## PRIMARY RECORD

Primary # HRI# **Trinomial** 

**NRHP Status Code** 

Other Listings **Review Code** 

Reviewer

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\*Resource Name or #: Klamath River Hydroelectric Project District - Iron Gate Dam

P1. Other Identifier:

\*P2. Location: ☐ Not for Publication X Unrestricted

\*a. County: Siskiyou County, CA

□Structure □Object □Site □District X Element of District □Other (Isolates, etc.)

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad: Date:

1/4 of 1/4 of Sec B.M. ; M.D.

; R

Zip:

c. Address: d. UTM: Zone: 10;

mE/

mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: See attached map

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The Iron Gate Development is the last development of the Klamath Hydroelectric Project both in date of construction and location on the Klamath River. It was conceived as part of the original Klamath River plan and surveyed in the late 1920s - early 1930s. Work was initiated in 1956 when COPCO filed an application for water use with the State of California. Construction began in 1960 and the facility went into service in February 1962.

The Iron Gate Dam is located on the Klamath River approximately 7 miles downstream of the COPCO #2 powerhouse, 10 miles east of Hornbrook and 20 miles northeast of Yreka, California. It serves as the furthest downstream regulating point in the Klamath River Hydroelectric system. Iron Gate is an earth embankment dam - a rock-fill structure with a compact clay core - 173 feet high with a crest length of 740 feet. It forms a 944 surface acre reservoir. It includes a 730-foot long, ungated concrete spillway with a sluice gate operated by a motor-driven wire rope hoist. There are no fish passage facilities at the dam. Instead a fish hatchery was built for mitigation, and intakes for fish facility water are incorporated into the dam. There is also a diversion tunnel remaining from construction.

The waterway is 27 feet long and includes trashracks and a wheel-mounted intake gate. It includes a concrete-encased pipeline and a steel penstock to deliver water from the intake structure at the dam to the powerhouse. The pipeline is 182 feet long and 12 feet in diameter. The penstock is 499 feet long and 12 feet in diameter. (cont.)

\*P3b. Resource Attributes: (List attributes and codes) HP2 single family property, HP4 ancillary building, HP6 1-3 story office building, HP8 industrial building, HP9 public utility building, HP11 engineering structure, HP20 aqueduct (penstocks), HP21 dam, HP22 reservoir, HP39 other (fish facitlities)

□Building P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

See continuation sheets

\*P4. Resources Present:



P5b. Description of Photo: (View, date, accession): Iron Gate Dam, View from Reservoir to Spillway, July 2003

\*P6. Date Constructed/Age and Sources: X Historic □Prehistoric □Both

1960-1963

\*P7. Owner and Address:

PacifiCorp

825 N. E. Multnomah, Suite 1500 Portland, OR 97232

P8. Recorded by: (Name, affiliation, and address) L. Durio, CH2M HILL, 1515 Poydras Street, Suite 2121, New Orleans, LA 70112

\*P9. Date Recorded: July 2003 \*P10. Survey Type: (Describe) **Intensive Survey** 

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") see continuation sheet

\*Attachments: 

NONE X Location Map 

Sketch Map X Continuation Sheet 

Building, Structure, and Object Record □Archaeological Record □District Record □Linear Feature Record □Milling Station Record □Rock Art Record □Artifact Record □Photograph Record □ Other (List):

DPR 523A (1/95) \*Required information State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION CONTINUATION SHEET

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\*Recorded by: L. Durio

\*Date: September 2003

The **Iron Gate powerhouse** is an outdoor-generator style, reinforced concrete structure housing a single turbine-generator. The turbine-generator is a vertical-shaft, Francis-type hydraulic turbine and synchronous generator set. The turbine is an Allis-Chalmers and the generator is by Westinghouse.

Other structures in the Iron Gate development include a modern communications building, restroom building and fishery facilities. The **communications building** is located directly east of the powerhouse. It is a single story structure with a side gable roof and a rectangular footprint. The roof covering and building cladding are both R-panel metal. All doors and windows are aluminum. Its position behind the powerhouse makes it minimally visible on the site. The **restroom building**, located at the western end of the site, across the parking lot from the powerhouse, is a smaller version of the communications building. It is also rectangular in plan, has a gable roof, and is roofed and clad in R-panel metal. On the north facade is a metal door and aluminum window, and there is another metal door on the west facade. Both of these buildings are in excellent condition and appear to be newer than the rest of the Iron Gate development.

The fishery facilities are located both at the dam itself and across the road at a separate fishery site. The design of the dam did not include fish passage facilities. Instead, a fish hatchery was built for mitigation. Its mission, according to the Iron Gate Fish Hatchery visitors' center, is to "rear those fish that would have reared naturally above Iron Gate Dam prior to its construction to maintain the salmon and steelhead runs in the Klamath River." The **fishery facilities** located at the dam include six fish holding tanks, a spawning building, a fish ladder and an aerator. The spawning building is very similar to the communications and restroom buildings. Rectangular in plan with a gable roof, it is clad and roofed in R-panel metal siding. It appears to be an original 1962 building that has been altered. The aerator was installed in 1964. Across the road, west of the dam site, is the **Iron Gate Fish Hatchery**. The eggs from the spawning building at the dam are transported to the hatchery building, and then to the juvenile raising beds. The Iron Gate Fish Hatchery, constructed in 1965, contains the hatchery building, warehouse, office, four worker's houses, four aerated fish rearing ponds and a fish ladder from the river. There is also a visitors' center added later, possibly in 1994. The hatchery building, warehouse and office are sited together towards the middle of the site, and are all simple rectangular buildings clad in R-panel metal with metal gable roofs. The worker's houses are basic, wood framed residences clustered along the east side of the site. The visitors' center is a small, wood framed, kiosk-style building near the entrance to the site. The fish rearing ponds, which also function as spawning beaches, are located behind, (west of), the hatchery building, and the fish ladder is beyond these, stepping down to the river.

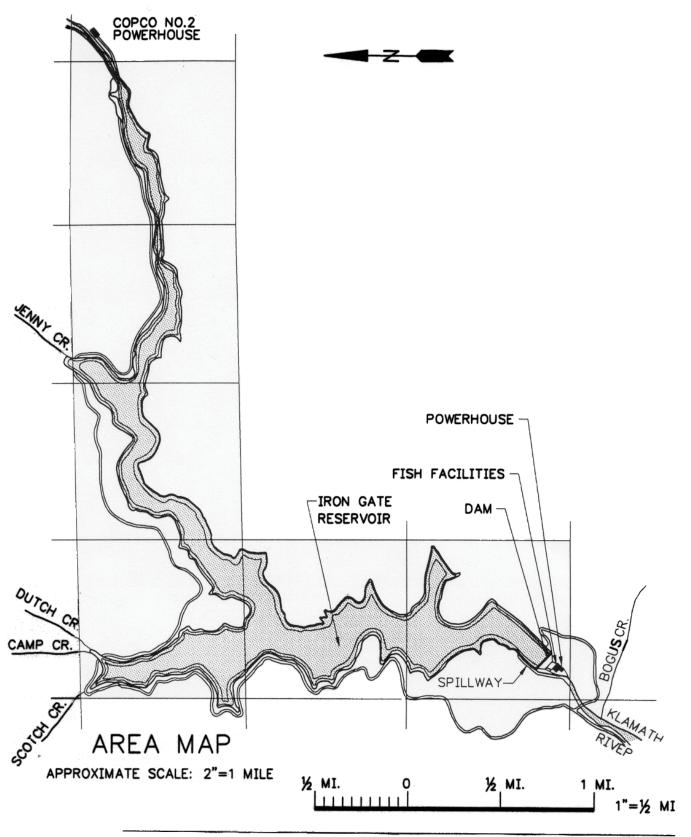
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View: Iron Gate Penstock, July 2003



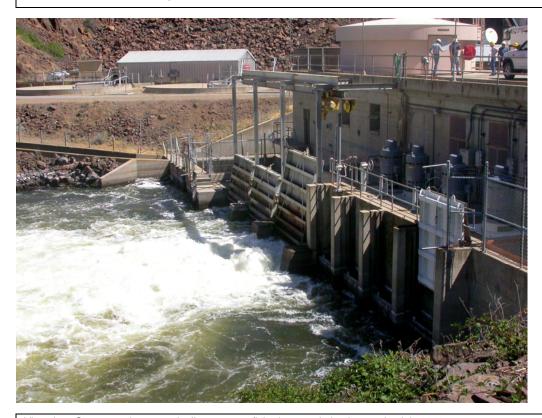
View: Iron Gate Generator Housing - note penstock at far right - July 2003

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View: Iron Gate Generator, July 2003



View: Iron Gate powerhouse and tailrace - note fisheries area in background - July 2003

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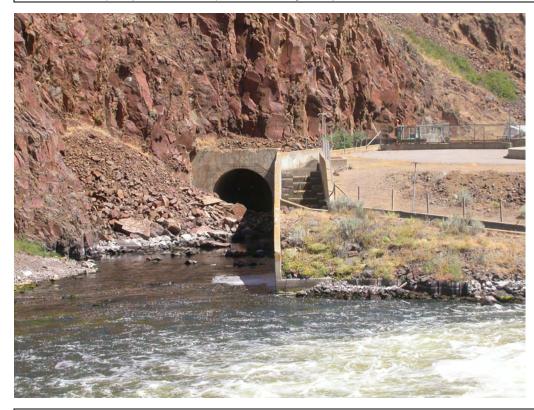
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View: Iron Gate Spillway at left - view to penstock at far right - July 2003



View: Iron Gate Dam Diversion Tunnel, July 2003

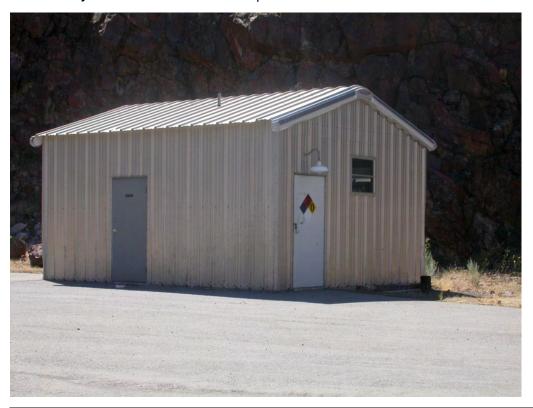
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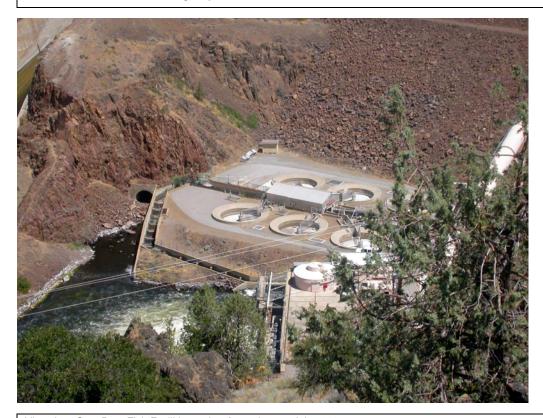
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View: Iron Gate Restroom Building, July 2003



View: Iron Gate Dam Fish Facilities – view from above – July 2003

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View: Iron Gate Dam Fish Facilities – Spawning House at center – July 2003



View: Iron Gate Dam - Fish Ladder - July 2003

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View: Iron Gate Dam - Fish Facility Aerator - July 2003



View: Iron Gate Fish Hatchery – Hatchery Building and rearing tubs – July 2003

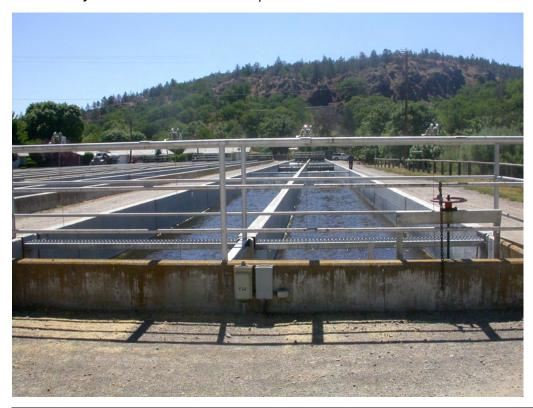
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View: Iron Gate Fish Hatchery - Fish Rearing Ponds - July 2003



View: Iron Gate Fish Hatchery – Fish Ladder – July 2003