

MILL CREEK 2 AND 3 HYDROELECTRIC SYSTEMS,
H.H. SINCLAIR MONUMENT
Highway 38, 7 miles East of Mentone
Yucaipa vicinity
San Bernardino County
California

HAER No. CA-2272-Y

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of Interior
1111 Jackson Street
Oakland, California 94607

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H.H. SINCLAIR MONUMENT

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Location: The H. H. Sinclair Monument is located on the northeast side of the entrance to the powerhouse site along SR 38 on USGS topographic map Yucaipa (Section 13; T.1S., R.1W.).

Date of Construction: 1926

Builder: Southern California Edison

Present Owner: Southern California Edison Company (fee ownership and easements)
2244 Walnut Grove Avenue
Rosemead, CA 91770

Use: H. H. Sinclair Monument

Significance: This monument was erected in memory of Henry Harbinson Sinclair who was a pioneer in the hydroelectric industry in California. Additionally, the H.H. Sinclair Monument has been identified as a contributing feature of the Mill Creek Hydroelectric System Historic District. The Mill Creek 2 and 3 Hydroelectric Systems are significant as early examples of high-head hydroelectric systems that still exist today in the United States. These were also some of the first commercial three-phase alternating current stations in California. Mill Creek 1 was the first to use this system in California and possibly the United States. This became the industry standard. Previous systems used either single-phase alternating current or direct current. The Mill Creek facilities also played an important role in the growth and development of the City of Redlands.

Report Prepared by: Christeen Taniguchi, Senior Architectural Historian and
Nicole Collum, Architectural Historian II
Galvin Preservation Associates
1611 S. Pacific Coast Highway, #104
Redondo Beach, CA 90277

Date: May, 2010

Part I: Description

Location and Overview of Mill Creek 2 and 3

The H.H. Sinclair Monument is located on the powerhouse site for the Mill Creek 2 and 3 Hydroelectric Systems. The MC 2 and 3 facilities are high-head hydroelectric systems located in a mountainous area east of the City of Redlands in San Bernardino County, California, just south of California State Route 38 (SR 38). MC 2 and 3 are owned and operated by Southern California Edison (SCE), and located in the San Bernardino National Forest, with a small western section situated on unincorporated San Bernardino County land. MC 2 construction started in 1899 and was completed the following year. Work on MC 3 began in 1899 and completed in 1903. They are both situated in Mill Creek Canyon, with altitudes that range from 2,900 to 4,850 feet. MC 2 and 3's western boundary is about 2/3 of a mile to the east of the eastern boundary of the City of Redlands. Yucaipa is the nearest city, located several miles to the south of the MC 2 and 3 powerhouse. The first of the Mill Creek facilities, Mill Creek 1 (MC 1),¹ is located further below along Mill Creek Canyon, about two miles southwest of MC 2 and 3. MC 2 has been non-operational since 1992, although much of its features still remain, while MC 3 is still operating. All three systems are accessible off of SR 38.

Mill Creek is the source of water that runs MC 2 and 3. The creek originates near Galena Peak in the eastern San Bernardino Mountains. The water then flows into the Santa Ana River at the Santa Ana Wash, located just north of Redlands and it then heads towards the San Bernardino Valley.² Mountain Home Creek was also a supplemental source for MC 2. Its intake is located in the middle of the Mountain Home Village, a residential community that was established in the 1920s. Water from Monkeyface Falls, which originates from Monkeyface Creek, was also taken from this intake until the 1970s. Each system has separate intakes, flowlines, sandboxes and forebays to collect and process the water, but then flow west into the same powerhouse to create electrical energy. They power an electrical system that originally served the City of Redlands, but later also provided bulk electricity for the cities of Colton and Riverside.

Description of the Powerhouse Site for MC 2 and MC 3

The powerhouse site for MC 2 and 3 is located southeast of SR 38 and immediately west and downhill from the associated penstocks for MC 2 and 3. The powerhouse site is located on an elevated parcel of land approximately three to four acres in size. The most prominent building on this site is the powerhouse, which serves both MC 2 and 3. Smaller ancillary buildings that help serve the needs of the facility surround the powerhouse and include: an office, machine shop, switch rack, weld shop, ice house, garage, chlorine storage shed, walls with rubble stones laid in concrete, and two domestic water tanks. There are asphalt paved driveways throughout the property, including one that connects to the adjacent street. There are some trees landscaping

¹ Mill Creek 1 was the first of the Mill Creek hydroelectric systems, and was completed in 1893. It was the first commercial three-phase alternating current station. The three-phase system has become standard. Mill Creek 1 is still standing and operational.

² Philip de Barros and Carmen Weber, "Cultural Resources Inventory and Evaluation of the Mill Creek Hydroelectric Project FERC Project No 1934," March 1993, 2-1.

the property, including olive and pine trees. The H.H. Sinclair Monument is located near the entrance to the powerhouse site.

Description of The Henry Harbinson Sinclair Monument

The Henry Harbinson Sinclair Monument is located near the entrance to the powerhouse site and adjacent to a wooden identification marker for this facility. The identification marker for this facility is made out of four wood planks mounted on two wood posts and reads: "Mill Creek Nos. 2 & 3 Hydroelectric Project".

The Henry Harbinson Sinclair Monument consists of a large natural stone, with a centered inset bronze plaque. The stone edges surrounding the plaque are rough and uneven. The lettering on the plaque is raised and the monument reads as follows:

IN MEMORY OF
HENRY HARBINSON SINCLAIR
1858-1914
A TESTIMONIAL TO HIS HIGH AND USEFUL
SERVICE AS A PIONEER
IN THE ESTABLISHMENT
AND DEVELOPMENT OF THE
HYDRO ELECTRIC INDUSTRY IN CALIFORNIA
THIS TABLET IS ERECTED BY
THE SOUTHERN CALIFORNIA EDISON COMPANY
NOVEMBER 1926

Part II: Historical Context

Henry Harbinson Sinclair

Henry Harbinson Sinclair (H.H. Sinclair) was born in Brooklyn, New York, in 1858. As a young man, Mr. Sinclair spent several years as a sailor and between 1877 and 1878 he attended Cornell University and studied science. Directly, following his time at Cornell, Mr. Sinclair operated a successful shipping business located in New York from 1878 to 1887.³ In 1887, H.H. Sinclair moved to the City of Redlands, California and purchased a 30-acre fruit ranch. Soon after his arrival, in Redlands, H.H. Sinclair quickly became involved in civic activities throughout the city. He was on the first Board of Trustees of Redlands University; director of the Lugonia Water Company and South Fork Ditch Association, he had interests in a major local hotel and a street railroad in Redlands.⁴ Sinclair was president and general manager, of both, the Redlands Electric Light and Power Company and the Southern California Power Company. He was appointed general manager of the Southern California Power Company in 1898, shortly after the

³ Paul R. Secord, "National Register Nomination: Southern California Edison Company, Mill Creek Hydroelectric System," National Park Service, 1985. p. 8.

⁴ Ibid. p. 8.

company was incorporated, on April 29, 1897.⁵ Sinclair remained an officer of both the California Power Company, and the Edison Electric Company, until 1907 when he resigned, intending to retire. However, retirement did not suit him and Sinclair continued on as vice-president and director of the Edison Electric Company. On June 1st, 1909, Mr. Sinclair took charge of the Great Western Power Company of San Francisco as vice-president and general manager. Following his new appointment at the Great Western Power Company, Mr. Sinclair had this to say:

I am reluctant to leave Southern California where I have lived twenty-two years. But I can hardly refuse to take up a task that has such wonderful developments ahead of it. In undertaking this work I cannot but appreciate the possibilities of California as a manufacturing center. This company is building for the future, and within ten years it will be equipped to supply 500,000 horse power where it is now supplying 60,000. See what has been accomplished in Southern California in the development of manufacturing industries as the result of cheap electrical power. I tell you that electrical power is the biggest business of the future today, and California, with its wonderful resources for power, is to become the loom of the Orient and the storehouse of all Western America.⁶

He continued to work in Northern California in the development of hydro-electric facilities until 1913.⁷ Mr. Sinclair passed away in 1914.

H.H. Sinclair lived in the City of Redlands for 15 years; he installed the first multiphase transmission plant in the United States and the second in the world, at MC 1, in 1892. Mr. Sinclair was with the Edison Electric Company since its conception and has been considered an important figure in the company's early success.⁸

12 years, following his death, the Southern California Edison Company, dedicated a natural stone monument with a bronze tablet descriptive of the pioneer work of Mr. Sinclair in the development of hydroelectric power. This monument is located just outside the powerhouse for MC 2 and 3. Prominent speakers and leaders in the western power industry were on hand to participate in the monument's dedication ceremony, honoring Mr. Sinclair's role in the completion of MC 2 and 3. The design of this plant was later copied by the engineers at Niagara Falls. Mr. Sinclair was credited as the man largely responsible for the creation of MC 2 and 3 and the multiphase system utilized here later became the standard system throughout the United States.⁹

⁵ "Redlands: Southern California Power Company Nearly Ready for Business". *Los Angeles Times*, June 26, 1898 p. B5.

⁶ "Takes Charge of Great Work: Edison Man Will Handle Big Northern Enterprise". *Los Angeles Times*. May 24, 1909 p I 16.

⁷ Secord p. 8.

⁸ Ibid p. I 16.

⁹ "Monument Dedicated: Henry Harbinson Sinclair, Pioneer in Hydroelectric Work in West, Honored at Redlands," *Los Angeles Times*. Febuary 26, 1927 p. 6.

Mill Creek 2 and 3

Please see the Historic Context section in the general Historic American Engineering Record for the Mill Creek 2 and 3 Hydroelectric Systems (HAER No. CA-2272).

Part III: Sources of Information

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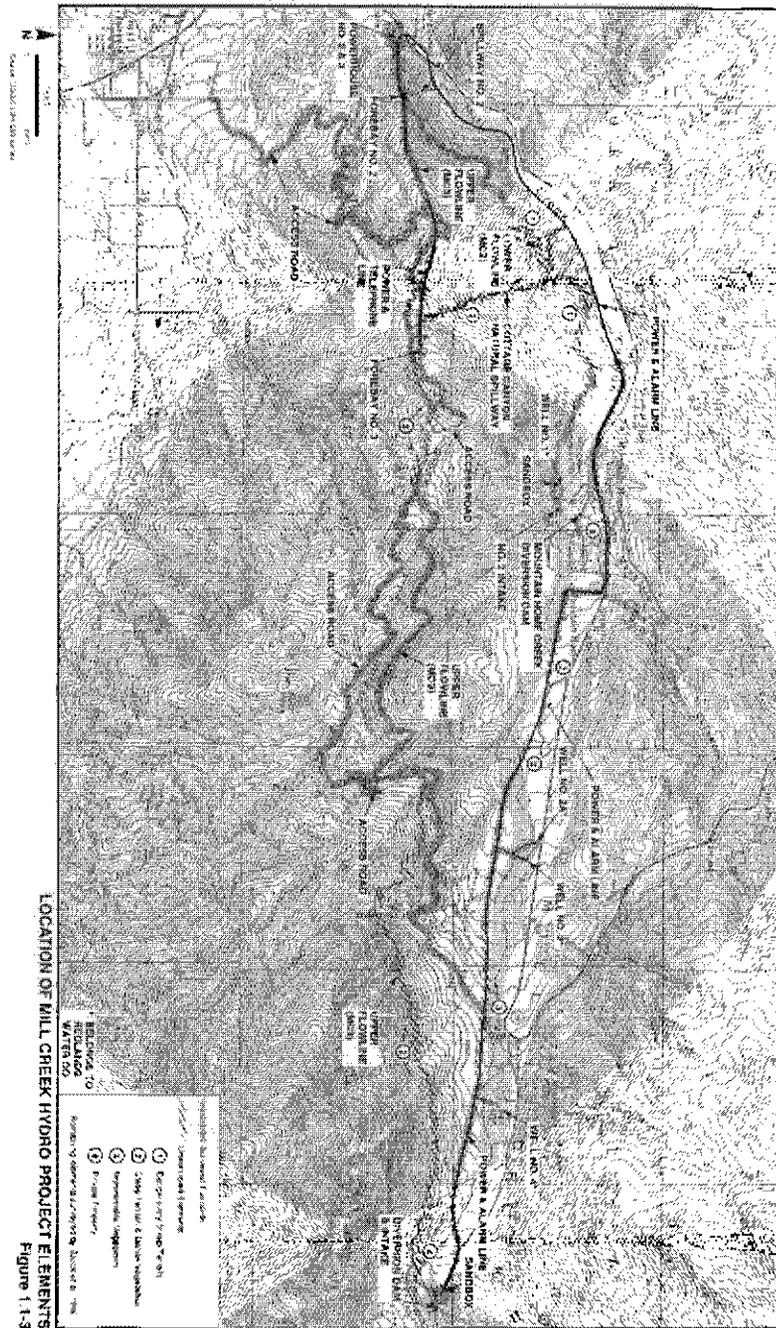
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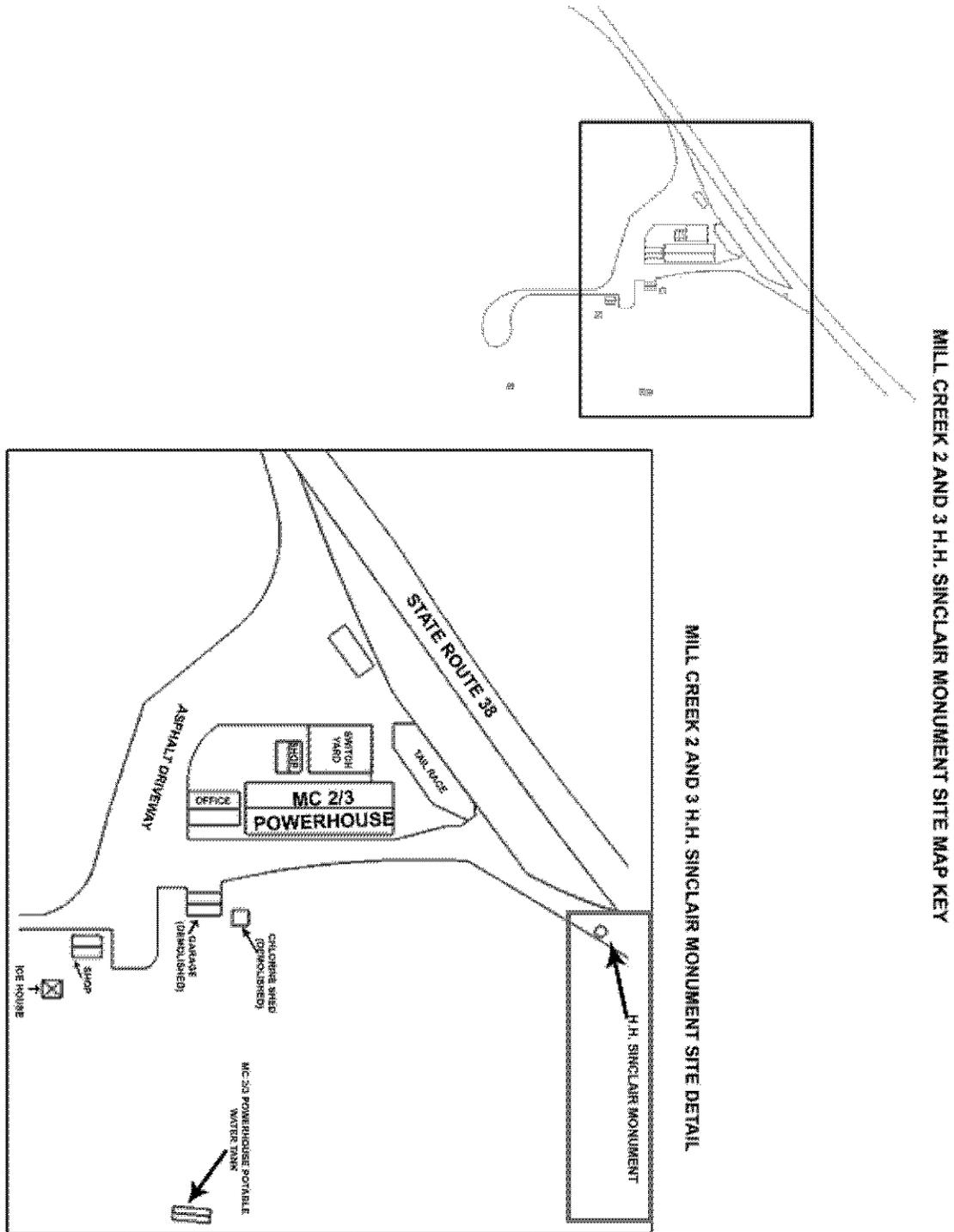
Part IV: Project Information

MC 2 has not operated since 1992 when it was damaged during floods. It was not, however, decommissioned. The Southern California Edison Company, in conjunction with the San

Bernardino National Forest, the agency that owns the property, proposes to formally decommission the facility. This process will include filling the sandbox and forebay with slurry, and removing the metal features. Although MC 3 is still in operation, it is also being recorded as part of this project because of the system's close association with MC 2.



Location of Mill Creek Hydro Project Elements. (Map Courtesy of Southern California Edison)



Mill Creek 2 and 3 Sinclair Monument Site Map. H.H. Sinclair Monument is located within the red square.