ultimately became Chief Engineer of the Park Service after Goodwin's departure, and also liaison with the Bureau of Public Roads, drew up in 1926 a road program for the entire National Park System. Because of the great increase in travel to national parks and because the State Highway Commission was building roads leading to Yosemite to a higher standard than those the park had originally contemplated, the construction program had to be revised and a policy adopted of building within the parks roads of the same standards as those leading into them.

18. Shankland, Steve Mather, 152-59. Herb Evison pointed out the type of relationship that existed between the Bureau of Public Roads and the National Park Service:

... almost from the beginning, the maintenance of close relations with the Bureau [of Public Roads] has been a function of landscape architecture rather than engineering. The competence of Bureau engineers has seldom been subject to question; on the other hand, Service concern in road design and in road construction practices has been with fitting these "necessary evils" into the landscape with the least damage, unobtrusively, softening the lines of demarcation between road construction and the bordering undisturbed landscape. This has called for the special skills of the landscape architect. Thus the flattening and rounding of cut slopes, the provision of natural-looking vista clearing, and the wedding of the road margins with the adjacent land through carefully planned planting of native vegetation have given a special and widely copied character to park and parkway roads.

S. Herbert Evison, "The National Park Service: Conservation of America's Scenic and Historic Heritage," 1964, typed draft, 663 pages, in Library and Archives, Division of Reference Services, Harpers Ferry Center, Harpers Ferry, West Virginia, 454.
In 1925 then, Director Mather announced a radical change in the Yosemite road building program, including immediate steps to relocate both the Wawona and Big Oak Flat roadbeds to provide a gentler grade and to realign and reconstruct the Tioga Road. Mather stated that the Park Service intended to build the best mountain roads that money and the science of highway engineering could devise. This was obviously in response to the imminent completion of the All-Year Highway, which park officials realized would cause an immense influx of new visitors and severely impact the substandard park roads. Beginning in 1925, work began on widening, improving, and paving the El Portal road while park crews prepared a site for a ranger station/residence and checking stations at Arch Rock to serve the expected flood of visitors upon the opening of the All-Year Highway. The road below the checking stations had to be widened to accommodate four lanes of traffic in 1928. Two roads connecting the North and Middle (Ahwahnee) roads in the valley were built in 1925. Other accomplishments around that time included completion of the Camp Curry bypass road and relocation eastward of the El Capitan Bridge and its approaches.\footnote{Fitzsimmons, "Effect of the Automobile," 51.}

e) Improvement of Wawona Road and Relocation of Big Oak Flat Road Contemplated

In 1926 the National Park Service and the Bureau of Public Roads signed a Memorandum of Agreement for the construction of major roads within the national parks. In California, the district engineer of the bureau in San Francisco assigned an engineer to do reconnaissance work in Yosemite and lay out an integrated road system enabling future work to be planned properly and undertaken systematically. The Bureau of Public Roads representative, Harry S. Tolen, first surveyed the Wawona Road, the most heavily travelled route in the park prior to completion of the All-Year Highway. Except for widening of the grade between the valley floor and Inspiration Point in 1924, and occasional drainage work, the road had never been improved.
Tolen found that the section of the Wawona Road between Yosemite Valley and Grouse Creek, which passed over the mountain at Inspiration Point, would never be a satisfactory grade. The point’s height above the valley floor and the short distance from there to Bridalveil Creek necessitated a very steep grade that would be hazardous during the winter months. After detailed study of that portion of the Wawona Road, Tolen determined that a satisfactory grade could be obtained only by running the road along the bluffs. Because of their steepness, it would be necessary to drive a tunnel through them, an innovation in highway construction in the parks. It would take two years to reach a decision on the location of this portion of the Wawona Road.

The Park Service determined to relocate the Big Oak Flat Road between Crane Flat and Yosemite Valley farther to the south, shortening the distance between the valley floor and Crane Flat and enabling it to be opened earlier in the spring. It proposed to abandon the Tioga Road from Crane Flat to Carl Inn and from Carl Inn to White Wolf and substitute a new alignment directly from Crane Flat to White Wolf via the upper reaches of the South Fork of the Tuolumne River. That would shorten the route to Tuolumne Meadows, save elevation, and provide a high-standard road.

f) Reconstruction of Wawona Road Begins

An event destined to have a major impact on tourist visitation to Yosemite took place on 31 July 1926--the official opening of the new Yosemite Ail-Year Highway to motor travel--a celebration coinciding with the seventy-fifth anniversary of the Mariposa Battalion's discovery of Yosemite Valley in 1851. The most important roadwork achieved during that time involved paving of the valley roads by the Bureau of Public Roads from 1927 through the early 1930s. The new roads greatly facilitated the park maintenance schedule by requiring less repair, less gravel to be dredged from the Merced River, and less sprinkling. This in turn released park crews and equipment for other necessary jobs. The rebuilding of the road system in the 1920s and the paving revolutionized travel conditions in the valley. It not only brought
in increasing numbers of visitors, but made traveling safer and more pleasant, and improved scenery and vegetation along the roadside that was no longer obscured by the dust of passing autos. "The one act of rebuilding and paving the roads probably did more to return the Valley to its natural appearing condition than anything since the stagecoaches first churned up the dust many decades before."  

In the summer of 1927 the Park Service assumed maintenance of the road between Mather Station and Hetch Hetchy and began to issue auto permits and collect fees. The good condition in which the park maintained the Wawona, All-Year, Big Oak Flat, and Tioga roads during this time resulted in a remarkable increase in travel to the park. On the valley floor road crews made good progress toward completing paving of another thirteen miles of roads, resulting in a total of twenty-nine miles of paved major roadways in the valley. The park opened four miles of oil macadam surfaced road between Yosemite Village and El Capitan Bridge.

Also that year the Park Service started planning for five new bridges in the valley. Two would replace the Pohono and Clark's bridges, two would cross the Merced River near Kenneyville, and one would be a new bridge over Tenaya Creek. In accordance with President Wilson's executive order of 28 November 1913 requiring that, whenever artistic questions arose on federal projects, proposed plans be submitted to the National Commission of Fine Arts in Washington, D.C., for comment, a committee of that commission considered the Yosemite bridge designs. Director Mather believed that the design of bridges in national parks was one of the Park Service's most important architectural problems. Because some existing structures in parks had drawn considerable criticism from architects, landscape engineers, and others, Mather determined to achieve in the future the best possible structures in terms of both design and execution for particular location.

Trail and associated bridge work continued in 1927. Crews constructed two bridle bridges over the lower and upper crossing of McClure Fork on the trail to Washburn, Babcock, and Boothe lakes. They also rebuilt the bridge over Illilouette Creek on the Vernal and Nevada falls-Glacier Point Trail at a new location upstream. Yosemite National Park's first nature trail was laid out in Yosemite Valley in 1927, succeeded by a permanent trail in 1929. Clifford Presnall developed this "Lost Arrow Nature Trail," which was used until 1933. Presnall also developed nature trails along the Sierra Point and Ledge trails, the latter abandoned after two seasons due to vandalism.21

In 1928 Director Mather and the Bureau of Public Roads decided to begin reconstruction of the Wawona Road, postponing relocation of the Big Oak Flat Road at least one year. They made that decision for several reasons: first, the state had no immediate plans to construct the Buck Meadows-Crane Flat link that would insure that the entire Big Oak Flat Road could be used within a reasonable period of time after the park had completed its section; second, the road work around Hetch Hetchy required of the city of San Francisco under the Raker Act had to be coordinated with the Big Oak Flat Road work, and so far the city had given no indication as to when it would carry out the requirements; and third, more time was needed to work out landscape details on the Big Oak Flat Road where it ascended the north wall of the valley to prevent marring of the cliffs. The Park Service believed that a timely reconstruction of the Wawona Road would result in some immediate benefits to the park. The improved road would make the Mariposa Grove an all-year attraction, add to the winter sports lure of the park, and open up camping areas along the Glacier Point road that would relieve the crowded conditions in the valley.22

22. Stephen T. Mather, Memorandum Re Wawona and Big Oak Flat Roads, 19 April 1928, in Central Files, RG 79, NA.
Illustration 69.

Happy Isles Bridge, built 1929. Note tunnel for bridle path.

Photo by Linda W. Greene, 1984.
g) Valley Stone Bridges Constructed

By the end of 1928 a system of hard-surfaced roads extended over the valley floor, necessitated by the increased travel due particularly to the opening of the Ail-Year Highway into the park. Road work at this time included the five bridges mentioned earlier. A total of eight granite-faced, concrete arch bridges were constructed on the floor of Yosemite Valley between 1921 and 1933. All were of similar design, with variations in size and configuration. Built of reinforced concrete veneered with native granite, they each had either one or three arches with finely cut keystones. The structures include the Yosemite Creek Bridge built in 1922; the Ahwahnee Bridge (Kenneyville #1), crossing the Merced on the Mirror Lake Road; Clark's Bridge, crossing the Merced on the Curry stables road; the Pohono Bridge, crossing the Merced at the beginning of the road to El Portal; the Sugar Pine Bridge (Kenneyville #2), crossing the Merced on the Mirror Lake road; and the Tenaya Creek Bridge, all built in 1928; the Happy Isles Bridge built in 1929, which had underpasses on each side of the river for bridle paths; and the Stoneman Bridge, built in 1933. Designed by the senior highway bridge engineer of the U.S. Bureau of Public Roads in collaboration with the Landscape Division of the Park Service to accommodate all classes of traffic and to harmonize with their natural surroundings, they had been endorsed by the National Commission of Fine Arts. In 1928 workers also replaced two bridges on the Tioga Road, one at the Yosemite Creek crossing and the other at the lower crossing on the Middle Fork of the Tuolumne River, and constructed a bridge across Cascade Creek on the Big Oak Flat Road.

h) Trail Work Continues

Because of a lack of funds and as a matter of general policy, the Park Service during the mid- to late 1920s did not feel justified in building separate trails for hikers and riders, but followed the practice of building trails suitable for both classes of travel. The bulk of trail construction at that time concentrated on dust-proof paths. During 1928-29 workers built three or four miles of dust-proof trails to points of interest along the valley walls, reaching elevations sufficient to
enable extensive views of the valley. One such path extended through the Lost Arrow section to the foot of Yosemite Fall, another led to the Royal Arches, and another climbed to a lookout point above and west of Camp Curry. During 1928 the Park Service reconstructed the Four-Mile Trail some distance from the old one as well as several sections of bridle path in the valley. Other work included reconstruction of the Mist Trail, mostly along its old route. Steps had been installed in the steep areas, and a pipe rail was to be placed along the most dangerous portions of the trail by 1929.

During the 1928-29 travel season in Yosemite, the Park Service noted a year-round movement of people rather than just summer visitation. Winter sports played a large part in attracting visitors during what had once been considered a dull season in Yosemite. The improvements made to roads entering and in the valley also increased the popularity of valley travel. The Big Oak Flat Road from Gentry to Gin Flat was being widened, surfaced, and dustproofed. Some curves and grades were reduced at the same time. At the same time, the Park Service and the concessioner slowed their building programs, both organizations believing that development on the valley floor had reached its peak. By 1929 the valley contained twenty-nine miles of paved road; ten miles of bridle paths; fifteen miles of paved walks; fifteen miles of oiled roads; six new road bridges; two large, paved parking areas (at Happy Isles and Mirror Lake); and several small footbridges across the Merced River (between camps #12 and #14, camps #7 and #16, camps #6 and #16, and between old Camp Ahwahnee and Yosemite Lodge).

In addition to continuing work on the Four-Mile Trail in 1929, crews rebuilt and shortened the Merced Lake trail between the valley floor and the lake. They also improved the Vogelsang Pass trail from Merced Lake to Tuolumne Meadows, which had been abandoned a few years previously because of its dangerous condition. Laborers then relocated the Firefall Point foot trail near Glacier Point and built a masonry wall at Firefall Point. Four new trail bridges were built in 1928-29, and workers replaced the old Vernal Fall bridge of the Glacier
Illustration 70.

Map showing roads in Yosemite Valley, ca. 1929.

Central Files, RG 79, NA.
Point Eleven-Mile Trail. During this time park officials began considering installation of an aerial cableway system to Glacier Point, which would transport visitors, via suspended cars, to that famous overlook in eight minutes. The Committee of Expert Advisers for Yosemite believed that rapid mechanical transportation would greatly increase the public's enjoyment of the park. In addition to causing far less physical disturbance to the landscape than other construction, such as the Wawona Road, the cableway would provide quick access to the valley from the rim and encourage more people to stay in campgrounds and other accommodations outside the valley. The committee, however, finally reluctantly concluded that the cableway would detrimentally affect the look of the valley wall and suggested instead the possibility of providing mechanical connection with the rim by installing a less intrusive device behind the granite wall. The idea of a cable tramway to Glacier Point persisted into the late 1960s.

5. **Some Valley Naturalization Begins**

During the 1930 season, a crew began obliterating old roads across the meadows on the south side of the valley floor, changing them whenever possible into bridle paths, and then landscaping the area. The digging of ditches to prevent autos from driving across meadows in the valley helped improve the park's appearance. In April 1930 the collapse of the upper member of its western truss destroyed the El Capitan Bridge, constructed in 1915. Park officials immediately condemned the structure and barricaded the road. They proposed installation of a new structure one-half mile east of the old site. Workers restored the site of the old bridge to as natural a condition as possible as part of an ongoing program to obliterate the most unsightly spots on the valley floor.

Bridge construction in the 1930 season included replacement of the Silver Apron Bridge below Nevada Fall with a new log structure, repair and reconditioning of the Swinging Bridge in the valley, and replacement of one span on the footbridge to Yosemite Village. Laborers also installed a bridge on Tenaya Creek above Mirror Lake in connection with a new trail there.
illustration 71.

Map of Yosemite National Park, 1929.

The new Four-Mile Trail (actually 4.62 miles long) was completed in June 1930. The trail crew then moved to Nevada Fall to begin work on that section of the Merced Lake Trail. That work involved relocating and reconstructing the old trail from Happy Isles, past Vernal and Nevada falls, through Little Yosemite and Lost valleys, to Merced Lake. In places where workers had to cut into the granite ledge, they treated the walls chemically to restore the color. A trail change also took place near Boothe Lake after the Curry Company moved its hiker's camp east to a point near Upper Fletcher Lake for sanitary reasons. Secretary of the Interior Ray Lyman Wilbur authorized the city of San Francisco to begin construction work on the scenic trail around the north side of Hetch Hetchy reservoir from O'Shaughnessy Dam to Tiltill Valley and Lake Vernon in 1930. In connection with that project, bridges were constructed across Tiltill and Falls creeks.

C. Construction and Development

1. The Park Service Slowly Builds Needed Structures

Building construction progressed slowly in Yosemite during the first few years of Park Service administration. Immediate reasons for the lack of development included division of the nation's attention and resources to the World War I effort and the multitude of organizational and funding questions confronting the new bureau's leadership. At the same time, the Park Service needed to formulate a clear, long-term development policy before expending vast sums of money on construction. During the winter of 1915-16, the wagon shed used by the Yosemite Stage and Turnpike Company in Yosemite Valley collapsed under the weight of heavy snows and was damaged beyond repair. In the spring of 1916 the company gained permission to erect a portable office building in the valley. 23 Up until 1917 the area between the later New Village and the

23. Gabriel Sovulewski to Yosemite Stage & Turnpike Co., 14 March 1916; W.B. Lewis, Supervisor, to S.G. Owens, Manager, Yosemite Stage & Turnpike Co., 18 April 1916, in Box 63, Yosemite Stage & Turnpike Co., Yosemite Research Library and Records Center.
north valley walls and between Yosemite and Indian creeks held few permanent structures. Beginning in 1917 the government constructed a complex of service buildings north of the cemetery, including barns, shops, and storage sheds.

The first housing for government employees in Yosemite consisted of the cottages formerly used by the War Department at Camp Yosemite—renamed the Yosemite Falls Camp, which had been sealed to make them usable during the winter season. Government barns and a wagon shed, frame with shakes, were built in 1916. A new schoolhouse built in 1917-18 accommodated fifteen to twenty pupils, mostly children of government personnel, although the children of park concessioners and their employees attended it in the early fall and late spring. It stood near the northeast corner of Hutchings's old farm. Laborers also erected a machine shop near the other government shops and barns during the 1917-18 season. In June 1917 the park established a government mess. After one summer in the inadequate tent quarters, however, the operation moved into the old Jorgensen cabin near Sentinel Bridge, which the artist had vacated after relinquishing his concession. A committee of three men appointed by Superintendent W.B. Lewis made the studio into a clubhouse for members of the mess by converting it into a kitchen and dining room.

The Sundry Civil Act of 1 July 1916 contained $150,000 for the erection of a new power plant in the park. Park officials considered the plant an absolute necessity because of increasing demands for power, light, and heat by the park concessioners. The sale of electric current would also provide substantial revenue for the park. In general, the Interior Department believed that the federal government should own and control power plants, water and sanitation systems, and telephone lines in national parks so that concessioners could invest all their money in further development of their own enterprises and because, as public
Illustrations 72-73.

Examples of early structures in Yosemite Valley maintenance yard.

Illustrations 74-76.

Water intake and penstock of Yosemite Valley power plant.

illustrations 77-79.

Interior of powerhouse and Cascade residence #101 and garage #333.

works, such systems could yield additional revenue for the Park Service.  

The park located the small diversion intake dam for the plant at the head of the rapids in the Merced River near the Pohono Bridge and the powerhouse near Cascade Creek, the latter designed to be as inconspicuous as possible. When completed, the plant would generate enough power to light all Park Service buildings, all camps, the new hotel, and all the main roads and footpaths in the valley. It would also provide for heating and cooking at the hotel and permanent camps. The Interior Department carried out the work under the supervision of the Superintendent of National Parks, through Galloway and Markwart, supervising electrical engineers in San Francisco.

Because of unexpected difficulties during excavation of the division dam—the first component of the plant built—the cost of the structure increased. Congress made an additional $60,000 available in 1917 to complete the plant; its generating capacity was also increased from 1,000 to 2,000 kilowatts. Beginning operations on 28 May 1918, the plant included the timber crib diversion dam spanning the Merced River about one mile below the Pohono Bridge at the intersection of State Highway 140 and the Big Oak Flat Road. The penstock, or conduit, that transports the water under pressure to the power plant, begins just past the intake and screens in the north abutment of the diversion dam. It consists of concrete, redwood stave, and riveted steel sections. The wooden portion, supported on wooden trestles, runs along the hillside north of the Merced, from the dam west to the powerhouse. Within the powerhouse, located about one mile west of the dam on the north bank of

the Merced alongside Highway 140, two General Electric 1,000-kilowatt dynamos connected to two Pelton turbines. The Park Service dedicated the plant to Henry Floy, the New York electrical engineer whose voluntary study of the power problem and subsequent report and presentation of the project before the Congressional House Appropriations Committee resulted in the project's successful conclusion. Sequoia National Park received the old electric plant above Happy Isles, which the park removed in 1919. During 1917-18 workers constructed three cottages to house operators at the new power plant. These still stand in The Cascades area and are used for employee housing.

Crews constructed the one-story frame ranger station at Aspen Valley on the Tioga Road in 1918, as well as the Gentry Ranger Station on the Big Oak Flat Road, and the Mariposa Grove and Chinquapin ranger stations. The park eliminated four of its early campgrounds between 1919 and 1925. The Mirror Lake road realignment of 1919 resulted in abandonment of Camp 10; the Church Bowl took over the site of Camp 20 in 1920; the New Village post office rose on the site of Camp 18, which was eliminated in 1923; and the Ahwahnee Hotel was constructed on Camp 8 grounds in 1925-26.

2. A New Village Site Is Considered
   Director Mather and other Park Service officials considered it essential to build a new administrative area in Yosemite Valley because of the rapidly growing volume of traffic in the summer. Commercial and service activities of the park still centered in the early village at this time. The increased tourist volume, however, was rapidly making that area obsolete. The necessity for all campers to register and receive camp assignments at park headquarters in the village resulted in heavy congestion on the main street. In addition, the administration building was too small to handle the large crowds and the village site as

Illustration 80.

Map of Yosemite Village.

"At the U.S. National Park Service Administration Building are the offices of the Park Superintendent, Chief Ranger and other executive officers. In front of the building is a free information bureau with a park ranger in charge. Government maps and bulletins may here be obtained free or at a very nominal cost. Adjacent is a motorists' information bureau maintained by the California State Automobile Association. At the left entrance is the telegraph and telephone office maintained by the government. The Yosemite Museum, which contains many excellent exhibits of the flora and fauna of the region is temporarily housed in this building."
a whole contained no room for expansion. The shabby appearance of the buildings also influenced the decision to phase out services in that area. During a study for new locations for that facility, the north side of the valley appeared more climatically and scenically agreeable and less susceptible to flooding. Considerations of improved landscaping, architecturally attractive buildings, and possible expansion also entered into the decision to ultimately remove the existing village.

Landscape Engineer Charles Punchard spent 7-1/2 months during 1918-19 in Yosemite, which Director Mather had chosen to be his showplace of the national park system. One of Punchard's primary tasks involved locating a new village site, in addition to rearranging campgrounds and landscaping existing facilities. At the same time he studied landscape problems in other western parks. Punchard also began working on one of Mather's pet projects, which involved providing a dormitory for the Yosemite rangers. The design of the completed Rangers' Club pleased the director so much that he announced it would serve as a model for new construction in the park.

During this period Yosemite Valley became headquarters for the Park Service landscape program. Buildings erected beginning in 1921 to plans devised by this Landscape Engineering Division were the first examples of a new Park Service rustic style involving natural materials that harmonized with their particular environment. By late 1922 Landscape Engineer Daniel Hull, who had taken over after Punchard's death, recommended to Mather that architect Gilbert Stanley Underwood be hired to develop ideas for the new Yosemite administration and post office buildings. The Fine Arts Commission, however, rejected his designs as being inappropriate and too complex. Mather brought in another architect, Myron Hunt of Los Angeles, who developed an acceptable design for the administration building and also helped Hull and Mather complete a final plan for the valley redevelopment.

unified architectural design of the new administration center would feature battered stone veneers, shake siding and roofs, exposed logs, and hip roofs, long, horizontal lines would blend into the rock cliffs behind the village.

The new Yosemite Village residential district was located among the trees and brush against the north valley cliffs. It consisted of curved streets and residences built to be environmentally harmonious with their environment. Punchard performed much of this early planning work. Part of the development called for moving three of the early army structures into the new group of residences and out of their intrusive locations in the meadow. An appropriation of $35,000 for construction of the new administration building and approval by the Post Office Department of plans for the construction, under a lease arrangement, of the new post office building started the relocation process.

3. The 1920s Period Involves a Variety of Construction Jobs

During the 1920-21 season, construction projects included four employees' cottages, two auto sheds in the shops and barn group on the valley floor, a roadhouse and barn at Bridalveil Creek on the Glacier Point road, and a checking station at Gentry’s at the top of the grade on the Big Oak Flat Road. Activity during the 1921 fiscal year also produced a modern sewer system, preliminary improvements to the water system, additional sanitary provisions in the public camping grounds in the valley, and initial improvement of sanitary conditions in the camp in Tuolumne Meadows. In that same year Park Service Director Stephen Mather donated money for the Rangers' Clubhouse—a personal gift to the officers and rangers of Yosemite—containing a large kitchen, dining room, lounge, and dormitory. To personalize the structure, each ranger with a record of two years of continuous service in Yosemite could nail a shoe from the hoof of his favorite horse on the lounge wall.

In 1923 the park erected ten comfort stations in the public campgrounds in a further effort to improve the sanitary situation. Similar work projected for fiscal years 1924 and 1925 would eliminate the
serious sanitary situation that had prevailed in the public camps for the past several years. Additional structures built at this time included four more employees' cottages in the valley and a frame bunkhouse at Chinquapin on the Wawona Road. After dam construction ended at Hetch Hetchy in 1923, the Park Service hoped to secure a barn, bunkhouse, mess house, and office located in the city of San Francisco's construction camp. The city decided to retain its caretaker’s building and guest cottage, but turned the rest of the buildings over to the Park Service for their salvage value. Although the Yosemite Park and Curry Company proposed establishing a lunchroom and boat service at the dam, the city and Park Service ultimately agreed that the government would not encourage developments near the dam that might become a menace to the purity of the water supply. People would only be encouraged to visit and view the dam.

During the 1924 travel season crews began installing a ranger station, checking kiosk, and public comfort station at the foot of the Wawona grade in the Bridalveil area and started work on similar units at the Alder Creek station on the Wawona Road and at the El Capitan station at the foot of the Big Oak Flat grade. (Workers moved the old ranger residence at the El Capitan checking station to a new location and reconstructed it.) Additional work included a ranger station and a small administrative headquarters—consisting of a comfort station, a house for the road maintenance crew, a mess house, a barn, and ranger living quarters—at Tuolumne Meadows on the Tioga Road. The ranger station was built to serve also as a contact station and entrance station into the park from Tioga Pass. It ceased to function as an entrance station with the construction in 1931 of a new one at the Tioga Pass summit several miles east, and its visitor contact function moved to a new building in 1936. It continued to serve as a ranger residence and office. Nine more comfort stations were added in 1924 in the public campgrounds. That same year construction began on a rough stone lookout station at Glacier Point, housing field glasses, to serve during the summer months as headquarters for a nature guide. This structure was an important aspect
of the park's new interpretive program and is discussed later in this chapter.

In November 1924 Director Mather presided over the dedication of the new administration building and the laying of cornerstones for the new museum, post office, and Pillsbury's Pictures, Inc., Studio in the new Yosemite Village. This occasion marked the first step in the abandonment of the old village. The administrative, post office, and museum buildings, plus the Rangers' Clubhouse would form the nucleus of the civic center, which would eventually include other studios and stores. After moving various units of the old village to the new site, the old buildings no longer needed, including the Sentinel Hotel, would be razed and the landscape restored.

In 1925 work crews completed a kiosk at Grouse Creek as part of a new checking station, and finished similar structures at Alder Creek and El Capitan. On 30 May 1925, the California Conference of Social Workers unveiled a tablet in memory of John Muir, marking the site of his sawmill and cabin. Earlier, on 19 May, a memorial plaque honoring Dr. Bunnell, member of the party that discovered the Yosemite Valley, had been placed on a large boulder in Bridalveil Meadow, a gift of the California Medical Association. Superintendent Lewis noted that this was the first time that any of the points of historic interest in the park had been permanently marked.27 Other work that year included relocation of the old ranger station at Tuolumne Meadows, constructing steps over the granite rock to the new Glacier Point lookout station, moving the ranger station structure from the Bridalveil checking station to a new location in the Lost Arrow residential group, and constructing a new four-room cottage from the material obtained from the wrecking of the old administration building. Also that year Director Mather decided to locate

the ranger station on the El Portal road at Arch Rock, necessitating construction of a by-pass road on the north side of Arch Rock to accommodate outgoing traffic. J.W. Boysen started construction on a new studio in the New Village in 1925.

Workers completed the new Arch Rock ranger station/residence in 1926. Construction during 1927 included moving the checking station at Arch Rock to the righthand side of the road for incoming cars, building an entrance gate at the park line on the Hetch Hetchy road, putting finishing touches on two new employee cottages in the valley, building the form work for a new detention building in the valley, establishing a ranger station and barn on the South Fork of the Merced River near Wawona, and constructing the Merced Lake patrol cabin to aid in snow surveys. In November of that year a fire in the stock room of Pillsbury's auditorium destroyed the workrooms and theatre portion of the building along with two darkrooms and developing rooms.

In 1928 a change in the Arch Rock station general plan due to unexpectedly heavy traffic necessitated moving the two checking buildings from their location above the rangers' living quarters to a site a short distance below the residence. A small building architecturally similar to them was moved from the El Capitan station and placed in the center of the Arch Rock group to facilitate the traffic flow. The park addressed the need for better housing for Yosemite schoolteachers by beginning construction of a suitable building on the school grounds at the end of 1928.

Further development during the 1929 season involved a comfort station in the Glacier Point campground. One of the oldest Indians in Yosemite Valley, John Brown, had accomplished most of the stone masonry

work on that structure. In Yosemite Valley, construction consisted of a new hospital building; an employee cottage; a women's dormitory; two frost-proof toilet buildings in the newly established winter campground in the area now known as Sunnyside, or Camp 4; and remodeling of the superintendent's residence, garage, and laundry. At the same time, a stone wall creating a pool at the outlet of a spring adjacent to the Merced Lake trail near Happy Isles, about where the Sierra Point trail intersected it, was nearing completion.

4. The New Hospital and Superintendent's Residence

The building used as a hospital in Yosemite during the early Park Service years was the same facility that the War Department had used, slightly remodeled. It contained three rooms for patients, a small operating room, a nurse's area, and a reception/consultation facility. The physician's family used three other rooms as living quarters. Heavy tourist travel and the park's distance from major hospital facilities increased the need for first-class service in the park. During the 1920-21 season a small addition to the hospital had made it possible to furnish better dental service.

By 1923 the park considered new hospital facilities absolutely essential because of increased visitation from all parts of the country, leading to the rapid spread of contagious diseases, and the unfamiliarity of most visitors with the rugged terrain of the park, resulting in many accidents. During the summer tents often had to be utilized for patient care, while other individuals ended up on the hospital porch. Many needy people often had to be turned away for lack of space.

In the 1928 Interior Department Appropriation Act, Congress granted money for the construction of a new hospital. The structure, dedicated in 1930 and later named for former park superintendent Washington B. Lewis, filled the long-felt need for modern medical, surgical, and dental facilities in the park. Located on the north side of the valley, halfway between the New Village and the Ahwahnee Hotel, the frame building, stone veneered below the first floor, had both a ward and
Illustration 81.

Lewis Memorial Hospital, Yosemite Valley.

Illustration 82.

Paint shop in Yosemite Valley maintenance yard (former Indian Village residence).

administrative wing. The latter contained a reception room, treatment rooms, a dental office and lab, the doctor's office, an operating room, and an X-ray room. The department also spent several thousand dollars on new equipment and supplies.

The new superintendent's residence, a two-story frame structure, was erected on the same site as the previous one. Workers basically tore down the earlier army structure, leaving only the framework of the dining room, kitchen, pantry, breakfast nook, one bedroom, and a bath, which were incorporated in the new house. The garage and laundry building had burned in the early summer and also had to be replaced. The new laundry unit was attached to the house. Work on this modern six-room structure ended in October 1929. The convertible women's dormitory completed during the year was a four-room cottage. 29

5. The Indian Village in Yosemite Valley

During 1929 Superintendent Charles G. Thomson took a census of the inhabitants of the old Indian village, located in the area now occupied by the Yosemite Medical Group (former Lewis Memorial Hospital). He found sixty-seven Indians living there in makeshift dwellings formed from ragged tents, old boxes, and other cast-off materials. Although these residents possessed no formal rights to a reservation and had no legal rights entitling them to reside in the valley, the Department of the Interior and the superintendent agreed that those who had been born in the valley and could trace their ancestry to either the Miwok or Mono Paiute Indians had a moral right to continue living there. The village had to be moved to another location, however, because of the impending construction of the new hospital on that site. Superintendent Thomson also considered the old village too unsightly and unhealthy to remain.

Accordingly Thomson selected a new village site about one-half mile west of Yosemite Lodge. The superintendent assigned the small, three-room cabins to selected Indians, under special use permits, who rented them at a nominal monthly fee. Only those Indians living in Yosemite in 1929 who could trace their ancestry to early inhabitants of the area were considered for housing. Furthermore, government policy dictated that quarters be assigned only to the man as head of the family or to a woman whose husband had died or left her. If a woman remarried, she lost the right to live in the new village and was obligated to move unless her new husband had a moral right to reside there. The moral right was passed on to the first male child in each family. Relatives and other Indians from outside the valley could not reside in the new village for long periods. The Park Service considered supervision of the community life of the Indians one of its administrative responsibilities.  


Building construction, repair, and relocation during the 1930 season included, in Yosemite Valley, erection of a four-family employees' residence and a staff residence as well as replacement of the wooden trestles on the hydroelectric pipeline. A new raised platform in Camp 15 provided a stage for the public entertainment presented each weeknight during the summer.

Crews also accomplished repair work, reshaking, and painting on the Yosemite chapel in the Old Village. New entrance signs for campgrounds 7, 14, and 15, electrically illuminated to show up at night, were constructed and erected. The park then set aside several areas of the valley floor as picnic sites: Indian Cave, Happy Isles, beaches in the vicinity of the Giant Yellow Pine, a spot adjacent to the old bear pits.

Illustration 83.

El Portal entrance boundary marker.

on the south side of the Merced River, and beaches adjacent to the Swinging Bridge. Also in 1930 workers tore down the night watchman's house at the government stables, the old firehouse by the jail, and the old barn at Bridalveil Creek.

Outside the valley, the park completed erection of a boundary marker at the El Portal entrance, subsidized with funds donated by James H. Schwabacher of San Francisco, and accomplished landscaping around its base. The park had dismantled the earlier stone entrance pillars in 1926. Workers also tore down the old barn and corral downhill from the Glacier Point Hotel and began establishing three new patrol stations, at Benson Lake in the northern section of the park, at the South Fork of the Merced near Wawona, and at Buck Camp near the southern boundary of the park. Because of the location of the new Wawona Road at a considerable distance from the former one, it became necessary in 1930 to move the checking station or kiosk about sixty-five feet from the center of the old road to the center of the new one.

The removal of buildings in the Old Village proceeded slowly. Galen Clark's home west of the village came down in 1921. By 1926 the old Boysen, Best, and Foley studios had been slated for destruction pending removal of those services to the New Village, but they managed to hang on a while longer. Destruction of the Old Village began accidentally with the Pillsbury movie house fire of 1927, followed by the Cosmopolitan Bathhouse fire in 1932. Planned removal began later in the 1930s, when from 1938 to 1941, the park removed the Rock, River, Oak, Ivy, and Cedar cottages and the Sentinel Hotel. The loss of its visitor accommodations resulted in a lessening of importance of the Old Village, which had already experienced a reduction in business as a result of the continuing growth of Yosemite Lodge and Camp Curry. The opening of the Ahwahnee Hotel in 1927 further increased visitor activity in other areas.

The New Village became the administrative center of the park, initially lacking commercial activity except for the studios. It has never
offered visitor accommodations, but began providing food in the 1950s. Both the Park Service and concessioner had recognized the importance of abandoning the Old Village structures and the old Yosemite Lodge in order to relieve congestion. To that effect they had even signed an agreement in 1925 calling for the removal of the Old Village store and construction of a new one in the New Village within one year and removal of the old army barracks/Yosemite Lodge and construction of a new facility in a different location within five years. As it turned out, however, as late as the 1950s the Old Village still contained a studio, the pavilion (movie house), chapel, and the store, in addition to a few employee residences.

D. Educational and Interpretive Programs

1. Nature Guide Service

When Stephen Mather assumed the directorship of the National Park Service in 1916, he determined to provide park visitors with information on natural and historical features. Educational programs were part of his agenda from the beginning. Interpretation, an attempt to broaden human understanding of the physical, natural, and historical processes exemplified by varied Park Service properties, has been undertaken by that agency for many years. As early as 1904, Acting Superintendent James Bigelow, Jr., was attempting to educate people on the flora of the park and envisioned a much broader program. Director Mather also perceived that this type of education would give added dimension to the park experience and help gain support for Park Service programs.

Yosemite was not the first park to begin interpretive programs nor did the Park Service invent most of the fundamental interpretive techniques it adopted, such as the campfire program or guided nature

32. Fitzsimmons, "Effect of the Automobile," 70-72, 74.
walks. By 1919, interpretive activities were well underway within the National Park System. They included the newly instituted LeConte memorial lectures at Yosemite as well as campfire talks long offered by the Sierra Club; talks by Milton P. Shinner at Yellowstone National Park on its flora and fauna; campfire talks at Mesa Verde National Park by Dr. J. Walter Fewkes, Chief of the Bureau of Ethnology, who was undertaking archeological work there; and nature guide work in Mount Rainier and Rocky Mountain national parks.33

The organized interpretive programs of the National Park Service, however, began in 1920 with initiation of Nature Guide services at Yosemite. The idea originated with Charles M. Goethe of Sacramento, who, with his wife, observed nature guides in Switzerland prior to World War I. Upon further investigation they found that several European countries successfully used trained guides to instill in their citizens a knowledge of nature studies.

The Goethes made intensive field studies of each country's program, and, after the war, personally funded a nature guide program at Lake Tahoe to serve resort guests. That experimental program, designed to test the reaction of vacationists to nature talks and trips, became highly successful. Naturalists participating in the program were Harold C. Bryant, with the California Fish and Game Commission, and Loye Holmes Miller, of the University of California at Los Angeles. In the summer of 1919 Director Mather observed the guides and, impressed by their program, decided to introduce the concept at Yosemite. Mather hoped to prevent over-commercialization of the park by emphasizing its natural beauties. By promoting a deeper understanding and appreciation of the park's values, Mather expected to inspire its visitors to contemplate the wonders of nature and how best to preserve them. In 1920 Bryant and Miller arrived in the park to organize a nature program.

Appointed as temporary rangers assigned to special duty as naturalists, they offered the first public interpretive services of the National Park Service. Their field trips and evening campfire talks proved highly popular. Dr. Carl P. Russell, who diligently researched the Park Service's initial interpretive activities, wrote:

I think it is not necessary to go back further than the Goethe-Mather invention to recognize the first organized interpretive work in the parks. I believe that the Yosemite programs headed by Bryant, Miller, and Ansel Hall constitute the beginnings of coordinated and continuous interpretive work in the parks. The pioneer programs in Mesa Verde, Rocky Mountain, Yellowstone and Mount Rainier are to be recognized as contemporary with (or even earlier than) the Yosemite program but at first they were seasonal and not set up under a year-around National Park Service employee. M.P. Skinner [Yellowstone] did precede Hall in attaining park naturalist status . . . but Skinner seems to have functioned without the aid of ranger naturalists, while Hall had a small staff of seasonal employees and thus established a continuing tradition . . . I feel that the Yosemite program of 1920-22 set the pattern, generally, and led~jLhe way for park naturalist programs throughout the Service.

2. LeConte Lectures
The establishment of the LeConte Memorial Lecture series at Yosemite by the University of California in 1919 slightly preceded installation of the Nature Guide Service. In memory of Professor Joseph LeConte, every year the Extension Division of that university sent eminent western scholars to Yosemite during the summer months to lecture on the natural history, geology, art, ethnology, and history of the region. In 1920 the Sierra Club and the National Park Service jointly erected an outdoor log auditorium 400 feet east of the LeConte Lodge.

3. Yosemite Museum Association
The success of the Nature Guide program inspired other educational work. The next task involved establishing a formal museum

where natural, scientific, and historical specimens of the Yosemite and High Sierra region could be exhibited for study by the visiting public. The museum would serve as a public contact point and headquarters for the park interpretive program. The movement to establish a museum in every national park gained its momentum from Yosemite’s success in that area.

As stated earlier, in 1915 the acting superintendent at Yosemite had established a small museum in the administration building in Yosemite Valley where Chief Ranger Forrest S. Townsley’s taxidermy specimens formed the nucleus of the bird and mammal exhibits. The growing popularity with the public of the displays of natural history specimens, ethnographic materials, and other items of interest finally necessitated a larger building and a change of location. Ranger Ansel F. Hall was detailed from the park ranger force to begin the new museum project. 35

In the summer of 1920 the old Chris Jorgensen art studio, abandoned by the artist in 1917 and acquired by the Park Service in 1919 and used as a rangers’ clubhouse, was designated the Yosemite Museum, and in 1922 the much-expanded park collection moved into six exhibit rooms in the 1899 bungalow. At the same time, the superintendent established a Park Naturalist Department, supervised by Hall, to operate the museum, conduct the Nature Guide Service, and supervise all educational activities. Similar educational and museum programs soon got underway in all major scenic parks and archeological areas. The

35. Ansel Hall, the first naturalist in Yosemite National Park, had graduated in forestry from the University of California. After engineering and forestry work in France for the army, Hall became Information Ranger at Yosemite in 1919 and Acting Park Naturalist in 1920. Hall, basically on his own initiative, began the Yosemite Museum, constructing geological models, assembling native crafts, and mounting natural history specimens. Shankland, Steve Mather, 259-60. Evison, "The National Park Service," has stated that Hall "established a record as probably the greatest innovator of interpretive activities in Service history," 395.
American Association of Museums even sent Hall to study museums in Europe, North Africa, and the Near East. In 1923 Hall became the first Chief Naturalist of the Park Service, with offices in Berkeley, to coordinate and direct the interpretive work in all parks. At Yosemite, meanwhile, the museum collection grew quickly. Chris Jorgensen donated his extensive Native American basket collection to this interpretive effort in 1923. The collections had been further augmented by beadwork and other archeological materials from other sections of the country, by objects of historical value, and by additional natural history and geological specimens.

Realizing the impossibility of acquiring an appropriation for a proper museum building at that time, Chief Naturalist Hall in 1922 had suggested to Acting Director Arno B. Cammerer that an association be created to work toward that end while at the same time disseminating information on the park's natural history and fostering the arts, customs, and legends of the remaining Indians of the Yosemite region. On 4 August 1923, the Yosemite Museum Association was organized under the auspices of the American Association of Museums with the goal of securing funds for the erection of a fireproof museum building in the park and promoting among the visiting public a better knowledge of the natural history of the region. The Yosemite Museum Association, predecessor of the Yosemite Natural History Association, became the first cooperating association established in the National Park System to further a park museum program.

In August 1924, in line with the director's recommendation to establish small branch museums at points where special features of natural history could best be demonstrated, plans were made for the erection of a small trailside museum at Glacier Point that would be a branch of the Yosemite Museum and also serve as a lookout station. Designed by Park Service Architect Herbert Maier and Ansel Hall, and undertaken with the cooperation of the Yosemite Park and Curry Company, the Park Service, and the American Association of Museums, the building was completed in September and planned as a Nature Guide station. The small observation
Illustration 84.

Glacier Point overlook.

Photo by Gary Higgins, 1984.
pavilion has arched openings on the west, north, and east sides. The first trailside museum in the National Park System, the structure enabled views of the valley and its walls that further enhanced the visitor's knowledge of the forces shaping the valley and high country. Another small branch was established at Parsons Memorial Lodge in Tuolumne Meadows and manned by a Nature Guide.

At the recommendation of the American Association of Museums and the Park Service, the Laura Spelman Rockefeller Memorial Foundation made a substantial donation to aid in the construction of a new Yosemite Museum in 1925, with exhibit rooms opening to the public in May 1926. Also designed by Maier, it was one of the first permanent national park museums. The Yosemite Museum Association, which had in 1925 become the Yosemite Natural History Association, transferred title to the building to the National Park Service. The new association concerned itself with

36. Private funds, especially Mather's, financed the Yosemite naturalist program for the first few years until its success became apparent. The effectiveness of the Yosemite Museum as headquarters for the park educational staff convinced the American Association of Museums to make further efforts to establish a general museum program in the national parks. New museums were built with additional funds from the Rockefeller foundation. The American Association of Museums lent strong support to the fledgling Yosemite educational project in the form of recognition of work well done and in financial support for continued development. The steady growth of educational services, centering around new museums in Yosemite, Yellowstone, and the Grand Canyon and other interpretive facilities, developed a public conscience of the good resulting from such activities in the national parks. These programs became models for future work. Their success resulted in approval of plans for future services and, most importantly, in regular appropriations to implement those plans. The American Association of Museums continued to foster interpretive facilities throughout the National Park System. Public Works Administration funds in the 1930s further aided development of the museum program. A Museum Division of the Park Service was established in 1935. C.P. Russell, "A 'Good-Bye' and a 'Hello,'" Yosemite Nature Notes. Carl Russell succeeded Hall as Yosemite park naturalist and as the Service's Chief Naturalist. Also see Shankland, Steve Mather, 257-62, for a discussion of the beginnings of park interpretation and education, and Russell, 100 Years in Yosemite, 129-45.
developing the new museum; establishing subsidiary units, such as the Glacier Point lookout; aiding the development of the Nature Guide Service; and maintaining a library in the valley of volumes of historical, scientific, and popular interest to the public; promoting scientific investigations; and gathering and disseminating information on the cultural and natural history of the area. The group has continued to this day to make an influential contribution to the educational projects of the National Park Service in Yosemite. The native stone museum building, with its large wooden beams and shakes, harmonized well with its environment and became a model for other Park Service areas. The two-story structure contained exhibits, a library, storage facilities, a classroom, offices, and caretaker's quarters.

An important part of the museum's early educational program was the demonstration of Native American lifeways by local Indians. In the late 1920s Maggie "Tabuce" Howard, a Mono Lake Paiute woman, began demonstrating basketry and food processing techniques of the native peoples in a re-created Indian village behind the museum. In addition, a Southern Sierra Miwok man was hired to do traditional dances and demonstrate fire making and arrow manufacturing.

4. Zoo
Another more questionable attempt at public education began in 1918 with the display of three orphaned mountain lion cubs, whose mother had been killed, in an enclosure in Yosemite Valley. A brown bear cub captured during that season was added to this exhibit of Yosemite wildlife. By the late 1920s the park questioned the legitimacy of exhibiting live animals in captivity, except in exceptional cases in accordance with a well-considered educational policy and as an adjunct of the museum. In addition, the zoo's location between the government
residential and utility areas attracted visitors to a location that should have been closed to the public. 37

Although not part of the zoo, an elk herd once grazed in Yosemite Valley. About 1921 it was feared that Tule elk, once numerous in the San Joaquin and Sacramento valleys, stood in danger of extinction due to reduction of their grazing areas. When only one wild herd remained, in Kern County, wildlife groups became greatly concerned over the animals' future. In an effort to save them, interested parties captured a few individuals and shipped them to various parks in California.

The California Academy of Sciences, through the efforts of M. Hall McAllister, chairman of conservation, obtained permission to place twelve elk in Yosemite, between the New and Old Villages, in a wire fence paddock eight feet high enclosing twenty-eight acres of meadowland. This effort to reestablish a species native to the region at first seemed in accord with the park policy of maintaining original wildlife conditions. Here scientists hoped the elk would increase in number as well as provide pleasure and an educational experience for visitors. By 1933 the herd had increased to twenty-seven animals. Because the elk were actually exotic to the high country and National Park Service policy prohibited the introduction of non-native species, because of the unsightliness of the high fence, and because the animals' grazing had detrimentally affected the meadow, the park transferred the elk to the Owens Valley in Inyo County that same year.

37. During Mather's administration, predators, including mountain lions, coyotes, and wolves, were ruthlessly hunted down in many of the western national parks with the help of the Bureau of Biological Survey (later Fish and Wildlife Service). Mather believed in strong reductions of numbers but not complete elimination of native species. Shankland, Steve Mather, 269-70.
5. Indian Field Days

From 1917 to 1924, the National Park Service held Indian Field Days in Yosemite Valley in mid-summer, featuring a parade, horse races, Indian baby beauty contests, and prizes for the best Indian regalia. Miwok, Paiute, and other Indians attended to display their basketry, participate in rodeos, prepare Indian foods, and perform ceremonial dances. The Park Service even erected fake wigwams painted with pseudo-Indian designs to provide the "proper" atmosphere. It created an oval race track for the horse races in the middle of Leidig Meadow, which became an eyesore for several years. Many activities were obviously designed to cater to the visitors' preconceived notions of Indian life and were of questionable authenticity. The Committee of Expert Advisers for Yosemite saw it as

essentially a white man's race-meet or rodeo, in which some part is taken by Indians to whose Yosemite forebears such things were wholly unknown. In so far as the "Indian Field Day" is useful in maintaining the interest and morale of the Government and company employees some other device not disregardful of the landscape of the Valley could presumably be found. In so far as it is regarded as one of the "attractions" for visitors to the Valley it seems to us to have little more excuse than the introduction of a county fair or a full blown commercial circus.

The festivities did, however, provide some recognition of the Indian contribution to the development of the area, probably fostered some feeling of unity among the Indian population, and aided the Park Service cause by promoting a healthy tourist traffic during the off-season. The field days ended during the 1930s depression.


6. **Interpretive Publications**

In 1921 G.P. Putnam's sons published *Handbook of Yosemite National Park*, compiled and edited by Ansel F. Hall. The park produced a popularized mimeographed booklet entitled "Yosemite Nature Notes" in 1922 to correlate the educational activities of the park and to cater to the needs of a public becoming increasingly interested in nature and history studies. The "Notes" appeared in 1926 as a printed journal and was published monthly until 1961. In 1924 the University of California Press published *Animal Life in the Yosemite*, by Joseph Bird Grinnell and Tracy Irwin Storer, a major inventory of park resources and an important contribution to the park's nature study program.

7. **Yosemite School of Field Natural History**

Nature trails also became an important part of the park interpretive program. By 1925, however, it was evident that field-trained naturalists for park positions were at a premium and that most university-trained botanists and zoologists lacked field experience. Much knowledge had to be gained first-hand before it could be interpreted to the public. To fill the need for better-trained park naturalists--a direct outgrowth of the Nature Guide program--Dr. Bryant established the summer-long Yosemite School of Field Natural History. Its emphasis lay on field experience, involving observation and identification of living things in their natural environment, rather than on lectures and books. Started under the joint auspices of the Park Service and the California Fish and Game Commission, its staff consisted of park naturalists and other specialists in the field of natural history. Daily trail trips enabled students to study geology, plant and animal life, and ecology first hand. The school also studied park resource management efforts. For many years it furnished candidates for Civil Service naturalist positions, nature study teachers, and scout camp positions. The school continued until World War II. It resumed after the war for five years, finally closing in 1954. It provided valuable training in interpretation and in teaching of the natural sciences.
8. **Research Preserves**

In 1926 an area of seven square miles in the high country, along the Sierra crest and north of Tuolumne Meadows, was set aside as a reservation within which the flora and fauna would be left in their primitive state. All domestic animals, camping, and fishing were excluded for the purpose of making scientific studies of plants, animals, and geologic and other natural features under primitive conditions. The only reserve of its kind in the United States at the time, it became the subject of keen scientific interest. Yosemite became the first national park to establish an absolute nature reserve to be open only to naturalists and scientific students.

9. **Development and Importance of Educational Work at Yosemite**

Interpretive efforts in Yosemite developed slowly but steadily. In 1928 the park undertook interpretation at the Mariposa Grove, culminating in construction of the present museum there in 1930. The third structure to stand on that site in the grove, it continues the use of Galen Clark’s original cabin as a shelter and information center for visitors. The present structure is a reconstruction, or replica, of its predecessor, built by the state of California in 1881 but deteriorated by the 1920s. When the building had to be replaced, the superintendent ordered its reconstruction with special emphasis on a faithful exterior duplication because the structure was of great historic interest and familiar to a multitude of visitors. The resulting building was more substantial and durable than the old one, but still retained the historic atmosphere of that location.

A Junior Nature School began in 1930 to enhance children’s nature study experiences in the park. That same year, for the first time, the Educational Department of the National Park Service directed the

40. For further information on the Mariposa Grove Museum, see National Register of Historic Places Inventory—Nomination Form prepared by Leslie Starr Hart, NPS Cultural Resources Specialist, in 1975.
Illustration 85.
Old log cabin at Mariposa Grove.
Photographer and date unknown.
nightly lectures on the habits of Yosemite bears at the valley feeding platforms. Development of a wildflower garden behind the museum began with a monetary gift from Miss Marjorie Montgomery Ward in 1931. A lecture area in Camp 14 served as the principal location for Park Service evening programs in the valley during the summer beginning in 1932 with construction of a stage, platform, and benches for 1,500 people. Prior to that time, programs had been held in various other camp areas, utilizing meager facilities successively outgrown as the popularity of the programs increased. Both regular and seasonal employees continued to contribute to the storehouse of scientific knowledge about the park. In 1929, for instance, George M. Wright, assistant park naturalist at Yosemite, organized a central unit of wildlife investigators to survey the wildlife problems of the Park Service and recommend a broad policy of wildlife management. His work demonstrated the need for a Wildlife Division in the Washington office, created in 1933 and directed by Wright.

In 1928 the Secretary of the Interior, Hubert Work, aided by another Laura Spelman Rockefeller foundation grant, appointed a six-man Committee on Study of Educational Problems in the National Parks to evaluate the accomplishments of the Park Service's educational programs, recommend improvements, and determine further opportunities for educational service to the public in the national parks. This group of distinguished scientists and educators outlined basic Nature Guide principles, made recommendations on the organization and development of programs, and pointed out the Park Service's responsibilities and opportunities for education and research in the fields of history and science.

The committee recommended establishment of an advisory body to advise the director on educational matters and establishment of a division of education in the Washington office. In response, the next Secretary of the Interior, Ray Lyman Wilbur, established the National Park Service Educational Advisory Board to which he appointed most of the committee members, although the committee also continued to
function. Also upon their recommendation, Park Service Director Horace Albright established a Branch of Research and Education in the Washington office to administer educational programs in the parks. He appointed Dr. Harold C. Bryant Assistant Director of the National Park Service in charge of the Educational Department in 1930.

Albright had a strong interest in educational and interpretive programs. He spent much of his time trying to convince park superintendents to organize museums and interpretive programs. In 1930 and 1931 he secured increases in the Park Service appropriations for interpretive activities, including historical and scientific research projects. Under Bryant and Albright, the Park Service’s educational program thrived and became a major function of the bureau. 42

The educational advisory committee finally disbanded in early 1931. The Educational Advisory Board eventually merged into a permanent Advisory Board on National Parks, Historic Sites, Buildings, and Monuments. Congress authorized that board in 1935 through the Historic Sites Act to assist the Secretary of the Interior and the Park Service in formulating administrative policies and a broad program of study and preservation for the nation’s outstanding scenic, scientific, and historic areas. The board consisted of eleven members distinguished in specialized fields such as natural history, history, architecture, conservation, and planning.

The pioneer interpretive program inspired by the Goethes and launched at Yosemite became a highly significant conservation force by helping visitors understand and appreciate the chief features of national parks. It served as an example for all future educational development in this country's parks. Through the years, as the benefits of educating


42. Swain, Wilderness Defender, 201.
the public became clear, similar interpretative programs expanded into state and municipal parks and organized education programs were instituted in every major national park and monument. The educational program of the Park Service became an official and major function of the organization and gave new importance to the professions of historian, archeologist, and naturalist.

At Yosemite, further efforts to not only display the resources of the park but also interpret them for greater understanding and enjoyment through the years have resulted in establishment of a central museum and visitor center, a major research facility, a nature center at Happy Isles, and the Pioneer Yosemite History Center at Wawona. The support to the park's interpretive program from the Yosemite National History Association has furthered research efforts, expanded museum collections, and disseminated wider knowledge of Yosemite. Campfire circles, trailside museums and exhibits, and nature trails further inform park visitors about their surroundings and instill in them a stronger desire to protect our country's natural, historical, and archeological resources.43

E. Concession Operations

1. The Desmond Park Service Company (Yosemite National Park Company)
   a) The Desmond Company Receives a Concession Permit

   As stated previously, Stephen Mather disliked the competitive nature of park concessions up to this time. He believed strongly that the ruthless competition and resultant pressure exerted on tourists, and the shoddiness of most of the park business operations,

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detracted from the visitor's park experience in addition to being totally uneconomical. One licensed operator carefully supervised by the government, on the other hand, would result in less duplication, reduce the amount of park land tied up in business operations, and result in a stronger concession system. New capital could only be attracted to the parks, where normal business risks were compounded by short seasons, adverse weather, and peak-load problems if there were a guarantee of profit, such as could be ensured under a strictly regulated monopoly. The monopoly franchises Mather developed for the parks extracted either a fixed sum or one based on the number of customers or the amount of gross income as the fee for operating rights. Yosemite's contract contained an alternative profit-sharing plan.

In 1916 the Interior Department granted the newly organized Desmond Park Service Company a twenty-year concession to operate camps, stores, a dairy and garage, a saddle horse service, and transportation facilities in Yosemite National Park. Other provisions of the 1916 permit included construction of a hotel in Yosemite Valley and one at Glacier Point, maintenance and operation of at least three mountain "chalets" outside the valley, and construction of a new store and dairy, all to be ready for use no later than the beginning of the 1917 travel season. The destruction of the Black and Leidig hotels in 1888 and of the Stoneman House in 1896 had drastically depleted the number of visitor accommodations in the valley. For that reason, the old Sentinel Hotel had continued in use despite its decrepit condition.

44. Shankland, Steve Mather, 120-21.
45. Ibid., 126. Mather made every effort to keep his chosen concessioner operating in the black. As the Yosemite National Park Company began to falter economically, Mather personally loaned it $200,000 to try to keep it going. He retrieved the loan after formation of the Yosemite Park and Curry Company and never suffered particular criticism for what some considered an unwise political move. Ibid., 133.
The Desmond Company agreed to operate the old Sentinel Hotel until completion of its modern facility on the valley floor. That new structure would inaugurate General Superintendent Mark Daniels's plan for a new Yosemite Village that would have more unity of design and compatibility with its environment than the old one. The Tenaya Lake and Tuolumne Meadows chalets, a new class of visitor service, would provide accommodations for travelers on the Tioga Road, which the Department of the Interior planned to fully develop over the next year. This entailed the first step towards consolidation of a hodge-podge of individual permits into an organized concession operation controlled by one company.

The Desmond Company immediately purchased Camps Lost Arrow and Ahwahnee, the Yosemite Transportation Company (1 September 1916), J.W. Coffman's saddle horse business (9 May 1916), W.D. Thornton's store in the Old Village (1 August 1916) and S. Cummings's meat market (1 August 1916), and the assets of the Sentinel and Glacier Point (Mountain View House) hotels. Desmond discontinued camps Lost Arrow and Ahwanhee and established the new Yosemite Lodge, on the site of the old army camp, as a center of valley activity. Some of the buildings in the Yosemite Lodge area were moved from the Los Angeles aqueduct camps in Owens Valley around 1916 and used as rental units (the U-shaped and L-shaped units now used for employee housing). In April 1916 the Gutleben Brothers Construction Company converted an old army building at the former Camp Yosemite into lounge and dining facilities, constructed a laundry building and steam plant, a bathhouse, a swimming pool, temporary garage facilities, tennis courts and dance facilities, employee housing in Camp Tecoya east of the new lodge, and converted another old government building into the company's valley storehouse. That same year the firm erected the foundation and substructure for the Grizzly Hotel, the company's new valley accommodations, just south of the present government residential area.  

(The company never pursued the hotel's completion. In February 1924 park laborers recovered the stone in the old hotel foundation and filled in the basement excavation.) Also in 1916 Desmond established the new El Capitan Camp, although its dining room and lobby burned down the next season. Thereafter the tents in that camp were rented through Yosemite Lodge. 47

b) Desmond Constructs Forerunners of High Sierra Camps

Desmond also began construction of his mountain chalets, forerunners of the present High Sierra camps, in 1916. Until establishment of those facilities, the few tourists who ventured into the backcountry had to rely on a packtrain and packer or carry their equipment on their backs. The first method was costly and the second tiring. Mather's publicity trips into the high country to gain support for the parks had always been characterized by good food and various other creature comforts. It was this ability to view the beauties of nature without the attendant hardships of setting up camp and cooking that Mather wished to provide for all tourists. Heretofore, however, concessioners had been loathe to establish extensive camping accommodations in isolated sections of the park because of the expense and uncertainty of patronage. The newly created National Park Service, however, requested the camps in an attempt to draw visitors to the

47. Frank A. Kittredge to Einar Wismer, 26 November 1941, in Separates file, Yosemite-Concessions, Y-16c, Yosemite Research Library and Records Center. According to A.B.C. Dohrmann, a financial backer of Desmond, the 1917 fire destroyed all the main buildings of the El Capitan Camp, necessitating providing for all its guests and employees in the dining room and other buildings of Yosemite Lodge. Because it happened at the height of the tourist season and in the midst of Desmond's financial difficulties, it resulted in a second breakdown of Desmond's health and his consequent replacement by T.E. Farrow. A.B.C. Dohrmann, Chairman, Reorganization Committee, "History of the Yosemite National Park Co. and it's [sic] predecessor the Desmond Park Service Company. From the time of their financial embarrassment in 1916 up to the re-organization and re-financing as of January 1, 1920," in Report of Yosemite National Park Company—Successor to Desmond Park Service Company for years of 1917-1918-1919, in Yosemite Research Library and Records Center, 3.
Illustration 86.

Barracks moved from Owens Valley to Yosemite Lodge,

Illustration 87.

Glacier Point Hotel, constructed in 1917.
Yosemite high country and thus relieve the growing congestion in Yosemite Valley. Construction was rushed to complete lodges at Merced Lake, Tenaya Lake, and Tuolumne Meadows for the summer 1916 season.

Each "chalet" consisted of an eighteen by eighty-four-foot combination lounge, dining room, and kitchen building, largely frame roofed with canvas. Guest tents surrounded the main building. Staff at each camp consisted of a manager, cook, and fisherman. Although the first two lodges were well patronized during the 1916-17 season, few visited the Tuolumne Meadows Lodge, which Desmond closed early with the intent of removing it to a better site.

c) Yosemite National Park Company Formed

Desmond's financial difficulties began in the fall of 1916, as a result of building beyond the money available, and the company attempted recovery through formation of a reorganization committee. After Desmond went to pieces mentally and physically in July 1917, the reorganization committee designated Thomas E. Farrow to manage operations for the balance of the 1917 season. The Gutleben Brothers Construction Company constructed the Glacier Point Hotel on the rim of Yosemite Valley between 1916 and 1917. They accomplished the difficult task of transporting building materials to the site with the cooperation of the manager of the Yosemite Lumber Company. He ensured that materials arriving at El Portal over the Yosemite Valley Railroad were transferred to the special flatcars and pulled up the cable tramway to the top of the ridge above the Merced River. From there a shay locomotive took them over the logging railroad to Chinquapin, where a receiving and reloading station was established. There men loaded the material into wagons for the fourteen-mile haul by mule team to the hotel site. Early in July


49. C.T. Gutleben to John C. Preston, 8 June 1964, in Separates File, Yosemite—Concessions, Y-16c, Yosemite Research Library and Records Center.
1917, the Desmond Company opened the hotel, which proved very popular because of its panoramic view of the Yosemite gorge, its tributary canyons, Vernal and Nevada falls, and the high, rugged Sierra peaks. The valley power plant transmitted electrical energy for lighting. The shingle-covered structure resembled a Swiss chalet in design, possessing a steeply pitched roof, several gables, and balconies. Because of the unfavorable reputation acquired by the Desmond Park Service Company due to its inferior service in 1917, the company changed its name to the Yosemite National Park Company on 12 December 1917. At that time Desmond resigned and severed all connection with the company.

Early in 1918 insufficient capital remained to carry on the business. The High Sierra camps closed in that year. A Receiver took charge of the company on 26 February 1918 and operated the property until January 1920. Because there were insufficient funds to operate in the 1918 season, the Receiver contracted with the Shaffer brothers, who leased the properties from the Receiver to operate for the season of 1918 with an option to purchase at the end of that time. Dick Shaffer and his brother Hal put up $50,000 to enter the business, which involved running the El Portal stage line; sightseeing buses; an auto garage and shop; the Sentinel Hotel; Yosemite Lodge; the village store; pack trains and stables; the Merced Lake, Tenaya, and Tuolumne Meadows lodges; a barber shop; and a bake shop. The Shaffers ran them from 1 April to 1 October 1918. The Shaffers offered the company $400,000 for the Yosemite business, but Dohrmann and the other directors wanted

50. The Tuolumne Meadows camp on the Dana Fork of the Tuolumne River reopened in 1922. The largest and most popular High Sierra camp, it offers a store, a post office, a gas station, stables, and a public campground. The Merced Lake camp also reopened in 1922 as a sports-oriented boys camp with two tennis courts, two basketball courts, and a baseball diamond. The Curry Company rebuilt and expanded it in 1928. The Tenaya Lake camp closed in 1922. Some question exists as to whether each of the camps originally had stone kitchen structures. The Glen Aulin stone lodge was not built until 1935, while a 1923 inventory states Tuolumne Meadows had a frame and canvas lodge.
Illustration 88.

Map of Big Trees Lodge site, 17 July 1920, revised 1923.

NPS, Denver Service Center files.
$450,000. 51 The properties then reverted to the Receiver at the close of the 1918 season.

During the 1919-20 season, the Yosemite National Park Company erected a large garage and automobile repair shop and an attractive unit of wooden bungalows with bath facilities at Yosemite Lodge. It also erected Hetch Hetchy Lodge at Mather, which later became part of the Mather Recreation Camp, and a tent camp in the upper section of the Mariposa Grove (Big Trees Lodge), consisting of a rustic central cafeteria building around the base of the Montana tree and a group of portable wooden cabins and tents.

After much reorganization effort, including a new contract with the Department of the Interior and help with financial support from a group of men in San Francisco and Los Angeles, the receivership was lifted and a new board of directors elected, the reorganized company taking active charge on 1 January 1920. 52

During August 1920 the company closed the Sentinel Hotel and made extensive improvements in the form of additional baths and electrical heating and cooking installations in an effort to attract winter travel to Yosemite Valley. In 1921 the Yosemite National Park Company owned the Glacier Point Hotel, the Sentinel Hotel, Yosemite Lodge, a print shop, a garage, a general office building, Hetch Hetchy Lodge, a store, a photo studio, a meat market, the village post office, an equipment


warehouse, and a main warehouse. In 1922 the Yosemite Lodge complex included the main building, 35 double redwood cabins with bath, 30 single redwood cabins with bath, 116 redwood cabins without bath, and 198 canvas cabins, as well as 50 tents and one dormitory. The Big Trees Lodge had 14 wooden cabins. 53

d) Bear Feeding Expands

The increased visitation to Yosemite caused a variety of natural-resource related problems, not all of which concerned fire protection, meadow degradation, or river control. Attracted by campers' foodstuffs and the ever-expanding park garbage pits, bears began to make nightly camp raids. A barrage of visitor complaints prompted the National Park Service to begin a bear scrap feeding program in an effort to lure them away from visitor use areas. This basically comprised government institutionalization of a practice already followed by some of the early hotel owners as a popular form of visitor entertainment.

Knowing that they would be fed later in the day, bears began hanging around near the garbage pits during the day, begging from cars along the main park highways to fill the time between feedings. In 1923 the Yosemite National Park Company built a special feeding place for bears near the Merced River bank a mile below Old Yosemite Village. Hundreds of visitors collected there very night to watch the bears eat and play on an electrically-lighted platform. Park Service rangers even began putting on interpretive programs there in the evenings before the bears ate. By the early 1930s, bear feeding had become one of the summer's prime attractions.

The large number of bears and the large numbers of people were bound to start getting on each other's nerves. Careless visitors began to resent being scratched or clawed as they tried to feed


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the furry beggars and the valley hospital staff kept busy each season binding the wounds resulting from this interplay. Bears became less a "cute" attraction and more of a pest to the visiting public. In an attempt to reduce the accident rate and reintroduce the bears to wild food gathering, the Park Service prohibited feeding, teasing, or molesting the animals. The valley, however, simply did not contain enough natural resources to feed the number of bears living there. Also, as long as the pits and camp foodstuffs were available, the bears had no intention of moving on, and visitor-bear contact continued to pose problems.

Eventually the Park Service perceived the bears, which had lost their fear of man, as a significant threat to visitor safety. Coupled with an increased awareness of Park Service responsibilities for the preservation of wildlife in its natural state, this resulted in a phasing out of the scheduled, interpreted feeding of bears in the fall of 1940. At that time rangers also began trapping bears and moving them out of the valley.  

The Park Service's practice of dumping garbage in open pits and the later inadequate solid waste collection program resulted in an increase in black bear population numbers, wider distribution, and in continuing alterations of their natural wild habits. Even after bear feeding stopped, camp foodstuffs continued to attract bears, leading to property damage and personal injuries, resulting in turn in destruction of some bears and constant relocation of others. Efforts to prevent man-bear conflicts have consisted of public education, removal of artificial food sources, enforcement of bear feeding regulations and proper food

storage; control of problem bears, and continuing research on black bear population dynamics and their interrelationship with humans.\textsuperscript{55}

e) High Sierra Camps Reestablished

Also in 1923 Superintendent Lewis advocated reestablishment of the High Sierra camping service providing simple, cheap accommodations at minimum operating expense. T.E. Farrow of the Yosemite National Park Company accordingly projected plans for a series of "Hikers' Camps" Lewis sent his new park naturalist, Carl P. Russell, into the backcountry to locate appropriate campsites. Because of the beauty of their surroundings, the availability of water, and the fact that they were within a day's walk of each other, he selected campsites for the project at Little Yosemite Valley, Merced Lake, Boothe Lake (later Vogelsang, in a different location), the Lyell Fork of the Tuolumne, Tuolumne Meadows, Glen Aulin, and Tenaya Lake.

The Yosemite National Park Company proceeded to build the camps, and, by 1924, all of them except Lyell Fork and Glen Aulin consisted of a mess and cook tent and dormitory tents for men and women. Attendants and cooks worked at each place, and mules brought in equipment and supplies. Because the company offered these facilities at a low price, they became very popular. In 1925, after the merger of the Yosemite National Park Company with the Curry Camping Company, the camps were retitled High Sierra camps because of their growing popularity with saddle parties as well as hikers. A new camp beside White Cascade at Glen Aulin began operating in 1927. Because of a mosquito problem, the camp later moved to a valley to the east. The camps were not money-making ventures, but profits in overall concession activity covered the losses, which the company deemed acceptable because of the convenience and service such facilities afforded the public.

\textsuperscript{55} Natural Resources Management Plan, 1977, 24, 26.
The High Sierra camps have been significant as an innovative concept luring more people into the backcountry and represent a successful joint effort by the National Park Service and the concessioner to encourage travel beyond the roads and thus enhance visitor appreciation of the wilderness areas of the park. Their establishment also helped implement the Interior Department's policy of making remote areas of the park more accessible. Another aspect of the 1923 reopening of the camps involved Steven Mather's strong desire to implement the Park Service's interpretive responsibilities in the high country. The park established a pattern of interpretive service there by initiating backcountry Nature Guide trips to the camps. Despite the initially small number of visitors exposed to this service, Mather and park officials believed that a naturalist talking to the same people day after day, amidst the superlative peaks and meadows of the backcountry, could probably exert a strong and long-lasting influence on the formation of positive visitor attitudes toward national parks and conservation in general.

There are today seven camp locations, two of them--at White Wolf and Tuolumne Meadows—accessible by auto. The other five camps--May Lake, Glen Aulin, Sunrise, Vogelsang, and Merced Lake—comprise the highly popular High Sierra Loop. Each of the camps is located in a beautiful setting, usually near water or on the edge of a mountain or meadow, and each one provides comfortable accommodations in the form of permanent beds in cement-floored tents, a dining tent, and hot showers and flush toilets. Since 1925 the Yosemite Park and Curry Company has owned and operated the camps. They have been criticized in recent years because of the sanitation problems they pose, the impact on backcountry trails of large numbers of campers, the resulting erosion, and their generally negative impact on the area's ecology.56

56. The camps have accomplished the purpose of enticing visitors out of the valley, but many environmentalists now believe attempts should be
Illustration 89.
May Lake High Sierra camp, showing stone cookhouse and dining room.
Photo by Paul Cloyd, 1986.

Illustration 90.
Merced Lake High Sierra camp barn, still in use.

Illustration 91.
Merced Lake High Sierra camp ice house.
f) Yosemite National Park Company Holdings, 1924

In 1924 an appraisal inventoried the Yosemite National Park Company holdings. In the Old Village these consisted of the Sentinel Hotel; River, Ivy, Locust, Cedar, Oak, Bluebird, Oriental, Fox, Rock, and Hope cottages (see Appendix F); plus various employee quarters, a general office, an architect's office, a general store and warehouse, a print shop, an ice house, an employee laundry, a store manager's residence, a meat market, Wiggle Inn, an employee dormitory, and a toboggan slide.

The Yosemite Lodge wood section consisted of the administration building, auto shelters, a bathhouse and dressing rooms, a laundry and boiler house, a laundry office and tailor shop, a linen room, a barber shop, a public bath and employee quarters, a motion picture booth, a stage, a linen supply room, toilets, a storehouse, a dance pavilion and music stand, and a swimming tank. The lodge canvas

56. (Cont.) made to remove these areas of intense concentration and disperse people more throughout the backcountry. They question whether this is legitimate backcountry use or even a genuine backcountry experience. Interestingly enough, Chief Naturalist Carl Russell once stated:

It is unthinkable that any camp shall become so popular as to render it a saturated center overrun by people. Heavy use, of course, would ruin the atmosphere which distinguishes the favored spots and actually would destroy some of the natural attributes which make the High Sierra Camp experience delectable.


Initially the lack of "entertainment" such as visitors experienced at Camp Curry, the rather primitive accommodations, and the sometimes arduous trip to reach the camps kept down the number of visitors. With the initiation of interpretive work in the camps and on the trails between them, however, it became inevitable that ever-increasing numbers would come. This has created new demands on the facilities, such as expanded sewage treatment, that would eventually compromise their existence.
section contained men's and women's bathhouses, linen rooms, toilets, a telephone and ticket office, and a tennis court.

Camp Tecoya had a cafeteria and kitchen, an employee laundry, toilets, employee quarters, an office, a linen room, a women's recreation room, a storeroom, a pump house, and a covered walk. The Glacier Point Hotel group consisted of the hotel, an annex, a gas and oil house, a barn, and outhouses.

At that time the company's Warehouse Group included an office and warehouse, two other warehouses, a warehouse and print shop, a lumber shed, a paint shop, a storage shed, employees' quarters, and an electric, plumbing, and carpenter shop. Its Garage Group consisted of a garage, a gas and oil station, car sheds, a paint shop, and toilet buildings. Housekeeping Camp 17 contained the main housekeeping building, a curio and cigar stand, and two warehouses. The Stable Group contained an office, a blacksmith shop, employees' quarters, various sheds, stables, storerooms, and saddle houses, along with a gas station and stalls and feed racks.57

The Ahwahnee row houses built during the 1922 to 1924 period in Housekeeping Camp 17 are a series of six houses originally built with the same interior plan but different exterior fabrics—hollow tile, boards and rails, stone, processed metal, stucco, and rustic logs and boards. They were built by the Yosemite National Park Company as employees' quarters, although the reason for the different exterior coverings is uncertain. Possibly they were a test of weathering action on different surfaces or of methods of insulation.

57. The American Appraisal Co. (Milwaukee, Wisconsin), “Appraisal Inventory of the Yosemite National Park Co.: Group A: Yosemite Village (vol. 2); Group B: Yosemite Lodge Wood Section (vol. 4); Group C: Yosemite Lodge Canvas Section (vol. 5); Group D: Camp Tecoya, and Group E: Tecoya Annex (vol. 6); Group F: Warehouse Group, Group G: Garage, Group H: Houskeeping Camp 17, Group J: Stables (vol. 7); and Group Q: Glacier Point Hotel (vol. 8), 30 June 1924, in Yosemite Research Library and Records Center.
Illustration 92.

Plat of Group A, Yosemite Village, showing operations of Yosemite National Park Company, 30 June 1924. This and the following plats are from the appraisal inventory of the Yosemite National Park Company by the American Appraisal Company of Milwaukee, Wisconsin, in Yosemite Research Library and Records Center.

<table>
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<tbody>
<tr>
<td>Building</td>
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<tr>
<td>A/1</td>
<td>Sentinel Hotel</td>
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<td>A/2</td>
<td>Toilet Room</td>
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<tr>
<td>A/3</td>
<td>River Cottage</td>
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<tr>
<td>A/4</td>
<td>Employees Quarters</td>
</tr>
<tr>
<td>Rear</td>
<td></td>
</tr>
<tr>
<td>Building</td>
<td></td>
</tr>
<tr>
<td>A/4</td>
<td></td>
</tr>
<tr>
<td>A/5</td>
<td>Ivy Cottage</td>
</tr>
<tr>
<td>A/6</td>
<td>Locust Cottage</td>
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<td>General Office</td>
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<tr>
<td>A/8</td>
<td>Architects Office</td>
</tr>
<tr>
<td>A/9</td>
<td>Employees Quarters</td>
</tr>
<tr>
<td>A/10</td>
<td>General Store and Warehouse</td>
</tr>
<tr>
<td>A/11</td>
<td>Cedar Cottage</td>
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<td>Oak Cottage</td>
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<td>Building</td>
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<td>A/13</td>
<td>Bluebird Cottage</td>
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<td>Print Shop</td>
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<td>A/15</td>
<td>Oriental Cottage</td>
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<td>A/16</td>
<td>Old Ice House</td>
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<tr>
<td>A/17</td>
<td>Fox Cottage</td>
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<tr>
<td>A/18</td>
<td>Employees Laundry</td>
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<tr>
<td>A/19</td>
<td>Rock Cottage</td>
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<tr>
<td>A/20</td>
<td>Store Managers Residence</td>
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<tr>
<td>A/21</td>
<td>Hope Cottage</td>
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<tr>
<td>A/22</td>
<td>Meat Market</td>
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<td>A/23</td>
<td>Wiggle Inn</td>
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<tr>
<td>A/24</td>
<td>Employees Dormitory</td>
</tr>
<tr>
<td>A/25</td>
<td>Toilet</td>
</tr>
<tr>
<td>A/26</td>
<td>Vault</td>
</tr>
<tr>
<td>tK/21</td>
<td>Toboggan Slide</td>
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</table>

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Illustration 93.

Plat of Group B, Yosemite Lodge wood section, Yosemite National Park Company, 1924.

<table>
<thead>
<tr>
<th>Buildings</th>
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<tr>
<td>B/1</td>
<td>Yosemite Lodge Administration Building</td>
</tr>
<tr>
<td>B/2</td>
<td>Auto Shelter</td>
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<tr>
<td>B/3</td>
<td>Auto Shelter</td>
</tr>
<tr>
<td>B/4</td>
<td>Bath House and Dressing Rooms</td>
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<tr>
<td>B/5</td>
<td>Laundry and Boiler House</td>
</tr>
<tr>
<td>B/6</td>
<td>Laundry Office and Tailor Shop</td>
</tr>
<tr>
<td>B/7</td>
<td>Linen Room</td>
</tr>
<tr>
<td>B/8</td>
<td>Barber Shop, Public Bath and Employee Quarters</td>
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<tr>
<td>B/9</td>
<td>Motion Picture Booth</td>
</tr>
<tr>
<td>B/10</td>
<td>Stage</td>
</tr>
<tr>
<td>B/11</td>
<td>Linen Supply Room</td>
</tr>
<tr>
<td>B/12</td>
<td>Toilet Building</td>
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<tr>
<td>B/13</td>
<td>Toilet Building</td>
</tr>
<tr>
<td>B/14</td>
<td>Toilet Building</td>
</tr>
<tr>
<td>B/15</td>
<td>Store House</td>
</tr>
<tr>
<td>B/16</td>
<td>Dance Pavilion and Music Stand</td>
</tr>
<tr>
<td>B/17</td>
<td>Swimming Tank</td>
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Illustration 94.

Plat of Group C, Yosemite Lodge annex, Yosemite National Park Company, 1924.

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<td><strong>Yosemite Lodge</strong></td>
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<tr>
<td><strong>Canvas Section</strong></td>
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<tr>
<td>C/1</td>
<td>Mens Bath House</td>
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<td></td>
<td>Linen Room</td>
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<td>C/2</td>
<td>Mens Toilet</td>
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<tr>
<td>C/3</td>
<td>Womens Bath House</td>
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<tr>
<td>C/4</td>
<td>Linen Room</td>
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<td>C/5</td>
<td>Linen Room</td>
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<td>C/8</td>
<td>Linen Room</td>
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<td>C/9</td>
<td>Womens Toilet</td>
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<tr>
<td>C/10</td>
<td>Mens Toilet</td>
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<tr>
<td>C/11</td>
<td>Tennis Court</td>
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<tr>
<td>C/12</td>
<td>Telephone and Ticket Office</td>
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Illustration 95.

Plat of Group D and E, Camp Tecoya and Camp Tecoya Annex, Yosemite National Park Company, 1924.

**SCHEDULE**
Showing Building Designation and Occupancy

<table>
<thead>
<tr>
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</tr>
<tr>
<td>Camp Tecoya</td>
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</table>

| D/1       | Cafeteria and Kitchen                         |
| D/2       | Employees Laundry                              |
| D/3       | Mens Toilet                                   |
| D/4       | Boiler Room and Ladies Toilet Building        |
| D/5       | Womens Toilets                                |
| D/6       | Employees Quarters                            |
| D/7       | Employees Quarters                            |
| D/8       | Tecoya Office                                 |
| D/9       | Linen Room                                    |
| D/10      | Womens Recreation Room                        |
| D/11      | Ladies Toilet Building                        |
| D/12      | Storeroom                                     |
| D/13      | Toilet Building                               |
| D/14      | Employees Quarters                            |
| D/15      | Employees Quarters                            |
| D/16      | Employees Quarters                            |
| D/17      | Pump House                                    |
| D/19      | Covered Walk                                  |
Illustration 96.


<table>
<thead>
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<td>Office and Warehouse</td>
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<td>F/2</td>
<td>Warehouse</td>
</tr>
<tr>
<td>F/3</td>
<td>Warehouse and Print Shop</td>
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<td>Warehouse</td>
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<td>Lumber Shed</td>
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<td>Paint Shop</td>
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<td>F/7</td>
<td>Storage Shed</td>
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<td>F/8</td>
<td>Employees Quarters</td>
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<tr>
<td>F/9</td>
<td>Electric, Plumbing and Carpenter Shop</td>
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Illustration 97.

Plat of Group G, Garage Group, Yosemite National Park Company, 1924.

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<td>G/2</td>
<td>Gas and Oil Station #1</td>
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<td>G/3</td>
<td>Car Shed</td>
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<td>Car Shed</td>
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<td>Car Shed and Paint Shop</td>
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<td>G/6</td>
<td>Toilet Buildings</td>
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Illustration 98.

Plat of Group H, Housekeeping Camp #17, Yosemite National Park Company, 1924.

**Schedule**

Showing Building Designation and Occupancy

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<td>Building</td>
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<td>H/1</td>
<td>Housekeeping and Main Building</td>
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<td>Curio and Cigar Stand</td>
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<tr>
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<td>Warehouse</td>
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<td>H/4</td>
<td>Warehouse</td>
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Illustration 99.

Plat of Group J, Stables, Yosemite National Park Company, 1924,

**SCHEDULE**

**Showing**

**Building Designation and Occupancy**

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<td>Storeroom</td>
</tr>
<tr>
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<tr>
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<tr>
<td>J/12</td>
<td>Employees Quarters</td>
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<tr>
<td>J/14</td>
<td>Saddle House</td>
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<tr>
<td>J/15</td>
<td>Saddle House</td>
</tr>
<tr>
<td>J/16</td>
<td>Gas and Oil Station</td>
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<tr>
<td>J/17</td>
<td>Toilet</td>
</tr>
<tr>
<td>J/18</td>
<td>Outside Stalls and Feed Racks</td>
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646
Illustration 100.

Plat of Group Q, Glacier Point Hotel site, Yosemite National Park Company, 1924.

<table>
<thead>
<tr>
<th>Buildings</th>
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<tr>
<td>GROUP Q</td>
<td>Glacier Point Hotel</td>
</tr>
<tr>
<td>Building</td>
<td>Glacier Point Hotel</td>
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<tr>
<td>Q/1</td>
<td>Glacier Point Hotel</td>
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<tr>
<td>Q/2</td>
<td>Hotel Annex</td>
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<td>Q/3</td>
<td>Gas and Oil House</td>
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<tr>
<td>Q/4</td>
<td>Barn</td>
</tr>
<tr>
<td>Q/7</td>
<td>Outhouse</td>
</tr>
<tr>
<td>Q/8</td>
<td>Outhouse</td>
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</tbody>
</table>

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Illustrations 101-4.

2. **The Curry Camping Company**
   a) The Company Continues to Grow

   By 1916 Camp Curry's capacity had grown to 1,000 guests, with a total guest count of more than 10,000 for the season. Two significant structures—the Foster Curry cabin (1916) and Mother Curry's Bungalow (1917)—were constructed at that time. Jennie F. Curry managed and operated Camp Curry after the death of her husband David in 1917. Her son, Foster Curry, aided her in that task, although not always beneficially. Horace Albright, acting director in 1917, sympathized with Mrs. Curry's desire for a five-year contract and the restoration of the popular firefall, and persuaded Secretary Lane to grant both wishes. After that, relations between the Curry operation and the federal government remained fairly stable.

   b) Mrs. Curry Has the LeConte Lodge Moved

   By 1918 the Curry Company was growing increasingly at odds with the Sierra Club, whose members often camped behind the LeConte Memorial Lodge to hear the nature programs, many of them Curry-sponsored. The problems began when Sierra Club members began using some of the Camp Curry facilities without paying, and the situation became even more strained when the Currys acquired the privilege of building canvas bungalows with baths, which they decided to locate in the area near the lodge. In the face of strong objections by the Sierra Club that such a project would be intrusive on the LeConte lodge area, Mrs. Curry paid the Gutleben Brothers Construction Company to move the memorial to a new site across from the Curry housekeeping unit, which it did in 1919.

   Because the entire granite structure could not be moved, only the roof and some of the building stones went to the new location, where the Gutlebens erected a structure that was half original and half replica. Today it has walls faced with coursed ashlar granite and a steeply pitched hip roof of hand-split cedar shingles. The smaller wings at each side, centered on a walled, stone-paved entrance terrace, each contain a small room. Also in 1919 the University of California instituted
free LeConte Memorial Lectures to be given during the summers at the lodge.

The original walls, floor, steps, and fireplace left behind at Camp Curry became the scene of Mary Curry's wedding to Donald Tresidder in June 1920. The walls ultimately fell, but the steps remained visible for a while, south of the "Kiddie Kamp." Today only crumbling vestiges of them remain.

The northern terminus of the John Muir Trail, the LeConte Lodge is the oldest of the Sierra Club lodges, housing a small mountaineering library, historical and educational photos, Galen Clark's personal library, and general information on conservation, national parks, and the High Sierra. David A. Curry and Francois Matthes arranged another memorial by collecting rocks from various glacial moraines and placing them in a cairn marking the spot where LeConte died. Years later the rocks were moved near Mrs. Curry's bungalow, where they remain. 58

c) New Construction Activity

In 1918 new construction at Camp Curry consisted of the bungalow cottages, a studio, a storehouse, a repair shop, an office addition, and a bowling alley and social hall. Actually the company built forty-eight bungalow units with baths between 1918 and 1922, designed in the rustic style as smaller versions of the Mother Curry bungalow and the Foster Curry cabin. The 1919 season brochure also mentioned such amenities as the modern bathhouse, the swimming pool, a barber shop, manicure and hair dressing parlors, and a modern steam laundry. 59 As mentioned, after repeated applications for a longer concession term and additional privileges, the Curry Company finally acquired from the


Illustration 105.
Sites occupied by permittees in Yosemite Village, May 1924.
Interior Department a contract for a nineteen-year period beginning in January 1920. In that year improvements consisted of a new transportation office, a movie booth, an ice plant, a bathhouse, a 200-car storage garage, an auto repair shop, a post office building, a linen building, a telephone and telegraph station, a transformer building, and two new bungalows, plus office and sawmill additions. In the autumn of 1921, Foster Curry's two sisters and their husbands, backed by the financial supporters of the company, effectively eliminated him from further connection with the company because of his unsatisfactory management of business affairs. At that time the husbands, Don Tresidder and Robert Williams, became assistant managers under Mrs. Curry, who remained president and general manager of the operation. In 1921 the tent bungalows were altered to frame structures. Assets in 1922 included an office, dining room, bakery, ice plant, candy kitchen, studio and soda fountain, laundry, bathhouses, pool, auditorium, bowling alley and pool hall, women's club, men's dorm, storehouses, a linen building, a post office, and bungalows. During 1923 the Curry Company erected a new store building. One-room, non-bath, wooden frame cabins and more tent frames were added in 1924.

When the Interior Department gave the Desmond Park Service Company its comprehensive contract in Yosemite, it also allowed the small businesses operating in the park to continue during the lives of their owners. Those businesses included Degnan's bakery and the Pillsbury, Foley, Boysen, and Best studios. The department also allowed

60. Robinson, "History of Business Concessions," "Curry Camping Company," 3-4. The original post office was a log structure with a shingle roof overhanging a veranda that encircled the building. It has been altered several times, and in the mid-1950s a space was added on the north side to house the registration office. The post office function has since moved to the lounge. USDI, NPS, Western Regional Office, "Design Criteria for the Camp Curry Historic District, Yosemite Valley, Yosemite National Park, California," 1980, typescript, 13 pages, 2.

Camp Curry to continue independently because it was a family operation, although unlike the others it was large in size and extremely competitive. Originally the department thought that Desmond would absorb Camp Curry, but that never came to pass. Allowing two large, independent concessioners to compete for tourist dollars did not lead to a stable concession situation. It undoubtedly led to the failure of the Desmond Company and created many problems for the Park Service.

d) Yosemite Park and Curry Company Formed

During 1924 discord between the Yosemite National Park Company and the Curry Camping Company rose to the surface, taking the form of constant bickering, numerous petty complaints, and unpleasant accusations. Irritated by this constant turmoil, Superintendent Lewis, Park Service Director Mather, Assistant Director Albright, and the new Secretary of the Interior, Hubert Work, in accordance with Interior Department policy to establish soundly financed companies in the parks, decided that the rival companies should merge. In fact, Work gave Mather an ultimatum—either the companies merge or be replaced. Albright carried out the final negotiations.

In 1925 the Yosemite National Park Company and the Curry Camping Company combined to form the Yosemite Park and Curry Company (YP&CC). Don Tresidder became president and general manager. The Interior Department authorized the company, on a preferential right basis, to handle transportation, saddle and pack horses, meals, hotels and camps, photographic supplies, stores, garages, a laundry, and all other services needed or prescribed by the Secretary of the Interior. (Although today the Yosemite Park and Curry Company conducts practically all the Yosemite business enterprises, the Secretary of the Interior regulates and controls its business, by limiting its commercial activities, specifying the location of facilities, defining the standards of service, and approving rates.) Tresidder immediately put

the business on a corporation basis and made efforts to standardize services for the sake of economy. The permits of smaller concessioners were still tolerated, by permission of the new company, on the understanding that those smaller operations would not be enlarged and would lapse upon the death of their holders. The new company purchased the assets of Pillsbury upon his retirement and of Boysen upon his death. The Foley operations gradually discontinued after Mr. Foley's death, while Degnan's and Best's continued to operate.

In 1925 the newly organized Yosemite Park and Curry Company kept busy planning construction of a new hotel on the site of the Kenneyville stables. After the consolidation of the two companies, the laundry equipment at Camp Curry was moved to Yosemite Lodge, where the company built extensions on the building. It also constructed a new stable in Camp 12. A 1925 appraisal of the Camp Curry operation inventoried the following structures in the complex: a studio, store, and soda fountain; a dining room and kitchen; a vegetable room; a main office; a laundry and bathhouses; a swimming pool; a transportation building; an auditorium; a pool hall; a dormitory; a repair shop; residences for Mrs. Curry, Mr. Tresidder, Mr. Charles H. Petersen (company auditor), and a Mr. Carrol; toilets; a clubhouse; a sawmill; a cabinet shop; and bungalows.

In 1926 fire partially destroyed the dining room wing of Yosemite Lodge. In that same year the Yosemite Park and Curry Company bought out the Yosemite Stage and Turnpike Company interests. The six-story, all-year Ahwahnee Hotel opened in 1927 on the former site of Kenneyville, near Royal Arches. Scheduled to provide an additional 300 bungalows in the surrounding grove, it became an important asset to the newly formed company, finally meeting visitor demands for the finest

Illustration 106.

Plat, Camp Curry. From appraisal summary by the American Appraisal Company of Milwaukee, Wisconsin, 30 July 1925, in Yosemite Research Library and Records Center.

<table>
<thead>
<tr>
<th>Buildings</th>
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<tr>
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<tr>
<td>A/3</td>
<td>Dining Room and Kitchen</td>
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<tr>
<td>A/3-A</td>
<td>Vegetable Room</td>
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<tr>
<td>A/4</td>
<td>Main Office</td>
</tr>
<tr>
<td>A/5</td>
<td>Laundry and Bath House</td>
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<tr>
<td>A/6</td>
<td>Swimming Pool</td>
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<tr>
<td>A/11</td>
<td>Repair Shop</td>
</tr>
<tr>
<td>A/12</td>
<td>Mrs. Curry's Residence</td>
</tr>
<tr>
<td>A/13</td>
<td>Toilet and Bath House</td>
</tr>
<tr>
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<td>Toilet</td>
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<tr>
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<tr>
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<td>Club House</td>
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<tr>
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<td>A/19</td>
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<td>Mr. Carroll's Residence</td>
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Bungalows
luxury hotel service possible. Architect Gilbert Stanley Underwood of Los Angeles constructed a beautiful building of reinforced concrete and steel with a visual appearance suggesting timber and granite that blended well with the environment. The outstanding decorative American Indian motifs that have been worked into the interior of the hotel, and its conformity on the exterior with the rugged granite walls of the surrounding cliffs, make it one of the finest hotels in any national park in America, a milestone in the rustic architecture movement.

In 1928 the Interior Department approved plans for four dormitories, a heating plant, and a laundry in the Tecoya area, designated for Curry employee housing, and for seventeen bungalows at the Ahwahnee. Construction also started on six-room cottages in Camp 17, a reinforced concrete bridge over Indian Canyon Creek, and four garages. The department approved plans for a new Curry dining room, kitchen, and cafeteria that same year. The structures were finished a year later.64 In early 1928, A.C. Pillsbury decided to sell his Yosemite interests rather than rebuild his theatre after the heavy loss he sustained by fire. The Yosemite Park and Curry Company agreed to purchase his holdings. The open-air dance floor in the Old Village, which had been enclosed as a meeting place, subsequently served as the valley movie theater.

e) The Company Initiates a Winter Sports Program

The problem of how to sustain winter operations became a serious one for the new company with the completion of the Ail-Year Highway to Yosemite in 1926 and the opening of the Ahwahnee Hotel. Its directors decided to undertake winter sports development to promote more travel and make it possible to keep the new hotel functioning year round. In 1920 Tressider had hired a Swiss, Ernst des Baillets, who had been successful promoting winter development at Lake Pladd in New York State, to organize skiing, skating, ice hockey, and other winter sports.

Illustration 107.
Tecoya employee housing area, 1930.
*UPS*, Denver Service Center files.
Illustration 108.

Plat, Camp Curry, 1930.

NPS, Denver Service Center files.
Illustration 109.
Snow Creek cabin, view to southwest.

Illustration 110.
Snow Creek cabin, view to northeast.
The YP&CC formed the Yosemite Winter Club in 1928, the pioneer California winter sports organization. Its objects were the general development of winter sports, the promotion of amateur competition, and continued improvement of Yosemite's winter facilities. Other improvements included an ice rink formed by sprinkling the Camp Curry parking area and a new toboggan slide built in 1927 west of the camp. The older slide became the enjoyable ride referred to as "Ash-Can Alley." During the late 1920s and early 1930s, the company kept horses in the valley for sleighing and ski-joring in Stoneman Meadow, which also provided a field for dog teams. Figure skating contests and ice carnivals were held frequently. Tresidder developed the moraine near Tenaya Creek Bridge into a temporary ski hill and later installed a jump. Areas along the Big Oak Flat and Tioga roads catered to skiers when the valley had insufficient snowfall.

The Yosemite Park and Curry Company believed that High Sierra ski tours would greatly increase the scope of winter sports in Yosemite, and, in entering that pioneer field, devised crosscountry ski tours of two to six days, the first time such tours were attempted in the United States. It remodeled the little Glacier Point Mountain House for winter use and, in 1929 built an experimental ski cabin on the shoulder of Mount Watkins above Snow Creek, initiating the first hut system for ski-mountaineering in the Sierra. The cabin was enlarged in 1930. The hut would function as a starting place for tours of the High Sierra camps, which would also be developed with a series of ski huts similar to those used in the European Alps. Eldridge T. Spencer of San Francisco drew the cabin plans, with Dr. Tresidder making suggestions drawn from a book of pictures and plans of Swiss mountain huts. Visitors arrived at the cabin on horseback, snowshoes, foot, and skis for the start of ski tours, which ran from Mount Watkins to Snow Flat and from the cabin to Tenaya Lake and Tuolumne Meadows. The Park Service allowed the Tenaya Lake and Tuolumne Meadows ranger cabins to be stocked and used in the winter as bases for those skiing expeditions. A ski school started at Yosemite in 1928, with professional instructors and ski guides providing competent ski instruction. As it turned out, ski touring did
not catch on as expected, while downhill skiing on packed slopes became ever more popular. The park even made a bid in 1929 to host the 1932 Olympics, but was turned down in favor of Lake Placid.

f) Concession Atmosphere Changes with Increased Tourism

Some critics found the developments at Camp Curry during the 1920s disturbing. The consolidation of companies in 1925 resulted in an increase in size and activity that changed the former homey, wholesome, and delightful camp atmosphere. The area next to the valley's south wall that had gracefully accommodated the original small tent camp had trouble accepting increased numbers of tents and other structures. Many of those structures, such as the new dining room and cafeteria, were intended to attract not only Camp Curry customers but guests from other units and the campgrounds. The early evening campfire programs that gained their traditional appeal from guest performances, singing, and storytelling, were soon invaded by paid entertainers. The increased number of people seemed to call for more amusements and a carnival atmosphere developed with the addition of exotic types of entertainment such as dancing to draw and hold crowds. 65

3 The Wawona Hotel Company

The directors of the Wawona Hotel Company met in San Francisco in the summer of 1917 and agreed on the need for more improvements to the complex. That decision resulted in the addition of a nine-hole golf course, of a swimming pool, and construction of the Annex, completed in the spring of 1918. A tennis court had also been built by 1917. The improvement program of 1917-18 comprised an attempt by the hotel's owners to attract the patronage of automobile travelers, a new class of visitor demanding more modern amenities than earlier tourists.

Illustration 111.

Wawona slaughterhouse.

Also in 1917, the Hill Studio became a clubhouse, with the section facing the tennis court becoming a soda fountain and the middle section serving as a dance hall. Clarence Washburn noted that the Big [Tree?] Creek Bridge was finished in October 1917 and the Indian Bridge in July 1921. The latter might have been the new bridge over to the fish hatchery, although Washburn later wrote that that particular structure had not been completed until August 1921. The old Wawona laundry also came down, in 1919.  

In March 1920 the hotel's directors decided on further improvements to the Wawona group, including demolition of the old store and construction of three new buildings, none of which is extant. The company began work on the men's bunkhouse and a refrigerator plant in April 1920. It also started the Girl's House, later known as the Sequoia Building, that month, northeast of the main hotel, and finished it two months later. Designed to house the hotel's female employees, it served as a dormitory during 1920-25. In 1926 it opened to the public, along with a coffee shop, but due to a drop in business, in 1931 again began housing seasonal employees. Fire destroyed it in November 1977.

A second store, begun in March 1920 on the approximate location of the first one, contained a butcher shop and smokehouse, it burned about 1943-44. Another tennis court, constructed in 1922, along with a croquet court added in 1914, provided additional recreational opportunities for guests. The tennis court was probably demolished in 1937 when a new one was built.  

66. Wawona Washburn Hartwig, comp., "Clarence A. Washburn Diaries—Repairs-Improvements (Buildings and Grounds, 1914-1934)," in Yosemite Research Library and Records Center. This document states that the company was erecting a new slaughterhouse and tearing down the old one in the summer of 1927, although other sources state the new slaughterhouse did not go up until 1929.

A nearby competitor for the Wawona Hotel—the Sierra Lodge—was established by Jack Menniceni in 1920 in Section 35. Most of the improvements on that tract had been constructed by Ed Quigg about 1912, who used the premises for dining, dancing, and saloon purposes. Menniceni bought the property in 1920 and built an addition to the dance hall. He then established a camp for summer visitors. The venture proved unprofitable. A bank took over the property and in 1929 sold it to Sara Scroggs as a summer youth camp. The Park Service acquired the property in the late 1940s and razed the buildings. 68

In 1923 the Shell Oil Company established a service station at Wawona, which, along with a garage and repair shop, enabled the complex to better serve the touring public. The first aviation field in the High Sierra was established on the Wawona meadow in 1925, to be used as an emergency landing field for army aviators and as a regular landing field for government forest patrol flyers. In 1926 daily airplane service from San Francisco commenced. A new slaughterhouse, later turned into a tool shed at the end of the golf course, built in 1929 processed the hotel's cattle, sheep, and hogs. It evidently replaced one built in 1920 that in turn had replaced an older structure. 69

4. Best Studio

Snow destroyed the Best Studio in 1921, but the Bests rebuilt it. In 1923 Best incorporated the business. The New Yosemite Village plan of 1923, which would place administrative and commercial activities on the north side of the valley, incorporated H.C. Best's Studio. Construction on the three studios in the New Village began the end of 1925, with the studios in the Old Village razed in early 1926. Structures

68. Information from Sara Scroggs file, Wawona, Drawer 14, Yosemite Research Library and Records Center; Whittaker, Archeology in Yosemite National Park, 28. The Park Service had considered installing a housekeeping camp on the property.

in the Best Studio complex included a darkroom, two duplex residences, and a garage. The couple's daughter, Virginia, married Ansel Adams, destined to become a renowned photographer, in 1928. After Best's death in 1936, the Adamses returned to the valley to run the studio. It still operates today as the Ansel Adams Gallery, offering photographs by Adams, books on the Yosemite area, and Indian goods.

5. **Pillsbury Studio**

In 1907 Arther C. Pillsbury bought out the interests of the Hallett-Taylor Company and changed the name to "Pillsbury's." After a fire destroyed his theater, Pillsbury sold his photo studio to the Yosemite Park and Curry Company in early 1928. It became the Lost Arrow Studio at the New Village.

6. **Fiske Studio**

In November 1918 George Fiske committed suicide at his studio on the Merced River north of the foot of the Four-Mile trailhead. Fiske was the last great Yosemite photographer of the nineteenth century, for by the late 1800s, the introduction of Eastman Kodak cameras was making tourist-oriented photo studios obsolete. By special permission of the National Park Service, Fiske was buried in the Yosemite Valley cemetery, between his wife and Galen Clark. Later the Curry Camping Company purchased all Fiske's personal property, including the stock on hand in his studio and his negatives and cameras. Fiske was a well-known figure in Yosemite for thirty years and highly respected for his mountain pictures.

7. **Baxter Studio**

In the 1920s, Ed Baxter ran a studio and photo shop in the old Galen Clark cabin near Big Trees Lodge.

F. Patented Lands

1. Yosemite Lumber Company

During 1916-17 the federal government, continuing the exchange of timber it owned in remote park areas for land and timber owned by the Yosemite Lumber Company and the city and county of San Francisco along park highways and in other scenic spots, acquired nearly 7,000 acres, or more than thirty percent of the privately owned lands in the park. Through these congressionally authorized exchanges, the government tried to protect the scenic beauty of Yosemite's roads. It also attempted to protect Yosemite's forests by specifying that timber traded to the lumber companies be logged under strict supervision and in ways that insured an immediate second-crop growth. The time was rapidly approaching, however, when there would no longer be sufficient government land available to effect such exchanges. Furthermore, the first public pressure for the elimination of logging operations in the park began to be felt.

During the 1923 season the government acquired a 160-acre tract in Little Yosemite Valley, owned by the Yosemite Stage and Turnpike Company, through an exchange agreement with the Yosemite Lumber Company by which the government transferred title to timber in the western portion of the park in the Cottonwood Creek section. The government had long wanted to acquire the Little Yosemite Valley land for administrative purposes—to serve as a Happy Isles-Vernal Fall-Little Yosemite Valley-Tioga Road connecting link. Civilian Ranger Archie Leonard had deeded this land, also known as the Washburn quarter-section, to the stage company in October 1891.

By the fall of 1923, Yosemite Lumber Company logging crews had exhausted the timber supply on the south side of the Merced River, and the company made plans to move operations to the north side of the canyon. A new incline, less steep than that on the south side but still about 8,300 feet long, finished in 1924, extended from a point across from Indian Flat almost to the top of Trumbull Peak. Because of the difficult construction and resulting high cost—nearly one million dollars—
illustration 112.

Yosemite Lumber Company holdings, 1923.

Box 88, Yosemite Research Library and Records Center.
YOSEMITE LUMBER COMPANY'S HOLDINGS, SHOWN IN BLACK

(CPGA = California Peach Grower's Association)
it was said to comprise the greatest logging feat in the country. A smaller incline, 1,600 feet long, extended above the main one to reach the timber. An extensive logging railroad then ran north toward virgin cutting areas at Crane Flat and Ackerson Mountain.

The company's modern equipment wiped out everything in its path, threatening to destroy the magnificent sugar pine forest encircling the Merced Grove of Big Trees. In 1926 Willard Biggs Van Name voiced the first major opposition to logging in the park. In a circular, Van Name, a conservation advocate, criticized the Park Service and the lumber company for denuding the forests. He accused the government of attempting to hide the full extent of the ravages by trading timber stands along highways for less conspicuous forests. Van Name did not manage to interest many in the problem, however, and logging continued.

Also fearful of wholesale destruction of the sugar pine forests in the park, however, Director Mather worked out a tentative plan to exclude from the park more than 12,000 acres, largely timbered, including 5,500 acres of privately owned timberlands. He proposed to use the 6,700 acres of government land to be excluded as a basis for exchange for more important timber holdings within the proposed modified park boundaries. In 1926 the President's Commission on the Coordination of National Parks and Forests, after studying the situation on the ground, tentatively agreed to the plan as the only feasible method of excluding logging operations from the park. Although the Tuolumne and Merced groves would be removed, the commission expected that they would be protected under the jurisdiction of the U.S. Forest Service.

The proposed modification of the boundary would throw about seventy percent of the privately owned lands out of the park, the only large block left being that owned by the Yosemite Lumber Company in the Cottonwood Creek area north of Aspen Valley. By 1927 the government had proposed a timber exchange with the company by which it hoped to acquire the Cottonwood Creek and other holdings in return for timberlands along the western boundary of the park that would eventually
be eliminated under the proposed boundary exchange and become part of Stanislaus National Forest. The plan later, however, appeared disadvantageous to the government, because the timberland received from the lumber company would not be equal in value to the timber conveyed by the government. The latter rejected the plan with the recommendation that further effort to effect an exchange be undertaken.

At that point the general public finally became interested in the situation, and Nicholas Roosevelt, editorial writer and special correspondent of the New York Times, visited the park. After studying the problem on site, he wrote that the timber exchange plan should be discouraged. After conferring with Park Service officials, however, Roosevelt advocated in the paper outright purchase of the timberlands in question, opposing any plan to delimit the park for exchange purposes. The Times became instrumental in developing public opinion in favor of the preservation of the Yosemite forests.

The Yosemite Lumber Company, meanwhile, had suddenly ceased operations in 1927, when the White & Friant Company, which owned timber intermingled with that of the Yosemite Lumber Company, refused to let the latter use White & Friant land to reach its timber unless it purchased the land. The Yosemite Lumber Company refused. The company's Merced Falls mill lay idle until May 1929 when the Sugar Pine Lumber Company of Pinedale reopened it, having purchased the assets of the Yosemite Lumber Company a few months earlier.

John D. Rockefeller, Jr., became interested in the Yosemite situation and sent a representative to the park to investigate. When the Sugar Pine Lumber Company bought the holdings of the Yosemite Lumber Company and of White and Friant with the intention of logging them, the situation became critical, and Rockefeller immediately pledged one million dollars to help save the forests. Louis C. Cramton, chairman of the Subcommittee on Appropriations for the Interior Department, then included in the bill appropriating money for the fiscal year ending 30 June 1930 an authorization of funds for the purchase of all privately
Illustration 113.
Map of timber stands acquired in 1930 through Rockefeller purchase.
Separates File, Yosemite-Boundaries, Y-37, Yosemite Research Library and Records Center.
owned lands in national parks and monuments on the condition that federal expenditures be matched dollar for dollar by private contributions. At the same time, in order that certain timberlands of unusual park value might be included in Yosemite National Park, Congressman Harry L. Englebright of California secured the enactment of a bill (Johnson-Englebright) authorizing the extension of the park's western boundary to include an additional 9,000 acres of contiguous national forest land. Rockefeller immediately donated the amount required as a matching fund for the specific purpose of clearing up this particular problem and thereby enabled the speedy conclusion of negotiations for federal acquisition of that beautiful forest.

That purchase was important as the first substantial accomplishment under the plan approved by Congress to eliminate private landholdings in the national parks. It brought the finest remaining stand of sugar pine trees into government ownership and marked the discontinuation in the park of the logging operations that had plagued park administration and protection for the past twenty years; it greatly reduced the total area of private holdings in the park; and it provided protection to the Tuolumne and Merced groves of giant sequoia that lay in the heart of the newly acquired forest. Park Service administration of that area had become critical in light of the projected relocation of the Big Oak Flat Road and construction of the new Crane Flat-Hetch Hetchy road. The Sugar Pine Lumber Company ultimately gave up the Yosemite Lumber Company subsidiary when the depression ruined the lumber market at the start of 1931. The company finally went out of business two years later.

2. Foresta Subdivision

About 1917 the cookhouse at Foresta burned and Alfred B. Davis, proprietor of Foresta and manager of the Foresta Land Company, moved camp operations to another location. A new spring became the chosen site for the Foresta Assembly grounds and a community center. In the spring of 1917 workers dug a deep reservoir around the spring and constructed an all-purpose building containing a kitchen and screened
dining room. A powerhouse, containing an electric light plant and boilers, supported a large wooden water tank on its roof. Two bath and toilet houses, storage sheds, and one or two cabins, along with thirty-seven floored tents, completed the complex. Investors continued to buy lots on installment plans, but, when payments ceased, many properties either reverted to the original owners or were sold for taxes. The economics of World War I undoubtedly affected sales and buyer interest.

In mid-August 1918, fire destroyed the new Foresta dining room. Horace and George Meyer and the park’s civilian rangers managed to contain the blaze. Davis, beginning to run out of development money by the fall of 1918, dropped his association with Foresta in the summer of 1919. Simoneau & Company of Los Angeles took over from the Foresta Land Company. It stressed the idea of mutual interests and exclusivity for the area, noting that several professors on the faculty of the University of California owned Foresta property as well as such notable members of the Foresta Assembly as John Muir, Jack London, and George Wharton James. Despite these efforts, this company’s selling campaign also lacked success. Davis sold his remaining holdings to his daughters shortly before his death in 1922, and they organized the Yosemite Valley Land Company to continue property sales.

The completion of the All-Year Highway from Merced to Yosemite Valley in 1926 and proposed construction of a new Big Oak Flat Road from Yosemite Valley to Crane Flat revived interest in Foresta, and publicity resumed. John J. Michaelsen, a San Francisco real estate agent, who had become president of the Yosemite Valley Land Company, began selling Foresta lots in November 1926 under the title of the new Foresta Land Company, and invoked the ire of the park superintendent because of his misleading sales literature. Superintendent Lewis took exception, for instance, to advertising statements made in company literature to the effect that owners of Foresta property were entitled to unrestricted park privileges and were exempt from the restrictions placed on general park patrons. Lewis had been receiving inquiries for some time about the
soundness of such an investment from prospective buyers and people who had already purchased. To each individual Lewis stated his belief that the development proposition for the area remained unsound and that Foresta could never be turned into a successful resort operation.

Lewis believed at the time that no development of the tract had occurred since 1918 when the former owners had gone into bankruptcy. To substantiate this, he sent E.C. Solinsky to the Foresta townsite to scout out the situation. Solinsky found that the property contained five permanent buildings and one portable structure similar to those used at Yosemite Lodge as sleeping quarters for guests. Of the five buildings, two functioned as bathhouses and one as a boiler house. Additionally the area contained thirty-seven tent platforms and a concrete reservoir for storing water from a spring on the property. Solinsky could see remains of the 1918 fire that had destroyed the dining room and kitchen on the townsite. Those buildings had not been rebuilt and all the extant buildings appeared unused, indicating a lack of activity since the fire. No work toward grading of streets or roads had yet been accomplished and weather and vandalism had taken a toll. 71

Ultimately Michaelsen, after selling about 200 lots and running into the problem of delinquent payments, sold W.S. Wright, the land company's general manager, the remaining lots, roads, and right-of-way in January 1929. Wright then took over as president of the Foresta Land Company. The stock market crash of 1929 and the Great Depression resulted in a decline of sales and installment and tax payments. In 1929, William Setchell donated his Foresta lots and the historic George Anderson cabin to the Park Service—the first act of a volunteer program to help the government acquire property in the Big Meadow area. Foresta's rejuvenation during the 1920s had been short-lived. By 1931 the Foresta Land Company was finished. 72

71. E.C. Solinsky, Forester, to W.B. Lewis, Superintendent, 2 June 1922, and W.B. Lewis to the Director, National Park Service, 7 June 1922, in Central Files, RG 79, NA.

3. **Big Meadow**

The McCauley sawmill operated steadily until 1922 and sporadically after that. The Meyers bought the McCauley property in 1924 and continued to operate the mill. They hauled logs by horse team from their cutting site to the mill, where they dumped them onto skids and rolled them along onto a movable carriage that held the log, carrying it back and forth past the saw blade. The last lumber sawed in that mill served in rebuilding the McCauley house at Big Meadow in 1937-38.

4. **Aspen Valley Homesites**

In the fall of 1922, Robert Bright, a son-in-law of T.G. Hodgdon, began erecting buildings at Aspen Valley on the Tioga Road, on land owned by Hodgdon. Bright intended ultimately to erect an eating establishment, a small store, and a gas station. This became the first development work of that kind actively underway on private park land during that time. During the 1920s Aspen Valley became a busy tourist stop on the Tioga Road. In 1927 the Tuolumne County engineer subdivided part of the original Hodgdon homestead. The Park Service perceived the cabin sites to be more an effort by T.J. Hodgdon, who owned the Aspen Valley Lodge, to bring in summer residents to bolster his lodge business than to develop a prosperous and dignified summer community. Neighbors and friends of the original owners appeared to comprise the subdivision's clientele. The design of the community was poor, with most of the cedar to be used for the buildings—acquired from a mill a few miles away—subject to dry rot. No sanitary facilities existed, so most of the garbage had to be buried. The front of all the lots sold faced the meadow on which the Hodgdon cows grazed. Hodgdon also intended to subdivide the East Meadow area if the government did not purchase it.

73. W.B. Lewis, Superintendent, to the Director, National Park Service, 7 September 1922, in Central Files, RG 79, NA.
5. **Cascade Tract**

The east line of this property stood at the west end of the Wildcat Creek Bridge on the El Portal highway. During the 1920s the San Joaquin Light and Power Corporation held a permit from the Federal Power Commission for water power development on the South Fork of the Merced River. In the summer of 1928 an agreement was reached under which the National Park Service would attempt to get an extension of the power company's permit in return for that company's purchasing the private Cascade holding and deeding it to the government. The government, in turn, would grant the company forty acres on the southeast boundary of the park that it needed for a reservoir site on the South Fork. The deal never materialized because too many problems prevented the company from exercising the rights of its South Fork permit. First, the dam project required a portion of the park to be flooded, as well as large tracts of private land, such as that owned by the Wawona Hotel. In addition, the company began to think that oil power would probably be cheaper than water development.

6. **Gin Flat and Crane Flat**

In 1928 the Yosemite Park and Curry Company purchased the 520 acres of private land at Gin and Crane flats along the Big Oak Flat Road and turned them over to the National Park Service upon reimbursement of half the cost. Park Service officials considered those areas of vital importance to the administration and enjoyment of the park.

7. **The Cascades (Gentry Tract)**

By 1930 this tract, although laid out in blocks and with some actual grading of streets, had turned out to be a wildcat scheme similar to the Foresta subdivision.

8. **Hazel Green**

In the 1920s Mrs. David Curry owned about 120 acres at Hazel Green, along the Coulterville Road, on which the old Hazel Green stage station stood. From about 1925 to 1927 she operated a small sawmill on the property.
9. White Wolf Lodge

With the purchase of the Tioga Road by Stephen Mather and its ensuing rehabilitation by the National Park Service under Sovulewski's supervision, traffic over the route increased to such an extent by 1926 that John D. Meyer, who now owned the White Wolf property, and his wife, Alice, decided to convert their home into a lodge. They had previously operated a hotel in Groveland during the course of the Hetch Hetchy project. Certainly the operation of a resort at White Wolf would be difficult due to its isolation, but that did not stop the Meyers from converting their home into a dining room, sitting room, and kitchen, and erecting two duplex cabins and twelve wood-floored, wood-framed tents. A small electric light plant completed the complex. Across the road from the lodge stood a soda fountain with a single gasoline pump. (That building was later enclosed and moved behind the lodge where it is now used for linen storage.)

Accommodations at White Wolf were primitive. A commercial laundry service from Sonora visited three times a week. Grocery shopping had to be done two or three times a week because of the lack of refrigeration. The Meyers stored meats and other perishables in a screened cooler. The lodge attracted only small numbers of travelers at first, generally because of a lack of information regarding the Tioga Road route and its facilities. Those who did stop at the lodge undoubtedly found it a welcome respite from the dust and long, hard grades of the road. As California motorists became more familiar with the route, it would become increasingly popular and be used considerably by eastern traffic driving over the Lincoln Highway to Lake Tahoe and on to Yosemite.

By 1930 the lodge with its improvements consisted of a building containing the main dining room, lobby, and kitchen; two cabins, each with two rooms and bath; a service station with a pump; a small store; and nine tent platforms with tents. It could accommodate about thirty guests.
Illustration 114-16.

White Wolf Lodge, guest cabin, and storage shed (former soda fountain).

Illustration 117.

Map of Hetch Hetchy water supply, 1925.

From Wurm, *Hetch Hetchy and Its Dam Railroad*. 
HETGII HETCHY WATER SUPPLY
OF THE CITY AND COUNTY OF
SAN FRANCISCO, CALIFORNIA.
GENERAL MAP AND PROFILE
G. **Hetch Hetchy**

Construction of the Hetch Hetchy dam took nearly four years and was viewed by large groups of Yosemite Valley campers who took buses over the Big Oak Flat Road to Mather Station on the Hetch Hetchy Railroad. From there special railroad cars carried them to Damsite, and an inclined cableway dropped them to the floor of the valley. The narrow-gauge Valley Railroad then took them to view the various phases of construction. Sometimes those tourists stayed overnight at the park's Hetch Hetchy Lodge at Mather; others returned directly to the valley. The Yosemite excursions lasted until the summer of 1925. Two years later San Francisco bought Hetch Hetchy Lodge and opened it as part of a new summer resort.

Problems presented by the dam construction were many. To divert the Tuolumne River around the dam site, workers drove a 900-foot-long tunnel through the solid granite of the south canyon wall. A timber-crib diversion dam forty feet high turned the water into the tunnel. Excavation on the dam could then be carried out with little difficulty.

Derricks on the dam site handled the material from the deep excavations. Operating in conjunction with them, a railroad line on the south abutment connected with the valley railroad system north of the river by crossing on the diversion dam. Another track lay at the same elevation on the north abutment.

A cableway with a span of 903 feet, supported on tall towers, extended over the dam site to transfer machinery, industrial locomotives, and other heavy equipment, lumber, and timbers from cars on the Hetch Hetchy Railroad to the narrow-gauge cars of the contractor's construction railroad on the valley floor. The industrial Valley Railroad extended from the dam site to the head of the valley, about four miles, terminating at the Rancheria Creek sand pit, serving along the way the Falls Creek gravel pit, the Wapama Falls rock quarry, the crusher, and the sand-screening plants. It served to haul excavated material from the dam foundation to the valley dump, to bring sand and rock from natural
Illustration 118.

Plat of O'Shaughnessy Dam camp site, showing roads and buildings, 1925.

Yosemite Research Library and Records Center.
deposits and from the dump and quarries to the crusher plant for screening and crushing, and to haul the crushed rock and clean sand to the concrete-mixing plant at the dam.

The rock-crushing plant stood on the valley floor, one-half mile upstream from the dam, with the sand plant for screening sand nearby. Sand and rock brought to the dam site by train from the washing and crushing plant were fed into cement mixers. A four-compartment, timber elevating tower distributed the mixed concrete into the forms.

Mayor James Rolph, Jr., and a group of distinguished visitors dedicated the O'Shaughnessy Dam, named in honor of San Francisco's chief engineer, on 7 July 1923. It loomed 226-1/2 feet above the original streambed and measured 298 feet thick at its base and 15 feet thick at the top. It became the largest single structure on the West Coast and the second highest dam in the United States, impounding 206,000 acre-feet of water. As the Utah Construction Company began clean-up efforts, Superintendent Lewis requested that he be allowed to look over the buildings in the vicinity of the dam site for possible use by the Park Service. He anticipated that increased travel to Hetch Hetchy would require a ranger station and a small administrative unit there. The city of San Francisco intended keeping three of its cottages for the dam caretakers.

In 1926 the city engineer gave the government permission to tear down a cabin, garage and storeroom, and barn at the dam site--buildings 23 to 25 (see Illustration 116). He also gave permission for an administrative unit on the land across the main roadway southwest of the city's headquarters buildings. The city would then tear down buildings 27 (bus shed) and 29 to 35 (shed, storehouse, ice house, and bunkhouses). The city did, however, need sleeping quarters for its road construction and maintenance crews at the dam site. Therefore, it decided to retain the bunkhouses on the hill back of its headquarters. It also needed mess halls 19 to 20 as well as warehouse building 4, store building 26, and powder house building 36.
The city gave the Park Service permission in May to use buildings 2 and 6 temporarily for administrative purposes. Park authorities originally intended to raze buildings 23 to 25 to permit erection of a feeding unit by the Yosemite Park and Curry Company, but later decided not to, as explained earlier. In August the Park Service, in an effort to make the dam site more presentable to the public, requested the removal of store building 26, depot building 13, warehouse building 4, bunkhouse 12, and dining room building 28 (the only building left south of the road in the meadow). It also stated that it would tear down the public toilets then in use and provide more suitable facilities as soon as possible. In May 1929 the Department of the Interior accepted a deed from the city and county of San Francisco to certain lands at Canyon Ranch; at the Hetch Hetchy reservoir and dam sites; adjacent to the Lake Eleanor reservoir site; and in and adjacent to Tiltill Valley in compliance with certain provisions of the Raker Act.

H. El Portal Mining

Barite was discovered near El Portal in the 1880s on the north side of the Merced River. In 1915 the El Portal Mining Company worked the deposits about one mile downriver from El Portal. Ore cars trammed the ore downhill to a bin at the railroad tracks and to one at the quarry. By 1928 the Yosemite Barium Company operated the deposit, which had been worked at different periods by both the El Portal Mining Company and the Western Rock Products Company of San Francisco. The deposit on the north side of the river was the first and, for a long period, the only barite mined commercially in California. The ore was shipped to oil fields where it helped prevent blowouts in the oil wells. Drillers used the heavy metal to "weight" drilling muds to prevent the drills from blowing out of the well casings. This was also the only deposit in the U.S. producing commercial shipments of the carbonate called witherite.

74. Robert M. Searls to W.B. Lewis, 19 January 1926; M.M. O'Shaughnessy to W.B. Lewis, 19 May 1926; O.G. Taylor to M.M. O'Shaughnessy, 3 August 1926; in Box 84, Hetch Hetchy, "General, 1926-1927," Yosemite Research Library and Records Center.
Illustration 119.
O'Shaughnessy Dam, Hetch Hetchy.

Illustration 120.
Mess hall and dormitory, Hetch Hetchy.
illustration 121.
Damkeeper's residence, Hetch Hetchy.

Illustration 122.
Assistant damkeeper's residence, Hetch Hetchy.
Illustrations 123-24.

Residences, Hetch Hetchy.

Illustration 125.

Ranger station/residence, built by City of San Francisco, Lake Eleanor.

Illustration 126.

Storage building west of above residence, Lake Eleanor.

Illustrations 127-28.

Rancheria Flat houses built by National Lead Company.

Illustrations 129-30.

Murchison house (Yosemite Research Center) and assay office (laboratory), El Portal.

In 1927 development of a barite deposit south of the river began, by drifting and stoping. The National Pigments Company, Inc., purchased the deposit between 1928 and 1930. The Merced River canyon, the Yosemite Valley Railroad, and the new Yosemite All-Year Highway all cut directly across the barite lode. The National Lead Company started operating in December 1928 after purchasing the mill site and barium mine on the south side of the Merced. An aerial tramway carried ore buckets across the highway and river to the mill for processing and loading into railroad cars. After the Yosemite Valley Railroad discontinued service, the mine shipped its product by truck. That proved too expensive, and the company folded in 1951.

One of the more interesting structures in the area is the Murchison house, which now harbors the Yosemite Research Center. It was built in 1929 as a residence for Earl H. Murchison, who superintended the El Portal barium mine for the National Lead Company. Fire destroyed an assay office on the flat below the house, near the present sand pit. The company built a second one to the right of the entrance road to the house, which today is used as an archeological and biological research laboratory. A wooden footbridge built in 1929 across the Merced River below the house provided access to the company's mill on the other side. The flood of December 1937 destroyed the bridge, and the large galvanized steel mill structure, open on all four sides, was torn down about 1959-60. After the Park Service acquired the land and buildings in 1959, it used the Murchison house briefly as offices for Park Service and General Services Administration employees.

According to Jack Murchison, Earl's son, barium sulfate was mined on the south side of the river, and barium carbonate on the north side. The mine was considered a godsend during the depression because it utilized many men during a time of widespread unemployment. Murchison
also stated that the El Portal Mining Company used convict labor in the mine, secured from San Quentin for a minimal fee.  

I. Yosemite Valley Railroad

On 1 October 1917, after its operations in the park had closed for the winter, the Desmond Park Service Company moved its general office staff and records to the Hotel Del Portal. Although the hotel was owned by the railroad company, the Desmond Company operated it, and the stage line between El Portal and Yosemite Valley, under a lease arrangement. On 27 October a fire, starting from a defective attic flue, completely destroyed the hotel and its contents, including the Desmond Company's records. (The site of the hotel is now covered by residences on Cedar Lane and Buckeye Road.) Adding to the Yosemite Valley Railroad's problems, restrictions during World War I prevented any expansion of equipment or service. In April 1918 the twenty-room, two-story, less elaborate El Portal Inn replaced the Hotel Del Portal. Located opposite the present library and near the location of the first tent hotel, it was operated by the Yosemite Terminal Company, a subsidiary of the Yosemite Valley Railroad, the Desmond Company having failed in early 1918. During the war years, train travel declined as people had less money to spend on trips and expensive accommodations. Automobile use continued to affect the line's tourist business. The advent of the auto stage in 1914 had already lessened the hotel's trade, enabling tourists to go directly from the train to Yosemite Valley for the night. The line still, however, carried a particularly heavy passenger load up until 1926, and carried on a lucrative auto-ferry business.


76. Dohrmann, "History of the Yosemite National Park Co. and it's [sic] predecessor the Desmond Park Service Company"; Jim Law, Historic Resources Inventory, State of California—The Resources Agency, Department of Parks and Recreation, Hotel Del Portal (Site), 24 June 1981.
Between 1923 and 1926, the building of the Exchequer Dam by the Merced Irrigation District and the completion of the All-Year Highway between Merced and the park drastically affected the line. The former structure harnessed the waters of the Merced River and rerouted them in the canals of the irrigation system, necessitating the relocation of about seventeen miles of main line of the Yosemite Valley Railroad. Convict labor completed the final section of the Merced-El Portal road from Briceburg east in 1926, which cut drastically into the business of the railroad as the Yosemite Transportation Company began offering bus trips beginning at Merced at lower rates than the rail fare. In terms of passenger service, the railroad would ultimately be defeated by both auto and bus competition.

The Yosemite Portland Cement Company, incorporated in 1925, opened a lime rock (cement) quarry at Emory in 1927, and the Yosemite Valley Railroad began hauling the rock from there to the company's Merced mill. Railroad traffic further diminished in November 1927 when the Yosemite Lumber Company, which had provided a major portion of the railroad's revenue, closed its mill because of a decreasing market. In December 1928 the Sugar Pine Lumber Company of Pinedale purchased the Yosemite Lumber Company's assets and briefly resumed operations. The railroad also began hauling for several smaller mines and quarries and transported mail and freight for the park. The National Lead Company began mining barites in El Portal in 1929, its deposits providing ninety-six percent of all barites used in California drilling operations. It became an important shipper on the Yosemite Valley Railroad. When the depression hit full force in late 1930, however, the Merced Falls lumber mill closed for a five-year period, and in the early 1930s, the Portland Cement Company drastically curtailed production, bringing on some lean years for the railroad company.77

1. Stream Control

According to James Milestone, during the years of Park Service administration, stream control has passed through three intense periods of construction. Two of them are mentioned in this chapter. During the years 1916 to 1927, the "Sovulewski Years," Gabriel Sovulewski was general foreman of maintenance in charge of the construction and planning of front-and backcountry trails. He also continued the Yosemite commission's efforts to halt the lateral erosion of the Merced River banks by constructing bridges, clearing channels, and installing riprap. Future Park Service policies on stream control became well entrenched during this time.

A second distinct period of Park Service stream control, that of the "Landscape Architect," lasting from 1928 to 1938, emphasized landscape architecture. Landscape architects became more concerned with making the river aesthetically pleasing than continuing natural processes. To accomplish that objective, the Park Service performed more bank revetment, channel clearing, dam building, pipe laying, and bridge construction. During most of that period, the Civilian Conservation Corps performed the majority of the stream control actions, removing log jams, sloping and revegetating undercut river banks, excavating river gravel, and dredging Mirror Lake. Many of the projects Hall had recommended in 1882 were finally carried out, including the construction of five large stone bridges, all of which unintentionally restricted the size of the channel and acted as dams during floods. The last phase of Park Service stream control, the "Preventative Nature Design Years," from 1955 to 1967, developed after the devastating 1955 flood and will be discussed in the final chapter.

A selected chronology of Park Service construction centering around the Merced River, including stream control measures, from 1916 to 1930, follows:
1916 - placement of water-stage recorders near Happy Isles and Pohono Bridge

1917 - collapse of Clark's Bridge and its rebuilding in concrete; construction of Indian Canyon Creek Bridge

1918 - construction of Sentinel Bridge; automatic water-stage recorder installed on Tenaya Creek

1919 - erection of dry rock wall on south side of Merced between valley footbridge and village road; construction of small bridge at Stoneman Meadow

1921 - installation of riprap near Stoneman Bridge

1922 - riprap along Yosemite Creek installed; Yosemite Creek road built; Yosemite Creek Bridge finished

1923 - removal of small bridge on Indian Creek and replacement with iron culvert; construction of dam and intake pipeline on Illilouette Creek

1927 - riprapping near Happy Isles; thirteen-plus miles of valley roads asphalted; two miles of roads paved with river gravel; Ahwahnee Hotel completed with gravel from Merced River used in concrete

1928 - construction of Ahwahnee, Sugar Pine, Clark's, Tenaya Creek, and Pohono bridges with gravel from Merced River and valley-quarried granite; construction of Illilouette Creek Bridge
In 1930 H.E. Williams, Special Agent, wrote a memorandum on Merced River erosion. Williams stated that although "the Merced River has been flowing through Yosemite Valley for a million years and may continue to flow for millions of years without destroying the Valley or all of the trees," that fact "does not in any way lessen our opportunity to prevent further damage, provided such work can be done at a reasonable cost and . . . that it does not too greatly detract from the natural beauty of the Valley." 79 Williams's primary concern centered around the number of trees lying in the river that had formed a foundation for river deposits, thus changing the current so that it undercut the banks on the opposite side. As a result of those natural dams, in some places the river had cut new channels, leaving unsightly exposures of trees, roots, and rocks covered with mud during parts of the year. Williams did not particularly approve of riprapping because of its cost and aesthetic objections, but admitted it would be better than letting these conditions continue. His main suggestions involved using a steam or gas shovel to open up the objectionable river deposits and using the excavated material for fill for parking places and campgrounds and in other construction work. Such action would not only open the Merced channel, change the currents, prevent erosion, and prevent much of the overflow into campgrounds, but also provide much needed material for development. 80

2. **Meadows**

During the 1920s, valley meadow conditions gradually improved. Forest encroachment remained a continuing problem. In 1919 some

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78. Milestone, "Influence of Modern Man on the Stream System of Yosemite Valley," 85-94. Milestone's chronology is more detailed, although the writer's information sometimes differs from the dates presented by Milestone and those changes are reflected here.


80. Ibid., 1-3.
portions of the meadows by camps 6, 17, and 18 were cleared of growth and three years later workers removed small evergreens from El Capitan Meadow. Clearing of trees would continue in an attempt to preserve remaining meadowlands. Up to that time, as mentioned earlier, the meadows had been severely impacted by cultivation, grazing, picnicking, parking, and various forms of recreation. The advent of the auto had resulted in a decline in the use of horses and horse-drawn conveyances and consequently in a decreased demand for hay and pasture, leading to a general decline in livestock and barn and feed facilities. This enabled the meadows to gradually begin reverting to a more natural state. The increased visitation, however, with its intensified land use, began forcing the Park Service to more clearly assess the use of the limited valley acreage.

The tule elk herd penned in Yosemite Valley beginning in the early 1920s resulted in much overgrazing of the area between the old and new villages. In 1924 more of El Capitan Meadow was fenced for stock grazing, the old pasture having become barren. By the mid-1920s, however, the Park Service began imposing limitations on meadow utilization. In 1924 fences around Leidig and Bridalveil meadows came down and the gradual phasing out of grazing began. By 1930 the valley dairy herds had been removed and the number of work stock much reduced. Beginning in 1929, park crews began digging ditches around the meadows and placing rock curbs to prevent cars driving onto the meadows. The ditches also, however, changed the valley drainage patterns by interrupting their flow.

3. Fire Control

Until the 1920s, the Park Service had no central fire control organization. Fire control expertise primarily came from park rangers who had graduated from forestry school or who had transferred from the Forest Service and who propogated Forest Service beliefs about fire and

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control techniques. Many early parks, formed out of national forests, inherited the remains of the previous Forest Service fire organization, such as lookout towers, roads, trails, and the like. General Park Service fire policy has been discussed earlier, and only its specific applications during 1916 to 1930 will be discussed here.

The Park Service considered fire a threat to the scenic and recreational values of the parks, as had the commissioners and, with some notable exceptions, the army. The Service's major fire control thrust was suppression, although no money specifically for that purpose had ever been appropriated. In 1922 the Park Service finally received a special fire control appropriation—an emergency account to be used only in case of fire. Four years later it was combined with other moneys into a general disaster fund to cope with emergencies and repair damage. No presuppression activities were allowed, however.

In 1926, while the forest fire danger continued to grow, Chief Naturalist Ansel Hall became head of a Park Service Division of Education and Forestry, headquartered in Berkeley. The position primarily was to be concerned with interpreting forest resources to visitors, but it soon included fire planning duties. In 1928 the actions of Park Service crews in fighting a large fire near Sequoia National Park brought much criticism and led to the creation of the post of fire control expert under the chief forester. A veteran Forest Service supervisor, John D. Coffman, was named to the new position. Under Coffman the Park Service and other members of the Forest Protection Board prepared a comprehensive fire prevention plan detailing the facilities and other requirements adequate for fire control within the National Park System. This laid the foundation for later Civilian Conservation Corps fire programs in the parks. Congress then made its first national appropriation of $10,000 for park fire protection and also stressed the need for presuppression capabilities,
an activity which was actively carried out by the CCC. Fire lookouts were not authorized until 1931.

4. Grazing

The question of park grazing arose at the beginning of America's involvement in World War I on 6 April 1917 and prompted some heated disagreements between Secretary of the Interior Lane and Acting Park Service Director Horace Albright. The latter tried to persuade his supervisor, whose patriotism was clouding his conservation convictions, to keep park resources intact unless the war situation took a drastic turn for the worse. The crisis arose when western ranchers began agitating for the right to graze sheep and cattle on park lands. They would, they said, conform to the government's request for conservation of food supplies. Although the possibility existed that the cattlemen hoped to use this argument as a means of gaining a foothold on park lands, in view of their strong demands, the Park Service opened certain areas of the parks to grazing, but only by cattle, which were thought to be less destructive in their grazing habits. In Yosemite, Secretary Lane wanted all the park lands above the valley opened to sheep. Albright reached a compromise with him, permitting cattle to graze on lands primarily in the western and northwestern portions of the park, north and south of the Tuolumne River, plus a small section in the southeast corner. Albright managed to forestall the department issuing large numbers of grazing permits for most of 1917.

The Park Service and California grazing interests discussed the continuation of grazing on park lands as war conditions continued during 1918. As a result of strong lobbying efforts by the California Cattlemen's

82. Pyne, Fire In America, 296-98. Interagency experimentation with resource management on a national scale during the 1920s resulted in formation of the Forest Protection Board, which existed from 1927 to 1933. It functioned as an advisory body to ensure coordination of effort among federal agencies in examining all aspects of forest destruction, especially fire. Ibid., 317-18.
Association for increased grazing privileges over those granted at the beginning of the war, the Park Service opened about seventy percent of Yosemite to grazing during the period of emergency. The cattle grazing had immediate detrimental effects on the deer population, which began to suffer from lack of food.

In 1919 the Park Service decided to again close Yosemite to grazing because of the termination of the war and the ending of drought conditions. It restated that no reason existed for permitting commercial uses of the park during peacetime and also pointed out that the expected heavy tourist visitation that year made it desirable to keep the reservation as free as possible of activities inconsistent with the primary purposes of the park. Altogether, the national parks received little damage from grazing during World War I thanks to the efforts of Acting Director Albright, supported by various conservation groups.

K. Fish Hatcheries

During the 1916 season, the park more stringently enforced its fishing regulations and pursued with continued vigor the work of stocking lakes and streams. Fish conservation had become an important activity because fishing, particularly in the backcountry, had evolved into one of the main park attractions.

In the fall of 1917 the California Fish and Game Commission conducted a survey to determine a suitable site for a trout hatchery to serve Yosemite Valley and outlying areas. The commission reached an agreement with the Interior Department allowing the state to lease a site of approximately three acres at Happy Isles in Yosemite Valley for a twenty-year period. The agreement provided that the state erect a building at its own expense, on the condition that if the federal government wanted to take it over after three years, it would reimburse the state for the original cost. The project appeared very advantageous.

83. Swain, Wilderness Defender, 73-75.
to the state in that its interests were fully protected, the park would furnish water free from its distributing mains, and park personnel would distribute the fry without cost to the state. In addition, the hatchery offered an excellent opportunity to demonstrate to visitors the type of work the commission performed.

Subsequently the Fish and Game Commission established an experimental hatchery operation in the fall of 1918. Early the next year it acquired lumber for a building, and in the spring of 1919 it installed a temporary hatchery building on the site of the proposed permanent one. That same spring 400,000 rainbow, lahontan cutthroat, and steelhead trout eggs hatched. Although the site proved successful for breeding purposes, opposition to continuing the project arose because the erection of permanent buildings on leased land contravened state policy. The state therefore decided to abandon the project, and in the fall of 1919 the governor of California ordered the hatchery dismantled and removed. The equipment was transferred to Wawona and used to equip that station for more extensive operations.

Over the next few years the park continued to think that because of the rapidly increasing use of the park by the public and the accompanying increase in the use of fishing waters, more extensive stocking of park waters was necessary than was possible by shipping fry to the park from outside hatcheries. Finally, after the Federal Bureau of Fisheries, which operated hatcheries in Yellowstone and Glacier national parks, began showing an interest in extending its activities to Yosemite, the state and the Park Service reached an agreement in 1926 for a permanent hatchery at Happy Isles. The hatchery building and two residences were subsequently built in 1927. The new hatchery played an important role in connection with the educational and nature study work being carried on in the park; in 1927 the park instituted Nature Guide services there.

The hatchery building, of local rock and heavy timber, contained 52 troughs for hatching and rearing the trout, and a smaller room held four...
250-gallon aquariums where visitors could see rainbow, golden, and brown trout. The structure also held displays explaining the fishery program in Yosemite. A large show pond outside contained prize specimens of trout, while six circular concrete tanks raised "catchable" trout. Two family dwellings stood south of the hatchery, and a bachelor quarters was attached to the side of the building.\(^{84}\)

L. Stream Flow Measurements

During 1915 the Park Service established temporary gauging stations on the Merced River, one above Illilouette Creek and the other on the Illilouette near its confluence with the Merced. In August 1915 laborers placed a staff gauge at the Happy Isles Bridge, downstream from the power plant and near the fish hatchery. It eventually appeared that the powerhouse regulated the river's flow and that the one or two daily staff readings were insufficient reflections of the daily mean flow with that regulation and did not accurately portray the often extreme fluctuation caused by melt-off from April through June. To remedy the situation, an automatic water-stage recorder replaced the Happy Isles staff gauge in November 1916. An attractive fourteen-foot-square enclosure with vertical log pillars and a high hip shake roof sheltered the new equipment. (After a falling tree destroyed it in April 1975, a smaller, less distinctive structure replaced it.)

\(^{84}\) Robert C. Pavlik, "A History of Yosemite's Fish Hatcherries," 1984, typescript, 3 pages, in Yosemite Research Library and Records Center, 2-3; E.C. Finney, First Asst. Secretary, Department of the Interior, to California State Fish and Game Commission, 10 February 1923, Central Files, RG 79, NA. The Addendum to the Natural Resources Management Plan 1977, 89, points out that the waterfalls formed during the Pleistocene glaciation acted as fish barriers, preventing fish from reaching streams and lakes in the high country. Man's introduction of exotic fish has been contrary to a "natural area" concept and the park fishery, enabling fish planting in waters to which trout are not indigenous, basically served an alien function by prohibiting the restoration of aquatic ecosystems to their original condition. In addition, fish stocking in Yosemite has mostly involved genetically altered, hatchery strains of the native rainbow trout and other species alien to the park. Natural Resources Management Plan, 1977, 33.
Illustrations 131-34.

Water gauging station, Pohono Bridge, and gauge at Happy Isles with interpretive information. It states that this spot was selected as a national hydrologic benchmark because of its location in a national park on a stream largely unaffected by man. Recordings are made of water stages and temperatures and samples collected for analysis of dissolved minerals and gases, trace metals, bacteria, and suspended sediment.

At the same time workers installed a similar automatic Friel eight-day water-stage recorder on the Merced just upstream from the Pohono Bridge. The housing for that recorder, on the south side of the river, is still visible today from the El Portal road. A third water-stage recorder installed on Tenaya Creek in 1918 replaced the staff gauge that Chandler and Currie had erected there in 1904. The National Park Service provided materials and labor for the construction of the stilling wells and instrument shelters for the three recording stations, while the Geological Survey and the state of California provided the instruments, plans, and supervision. Continuous recorders replaced all the eight-day recorders in 1925.

Stream-flow records have been obtained in two areas of the park other than the valley floor, but not directly in cooperation with the National Park Service. A station operated on the South Fork of the Merced at Wawona from 1910 until 1922. Also, in accordance with provisions of the Raker Act, the city and county of San Francisco, under the direction of the Geological Survey, operated gauging stations for several years on the Tuolumne River, Falls Creek, and Eleanor Creek.

The cooperation over many years between Yosemite National Park and the Geological Survey resulted in useful and valuable records of stream flow from Sierra Nevada streams in their natural state. A list of the stream-flow gauges established in Yosemite National Park follows:

Yosemite Creek--stream-flow recordation began here on 9 July 1904. The staff gauge was fastened to an alder tree on the right bank, fifty feet upstream from the bridge on the road between the Yosemite post office and Yosemite Fall and half a mile upstream from the confluence of the creek and the Merced River. Readings were taken from 1904 to 1909 and 1912 to 1926.

Merced River at Yosemite Creek--a staff gauge was established on 11 July 1904 at the bridge across the Merced River at the Sentinel Hotel, about one-half mile upstream from Yosemite Creek. It was fastened to the masonry of the left abutment on the downstream side. Readings were made irregularly to 1909 and from 1912 to 1918.

Tenaya Creek--a staff gauge was established 11 July 1904 at the highway bridge over Tenaya Creek about .7 mile upstream from its mouth. Early records describe the gauging station as at Tassaaack Avenue bridge crossing Tenaya Creek on the road between the Yosemite post office and Mirror Lake. The stilling well and shelter for the automatic water-stage recorder installed in 1918 were built in the left bank about fifty feet upstream from the bridge. Readings were made from 1904 to 1909 and from 1912 on.

Merced River at Happy Isles Bridge--a staff gauge was established here on 20 August 1915, close to the powerhouse at the structure now used as a trail bridge. The gauge was bolted to a large boulder on the downstream side of the right bank pier. One of the first two automatic water-stage recorders used in Yosemite Valley replaced it on 2 November 1916. The well and shelter for the recorder stood on the right bank about twenty feet downstream from the bridge. Readings continued from 1915 on.

Merced River above Illilouette Creek--a staff gauge was established 20 August 1915 to determine the low flow for the season. The gauge was attached to a large boulder on the left bank about 1,000 feet upstream from the mouth of Illilouette Creek and one-fourth mile upstream from the point of diversion for the powerhouse. Readings were made from August through December 1915 and some in 1916.

Illilouette Creek--a staff gauge was established 20 August 1915 at a point about 800 feet upstream from its mouth and one-half mile from the powerhouse, just downstream from Happy Isles. It was a temporary station established to ascertain the low water flow for the
season. Readings were made from August through December 1915 and some in 1916.

Merced River at Pohono Bridge--an automatic Friel eight-day water-stage recorder was installed here on 2 November 1916 in a concrete well with a wooden shelter, built with the help of park personnel on the left bank of the river about 150 feet upstream from the Pohono Bridge. Readings were made from 1916 on.  

M. Snow Survey

Beginning in the mid-1920s, rangers conducted snow surveys on a limited basis in Yosemite National Park. Although snow surveys were usually made to provide data needed to forecast runoff, which was important to storage operations connected with power production, irrigation, and domestic water supply, and to facilitate flood control, recreation, and avalanche forecasting, those made in the park at this time helped determine the opening date for high country roads and trails and predict the condition of the valley waterfalls during the tourist season.

The Park Service did, however, enter into an agreement with the Merced Irrigation District, which was interested in runoff because the Merced River fed directly into the district's reservoir on the eastern side of the San Joaquin Valley. In 1926 a snow course was installed at Dana Meadow. In 1927 the district donated money to build a patrol cabin at Merced Lake to aid in snow surveys. The Park Service building could be used by the irrigation district in the course of snow survey travels. That cabin is used today as a ranger patrol cabin.

The state legislature appropriated funds in 1929 to be used by the Department of Water Resources in organizing a California Cooperative

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Snow Surveys Program to begin in January 1930. That program would coordinate snow surveys throughout the Sierra. The department provided funds for equipment, building construction, and occasionally for personnel to conduct the surveys. Agencies to be involved in the snow surveys included irrigation districts, municipalities, and public utility companies, as well as other state and federal agencies. The Park Service agreed to assist in the program. Once a month, from January through April, rangers traveled over the designated snow courses measuring the depth of snow and the water content.

N. Establishment of Yosemite Advisory Board

An important event with significance for future planning efforts in Yosemite National Park took place in 1927 with the formation of a Yosemite Advisory Board. The action related to a comprehensive study of the problems related to the use and enjoyment of the park and the preservation of its natural features that Congress authorized in the Interior Department Appropriation Act for fiscal year 1929. The first three men suggested for appointment as Expert Advisors were Fredrick Law Olmsted, Jr., the nationally known landscape architect and planner; Duncan McDuffie of San Francisco, a member of the Coordinating Committee on National Parks and Forests; and John P. Buwalda, professor of geology at the California Institute of Technology in Pasadena, all of whom were considered outstanding in their interest, knowledge, and judgment regarding national parks and conservation matters.

Ordinarily Park Service areas did not have advisory boards, but the Interior Department believed that Yosemite Valley, because of its extremely heavy visitor impact, had need of such a planning body to aid in questions of broad policy. The group’s task involved formulating a basic plan for the valley floor, including all of its administrative and

service needs, taking into consideration the park's fundamental values. Hopefully, after studying the unique features of Yosemite Valley and the surrounding country, the board could design a plan not only for the development of the valley floor but for the larger use of the park as a whole. The department considered this a good time to reclarify the educational and inspirational features of the area.

Coincidentally, Colonel Charles Goff Thomson came from Crater Lake National Park in 1929 to serve as Yosemite superintendent, succeeding W.B. Lewis. This period of park development, beginning with a reformulation of objectives and a restatement of ideals, required a dynamic, experienced, but visionary leader at the helm. Thomson fitted the requirements perfectly. Frank A. Kittredge later stated that Thomson's

keen sense of the fitness and desire for the harmony of things in the national parks has made itself felt in the design of every road, every structure, and every physical development in the Park. He recognized the importance and practicability of restricting and harmonizing roads and structures into a natural blending of the surroundings. He has set a standard of beauty and symmetry in construction which has been carried beyond the limits of Yosemite into the entire National Park system. The harmony of the necessary man-made developments and the unspoiled beauty of Yosemite Valley attest to the Colonel's injection of his refinement of thought and forceful personality, into even the everlasting granite itself of the Yosemite he loved so well.88

A. Overview
   1. Stephen Mather Steps Down

   The period covered by this chapter offered strong challenges and an exciting future to the National Park Service. After struggling to build a foundation for America's park system based on sound policies and broad principles of resource conservation and park protection during the difficult years of World War I and its aftermath, the Park Service was well on the way to achieving its desired goals when two potentially devastating events took place.

   In January 1929 Stephen Mather stepped down as director of the Park Service due to ill health, which resulted in his death in January 1930. The loss dealt a severe blow to the park system in America to which Mather had contributed so much time, effort, and money in an attempt to establish a solid and organized management system with a clear philosophical direction. Fortunately, Mather's ideals and basic policies continued under Horace Albright, who, because of his long tenure with the Park Service, dating from before Mather's time, and years of assisting Mather, made him practically a co-founder of our present National Park System.

   Having functioned as Mather's assistant for so many years in addition to serving as superintendent of Yellowstone for ten years, Albright could smoothly continue building on the achievements of the early Mather years. He was knowledgeable in governmental affairs and well-known and respected in Washington's political arena. Of great benefit to his work was the fact that the park idea had become solidly entrenched in the American consciousness. Albright also enjoyed the support of Interior Department officials and the aid of a first-class staff in the Washington office and in the field. During his four-year tenure as director, Albright enlarged nine of the national parks, including
Yosemite, and also gained three additional parks as well as several national monuments.

The biggest challenge facing Albright almost immediately involved the economic and social crises occasioned by the American stock market crash and the arrival of the Great Depression. With organizational skill and a masterful grasp of problems and solutions, Albright successfully guided the National Park System through this critical period and into the early part of the New Deal. Albright assumed the Park Service directorship just as Herbert Hoover was assuming the office of President of the United States. During Hoover's administration the pall of the depression spread over the country, manifesting itself in long food lines, abandoned factories and businesses, rampant unemployment, and bank closures. The nation seemed headed toward complete devastation, with no means in sight of alleviating the distress.

2. Public Works Programs Aid Completion of Park Projects

In 1933, however, Franklin Delano Roosevelt became President and immediately proposed a revolutionary legislative and social program designed to ameliorate the country's economic situation. Between 9 March and 16 June 1933, Roosevelt proposed fifteen emergency acts destined to dramatically affect the nation's social and political institutions for years to come. Elated at being presented with constructive legislation, Congress passed them immediately.

Roosevelt's first concern involved the rampant unemployment in the country, especially among young people who remained unable to find jobs and who were gradually becoming embittered at their fate. Roosevelt perceived that family incomes had to be restored and the morale of young Americans raised at the same time. In his first hundred days in office Roosevelt introduced the idea of a Civilian Conservation Corps (CCC), a program stimulated by his interest in forestry and conservation. The CCC work program, directed by the Emergency Conservation Work organization, received top priority in the early New Deal period. The act establishing the CCC became law on 31 March 1933, enabling the
government to take thousands of unemployed young men off the streets and provide them with jobs and a cash allowance, in addition to board, medical attention, educational opportunities, and practical job training. In return, the men performed needed work in America's federal and state forests and parks.

As the Interior Department's representative on the CCC Advisory Council, a body composed of representatives of the departments of War, Labor, Interior, and Agriculture, Director Albright immediately began compiling estimates for road and trail work, physical construction, and forest protection and cleanup in the national parks. Because each park already had a master plan for development work, the Park Service was better prepared than most agencies to begin projects immediately. The council in the early weeks of the New Deal helped set up the CCC organization and programs and determine the role of participating agencies. The Department of Labor would select the CCC candidates, the army would transport the men to the camps, feed and clothe them, carry out their physical conditioning, maintain morale, and generally handle all camp matters, while the agencies of the departments of Interior and Agriculture for which the men worked would have technical supervision of them during work details.

The federal government never considered the CCC a permanent measure, although many who saw its benefits, including Roosevelt, pushed for its continuation as a permanent organization. Entirely financed by emergency funds, it was organized within weeks, the Park

1. Master plans are comprehensive land plans containing basic data relevant to specific park areas. They consist of maps and documentation describing the natural and cultural features, engineering aspects, road systems, forest fire protection, maintenance problems, and all development that needed to be considered in planning for the area's protection and public use. Conrad L. Wirth, Parks, Politics, and the People (Norman: University of Oklahoma Press, 1980), 58.

Service having seventy camps in full operation by 30 June. The peak of CCC growth came in 1935 when more than 2,500 camps operated. The number gradually decreased up to World War II.  

The emergency legislation passed in Roosevelt's first hundred days, providing massive amounts of money and labor, enabled the Park Service to launch several long-term development projects that had been slowly dying for lack of money. The park projects undertaken were selected from each park's development program. The CCC initiated the largest construction program ever undertaken in Yosemite, but other emergency and relief programs of benefit to the park were also enacted during the New Deal period. Civil Works Administration (CWA) activities took place between November 1933 and April 1934. This program also functioned as an emergency unemployment relief program, created to offset the lull in the business revival of mid-1933 and to soften economic hardships during the winter of 1933-34. It employed men and women in park development projects and used skilled workers as well as artists, painters, sculptors, and draftsmen.  

The Public Works Administration (PWA) assumed the continuation of road and trail construction and other physical improvements and, because it necessitated topographical surveys, landscape studies, and wildlife protection policies, provided work for engineers, landscape architects, artists, and scientists. Beginning in 1935, the Park Service cooperated with the Works Progress Administration (WPA) established by the Emergency Relief Appropriation Act of 1935, assuming responsibility for technical supervision of its programs, involving resource conservation and recreational development. Although most of its projects needed manual laborers, arts projects enabled hiring of writers, actors, musicians, and artists. At the start of 1937, the various public works programs undertaken within the National Park

3. Wirth, Parks, Politics, and the People, 105; Kieley, CCC, 14.
System consolidated as Emergency Relief Act Projects until 1941, when public works appropriations began to dwindle.\textsuperscript{4}

The CCC, however, remained the largest conservation movement in history. Yosemite's CCC camps were among the first organized in the West, beginning operations on 6 June 1933. The park hosted several camps, at Crane Flat, Eleven-Mile Meadow, and Wawona, and later at Empire Meadow, Tamarack Flat, and The Cascades.\textsuperscript{5} The Park Service located its CCC camps near the work project areas, preferably near railroads or highways and water sources, and in close proximity to lumber and other building materials. The earliest camps consisted of army tents, which were gradually replaced by more substantial, but still temporary, wooden buildings. By 1934 the army had designed a prefabricated structure with interchangeable panels that could be easily erected and transported and could serve multiple purposes. The army mass produced these by 1935.

Camps usually formed a U shape and contained recreation halls, a garage, a hospital, administrative buildings, a mess hall, officers' quarters, enrollee barracks, and a schoolhouse. The space enclosed by the buildings served for group functions and sports. The wooden exteriors of the buildings were painted brown or green, creosoted, or covered with tar paper. In 1939, specific structures to be included in CCC camps consisted of barracks, a mess hall and kitchen, Technical Service quarters, officers' quarters, a Technical Service Headquarters and storehouse combined, army headquarters and storehouse combined, a recreation building, a dispensary, a bathhouse, a latrine, garages, an oil house, a pump house, a generator house, a blacksmith shop, an


\textsuperscript{5} "Camp Boys Build Trails and Help Improve Park," Mariposa (Calif.) Gazette, Yosemite Valley edition, 81, no. 1: 12.
educational building, and an equipment repair and maintenance building. Spike or stub tent camps sometimes sprang up separate from the main camp when a specific job too distant from the main for easy daily travel had to be completed or during fire hazard times so that the men could keep a close watch on forest conditions.

The first work of CCC enrollees in Yosemite consisted of forest cleanup and improvement, roadside clearing, construction of horse trails, erection of telephone lines, construction of two egg-taking stations, development of public campgrounds, creek and river erosion control, sloping and planting of cut banks and road fills, insect control, and other forestry work such as removal of undesirable plants and revegetation.

Emergency Conservation Work in the national parks and forests in general included the above work plus the construction and maintenance of fire breaks, campground clearing, trail clearing, construction of fire- and recreation-related structures, road and trail building, forest fire suppression, survey work, plant eradication, bridge building, flood control, tree disease control, and landscaping. Prior to ECW, forest fires had posed the gravest threat to the parks, but the Park Service had always lacked sufficient fire fighting personnel and had been unable to implement fire protection programs in each park. Civilian Conservation Corps personnel managed to reduce park fire losses tremendously beginning in the first nine months of 1933. The men not only located and suppressed fires, but constructed fire towers and telephone lines as well as roads, trails, and other firebreaks. The following year, refinements


7. Superintendent's Monthly Reports, January-December 1933, microfilm roll #2, Yosemite Research Library and Records Center, 26-32.

were made to park fire fighting programs and specific enrollees were selected for fire protection training. In general, each park's fire protection plan became better implemented by use of ECW enrollees. All CCC work in natural areas of the National Park System was planned and overseen by landscape architects, park engineers, and foresters.

In 1935 the Park Service Branch of Forestry began publishing circulars on various aspects of fire fighting and forest conservation to guide ECW supervisors. Civilian Conservation Corps camps not only suppressed fires on Park Service lands, but began to cooperate in the protection of adjacent forests. In 1936 the Branch of Forestry requested ECW regional offices to send descriptions of each park's fire fighting program to Washington to be reviewed and evaluated so that effective training programs could be developed. Yosemite ultimately gave fire suppression training to all enrollees but designated small groups as primary fire fighting teams. Fire protection training increased in 1937 and resulted in another sharp reduction in fire loss in the national parks. Fire fighting training increased in 1938 with fire fighting schools established nationwide. Although the Park Service continued to receive regular appropriations for fire protection and forest preservation during these years, they were insufficient and had to be supplemented by CCC funds.

The ECW/CCC also waged an intense battle against insects and disease. As early as 1932, Albright had requested emergency funding for a five-year program to combat pine beetles threatening timber stands in several of the western parks. Infestations of mountain pine and bark beetles were brought under control by the ECW in portions of Yosemite in 1933, after enrollees succeeded in destroying egg masses and cocoons of

10. Unrau and Williss, Expansion of the National Park Service, 81.
Illustration 135.

Map of CCC camp no. 1, Wawona, 1934.

NPS, Denver Service Center files.
tree-damaging moths and cut and burned beetle-infested trees. Superintendent Thomson, however, opposed ribes eradication to control white-pine blister rust. Instead he recommended more research on the forest ecosystem before removal of all currant and gooseberry bushes. The blister rust program was reduced in 1939 due to a lack of funding, although the danger from blister rust still seemed to exist. 12

Because of some fears that the size and scope of ECW work and the make-work aspects of some of the other programs threatened the preservation policies of the Park Service and could result in damage to wildlife habitat, Director Albright placed certain restrictions on ECW activities. For instance, to prevent the removal of ground cover needed by wild animals, Albright insisted that underbrush and ground cover sufficient for small bird and mammal habitat be retained and clearing done only to the extent of removing serious fire hazards. The threat posed to park values by the introduction of exotic vegetation and artificial landscaping was assessed, with the result that a Department of the Interior manual on ECW work specified the use of native plants except in special cases. At Yosemite, then, revegetation consisted of sowing and transplanting native plant species along roadsides. Overdevelopment through new truck trails that provided access to primitive areas posed another danger. The Wildlife Division of the Park Service by the mid-1930s was feeling increased demand for scientific investigations and supervision of ECW projects involving conservation because of the perceived need to determine the impacts of those projects on wildlife and the natural environment. From the beginning of the ECW program until the end of 1935, an enlarged staff of biologists, foresters, geologists, and other specialists participated in making vegetation maps and conducting biological studies on birds, fish, and mammals at various parks, including Yosemite. 13

12. Ibid., 101-103.
13. Ibid., 103-109.
Illustration 136.

Map of CCC camp no. 2, Wawona, 1934.

NPS, Denver Service Center files.
Altogether, New Deal emergency projects increased the National Park Service budget by nearly $218,000,000, which underwrote most of the Park Service expansion and development projects of the 1930s. In sum, those programs, and the CCC in particular, improved the morale of America's unemployed; provided education and practical job training to thousands of young men; enlarged the state parks system; advanced the national reforestation program; strengthened forest fire protection systems; advanced a nationwide erosion control and soil conservation program; assisted reclamation; increased recreational opportunities in forests and parks; promoted national interest in wildlife conservation by expanding fish hatcheries, improving streams and lakes, building rearing ponds, and restocking streams; aided grazing; and constructed thousands of bridges, service buildings, and other structures. It has been determined that the CCC advanced forestry and development in the national parks by at least ten to twenty years.

The United States declared war on Japan on 8 December 1941 and on Germany and Italy on 11 December. Immediate mobilization and national defense preparations forced a reduction in CCC camps beginning in April 1941, which resulted in a reduction in the number of camps allocated to the Park Service. The termination of emergency programs was accompanied by a loss of park staff and CCC personnel, as enrollees began leaving for higher paying defense industry work or for military service, while their officers were being recalled for military duty. In addition, gas rationing cut park travel drastically. Park development maintenance, and repair fell to an all-time low as the Park Service terminated all CCC projects not directly related to the war effort. The final steps were then begun to reduce and eventually eliminate the CCC. The final decision to liquidate it was made on 30 June 1942 with enactment of the Labor-Federal Security Administration Appropriation Act for fiscal year 1943. During fiscal year 1942, camps were cut back, the CCC to be

Illustration 137.

Sketch of Merced Grove CCC camp, 1935.

Yosemite National Park Research Library and Records Center.
dissolved by 1 July 1943. The continuing expenses of World War II resulted in the divergence of remaining emergency recovery funds to the war effort. Construction in the parks stopped and maintenance and fire protection capabilities lessened dramatically.

The act terminating the CCC stated that the War and Navy departments and the Civil Aeronautics Administration had first choice of CCC properties and materials. The various articles of office and construction equipment, autos, trucks, barracks furnishings, tools, and other items were to be inventoried and then transferred to the military for the war effort (i.e., as rest and relaxation camps or for conscientious objector work camps) or to the Park Service, other federal agencies, or state, county, or municipal agencies. Park Service policy dictated that CCC camp buildings either be used or torn down. After the war the Selective Service System transferred all former CCC properties it had received from the Park Service in the first months of World War II back to that agency for final disposition. Thus ended one of the great conservation programs in American history. The work projects of the New Deal had not only protected and conserved the country's exceptional natural resources but had developed national and state park and recreational areas for the public benefit.

15. Wirth, Parks, Politics, and the People, 143-44.

16. Paige, Civilian Conservation Corps, 36-37. Following discontinuance of the CCC program in 1942, the Wawona CCC buildings were held for use as a possible public service camp. During the latter part of April 1943, authority was granted the army for the occupation of the former Wawona CCC camp by several hundred men of the 426th Signal Battalion, Camp Pinedale, California, for special training. During December 1943, negotiations were completed for the transfer of the former Wawona CCC camp to the Western Signal Aviation Unit Training Center, Camp Pinedale, and the army stationed a small unit at the camp to protect its property. U.S. Army Signal Corps units utilized Park Service facilities both at Wawona and Badger Pass as special summer training schools. Even prior to America's formal entry into World War II, mechanized army units had conducted maneuvers in the park to break in new equipment and gain experience in motor convoys. They stayed in campgrounds 14 and 15. "U.S. Soldiers in Yosemite for Practice," Mariposa (Calif.) Gazette, May 1940.
Former Director Conrad Wirth stated:

The Civilian Conservation Corps advanced park development by many years. It made possible the development of many protective facilities on the areas that comprise the National Park System, and also provided, for the first time, a Federal aid program for State park systems through which the National Park Service gave technical assistance and administrative guidance for immediate park developments and long-range planning. . . .

The National Park System benefited immeasurably by the Civilian Conservation Corps, principally through the building of many greatly needed fire trails and other forest fire-preventional facilities such as lookout towers and ranger cabins. During the life of the CCC, the areas received the best fire protection in the history of the Service. . . .

The CCC also provided the manpower and materials to construct many administrative and public-use facilities such as utility buildings, sanitation and water systems, housing for its employees, service roads, campground improvement, and museums and exhibits; to do reforestation and work relating to insect and disease control; to improve the roadsides; to restore historic sites and buildings; to perform erosion control, and sand fixation research and work; to make various travel and use studies; and to do many other developmental and administrative tasks that are so important to the proper protection and use of the National Park System.

The CCC made available to the superintendents of the national parks, for the first time, a certain amount of manpower that allowed them to do many important jobs when and as they arose. Many of these jobs made the difference between a well-managed park and one "just getting along."17

3. The Dissolution of Emergency Relief Projects Severely Impacts Park Conditions

The tremendous progress of the 1930s relative to national park construction, protection, and conservation, however, virtually stopped cold in the next decade as the United States became actively involved in World War II. Yearly Park Service appropriations dropped from thirty-five million dollars in 1940 to less than five million dollars in 1945. The impact on the parks was drastic, as facilities deteriorated, visitation slowed to a trickle, and other government agencies and private industry

attempted to use the excuse of a national emergency as a means of appropriating park resources. A steadfast leader was needed to oppose that onslaught and protect the ideals that had been furthered by the New Deal emergency programs.

Horace Albright had left the Park Service in early 1933 to become vice president and general manager of the U.S. Potash Company. Arno B. Cammerer, associate director under Albright, replaced him as director and Arthur E. Demaray become associate director. Both Cammerer and Demaray had worked under Mather. Harold L. Ickes had served as Secretary of the Interior during the boom period of the 1930s and oversaw the expansion of park and recreational activities. In 1940 the overworked Cammerer asked to be relieved of his duties, and Ickes replaced him with Newton B. Drury, a highly respected conservationist. Drury stood firm against all threats to park resources during the war years while also trying to deal with the economic and developmental crisis brought on by the termination of the emergency relief projects. Despite the fact that its roads and structures were being heavily damaged by lack of maintenance, the Park Service made important contributions to the war effort. It cooperated to the fullest extent with the military and with federal agencies involved in war activities without allowing its resources to completely deteriorate. It made many of its facilities, especially concession-owned ones, available to the military as rest areas for injured men. Some parks provided areas for mountain maneuvers and the training of ski troops. At the same time Park Service officials managed to fend off encroachments by mining and lumber interests.

Park visitation began to increase rapidly as the United States demobilized after the war, due to increased leisure time, more prosperity, and improved transportation. By the 1950s, however, the lack of maintenance in the parks had caused such deterioration of roads, buildings, and other facilities that they were completely inadequate and desperately in need of replacement. Although the Park Service budget picked up after V-E day, grants-in-aid to other countries during the Cold War repositioning period of international compacts and defense
agreements seriously limited the money available to the Park Service to rebuild and refurbish park facilities. Park visitation, on the other hand, started to increase. In 1951 Drury accepted the job of head of the State Parks of California. Demaray, who had continued as associate director, accepted the Park Service directorship for a year, the last "Mather man" to hold that position. In December 1951 Conrad L. Wirth replaced him, serving as director until January 1964.

By 1955 the parks situation had become drastic. Park visitation had increased threefold since 1940. Eighteen new areas had been added to the system, increasing its holdings by several million acres. In Yosemite both Park Service structures and concession facilities were in need of extensive renovation. Increasing numbers of park visitors were not only causing overuse of resources, but were experiencing less enjoyable stays. Something had to be done to awaken Congress and the public to the impending loss of important natural and historical resources. Only a large sum of money could repair the damage to the parks caused by a minimum budget over the last several years. Above all, Wirth refused to give in to pressures to close some of the parks, preferring instead to attempt to rebuild the entire park system.

4. MISSION 66 Revives Park Development

Wirth's solution to the problem lay in MISSION 66, conceived of in 1956 as a comprehensive ten-year program to upgrade and expand national park facilities to accommodate anticipated visitor use by 1966, the fiftieth anniversary of the National Park Service. In addition to construction of needed housing and other service structures and provision of essential services, such as sanitation facilities and water, sewer, and electrical systems, the program aimed at providing adequate operating funds and field staffs and acquiring private lands for protection and/or use.\(^R\) Master plans again became important in drawing up the MISSION

18. Shankland, Steve Mather, 326-27. Development under this program was to proceed with paramount consideration being protecting park areas for the purpose for which they had been established. Another function
66 program, for many of them contained projects that needed financing and MISSION 66 provided the momentum for their accomplishment. Many projects were completed that improved the protection and preservation of park values. Many involved major road construction that was handled by the Bureau of Public Roads working with Park Service landscape architects. Since the mid-1920s, U.S. Public Health Service sanitary engineers had worked with the design office and the parks to improve sanitary facilities. 19

Construction became an important element of the MISSION 66 program, involving replacing outdated, inadequate facilities with improvements designed to handle increased loads but to be located in such areas as to reduce impact on the environment. At Yosemite, MISSION 66 proposed to provide an adequate road and trail system, sufficient accommodations and facilities for visitors, and effective interpretation of the resources. Another necessary part of the program included facilities and personnel necessary for the administration, maintenance, and protection of the park and housing for them. MISSION 66 planning incorporated many of the thoughts of the Yosemite Advisory Board regarding resolution of Yosemite's manmade problems.

18. (Cont.) of MISSION 66 was to determine what was needed to round out the National Park System.

19. As stated earlier, master plans had been prepared for each Park Service area in the 1930s, by resident landscape architects of the San Francisco planning office that were assigned to major parks or groups of parks. This Central Design and Construction Division headed by Tom Vint later dispersed to regional offices in 1936. In 1954 Vint's planning staff was reorganized into Western and Eastern Design and Construction offices in San Francisco and Philadelphia. Although they continued to primarily prepare and update master plans, during MISSION 66 they also designed and supervised construction projects. These master plans ensured the preservation of natural features and the placing of necessary facilities on sites where they blended into the landscape as much as possible. Wirth, Parks, Politics, and the People, 60-62.
The park undertook its development program with the intent of not diminishing existing wilderness areas by extending roads or other development beyond their defined limits at that time and vowed that developments thought to be necessary for wilderness use would be appropriate to that environment. In addition, visitor accommodations and related services would be limited to designated areas. Specific items of Yosemite’s MISSION 66 program included:

1. Protection of Yosemite Valley. The Park Service realized that:

   The limited area of the Valley, in relation to the physical facilities essential to operate the park and to serve the tremendous number of park visitors attracted to it, is the heart of the problem. We can no longer continue to build, construct and develop operating facilities on the Valley floor without seriously impairing and ultimately destroying those very qualities and values which the National Park Service was created to preserve and protect for future generations. The more space taken up on the Valley floor for repair and maintenance shops, warehouses, incinerators, employee housing, equipment storage and other operating facilities means that much less space available for visitor use and enjoyment.

   Specifically park authorities intended to limit valley facilities to those necessary to directly serve the visitor, with supporting facilities for parkwide operation located elsewhere, probably in El Portal. This would include removing the obsolete incinerator and public dump and replacing them at the new operating base.

2. Completion of the road and trail system, primarily the Crane Flat and Tioga Road entrance routes. The influx of travel to the park primarily via the South and Arch Rock entrances had resulted in an imbalance in park development and an unequal distribution of

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visitor load. Several important trail connections needed completion and repair of trails closed due to lack of maintenance was required. Completion of this system would allow visitor-use development in other portions of the park and relieve the pressure on concession facilities and the congestion in Yosemite Valley.

3. Construction of new water and sewer systems for government and concession developments to conform to U.S. Public Health Service requirements and of visitor-use facilities.

4. Replacement of obsolete concession facilities in Yosemite Valley, improvement of others parkwide, and provision of additional accommodations in other areas to relieve overcrowding. Although the park’s concessioners had been willing before to undertake this additional investment, prior to MISSION 66 the Park Service had been unable to provide the prerequisite access roads, parking areas, and utilities.

5. Acquisition of private lands. At this time the remaining private lands were located in the few remaining park areas whose level character and adequate water resources made them possible sites for public-use development. The land acquisition program would be time-consuming and laborious because the larger tracts had been subdivided into smaller lots. Again it was stressed that privately owned lands conflicted with public enjoyment and that maximum public use dictated their acquisition.21

The MISSION 66 program gained immediate acceptance from the President, Congress, and the American public. Park Service appropriations began to flow and even increase. Construction accomplishments of the period included park roads, trails, parking areas,

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21. See ibid, for a description of the MISSION 66 program in Yosemite National Park, including summaries of the problems, program, and cost.
campgrounds, picnic areas, campfire circles and amphitheaters, utilities, administrative and service buildings, utility buildings, reconstruction and rehabilitation of historic buildings, construction of employee residences, dormitories, apartments, comfort stations, interpretive roadside and trailside exhibits, lookout towers, and entrance stations. Other important innovations included visitor centers to house interpretive programs and ranger training centers. The Stephen T. Mather Research and Interpretive Ranger School at Harpers Ferry, West Virginia, for ranger historians and naturalists, was an outgrowth of the Yosemite Field School of Natural History. The Horace M. Albright Ranger School at Grand Canyon served the ranger protective force. 22

Concessioners invested a great deal of their money in new cabins, lodges, stores, shops, service stations, and the like. MISSION 66 also took steps to move administrative facilities, government housing, utility buildings, and shops out of national parks to reduce interference with park enjoyment. In this regard, a new employee residential and service area was established at El Portal. At the same time, because MISSION 66 in Yosemite Valley called for moving all development out of the valley meadows, the concessioner moved all his operations to the side of the valley, helping in meadow naturalization and improving scenic values. Concessioners were recognized as an important part of the MISSION 66 program. Also during MISSION 66, the Park Service removed itself from the power and communications utility business, switching over to commercial service on a contract basis.

The MISSION 66 program was early criticized as being overly road- and development-oriented, with little accomplished in terms lines of natural resource protection. In Yosemite, especially, the program continued Mather's thrust of more accommodations and facilities, increased access to remote areas, and expansion of interpretive programs and

facilities. Even at this point, the Park Service was not grasping the critical nature of the imbalance being created between visitor use and preservation of the natural environment. Those aspects of the MISSION 66 program in Yosemite that concerned limiting developments within the valley to facilities necessary to directly serve the visitor, with supporting facilities located elsewhere, are still under study and implementation. The program did, however, succeed in supplying more adequate facilities and services to enable the Yosemite visitor to better use and enjoy the park. In ensuing years questions of overuse, noise, congestion, vandalism, crime, wilderness impact, commercialization, concession policy, and wildlife management, and development plans that included new valley accommodations, an aerial tramway, and a new winter sports area, would complicate further master planning efforts of the 1970s and 1980s. The conflicting demands of use and preservation imposed on the national parks by today's urban-oriented society, accustomed to certain amenities and privileges, will not be easily resolved.

Beginning in the 1930s and amid renewed efforts to promote the parks and preservation in general, access to Yosemite's backcountry became important in terms of expanding visitor enjoyment and use of the park. Consideration of it as an entity with its own set of administrative problems and environmental concerns was not yet a primary issue. New trails, in addition to the High Sierra camps and park patrol cabins, promoted more intensive backcountry visitation. Although plans were voiced for new trails to open up new vistas and areas of special interest, the economic stringencies of the Depression and World War II killed such proposals. Inroads on the wilderness did not appear again with any intensity until the 1950s, at which time principles of resource management began to influence the park's view and subsequent use of that area. The backcountry's operations have remained of secondary importance to those of Yosemite Valley throughout most of the park's history, with little formal coordination of studies or development. The park did not establish a Backcountry Office until 1972, which attempted to coordinate activities of the ranger, maintenance, and research staffs and to fit them into broader environmental programs. Establishment of this office finally
acknowledged the importance of lesser-used sections of the park and their resources.

Meanwhile, advocacy for the "wilderness" park experience gained momentum as park visitors began to realize the enjoyment of hiking and backpacking in the backcountry. More sophisticated camping gear and a deeper appreciation of the environment no doubt contributed to the popularity of this type of experience. It remained harmonious with the initial concept of national parks as a place of refuge and contemplation but involved very different types of activities and land use than those expounded by Mather's generation. In place of camps and roads, wilderness enthusiasts called for no artificial conveniences or motorized access routes. The Wilderness Act of 1964 meant that some control could be exerted on undeveloped backcountry in our national parks, especially in the West. In Yosemite the move toward "wilderness" resulted, among other things, in discontinuance of the firefall in 1968 as inconsistent with national park values. The California Wilderness Act of 1984, restricting backcountry use and development, finally placed wilderness concerns on a more equal footing with other park operations and ensured that planning and management objectives would consider the overdevelopment and abuse of resources in Yosemite Valley and would prevent that from occurring on a parkwide basis as much as possible. 23

B. Roads, Trails, and Bridges

1. Trail Construction in the Early 1930s Results in Completion of John Muir Trail

By the early 1930s Yosemite's trail network was largely complete, and trail crews began concentrating more on maintenance than construction. Some new work continued to be accomplished, however. In 1931 park crews completed the trail from Happy Isles to Merced Lake, including a new section between Little Yosemite and Lost valleys.

considered one of the finest examples of modern trail construction in the
national parks. (This stretch should be inspected and evaluated during
the backcountry trail survey recommended later in this report.) In
addition to constructing a parapet wall on the Vernal-Nevada falls trail
above Happy Isles, workers installed a counting device near the foot of
the trail containing a photo-electric cell. The device proved only
moderately successful because it counted people twice who returned to
investigate the curious apparatus. Crews also constructed three new
footbridges at Happy Isles. Backcountry trail work included construction
of the Chilnualna Trail; of the Isberg Pass trail, including a bridge
across the Lyell Fork of the Merced; and of a trail from May Lake to Ten
Lakes.

The city of San Francisco constructed more than twenty-four
miles of trail during 1930-31 at a cost of about eighty-six thousand
dollars. The work included trails with a width of six feet and a maximum
grade of about sixteen percent and five trail bridges, most of which the
December 1937 flood destroyed. Trail construction by the city in 1931
involved the Rancheria Trail, a bridge across Rancheria Creek, the Falls
Creek Bridge at the mouth of Lake Vernon, and the Lake Vernon trail.
Also in 1931 workers completed the John Muir Trail section on the
north side of Foresta Pass and opened several miles of new trail south to
Tyndall Creek. Fifty-thousand dollars of state funds had been used on
construction of the trail, which stood complete except for a section up
Palisade Creek. Other trail work in 1932 consisted of replacing the Half
Dome cables and log bridges at Yosemite Fall and in the Lost Arrow
section. Finally, in 1938 U.S. Forest Service crews working on the Muir
Trail built steep switchbacks (the Golden Staircase) up the cliff below
Palisade Lakes and across to Mather Pass and the headwaters of the South
Fork of the Kings River. Fifty-four years of difficult construction had
resulted in the fulfillment of Theodore Solomons's dream.

24. Memo to the Superintendent, Yosemite National Park, from E.M.
Hilton, Park Engineer, 30 September 1941, in Box 83, Trails--1941 to
1942, Yosemite Research Library and Records Center.
Illustration 138.
Map of Yosemite National Park.
From Circular of General Information Regarding Yosemite National Park, California, USDA, 1931.
Illustration 139.

Automobile guide map showing roads in Yosemite Valley.

From Circular of General Information Regarding Yosemite National Park, California, USDI, 1931.
Automobile guide map showing roads in Yosemite Valley
Illustration 140.
Stone steps on Mist Trail.

Illustration 141.
Happy Isles Bridge.
valley wall. The new highway left the valley near the foot of Bridalveil Fall, climbed a five-percent grade to the tunnel along the steep cliffs below Artist Point, and then swung back south around Turtleback Dome. The tunnel measured 28 feet wide and 4,230 feet from portal to portal. Workers used material from the tunnel to build the roadbed to the east and a large parking area, so that no debris would be sent over the banks. The tunnel was situated so that visitors passing through it from Wawona would have a sudden breathtaking view of Yosemite Valley from the east portal.

Because there were no galleries such as those in the auto tunnel at Zion National Park in Utah, three shafts drilled from the tunnel horizontally to the cliff face provided necessary ventilation. Carbon-monoxide recorders controlled three large fans in the largest adit. The recorders would register a buildup of traffic in the tunnel, with its subsequent increase in exhaust gases, and additional power would automatically be applied to the fans and continue as long as needed. The longest motor vehicle tunnel in the western United States at the time, it was considered a bold piece of engineering work that also managed to preserve the cliff walls and other landscape values. Construction on the section of the Wawona Road that included the tunnel had begun in November 1930, and the stretch opened to traffic in the spring of 1933.

With completion of the Wawona Road, interested parties began applying pressure to make the high country of the Tuolumne River more accessible for winter sports by constructing a tunnel road up through Tenaya Canyon. Herbert C. Hoover, on vacation in Yosemite before becoming President, had ridden horseback from the High Sierra camp at Tenaya Lake down the Snow Creek switchbacks into Yosemite Valley. Impressed with the scenery, he had suggested installing automatic elevators working by electrical power, possibly developed from
waterwheels, that would take autos up and down alongside Snow Creek Falls. Hoover thought it would prove a great tourist attraction!

Other road work in that year included rerouting of the road by the Grizzly Giant Tree in the Mariposa Grove in the spring of 1932 because the old road stood so close to the tree that vehicles ran over some of its roots. Gabriel Sovulewski also in that year made a spur road from Crane Flat to the Merced Grove by connecting the old Davis Cut-off with the railroad grade of the Yosemite Lumber Company that stretched from Camp 16 to Camp 15. During 1933-34 the Mariposa Grove's road system was paved with asphalt.

d) Yosemite Valley Bridges

During 1933 the park accomplished some major bridge work in Yosemite Valley. In addition to completing a steel girder bridge on masonry abutments over Bridalveil Creek, workers finished replacing the Stoneman Bridge across the Merced River at the Camp Curry intersection. Another reinforced-concrete, arched structure veneered with native granite, it also featured two equestrian subways through its abutments. When it came to replacing the El Capitan Bridge over the Merced, connecting the North and South roads, Superintendent C.G. Thomson expressed his opposition to another arch bridge for that location. He believed the park had repeated the stone arch motif to the point of monotony and that this bridge's location several miles from the group of stone-arch bridges permitted some flexibility in design. The new three-span bridge, therefore, had steel I-beams with a log veneer railing. Workers placed it about one mile upstream from the old bridge location.

e) Glacier Point Road

During this time the park began to study the most desirable road route from Chinquapin to Glacier Point. The existing

28. Harry Chandler to C.G. Thomson, 10 August 1932, Central Files, RG 79, NA.
narrow road, poorly aligned and plagued by steep grades, had by now become obsolete. The major proposals for rehabilitation consisted of widening the road, eliminating the most objectionable switchbacks, and creating parking areas at the end of the road and at Washburn Point. In 1934 park CCC crews installed posts and replaced the old 3/8-inch Half Dome cable with a 7/8-inch one and also constructed a log footbridge for fishermen across the Merced River at Arch Rock, a small bridge across Crane Creek on the Coulterville Road, and a new concrete two-span road bridge across the Tuolumne River at Tuolumne Meadows. Road construction consisted of rerouting the Mariposa Grove road behind the museum and adding a parking area, and work on the new Glacier Point Road. The latter closely followed the old road from Glacier Point to near Bridalveil Creek. At that point the new route left the steep hills and followed wide, easy curves on a gentle grade around them. The park completed the road in October 1935 and Superintendent Thomson wrote the Park Service director:

It is difficult to realize that the much-talked-of Glacier Point Road is now an actuality. You will recall the long studies and discussions of the feasibility of any modern road, the substitution of a tramway for the road, the loop road proposal, and the proposals to stop at Sentinel Saddle or at Washburn Point. This Glacier Point subject was precipitated practically upon my arrival here nearly 7 years ago, and into the picture we drew Mr. Albright, all of the Advisory Board, Dr. Hewes, Mr. Tolen, Mr. Roach, Dr. Matthes, Dr. Tresidder, Mr. Wosky, and at least a score of others with lesser interests. Riding over it today, I could not but recall the dozens of meetings, discussions, and the endless miles some of us have hiked in search of solutions. . . . So far as Yosemite is concerned, it easily marks the highest standard yet attained in road construction through difficult country."

29. Superintendent's Monthly Reports, January-December 1933, microfilm roll #2, Yosemite Research Library and Records Center.

30. C.G. Thomson to Director, National Park Service, 15 October 1935, in File 631-10, Glacier Point Road, 1934 to 1950, Yosemite Research Library and Records Center.
f) Big Oak Flat Road

In 1935 the park completed the Bridalveil Fall parking area and started work on the new Big Oak Flat Road out of Yosemite Valley. The planned route left the All-Year Highway a short distance below the floor of the valley, near the powerhouse diversion dam, and climbed the north wall of the Merced River canyon just above The Cascades. In the four miles to Meyer Pass, where the road would cross the rim of the canyon, two short tunnels and one long one would avoid defacement of the outstanding granite cliffs. Much of the work would be done by day labor under the close supervision of landscape engineers to safeguard the natural appearance of this stretch. Long sections of rock wall would hide unsightly scars from any deep cuts that would be necessary.

g) Trail and Road Signs

As stated previously, a trail measuring and signing program in the mid-1920s had involved running an odometer mounted on a bicycle wheel behind a horse and nailing small, round tin tags with numbers and letters to trees to identify trails. Later signs were of enameled metal with white backgrounds and green lettering. In 1934-35 the park began resigning park trails with locally manufactured embossed aluminum signs done on a Roover Press. In preparation for that work, rangers began securing accurate mileages and compiling a trail map. A common practice throughout the park by the 1940s involved painting large orange arrows on open granite expanses crossed by trails to direct hikers. Auto license plates, painted yellow and nailed ten to fifteen feet high on trees, helped designate trails to snow gaugers during winter storm conditions. Another sign type in the war years involved routing white-painted letters on 1-1/2-inch-thick redwood planks about four feet above the trail, but these also fell prey to bears, perhaps attracted to the oil used, as well as to hikers for campfires, souvenirs, or simply as
Illustration 142.
Wawona tunnel, east portal.

Illustration 143.
Wawona tunnel, interior.
Photo by Paul Cloyd, 1986.

Illustration 144.
Stone wall on State Highway 140.
Illustration 145.

Map of Yosemite Valley floor, ca. 1935.

NPS, Western Regional Office files.
MAP OF
THE FLOOR OF
YOSEMITE VALLEY
YOSEMITE NATIONAL PARK, CALIFORNIA
Illustration 146.

Metal trail sign.

Illustration 147.

Corduroy road along north side of Johnson Lake enroute to Crescent Lake.

Photos by Robert C. Pavlik, 1984-85.
acts of vandalism. A last resort in the 1950s involved burning lettering into iron plates and cementing the signposts into place.\textsuperscript{31}

h) Bridge Work Precedes Flood of 1937

In July 1936 construction took place on the May Lake trail from the top of the Tenaya zigzags to the junction of the McGee Lake Trail. In 1937 workers built a new hikers' bridge across Tenaya Creek below Mirror Lake. That same year, the park completed plans for a log footbridge at Wawona, crossing the South Fork close to the new Wawona schoolhouse, to provide access for children living on the south side of the river in Section 35 so that they would not have to use the longer route to school over the old covered bridge downstream.\textsuperscript{32}

A disaster of unparalleled proportions in park history hit the area on 8 December 1937 when torrential rains continuing until 12 December caused severe flooding in the valley and washouts in other sections of the park. Particular devastation occurred in Yosemite Valley where the formation of an immense lake resulted in damage to road surfaces, businesses, and residences, and inundation of campgrounds 6 and 16. The force of the floodwaters surging down the Merced River canyon practically destroyed the diversion dam, intake, and penstock of the powerhouse, and severely damaged bridges at The Cascades, the footbridge and structures at the Arch Rock entrance and at the Cascades

\textsuperscript{31} Bert Sault to Jim Snyder, 9 July 1975, in Separates File, Yosemite-Trails, Y-46, #42, Yosemite Research Library and Records Center. Evidently Landscape Architect Thomas Vint was not favorably impressed with the new iron signs for aesthetic reasons, but agreed that they were necessary to solve the problem of signage in the backcountry. Notes taken by Carl P. Russell, "Conference July 30, 1952," in Box 78, Box A--NPS files. 1938-1953, Development Part XII, Yosemite Research Library and Records Center. The metal sign program in Yosemite was initiated with designs by signmaker Lee Buzzini and welder Bill Kirk. Douglas H. Hubbard, "Yosemite Bears Chip Teeth," Yosemite Nature Notes 34, no. 3 (March 1955).

\textsuperscript{32} Superintendent's Monthly Reports, January-December 1936 and 1937, microfilm roll #3, Yosemite Research Library and Records Center.
CCC camp, and portions of the El Portal road where sections of the stone guard rail and road slab slid into the river. Repairs began immediately, and the El Portal road, initially closed completely for the rest of December, remained one-way passage during the reconstruction period. Extensive sections of retaining and parapet walls were replaced and added with great effort.

The Mirror Lake road sustained heavy damage from Iron Spring to the parking area. Floodwaters washed away seventeen trail bridges on the valley floor, with the El Capitan Bridge sustaining heavy damage. Sections of the Wawona Road also were damaged. The new footbridge across the South Fork of the Merced to the new schoolhouse was completely wrecked by the flood.33

The flood damage of December 1937 necessitated a multitude of repairs during 1938-39, including replacement of bridges near Yosemite Lodge, on the lower Yosemite Fall trail and at Rancheria Creek near Hetch Hetchy, and of the East Bridge at The Cascades on the Ail-Year Highway, and of the Coulterville and Davis Cut-off bridges across Crane Creek; of footbridges at Happy Isles, Yosemite Creek, Camps 7-16, Mirror Lake, and on the South Fork; and of horse bridges over the Merced River, Bridalveil Creek, Tiltill Creek, Snow Creek, Eagle Creek, Yosemite Creek, Tenaya Creek, and Mono Creek, and at Pate Valley and Glen Aulin. Repair work continued on the All-Year Highway at Devil’s Elbow, one mile below Arch Rock, in addition to repair of pavement, replacement of parapet walls, and removal of silt, mud, and assorted debris on valley roads.

Illustration 148.
Arch Rock office.

Illustration 149.
Arch Rock comfort station.

Illustration 150.
Arch Rock residence #106.
Illustration 151.

Wooden truss bridge over Yosemite Creek above waterfall, enroute to Yosemite Point.

Illustration 152.

Cascade Creek Bridge, old Big Oak Flat Road.

Photos by Robert C. Pavlik, 1985-86.
The flood severely damaged the old Wawona Road from a point above the Bridalveil Fall parking lot to Old Inspiration Point. The park decided to limit repairs to reconstruction as a horse trail, and no longer maintain that route as a road. A new suspension bridge on the valley floor was rebuilt with material salvaged from the flood on the identical plan of the old structure but on a new site about 300 feet downstream. In addition, repairs were needed on the wing walls and abutments of the Pohono, El Capitan, and Sugar Pine bridges. The flood of 1937 damaged or destroyed outlying trails and bridges as well as valley structures. Civilian Conservation Corps labor in 1937-38 was invaluable in trail repair work, a force that would be sorely missed under similar circumstances in 1950.

During these years much new trail construction took place, including: new trail bridges at Wapama and Tueeulala falls on the north side of the Hetch Hetchy reservoir, one across the Middle Fork of the Tuolumne River, one across Illilouette Creek on the Eleven-Mile Trail to Glacier Point, one across Snow Creek above Mirror Lake, and a new horse bridge at Yosemite Fall. In 1939 laborers reconstructed the Vernal Fall Bridge of prefabricated steel with log veneer, and a year later reconstruction work replaced the old hewn-log truss bridge on the Nevada Fall Trail with log-covered steel plate girders.

i) North Valley Road Realignment Considered

By 1939 park officials were discussing possible changes of location and alignment for the valley's North Road. One of the most dangerous spots in the valley road system lay where the North Road ran through the midst of the Yosemite Lodge development. There the public highway suddenly became a congested main street crowded with vehicular and pedestrian traffic. Because the main lodge needed replacement soon,

34. Superintendent's Monthly Reports, January-December 1938 and 1939, microfilm rolls #3 and #4, Yosemite Research Library and Records Center.
it seemed a good time to decide what to do about the road, which had to be moved either farther south or north.

j) Completion of New Big Oak Flat Road

By 1940 the Big Oak Flat Road from Crane Flat to the valley floor had been completed. The first two miles out of the canyon from the All-Year Highway comprised the most difficult stretch of highway construction ever undertaken in Yosemite National Park. The project included the boring of three tunnels and the construction of three reinforced-concrete, open-spandrel arch bridges. The park converted the old route descending into Yosemite Valley into a one-way downhill scenic road. Visitors used it only until 1943 when a large rockslide made the road impassable to autos.

k) Bridge Work Continues in the 1940s

Work in 1941 included completing the reconstruction of the Nevada Fall Trail bridge; reconstructing the bridge across Cascade Creek on the old Big Oak Flat Road, which had deteriorated, to enable opening that road to one-way travel; and constructing a new trail across the Clark Range. Superintendent Frank A. Kittredge requested during this time the flagging of a trail between Glacier and Washburn points, in front of the Glacier Point Hotel, as a scenic naturalist walk.35 Kittredge also hoped that whenever this emergency defense period is past, it will be possible to put some of the main line trails of Yosemite on a construction basis comparable to that of most of the other parks. . . . if we can just take advantage of some of the inspiration of some of this great back country, afoot or horseback, as is the Sierra Club, we are going to build up a

35. Memo for Park Engineer E.M. Hilton from Frank A. Kittredge, Superintendent 3 September 1941, in Box 83, Trails - 1941 to 1942, Yosemite Research Library and Records Center.
Illustration 153.
Tunnel No. 1, east portal, new Big Oak Flat Road.

Illustration 154.
Stone wall along new Big Oak Flat Road.
Photos by Jo Wabeh, 1986.
Illustrations 155-57.

Bridges, new Big Oak Flat Road.

Photos by Jo Wabeh, 1986.
Illustration 158.
Road bridge over Tuolumne River.

Illustration 159.
South Fork of the Tuolumne River bridge abutment.
Illustration 160.


Yosemite Research Library and Records Center.
Workers in 1943 reconstructed the Yosemite Creek footbridge, which had collapsed. In 1945 they spent a great deal of time rebuilding bridle path bridges on the Yosemite Valley floor, including the three-span bridge at the foot of Yosemite Fall and a one-span bridge in the Lost Arrow section. In addition they rebuilt the two-span middle footbridge at Happy Isles. In 1946 replacement of the footbridge connecting Camps 7 and 16 got underway and replacement of the decayed footbridge near the fish hatchery at Happy Isles was completed. That same year progress continued on badly needed trail and trail bridge repairs. Crews rebuilt seven bridges in the vicinity of Echo Creek, Merced Lake, and Washburn Lake, including four short-span ones, and made the old Merced Lake Trail passable preparatory to closing the main trunk trail for bridge replacement. Work also proceeded on repairing the decayed Return Creek bridge.

Late in 1946 the bridge across Crane Creek on the Coulterville Road at Big Meadow collapsed. Work crews managed completion of a bridge across the Middle Fork of the Tuolumne on the Mather road and replacement of the Yosemite Creek bridge on the old Tioga Road. That year workers also accomplished replacement of Long Bridge and Twin Bridges across the Merced River on the Merced Lake Trail. In 1947 the footpath bridge on the Lost Arrow Trail, last replaced in early 1938, was again replaced, as was bridle path bridge no. 14, one or two miles above Mirror Lake.\textsuperscript{37}

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36. Frank A. Kittredge, Superintendent to Richard M. Leonard, chairman, Outing Committee, Sierra Club, 1 October 1941, in Box 83, Trails - 1940 to 1942, Yosemite Research Library and Records Center.

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After the Yosemite Valley Railroad was abandoned in 1945, another means had to be found to transport supplies into Yosemite Valley. The Yosemite Park and Curry Company purchased large trucks, which were unable to pass through Arch Rock. A serious traffic hazard resulted when the trucks were forced to bypass the rock going against the traffic flow. To remedy the situation, the arched portion of the rock was blasted out to permit passage of these vehicles. Small charges of dynamite were used to avoid breaking off unsightly chunks of rock.36

I) Flood of 1950
The flood periods of 19 November, 3 December, and 8 December 1950 wreaked havoc on Yosemite's road and trail system. Repair work in Yosemite Valley included repaving paved walks and footpaths, repairing bridle paths, replacing retaining walls, and removing fallen trees, silt, and other debris. Several bridges needed replacement of stringers and repair or replacement of abutments, railings, and decking. They included:

1. Old Village footbridge no. 20
2. Footbridge no. 25 (Mirror Lake half-log)
3. Footbridge no. 9 (Camp 16)
4. Footbridge no. 1 (Yosemite Creek near highway)
5. Horse bridges nos. 2-3 (Lost Arrow)
6. Footbridges nos. 4-5 (Lost Arrow)
7. Footbridge no. 26 (Mirror Lake)
8. Horse bridge no. 14 (Mirror Lake loop)
9. Horse bridge no. 10 (between Camps 9 and 12)
10. Horse bridge no. 8 (foot of Yosemite Fall)
11. Swinging Bridge no. 21

The El Portal road lost more than 700 lineal feet of walls undermined by the floodwaters, which fell into the Merced River. The waters also undermined the pavement at two points and caused collapse of one road section. Repair work included construction of concrete rock fill

to support the undercut pavement sections, replacement of pavement, restoration of washed-out shoulders, replacement of culverts, headwalls, and bridges at The Cascades, and replacement of retaining and parapet walls. Similar work followed on the Yosemite Valley, Wawona, Glacier Point, Big Oak Flat, Tioga, Lake Eleanor, and campground roads, including removal of rockslides, fallen trees, broken pavement, silt, and other debris. 39

m) Completion of the Tioga Road

Completion of the Tioga Road comprised a primary aim of the MISSION 66 road and trail program in Yosemite. Over the last several years, discussions had ensued over whether the central portion of the new road should be routed via the "high" or "scenic" line or along the general route of the old Tioga Road. Intensive studies involving discussions with various cooperating groups, the Secretary of the Interior, and other interested parties became fraught with controversy. Objections arose specifically from certain conservationists and the Bureau of Public Roads after it had been decided to proceed on the route selected and approved years earlier. Changes to meet improved safety standards met resistance from such people as David Brower, executive secretary of the Sierra Club, and nature photographer Ansel Adams. The Bureau of Public Roads believed that a wider road with wider shoulders was necessary so that cars could pull off the road in emergencies. The Park Service, meanwhile, wanted a safe width of road with narrow shoulders and with turnouts only where the terrain permitted to avoid scars from cuts and fills as much as possible plus higher costs. The matter was finally settled in favor of the two-foot shoulders with few

39. Flood Damage - Repair and Reconstruction Estimates - Floods of Nov. 19, Dec. 3, Dec. 8, 1950, in Box 11, Floods and Water Supply, Yosemite Research Library and Records Center. Reconstruction costs for these properties skyrocketed due to the lack of an inexpensive work force, such as the CCC, and postwar inflation affecting the price of materials. Because of the extensive flood damage and consequent need for haste in repair work, by the mid-1950s the park began using Bailey bridges of prefabricated steel parts. Snyder and Castle, "Draft Mules on the Trail in Yosemite National Park," 10.
turnouts except for one section where the shoulder had to be widened to provide the necessary stability. Conservationists, however, continued to object to the blasting and gouging methods used and the resulting scars on the face of glacially polished granite surfaces at Olmsted Point.

Actual construction of the new central section began in 1957, and it officially opened to the public in June 1961. The work had progressed with due regard for preservation of scenic values. It turned into an outstanding park road, carefully designed to display to their fullest the dramatic assets of the Sierra Nevada. The highest trans-Sierra crossing, it is well supplied with overlooks and interpretive signs. Sections of the old Tioga Road were retained, such as that leaving the new road just east of the White Wolf intersection and winding down to the Yosemite Creek campgrounds; another short section climbs over Snow Flat to the May Lake Trail junction. Shorter sections still serve campgrounds along the old road.

n) Flood Reconstruction Work Continues

In 1952 workers completed reconstruction of the Yosemite Fall bridge, partially washed out during the 1950 flood. By 1952 Park Service officials had decided the new Yosemite Village would receive early attention. Director Wirth at that time earmarked $80,000 for immediate use (1953) in planning and constructing roads and parking areas. In 1955, the most severe flood in Yosemite's history forced closure of roads into the park. Again floodwaters washed away large sections of the El Portal road, resulting in months of extensive repair work. In 1957 crews placed steel decking on the Vernal Fall bridge. By the end of 1960 the Merced River bridge stood complete with the approaches prepared for paving and the contractor had started work on reconstruction of the Sentinel Bridge.

40. Wirth, Parks, Politics, and the People, 359-60.

Illustration 161.
Road bridge over the South Fork of the Merced River near Wawona.

Illustration 162.
Controversial section of Tioga Road, northeast of Olmsted Point.
Photos by Robert C. Pavlik, 1984-85.
Illustration 163.
Ruins of Chilnualna Fall ranger patrol cabin.

Illustration 164.
Single stringer log and plank foot/horse bridge on trail between Chain Lakes and Chiquito Pass.

o) MISSION 66 Provides Impetus for New Big Oak Flat Entrance Road

The second most important section of the park's road system scheduled for completion under MISSION 66 was the seven-mile section of the old Big Oak Flat Road between Crane Flat and Carl Inn connecting with state route 120. The old stagecoach route would be retained as access to the Tuolumne Grove. In 1961 laborers started clearing the alignment for the new Big Oak Flat entrance road and parking areas. That entailed clearing and removing trees and brush within the right-of-way for the new road, between Crane Flat and the vicinity of Hazel Green Creek. The park decided to relocate the road when it determined that improvements to the existing road, including some realignment to straighten out dangerous curves, could not be made without damaging trees in the Tuolumne Grove. The new route ran along the western boundary of the park, connecting with state route 120 in the vicinity of Carl Inn. The park retained the historic road to the big trees in the Tuolumne Grove as a downhill, one-way road out of the park from Crane Flat. 42

C. Construction and Development

Construction within the national parks increased tremendously during the 1930s, particularly with the added help of emergency public works personnel. War conditions of the early 1940s tended to slow the process, but the pace of construction in Yosemite National Park into more recent times continued to be impressive and cause new concern about effects on the resources and the quality of the visitor experience. MISSION 66 objectives calling for the modernization of existing facilities, additional development of accommodations and services in sections of the park outside the valley to relieve congestion, and removal of all but certain critical operating functions out of the valley would result in major governmental and concession-related physical development in the latter

42. Superintendent's Monthly Reports, January-December 1948 to 1961, microfilm rolls #4 and #5, Yosemite Research Library and Records Center.
part of this period. The decision to bring more development into the Yosemite high country, resulting in improved roads and construction of new campgrounds, picnic areas, comfort stations, and visitor interest areas, such as the Yosemite Pioneer History Center at Wawona, has not solved the problem of overcrowding but helped to some extent in broadening the visitor experience and exposing people to the variety of attractions in the park.

1. **Season of 1931**

   Construction projects accomplished during the 1931 season included,

   on the Big Oak Flat Road: Establishing a new entrance station at the park line on the Big Oak Flat Road on a site formerly occupied by a California State Automobile Association tow camp. This action placed a ranger in the heart of the Rockefeller timber purchase and close to the Tuolumne Grove;

   at Crane Flat: Completing the Crane Flat fire lookout, the first of its kind in the park, the result of the fire protection plan developed for Yosemite by J.D. Coffman, Chief Forester and National Park Service fire expert. The Park Service's Landscape Division prepared the plans for the structure and John Wosky, assistant landscape architect, planned the site. The first story functioned as a garage, for economic and landscape reasons, and the second story for observation. The structure overlooked the Rockefeller grant recently added to the park. The next year, Superintendent Thomson noted that a definite effort was being made to get visitors to the lookout as a lesson in conservation (see later discussion of Park Service fire control philosophy during this period). Visitation averaged 100 people per day; 43

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43. C.G. Thomson to Edward Robling, 21 July 1932, in Central Files, RG 79, NA.
Illustrations 165-66.

Crane Flat fire lookout.

Illustration 167.
Tioga Pass ranger station.

Illustration 168.
Tioga Pass comfort station.
Illustration 169.

Buck Camp cabin.

Illustration 170.

Buck Camp cabin, tack and equipment storage shed (rt.), and privy.
at Tioga Pass: Completing a new ranger station. The first structure erected in connection with relocation of the old Tioga Road and the first rustic stone building in the Tuolumne Meadows/Tioga Pass area, it set the precedent for the use of that style in that section of the park;

at Tuolumne Meadows: Establishing a construction camp for the water, sewer, and sanitation system work, consisting of a dining room, tent platforms, bathhouses, and meat house, and completion of comfort stations;

in the valley: Moving residence #4, the old E.P. Leavitt house, from its location on the valley floor blocking the view of Yosemite Fall to the residential area, tearing down its garage, and landscaping the site; moving the old Oliver Taylor house to the Lost Arrow section, tearing down the garage, and landscaping the site; completing residences for the doctor, dentist, and an employee, and a hospital garage; completing a comfort station in the Indian Village; completing an activated sludge sewage disposal plant and sewer for the valley; installing electric camp stoves in the winter campground operated by meters; cleaning up the rock quarry near the Pohono Bridge and demolishing all associated structures; restoring an old parking area at Mirror Lake and abandoning the road at the foot of the Vernal Fall Trail; and reveting the Merced River at its junction with Yosemite Creek, arresting erosion of the banks and beautifying the area;

at Glacier Point: Completing two frame ranger cabins to replace the temporary tent accommodations. The ranger cabins were constructed for possible future moves in that each was built in two portions, the two bedrooms constituting one unit and the kitchen another, so that moving could be accomplished by simply unbolting the girders and framework of the walls dividing the two sections.
in the southern section of the park: Making an old logging cabin and barn at Eleven-Mile Annex (Deer Camp) habitable and constructing a log cabin at Buck Camp to aid in collecting snow measurements and for patrol use. The state helped financially on those projects; completing a comfort station in the Mariposa Grove.44

During 1931-34 the park completed fifteen new residences, a six-car garage, and a toilet/shower building for the Indians living on the valley floor. Originally estimates had been sought for a wigwam-type structure with a hexagonal floor plan, but fortunately the superintendent had the foresight to rule out that design, and Assistant Landscape Architect John Wosky drew plans in June 1931 for a cabin similar to those erected at Glacier Point earlier in that year. The site chosen for the new village lay west of the winter campground (present Sunnyside Campground).

2. Season of 1932

Other construction work accomplished in 1932 included a variety of needed projects:

at Merced Grove: Demolishing the old log ranger station constructed in 1915 and landscaping the site.

in Yosemite Valley: Construction by Maggie Howard of a new chuck-a in which to store acorns in the Indian Village behind the museum. That interpretive area then contained two chuck-as, three o-chums, and a mortar rock. These were thought to be the only chuck-as in use in the mountains of California at that time; completing two three-room frame women's dormitories; completing a new equipment storage shed in the valley utility group; landscaping the old sewer plant, including removal of the old frame building;

44. Superintendent's Monthly Reports, January-December 1931, microfilm roll #2, Yosemite Research Library and Records Center.
Illustration 171.
Glacier Point residence.

Illustration 172.
Glacier Point naturalist's cabin.
completing the Union Point comfort station; and constructing a rubble masonry drinking fountain at the intersection of the short spur trail leading to Union Point from the main Glacier Point Trail, and, in the open area at Union Point, a combination horse trough and drinking fountain of rubble masonry;

near Chinquapin: Obliterating the old Wawona Road between Grouse Creek and Eleven-Mile; removing buildings to permit grading for a plaza. The Chinquapin area had first been developed between 1919 and 1923. A fire destroyed the contractor's camp there in October, burning all buildings except two small ranger cabins. Of the thirteen frame structures lost, the government had owned five;

at Wawona: Replacing the Wawona barn removed for highway and bridge work; and

at Mariposa Grove: Developing Wawona Point with a large parking area and lookout, a project considered a model for future work of that type.

The valley lost one of its early landmarks in December 1932 when fire destroyed the old Cosmopolitan Bathhouse. For the past several years the Yosemite Park and Curry Company had used it for their general offices. The fire, which could not be contained, centered on an overheated flue in the rear of the building. The Park Service subsequently razed the ruins, and the concessioner moved his offices to the Ahwahnee Hotel.45

In 1933 the park superintendent praised the energy and efficiency with which the park public works projects had been initiated. This had been due to the fact that blueprints had already been prepared

45. Superintendent's Monthly Reports, January-December 1932, microfilm roll #2, Yosemite Research Library and Records Center.
for many projects, equipment had been available, and usually slow processes such as purchase and supply had been expedited. Several construction crews were busily working at Tuolumne Meadows, Hetch Hetchy, Mariposa Grove, in Yosemite Valley, at Wawona, Glacier Point, Nevada Fall, and other places. Each of the projects underway had been selected from the park's development program. The Branch of Plans and Design was expediting design work during this early period of the public works program and the year-long detail of Landscape Architect John Wosky to the park was proving invaluable. The five CCC camps at Wawona, Crane Flat, and Eleven-Mile Meadow were accomplishing enormous amounts of work relative to fire control, cleanup, trail construction, campground development, erosion prevention, and the like. At this time the park was just organizing to employ several hundred men under the CWA, primarily on building and utility maintenance.  

3. **Season of 1933**

In 1933 crews worked on several construction projects:

- **at Tioga Pass:** Constructing a stone gateway;

- **in Yosemite Valley:** Eliminating the old Indian Village at the foot of Indian Canyon; demolishing the zoo in the Lost Arrow district; and removing the elk paddock in Yosemite Valley and restoring the meadow area it had covered;

- **at Chinquapin:** Completing the comfort station;

- **at Wawona:** Removing the dressing rooms (at Stella Lake?), the old laundry building, the bear pen, and the old fish hatchery; and

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46. Superintendent's Monthly Reports, Jaunary-December 1933, microfilm roll #2, Yosemite Research Library and Records Center.
Illustration 173.
Chinquapin comfort station.

Illustration 174.
Chinquapin ranger station.
Photo by Paul Cloyd, 1986.

Illustration 175.
Chinquapin garage.
Illustration 176.

Chinquapin gas station (Curry Co. employee residence).

Illustration 177.

Chinquapin barn, to west.

Illustration 178.

Chinquapin barn, to south.

Illustration 179.
Hetch Hetchy comfort station.

Illustrations 180-81.
Mather ranger station/residence.
Illustration 182.
Mather barn.

Illustration 183.
Old cookhouse/residence, Mather.
at South Entrance: placing the Alder Creek checking station at the intersection of the Mariposa Grove road and State Route 41. This comprised a temporary measure because of the lack of funds for construction of a permanent station. The ranger on duty there lived in a tent. The addition of a checking station reflected the new boundary line resulting from the 1932 Wawona acquisition; moving the ranger station at Four-Mile to the park boundary at South Entrance. 47

4. Season of 1934

During the season of 1934, workers accomplished a multitude of construction projects, chief among them being:

- **at Hetch Hetchy:** Completing a comfort station;
- **at Lake Eleanor:** Rebuilding the fish trap at Frog Creek;
- **at Mather:** Completing the ranger residence. This four-room cabin served as the park's administrative center concerned with cattle grazing along the park boundary and activities at the city of San Francisco's recreational camp at Mather. Two rangers there patrolled the northwest portion of the park and its fishing area and checked cars.
- **at Merced Grove:** Completing a ranger cabin;
- **at Tioga Pass:** Completing the entrance gates and a comfort station;
- **at Tuolumne Meadows:** Completing four bunkhouses at the new maintenance camp in the utility area, plus a mess hall, kitchen, and

47. Ibid.

toilet-shower building (relocation of the Tioga Road had necessitated demolition of the former housing area used by road maintenance and construction crews during the summer); completing three frame comfort stations and an addition to one erected in 1931;

at Merced Lake: Enlarging the ranger cabin and adding a fireplace;

in Yosemite Valley: Razing of the old 1912 army hospital northeast of Yosemite Lodge; adding a new bathroom to the old Chris Jorgensen residence near Sentinel Bridge; completing a four-family apartment unit and a nurses' quarters on the second floor of the hospital's six-stall rubble masonry garage; completing three employees' residences; moving the old granary near the Lost Arrow residential section to the east between two barns; razing the old government building in the Old Village used as a laundry by the Yosemite Park and Curry Company; placement of finishing touches on the Camp 14 entertainment area, including a stage platform and benches; removing the old concrete piers remaining after the footbridge across the Merced River to the Old Village had been torn down; completing a comfort station near the Vernal Fall Bridge;

at Glacier Point: Completing a comfort station, a four-stall barn, and an eighty-car parking area;

at Chinquapin: Completing the ranger station. The early ranger station, maintenance camp, and tourist facilities had been nearly all destroyed by the fire of 1932, and the remaining structures torn down when a new parking area was constructed in 1934. The new ranger station and comfort station, plus the concessioner's service station/lunchroom would complete the new complex. The Chinquapin junction was being developed in accordance with a plan prepared by the Branch of Plans and Design of the Park Service. The Alder Creek barn was being moved to Chinquapin.
Illustration 184.

Present Tuolumne Meadows visitor center (old CCC mess hall).

Illustration 185.

Employee housing (former bunkhouses), Tuolumne Meadows.

Illustration 186.
Merced Lake ranger station.

Illustration 187.
Miguel Meadow barn.

Illustration 188.
Miguel Meadow guard station.

Illustration 189.
Henness Ridge fire lookout.
Illustration 190.
Wawona ranger station/residence #4000.

Illustration 191.
Wawona residence #4003.

Illustration 192.
Wawona ranger station/residence #4001.

Illustration 193.
Wawona equipment shed #4052, to northeast.
Illustration 194.
Wawona equipment shed #4052, to southwest.

Illustration 195.
Wawona barn, utility area.

Illustration 196.
Wawona blister rust camp repair garage.

Illustration 197.
Wawona maintenance yard, to east.
Illustration 198.
Wawona district ranger office #4027.

Illustration 199.
Wawona ranger office #4002.

Illustration 200.
Wawona teacherage and school.
Illustration 201.
Wawona barn.

Illustration 202.
Wawona residence occupied by Curry Company employee (store manager).

Illustration 203.
Wawona wagon shop (former Chinese laundry).

Illustration 204.
Wawona store and post office.

at Henness Ridge: Completing a fire lookout. The Park Service Branch of Plans and Design prepared the plans for the three-story frame structure on a granite rubble masonry foundation. The first floor served as a garage, the second for living quarters, and the third for observation. In October 1934 construction began on the Miguel Meadow fire guard cabin, headquarters of a fire protection district north of the Tuolumne River adjacent to the Lake Eleanor road. The fire guard stationed there communicated by telephone with the valley floor ranger station and park fire lookouts. Previously the guard had lived in tent quarters. The Miguel Meadow cabin was part of the park’s fire protection program worked out with the aid of J.D. Coffman. The Branch of Plans and Design prepared plans for the structure. In addition to the single-story frame cabin, a barn and corral for pack stock and patrol horses were constructed in the meadow that same year and in 1935 storage buildings were erected. Nearby stood a CCC stub camp.

at Wawona: Completing a ranger station and residence; removing old buildings in the Camp A.E. Wood area near the new public campground; erecting a new garage at the ECW camp; completing a new equipment shed.

at South Entrance: Completing the new Four-Mile complex, an area planned for development as a result of acquisition of the Wawona Basin. It included a ranger station, checking kiosk (present office), and comfort station. The old checking station was removed at this time. The Four-Mile residence had two divisions—one a dormitory and the other a single-family residence.49

49. West of the South Entrance Station today are remains of a sewer system that served the dormitory building and comfort station. These consist of a redwood-lined cesspool structure set flush with the ground and sludge draining lines. Construction on them took place sometime between September 1933 and October 1934. C.G. Thomson, “Final Report . . . Sewer System Extension and Improvements”; Superintendent’s Monthly Reports, January-December 1934, microfilm roll #3, Yosemite Research Library and Records Center.
5. **Season of 1935**

   Accomplishments of 1935 included:

   **at Mather:** Completing the ranger residence garage and storage building;

   **at Tuolumne Meadows:** Razing the old government mess hall and cook house;

   **in Yosemite Valley:** Removing the fence around the pioneer cemetery and transplanting some of the cedar trees to new locations, changing the entrance, mounding and marking graves, and laying out paths; beginning razing of the old electric, paint, and carpenter shops that were being supplanted by a new utility building; constructing the new utility building, removing the rest of the old shops around it, and grading the area; razing the aged and deteriorated Rock Cottage in the Old Village; removing large rocks in the New Village plaza to improve the appearance of the area; improving the campground system by instituting thirty-day camping limits to lessen crowding and help reclaim vegetation and a system of rotational use of campgrounds to spread the camping impact over a larger area and give the vegetation a chance to recuperate. Plans were also made for using the "Meinecke System" of delineating campgrounds (advocated by Dr. E.P. Meinecke, Principal Pathologist, Division of Forest Pathology, Bureau of Plant Industry, U.S. Department of Agriculture), involving fixing the location of the car, the fireplace, and the table so that each campsite is readily identifiable;

   **at Chinquapin:** Completing the garage building at the ranger station; installing drinking fountains and faucets along the Wawona Road between Yosemite Valley and Chinquapin;

   **at Eight-Mile:** Constructing a cooperative field laboratory and insectary building to be staffed by Bureau of Entomology personnel;
Illustrations 205-6.

Eight-Mile insect control laboratory.

Illustration 207.
South Entrance kiosk and office.
Photo by Gary Higgins, 1984.

Illustration 208.
South Entrance office.

Illustration 209.
South Entrance comfort station.
Illustrations 210-11.

South Entrance ranger station/residence.

Illustrations 212-14.

Utility building, Yosemite Valley maintenance yard. Notice similarities in style between this building and the valley power plant.

Illustration 215.
Frog Creek cabin.

Illustration 216.
Remnants of dam, Frog Creek.
at Wawona: Completing the new ECW camp office building and an equipment shed;

at Four-Mile (South Entrance): Completing a garage;

at Mariposa Grove: Moving the abandoned checking kiosk to the Mather ranger station.  

Most of the buildings projected for the new Yosemite Village had been completed by the spring of 1935. One of the major buildings constructed during the year was the new utility building in the Yosemite Valley maintenance area. Designed by the Park Service Branch of Plans and Design in San Francisco, the reinforced concrete building would eliminate the old separate and inefficient frame shop units and concentrate them in a single structure. The building contained a repair and machine shop unit, a sign shop, a fire station, a blacksmith unit, carpentry and upholstery shops, an electrical department, an auto paint shop, a building paint shop, and a plumbing and sheetmetal shop. This was the first fire-resistant unit built in the utility area in the valley. The government utility area at around this time consisted of thirty-one structures, comprising shops, barns, and storage warehouses. Most of them had been erected around 1921-22 of salvaged material. A laborer's quarters area consisted of ten light frame sleeping cabins and tent platforms with a mess hall and shower/toilet building for 184 men.  

6. Season of 1936
   Work in 1936 involved:

at Lake Eleanor: Completing a dwelling at Frog Creek;

at Tuolumne Meadows: Constructing a new ranger contact station at the main campground entrance. The naturalist's quarters and old ranger dwellings now stood isolated along a portion of the old Tioga Road;

in Yosemite Valley: Razing the residence formerly occupied by Gabriel Sovulewski and restoring the site to a natural condition. After Sovulewski retired, the Park Service decided the large, two-story house could not be moved without danger of collapse or removal of several of the surrounding oak trees. Officials finally decided to dismantle the house and construct a smaller residence in another area using salvaged material.52

at Wawona: Completing a new mess hall.53

7. Season of 1937

a) General Construction

Construction and maintenance tasks in 1937 involved, in Yosemite Valley, initiating work on a residence for the school bus driver west of the valley schoolhouse and completing a footbridge across the Merced River to the Old Village; and, at Wawona, constructing a schoolhouse with the aid of the CCC and removing the old tennis court and razing three old buildings (described as two barns and a former stage depot) from the area behind the gas station.54


R.L. McKown also noted in May that the pit in Miguel Meadow being excavated by the City of San Francisco for sand, which was conveyed to the Hetch Hetchy Dam by a three-mile-long aerial tramway, was extremely large, indicating that Yosemite would acquire a fair-sized lake when dam-raising ended. McKown had staked an outline for the contractor ensuring a natural-looking shoreline. The area is now known as Gravel Pit Lake.  

At Hetch Hetchy by the end of 1937 the machine shop, an old warehouse, the company office building, and four cottages had been removed from the dam area. Superintendent Lawrence C. Merriam planned to retain two cottages on the upper side of the road for park purposes. The city had begun construction of its guest house as well as remodeling of existing houses.

b) Flood Damage

As mentioned in the preceding section, the most serious situation in the park's history occurred as a result of the devastating storm that inundated Yosemite Valley and its environs with almost twelve inches of rain in December. Overflowing waters and sheets of mud and other debris inflicted an enormous amount of damage on roads, trails and paths, bridges, electric and telephone systems, water and sewer systems, buildings, campgrounds, and signs. Rushing waters even washed away the egg-taking development at Frog Creek, except for the cabin. The flood reached its peak at 3:00 p.m. on 11 December.

Specific flood damage to structures entailed

at Arch Rock: Destruction of the parking area, undermining of the unit building housing the ranger's dormitory, comfort station, and garage, and moving of a portion of the main structure off its foundation;

in Yosemite Valley: Inundation of Camps 6 and 16, flooding of the first floor of the Old Village store and the chapel, flooding of the superintendent's house and government houses at Sentinel Bridge (residences #50-51), flooding of the Yosemite Lodge cabin area and removal of some structures from their foundations, and submerging of six public campgrounds at the upper end of the valley.\footnote{57}

at Cascades CCC camp: Washing away of four of the large barracks and the officers' quarters, leaving only the chimney, and damage to the mess hall and recreation building. The enrollees escaped to El Portal by forming human chains across flooded stretches of the road. The Army District Commander refused to approve rehabilitation of this site. An acceptable new location was found north of the All-Year Highway, just west of the El Capitan checking station. At first the displaced enrollees were housed in the school at El Portal and later at other CCC camps in the region. It was imperative, however, to return them to Yosemite immediately to assist in repair of flood damage. They were finally quartered in two Yosemite Park and Curry Company employee bunkhouses and in the old school at Wawona until new quarters were constructed.\footnote{58}

c) New CCC Cascades Camp Constructed

Only sparse details are available about the area into which the new Yosemite CCC camp was moved, between present Northside Drive and the old Big Oak Flat Road, west of Ribbon Creek. By 1917 an auto checking station had been located at El Capitan to serve incoming visitors on the Big Oak Flat Road. A section of old road heading east from the Big Oak Flat Road across Ribbon Creek and on into the meadow near El Capitan where it intersects with another road section now used as a bridle path may be part of the original Northside Drive. In 1924 the

\footnotesize{57. Ibid., 2.}
\footnotesize{58. Ibid., 4.}
park erected a frame, two-room ranger residence and in 1926 a checking kiosk and two comfort stations in the vicinity of El Capitan near the old Big Oak Flat Road. Three years later, however, the park moved the checking kiosk downstream to Arch Rock. Camp YNP-6, Cascades, was rebuilt near these earlier structures. Work began on this new Cascades Camp YNP-20 in January 1938 and occupation took place in mid-April. A December 1940 plat of the camp shows:

- Four barracks buildings, 20 by 130 feet
- One education building west of the barracks, 20 by 119 feet
- One recreation hall southwest of the barracks, 20 by 100 feet
- One centrally located washroom and latrine, 20 by 55 feet
- One laundry north of the washroom, 20 by 30 feet
- One mess hall south of the barracks, 20 by 160 feet
- One officers' and foreman's quarters southeast of the barracks, 20 by 120 feet
- One administration building east of the officers' quarters, 20 by 40 feet
- One ECW toolroom northeast of the administration building, 35 by 50 feet
- One ECW garage north of the toolroom, 30 by 100 feet

Other buildings included an infirmary, oil house, maintenance shop, blacksmith shop, foreman's garage, and storehouse. The Cascades camp was evacuated by early August 1942 and its equipment turned over to the U.S. Army. By November the army had removed all portable buildings and the remaining structures were to be turned over to the National Park Service. The date of their removal is not known.  59

The 1937 flood damage necessitated a massive cleanup job clearing roads of debris, resiting structures washed off their foundations, cleaning up campgrounds, repairing bridges, and reconstructing trails. Repair work by CCC crews included raising the Arch Rock unit twenty-two inches above its former level and constructing a new rubble masonry foundation to that level as a precaution against future flooding. A rock parapet wall was also constructed around the unit and the parking lot.

8. Season of 1938

In 1938 improvement work and flood damage repair continued. The period occupied in making residences habitable again extended from December 1937 to October 1938. During the latter year the men accomplished

at Lake Eleanor: Constructing a new dam and fish ladder at the Frog Creek egg-collecting station;

in Yosemite Valley: Clearing and grading for the new CCC camp west of the Big Oak Flat Road and the El Capitan ranger station; constructing another new employees' residence in the Lost Arrow section; and razing the Sentinel Hotel and Ivy and River cottages;

at Badger Pass: Placing cabins for winter ranger occupancy.

In late spring 1938, the San Joaquin Light and Power Corporation installed a new substation immediately west of the Yosemite power plant and installed protective riprap around the base of the station on the river side. Other protective work against flooding involved construction of the major portion of a barrier wall in January to divert spring floodwaters and extension of it during the summer of 1938. The

60. Superintendent's Monthly Reports, January-December 1938, microfilm roll #3, Yosemite Research Library and Records Center.
Illustration 217.

Map of Yosemite National Park, 1939.

From "Guide Map, Yosemite National Park," 1939, courtesy Western History Section, Denver Public Library.
wall, 270 feet long and ranging from two to ten feet in height above the stream channel, extended from the tailrace channel wall upstream from the powerhouse to a point on the riverbank.\textsuperscript{61}

A sixty-man maintenance camp in the Mariposa Grove in 1938 consisted of a frame mess hall (1931), storeroom (1931), meat room (1926), shower (1931), and toilet (1931). Tent platforms provided shelter and a gas station had been moved there in 1936.\textsuperscript{62}

After 1926 and the completion of the All-Year Highway, railroad travel to El Portal diminished and the Yosemite Transportation Company shifted its quarters to various hotels in the park. In the late 1930s the Park Service converted the vacant transportation building to a residence. Instead of being razed in 1959 as part of the MISSION 66 program, the Park Service purchased the structure from its current owner, the Yosemite Park and Curry Company, and moved it to the Wawona Pioneer Yosemite History Center. There it was restored to its appearance of about 1912 and opened for interpretive use.

9. Seasons of 1939-40

The work season of 1939 kept CCC crews busy completing an employees’ residence, a doctor’s residence near the Lewis Memorial Hospital, and a ranger residence at Badger Pass. In 1940 CCC labor from the Crane Flat camp carried out fire hazard reduction work at Carl Inn, where the remains of houses used for resort purposes previous to the Carl Inn Addition to the park were razed. They had been badly damaged in the flood of December 1937 and were in an extremely ramshackle state.\textsuperscript{63} In 1939 the South Entrance layout was revised and a

\textsuperscript{61} Lawrence C. Merriam, "Final Report—Flood Damage Repair—Physical Improvements," January 1940, in Box 11, Floods and Water Supply, Yosemite Research Library and Records Center.

\textsuperscript{62} Master Plan Development Outline, February 1938, RG 79, Cartographic Archives Division, NA, Alexandria, Va.
new checking kiosk installed by 1940. Demolished in 1958, it was replaced by a MISSION 66 structure, which still stands. The South Entrance layout has undergone numerous changes through the years, with landscape architects, especially John Wosky, believing that it never fulfilled the park's needs in regard to traffic and circulation control.

As a result of a study made in 1938 on Yosemite campgrounds, and, on the basis of subsequent recommendations to the superintendent, a CCC project was started in Campground 11 in Yosemite Valley in 1940 to install individual campsites using a modified Meinecke system. Park officials hoped that this would alleviate the damage done to vegetation by unregulated camping practices and overcrowding of campgrounds. At the same time, CCC labor attempted to regulate the former heavy use of riverside sites at the Tuolumne Meadows campground and channel more activities to sites more remote from the river.64

63. Superintendent's Monthly Reports, January-December 1939, microfilm roll #4, Yosemite Research Library and Records Center.

64. The Yosemite Advisory Board remained skeptical about extending the outlining of campsites according to the Meinecke plan within Yosemite Valley. After considering all the pros and cons, the board concluded it would be unwise to apply the plan extensively to campgrounds in Yosemite Valley, although it believed one campground laid out in that manner would enable a comparison as to camper preference, ease of administration, flexibility under camper population pressure, and cost and upkeep. The board did not believe the Meinecke plan a feasible application in the valley because of the anticipated increase in demand for camping spaces and the fact that the Meinecke plan decreased that number by about fifty percent. The board advised that no large-scale application of the plan be considered until provision for the campers excluded by it could be made elsewhere. It concluded, however, that campers could not be attracted away from the valley and that the campsites lost through application of that plan in the valley could only be replaced by new sites on the valley floor, which it felt to be undesirable. "Outlining Campsites in Camp Grounds, Meinecke Plan," from discussions of Yosemite Advisory Board in Yosemite National Park, 20-23 August 1949, dated 25 August 1949, Board of Advisors file/1949 to 1953, in Box 10, Advisory Board Correspondence and Files, Yosemite Research Library and Records Center.
Checking stations were located at five different sites on the Big Oak Flat Road—El Capitan (lower end of control road), Gentry (upper end of control road), Crane Flat, Tuolumne Grove, and Carl Inn. The Gentry and El Capitan stations remained in use until 1940, chiefly for operation of the control road. After the Rockefeller purchase, a checking station was placed at Carl Inn about 1941, but in the mid-forties moved to Crane Flat. The Tuolumne Grove tent station functioned for only a short time. The new Crane Flat ranger duplex and garage were finished in 1940 upon completion and opening of the new Big Oak Flat and Tioga roads. (The old Crane Flat ranger cabin was occupied seasonally into the early 1950s and moved to the Pioneer Yosemite History Center at Wawona in 1959.) The U.S. Forest Service also constructed a lookout tower on North Mountain, accessible by a road through Miguel Meadow, during this year.

In 1940 a question arose concerning the future of Cedar Cottage, the oldest building in the park, then being used by the concessioner to house weekend guests during the winter. Park Service officials had decided, as part of the overall park plan, that because of the importance of natural resources, all other considerations should be subordinate to their welfare and every opportunity taken to return unoccupied areas to as pristine a condition as possible. This policy was to be followed in the Old Village.

Some preservationists had argued that the Sentinel Hotel, Cedar Cottage, and Oak Cottage should be considered a group to be preserved if they were found to have sufficient architectural interest and historical value. The park gave some thought to preserving Oak Cottage and Cedar Cottage as examples of early California hotel architecture and for the historical and educational value of the buildings. When officials decided to tear down the Sentinel, however, it was decided the other buildings should go also. Despite the efforts of Carl Russell and others to preserve Cedar Cottage, the members of the Yosemite Advisory Board judged its architectural and historical significance to be so minimal that it unanimously recommended its removal and that of other Old Village
Illustrations 218-19.

Rear of Sentinel Hotel from across Merced River.

Photos by Rural Housing Authority, December 1934. NPS, Western Regional Office files.
Illustration 220.

Sentinel Hotel in Old Village.

Photo by RHA, spring 1935. NPS, Western Regional Office files.

Illustration 221.

Front of Rock Cottage, Old Village, ca. 1935.

Photographer unknown. NPS, Western Regional Offices files.
Illustrations 222-23.

Ivy Cottage, Old Village, ca. 1935.

Photographer unknown.
NPS, Western Regional Office files.
Illustration 224.
Mariposa Grove comfort station.

Illustration 225.
Ostrander Lake ski hut.
structures in the interest of the larger program for the restoration of the valley.

Also in 1940 a small residence near the site of the former El Capitan checking station was moved immediately east of the Wawona ranger station. The comfort station at Badger Pass was completed, and a hut at Ostrander Lake was constructed through the cooperation of the CCC program. Originally the Yosemite Winter Activities Committee had recommended that two huts be constructed—one for people who wished to carry their own sleeping bags and food and one for those who desired to rent bedding and purchase meals. Because it did not seem feasible to construct two huts, and with a view to providing an experiment along the lines recommended, it was decided to provide both types of service in one structure. 66

65. It is interesting to note that in the discussions concerning preservation of those structures, the question was raised as to whether any attention should be paid to history in the park because of the great natural values of the area. The statement was made that "This is one park which is manifestly not an historical park." "Minutes of the Meeting of the Yosemite Advisory Board, April 19-21, 1940, at Yosemite National Park, Califronia," Board of Advisors file, 1940, in Box 10, Advisory Board Correspondence and Files, Yosemite Research Library and Records Center, 3. The entry of the Department of the Interior into the field of historic preservation began as early as 1906, when passage of the Antiquities Act made the preservation of historical and archeological sites one of its responsibilities. That duty also passed to the National Park Service upon its establishment in 1916. Director Horace Albright soon perceived the need for a separate body to address preservation issues and in 1931 created a historical division in the Branch of Research and Education. His action reflected the growing recognition of the importance of historical areas in the National Park System. Verne E. Chatelain, head of the new division, undertook the difficult task of reorienting the Park Service's longstanding concern with large natural areas of the West toward a new awareness of historical features. Prior to that time, leadership in historic preservation in park areas had come primarily from individuals and private groups. The immediate problems Chatelain faced are apparent in the involved discussions concerning the justification for preservation of historical features, such as Cedar Cottage, carried on in Yosemite National Park.

As mentioned in the previous chapter, following studies by various individuals, including field biologists, the park discontinued bear feeding on the valley floor late in the 1940 season. It tore up the old feeding platforms and landscaped the old parking area to restore it to its original condition. Temporary platforms were constructed at Gin Flat, and the experimental project of trapping bears on the valley floor and hauling them to Gin Flat for release and feeding of garbage was seen as the solution to eliminating the bear nuisance problem.

10. Period of the Late 1940s

In 1941 the Oak and Cedar cottages in the Old Village were razed and bronze markers placed on large boulders to indicate their former locations and that of the Sentinel Hotel. The new Big Oak Flat Road entrance station on the western park boundary opened in May 1941 and a residence at Wawona was completed. In 1942 fire destroyed the Wawona store and post office. In 1943 the old Eight-Mile insect experimental laboratory was converted into a mess hall for a blister rust camp.68

During 1945 a fire occurred in the Old Village pavilion, the movie house operated by the concessioner. In 1947 the barn at the Mariposa Grove ranger station burned, and twenty-four grave markers were made and installed in the Yosemite Valley cemetery. In that year the Wawona school became one of eleven one-teacher schools established during a reorganization in Mariposa County. The school, which began operating during the 1890-91 term, reached its peak during 1937-38. Its

67. Superintendent's Monthly Reports, January-December 1941-1942, microfilm roll #4, Yosemite Research Library and Records Center.

68. Superintendent's Monthly Reports, January-December 1943, microfilm roll #4, Yosemite Research Library and Records Center.
attendance declined gradually through the 1950s and 1960s and the school closed in 1971. 69

By the late 1940s questions were arising over the future uses of the park, and an effort was being made to formulate policies to guide the development program. It was generally agreed that the facilities in the valley had about reached the saturation point and further expansion would have to be accomplished elsewhere. Many of the concessioner's obsolete buildings were in a state of dilapidation and its accommodations and supporting services were the subject of complaints from the public. The Park Service considered Yosemite Lodge, especially, a disgrace. Thought was given to developing new facilities at Wawona and Crane Flat as major visitor-use areas.

In December 1949 fire destroyed the old railroad depot at El Portal. By 1950 the Cunningham Flat Campground at Wawona was being built and the amphitheater at Camp 14 had to be demolished for safety reasons. Two residences, nos. 68 and 69, were under construction in the Lost Arrow Residential section in the valley. 70

11. The 1950s Period Encompasses Many Changes

As stated in the previous section, torrential rains and melting snow from the high country caused flood conditions in Yosemite in November 1950 similar to those of December 1937. Damage from the twelve inches of rain included tent platforms and pit privies washed from their foundations, residences and comfort stations filled with silt and mud, and destruction of power poles, telephone lines, and sewage


systems. The diversion dam and valley sewage treatment plant suffered damage, while the Frog Creek spawning station needed replacement of holding pens, traps, and railings. Although the damage was less in some respects than during the 1937 catastrophe, more funds were required for repair work because of radical economic changes during the past decade. 71

In 1951 some of the old buildings connected with the Wawona Hotel Company were torn down as was the old Foley Studio in the Old Village. A small amphitheatre was constructed in Campground No. 7 in 1952. Also in that year the new refreshment stand at Happy Isles was under construction. Stuart N. Greenberg donated money to install a bronze sign and railing around the sequoia tree in the Old Village. That concrete and rock work was installed in 1953, the year that stabilization of the stone fireplace in the Mount Dana Summit Mine cabin was undertaken. 72 The plaque and railing were removed about 1970.

An addition to Lewis Memorial Hospital was begun in 1953. The new extension included a dental office with two treatment rooms and a laboratory, a storage room, a sun room, and a four-bed ward, completed in May 1954. In the latter year the old checking station at Aspen Valley was rehabilitated and used as quarters for a fire guard during the fire season. In addition, the Crane Flat fire lookout was established as one of seven key observation posts in connection with a new California Forest and Range Experiment Station cloud-observation program. This "Operation Sky-Fire" entailed daily recording of a rather complex series of cloud formations, movements, types, and related data. The


Illustration 226.

Shaded area shows extent of flood, 22-23 December 1955.

Box 11, Floods and Water Supply, Yosemite Research Library and Records Center.
accumulated information from such posts would be analyzed to determine
the feasibility of a cloud-seeding program to decrease the number of
lightning strikes throughout the fire season. Also during 1954,
representatives of the Davis Lumber Company working in Aspen Valley,
which had ceased operations in November 1953, burned the remaining
parts of their sawmill and several other temporary wooden structures.
Additionally the Park Service razed several small buildings on the Scroggs
property at Wawona to lessen the fire hazard.\textsuperscript{73} That same year
restoration of the old stone cabins at the Great Sierra Mine began. The
worst flood in Yosemite's history hit in December 1955, when more than
seventeen inches of rain fell. Losses, however, were less severe due to
the precautions taken as a result of the previous floods. In the fall of
1956 the old Yosemite Lodge burned. That was not considered much of a
loss since the building was being dismantled at the time because of the
opening of the new lodge that year.

In February 1956 residence 15 (old stage office/school) in the
valley was demolished and the site cleaned up to make way for new
residence 74. Residences 71-73 were also completed on the site of the
former tennis court, in the summer of 1956. A new grammar school was
built that same year. The Happy Isles state fish hatchery building closed
in 1957 and conversion to a nature center began. As a proposed
information and interpretive station, it would contain exhibits on the high
country and natural history subjects and serve as a meeting place for the
Junior Ranger program.\textsuperscript{74}

By 1949 about thirty-five Indians resided in the Indian Village
in Yosemite Valley. Most of the men worked for the Park Service while

\textsuperscript{73} Emil F. Ernst and Henry R. During, "Annual Forestry Report of
Yosemite National Park for the Calendar Year 1954," RG 79, Federal
Archives and Records Center, San Bruno, California, 2-3, 20.

\textsuperscript{74} Superintendent's Monthly Reports, 1953-1957, microfilm rolls #4 and
#5, Yosemite Research Library and Records Center.
Illustration 227.

Indian Village - Arch Rock entrance station, 1952.

Part of the Master Plan for Yosemite National Park.

NPS, Denver Service Center files.
the women worked in the laundry or performed housework for some of the park's permanent residents. Younger children attended the nearby elementary school and the older ones attended either Mariposa High School or Indian schools. 75

The discontinuance of the Indian Village in the 1950s was based on an Indian housing policy formulated by the National Park Service in August 1953, which provided that when a house became vacant, the building would be removed. The gradual elimination of the cabins was seen as a solution to a problem stemming from an influx of outside Indians. Houses were removed at several different times: Bldgs. 114 and 121 in 1953; No. 119 in 1956; No. 112 was destroyed in 1957; Nos. 110, 115, and 118 were razed in 1953; and No. 107 was torn down in 1960, as was the garage. In 1944 two sets of cabins were relocated in the Indian Village and joined together (108 with 109 and 116 with 117). Building No. 120 was moved to the government utility area where it functions as a paint shop (No. 551). Remaining cabins (108, 111, 113, 116), the comfort station, and the shower (Bldg. No. 444) were eliminated about 1969. 76

By 1957 the staff of the park realized that a number of historic buildings in the park would be lost unless they could be moved to a location where they would receive proper care. Several lay in areas due to be restored to wilderness, others in isolated places had become susceptible to vandalism. Visitors never saw most of them, wasting their value as historic structures. The park conceived the idea of moving those buildings to Wawona, which already had items of historical interest, such as the old covered bridge, an old wagon shop, and the hotel. There the park would develop a major pioneer interpretive and information


76. Leslie P. Arnberger, Superintendent, Yosemite National Park, to Barbara Karshmer, Attorney-at-Law, California Indian Legal Services, 19 October 1976, Box 58, Yosemite Research Library and Records Center.
center concentrating on the human history of the area, turning Wawona into the park’s second-largest visitor-use area and lessening visitor pressures on Yosemite Valley.

The first step in the project involved the restoration of the covered bridge. The old wagon shop on its original location near the bridge was rehabilitated to house an outstanding collection of Yosemite stagecoaches and other horse-drawn vehicles. Workers brought in eight historic structures from various areas of the park and reassembled them as a village. Each one represented a phase of Yosemite’s human history: pioneering, homesteading, early transportation, visitor accommodations, army administration, ranger services, and pioneer artists. Machinery from the Tioga Mine illustrated the story of mining in the Sierra. Each cabin was furnished to its period and in accordance with its original use and each structure is interpreted to visitors. Restoration crews spent six years moving and restoring early structures for the center, and various people contributed vehicles and furnishings to aid in interpretation. The Pioneer History Center opened to the public in 1961.

A new Camp 14 amphitheater was constructed in June 1957. By that year the problem of refuse collection and disposal in Yosemite Valley had become of paramount importance. Mixed refuse was being disposed of at the incinerator operated by the Park Service at the north edge of the utility area near Yosemite Village. The concessioner collected the refuse from the privately owned establishments and concessioner housing for disposal there. Built in 1925, the facility was now considered inefficient and obsolete as well as overloaded. Rubbish and noncombustible material of the concessioner and the Park Service was collected separately and hauled to the Curry dump, an open, abandoned borrow pit just southeast of Camp Curry. Rubbish was burned in the almost full pit each day. Although garbage from the valley eating establishments was collected daily by a hog rancher from Merced under a Park Service contract, some always ended up in the Curry dump and attracted bears. In addition,
smoke from the burning trash was extremely unsightly. Obviously both
the dump and the incinerator needed new facilities and relocation. 77

Other construction during this later period included a comfort
station near the valley museum (completion report dated 1957); a post
office employees' garage, comfort stations at Camp A.E. Wood, Camp 9,
Bridalveil Fall, White Wolf, and Glacier Point; and ten employee residences
in Upper Tecoya (completion reports dated 1958); and a combination
service building in the El Portal trailer village and rehabilitation of
historic structures for the Yosemite Pioneer History Center (completion
reports dated 1960). At the end of 1958, the park was in the process of
razing or removing from the valley twelve old dwellings, some dating from
1906. The first superintendent's office, which had been moved to
Yosemite Valley in 1906, had been used as a residence until 1958, when it
was moved to the Pioneer Yosemite History Center.

In 1959 work started on liquidation of the large employee trailer
camp on the valley floor immediately above Sentinel Bridge between the
river and the valley road. A major step in the MISSION 66 program was
moving this out of the valley to El Portal. A fire that year destroyed a
Happy Isles residence.

Early in 1961 construction of government houses at El Portal
began, along with erection of a new water and sewage disposal plant. By
1962 the new El Portal incinerator was operative, ending the burning
of garbage and trash on the valley floor. In 1961 a new bridge over the
Merced River below El Portal was also built. That same year Soap Suds
Row, the board-and-batten, high-ceilinged dwellings used by married
enlisted soldiers during the military administration of the park, was
razed. The six remaining structures, occupied by park personnel up to

77. "Report on Yosemite Valley Refuse Collection and Disposal
System - Yosemite National Park, California," August 1957, in Box 11,
Floods and Water Supply, Yosemite Research Library and Records Center.
that time, were burned as part of the park’s volunteer fire brigade training program. The origin of the name for such a row of houses common to all military posts lay in the array of washboards and tubs and the row of army housewives that could frequently be seen scrubbing the laundry of the soldiers in the military days. 78

D. Concession Operations

1. The National Park Service Acquires Wawona Basin

On 13 August 1932, President Herbert C. Hoover signed a proclamation placing the Wawona Basin within Yosemite National Park. In that year Clarence A. Washburn, son of a founder of the Wawona Hotel, sold the property to the U.S. Government, with the Yosemite Park and Curry Company purchasing the furnishings and equipment. The addition of these 8,785 acres also brought the entire new Wawona highway within park boundaries. Clarence Washburn managed the Wawona property under the same policies as before until he quit in 1934. Under the agreement, the dairy would be maintained and the farm continue operating.

The acquisition of the Wawona Basin had been considered imperative for a long time because of its strategic importance in relation to Yosemite’s future development. It was considered second only to the valley in operating and administrative importance, because it had the only available airplane landing field, was considered the best place to send the valley’s midsummer overflow of campers, would enable some restrictions to be put on subdivisions in the area, would facilitate the control of illegal hunting and fishing, would provide more recreational opportunities for visitors, and enable better fire protection for the Mariposa Grove and nearby areas.

78. Superintendent’s Monthly Reports, January-December, 1959-61, microfilm roll #5, Yosemite Research Library and Records Center.
Also, the addition of Wawona would enable one entrance station at Four-Mile Junction to serve as a checking station for the entire area south of the valley and would eliminate similar stations at the Big Trees Grove, Alder Creek, and Chinquapin. In addition, it was feared that the owners, who were then operating at an annual net loss, might be tempted to sell timber on the property or subdivide it to acquire additional revenue.

The Yosemite Park and Curry Company wanted the buyout consummated because of the threat of strong competition posed by the Wawona Hotel as this area grew in importance. Its acquisition would remove the only nearby outside competition of concern to the company's park operations.

An inventory of property acquired at Wawona by the government included:

- a dwelling erected in 1902, razed about 1936;
- a fish hatchery erected in 1892 [1895], razed in 1933;
- a hide house, razed in 1934;
- a slaughterhouse erected in 1929;
- a refreshment stand erected in 1929;
- a filling station operated by Standard Oil erected in 1932;
- an engine house erected in 1932;
- a garage erected in 1890, razed in 1936?;
- a milk house moved to the upper end of the meadow and razed in 1941;
- a storehouse erected in 1865 and razed in 1936?;
- a granary built in 1865, razed 1936?;
- a wagon shed erected in 1865, razed in 1936;
- old Shell quarters erected in 1926, razed in 1936;
Illustration 228.

Boundary changes, Wawona Basin.

BOUNDARY CHANGES
WAWONA BASIN
SEPTEMBER 1979

LEGEND
--- Yosemite Grant 1864
----- Boundary 1890
- - - Area Excluded 1905
- - - Area Excluded 1906
--- Boundary Revision of 1932

EXHIBIT "B"
Illustration 229.

Wawona Hotel and vicinity.

From Sargent, Wawona's Yesterdays.
Illustration 230.

Map of Wawona area, showing concession operations and park facilities.

NPS, Denver Service Center files.
an engine house erected in 1926, razed in 1936;
a barn erected in 1920;
a dwelling, razed in 1934?;
a blacksmith shop erected in 1922, caved in by snow in 1933;
a shed razed in 1934?;
a carpenter shop (wagon shed) razed in 1941 by the CCC;
a planing mill, erected 1917, razed in 1941 by the CCC;
a bunkhouse (white), erected in 1920;
a laundry, erected in 1917;
a boiler shed, erected in 1917, razed in 1934?;
a bunkhouse for Chinese help, erected in 1917;
two dwellings erected in 1920;
a double dwelling;
a powerhouse erected in 1907;
a dwelling erected in 1930;
a bathhouse on [Stella?] lake, razed in 1933?;
an ice house erected in 1897;
a storehouse;
a store and post office erected in 1920;
a music hall erected in 1892, razed in 1936?;
a coffee shop, erected 1925 and moved in 1937?;
a warehouse erected in 1880;
a rustic pavilion, razed in 1934?;
a soda and curio store, erected in 1886;
the Sequoia Hotel, erected in 1920, burned in 1977;
the Wawona Hotel, erected in 1879;
the Small Brown Building, erected in 1896;
the Long Brown Building, erected in 1900, raised to two stories in 1914;
the Long White Building, erected in 1864;
White Cottage (Small White), erected in 1884;
the Annex, erected in 1917;
a boiler house erected in 1917, razed in 1935?;
a dwelling erected in 1921;
a barn, erected by NPS in 1932;
a tank house, erected in 1917;
Oak Cottage, erected in 1927;
Cedar House, erected in 1903, used as NPS ranger station;
the Gordon dwelling, erected in 1892;
a schoolhouse, repaired in 1932;
a woodshed in the school yard erected in 1928;
a chicken house;
a tennis court, swimming pool, and golf course;
and a cow barn erected in 1932, located at the upper end of the aviation field.79

2. Big Trees Lodge
The earlier tent camp established by the Yosemite National Park Company in 1920 in the upper portion of the Mariposa Grove consisted of fourteen wooden cabins and an octagonally shaped headquarters. The

79. "Inventory of Fixed Equipment," Wawona property acquired by the federal government by presidential proclamation dated 13 August 1932, inventory taken by R. Sprinkel and M.A. Ackles during the month of November, 1932 (corrected 19 April 1933 to agree with YP&CCo inventory), 33 pages, Records of the Superintendent, 1910-1953, Yosemite National Park, RG 79, FARC, San Bruno, California.
Yosemite Park and Curry Company razed that group of buildings and during July to October 1932 built a new lodge near Sunset Point in the grove. The small, attractive twelve-room hotel, simple in style, was designed by Eldridge T. Spencer. It contained an office, store, studio, employees' quarters, dining alcove, and guest rooms. The complex ceased to house guests in 1972 and became a dorm for Youth Conservation Corps groups. Fire and a falling tree that smashed the roof in the winter of 1982 led to its eventual demise.

3. **Chronology of Later Yosemite Park and Curry Company Development**

   a) **Company Facilities Need Improvement**

   In 1930 the Yosemite Park and Curry Company, having operated in Yosemite for five years, prepared a program to serve as a basis for study in terms of future developments and operations and to use in discussions with the National Park Service in order to enable synchronization with the government's expansion plans. The program, which included such items as restoration and preservation of the Sentinel Hotel group as an early California hostelry, a permanent housekeeping unit at Yosemite Lodge, development of the High Sierra camps as small mountain lodges, and facilities for winter sports, golf, tennis, and visits by notable guest artists to prolong visitor stays, did not evolve as planned. Evidently the company did not feel it received a clear definition of government policies toward recreation and entertainment and other commercial activities of the company. In addition, the government's inability in the early 1930s to provide the necessary sewer, water, and electrical systems and access roads on which company development was dependent delayed the program at first. During the late 1930s and with the onset of World War II, the dropoff in visitation and other economic factors made such improvements in accommodations and facilities

Illustration 231.
Remains of Big Trees Lodge in Mariposa Grove.

Illustration 232.
Empire Meadow building foundations (former lumber company camp and CCC camp).

illustration 233.

Tecoya group and warehouse area of Yosemite Park and Curry Company in Yosemite Valley, 1972.

NPS, Denver Service Center files.
inappropriate. By the late 1940s, however, this lack of investment resulted in rising visitor dissatisfaction.

b) Winter Sports Move to Badger Pass

As skiers began to gravitate toward the Badger Pass area, the Snow Creek cabin continued to provide a more extensive ski terrain than the valley floor offered. Skiers often used a small hill near the cabin as a practice slope. The cabin served for five seasons for skiing, until the spring of 1934. Although park visitors did not use the cabin much after that, rangers en route to Yosemite Creek or Tuolumne Meadows on snow surveys would occasionally stop overnight, and, during the spring, men sent by the concessioner to fill the ice houses at Tuolumne Meadows and Merced Lake, which were used for refrigeration purposes for the high country camps, would stop by. Ansel Adams visited the cabin several times to take pictures of the high country in winter. The cabin was basically abandoned by the Curry Company after that time, although it was occasionally used as an overnight refuge by backcountry travelers. Volunteer "rangers" occasionally lived in the building, which has had some use as a backcountry patrol cabin.

After completion of the new Wawona Road and tunnel in 1933, visitors began to use the Chinquapin area for skiing as well as the Badger Pass slope. Because of the poor condition of the Glacier Point road, the Yosemite Park and Curry Company became interested in installing the cable tramway mentioned earlier as a means of getting skiers to the south rim. Gradually valley floor winter activities faded and skiers concentrated on Badger Pass and the high country, especially after

improvement of the Glacier Point road afforded greater accessibility to that area.

Because the valley facilities for handling the public had proven inadequate, Donald Tresidder felt justified in making Badger Pass the focal point of his company's ski development. He fully expected it to turn into one of the great skiing centers of the Sierra because of its easy access from the valley, its sufficient quantity of snow even in drier years, its good quality of snow, and its good skiing terrain. He finally abandoned the valley toboggan and ash-can slides because of the possibility of serious accidents. Tresidder began construction on the lodge at Monroe Meadows in late September 1935. The structure, of log slab construction, also designed by Eldridge Spencer, opened in December of that year with a ski lift in conjunction. Several of the Badger Pass ski school's directors and instructors proved very influential in the development of skiing in the West. The Ostrander ski hut, built by the Park Service in 1940 with CCC labor as a touring shelter, became an important addition to the park's winter facilities. Dr. Tresidder took a great personal interest in the development of winter sports in California, and Yosemite, a pioneer in the winter sports field, is one of the oldest and largest centers for ski enthusiasts in the West.\footnote{c) Limited Construction Occurs

In 1936-37 the company managed to finance two dormitories and one apartment building, all three stories high, in the Tecoya residential area. The company advocated use wherever possible of multiple instead of free-standing residential units to conserve space. In October 1937 the government transferred the frame movie pavilion in the Old Village to the concessioner. In the early 1930s porches had been added to the sides. The park burned and razed the structure in 1963

after fire due to an overheated oil furnace had badly damaged it. At the time it was the last remaining commercial building in the Old Village. The site was revegetated to a natural state in line with MISSION 66 plans for the Old Village area. The Glacier Point Hotel and Annex (old Mountain House) continued to house and serve visitors. A small, open-faced, sheet metal building close to Glacier Point provided shelter for the bark burned in the firefall. As mentioned, in 1938 the park began razing the Sentinel Hotel and Annex.

During the 1930s the High Sierra camps began to undergo some renovation. In 1936 the Tuolumne Meadows camp consisted of tent platforms and log frames for two lodge buildings housing a kitchen, dining room, and office, and fifty-one platforms for guest tents, two women's dormitories, 2 men's dormitories, two bathhouses and toilets, and one store. All structures had canvas coverings. In 1940 the lodge had a dining room, kitchen, warehouse, thirty-eight tent platforms, one women's dormitory, two men's dormitories, and two bathhouses. All were canvas except the kitchen and warehouse—frame structures built in 1938.

d) High Sierra Camps Continue

By 1938 five High Sierra camps existed: two original ones at Merced Lake and Tuolumne Meadows, which had ice houses, and new ones at May Lake (replacing the Tenaya Lake camp), Glen Aulin, and Vogelsang (replacing the Boothe Lake camp). The company had discontinued the Tenaya Lake and Little Yosemite Valley camps. About 1935 a small stone lodge was constructed at Glen Aulin. The Curry Company erected a stone dining room and kitchen at May Lake in 1938. Mary Curry Tresidder, president of the Curry Company, established the Sunrise High Sierra camp in 1961 and also equipped it with a canvas dining tent and stone kitchen structure. It overlooks Long Meadow on the John Muir Trail a few miles from Cathedral Pass.

The Vogelsang camp has had three different sites. First located on the north shore of Boothe Lake in 1924, it was found that drainage was poor and the mosquitoes intolerable. In the early 1930s the camp moved up near the junction of the Vogelsang, Rafferty Creek, and Lyell Fork trails. The camp moved again in 1940, being rebuilt at its present location on Fletcher Creek. It also has a rock kitchen and a dining tent.

In March 1939 the company commenced work on a new office building near Yosemite Village. In 1940 it built a new store and service station at Tuolumne Meadows.

e) The U.S. Navy Takes Over the Ahwahnee Hotel

In June 1943 the U.S. Navy leased the Ahwahnee Hotel for use as a hospital and rehabilitation and recreation center for Navy and Marine personnel suffering from the effects of service in the Pacific. Exhausted veterans of air battles, naval engagements, and submarine patrols rested and recuperated there.

The Navy converted the Ahwahnee and its grounds to hospital use by several alterations and the erection of temporary buildings surrounded by a fence. The first year, conditions at the hospital were desperate due to a dearth of just about everything, including recreational facilities. Many of the patients resented being sent to the isolated valley and having to wait months for a medical discharge or return to duty. The Navy then secured eleven excess army field-type temporary buildings and constructed a new rehabilitation and recreation center in the summer of 1944 in the meadow west of the hospital. There bowling, fly tying, weaving, leatherwork, and bookbinding relieved the strains of war. Skiing, skating, and climbing also became valuable therapeutic agents in rehabilitation.

The Navy ultimately decided to request only patients requiring hospitalization who were less likely than psychiatric cases to resent the isolation of Yosemite. It made preparations to receive the more
acutely ill types, including those needing surgery. Commissioned as the U.S. Naval Convalescent Hospital, the facility's name later became the U.S. Naval Special Hospital. The war ended, however, before the new plan could be implemented. The hotel was decommissioned on 15 December 1945. Refurbishment got underway quickly and paying guests began arriving again the end of 1946. Due to wartime restrictions and conditions, the Yosemite Park and Curry Company closed the Glacier Point Hotel, the Wawona Hotel, and the Big Trees Lodge, and did not reopen them until 1946. In September 1943 the old Curry sawmill and two nearby buildings at Camp Curry burned. In 1944 the isolation ward in Yosemite Valley, built by the government prior to 1929, was moved to its present location.

f) The Curry Company Begins a New Building Program

The Yosemite Advisory Board continued during this later period to aid in broad policy questions. Many of the plans they suggested were never carried out because of differences of opinion as to the wisdom of proceeding and because money was not available to do much. In 1946 the board advocated branch stores in the campgrounds to relieve the constant daily travel to the Old Village store. It suggested canvas tents with solid flooring in which staples could be obtained. After peak visitation had passed, the tents would be removed until the next season.

Superintendent Frank A. Kittredge spoke of some of the frustrations connected with the park concession operations in 1947:

Many of the company [YP&CCo] public buildings are a problem because they are in a state of dilapidation. The old store built prior to 1900, the Yosemite Lodge built about 1911 or '12, the company warehouse of about the same period, and many of the public cabins are the subject of a great deal of complaint, and there is no question but that they are a disgrace to the Park Service. . . . This problem was recognized a great many years ago. . . . There is . . . an agreement of 1925, signed by Secretary of the Interior Work and representatives of the Park Service and the YP&CCo which required the construction of a new store building in the new area [New Village]. . . .
Illustration 234.

High Sierra camps, 1975.

NPS, Denver Service Center files.
The following year - 1926, the company were [sic:] given five years in which to build a new lodge in place of the present Yosemite Lodge. In 1932 a new 20 year contract was given the YP&CCo and the five year program included, which contemplated the above items and many others for reconstruction in the period 1932 to 1937. It was felt that a full 20 year franchise would permit the company to obtain proper financing and to do the construction work at a time when the President was endeavoring to have the business concerns do just as much employing as possible.

Along about 1937 some question was raised as to the adequacy of the location of certain structures.

Irrespective of why scheduled construction of buildings was not adequately undertaken or completed, the fact remains that the Park Service has now and has had on its hands a very unfortunate situation. For 20 years the public has been harrassed by having the old village structures and the old lodge structure on the main highway serving as bottlenecks for every incoming vehicle on crowded days. For 20 years the Park Service has been confronted with the necessity of straightening out traffic, pacifying people, and trying to overcome the conditions which have been imposed upon the public because at those two locations we are still subject to the stagecoach days structures and service. The problem of buildings is very much a Park Service matter and a very serious one if the public is to be served.

In 1947 the concessioner erected an experimental store in Camp 14 to alleviate the parking situation in the Old Village, and it turned out to be successful. In 1950 a guest unit at Yosemite Lodge was built called Pine Cottage, designed to be reminiscent of early California architectural styles. In 1951 the main building constructed during the year was the new apartment house in the Tecoya area. In 1952 the Park Service and the Yosemite Park and Curry Company negotiated a new twenty-year contract. The company then pledged one million dollars over the next five years as part of a new building program. In 1953 a new store, post office, and coffee shop building with a detached four-room

Illustration 235.
NPS, Denver Service Center files.
manager's residence, was completed at Wawona; in 1954 the Park Service was relocating the valley's Northside Road to run behind the Yosemite Lodge facilities instead of through them. In 1954 the concessioner began adding a new structure at Badger Pass to house ski sales, rental, and repair facilities and employee sleeping quarters, thereby increasing dining and lounge areas in the original main building. In the spring of 1955 the Wawona and Yosemite Lodge service stations were completed. In December 1955 the company completed the new Cedar Cottage guest unit at Yosemite Lodge.

In 1956 the long-awaited new Yosemite Lodge main buildings, consisting of an office, lounge, cafeteria, coffee shop, souvenir shop, and post office were completed. All the old lodge buildings were demolished. As part of the MISSION 66 program, by early 1958 construction had started on the Degnan-Donohue, Inc., building in the new Yosemite Village. It would house a restaurant, soda fountain, bakery, and delicatessen. The Park Service had rejected the earlier mushroom-dome structure designed by Frank Lloyd Wright in 1954 as being too modern for a park setting. The current structure was a simple, two-story, A-frame building designed to fit into the landscape. Miss Mary Ellen Degnan and Dr. John Degnan, daughter and son of the founders, ran the operation. Construction in 1959 resulted in a new village store, containing a restaurant and a fountain replacing the Old Village Grill, and a new central warehouse with maintenance shops. The Maintenance Division serviced all units and facilities operated by the concessioner. Its nine shops (canvas, keys, paint, audio-visual, machine, plumbing, print, electrical, and carpentry) occupied the basement level of the central warehouse building. By February 1959 the old Wells Fargo building had been moved to the Yosemite Pioneer History Center, the old Degnan store/restaurant had been razed, and the Old Village store and ice house removed. The rebuilding and/or relocation of the two principal areas of congestion in the valley--Yosemite Lodge and

Illustration 236.
NPS, Denver Service Center files.
the village—helped solve many traffic problems and facilitated cross-valley circulation.

Work during 1960 concentrated on Camp Curry, where the old grill was demolished and a new coffee shop constructed, the old office building was converted into a lounge, and the former transportation office transformed into the front office. The Camp Curry store became a dress shop. The Park Service relocated the camp's entrance road and parking area to provide improved access and circulation, and the entrance area was landscaped more attractively. The next year work began on converting the former auditorium and dance pavilion into a lodging unit called the Stoneman House. In 1962 the company razed the old cooks' dormitory. 86

E. Patented Lands

1. Remaining in 1931

By 1931 there remained in Yosemite about 2,400 acres of private land, whereas in 1906 there had been more than 25,000. The 1931 acreage was divided into sixteen parcels. Only two continued to function as cattle range, and they belonged to Mrs. Elizabeth Meyer who owned Big Meadow and the McCauley 40. Eleven of the parcels were originally used as range land. One parcel was taken up as a timber claim, and was later purchased by the West Side Lumber Company. Four of the parcels were selected to accommodate the tourist trade to the valley. Two of those, Tamarack Flat and Gentry, were used as early stage relay stations, and the other two, at Tenaya Lake, were used as high mountain camps.

In the summer of 1931 a comprehensive report was done on private lands in the park by temporary rangers J. Griffith and Emil Ernst. Those lands included the Sierra Club holdings at Tuolumne

Illustration 237.

Camp Curry, 1956.

Part of the Master Plan, Yosemite National Park. NPS, Denver Service Center files.
Meadows; the Frank H. Powers estate at Murphy Creek, Tenaya Lake, and Illilouette Creek; the Timothy H. Carlin holdings at McSwain Meadows; the J.H. Meyer holdings at White Wolf; the T.J. Hodgdon holdings at East Meadow and Aspen Valley Lodge; the McNee Company, Inc., holdings at Tamarack Flat; the Charles E. Hooper and Kate Smith holdings at Cascades and Gentry; the holdings of Mrs. Elizabeth Meyer at Big Meadow and McCauley 40; the Foresta subdivision; the holdings of Fannie Stockton at Johnson Lake; of Lewis C. Elwell at Elwell Meadows; and of the West Side Lumber Company on Kibbie Ridge.

In terms of private land use at that time, Big Meadow was used for grazing headquarters, one parcel was operated as a local timber supply, and two were conducted as private camps—White Wolf and Aspen Valley Lodge. The latter consisted in 1931 of a lodge building and rooming house of native logs cut and dressed on the owner's East Meadow property. The store/gas station was a poorly finished log building; the auto repair garage was a shed open on all sides, and another rough shed housed the resort laundry. The original Hodgdon two-story log cabin was being used as a storehouse. All of the improvements on the property had been made since 1920 except for the original cabin erected shortly after 1880. Nearby stood park entrance and ranger stations. Realignment of the Tioga Road in 1937 caused visitation, and consequently profits, to drop. Public use of the old road discontinued during World War II. Private summer homes and a logging operation existed there into the 1950s, although the park eventually acquired some of the land.

Another of the properties was maintained by the Sierra Club as a recreation area for its members. Foresta remained a semi-active subdivision of summer homesites. The remaining properties surveyed in 1931 were not used for any purpose at all. There were varying degrees of improvement on five of the properties. The Sierra Club at Tuolumne Meadows had erected Parsons Lodge as a mountain shelter. White Wolf and Aspen Valley Lodge showed development related to tourist trade over the Tioga Road. The Big Meadow property had extensive improvements that had been made over the years relative to a self-supporting
homestead. Several Foresta owners had improved their lots by erecting summer cabins.

2. Yosemite Lumber Company

White and Friant assumed control of the operations of the Yosemite Lumber Company in March 1933. In 1935 John Ball formed a new Yosemite Sugar Pine Lumber Company. Ball, president of the White and Friant Company, had to consolidate the assets of both the Yosemite Lumber and Sugar Pine Lumber companies to get out his timber that was mixed in with the old Yosemite Lumber Company holdings. The company conducted logging operations near Camp 17 on the Coulterville Road. In 1938 it built another incline above Camp 17, and pushed the logging railroad north toward Sawmill Mountain. Truck logging also started that year over roads built toward Ackerson Meadow.

In 1937 the campaign to halt logging in the Yosemite area began to climax, especially after a visit to the park by Eleanor Roosevelt and Secretary of the Interior Harold Ickes. Although lumbermen argued that selective cutting aided in preserving the sugar pine forests by removing the potential fire hazard from over-ripe, rotting timber, the conservation cause ultimately won the day. In 1939 the Carl Inn tract of 7,200 acres of choice sugar pine came under government ownership after the passage of legislation authorizing its purchase. Logging continued through the season of 1942, by which time most of the available timber supply had been exhausted; the company then decided to cease operations. A scrap dealer bought the physical assets of the company and the buildings at

Merced Falls were sold or torn down. Thus ended the long history of the seventh largest lumber producer in the West. 88

3. Section 35, Wawona

The amount of privately owned land in the park increased with the purchase of the Wawona Basin in 1932, for it contained one patented land section containing about 650 acres broken up into a large number of parcels with many owners. These patented lands at Wawona are all within Section 35, Township 4 South, Range 21 East, MDM. Section 35 is bisected by the South Fork of the Merced River, which flows west through the section, separating it into two distinct divisions. On the north the land slopes southerly from the base of Chilnualna Ridge, on the south the section line follows the top of a ridge descending west to the Wawona highway.

The section is also crossed by the Washburn irrigation ditch, built in 1871 by Galen Clark and Edwin Moore and used continuously for irrigation and until 1933 as a source of domestic water supply for Wawona. 89 In 1934 the government installed a water system at Wawona and laid the main supply line in the Washburn ditch, which had been acquired as part of the Wawona sale. The Yosemite Park and Curry Company used the water flowing through the ditch to run a small hydroelectric plant. A maze of dirt roads covered the entire section, with a main road on each side of the river affording access from the Wawona road.


Illustration 238.

The north half of Section 35 had been homesteaded by Albert Bruce, who divided his half section into six large lots that he distributed among his children. His family still controlled five in 1941, comprising nearly forty percent of the section acreage. At one time the Greeley family owned all of the south half of the south half of Section 35, but its holdings dwindled through the years.

At the time of the purchase of the Wawona Basin, there was a growing interest in the private lands at Wawona for year-round housing. It was to be expected that further development of organization camps (usually a colony of individual cabins plus a recreation club) would follow. Summer cabins of an older type of construction were located in "Koon Holler" on the south side of the river, far removed from most of the more recent cabin developments. Many landowners in the section as it grew held prominent positions in business, professional, and political circles of California. Possibly through their influence, most of the old ramshackle cabins slowly disappeared. Residents used many of the new year-round cabins as ski headquarters in the winter. The Bruce family built many modern new homes in the Chilnualna area. 90

Section 35 has always constituted a self-sufficient entity. The main business of several of its residents has been catering to tourists. Throughout its history the section has contained summer camps for children, trailer parks, campgrounds, subdivisions, grocery stores and restaurants, lodges, theaters, and cabins offering modern motel-type accommodations for visitors. Practically every owner for a small consideration would allow camping on his property. Certain subdivisions, such as Camp Chilnualna, owned by Harold Mays, and Sierra Lodge, owned by Sarah Scroggs, rented summer cottages. Stores operated, such as May's Grocery and Walter Baker's combination curio shop. A Seventh

Day Adventist Church and an outdoor dance pavilion also served the public. Swimming pools have been very popular. A school operated under county jurisdiction on government land with an average attendance of twenty pupils, most of whom resided on private land. The Associated Conference of Seventh Day Adventists also conducted a private summer school or camp in Section 35. That complex included a mess hall, recreation building, eleven bunk houses, and other miscellaneous structures. Sarah Scroggs conducted the Sierra Lodge school for retarded children, which included a mess hall, dorms, schoolrooms, and cabins—about eighteen or twenty buildings altogether. The Park Service purchased the Scroggs property about 1950 in order to establish a housekeeping camp.

Real estate subdivisions offering town lots for sale became active after the surrounding land was included in the park. In Section 35 four tracts existed on which lots had been laid out: Chilnualna Villa Homesites Addition No. 1, Harold Mays's property, Chilnualna Villa Homesites Addition No. 2, and a portion of the Wawona summer homesites. Many of the structures in the section first built on the sites were of flimsy, rough, board-and-batten or shake construction with no modern conveniences; later structures were of much better construction. The potential fire hazard in the area has always been great. In 1941 Section 35 contained 202 structures, exclusive of outside toilets. Administrative problems in Section 35 have included: the continual breakdown of the section into smaller parcels; its attraction to undesirable characters; additional policing duties due to the large number of summer residents; the lack of control over building activities; unsatisfactory sanitary conditions; and danger from fire. 91

Illustration 239.
Wawona area, showing Section 35.
Landownership map, 1967.
NPS, Denver Service Center files.
The one fortunate element of the land situation at Wawona has been that the private holdings are concentrated within the limits of a single section and not scattered throughout the area, so that the distinction between park lands and private holdings is clearer and has lessened administrative problems to some degree. Because they occupy a considerable portion of the South Fork valley, however, they seriously impinge upon full public use of that portion of the park.

4. **Camp Hoyle**
   Bert Hoyle filed three mining claims on the old army site at Wawona in 1922 and established Camp Hoyle. It functioned as a tourist camp with a dining room, fountain, store, six tents, six cabins, and a gas station until 1932 when the National Park Service bought Hoyle's interest and razed the camp. From 1933 on the site has functioned as a public campground. In 1951 it was improved and modernized and became Camp A.E. Wood Campground.

5. **Hazel Green**
   With the completion of the Yosemite Valley Railroad to El Portal in 1907, traffic on the stage lines on the Coulterville and Big Oak Flat roads dwindled. In the early 1900s Jennie Foster Curry (Mrs. David A.) erected a small sawmill for manufacturing shakes, but terminated operations at the request of Park Service officials Stephen Mather and Horace Albright. The pine columns in the Ahwahnee Hotel dining room were produced there. In June 1938 the National Park Service bought the upper forty acres of Hazel Green as a right-of-way for the new Big Oak Flat Road as it was then being planned. Mary Curry Tresidder sold the remaining acres to the Cuneo brothers of Merced in the early 1940s. Their families built a new cottage and barn and put in a reservoir.92

92. Tresidder, "Reminiscences of Hazel Green."
6. **Carl Inn**

An act of 9 July 1937 authorized the Secretary of the Interior to acquire certain lands known as the Carl Inn Sugar Pine Area and add them to Yosemite National Park. The government started a condemnation suit, including as defendants the owners of mining claims recorded to cover certain portions of the lands involved in the acquisition area. They lay along the western boundary of the park near the headwaters of the Tuolumne River.

The Carl Inn resort lay within the proposed addition. The Tioga Road crossed its north end, the Big Oak Flat Road crossed the central portion, and the Crane Flat road crossed the southern part. All highways were heavily used by the general public in going to and from the park. After a year and a half of negotiations with the Yosemite Sugar Pine Lumber Company, owner of most of the tract, an agreement was reached on price. The purchase was consummated early in 1939.

7. **Foresta**

By 1931 all but 125 subdivision lots in Foresta had been sold, but very few summer homes built. Some of the early owners had improved their lots with cabins, but many had become disgusted with their purchase. The project, as outlined earlier in this report, had started in good faith when the Chautauqua idea was popular. A legitimate attempt had been made to attract intellectuals and teachers who had long vacation periods available in which they could develop summer properties. But the money eventually gave out and the subdivision's promoters went into bankruptcy. Property records became incredibly confused as properties changed hands over and over.

Construction work on the new Tioga, Big Oak Flat, and Wawona roads in the 1930s provided employment for a few people residing in Foresta. Several Bureau of Public Roads engineers and other workers lived there in tents or rental cabins.\(^{93}\) A few people continued to

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sporadically build in the area. The economic stringencies caused by World War II, resulting in an end to construction and decrease in visitation in the park also affected Foresta. Default on property payments increased and by the mid-1940s more than half the owners had defaulted for nonpayment of taxes. After the war, speculative interest in the subdivision increased and more homes were built.

National Park Service officials kept close track of Foresta activity. Throughout the 1940s congressional appropriations for the purchase of inholdings were lacking and the Foresta situation remained on hold until the 1950s. During that period and into the early 1960s interest in the area again arose and resulted in construction of seventy-four additional cabins, largely a result of electrification of the area in early 1951. In 1954, to comply with the Park Service director's desire to clear up remaining areas of alienated lands within the park, the government acquired eighteen Foresta properties and options on several others.

With the implementation of the MISSION 66 program in Yosemite, active acquisition by the Park Service of the remaining unimproved lots began. The last year for building in the area was 1961. In October of that year condemnation of almost 600 unimproved lots took place. The government had already acquired 274 by donation and purchase. By November 1962 all such lots had been acquired. That left about eighty-five privately owned and improved properties in the subdivision.

Access within the Foresta area was provided by a series of twisting, poorly graded, and privately maintained dirt roads. The beautiful streets laid out on the subdivision maps shown to prospective buyers were never cleared or graded. The National Park Service

94. Ibid., 70.
95. Ibid., 82.
Illustration 240.

Map of Foresta lots and historic sites.

From Sargent, *Yosemite's Rustic Outpost.*
FORESTA GUIDE

NOT TO SCALE

LEGEND

- FORESTA CORNER
- BLOCK CORNER
- BLOCK NUMBER
- UNPAVED ROAD
- PAVED ROAD
- CABIN NUMBER AS LISTED ON BACK PAGE
- C
- OTHER HISTORIC SITES LISTED BELOW

A - MEYER'S RANCH HOUSE, BARRNS AND ORCHARD
B - BIG MEADOW CEMETERY
C - SITE OF ANDERSON'S CABIN
D - SECOND ANDERSON - SETCHELL SITE
E - RUTHERFORD'S CABIN AND SHAWL SITES
F - SITE OF SWIMMING POOL
G - FIREHOUSE
H - ORIGINAL FORESTA ASSEMBLY GROUNDS, 1913
I - PROPOSED CLUBHOUSE AND GARAGE, 1913
J - SECOND GOODRICH CABIN
K - LEASK CABIN
L - STEELMAN CABINS
M - FORESTA ASSEMBLY RESERVOIR

YOSEMITE VALLEY
CRANE FLAT

FORESTA FALLS
EL PORTAL

BIG MEADOW

FLYING SPUR
LITTLE MILLER FALLS
MERCEZ GROVE - BIG TREES
OAKS CUT-OFF

MCCASLEY RANCH
FORESTA FALLS
EL PORTAL

OTHER HISTORIC SITES

- ORIGINAL FORESTA ASSEMBLY GROUNDS, 1913
- PROPOSED CLUBHOUSE AND GARAGE, 1913
- SECOND GOODRICH CABIN
- COMMUNITY CENTER, 1917 BATHHOUSES, OFFICE, TENT FRAMES
- LEASK CABIN
- STEELMAN CABINS
- FORESTA ASSEMBLY RESERVOIR
Big Meadow has long been considered as a possible location for various park activities, thus helping to relieve some of the congestion on the valley floor. Suggestions have recommended its use for a golf course, as an employee housing area, a place to keep saddle animals when they were not needed on the valley floor, and as a possible home for the Happy Isles fish hatchery because of the warmer water available in Crane Creek.\(^7\) Its accessibility and pleasant climate, plus the added advantage of being able to use Foresta lots as homesites in conjunction with park use of the area, ensured that Big Meadow might play a large part in any plan designed to remove certain activities and administrative and concessioner operations from the floor of the valley. (Although El Portal was being studied in the mid-1940s as a place for the relocation of park activities, its climate seemed less agreeable in the summer and the narrow two-way road between it and the park loomed as a major safety hazard.) The Big Meadow and McCauley ranches were both condemned in 1964, but litigation dragged on for years. Meyer continued cattle raising until the McCauley land was included in the park.

9. **White Wolf**

By 1931 the Meyer family expressed interest in selling White Wolf in whole or in part. That property had always been sought by the park, although it was not considered a high priority acquisition. Cabins 5 and 6 were added during the 1930s. Business at the lodge picked up during construction work on the new Tioga Road section from Crane Flat to the White Wolf intersection as construction crews and their families patronized it. For a while the lodge was accessible by both the old and new Tioga roads, but after paving ended on the new section in 1940, the old road section from the Big Oak Flat Road intersection through Aspen Valley to White Wolf was permanently closed. John Meyer died in 1940 and his wife Alice five years later.

\(^7\) Report, Yosemite Advisory Board Meeting, 30 August - 7 September 1943, in Box 10, Advisory Board Correspondence and Files, Board of Advisors, 1943, no. 201-11, Yosemite Research Library and Records Center, 26-28.
considered the Foresta area ideal for the development of public campgrounds outside Yosemite Valley, because it was close to the valley, lay at about the same elevation, had fairly level topography, and was accessible from the park's road system. It seemed especially appropriate for organization camps serving youth and church groups. A campground was finally developed there in 1964.96

8. Big Meadow

Fire took its toll in the Foresta/Big Meadow area during the mid-1930s. The McCauley ranchhouse burned in December 1935, while the old Meyer ranchhouse burned in 1936. The Meyers then moved into Thomas Rutherford's old cabin until completion of their new home in 1938.

The Park Service considered the Big Meadow area next in importance to Wawona in terms of administrative and recreational opportunities. The fact that the area offered the possibility of rapid transportation to the main valley gave these lands almost more importance than the distant properties at Wawona. In anticipation of passenger air transportation increasing after World War II, and expected pressure to permit travel to Yosemite by plane, Big Meadow seemed an ideal site for an airfield. It possessed a firm surface and ample level space for landing, and the noise in connection with the field would not impinge upon tourist appreciation of Yosemite Valley.

Gas rationing during World War II and the death of both the elder Meyers curtailed the resort’s activities. In the late 1940s a relative began serving meals, and in 1947 a son of the Meyers and his wife took over the operation until it could be sold. Purchasers were hard to find because of the threat of eminent domain. That purchase took place in 1951 by the Park Service, the deed of sale stipulating that the lodge continue to be operated. The Curry Company leased it and has since made it part of its High Sierra camp system, offering a lodge with dining room, a store, tents, and a few cabins.

Changes were gradually made to adapt to the times and requests for more amenities. In 1961 cabins 5 and 6 were consolidated into one duplex with bath. Improvements brought new customers and the lodge business grew appreciably. Another duplex cabin with bath was created out of the old housekeeping cabins and modern toilets and shower rooms were added. The government relocated and enlarged a nearby campground in 1961. During the winter of 1968-69, a heavy snow load on the lodge roof caused its collapse and the crushing of cabins 5 and 6. The cabins were removed. Although this might have been a good time to update the facilities, plans for that work had not been approved, so the lodge was simply rebuilt without any changes to the former design.

10. Soda Springs
When it had initially purchased the Soda Springs property, the Sierra Club had intended to keep it indefinitely. After World War II, however, as the National Park Service became more dedicated to buying up inholdings in the parks, Sierra Club leaders felt it inconsistent with their philosophy to retain hold of the property. In addition, by the mid-1960s, the club found operation of the Soda Springs campground increasingly difficult due to larger numbers of visitors and a lessening ability to control their impact on the meadows. In 1973 the Sierra Club Foundation, which had held the property in trust since 1971, sold the 160 acres and the buildings to the Park Service. 98

Illustration 241.
Tent cabins at White Wolf Lodge.
Photo by Gary Higgins, 1984.

Illustration 242.
Wrangler's cabin, White Wolf Lodge.
Photo by Jo Wabeh, 1986.
Illustration 243.


From Bingaman, Pathways.
11. **Tioga Mine**

a) **Renewal of Activity**

Years after closing the Tioga Mine, Antoinette Swift, the widow of Rhodolphus's son Edward, interested a group of western investors in reopening the Tioga Mine tunnel. The process of probating estates and clearing Mrs. Swift's title to the property took several years, but finally, in 1933, she granted an option to the Tioga Mining Company of New York City for the Tioga Mine, a group of six patented claims on the Sheepherder and Great Sierra lodes.

That company employed twenty men in driving the tunnel several hundred feet farther. A report to the directors of the company for the year ending 31 December 1933 provides interesting information on the state of the property at that time. It stated that when the crew commenced operations at the beginning of August, they found the mine and camp in relatively good shape, with three of the original buildings still usable. Those included the barn, twenty-four by thirty-two feet by eighteen feet high, with a gabled and shingled roof, constructed to accommodate sixteen horses on the ground floor, with hay storage above; a one-story office building, fourteen by sixteen feet, with a gabled and shingled roof; and a warehouse, about the same size as the barn, of mill-type construction with a trussed, gabled, and shingled roof and a large storage cellar for food. Wind and snow had wrecked the original flimsy mess hall and bunkhouses, and their remaining lumber was fast decaying.

Snowslides had destroyed the buildings erected at the tunnel entrance to house the blacksmith shop and power plant. The air compressor and ventilation blower, although obsolete, still rested on their foundations and showed little deterioration. The tunnel itself contained gas several hundred feet beyond the portal. Although the company had to purchase new ventilation equipment before operations could begin, hopes for success soared, it being noted that
The excellent condition of the tunnel with several stringers exposed, the favorable geology and the showing of values in the outcrops and shafts gave sufficient indications for the presence of ores in commercial quantities to justify the extension of the tunnel to at least cut the first or Sheepherder quartz lode.

Mining equipment necessary to extend the tunnel proved difficult to obtain because of the resurgence of mining activity in the region due to the recent increase in the price of gold and silver. While waiting for the equipment to arrive, the crew reconditioned the camp and built a blacksmith shop at the tunnel. Camp reconditioning consisted of converting the barn into a mess hall and offices by building in two floors. The lower one was subdivided to house a kitchen, cook's quarters, a wood storage facility, a dining room, a washroom, a provision storage area, and the stairs; the upper floor contained an office and quarters for the executive staff. The crew replaced the shingles on the sunny side of the roof with a composition material and installed doors and windows. Workmen converted the former office into their bunkhouse, replacing its wood shingles with composition roofing and installing doors and windows.

The tunnel turned out to be in excellent condition and required no new timber and little repair work. The portal contained benches, bins, and racks filled with miscellaneous equipment, fittings, and parts. There the workers found small tools, air drills, pumps, engines, a mine car, and a box of blacksmith coal. The tunnel also contained an eighteen-inch-gauge mine track, constructed of wooden rails topped with an iron strip, supported on wooden ties, which required replacement in a few areas. A snowslide had destroyed the wooden powder magazine.

After installation of the new mining equipment and cutting of a powder magazine in the rock face, tunneling operations started on 15 October. Excavation proceeded for only a couple of weeks before snow forced suspension of operations until spring. The Tioga Mining Company never struck the elusive Sheepherder lode. Upon Mrs. Swift's death in 1949, the Great Sierra claims were sold for taxes.  

b) Mine Ruins

The Great Sierra Consolidated Silver Mining Company established the mountaintop community of Dana in 1881 when it purchased all the claims in the vicinity of Tioga Hill. Because living on the summit of the High Sierra proved difficult, the company relocated its town at Bennettville, near the north base of Tioga Hill. First named Bennett City, this town was almost immediately evacuated when the Tioga Mine closed in July 1884. Company guards patrolled it for a while, but when no further mining activity proved forthcoming, even they left, and the small settlement became a ghost town. Two buildings, one a two-story barn, remained by the 1960s.

The site of Dana Village, on Tioga Hill above treeline, comprises five dry-laid stone cabins, a wooden blacksmith shop, and a small stone powder house above Gaylor Lake on Tioga Hill. The cabin walls are well defined, but portions of them are in ruins; the blacksmith shop was destroyed by an explosion during the last months of operation of the mine. Shaft openings are all caved in. Only a single one-story,

100. The Tioga Mining Company actually held more than the six patented claims. It secured title to additional property through the location of overlying claims covering the entire mineralized area and protecting water and timber rights and mill and camp sites. That area consisted of thirty-six claims, which included three reservoir sites, one above the other, so that dams for enlarging the nearby natural lakes could be constructed in the future. Ibid. An excellent account of the Tioga Mine history is found in Douglass Hubbard, Ghost Mines of Yosemite (Fresno: Awani Press, 1958).

one-room masonry structure, twenty-five by eighteen feet, remains almost intact.

Chief Naturalist Douglass Hubbard retrieved much of the old machinery from the Tioga Mine. It included an old air compressor and drill that were moved to the Wawona Pioneer Yosemite History Center for preservation. Both the compressor and drill were manufactured by the Burleigh Company of England. According to personnel at the Smithsonian Institution in Washington, D.C., this is the only Burleigh compressor known to be extant, while only two of the Bureigh drills are known to exist. The Burleigh rock drill was a significant factor in the development of tunneling and mining technology. The mine owners donated the machinery to the park. 102

12. MISSION 66 Provides Impetus for Land Acquisition

By 1951 the U.S. government had acquired all of the private land at Gentry. Also in that year the timber and land exchange agreement between the U.S. and the Robert Bright interests involving their Aspen Valley and East Meadow properties was approved by the Secretary of the Interior's office. By 1954 an increase in prospecting and mining activity in the western states brought a renewed interest in mineral lands adjacent to the park. The tax sale of several patented mining claims in the park in the vicinity of Tioga and Mono passes re-opened the alienated land situation. As has been mentioned throughout this study, the Department of the Interior, as well as the earliest army administrators, believed private ownership of lands within parks to be incompatible with public use. Part of Yosemite's MISSION 66 program involved acceleration of land acquisition--1,271 acres (exclusive of city and county of San Francisco lands) remained to be acquired. Undeveloped tracts would be given first priority and developed properties with improvements that could be utilized for park purposes would be sought next. Officials optimistically forecast that all of the remaining

102. Ibid.
private lands would be acquired by the close of the MISSION 66 program.

F. Hetch Hetchy

1. O'Shaughnessy Dam Raised

In 1932 the city of San Francisco and the Department of the Interior simplified the entire Hetch Hetchy situation by signing an agreement providing for administrative control of the area by the National Park Service, the formal entry of the Public Health Service as advisor on watershed and reservoir protection, and recognition by the city that its authority and responsibilities included only the supervision of the dam mechanism, control of reservoir runoff, and the supervision and domiciling of its employees. Under the new agreement, the city no longer maintained any roads or trails in Yosemite.

In 1934, in order to keep the Moccasin Powerhouse running at full capacity, year-round, a Public Works Administration project began, raising O'Shaughnessy Dam 85-1/2 feet and enlarging it to its present size: 430 feet above bedrock, 308 feet base thickness, 900 feet crest length, and impounding 360,000 acre-feet of water. The enlargement, completed in 1938, was accomplished by building an addition against the downstream face of the old dam to increase its thickness and then raising its height. The dam contains fourteen outlet conduits with sliding gates through which water from the reservoir can be released. Cost of the dam, including enlargement, totalled $12,600,000. In 1935 the city built a 200-man bunkhouse and a 100-man bunkhouse; thirteen temporary duplex houses of a design compatible with the landscape; remodeled one building for office headquarters; and remodeled the old mess hall. All structures were to be used during the raising of O'Shaughnessy Dam.

103. USDI, "MISSION 66 for Yosemite National Park," in Box 22, Backcountry, Yosemite Research Library and Records Center, 10-11.
2. Hetch Hetchy Railroad Revived

Heavy use of the Hetch Hetchy Railroad discontinued in the mid-1920s with completion of the dam and aqueduct, but the line functioned for several more years as a supply and maintenance route in winter. When in 1933 the city made plans to enlarge O'Shaughnessy Dam, it again needed the railroad to haul heavy freight and rebuilt the line. This time it was leased to the Sierra Railway, with the Hetch Hetchy Railroad becoming its Hetch Hetchy Division. In May 1938, with construction work practically completed, the volume of freight carried on the line became too small to justify the expense of steam operation. Therefore gasoline locomotives were substituted for the remaining work.

Finally maintenance problems due to heavy rain and snowfall in the winter impeded hauling to such a degree that the Sierra Railroad, which had acquired the Sierra Railway of California in 1936, discontinued the operations of the Hetch Hetchy line. The station and other structures at Hetch Hetchy Junction were removed in 1937-38; other structures at Groveland were dismantled in 1944. Sidings and spurs were removed to reclaim steel during the war years. The main track soon deteriorated and, as roads in the mountains improved, the railroad became less necessary. The entire line was finally dismantled in 1949.

Parts of the old right-of-way were used for a new city-built paved road to Mather and for access into the Hetch Hetchy area and in making the Big Oak Flat Road an all-year access to Yosemite Valley. The old route can be seen and hiked in places. One of the steam locomotives, Hetch Hetchy Shay No. 6, is on display at the Transportation Museum at El Portal, along with a track bus/railcar/ambulance. Two short pieces of track remain—one embedded in concrete over a shop pit at Hetch Hetchy Junction and the other in the concrete floor of the Moccasin powerhouse.

Illustration 244.


Illustration 245.

Bunkhouses and boardinghouse, Hetch Hetchy dam site, 1930s.
Yosemite Research Library and Records Center files.
Illustration 246.

Engineers' quarters and portable bunkhouses, Hetch Hetchy dam site, 1930s.

Yosemite Research Library and Records Center files.
Illustration 247.
Office guest house and residences, Hetch Hetchy dam site, 1930s.
Yosemite Research Library and Records Center files.
Illustration 248.

Map of Hetch Hetchy village with 1935 additions.

Yosemite Research Library and Records Center files.
In 1938 the guest house being built by the city was completed. In that same year the city turned over to the Park Service two buildings that had been requested prior to the submission of the plans and specifications for the dam enlargement. At that time Superintendent C.G. Thomson had requested that the city construct one or two ranger residences as a prerequisite to issuance of the permit. Those buildings formed units of the construction camp but were better built in order to be acceptable to the Park Service upon completion of the project. Those buildings were the old guest house, the most southerly of the buildings constructed along the east side of Mather Road, and the duplex cottage, about sixty feet to the northwest. The Park Service requested those structures to house trail and road maintenance crews in the summer, sanitation men, and patrolling rangers. Previously the superintendent had used a city of San Francisco cabin that had since been demolished.

During World War II, to protect the Bay area's water systems from sabotage, the Hetch Hetchy Dam and reservoir and the Lake Eleanor Dam became closed military areas, with military guards stationed at Mather camp and at Hetch Hetchy. The restrictions against public use were lifted in May 1945. In 1947 the city commenced construction on a new cottage at Lake Eleanor, and a year later a new reservoir keeper's cottage and a dormitory at Lake Eleanor were completed. In 1951 a camp house was built at Hetch Hetchy for use by Hetch Hetchy Water Supply employees who occasionally went there to perform maintenance work. It still stands southeast of the comfort station and northeast of the damkeepers' residences on the main road.

G. Yosemite Valley Railway

In October 1934 a group of bond holders incorporated the Yosemite Valley Railway Company and took over the Yosemite Valley Railroad Company as bankruptcy receivers in December 1935. Traffic improved somewhat as the Sugar Pine Lumber Company resumed its Merced Falls operation at that time and mail and tourist revenue again began to climb.
Illustration 249.

Guest cottage, Hetch Hetchy.

Illustration 250.

Lake Eleanor dormitory built by City of San Francisco.

Illustration 251.

Hetch Hetchy covered water line.

Illustration 252.

Packer's shack, Lake Eleanor Road - Jack Main Canyon Trail junction.

Five years later, however, the Sugar Pine Lumber Company sold its major holdings to the government and began closing out its operation. The Merced Falls mill shut down at the end of 1942. Another blow was the sale and disbandment of the Portland Cement Company quarry and plant in June 1944, when the company sold out to Henry Kaiser, who closed it. Regular mail service over the line was cancelled by the Navy, then installed at the Ahwahnee Hotel, in 1943, and finally in August 1944 the railroad trustees applied to the Interstate Commerce Commission for abandonment. That body recommended abandonment on 28 February 1945. The Machine Tool and Equipment Company of New York, meanwhile, effectively took control of the railroad and its assets through bond purchases and announced its intention to scrap the line. On 28 June 1945, the I.C.C. approved abandonment and the line was sold for the bondholders on 7 September on the steps of the San Francisco city hall. The last official run over the line took place on 24 August 1945. The engine, cars, buildings, and other materials were disposed of by Machine Tool Company and the track and ties removed under contract.

H. Research and Park Management

Park policies relative to wildlife management, and pest, fire, and stream control underwent more intensive scrutiny beginning in the early 1930s. In 1931 research reserves were established at White Mountain, Boundary Hill, and Swamp Lake. George M. Wright et al.'s *Fauna of the National Parks of the United States* publicly recognized the necessity for broader considerations in the formulation of park management procedures. The disruption of ecosystems as a result of the sometimes arbitrary but more often politically motivated placement of boundaries impeded the proper protection and conservation of park resources.

The availability of money during the implementation of emergency work programs beginning in the early 1930s enabled the hiring of ecologists to study national park conditions and advise on CCC work programs. By the late 1930s even superintendents voiced the need for organized botanical, biological, and ecological research on the local level to enable the proper understanding and interpretation of a park's natural features. The advent of World War II and a strained economy hindered development of such a program. After the war, however, the Park Service renewed attempts to encourage use of scientific data in park planning and management, and master plans of the 1950s began to incorporate ecological studies. Yosemite and other areas then began to utilize ecological expertise to address problems caused by human impact through the years on the environment.

I. Natural Resource Management
   1. River and Stream Control

James Milestone has divided this period of stream control efforts into two distinct phases, the first that of the "Landscape Architect Years," 1928 to 1938, characterized by implementation of a variety of erosion control devices, such as revetments, channel clearing, dam and bridge construction, and pipe laying. During this time, landscape architects concerned themselves with making the river aesthetically pleasing to the visitor, and the CCC accordingly removed much brushy debris and log jams simply for scenic purposes. Enrollees also sloped and revegetated undercut riverbanks. A change in thinking occurred after two floods of staggering proportions hit the park in 1937 and 1950:

When the 1937 flood occurred in Yosemite it was considered one of the emergency situations which happens only once in a hundred years. However, when it was followed by a similar flood in 1950 it was realized that such floods might occur in the future at much shorter intervals. Since that time both the Service and the Yosemite Park and Curry Co. have taken such possibilities into consideration and have planned accordingly. This advance planning resulted in less losses to the Service and

the concessioner during the 1955 flood than would have occurred if such planning had not been done... The 1955 flood also pointed up the need for additional planning, especially with respect to the need for a more rugged type of construction designed to withstand the impact of major floods.107

The flood of 1955 precipitated the "Preventative Nature Design Years/1 1955 to 1967, during which time flood control became the preeminent concern and control work aimed at protecting developed areas from rising waters. The Park Service concentrated on methods of draining floodwaters faster and continued the reduction of bank erosion. Emergency reconstruction work included channel improvement, extension of streambank revetment, and construction of retaining walls and larger drainage structures in an effort to control problem areas.108 Several thousand feet of riprap laid at this time significantly stifled the Merced's lateral migration.

The following events that took place during the 1930 to 1960 period affected the course of the Merced River and its tributaries:

1932  - construction of the El Capitan and Stoneman bridges.

1933  - construction of Bridalveil Bridge.

1934  - continuance of erosion control on Yosemite Creek; removal of logs and debris along the Merced from Happy Isles to the park boundary; CCC work; removal of concrete piers from the Old Village bridge; installation of a sandbag dam at Mirror Lake to prevent it from drying out.


1936 - Old Village bridge rebuilt and a rock dam built under it to form a reflecting pool.

1937 - 9 to 13 December flood in which 10.86 inches of rain fell; flood lake formed in central valley; superintendent's house, Old Village store, and chapel flooded; Yosemite Lodge cabins standing in four to five feet of water; 10 footbridges destroyed.

1938 - Swinging Bridge rebuilt 200 feet downstream from old site; 140-foot rock wall built behind Lost Arrow residence to divert water from Yosemite Creek.

1950 - 18 to 20 November flood, 14.52 inches; log jams threatened bridge damage; river debris left over entire valley.

1955 - 21 to 23 December flood in which 17.41 inches of rain fell; streambeds afterwards widened and deepened and other control devices strengthened, such as replacing wood with concrete, to withstand damage from future floods. 109

The 1937 flood wrought great devastation in Yosemite Valley to Park Service and concessioner developments, although it did not greatly affect the valley's physical features. After World War II and into the early 1970s, stream control emphasized protecting of MISSION 66 projects, such as new campgrounds, tourist facilities, and service structures, from being undercut and washed away.

Through the years, and as somewhat described in preceding chapters, several methods of stream control have been implemented throughout the Yosemite Valley stream system of which remains exist today. Riprap revetment constituted one of the most common methods of

109, Ibid., 94-99.
stream control and proved most effective at retarding stream bank erosion. The technique consisted of protecting eroded banks with material either from the streambed or from nearby fans or talus slopes. Often river gravel excavated from the streambed was spread over the stream banks, which were then sloped, and covered with close-fitted granite boulders or hand-placed cobbles. Early riprap consisted of smaller stones because of the difficulty of finding or transporting larger granite materials. In later years riprap revetment in the form of large boulders came from as far away as El Portal. Revetment has been placed in such quantities in Yosemite Valley that it has drastically changed the geomorphology of the entire river system by eliminating braided channels and preventing lateral migration. Willow planting began in the 1880s and continued in connection with riprap revetment to provide extra bank protection and give the riprapped banks a more natural appearance. Willow planting in Yosemite Valley reached a peak during the CCC work of the 1930s.

Another method of stream control involved man-made dams, of which there are fourteen in the valley stream system. These alter natural stream conditions by pooling the water. Pipe dams, the most common type, consist of six- to eight-inch cast-iron pipes emerging from the riverbank and crossing the river bottom, resting on top of the riverbed. Rock was placed over the pipes throughout their length for protection. The pipe dams in the valley are quite old and no longer serve a purpose. Two pipe dams existed at the Old Village footbridge. The one below the bridge created a reflecting pool, while the upper one created a huge reservoir that provided ice for the Curry Company. A third major pipe dam exists at the Yosemite Creek highway bridge. The rest of these dams are found throughout tributary streams and are in failing condition.

Six diversion dams have been built to divert water and ice into a penstock pipe or into another channel. The largest diversion dam is associated with, the power plant on the Merced River. Two others are on Yosemite Creek just below the Yosemite Fall footbridge, which protect
Yosemite Lodge and the Lost Arrow residences. The others are wing dams, large mounds of granite cobbles that protrude out into the river channel about eight feet, at a thirty-degree angle, to divert the river current. Three are located on the Merced: one at the west end of Lower River Campground and two on the north bank of the Merced at the south end of Leidig Meadow, all built by the U.S. Army.

The only valley reservoir dam was built at Mirror Lake to raise the original water level to maintain it throughout the year. The Mirror Lake outlet supported many dams from at least 1882 on that were successively flooded out. Dredging of the lake ended in 1971. Unintentional stream control structures consist of thirty-eight bridges on the valley stream system, varying from small footbridges of split logs to large arched, reinforced-concrete structures with granite stone facings. These structures constrict the natural river channel and restrict natural lateral migration. They also tend to back up water during floods when litter accumulates behind them.

Channel excavation and clearing took place as early as the 1880s and continued throughout the years as extensive dredging of silt, clay, sand, and rock deposits provided gravel for concrete construction projects, such as bridges, warehouses, hotels, and roads. Channel clearing consists of removal of floating matter such as pine needles, leaves, and logs, which actually could be handled naturally by the river system if left undisturbed. Because of the revetted banks and bridges, however, channel clearing has become necessary to prevent the accumulation of debris behind bridges where lateral erosion is retarded, causing jams and resulting in rising water levels, the breaking of new channels, or broken bridges. This type of work became necessary as more expensive structures were built in the valley. The CCC accomplished much channel clearing in the 1930s. Into the 1970s, fallen trees picked up by the river during high water that threatened log jams forced sporadic log clearing for several years and regular clearing
activities after 1965. Since 1965, little stream control has been undertaken.

Despite these many activities, flooding in Yosemite Valley persists during the winter and spring as a result of rapid snowmelt. Winter floods tend to be larger because more water is involved, but spring floods occur more often. The 1955 flood, the largest ever recorded in valley history, necessitated $62,000 for the repair of grounds and streams. Repairs were performed on stream bank revetments to contain and channel future floodwaters and streambeds were widened and deepened to avoid future revetment damage.

The natural conditions of the stream system of Yosemite Valley have been unnaturally altered through these various stream control processes that have prevented lateral erosion and increased drainage. The stream system has been ignored as a significant natural feature of the park in the zeal to protect costly investments and to ensure access routes.

In 1943 William Colby of the Yosemite Advisory Board expressed concern over riverbank erosion due to bathers, children, and adults desiring to get down to the stream edge. Colby wrote:

The river bank erosion is an exceedingly vital matter and is one that requires expert study over a long period of time. It is one on which the Service could well expend a great deal of time and is second only in importance to the question of the transformation of conditions on the floor of the valley resulting


111. Addendum to the Natural Resources Management Plan, 1977, 54.
from excessive forest growth due to human control of normal destructive agencies such as fire. Current river control is concerned with finding more natural methods of erosion control to fit the aesthetics of the park, such as instream flow diversion using boulders or bank protection using gabled logs. In 1975 Bryan Harry, a former Yosemite naturalist, discussed the problem of managing Yosemite’s natural resources:

If the valley had a very low density of people present and a very small investment in expensive facilities—then natural processes of fire and flood could run unchecked. Thus, naturally, the desirable mosaic of meadows, oak-lands, pine-woods, and fir forest would result from entirely random processes. This isn’t the case. There are many people and heavy investment—and now man must meddle with deliberate fires and active resource management practices to perpetuate the semblance of a natural valley. These practices should be on a “little every year” basis and funded as the highest priority valley function if we are to hand along the valley to the next generation in the condition we found it. Unluckily, some crucial decisions fall to us now because California Black Oak is on its last legs; major vegetation type shifts to cedar-fir forest are in an advanced stage (as a result of decades of fire and flood control).

Too, much can be done to remove some development (bridges and streamside campsites) from streams in the upper valley and we can then do away with much river rip rap. Certainly, we shouldn’t cram added development down valley where the Merced will then have to be stabilized in places to protect new investments.

It is recommended that recordation of the valley pipe, diversion, and reservoir dams be undertaken as part of a parkwide trail, bridge, and

112. William Colby, "Report, Yosemite Advisory Board, September 1942 - January 1943," in Box No. 10, Advisory Board Correspondence and Files file, Board of Advisers, 1943, no. 201-11, Yosemite Research Library and Records Center, 5.

dam survey. Their current condition should be noted and evaluations made of National Register eligibility.

2. Fire Control

As mentioned in the previous section, in 1928 the Park Service prepared its comprehensive fire prevention plan detailing requirements for adequate national park fire controls and facilities. After the authorization of fire lookouts in 1931, Yosemite constructed the Crane Flat facility that same year. Three years later the Henness Ridge lookout and Miguel Meadow Fire Guard Station took form.

In 1933 John Coffman became chief of a new Branch of Forestry and took charge of the ECW program. During this New Deal period, the parks received a major overhaul in accordance with the national fire plan. Whereas in 1929 the Park Service’s permanent fire organization had consisted of a national fire officer, a special fire organization at Glacier, and a fire guard at Sequoia, the emergency programs of this period resulted in a network of fire lookouts, telephone lines, fire hazard cleanups, and crews for fire suppression, all geared toward protection of the national parks' irreplaceable resources. During this time, standards for fire control and fire facilities within the national parks became more equal to those in national forest areas. Problems did arise as the need for prompt fire response resulted in construction of fire roads, trails, and facilities, conflicting with the policy of keeping wilderness areas free from such development. Also the ability such construction gave recreationists to get into the backcountry increased the fire hazard. These were seen as the price to be paid for protecting the park's unique treasures and irreplaceable artifacts:

Not until the concept of preservation changed its emphasis from the products of nature to the processes of nature was the imperative for fire protection diminished. Until the 1960s virtually every advocate of wilderness and every director of the Park Service demanded a strong fire program.174

114. Pyne, Fire in America, 299.
The reduction in public works money during World War II drastically affected Yosemite's fire control capabilities. Emergency fire appropriations carried the parks through World War II and in 1943 a memorandum of understanding between the departments of Agriculture and Interior made Forest Service resources available to the parks. There was a definite decline in facilities and services, however. Fire control again became a part of ranger activities and forestry became a division of resource management. During MISSION 66, the expansion of fire control facilities was carried out with a view toward providing additional interpretive centers.

During the 1960s, prompted by the Advisory Board on Wildlife Management in the National Parks chaired by A. Starker Leopold, a professor of wildlife management at the University of California, the committee's report of 1963 changed the Park Service concept of park management, advocating that biotic conditions in the parks be maintained or recreated as nearly as possible in the condition prevailing when white men first visited the area. The Secretary of the Interior endorsed those policies and they formed the foundation for a complete overhaul of Park Service administrative policies. Park Service fire control was seen as detrimental to proper resource management. The report opened the way for prescribed burning and advocated research as a guide in setting objectives for resource management.115

3. Grazing

Grazing management has remained an important part of the park's natural resources program. Meadow destruction from this practice is always possible due to the trampling down and overgrazing of certain perennial grasses, which would then be replaced by weeds, brush, and trees. Extended use of an area can result in the killing of grass roots, resulting in bare patches easily eroded by water. Moderate pack stock use of high mountain meadows is not detrimental to those areas.

115. Ibid., 298-301.
Through agreements made during the grazing period of World War I, cattle had been allowed to range within portions of Yosemite. Eleven-Mile Meadow became a base of operation for cattlemen, who had erected thereon three shacks, a barn, and fencing. By 1931 the park intended to eliminate all structures and restore the area to park status, per the Secretary of the Interior's instructions.  

In the mid-1930s, the Yosemite Park and Curry Company could graze horses and mules necessary to supply and accommodate its guests and employees in areas approved by the Secretary of the Interior. Prior to completion of the new Glacier Point Road, concessioner stock grazed the Bridalveil Meadow area on the south rim of Yosemite Valley. The Wawona Meadow, though grazed intensively for the previous sixty years, had become less feasible for that purpose because of various new physical developments, such as the golf course and proposed airplane landing field in its center.  

By 1940, however, the Curry Company still grazed its stock in the Wawona Meadow. Fall pasturage took place at McGurk Meadow and in upper Little Yosemite Valley, with winter pasturage in the foothills. Most horse and mule use in the park has occurred near developed areas, where the stock is housed and fed in corrals overnight. Grazing has mostly involved horses, mules, and burros transporting supplies and people into the backcountry. The Park Service requires all such grazing by the concessioner and park employees to be incidental to a recreational


trip or necessary to backcountry maintenance, patrol duties, or resource surveys. Management of grazing resources is guided by ecological principles. After 1977 all pasturage not incidental to recreational or management trips had to cease, affecting primarily the concessioner in the Wawona area. 119

4. **Insect Control**

Insect control work, which started in Yosemite in 1913, had been continued as needed. In general, the season of 1931 brought seriously increasing infestations in both the Stanislaus and Sierra national forests bordering the park. From 1930 to the summer of 1933, the amount of damage to forest trees due to insect infestation steadily increased, reaching epidemic proportions. Those infestations were marked by heavy attacks of the western pine beetle during the summer and by very general topkilling of yellow pine in the fall by engraver beetles.

Emergency Conservation Work crews combated the infestations. Most control work involved the western pine bark beetle, which damaged Ponderosa pines, and the mountain pine bark beetle, which injured the sugar and lodgepole pines. By 1934 the lodgepole needle miner moth was increasing in occurrence. 120

Insect control work, started under regular park appropriations, and then carried on largely by the CCC, greatly reduced the numbers of beetles and saved many times the number of trees cut in combating them. Enrollees destroyed egg masses and cocoons of tree-damaging moths and cut and burned beetle-infested trees. An additional benefit of CCC involvement in insect control work was the conversion of cut trees into


120. Emil Ernst, "Insect Control in Yosemite," *Yosemite Nature Notes* 13, no. 7 (July 1934): 49-52. A decline in logging activities near Yosemite made many loggers available for insect control in the park, their employment in that activity somewhat alleviating the unemployment problem in Mariposa County.
shakes and huge log benches installed in suitable locations for weary visitors. Timber products obtained and used for maintenance and improvement projects largely comprised by-products of insect control, fire hazard reduction, timber clearing, and the like. The CCC organization gained credit for much of the success of the campaign against bark beetles in the Yosemite forests.

Studies of lodgepole needle miner biology had been carried out in the Tuolumne River drainage since before 1949. The opinions of entomologists regarding needle miner activity changed through the years. Many scientists, along with many Park Service personnel in the 1930s to 1950s, believed it to be a destructive pest requiring extermination. Others believed the insect played an important role in maintaining healthy forests by thinning out older trees. Outbreaks of needle miner infestation occurred in Yosemite between 1910 and 1922, from 1933 to 1940, and again from 1945 periodically into the early 1960s. The insect attacked thousands of trees, creating extensive "ghost forests."

The Park Service undertook airplane spraying of infected trees with DDT in 1948 and again in 1953, but with little success. In 1954, when the mountain pine beetle population increased, killing off trees already weakened by the needle miner, almost two thousand trees were felled and burned north of Tuolumne Meadows. A year later four entomologists established a summer field camp in the meadows to study the needle miner and methods of control. Their work included testing of more powerful insecticides such as malathion. In 1959 a major application of that chemical was made on several thousand acres of lodgepoles around Tuolumne Meadows, killing seventy-five percent of the needle miners. Spraying of additional acres took place into the early 1960s.

The National Park Service faced a complex problem in its control of forest pests. Although the Forest Service, responsible for the protection of potential lumber supplies within its holdings, could justify severe actions against forest pests, the Park Service had been charged with protecting all aspects of the natural scene and needed to concentrate
more on biological controls. Because both the needle miner and lodgepole pine were native to Yosemite, Park Service officials often had trouble accepting the use of artificial means to control the problem. The role of needle miner caterpillars in encouraging the growth of younger lodgepoles could not be ignored, even though the interrelationship resulted in adverse aesthetic affects.

The Leopold Report of 1963 questioned the mass application of insecticides to control forest insects in national parks because of the unknown affects on a biotic community as a result of change in the ecological balance. The recognition grew that insect devastation played a significant part in the building process of forests. Because natural biological controls did exist for the overall problem, the Park Service's primary concern became how best to protect the natural scene only in certain developed areas such as campgrounds and picnic areas. There dead trees not only minimized shade and screening, but also became hazardous to people and property. Park Service insect pest control began concentrating only on minimizing tree losses with approved pesticides in areas of high visitor use.

5. Blister Rust Control

By the 1930s this disease had spread west and appeared to be threatening the sugar pine stands of California. The U.S. Forest Service helped the Park Service fight the disease to prevent an epidemic that would interfere with timber production. Beginning in 1933, the CCC waged an intensive battle aimed at preventing the establishment of blister rust in the park. The white pine blister rust, as mentioned earlier, was caused by an organism that spent part of its life on wild currant or gooseberry bushes, botanically called ribes, after which it traveled to the white pines, which it seriously damaged or killed. The disease was fatal

121. Roth, Pathway In the Sky, 64, 67-70; Addendum to the Natural Resources Management Plan, 1977, 56.
to all white pine species, including the sugar pine, western white pine, and white-bark pine, all native to Yosemite.

Rust spores could travel 200 miles from a pine to a ribes host plant, but spores from a diseased ribes bush could travel only 1,000 feet to infect a white pine tree. Control of the disease lay in elimination of certain species of the ribes genus. Not all gooseberry and currant bushes in the park were eliminated, the program entailing ribes eradication only in the immediate vicinity of white pine stands.

The Crane Flat CCC camp was entirely devoted to blister rust work, although blister rust efforts also took place at Deer Camp, Eleven-Mile Meadow, Base Line (Smith Meadows), Chinqapin, Chilnualna, the South Fork of the Tuolumne River area, Carl Inn, Tamarack Flat, Empire Meadow, and Sugar Pine Pass near the Merced Grove. During the war years, 1942-45, ribes eradication continued at a reduced rate, using mostly high school students. (The Crane Flat blister rust control camp was reoccupied in 1943 after extensive reconstruction. Portable tent platforms and mess halls proved useful at both Crane Flat and at Eight-Mile. At the end of the season at each camp, all of these portable items were dismantled and stored for the winter.) In 1944 the Sequoia Hotel at Wawona was remodeled for occupation by a blister rust crew and camp equipment was brought in from the former camp at Eight-Mile. In 1946 the buildings at Crane Flat were dismantled and replaced and a new camp established one-quarter mile west of the old one with several surplus army and navy buildings. These buildings had been removed from the Ahwahnee Hotel grounds after the U.S. Naval Special Hospital was decommissioned for use as blister rust camps and for storage for blister rust tools and supplies. Some of these World War II structures also went to Carl Inn for blister rust work. (It is uncertain whether the buildings were moved intact or dismantled and the salvaged materials reused.) The Sugar Pine Pass Blister Rust Control camp, at the junction of the Merced Grove road and Highway 120, moved from the Wawona CCC camp in 1946, was not used after 1951 and razed in 1960.
In 1945 the U.S. Forest Service established a Division of White Pine Blister Rust Control. At that time employees of the Office of Blister Rust Control of the Bureau of Entomology and Plant Quarantine were transferred to the Forest Service. Three years later the division was abolished and its functions transferred to the Division of Forest Pest Control. Ultimately pathologists became convinced that indirect control was ineffective. The work of ribes eradication continued through 1967, when it was superseded by monitoring and detection surveys. After that time surveys to determine the intensity of blister rust infections were carried out periodically. Actually the disease was less of a threat than originally believed.

J. Fish and Game

In the 1932-33 season the National Park Service and the California Division of Fish and Game cooperated in erecting the Frog Creek Egg Taking Station. Isolated Lake Eleanor in the northwest section of the park contained a rugged strain of rainbow trout considered ideal for planting as fingerlings in high country lakes. A dam was built across Frog Creek about 100 yards upstream from the lake. A fish ladder and two traps were incorporated in the dam to catch trout during their upstream migration.

Each year during April and May an employee would operate the fish traps on Frog Creek and stay in the Park Service snow survey cabin, also operated as a park outpost station, completed in 1936 under ECW. Rainbow trout traveling up Frog Creek to spawn were caught and held in a small enclosure, then transferred to a holding tank in which they were held until time for them to be "milked" of their eggs. The eggs were then fertilized and transported to the hatchery at Happy Isles where they were hatched and raised for planting in the high country. In October 1934 CCC enrollees reconstructed the fish trap on Frog Creek that had been damaged by high water in the spring of that year. Activities

122. Superintendent's Monthly Reports, January-December 1934, microfilm roll #3, Yosemite Research Library and Records Center.
Illustration 253.

Crane Flat blister rust camp, #6014, mess hall, now used by Yosemite Institute.

Illustration 254.

Crane Flat blister rust camp, #6016, barracks and office, renovation in progress.

stopped here during the war, with operations beginning again in 1950. The Frog Creek operation closed down in 1956 along with that of the fish hatchery in Yosemite Valley.

Fish planting had progressed in Yosemite from the "coffee pot" method of planting by early settlers to the slightly more sophisticated planting by park and state personnel using pack stock with specially designed fish cans. That process was, however, both time consuming and expensive. In 1952 the planting of lakes by airplane began, but these air plants were curtailed in the early 1970s.123 Fish planting still occurs by agreement with the state in several Yosemite lakes. The state finally abandoned its Yosemite Valley hatchery in 1956, by which time it had become outdated and considered costly and inefficient. Rather than raze the old fish hatchery buildings, the California Department of Fish and Game offered them to the Park Service for interpretive purposes. The National Foundation for Junior Museums prepared and donated several exhibits. The state Fish and Game department also donated funds for exhibits on Yosemite fish rearing and stocking activities. The new center also became the meeting place of the Yosemite Junior Ranger Program. The Happy Isles Nature Center was one of Yosemite's first MISSION 66 projects.124 The Department of Fish and Game transferred title to the buildings, tanks, and equipment to the federal government on 1 March 1957. Some of the equipment went to the Moccasin Creek Hatchery near Big Oak Flat, on the Tuolumne River. Later plantings in the park involved fingerlings produced at larger, more efficient stations.

The National Park Service's new nature center opened on 21 July 1957. The Park Service razed a four-car garage with a storage and fish food preparation room in that year and fire destroyed the foreman's


residence in August 1959. The Park Service removed the other residence, the pond, and the concrete tanks after that time.125

K. Water Monitoring

The U.S. Geological Survey, under cooperative agreements with the Park Service, maintains continuous flow gauging stations on all major park drainages and conducts qualitative and quantitative water resource studies throughout the park. The city of San Francisco still measures outflow from the O'Shaughnessy and Lake Eleanor dams.126

L. Snow Survey

In 1931 the state appropriated money for construction of a log snow survey cabin at Buck Camp, completed by January 1932. An old logging cabin built in 1916 at Deer Camp was also renovated for use in the state Cooperative Snow Survey beginning 1 January 1932, but today is no longer standing. Both of these cabins were to be used as outpost patrol cabins during the summer. Because of the depressed economy of the 1930s, funding for snow surveys was unavailable for the 1934-35 season. During that time cooperating agencies continued to make surveys and so the period of disruption of the program was not excessive. The California legislature appropriated money to resume the state-coordinated program in 1936.

In 1945 the city of San Francisco asked to build two shelter cabins within the park to be used in the acquisition of snow survey data necessary for the operation of the Hetch Hetchy water supply. The California Department of Public Works subsequently built cabins at Lake Vernon and Wilmer Lake. They became the property of the U.S.

125. Pavlik, "A History of Yosemite's Fish Hatcheries," 1984, 2-3; E.C. Finney, First Asst. Secretary, Department of the Interior, to California State Fish and Game Commission, 10 February 1923, Central Files, RG 79, NA.

Government, however, which used and maintained them, allowing city workers to use them in connection with the obtainment of hydrologic data. In 1946 the California Department of Public Works was issued a permit to construct a cabin at Benson Lake (never built). The ranger staff found the Vernon and Wilmer cabins excellent help in the protection of those park areas. Rangers no longer had to carry their dishes and bedding with them, and the cabins were hidden well enough from the main trail that hikers were not tempted to use them. Although the Advisory Board considered them an unwelcome intrusion in the backcountry, park rangers considered them an invaluable tool. Another cabin was built in 1947 at Sachse Springs, then in the Stanislaus National Forest, by the state with the city contributing part of the cost. The last cabin was built at Snow Flat in the IVSerced River drainage that year.

As the need increased for more frequent information to forecast short-term water supplies and flood potentials, the use of supplemental snow data from automatic snow sensors and aerial snow depth markers became valuable. The use of automatic snow sensors began in 1965 in places where access was a problem and proved a more rapid method of updating water supply forecasts. About 1949 the advantages of obtaining supplemental snow depth information from remote areas by observation from aircraft became apparent and led to the placement of aerial snow depth markers in remote areas of the Sierra. In Yosemite these were located in various spots in the Tuolumne watershed.

The backcountry cabins, except the Lake Wilmer cabin that was demolished by an avalanche in the winter of 1985-86, still function for snow surveys on foot and are bases of operation for the maintenance of snow survey equipment. They also function as ranger patrol cabins, aiding in law enforcement and search-and-rescue activities. 127

All information obtained from snow surveys funneled into the office of the Department of Water Resources, which assembled the data and published forecasts of runoff in supplements of its Bulletin 120, "Water Conditions in California." The park still participates in the California Cooperative Snow Surveys run by the Department of Water Resources. Park personnel take measurements twice each year on eight snow courses within the park to check average snow depth and water content.

M. **El Portal**

In July 1932 the El Portal Inn burned. The existing hotel, next to highway 140, was completed by December 1932. The Yosemite Valley Railroad leased it to Ben and Dolly Gardner.

During the late 1940s or early 1950s, the Incline Mining Company of San Francisco developed several groups of tungsten claims around El Portal and built a gravity concentrator on the north bank of the Merced River one-half mile west of the barite-processing plant. The company produced and milled some ore at the plant during 1955 before floods washed out the mine roads. Low tungsten prices eventually stopped operations. 128

The small village of El Portal took on added importance during this later period in connection with one of the major areas of emphasis of the MISSION 66 program—the removal outside the park of employee housing and support facilities of the Park Service and the Yosemite Park and Curry Company. This was intended to result in better administration and removal of some of the adverse impact on the valley floor. Some of the needed land belonged to the U.S. Forest Service, which agreed to transfer it to the Park Service or cover the Park Service's use of it by a cooperative agreement. Other land was privately owned. Congressional

Illustration 255.
Lake Vernon snow survey/patrol cabin.

Illustration 256.
Interior of Lake Vernon cabin.
Photos by Paul Cioyd, 1986.
Illustration 257.

Snow Flat snow survey/patrol cabin.


Illustration 258.

Ruins of Lake Wilmer snow survey/patrol cabin. Destroyed by avalanche in winter of 1985-86.

Photo by Paul Cloyd, 1986.
Illustration 259.
Sachse Springs snow survey/patrol cabin.

Illustration 260.
Interior of Sachse Springs cabin.
Photos by Paul Cloyd, 1986.
legislation had to occur before the move could take place. After the Yosemite Valley Railroad was abandoned in 1945, the El Portal Mining Company obtained title to the village. The El Portal Mining Company, a subsidiary of the Baroid Division of the National Lead Company, owned the El Portal barite properties. It then sold the village to the Park Service as an administrative site in 1958.

N. Summary

The narrative of the Historic Resource Study of Yosemite National Park ends at this point. Future historians will have the task of chronicling and assessing the more modern development, interpretation, and management of the park. It will not be an easy task. Research on Yosemite is stimulating and never ending, its fascination lying in the contemplation of human impacts since the 1860s and the never-ending quest for solutions to a variety of natural and cultural resource-related problems that seem to multiply according to the complexities and vagaries of modern society. Park management deserves our respect and admiration, its mission clear but its methods subject to intense scrutiny and often criticism.

Charles Goff Thomson, Yosemite superintendent from 1929 to 1937, ably summarized what seemed to be eternal natural resource management problems in the park:

Simplified to the ultimate terms, we face two rather conflicting necessities:

First, the National Park Service is controlled by an earnest determination to preserve the parks for posterity; every responsible officer is determined to turn over to the next generation a finer Yosemite than we inherited—a Yosemite not ruined by over-development, a Yosemite with all its natural features preserved, its wonderful forests unravaged, its wildlife influenced as little as possible, its wilderness as untouched as possible. There is no false conception that we can or should fix the character of its use permanently, for succeeding generations will know better how to
adapt these priceless areas to their needs; but we owe it to future generations not to over-develop the area; not to mar any essential beauties; not to permit exploitation in any form; to safeguard against destructive nibbling processes. National parks are not Coney Islands, but distinctive idealistic American institutions. They are not resorts--not areas for promotion, but for conservation.

Our second responsibility, fully as important and more immediate, is to make Yosemite as useful as possible to the people of this generation, to enrich the lives of its users to the greatest possible extent. . . . 129

In addition, it is now recognized that natural park areas contain many prehistoric and historical resources that ought to be preserved. In a sense, they are more vulnerable than natural resources because they are nonrenewable. A historic structure, once demolished, is gone forever. Yosemite is, at least in a philosophical sense, the first and oldest of the world's national parks. Its significant sites and works of man that reflect that epochal history and that possess integrity are an important part of our heritage and as worthy of preservation as the park's animals, plant life, and geological wonders.

Illustration 261.
County library and residence (former post office), El Portal.

Illustration 262.
El Portal post office.
Illustration 263.
El Portal chapel (former school).

Illustration 264.
El Portal elementary school.
Photos by Robert C. Pavlik, 1984-85.
Illustration 265.
El Portal fire department.

Illustration 266.
Carroll Clark Community Center, El Portal.
Illustration 267.

El Portal Hotel, to southeast (rear). Now used for employee housing by park and Yosemite Institute.

Illustration 268.

El Portal Hotel, to northwest.

Illustration 269.
El Portal Market.

Illustration 270.
El Portal Motor Inn cabins, hotel in background.
Illustration 271.
Rancheria Flat MISSION 66 housing, El Portal.

Illustration 272.
Chevron building across from post office, El Portal.
Illustration 273.
Old sewage treatment plant, El Portal.

Illustration 274.
New wastewater treatment plant, El Portal.
Illustration 275.

Ruins of Cuneo mill above wastewater treatment plant, El Portal.

Photo by Gordon Chappell, ca. 1975.
NPS, Western Regional Office files.
As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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