

Though the "mileposts" for the tour begin at the Fraser end of the Strawberry Branch, you can also begin your adventure in Strawberry. For cross-country skiing on the trail, Strawberry is the only access, due to winter closure of Forest Road 4N01. Take care to park completely off the Old Strawberry Road travel way and to respect the rights of property owners in the area.

#### Post #1

Standard Lumber Company's new Camp Fraser, now the Forest Service's Fraser Flat Campground, was an important railroad logging hub. From Camp Fraser, at Milepost 22 (that is, 22 miles from the beginning of the Sugar Pine Railway at Ralph Station near the town of Tuolumne), three branch lines ran deeper into the woods. One line, having a number of offshoots, eventually climbed to the Punch Bowl and its elevation of 7,000 feet. A second line, less than a mile long, ran along the north bank of the South Fork of the Stanislaus River, terminating at Camp Lowell. The third line, or Strawberry Branch, also had several offshoots and reached into the timber stands as far as Dodge Ridge.

Base camps for logging operations usually stayed only a season or two, the buildings were typically lifted onto a flatcar and reused at a new location. This drastically cut costs by reducing the time needed to transport crews from a fixed camp or town to ever changing work sites. As well, one might find in the average railroad logging camp cabins or tents to house workers and families, a mess hall, a commissary and a combination post office/ payroll office.

#### Post #2

Across the South Fork Stanislaus canyon is the site of Camp Lowell. Operated for only the 1918-1919 seasons, Camp Lowell had been abandoned for 8 years by the time the Strawberry Branch was built. Loggers at Camp Lowell exclusively used powerful steam donkeys to "yard" the felled and "bucked" logs from the stump to the landing area. These impressive machines held one or more giant spools of wire rope. A "choker" was attached to the end of the rope in order to grab the log. The steam donkey turned the spool and yarded-in the log to a trackside landing where logs were loaded onto waiting flatcars.

Dragging gargantuan logs over the ground created long, straight channels—sometimes 3 feet deep. Seen from the air, these channels looked like huge asterisks—with the steam donkey set in the middle of the pattern. Some of these grooves are still visible in the ground today. You may see a few high stumps encircled with wire rope. These were probably anchor points for steam donkey operations. You will also see that various diameters of wire rope were used, certain sizes specific to certain tasks.

#### Post #3

Along the length of the Strawberry Branch, you can readily see some of the challenges of building and operating a mountain railroad. Proper drainage was crucial to holding the grade on the hillside. In the numerous washouts and spring areas on the grade, you will see a variety of ways that drainage and stumpage problems were temporarily solved. The solutions for these problems had only to be as permanent as the short life span of the branch line. Here, a plank retaining wall helped keep the slope in check. You will also see places where the grade was reinforced with additional railroad ties or where culverts channeled destructive, seasonal rivulets safely under the tracks.

#### Post #4

From here, you can see a diversion dam in the South Fork and—on the opposite side of the canyon—the flume and ditch into which the water is diverted. Historically known as the Philadelphia Ditch, it was built in 1899 to supply gold miners with water to work hydraulic diggings in the Jupiter area.

Later administered by the Tuolumne County Water Company and, ultimately, by PG&E, the Philadelphia Ditch has undergone numerous modernizations. It is currently used for power generation at Spring Gap, where a penstock transfers this South Fork water to the Middle Fork of the Stanislaus River.

#### Post #5

In steep areas of solid rock, the kind of rock wall you see here was a typical way to help form a railroad bed and stabilize it. After blasting out a rough bench, a steam shovel was used to roughly prepare the grade. The grading crew finished the grade preparation and laid the ties and rails. The rock wall was skillfully constructed without the use of mortar.

#### Post #6

What's your guess? Why was this large, gnarly-rooted stump propped up and encircled with cable? The answer was provided by ex-Sugar Pine Railway fireman Leonard Ruoff. Log-laden railroad cars derailed here, probably in the latter 1920s. Wire rope, "re-railing frogs", blocks and tackle were used with steam power to re-rail the cars and retrieve the logs. Derailments were a fairly common occurrence on a logging railroad.

#### Post #7

Here, as the Strawberry Branch enters the meadow near the site of Camp Strawberry No. 1, the grades split. Barely visible through the meadow, this branch parallels the South Fork, terminating near the old Strawberry Resort. The longer branch, overlain by this trail, continued past Strawberry Camp No. 1, crossing Highway 108, past Strawberry Camp No. 2—now the site of UC-Berkeley's Camps Blue and Gold. Between the Strawberry Camps, Hump Siding was situated at the present location of Pinecrest Elementary School, near the junction of the Old Strawberry Road and Highway 108.

#### Post #8

In 1923, on a group of experimental forestry plots in this part of the Forest, Research Forester Duncan Dunning of the Forest Service determined that only 39 percent of reserve trees—trees purposefully left after logging to seed and regenerate the area—were not destroyed or damaged in the course of typical, high-speed, steam donkey logging operations. Being more maneuverable, new woods tractors had the ability to cause less damage to the reserved trees. At the first Camp Strawberry, the Pickering Lumber Company, for the first time, experimented with tractors in its logging operations in the Central Sierra. Proven successful, tractors soon replaced steam donkeys for most yarding jobs, although donkeys continued to be used in various loading operations.

#### Post #9

As you hike through this area, you may come upon some unusual sights—ladders nailed high into trees, remnants of small enclosures and trees with identification tags on them. Located just across the South Fork from here, the first buildings of the old Stanislaus Experimental Station were constructed between 1927 and 1929.

The remaining buildings were erected between 1933 and 1937, primarily by Civilian Conservation Corps enrollees.

Between 1927 and 1969, the Experimental Station hosted some of the greatest minds in forestry and related sciences. Among them was Duncan Dunning, whose landmark studies and fieldwork on tree growth were conducted in this area. The resultant mathematical tables are still used by today's foresters.

As early as 1906, forestry experiments were conducted here because it was typical of high-quality stands of sugar pine, ponderosa pine and fir on the west slope of the Central Sierra Nevada. Fifteen hundred acres were formally designated in 1943 as the Stanislaus Tuolumne Experimental Forest.

Their common research theme was the development of harvest methods in old-growth stands to promote adequate regeneration of desirable pines. In 1969, the Stanislaus Experimental Station was turned over to the Stanislaus National Forest. Today, the station is being used for employee housing and storage.

Postscript—The wooden ladders reaching into the crowns of trees were part of a study to find out why cone crops are so periodic.

#### As You Leave The Sugar Pine Railway's Strawberry Branch...

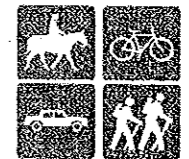
This brief tour has given you a taste of the Sugar Pine's history—one of four, major, steam-powered, railroad logging systems on the Stanislaus National Forest dating from the late 19th century until the mid-1960s.

Check a local library, bookstore or museum for more information on:

- the Sugar Pine Railway,
- the West Side's Hetch Hetchy and Yosemite Railroad,
- the Yosemite Sugar Pine Lumber Company,
- and (smallest of the old-time railroads), the California Peach and Fig Grower's Railroad.

# Getting There

# Sugar Pine Railway...the Strawberry Branch Stanislaus National Forest Mi-Wok & Summit Ranger Districts



ROG 16-128; 02/07

This self-guided trail over the Sugar Pine Railway's Strawberry Branch is a glimpse back into a rich era of our past. Please be safe and courteous to other trail users. If you find artifacts, please leave them in place. Take personal responsibility in avoiding damage to this fragile resource and in helping to preserve links to our railroad logging heritage.

## History of Sugar Pine Railway

You are about to travel some 75 years back in time—to an era when logging was done without chain saws or trucks, when tractors were just breaking onto the scene. This was a time when motive power for the railroad and logging machinery was steam, when the shrill sound of steam whistles pierced the daily din of the logging operation to signal steam donkeys to pull or "yard" immense logs from the stump to the landing.



To understand something of railroad logging during that period is to understand a very different way of life or, perhaps, even a different world-view born of industry, progress and accomplishment on a larger scale than anything experienced before in the Sierra. The mixed legacy of the railroad logging era leaves an imprint embedded on the Stanislaus National Forest; one that continues to be felt even today in the way the Forest is managed.

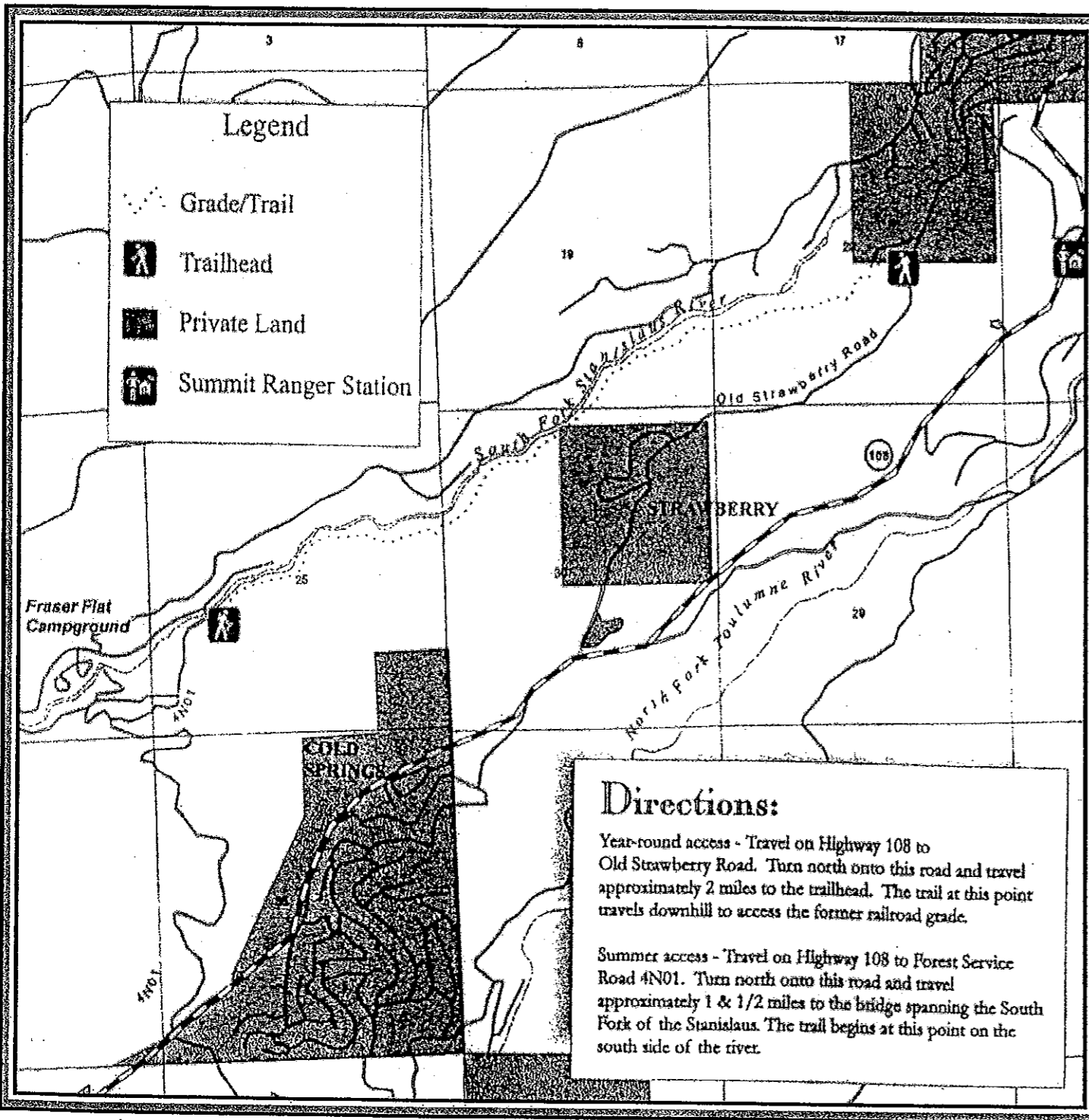
The Sugar Pine Railway's Strawberry Branch is a colorful bit of stitching in the tapestry that is Tuolumne County history. What is now the Fraser Flat Campground, a recreation site administered by the Forest Service, was previously Camp Fraser—site of the split of the Strawberry Branch from the old main line of the Sugar Pine Railroad. In 1927, the Pickering Lumber Company built this branch line, during the height of their activity in the Central Sierra. Pickering was the successor to the old Standard Lumber Company.

The railroad's grade was engineered to maintain a maximum 3½ percent grade—this

means that for every 100 feet of track distance, there would be no more than 3½ feet of elevation change. The heavy log loads strained even the most powerful of Sugar Pine's engines and it was critical to maintain as gentle a grade as possible over the steep and mountainous terrain. The Strawberry Branch itself split further up the line into two smaller branches—one offshoot passed through logging camps Strawberry Nos. 1 and 2, terminating at Spike Camp 3. The other line was much shorter and ended near the old Strawberry Resort, marked today by a historical plaque located near the original site. Downhill from Camp Fraser, the main line threaded its way to the Pickering's saw mill at Standard—just a few miles east of Sonora. Near Standard, the Sugar Pine fed into the Sierra Railway that, in turn, linked at Oakdale with the extensive Southern Pacific

Railroad—giving Tuolumne County wood products access to state, national and worldwide markets.

The Strawberry Branch was a vital part of the overall Sugar Pine Railway logging system. Before they ceased operation, the Sugar Pine Railroad grew to some 70 miles of main lines and 400 miles of spur grades, branch lines and sidings. At that time, there were few Forest roads for access and fire-plagued railroad sawmills had retreated to towns, favoring those locations over ones established in the middle of the Forest. The railroad grades were the only way to tap old-growth timber stands stretching between Twain Harte and Dodge Ridge, to Fiddler's Green, to Punch Bowl, even across the Middle Fork of the Stanislaus River to the backdoor of Calaveras Big Trees State Park. Despite early grandiose visions by the owners of continuing the railroad eastward in a trans-Sierra passenger and freight line, the Sugar Pine Railway was, foremost, a logging railroad for the Standard Lumber Company and, after 1921, for the Pickering Lumber Company.



**Directions:**  
 Year-round access - Travel on Highway 108 to Old Strawberry Road. Turn north onto this road and travel approximately 2 miles to the trailhead. The trail at this point travels downhill to access the former railroad grade.  
 Summer access - Travel on Highway 108 to Forest Service Road 4N01. Turn north onto this road and travel approximately 1 & 1/2 miles to the bridge spanning the South Fork of the Stanislaus. The trail begins at this point on the south side of the river.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.