



CULTURAL LANDSCAPE REPORT

PRAIRIE CREEK FISH HATCHERY

REDWOOD NATIONAL AND STATE PARKS , CALIFORNIA

JUNE 2020

PREPARED BY

UNIVERSITY OF OREGON

CULTURAL LANDSCAPE RESEARCH GROUP



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Prairie Creek Fish Hatchery

CULTURAL LANDSCAPE REPORT

REDWOOD NATIONAL AND STATE PARKS

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Cover image: Hatchery Building facing northwest (CLRG, 2019)

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Part one:

Introduction

PURPOSE AND NEED

The Prairie Creek Fish Hatchery (PCFH) is one of three historic hatcheries extant in the State of California, of the original 150 built in the late-19th to mid-20th centuries. It is typical of hatcheries built prior to World War Two, and although it has been out of use since 1992, the Period of Significance is from 1936 to 1946, based upon its construction and operating technology. Since its closure, PCFH has been ‘mothballed,’ with protection provided to the historic structures, but with limited attention to the cultural landscape features. Several cultural landscape features have not been maintained, leading to a degradation in the overall cultural landscape condition. At the same time, PCFH has received limited programmatic direction.

The Cultural Landscape Report for the PCFH provides treatment recommendations for its cultural landscape resources to address changes in the landscape since the period of significance, improve the overall condition of the cultural landscape, and recommend treatments in coordination with a number of programmatic considerations, based partially on a range of public access opportunities. The treatment recommendations are designed to support park objectives, provide a treatment framework to assure the long-term stewardship of the

cultural landscape, and minimize the loss of critical character defining landscape features by providing sound, systematic management guidance that is consistent with objectives outlined in the park General Management Plan and Foundation Statement.

The Prairie Creek Fish Hatchery Cultural Landscape Report:

- Broadens the understanding of extant landscape characteristics and features and their relationship to the designated historic period of significance (1936-1946);
- Ensures that planning and design efforts reflect The Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes and the National Park Service Director’s Order 28: Management of Cultural Resources;
- Establishes a foundation for approval by the National Park Service (NPS) for current and future design and management decisions at the site;
- Develops a series of plans and graphic images depicting the landscape as it developed, with a focus on the historic period, that will serve programmatic, planning and design efforts and enhance future interpretation and educational materials.

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Figure 2 : Redwood Forest forms a backdrop for the PCFH (CLRG, 2019)

SCOPE AND METHODOLOGY

There are two parts in the Cultural Landscape Report. Part 1 incorporates information from the Prairie Creek Fish Hatchery Cultural Landscape Inventory (2011), the Historic American Engineering Record (2005), the National Register of Historic Places nomination (2000), and the Historic Resources Study Report (1997). It includes site history, documentation of existing conditions, and a summary of analysis and evaluation of cultural landscape features. Part 2 provides treatment recommendations for preservation and rehabilitation of significant resources in line with

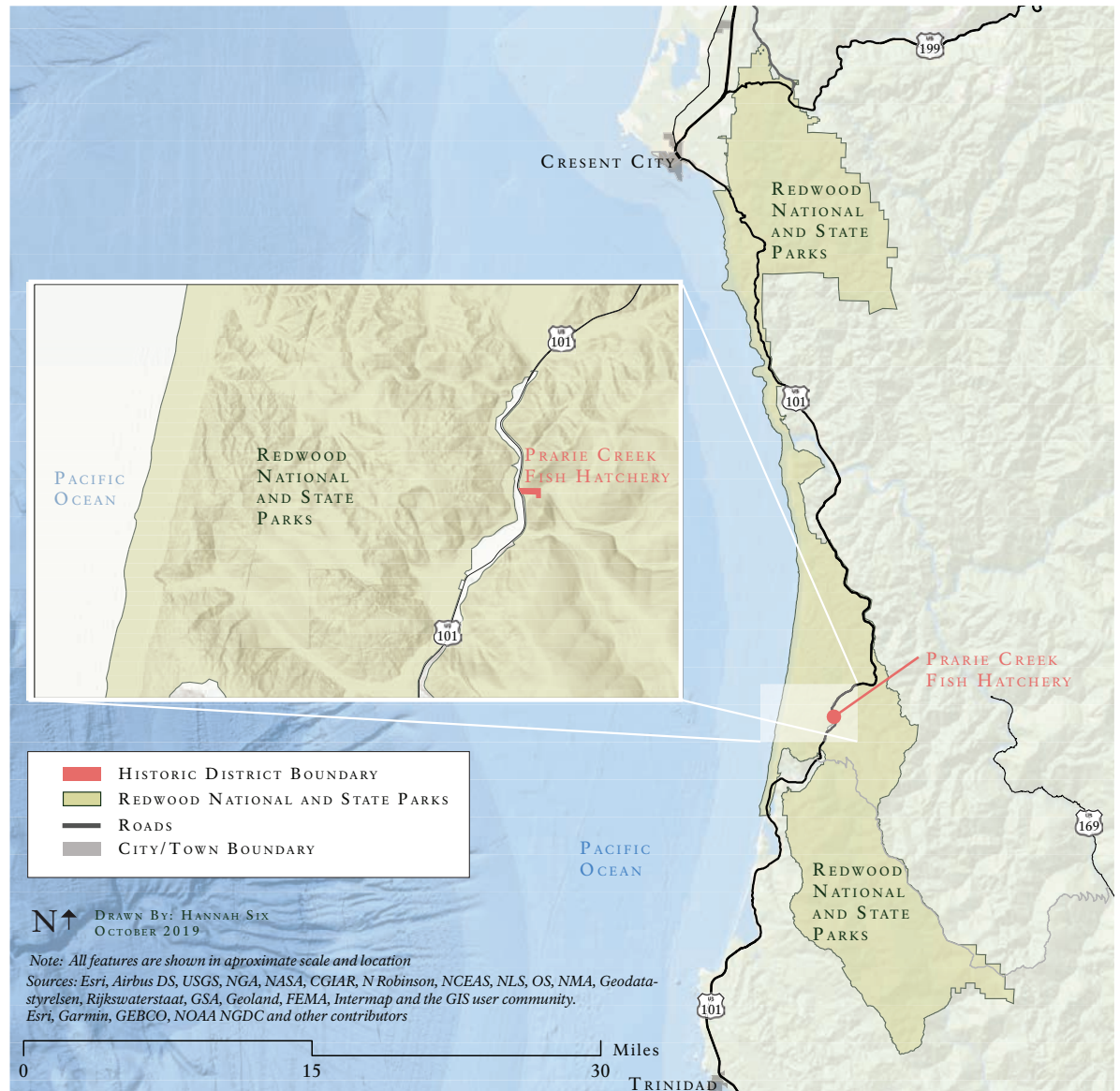
park management objectives, park operations, maintenance, and a range of site access opportunities. Several existing technical reports and research materials provided information about the history and physical development of the cultural landscape, including historic structure reports, National Register nomination, and baseline inventories. Due to the considerable amount of historical information about the hatchery, this section of the CLR is based primarily on the CLI (2011), HAER (2005) and the National Register nomination (2000), with edits to reflect changes since those documents were prepared.

Right

Figure 3 : Prairie Creek Fish Hatchery in context of Redwood National and State Parks. (CLRG,2019).

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Figure 4 : Prairie Creek Fish Hatchery is located seven miles northeast of Orick, California, in the southern half of Redwood National and State Parks (NPS, 2020).



used more electrical power. These qualities made new facilities different in design and function from previous hatcheries, such as the one at Prairie Creek.

The boundary of the PCFH historic district is the same as the original 6.2-acre parcel that was purchased by the California Department of Fish and Game shown on a 1935 survey and 2020 existing conditions plan, see Figure 8 on page 10 and Figure 40 on page 52. Currently, the historic district includes the main Hatchery, two houses, the garage-shop, the shed, and the pipeline stream crossing trusses, which is all that remains of the pipeline. The buildings that survive are well-built, but modest, plain, wood-frame structures, designed by the California Division of Architecture. The pipeline crossing's ability to convey the function of the facility is limited. The PCFH originally consisted of a 6.2-acre parcel with a main Hatchery building, four houses, a garage-shop, a shed, and outdoor water tanks; a 3,000-foot-linear-right-of-way for a 12-inch pipeline; and an 800-foot-long reservoir created by a rock dam, now referred to as upper dam site, see . Most of the pipeline has washed away in floods and the original, upper dam, and reservoir were no longer in use and removed in 1988, although the lower dam still remains (Sanders 1996).

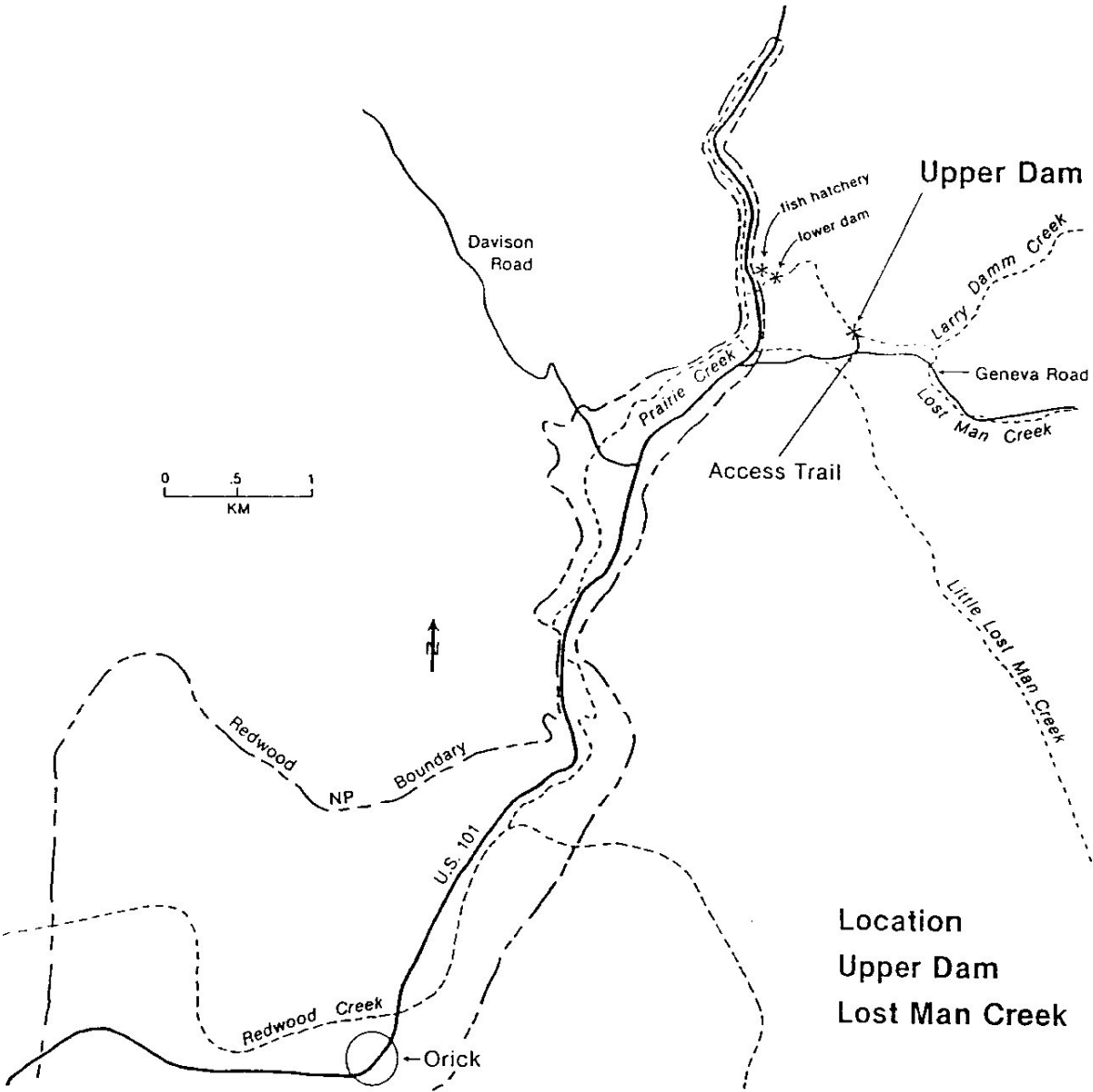
Despite diminished integrity of design, workmanship, materials, and feeling that is associated primarily with the loss of the pipeline and dam, there remains a high degree of integrity amongst the buildings and other features of the PCFH. Whereas the pipeline and reservoir were upstream, away from the Highway and hidden in the forest, the features which survive are highly visible and strongly convey

the significance of the property.

The historic character of PCFH is still evident in the following landscape characteristics: natural systems and features, spatial organization, vegetation, circulation, buildings and structures, and small-scale features. Based on the evaluation of these characteristics, the cultural landscape at the PCFH exhibits key patterns, relationships, and features that convey the historical significance of the district. Overall, the landscape is in good to fair condition.

Right

Figure 5 : Detail location of Upper Dam on Lost Man Creek, Redwood National and State Parks, showing Lost Man Creek, Upper Dam site, lower dam, fish hatchery, Geneva Road and access trail (Sacklin, Ozaki, Hofstra, Smith, 1988).





Site History

Figure 6 : Group of youth and woman standing in front of the Hatchery Building. (Smedley Photo Collection, Circa 1943)

The site history is based on the Cultural Landscape Inventory (2011), the Historic American Engineering Record (2005), and the nomination to the National Register of Historic Places (2000). The park has a limited repository of historic photographs, maps, site plans, design drawings, and correspondence that provided considerable insight to the development and intent of the original planning and design of the property. Prior fieldwork and site visits to document existing conditions occurred in 2005 and 2011. Recommended treatments for landscape resources fit within the current framework for management as documented in current park planning documents, and in response to conversations with park staff.

The following physical history is from the 2011 CLI, and taken primarily from the 2000 National Register of Historic Places nomination. However, the historical information contained in that document included several historic context descriptions not typically contained in a CLI. Therefore, the physical history has been consolidated in this section and the context descriptions are included in the supplemental information section of the CLI.

PRAIRIE CREEK STATION (EXPERIMENTAL) PRIOR TO 1936

For nearly ten years before PCFH was permanently established, it operated as a “temporary” or “experimental” hatchery. According to the 30th Biennial Report of the California

Department of Fish and Game (DFG): “During the summer and fall of 1927, a survey was made to find a stream on the northwest coast from which cut-throat trout eggs could be obtained. After a close study and from data gathered in former years, we decided to establish a temporary hatchery and traps on Prairie Creek, Humboldt County” (California Department of Natural Resources 1929:57). The following year, in mid-November 1928, the hatchery was ready for operation. Facilities at that time included racks and traps in Prairie Creek for catching fish; a tent hatchery with eight eyeing troughs, later increased to 30 (Nash 1996); a 2,500-foot long, 12-inch flume; and two cabins for employees. This first station was not at the site of the present PCFH but apparently was on the west side of the Highway. The station was located on “Prairie Creek below its junction with Lost Man Creek” (California Department of Natural Resources 1929:57). It was not far away from the post-1936 site, however, as its 2500-foot flume brought water from Lost Man Creek.

While the purpose of the 1927 survey was to find a source for cutthroat trout eggs, in the first season, 1928-1929, high water enabled the cutthroat trout “to pass over the tops of the racks” so that none were trapped and no eggs were taken. During the 1928-1929 season, the station operated both as an egg collecting station and a hatchery for both trout and salmon; 208,000 silver salmon eggs were taken and hatched at Prairie Creek, except for 60,000 eggs taken to Fort Seward Hatchery; and 1,400,000 steelhead trout eggs were taken, with nearly half

hatched at Prairie Creek Station and the remainder taken to Fort Seward Hatchery. “Several logjams and other obstructions in Prairie Creek” were partially removed, and plans were made to remove the rest before the next fall salmon run. Four types of fish were observed: chinook salmon, silver salmon, cutthroat trout, and steelhead trout. “The chinook and steelhead are desirable for general distribution and the silver salmon and cut-throat trout were of value for distribution in Humboldt County.” The overall assessment of the first year was favorable: “Judging from the first season’s showing, we think the establishing of the station was justifiable and the station is a decided asset. There is ample water for hatchery purposes, even if the capacity is increased and the water seems to be good” (California Department of Natural Resources 1929:57).

The 31st Biennial Report stated that due to bad weather: “we still consider the station in an experimental stage and unproven as to either its continuance or as to its abandonment.” The only substantial improvement made to the facility during 1929-1930 was to build a garage. Because “a good run of steelhead trout in Prairie Creek” was believed to occur only every five years, “we have planted the creek heavily during the past two years in the hope of ultimately building up a regular steelhead run in the creek. If we are able to succeed in this endeavor, it will be very good proof of the plan of planting large numbers of small fish instead of a few large fish.” An alternate plan under consideration was the establishment of a hatchery on Redwood Creek (California Department of Natural Resources 1931:52- 53). Nevertheless, the hatchery continued hatching steelhead,

cutthroat trout, silver salmon and King salmon eggs and distributing the fry in waters of Humboldt and Del Norte Counties through 1936” (Leitritz 1970:67).

For the period of its temporary status and location, from 1928 to 1936, the predecessor to PCFH was named “Prairie Creek Station (Experimental)” (California Department of Natural Resources 1931:52). More loosely, it was referred to by its two functions, as Prairie Creek Egg Collecting Station and Prairie Creek Hatchery (Leitritz 1970:67). At least in its first year, it appears to have been located on the west side of the Highway (rather than on the east side as it is today). Sometime before 1935, it was moved to another temporary location on the south side of Lost Man Creek (which is east of its present location). A 1935 survey map, Figure 8, showed a rectangular Hatchery building on the south side of Lost Man Creek on the section line, just east of the midpoint of the section line with a house shown west of the midpoint (Elam 1935). Thus, during the period 1928 to 1936, the temporary hatchery appears to have been originally located west of Highway 101 and west of the present location of PCFH. Later, it was relocated south of Lost Man Creek and east of the present location of PCFH.

The exact location of the temporary hatchery building is unknown. However, an undated photograph of the old hatchery building, Prairie Creek, published in 1970 (Leitritz 1970:67), Figure 7 on page 9, shows a structure with a rectangular stud-frame with gabled roof framing. This structure has horizontal siding on its lower walls, its upper walls seem to have been enclosed with windows and it has a solid roof with overhanging eaves. The building is situated among

tall trees with some foundation shrubs and an understory opening. The photograph is taken along a path leading diagonally to a corner of the structure.

The CLI cites two undated historic photographs from the State archives: “Prairie Creek Hatchery” which may show the tent hatchery of the first season (1928-1929) and a second, of the “Main Racks Prairie Creek”. Although cited in the CLI, these photographs were both unavailable for the CLR. The “Prairie Creek Hatchery” historic photograph was a similar perspective to the undated photograph of the old hatchery building, Figure 7 on page 9, though understood to be taken earlier.

Two employee cabins are noted in the 30th Biennial Report, see Appendix C, page 160 (California Department of Natural Resources, 1926-28). It is unclear whether the cabins are in reference to the single structure labeled House, and Dwelling south of Lost Man Creek (Figure 8 and Figure 9) or the Superintendent and Assistant

Superintendent Houses. If the second cabin was south of the first, it would not necessarily have been shown on any of these maps.

One of the two employee cabins noted in the 30th Biennial Report, for 1926 to 1928, may be the same structure shown on a survey of the property in 1935 situated on the section line on the south side of Lost Man Creek (Elam 1935), see Figure 8. A hand-drawn addition to a map made by the Department of Fish and Game later in 1935 showed the cabin just north of the section line (California Department of Natural Resources 1935), see Figure 8 on page 10. In 1962, a dwelling was shown on a survey map at this same location, see Figure 9 on page 11 (Larson & Macmillan 1962). Both cabins may have survived into the 1970s (Sanders 29 July 1996).

Although there is no physical evidence, it seems possible that the garage built in 1929-1930 may survive, either moved or on its original site as the shop or shed. Because the garage was described as a major improvement in the

Right

Figure 7 : Right - Old Hatchery building, Prairie Creek Hatchery, date unknown (Leitritz 1970:67)



Right

Figure 8 : 1935
Division of Fish and
Game Survey Sketch
Map, 1935 (PCFH
National Register
Nomination, Elam
1935)

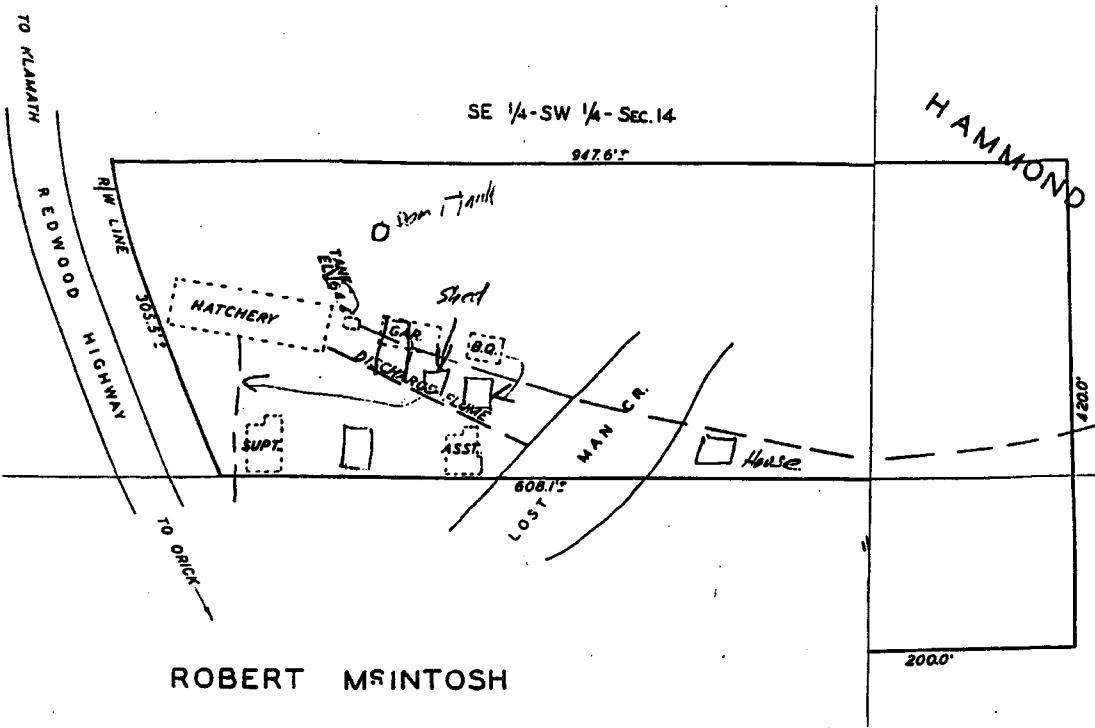
NPS Form 10-900-a
(8-86)

OMB Approval No. 1024-0018

United States Department of the Interior
National Park Service

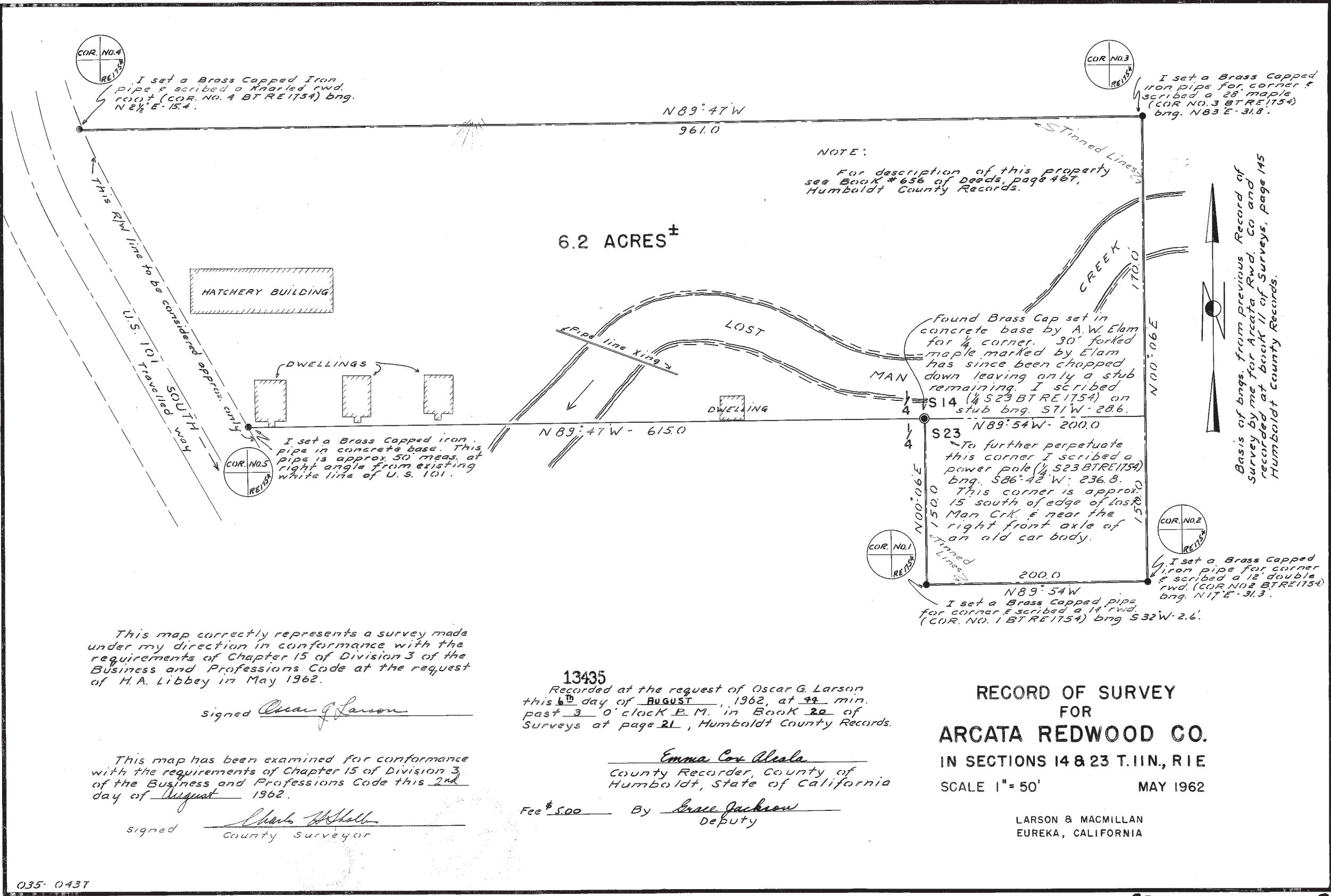
NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Sketch Map Prairie Creek Fish Hatchery Page 57



REMARKS	
Map showing Hatchery site leased from H. & L. R.R. Lbr. Co. Ltd.	
PRAIRE CREEK HATCHERY	
DEPARTMENT OF NATURAL RESOURCES	
DIVISION OF FISH & GAME	
STATE OF CALIFORNIA	
SURVEYED: J. W. C. 5/27-30/35	APPROVED: J. H. Vogt.
DRAWN: ✓ 6/11/35	FILE
CHK'D: C. O. E. ✓	

Figure 9 : 1962 Record of Survey for Arcata Redwood Co. (Larson & MacMillan, 1962)





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Figure 10 :

Residents standing in yard between the Superintendent's House and Assistant Superintendent's House. Assistant Superintendent's House in background. (Smedley Photo Collection, Circa 1943)

Thirty-first Biennial Report, it seems unlikely that it would have been simply abandoned. Rather, like the employee cabins but unlike the temporary tent hatchery, it may have been reused in some form.

DEVELOPMENT OF PERMANENT FACILITY DURING 1936-1946

In 1935, the Department of Natural Resources, Division of Fish and Game initiated steps to replace the temporary Prairie Creek station with a permanent hatchery. Until this time, the hatchery had operated on land leased from the Hammond & Little River Redwood Company and its partner, the Hill-Davis Company, and had relied primarily on temporary facilities including a tent hatchery and a flume (presumably an open, wood structure). To build a permanent hatchery, the land had to be surveyed and purchased; it was necessary to get a license from the Department of Public Works, Division of Water Resources to take water from Lost Man Creek; and the buildings and other features of the hatchery facility had to be designed and built.

In May of 1935, the Division of Fish and Game survey, Figure 8, accompanied its application to the Division of Water Resources (California Department of Natural Resources 1935). On the survey map, the following features were shown: the proposed Hatchery property, the route of a pipeline from an upstream point of diversion to the Hatchery property, and the point of diversion on Lost Man Creek. The Hatchery property was an L-shaped piece of land (later described as 5.8 acres) consisting of a main east-west section,

generally rectangular in shape, and a small panhandle projecting southward from the east end. The main part of the property was crossed by Lost Man Creek flowing northeast to southwest, from the east end to the center of the southern boundary; and the west end faced the Redwood Highway. The southern boundary of this section of the property was the line between Sections 14 and 23 of Township 11 North, Range 1 East, south of which was the property of Robert McIntosh. A comparison with another survey made just prior to this map suggests that the southward panhandle at the east end of the property was included in order for the old temporary facility to fall within the boundaries of the new fish Hatchery property (Elam 1935), see Figure 8.

For the purposes of the application, several features of the proposed Hatchery were shown by the surveyor with dashed lines to indicate their proposed location and the general functioning of the facility. On the west half of the property between Lost Man Creek and the Redwood Highway, several buildings were shown including a rectangular Hatchery, a garage, two houses (for a superintendent and an assistant), and a cabin on the south side of creek. A discharge flume was shown leading from the southeast corner of the property in a southeastward direction to Lost Man Creek. In addition, a tank was shown near the east end of the property which was the terminus of a 3,000-foot, 12-inch pipeline from the point of diversion. The route of the pipeline was shown as a dashed curve which crossed Lost Man Creek, passed across the eastern boundary of the L-shaped property, traveled east across adjacent portions of Township 11 North, Range 1 East, and curved south along the left bank



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Figure 11 : Top- Residents standing in central ornamental planting bed with Hatchery Building in background. (Smedley Photo Collection, Circa 1943)

Figure 12 : Bottom- Hatchery Building's south face with wood bordered planting bed along foundation filled with Rhododendrons and ornamental flowers. (Smedley Photo Collection, Circa 1943)

of Lost Man Creek to the point of diversion on the south side of the meandering creek.

The 1935 Survey map was prepared with the size and shape of the property shown as they were later established, and the facilities shown partly as they were established (California Department of Natural Resources, Division of Fish and Game 1935b), see Figure 8. However, corrections marked by hand on the map showed the property as it was actually built. These hand corrections, which are not dated, were: a domestic water tank north of the group of buildings; the garage is turned from an east-west orientation to a north-south orientation, occupying the space of the building later called the shop; a small shed east of the south end of the garage-shop; a third house, for an assistant, between the houses of the superintendent and another assistant; the discharge flume was moved so that it ran from the center of the Hatchery directly south toward Lost Man Creek; a house on the east side of the creek south of the pipeline. Each of these features was built as shown on the altered surveyor's map, although some features have since been removed. Only one feature is unknown – the “B.Q.” which was hand corrected to a point east of the garage-shop and the shed. This structure may have been built, because a structure in the general location shown on the map appears in a 1950 aerial. In summary, PCFH was built largely according to this map prepared in mid-1935, and all the features shown, whether as part of the original base map or drawn in by hand, were built by 1940.

The map accompanied an “Application to Appropriate Unappropriated Water,” submitted as application number 8391 to the Division of

Water Resources as the first step towards permanent licensing to take water from a stream (California Department of Public Works 1935a). The application requested three cubic feet per second to be used for recreational and incidental domestic use where recreational use was defined to include fish culture. Water would be taken from a diversion works, which was not categorized as a dam, in a 12-inch riveted steel pipeline for 3,000 feet, falling 7.44 feet. The cost of the diversion works, intake, and pipeline was \$1,800. In response to this application, Permit Number 4619 was granted on 29 August 1935, with the stipulations that construction begin before 1 April 1936, be completed by 1 December 1938, and be in complete operation by 1 December 1939.

With a permit to take water, work on the entire PCFH complex proceeded, beginning with design of facilities by the Department of Public Works, Division of Architecture (Nash 1996). PCFH was one of three new hatcheries about which it was said that “Extensive construction and improvement have been accomplished through government relief agencies (California Department of Natural Resources 1937). This is all that is known about the source of money for the project. In the first of three progress reports required as steps toward licensing, received 20 October 1936, \$10,000 worth of work had been done, but the project was not finished. By that time, 1,800 feet of 12-inch steel pipe had been laid and construction had begun on “new hatchery buildings.” A diversion dam and the Hatchery were projected to be finished by 31 December 1936 and other Hatchery structures in the following year (California Department of Public Works 1936).

In addition, on 29 July 1936, the property was sold by Hammond & Little River Redwood Company and the Hill-Davis Company to the Division of Fish and Game. The sale included the property surveyed in 1935 together with right-of-way for a pipeline from Lost Man Creek and the point of diversion on Lost Man Creek (Humboldt County Recorder 1936).

According to the “Progress Report by Permittee” for 1937, prepared 8 October 1937, all work on the PCFH was complete “at a total expenditure of approximately \$20,000 for materials, labor and service.” At the time of the report, the PCFH was not using as much water as it expected it would need, and was not in full operation (California Department of Public Works 1937). By the end of the year, this was achieved: “During 1937, the rebuilt Prairie Creek and Basin Creek hatcheries were put into full operation” (California Department of Natural Resources 1939:35), with 80 troughs and four tanks (Leitritz 1970:67) and the description as an egg collecting station was dropped (Leitritz 1970:13). The buildings were built under the supervision of a state employee who hired local carpenters to do the work. When interviewed for the National Register nomination, Glen Nash, retired in Eureka, CA, recalled building two of the houses with one other man. They worked from a set of plans provided by the state and used virgin redwood milled locally. He considered the houses well designed and well built, but “nothing fancy.” At the time they were built, there were more trees on the site. During the period of construction, the workers stayed in a motel in Orick (Nash 1996).

The progress report for 1938, filed 14 October 1938, stated that maximum

use of water had been reached, a prerequisite to inspection for permanent licensing. This was clarified in a letter on 25 October 1938 stating that the entire capacity of the water line was not being used, but that it would be used when additional tanks were installed “at some indefinite time in the future” (California Department of Natural Resources 1938).

Following the assertion in the progress report for 1939 (California Department of Public Works 1936-1939) that maximum use of water had been reached, the facility was inspected on 18 September 1940. This inspection was conducted by A.S. Wheeler, assistant hydraulic engineer for the Division of Water Resources, accompanied by Allan F. Pollitt, PCFH foreman. Facilities noted in the inspection were a concrete dam (8 feet high, 175 feet long) “with a plank apron and a 4’ x 54’ spillway at the center”; a conduit consisting of “4’ of 16” and 3000’ of 12” pipe” discharging into a filtration tank (22.6’ x 16.6’ x 7.8’) with three 8-inch distribution lines; three houses occupied by fourteen people; one house with a sink only for two people; a Hatchery building with 40 double rearing tanks and a meat room; five outside ageing tanks; 800 square feet of flowers and ornamentals; 2,825 square feet of lawns; an aquarium; and a 1,980 gallon domestic water tank. The objective of the facility was to raise annually 1,750,000 fish, 150,000 of which would be over three inches long (California Department of Public Works 1941). Following this report, License for Diversion and Use of water

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Figure 13 : Top-East facing view of man standing in central open space between the Hatchery building and the Superintendent’s House. Central ornamental planting bed in background. Note, buildings in background left to right: Hatchery Building, Garage, Workers House (demolished 1972), and Assistant Superintendent’s House. (Smedley Photo Collection, Circa 1943)

Figure 14 : Bottom- Woman and child in yard petting a young deer. Dog, man, Assistant Superintendent’s House and Hatchery Building in background. (Smedley Photo Collection, Circa 1943)





Figure 15 : 18-month old resident standing in lawn with Hatchery Building, filter house (rock filter) and hillside in background. (Smedley Photo Collection, Circa 1943)

Number 2355 was issued (California Department of Public Works 1942) for 1.86 cubic feet per second, enabling PCFH to operate on a permanent basis.

PCFH FACILITIES AND OPERATIONS PRIOR TO 1955

Once the license had been issued, new reports were filed with the Division of Water Resources every three years. Reports continued to be made every two years by the Division of Fish and Game in the Biennial Reports. Looking back, Leitritz wrote, “During the 1940s, silver and king salmon and cutthroat, rainbow, and steelhead trout were produced. The installation also served as headquarters for rescue work on north coastal streams” (Leitritz 1970:67). The superintendent of PCFH from 1943 to 1949 was Steven Paul Smedley. Smedley’s son, Glen, a retired Del Norte County Supervisor in Crescent City, was a teenager living at the PCFH during those years and recalled the place and its operation well. When the Smedley family moved in, the only electricity at the PCFH was provided, unreliably, by a hand cranked, blue Kohler gasoline powered generator in the north end of the shop. Gasoline was pumped by hand in front of the shop. Water was delivered in a pipeline carried across Lost Man Creek on a suspension bridge with a walkway above the pipe. The dam where the pipeline began was a wood frame structure of rocks, with a trap and holding boxes at the north end. The pipeline ended at an elevated water filter located behind the east end of the Hatchery building, where the easternmost round tank now stands. The filter was a wood cage full of rocks. When the water had passed down through the filter, it was distributed

to the Hatchery building, to an above ground earthen pond on the north side of the Hatchery building, and to the domestic water tank, see Figure 18. At the Hatchery building, it was carried in a flume across the north side of the building and distributed to the troughs. From the bottoms of the troughs, it was carried as waste in an outfall line southward into Lost Man Creek. From the filter, another pipe carried water to a pump north of the Hatchery building, which raised it 60 feet to a tank on the hillside for domestic purposes. This was a round, redwood tank on a stand, covered by a roof. The shed east of the shop was used for storage of “presto logs” to heat the houses (Smedley 1996).

The entrance to PCFH from Redwood Highway led to a circular driveway between the Hatchery building and the three houses. There was a planting bed in the center of the driveway, with dahlias, a stand of second growth redwoods, and a flagpole with a cross bar for two flags. A clothesline and garden was south of the houses (where the pump houses, and earthen ponds are currently). Two big redwood trees were cut down and removed. A very large stump outside the north end of the shop was overgrown with Cecil Bruner roses planted by Mrs. Smedley. Rhododendrons around the property flourished and were fertilized with salmon carcasses. Mr. Smedley built a small smokehouse on the west side of the creek, south of the pipeline, though the exact location is unclear. Smoke was brought to the smokehouse in an underground pipe from the houses (Smedley 1996).

The buildings were all whitewashed. The westernmost of the three houses was occupied by the Smedleys with two boys and two girls. The attic was



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Figure 16 : Top- People sitting on the loading dock on the south face of the Hatchery Building. Man is holding fish of varying size on a line. (Smedley Photo Collection, Circa 1943)

Figure 17 : Bottom- Group sitting in front of central ornamental planting bed and flagpole with Rhododendrons, Hatchery Building, and water tank on hillside. (Smedley Photo Collection, Circa 1943) Rhododendron (Smedley Photo Collection, Circa 1943)

finished as a bedroom for the girls. In the middle house were the Laidlaws with five children. There was a young couple in the third house. Across the creek, a single man lived in the cabin (Smedley 1996).

Two types of fish were hatched, salmon and trout. Salmon swam up the creek and were trapped behind the dam. They were dipped out, examined, and, if ripe, eggs were removed from females and spawned from males in buckets. Carcasses were left for bears, and fresh carcasses were eaten by the staff or given away. Fertilized eggs were carried to the Hatchery building and set in special baskets with holes inside the troughs. The baskets were turned, eggs hatched, and fry grew to fingerlings. (During Steve Sanders' tenure as superintendent, fry were referred to as button-ups or swim-ups). Fingerlings were moved to outside tanks to grow. When they were big enough, they were placed in milk cans with aerators, loaded in trucks and carried to streams in Humboldt and Del Norte Counties. By 1949, the deliveries were made in a special tank truck. Trout were raised in the same way, except that trout eggs were collected at the Mt. Shasta Hatchery and delivered to PCFH.

While the fish were growing, they were fed a diet of ground cattle liver, dyed green so not to be eaten by humans, and delivered regularly from a slaughterhouse in Eureka. It was ground in the northeast room of the Hatchery building (Smedley 1996).

“Following World War II, the water supply deteriorated because of logging operations in the watershed above. Flows decreased in summer and winter floods required expensive annual stabilization of the creek banks adjoining the PCFH property”

(Leitritz 1970:67). Between 1946 and 1948, \$1,482 was spent on improvements to the water system (California Department of Natural Resources 1949). These improvements may have included the five redwood tanks mentioned for the first time in documents during an inspection in 1940. These were outside the Hatchery building and measured four feet by 16 feet by 30 inches high. The five redwood tanks are shown in a 1950's aerial, Figure 33 on page 42, north of the Hatchery building where the present day five round concrete tanks are situated.

“The old, outmoded installation required extensive repairs by 1955, so work there was largely discontinued and production was replaced by the Cedar Creek Experimental Station” (Leitritz 1970:68). A description of the facility is available about the time it closed from another former employee, Bob Will, former manager of the private Rowdy Creek Fish Hatchery. Will worked at PCFH from May to December 1955 under superintendent Carleton Rogers. Will described the facility almost exactly as Smedley did for 1943 to 1949, including whitewashed buildings; an elevated rock filter at the end of the pipeline; the dam built of wood with rocks; access to the property between the Hatchery building and the three houses; and a single cabin across the creek. The only difference in 1955 was that the area south of the houses was a large blackberry patch instead of a garden and clothesline area. Throughout the state period, there were five to eight people employed at the facility, and a total population that included up to 15 employee dependents (Will 1996).



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Figure 18 : Top-Above ground earthen pond with walking platform around rim, north of Hatchery Building, filter house (rock filter) in background. (Laidlaw Photo Collection, n.d.)

Figure 19 : Bottom-Construction of above ground earthen pond with walking platform around rim, northwest corner of Hatchery Building. (Laidlaw Photo Collection, n.d.)

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Figure 20 : Top-"Indomitable Salmon" installation May 1974." (Floyd David Sculpture Photo Collection, 1974)

Figure 21 : Bottom-"Indomitable Salmon" carved in wood by Floyd Davis installed in 1974 - 21 feet long." (Floyd David Sculpture Photo Collection, 1974)

PCFH FACILITIES AND OPERATIONS AFTER 1955

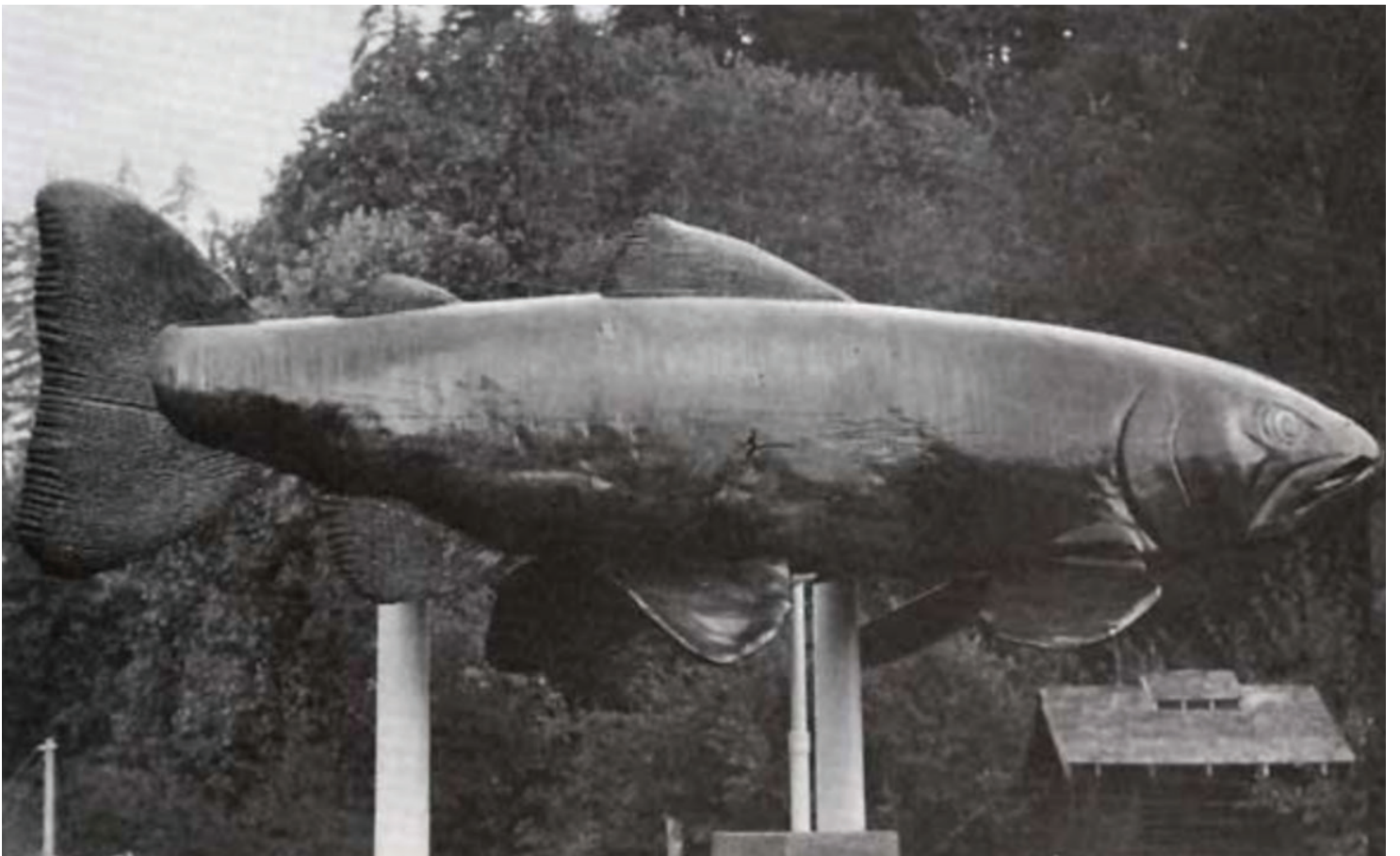
The history of PCFH for the period immediately after 1955 is not completely known. Bob Will visited the facility in the spring of 1956 and was involved in shipping eggs from Mt. Shasta later in that year, indicating that it was still in operation, after which it was idle for some time (Sanders 1989). The Report of Licensee filings for the years 1956 to 1964 state that the full amount of water allowed under the license was used in each of those years, that it was still operated by Fish and Game, and that three families remained in residence (California State Water Rights Board 1958-1964). However, the Department of Fish and Game stated that it had been abandoned in the 44th Biennial Report for the period ending 30 June 1956 (California Department of Natural Resources 1957). According to Leitritz, "Humboldt County assumed operation of the facility in 1957" (Leitritz 1970:68). "On December 16, 1957 the Board of Supervisors, upon the request of the Department of Fish and Game, executed a lease for a term of five years. The lease commenced February 1, 1958 and terminated June 31 [sic], 1963" (Sanders 1989).

On 15 September 1961, an act of the State Assembly took effect "to provide-for the conveyance to Humboldt County of the Prairie Creek Fish Hatchery." The property was transferred without cost to be used only as a fish hatchery for the following reasons: "The Legislature finds that there is an urgent need that all available facilities be used to produce fish for the citizens of this State and that use of this property by the County of Humboldt is a state public purpose since it will permit the continued operation of a

fish hatchery which would otherwise be discontinued for economic reasons." (California Assembly 1961)

The description of this property was the same as that purchased by the state in 1936. A resurvey of the property in 1962 confirmed the original description of the boundaries (Larson and Macmillan 1962), see Figure 9. This survey showed some but not all features of the facility. The features shown were the Hatchery buildings, three dwellings along the southern edge of the property between U.S. 101 and Lost Man Creek, one dwelling on the southern edge of the property east of Lost Man Creek, and a portion of the pipeline crossing Lost Man Creek.

By 1962, under the ownership of Humboldt County, the superintendent of the facility was Ken Johnson. Johnson is remembered for having discovered, on December 2, 1964, the salmon which returned to the PCFH through the outfall system by swimming up narrow pipes, jumping two and one-half feet, and getting around a screen. The fish was named Indomitable and was widely publicized (Hufford n.d.:310). Later, in 1974, a five-ton, carved redwood sculpture of Indomitable, made by Floyd Davis of Crescent City, was installed at the entrance to PCFH (Hufford n.d.:310; Bentzley 1984), see Figure 20 and Figure 21. This sculpture deteriorated and was replaced about 1981 by a similar sculpture. The first was sold and now resides at Buck's Restaurant in Woodside, San Mateo County (MacNiven 1996). The last record of the second sculpture was that it had been moved to the Arcata-Eureka Airport when the PCFH closed (31 October 1992) and was then sold by the Humboldt County supervisors to Washington Elementary School for





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Figure 22 : Top-Fenced Dedication Pond with Hatchery Building, Rhododendron foundation planting and Garage in background. (Laidlaw Photo Collection, Circa 1960)

Note: top, between Hatchery Building and Garage is a structure with vegetation growing atop. This may be a very large stump overgrown with Cecil Bruner roses planted by Mrs. Smedley. (CLI, 2011)

Figure 23 : Bottom- View from Highway 101 of Hatchery Building, Garage, Superintendent's House, sign and dog house. Original entry road shown with fenced Dedication Pond and Rhododendrons in background. (Laidlaw Photo Collection, Circa 1960)

one dollar (Bernay 1992; Humboldt County Administrative Officer 1992). Today, it hangs in the North Coast Co-Op, in Arcata, CA.

During the 1960s, under Johnson and his successor, Bill Steuer (ca. 1967 to 1970), numerous changes were made. Operational changes were made both to improve water quality and to modernize an outmoded process. Due to increased runoff caused by logging, silt in Lost Man Creek resulted in water which was often too warm and too dirty for the fish. At least three efforts were made to dig a well, one of which resulted in the construction of a small pump house in 1962 (Sanders 1996; Humboldt County 1992). This was located just north of the intersection of U.S. 101 and Lost Man Creek on land which was outside the PCFH property. Sometime during the 1960s, and perhaps at this time, the entrance to PCFH from the Highway was moved from its original location between the Hatchery building and the houses to its present location just north of Lost Man Creek. In association with the use of well water, the old filtration tank behind the Hatchery building was demolished and a new aeration tower was built by Humboldt County. Silted creek water and, especially, well water could be improved by passing through the aeration system.

Around 1965, the ornamental “dedication pond” was built where the planting bed in the driveway had been, between the Hatchery building and the houses, and, to modernize the hatchery process, two, rock-lined, rectangular ponds were dug in the earth south of the houses. Inside the hatchery building, metal racks were placed for incubator trays, replacing the baskets with fertilized eggs which were previously put in the troughs for

hatching. Now, fertilized eggs were placed in incubators until they grew into fry; fry were placed in troughs until they were big enough to move to the round tanks; and later to the rock-lined earthen ponds. The growing fish were fed dry pellets in place of ground liver (Humboldt County 1966; Sanders 1996; Sanders, Joanne 1996; Will 1996). Under superintendent Steuer, the cabin across Lost Man Creek was demolished (Sanders 1996); the lower dam was completed in August 1969 (California State Water Resources Control Board 1970); facilities, consisting of a pond on the north side of Lost Man Creek about 100 yards above the Lower Dam, a levee, and a culvert, were built to accommodate growing salmon when normal capacity at the facility was exceeded (Sanders 1997; Anderson 1997); and there was “quite a bit of construction work in and along Lost Man Creek.” Because of problems with the water and construction work, no water was taken from the creek in 1965-1969 (California Department of Fish and Game 1970).

In early 1971, Steve Sanders took over as Superintendent. Under Sanders, additional changes were made to improve the operation, which, because of poor water quality, was on its “last legs” (Sanders 1996). At that time, a new water intake was under construction and nearly complete. This never produced satisfactory water. Instead, in 1971, a new well was dug and a new pump house built for it which were located behind the superintendent's house (Joanne Sanders 1996; California State Water Resources Control Board 1974). A new pump for this well was purchased in 1973 (Humboldt County 1992), and a new pole for increased power was installed east of the PCFH by PG&E

in 1984. An electrical weir, superseded by mechanical weirs, was placed in the stream at the base of a new concrete fish ladder, see Figure 60. Fish were diverted up the ladder into a pair of new, rectangular, aboveground, concrete tanks. The old domestic water tank (8-foot diameter) was brought down the hill and placed inside the Hatchery building next to the three existing tanks (10-foot diameter). More incubators were also purchased for the Hatchery building. To provide better feed than pellets, a walk-in cooler was built outside the east end of the Hatchery building for frozen meat (Sanders 1996).

With these new facilities, the hatchery process was modified. Salmon returned up the fish ladder to the big rectangular concrete tanks where they were spawned; eggs were moved to incubators; “fry were moved to troughs, which were ‘ponded’ into sections; growing fish were moved to inside tanks, then outside tanks, then the rock-lined earthen ponds, then the rectangular concrete tanks again before release” (Sanders 1996).

This operation was run with three workers. Family accommodations changed when the easternmost house was demolished to build the rectangular concrete tanks, and a mobile home was placed east of the garage-shop and shed (Humboldt County 1992). The houses, originally whitewashed, were painted red and reroofed in 1981. In 1988, the original, upper dam, no longer in use, was removed (Sanders 1996).

While the principal purpose of the facility continued to be a hatchery, with establishment of Redwood National Park, which surrounded the Hatchery, in 1968, there was an increase in tourism, fishing, swimming

and sightseeing in the 1970s. Redwood National Park built a footbridge across the creek on PCFH property to accommodate visitors. PCFH received thousands of visitors and was a regular part of school field trips in Humboldt County. In addition to its function as a hatchery, PCFH and its personnel took on the added role of serving as an interpretational and educational facility (Sanders 1996).

According to Report of Licensee filings, water quality was “marginal” in the mid-1970s but afterward improved (California State Water Resources Control Board 1977 and 1979). Although water quality issues improved, funding problems soon emerged. The county provided funding until restricted by Proposition 13 in 1978; the Department of Fish and Game provided grants until 1990, when the funding criteria changed to require stream rehabilitation; and the county provided funding again in 1991 and 1992 (Rathjen 1992). Despite much favorable publicity and the efforts of private groups and public officials, PCFH closed October 31, 1992 (Frishberg 1991; Rathjen 1992; Times-Standard 1992; Humboldt County Board of Supervisors 1988; Bernay 1992). In less than a month, the fish, most of the furnishings and equipment, and the personnel, except for a caretaker, were gone. The mobile home was sold and moved away, and the sculpture of Indomitable was taken to the Arcata-Eureka Airport in McKinleyville (Bernay 1992). Today, indomitable hangs in the Arcata, CA, Co-Op.

Prior to taking ownership, the NPS agreed to undertake basic repairs, and efforts to ‘mothball’ (preserve for future use) the structures (King Smith, 2001). At this time, the houses, garage-

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Figure 24 :

Hatchery Building and Superintendent’s House from Highway 101, view North. Note, height of Highway 101 is at grade with the PCFH. (National Archives and Records Administration, 1937).



Calif.
WCP 7/37

CALIFORNIA
Negative 8149
FISH HATCHERIES

Hatchery plant from highway, Calif.

shop and shed were reroofed, all windows were covered with plywood with openings for ventilation, exterior doors were removed for protection (stored within buildings) and replaced with plywood framed doors with secure bolt system, and gutters were installed on the Hatchery north and south elevations (King Smith 2001). Painted sheet metal gutters were possibly removed from the houses at this time; some downspouts remained (onsite observation by CLI team, 2011). NPS locked the site to prevent public access, and assumed responsibility for landscape maintenance, cutting grass regularly (King Smith 2001). Ownership of PCFH was transferred from California State Department of Fish and Game to the NPS (King Smith 2001 and Deed on file at REDW South Operations Center). Plants were pruned throughout the site in preparation for photography for the 2005 Historic American Buildings Survey. This included removing blackberries from building foundations and the Dedication Pond, pruning the rhododendrons on the south side of the hatchery building, and pruning shrubs on the northwest corners of the houses (conversation with Karin Anderson Grantham, 2011).

In 2011, Hatchery Building stabilization took place. Two support posts with concrete footings and steel post bases were added beneath beams flanking the north doorway to relieve loads on Hatchery posts adjacent to the doors. The bases of existing posts in these locations failed due to wet condition/rot.



Orick
Calif
WCP 7/37

CALIFORNIA
Negative 8147
FISH HATCHERIES

Superintendent's cottage - Prairie
Creek State Fish Hatchery, Orick,
Calif.

Figure 25 :
Superintendent’s
House with Highway
101 in background.
(National Archives
and Records
Administration, 1937)

Analysis and Evaluation of Existing Conditions

INTRODUCTION

Through the analysis and evaluation of landscape characteristics and features, it has been determined that the Prairie Creek Fish Hatchery is in “Good/Fair” condition. The cultural landscape shows clear evidence of minor disturbances and deterioration by natural and/or human forces. Proactive preservation treatment is needed to prevent further harm to its cultural and/or natural values. If left to continue without the appropriate corrective actions, the cumulative effect of the deterioration of many of the landscape characteristics and features will cause the inventory unit to degrade to fair/poor condition.

NATIONAL REGISTER OF HISTORIC PLACES INFORMATION

Existing National Register Status

National Register Landscape Documentation: Entered – Documented

National Register Explanatory Narrative:

The Prairie Creek Fish Hatchery (PCFH) is listed on the National Register of Historic Places (NRHP) as a district. This district encompasses the entire area of the site’s original 6.2 acre parcel, which contains all surviving contributing features of PCFH. The listing date of February 4, 2000, was the first date the district was placed on the NRHP, and the listing has not been modified since that time.

Existing NRIS Information

Name in National Register:	Prairie Creek Fish Hatchery
NRIS Number:	00000034
Primary Certification Date:	02/04/2000

National Register Eligibility

National Register Concurrence:	Eligible--Keeper
Contributing/Individual:	Individual
National Register Classification:	District
Significance Level:	State
Significance Criteria:	A – Associated with events significant to broad patterns of our history

Period of Significance: 1936 – 1946
Historic Context Theme: **Developing the American Economy**
Subtheme: Agriculture
Facet: Fish Farming

Historic Context Theme: **Creating Social Institutions and Movements**
Subtheme: Recreation
Facet: Sports

Historic Context Theme: **Transforming the Environment**
Subtheme: Conservation
Facet: Fish, Wildlife and Vegetation Preservation

Historic Context Theme: **Expressing Cultural Values**
Subtheme: Architecture
Facet: Vernacular Architecture

Area of Significance:
Area of Significance Category: Agriculture
Conservation
Entertainment/Recreation

The following buildings/structures and landscape features were included as contributing in the 2000 nomination: Hatchery (1936), Superintendent's House (1936), Assistant Superintendent's House (1936) Garage-Shop (1936), Shed (1936), Pipeline stream crossing (1936), Round outdoor water tanks (ca. 1936-1943). Based on current research and historic photographs, the round outdoor water tanks are no longer considered contributing.

STATEMENT OF SIGNIFICANCE

The following narrative is from the 2011 Cultural Landscape Inventory, constructed from information contained in the 2000 National Register of Historic Places nomination. The original nomination did not provide a separate section for the statement of significance, but instead included information relating to significance throughout the document. Therefore, information relating to significance has been consolidated in the text below.

Prairie Creek Fish Hatchery (PCFH) is significant under the National Register of Historic Places (NRHP) Criterion A at a state level. The PCFH is representative of the nature of pre-World War II functions of hatcheries in California, and illustrative of significant changes in hatchery goals and infrastructure in post-war years. The hatchery's period of significance begins in 1936 and ends in 1946 because the property evidences basic trends in the uses and designs of pre-World War II hatcheries. The property also reflects perceptions of environmental issues (especially the impacts of dams), and government actions and programs considered appropriate to address those environmental issues. As such, it is a good representation of the efforts of the California Department of Fish and Game (DFG) during the period of significance.

Among the 150 hatcheries built in California from 1871 to 1946, PCFH is one of only three fish hatcheries known to both survive and still possess integrity. In addition, the PCFH was among the last built before a major state program of modernization and mechanization began in 1947. Although built in the 1930s, it has

more in common with 19th-century hatchery facilities than it does with those built after 1946. It was among the last built before that date, and, while a detailed survey has not been done, it is the only one of its period known to survive largely intact. While in operation, attributes it shared with earlier hatcheries were its small size, localized region of release, design to hatch and release fingerlings, purpose of stocking fish in local streams, provision of housing for workers, dependence on simple technology with minimal need for power, and funding through fishing licenses and related fees.

PCFH is part of a tradition of using fish hatcheries to support both conservation of native fish species and provision of native fish stocks for sports fishing in California. The state's Fish Commission, a DFG predecessor, was first established in 1870. It was intended primarily to conserve and restore fish in California waters for sport fishing. This was in reaction to depletion of fish stocks by overfishing, as well as by habitat changes resulting from logging and mining. In addition, by the mid-1920s, the federal Bureau of Fisheries began to support hatcheries first because of the potential benefits to commercial ocean fishing and later to mitigate the effects of dams on fish stocks.

In relation to the fish hatchery program of the DFG and its predecessors, PCFH is a rare surviving representative of an important early phase of hatchery history. California hatcheries were primarily developed during three periods. Facilities developed during Period I (1871 to 1915) and Period II (1916 to 1946) were similar in many ways. They were low technology enterprises with minimal requirements

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Figure 26 : Top-Central open space and ornamental flower planter from Highway 101 entrance. From left: Hatchery Building, Garage, Workers House, Assistant Superintendent's House and Superintendent's House. (Smedley Photo Collection, Circa 1943)

Figure 27 : Middle-View of Woman and young deer with Assistant Superintendent's House, foundation plantings and lawn. (Smedley Photo Collection, Circa 1943)

Figure 28 : Bottom-Two men and deer on lawn between Superintendent's House and Assistant Superintendent's House(shown). Garage in background. (Smedley Photo Collection, Circa 1943)



for power. Most were small and placed in isolated locations, thus requiring worker housing. They were designed to release small fish. Because they were paid for by fishing licenses and related fees, and most were built for the purpose of stocking streams for sport fishing. Period I was dependent on railroads to receive feed, eggs, and other supplies, and to ship fish. During Period II, trucks were used for these purposes and new hatcheries could be located away from railroads, as was the case with PCFH. Period III (1947 to present) was very different from Periods I and II. This is the primary reason PCFH's period of significance ends in 1946. Most facilities after that date were built as mitigation for dam construction and were paid for by federal and state agencies outside DFG. The facilities were large, highly mechanized, and dependent on substantial amounts of electrical power. They provided less housing for workers, who now commuted in automobiles. These facilities were designed to raise fish to a larger size before release.

Architecturally, PCFH reflects traditions in California fish hatchery design before World War II. California fish hatcheries have typically contained: a Hatchery building providing shelter for the hatching process; support buildings for storage, maintenance, and fuel; indoor and outdoor ponds for growing fish; a reliable source of good water, which has usually meant a stream, but may also include wells; systems to deliver water to the PCFH, such as a pipeline; fish ladders and other features to facilitate the return of fish to a hatchery; and housing for a superintendent and workers. Electric power generally had to be generated using gasoline generators, and



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Figure 29 : Top-View of Hatchery Building from original entrance across Highway 101. (Laidlaw Photo Collection, Circa 1960)

Figure 30 : Bottom-View of original Highway 101 entrance looking southeast into building cluster and central open space. (Laidlaw Photo Collection, Circa 1960)

Note: Highway 101 and PCFH entrance are at the same grade.

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Figure 31 : 1943 Period Plan (CLRG, 2020)

therefore was used sparingly. Hatchery buildings from this period were generally ordinary and unadorned examples of their times, whether garages, sheds, or houses.

PCFH exhibited all of these elements within its complex. It had a Hatchery building with outdoor ponds for growing fish; a support shed/garage; a dam, reservoir and pipeline to convey water from nearby Lost Man Creek to the facility; three houses for the superintendent, assistant superintendent and workers; a residential cistern for domestic water; and gasoline-powered pumps to move water when gravity was not sufficient. Its buildings were utilitarian and little-decorated, constructed of locally harvested redwood.

End of the Period of Significance

DFG did not modify PCFH after 1946 to reflect the new paradigm of hatchery mechanization. Therefore, it does not provide an example of typical hatchery design after that date. Although the PCFH continued to operate for a time, DFG closed the facility in 1956 because it was considered outmoded. In 1958 the property was leased by Humboldt County, which modified the facility to include mechanized features. From the mid-1970s to 1992 it was the only county-operated anadromous fish hatchery in the United States. In addition, as logging declined it held a more conspicuous position in the local economy and local life. However, its entire history as a county facility has taken place since 1958 and most of the county's changes were implemented post-1960. Even though these features added after 1958 are over 50 years old, they do not contribute to the site's significance or integrity, as they were constructed after the end of the period of significance.

ANALYSIS AND EVALUATION OF INTEGRITY

Where possible, analysis and evaluation has been taken from the National Register of Historic Places nomination (2000) and the Cultural Landscape Inventory (2011), as well as field documentation and research completed for the Cultural Landscape Report (2020). Although the CLI incorporated landscape elements, they were not organized according to standard NPS requirements, nor were some of them described in appropriate detail. Therefore, this section builds upon the National Register nomination, and includes additional information from CLR efforts to provide a complete understanding of the cultural landscape.

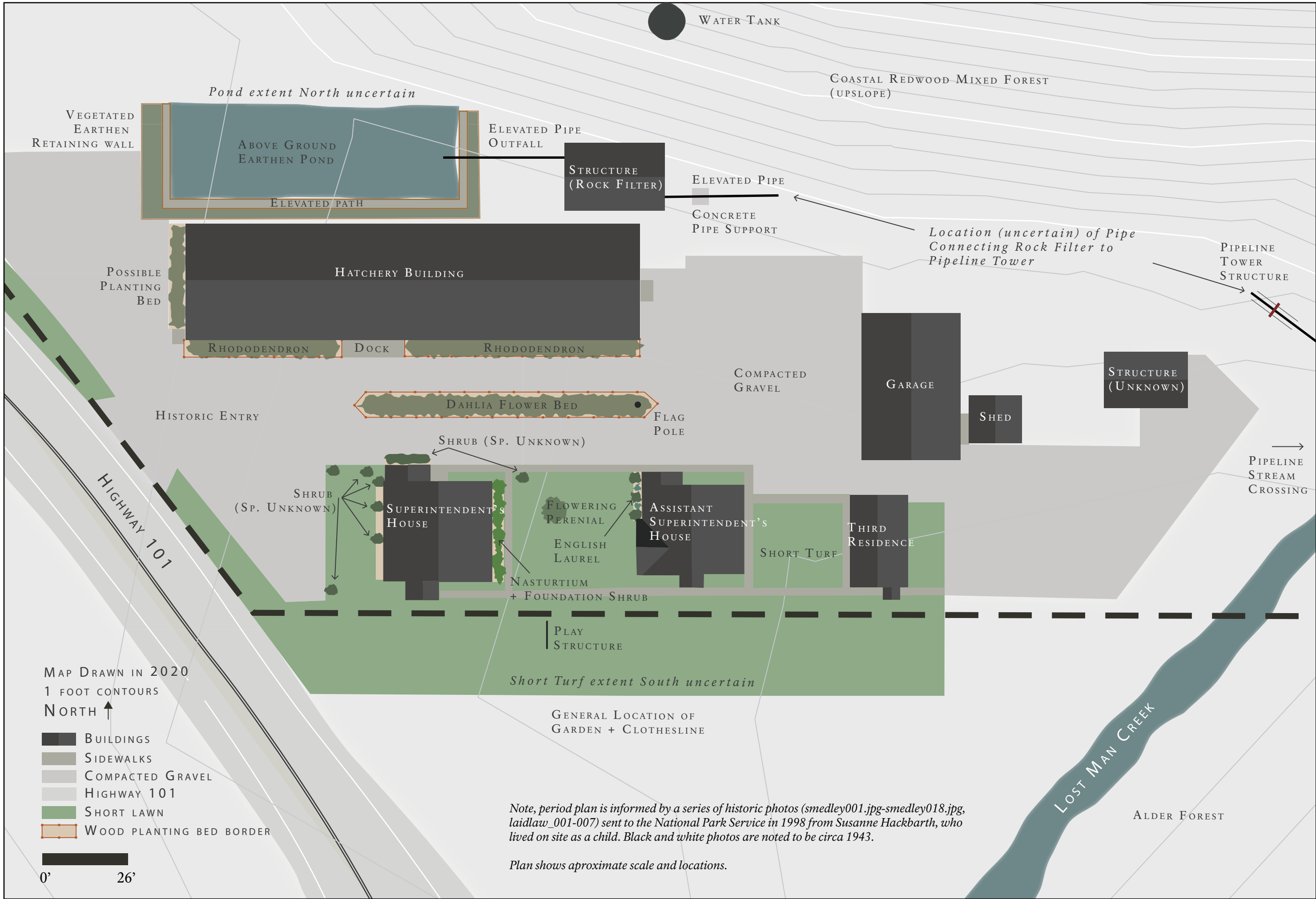
Summary

Prairie Creek Fish Hatchery (PCFH) has experienced a number of changes since the end of its period of significance. These changes consist of improving and enlarging facilities after 1947 to provide an increasingly mechanized operation. However, many of the original buildings and structures still survive, which provide insights into early California fish hatchery operations. The property retains the physical features essential to convey its historic significance, which is of utmost importance in assessing integrity (U.S. Department of the Interior 1991:44-46).

The PCFH boundary encompasses the main Hatchery building, two houses, a garage-shop, a shed, five round concrete water tanks, sidewalks, and the pipeline stream crossing. These buildings and structures are located adjacent to Highway 101 and are highly visible to motorists along

1943 Period Plan

Prairie Creek Fish Hatchery | Redwood National and State Parks
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this route. This building complex represents the remaining historic development associated with PCFH and its operation. It still possesses a high degree of integrity, and strongly conveys the significance of the property.

The upper dam and its associated reservoir were removed in 1989. However, the dam and reservoir were located in the forest upstream from the facility's main buildings and hidden from view from U.S. Highway 101. As such they did not play a large part in conveying the historic character of the landscape nor the significance of PCFH.

In terms of the seven aspects of integrity, PCFH possesses a high degree of integrity of location and association. The wider setting of forested hillsides and stream course remains intact. The group of buildings and other features that survive from the period of significance contribute strongly to integrity of feeling, in part because they maintain the original plan of buildings and spaces between them. In addition, the architecture of the buildings conveys PCFH's association to California's Department of Fish and Game (DFG), because it exhibits the elements and architecture style typically used in hatcheries built by DFG. The remaining houses convey the idea that housing was an integral part of PCFH complex during this period, because the people who worked at the facility also lived there. The buildings also have integrity of design, workmanship and materials, because for the most part they retain their original materials and have not been materially modified since the period of significance.

Some facility modifications have resulted in effects to the cultural

landscape. Integrity of setting is diminished somewhat by the expansion of the facility in the 1960s and 1970s. Integrity of feeling is diminished by the repurposing of the main driveway, construction of the Dedication Pond and associated planter walls, the addition of asphalt paving, loss of most of the pipeline and the upper dam. Painting the originally whitewashed buildings a dark red impacts the cultural landscape, but is easily corrected. Integrity of design, workmanship, and materials is diminished by the alterations of the water supply system, demolition of the third house, and construction of raised concrete water tanks in its place, as well as the addition of asphalt paving to the originally unpaved historic entry drive from Route 101.

Fortunately, these changes have not irretrievably damaged the landscape's integrity. Changes to the original circulation system involved little loss of design and material, and could be easily restored. The losses of the third house and the cabin are ameliorated by the survival of two houses. The greatest loss is in the water supply system, because the original dam that supplied water to the PCFH was removed in 1989 and much of the pipeline washed away in a circa 1971 flood. Since the CLI (2011), the remaining pipeline across Dead Man Creek collapsed in December 2012. The west pipeline tower remains in place and remnants of the east tower are left on site, see Figure 46 on page 55. The dam was found to be ineligible for National Register listing prior to its removal, because it was not remarkable in design or construction (Shoup 1988). Furthermore, the 2000 National Register nomination discussed the removed dam, saying that its absence did not affect the overall integrity of

the site because of its invisibility to the visitor.

In short, the central cluster of buildings and associated features have always been the primary public aspect of the facility, and remain largely intact. Therefore, the cultural landscape retains overall integrity and conveys the significance of the property under criterion A.

Subsequent sections discuss in further detail the major cultural landscape characteristics of PCFH. These consist of natural systems and features, spatial organization, circulation, topography, buildings and structures, constructed water features, small-scale features, and vegetation. See “Analysis and Evaluation of Existing Cultural Landscape Characteristics and Features,” below.

ANALYSIS AND EVALUATION OF EXISTING CULTURAL LANDSCAPE CHARACTERISTICS AND FEATURES

Character-Defining Features

NATURAL SYSTEMS AND FEATURES

Natural Systems and Features are the natural aspects that have influenced the development and physical form of a landscape.

Natural systems were key to establishing a successful hatchery operation at the PCFH site. The confluence of Prairie Creek and Lost Man Creek provided an ideal location for a fish hatchery, as Lost Man Creek is a natural cutthroat trout spawning ground. At the time the PCFH was built, the creek provided good water quality at an appropriate temperature for hatching and raising fish. Furthermore, the flat alluvial plain at the confluence allowed the building of facilities without a need for major topographic modifications. This was in stark contrast to the area's narrow valleys surrounded with steep, forested hillsides, which provided little buildable space. Local vegetation played a role in the PCFH's construction, as redwood trees from the adjacent forest provided materials for buildings. Vegetation grows rapidly in the region, which probably was a main reason DFG kept the PCFH site relatively free of plants. This prevented surrounding vegetation from encroaching on its facilities.

Hydrology

The PCFH facilities are located within a level alluvial plain at the confluence

of Lost Man Creek and Prairie Creek. Drainage within this area appears to be adequate, because even with the region's heavy rainfall (70 inches on average) the PCFH's buildings have received no recorded flood damage. However, to accommodate drainage from tanks within the Hatchery building, soil was removed beneath the building and replaced with rock cobble to allow water from operations to drain away quickly.

PCFH's location along Lost Man Creek was chosen because it provided ideal conditions for the hatchery facility. The temperature and quality of water from adjacent Lost Man Creek was appropriate for the fish that DFG wanted to raise, and the creek was already a natural spawning ground. After the end of PCFH's period of significance, however, heavy logging activities occurred in the watershed above the PCFH. This resulted in higher water temperatures and increased silt in Lost Man Creek, which reduced the site's value for spawning fish. In response PCFH operators drilled wells and installed an aerator in an effort to obtain water with a lower temperature and less silt/turbidity. In 1978, logging activity was stopped in the watershed after Redwood National Park was expanded to include the Lost Man Creek watershed (Redwood National Park, 2008).

Water quality in Lost Man Creek has since improved, and although Redwood Creek is listed under the Clean Water Act as sediment and temperature-impaired, anadromous fish (meaning those that spend most of their life cycle in the ocean and return to freshwater to spawn) are currently found in Redwood Creek and Lost Man Creek. In fact, Lost



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Figure 32 : Top-1950 oblique aerial photo showing historic Prairie Creek Fish Hatchery and surrounding forest. (CLI, 2011). Note: Cistern located on the hillside above the Hatchery building, the access road east to dam reservoir and the pipeline corridor running south across Lost Man Creek.

Figure 33 : Bottom- 1950 oblique aerial photo showing detail of the landscape within the core building area of PCFH (CLI, 2011).

Note: hedge along the south side of the Hatchery building, clotheslines south of Houses, the original entry drive from Highway 101 and the extent of area for automobile circulation within the site.

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Figure 34 : Vegetation Context Map. (CLRG,2020)

Figure 35 : Vegetation Context Map Legend. (CLRG, 2020)

Figure 36 : Vegetation Map Inset of PCFH Historic District. (CLRG, 2020)

Man Creek contains designated critical habitat for three species listed as threatened under the Federal Endangered Species Act: Northern California steelhead (*Oncorhynchus mykiss*), Coastal California Chinook salmon (*O. tshawytscha*), and Southern Oregon/Northern California Coast coho salmon (*O. kisutch*) (Redwood National Park, 2009). Coastal cutthroat trout (*O. clarki*) are also found in the creek. These four species were mentioned as being historically raised at the PCFH.

Topography

PCFH is located on a level alluvial plain between Lost Man Creek and Prairie Creek, and is bordered to the north by a steep hillside covered by old growth redwood forest. Because of the relatively flat landscape, only a few topographic modifications were necessary to build the PCFH's facilities. Although these alterations were not recorded in detail in historic documents, they are apparent through on-site observation. The toe of the hillside north of the Hatchery building was cut back approximately 10 feet to provide a larger area for the five concrete tanks, rock water filter, and aeration tower. Also, approximately 12" of earth was excavated to accommodate the round concrete tanks, which were set into the ground. The steepness of the hill north of the Hatchery building was also used to advantage, by placing a cistern on the hillside to develop head for water pressure.

Vegetation

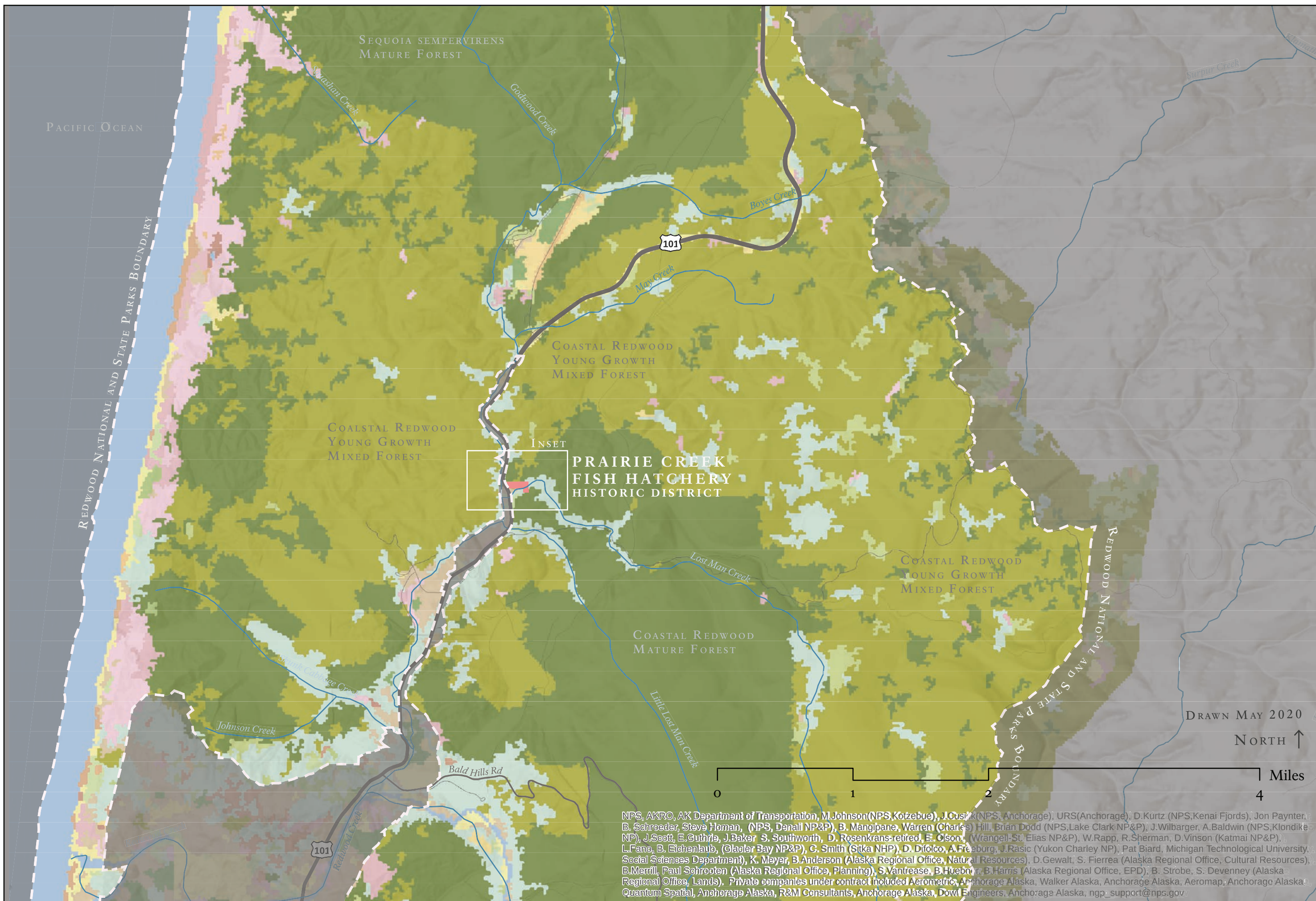
In the vicinity of PCFH, old-growth forest covers steeply sloped hillsides, with coastal redwoods being the dominant species. These

trees provided a source for building materials, as locally harvested redwood was used to construct the original buildings at PCFH. See "Figure 34 : Vegetation Context Map. (CLRG,2020)" on page 42 and "Figure 36 : Vegetation Map Inset of PCFH Historic District. (CLRG, 2020)" on page 42. Vegetation grows rapidly in the region, as indicated by the currently overgrown conditions around the PCFH buildings. Likely because of this, during the period of significance DFG kept the area around PCFH buildings relatively free of vegetation. This resulted in a tidy and efficient-appearing facility, as indicated by a 1950 aerial photograph, see Figure 32 and Figure 33.

Today, Himalayan blackberry, ferns, and other herbaceous plants have quickly taken over the abandoned site. These grow at the base of all buildings and constructed features, as well as throughout the asphalt-paved areas. Although vegetation in these areas was cut back in 2005 in preparation for HAER documentation, it has grown back robustly. This vegetation was pruned again in 2016 and 2017. The forest to the north of the Hatchery building appears to have expanded to the south which has caused the area with the five round concrete tanks to be less open than during the period of significance. The HAER documentation was completed in 2005, and was included in background material for the CLR.

The forest in the watershed above PCFH was heavily logged between 1950 and 1978, resulting in only 15% of old-growth forest remaining in this area (Redwood National Park 2008:10; 2009). However, much of the vegetation in this area, near but not within the historic district,

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Contextual Vegetation Plan Legend

Prairie Creek Fish Hatchery Historic District
Redwood National Park and State Park
May 2020

	Streams		
	Prairie Creek Fish Hatchery District Boundary		
	Roads		
	Acer macrophyllum Forest		Phalaris arundinacea Herbaceous
	Agrostis gigantea-Agrostis stolonifera Grassland		Picea sitchensis Saturated Forest
	Alnus rubra-(Other) Forest		Picea sitchensis-(Other) Forest
	Ammophila arenaria Grassland		Pinus attenuata Forest
	Arrhenatherum elatius-Cynosurus echinatus Grassland		Pinus jeffreyii Forest
	Bacharis pilularis Shrubland		Pinus monticola Forest
	Barren		Pinus radiata X attenuata YG Mixed Forest
	Carex obnupta Herbaceous		Pinus species Mixed Forest
	Carex obnupta-Deschampsia cespitosa Grassland		Pseudotsuga menziesii-(Other) YG Mixed Forest
	Festuca idahoensis Grassland		Pseudotsuga menziesii-Lithocarpus-densiflorus YG Mixed Forest
	Heteotheca oregona Herbaceous		Quercus garryana Forest
	Holcus lanatus-Anthoxanthum odoratum Mixed Grassland		Quercus vaccinifolia Shrubland
	Leymus mollis Grassland		Rubus Shrubland
	Lithocarpus densiflorus Shrubland		Salix Shrubland
	Lithocarpus densiflorus-(Other) YG Mixed Forest		Scirpus microcarpus Herbaceous
	Montane Conifer-Hardwood Mixed Forest		Sequoia sempervirens Mature Forest
	Montane Hardwood Mixed Forest		Sequoia sempervirens-(Other) YG Mixed Forest
	Other Aquatic Herbaceous		Sparganium (angustifolium) Herbaceous
	Other Dune Herbaceous		Sparse Vegetation
	Other Grassland		Typha latifolia Herbaceous
	Other Herbaceous		Umbellularia californica Forest
	Other Mixed Shrubland		Water
	Other Riverine Herbaceous		

Contextual Vegetation Plan Legend

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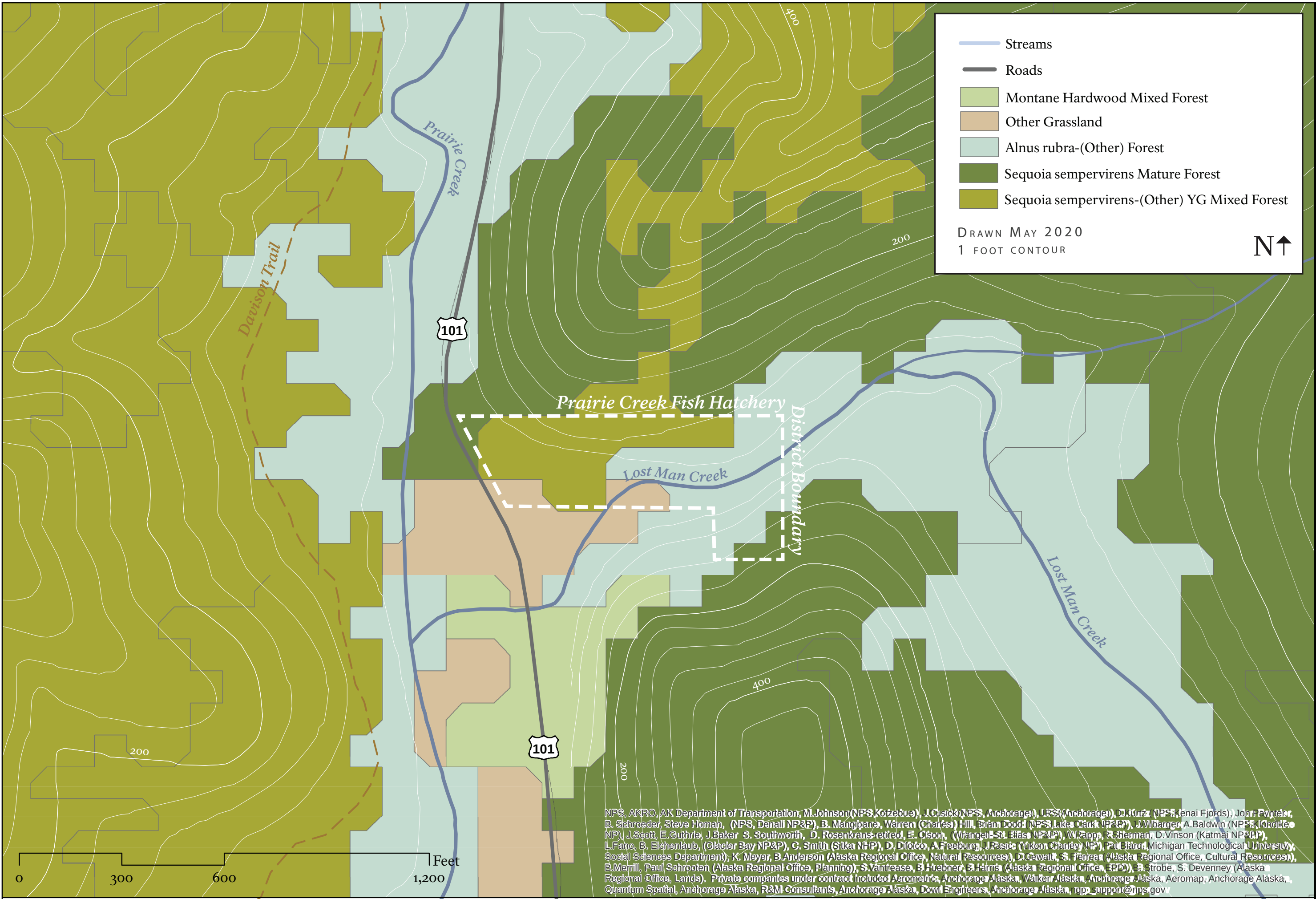


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Vegetation Map Inset

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Figure 37 : Lost Man Creek view upstream, taken from streambed at base of fish ladder (CLRG, 2019)

Figure 38 : Lost Man Creek view downstream, taken from Highway 101 bridge across Lost Man Creek (CLRG, 2019)

appears to represent that present during the period of significance. Dominant trees are coast redwood (*Sequoia sempervirens*) and Douglas-fir (*Pseudotsuga menziesii*). Other trees include hardwoods such as tanoak (*Lithocarpus densiflorus*), madrone (*Arbutus menziesii*), big-leaf maple (*Acer macrophyllum*), and California bay or laurel (*Umbellularia californica*). Common understory plants are sword fern (*Polystichum munitum*) and redwood sorrel (*Oxalis oregana*), which are accompanied by rhododendron (*Rhododendron macrophyllum*), huckleberry (*Vaccinium* spp.), salal (*Gaultheria shallon*), salmonberry (*Rubus spectabilis*), thimbleberry (*Rubus parviflorus*), azalea (*Rhododendron occidentale*), and other shrubs. Red alder (*Alnus rubra*) dominates the riparian vegetation surrounding Lost Man Creek.

Summary

Natural systems retain integrity to the period of significance, particularly with the improvement in water quality due to discontinued logging operations. However, the presently overgrown state of the abandoned PCFH is much more vegetated than during the period of significance.

SPATIAL ORGANIZATION

The spatial organization within a historic property refers to the three-dimensional organization of physical forms and visual associations in the landscape.

The PCFH facility was located and organized on the only buildable land within the original parcel between U.S. Highway 101, a steep hillside to the north, and Lost Man Creek to the south and east. Being adjacent to the Highway was crucial, because it provided necessary transportation access for the remote hatchery. Its facilities were placed along a roughly east-west axis from the Highway to the creek. As built in 1936, the PCFH

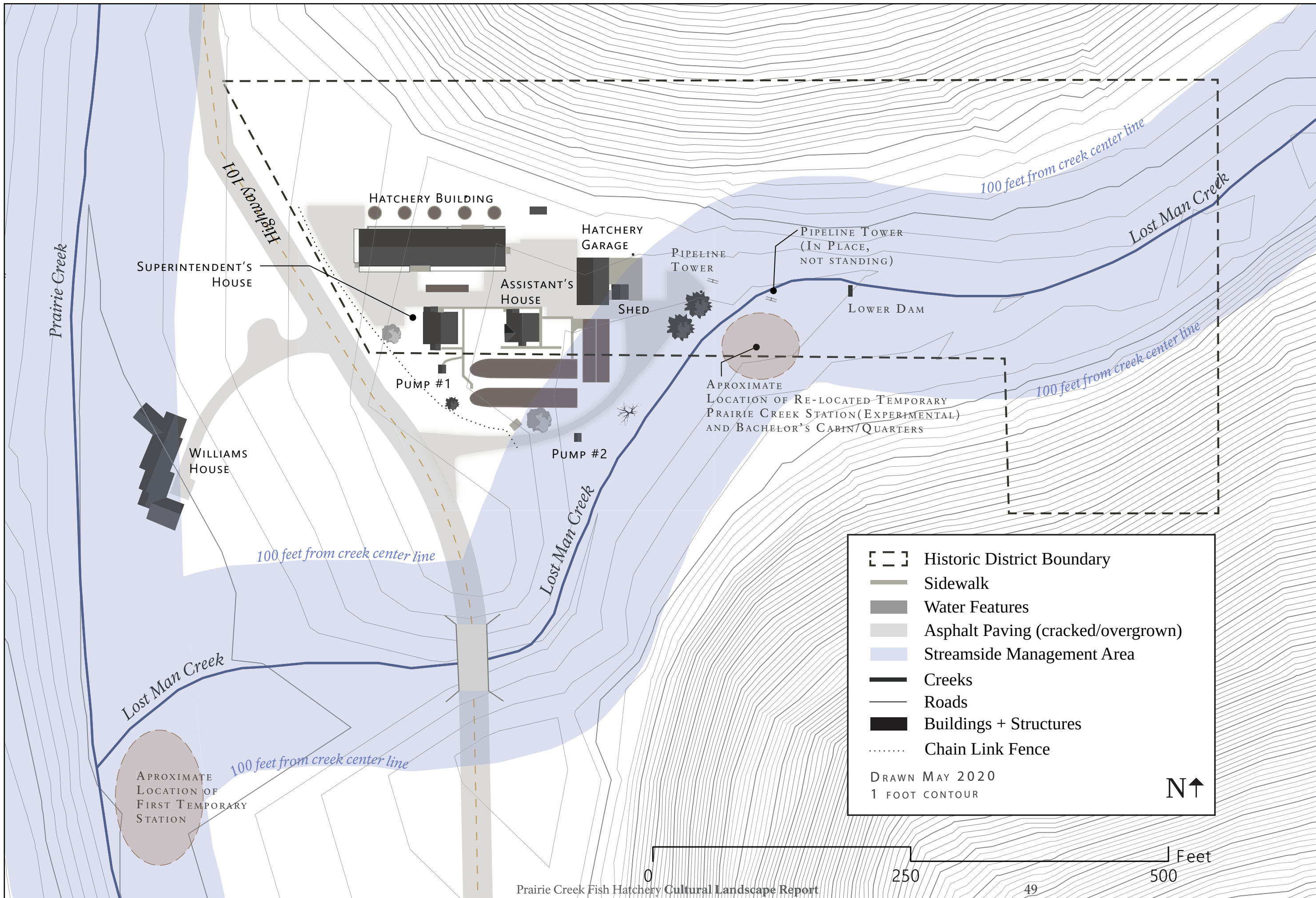
had three main areas: 1) a complex of buildings clustered around the main entry from Highway 101, see Figure 39; 2) right-of-way of unspecified width for a 12-inch pipeline stretching approximately 3,000 feet in a curvilinear alignment eastward from the PCFH complex to the water source; and 3) the water source on Lost Man Creek, which was outside of the 6.2-acre parcel. This water source consisted of a concrete dam 175 feet long and four feet wide at its extreme points, and a reservoir that backed up as much as 800 feet. A substantial amount of the original building complex, as well as the north pipeline tower where it crossed the creek, remain in place today.

Below

Figure 39 :

Buildings organized around original Highway 101 entrance drive, clockwise from left: Hatchery Building, Garage-shop, Assistant Superintendent's House, and Superintendent's House, looking east. (CLRG, 2019)







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Existing Conditions Plan Characteristics and Features

Prairie Creek Fish Hatchery | Redwood National and State Parks
 May 2020

Contributing features = *

Circulation

1. Sidewalks (IDLCS 58076, PCFH04, 1936-1943). *
2. Pipeline stream crossing (IDLCS 58087, PCFH07, 1936). *
3. Main Drive (1936, modified circa 1962).

Buildings + Structures

4. Hatchery building (IDLCS 58008, PCFH01, 1936). *
5. Superintendent's House (IDLCS 58043, PCFH02, 1936). *
6. Assistant's House (IDLCS 58070, PCFH03, 1936). *
7. Garage-Shop (IDLCS 58083, PCFH05, 1936). *
8. Shed (IDLCS 58086, PCFH06, 1936). *
9. Pump House (1962). (out of Historic District)
10. Pump House (1971). (out of Historic District)

Constructed Water Features

11. Five Round Concrete Tanks (IDLCS 58126, PCFH08, unknown).
12. Aeration tower (ca. 1962-1965).
13. Rectangular Above Ground Concrete Tanks (ca. 1973).
14. Dedication Pond (ca. 1962).
15. Lower Dam (1969-1971). *Location has not been verified + is not shown on map.*
16. Rock-lined Earthen Ponds (ca. 1965). *Outside of District.*
17. Fish Ladder (ca. 1973).
18. Pond, Levee, Culvert (ca. 1967-1970). *Location not shown on map.*

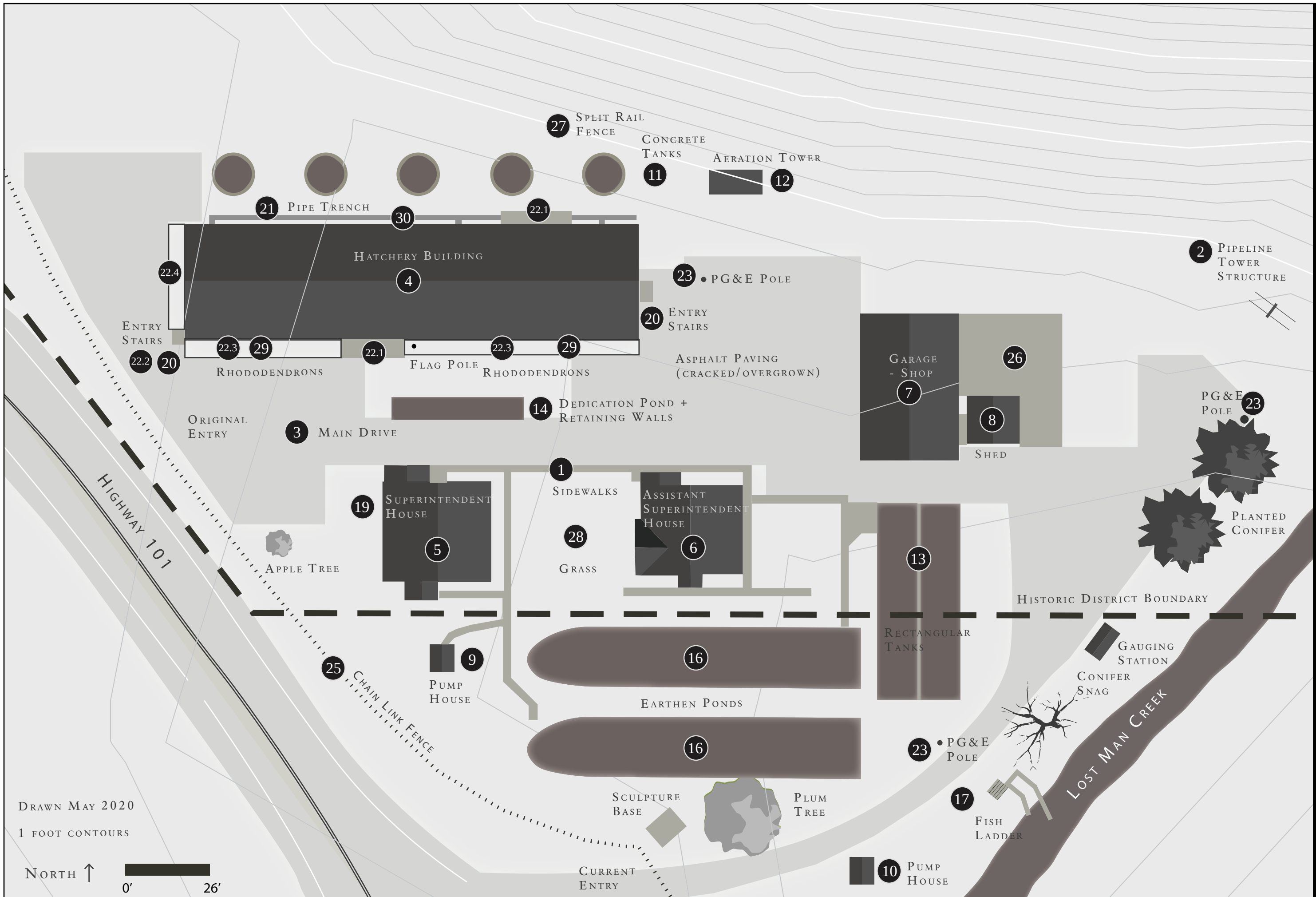
Small-scale Features

Undetermined Features

19. Pipe Play Structure West of Superintendent's House (unknown).
20. Concrete Steps into Hatchery building (ca. 1962).
21. Pipe Trench North of Hatchery Building (ca. 1962).
22. Features Associated With Dedication Pond (ca. 1962).
 - 22.1 Wooden platforms with stone-faced steps
 - 22.2 A raised stone-faced slab with steps
 - 22.3 Low, stone-faced, retaining walls
 - 22.4 Planting beds + stone-faced, planting bed wall
23. PG&E Poles (1984).
25. Chain Link Fence (after 1971).
26. Concrete Slab Surrounding Shed (ca. 1981).
27. Split Rail Fence North of building (after 1971).

Vegetation

28. Lawn areas. *
29. Rhododendrons on the south side of hatchery building.
30. Ferns on the north side of the hatchery building.



Drawn May 2020
 1 foot contours

NORTH ↑
 0' 26'

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Figure 40 : District Existing Conditions Plan. (CLRG, 2020)

Figure 41 : Existing Conditions Plan Characteristics and Features. (CLRG, 2020)

Figure 42 : Existing Conditions Plan Inset. (CLRG, 2020)

The building complex consisted of a driveway flanked by buildings and structures for PCFH operations on its north and east sides, and houses for workers on its south side. Additional structures adjacent to buildings supported their functions. Although previously believed to be five concrete tanks on the north side, recent photographic evidence suggest that the Hatchery building had a large above ground earthen rectangular tank for fish-rearing on its north side, fed by water from a rock filter. Water was also pumped from the filter up adjacent hill to a cistern used for residential water supply. A shed stood behind the garage-shop. Clotheslines and gardens were located south of the houses, outside of the PCFH boundary. In addition, a cabin on the east side of Lost Man Creek provided employee housing. Today, although some are missing, buildings and structures are in their original configuration, with the locations for ornamental garden plantings clearly evident, although in disuse.

Several modifications to these facilities occurred subsequent to the period of significance. Changes included moving the site's main entrance and driveway to the south along Highway 101 (outside of the PCFH boundary), blocking the original entrance with a chain-link fence, removing a median from the driveway and replacing it with an ornamental pond, demolishing the workers house on the east end of the row of houses, demolishing the cabin on the east side of Lost Man Creek, constructing two rectangular concrete above-ground tanks on the site of the demolished workers house (partially outside of the PCFH boundary), constructing two earthen ponds south of the houses (outside the boundary), adding pump houses and wells south

of the houses (outside the boundary), and replacing the original rock filter with a two-story tall concrete aerator building. In addition, the original dam and the original pipeline have either been removed or washed away by flooding.

Even with these alterations, however, the overall essential spatial relationships between structures that were present during the period of significance have not been disrupted. The feeling and association of structures clustered together, to provide efficient operations for a working PCFH with on-site residences, is still extant. In addition, the pipeline crossing over Lost Man Creek makes visible a portion of the original water conveyance system from the creek. The loss of the dam and portions of the pipeline does not significantly affect the overall integrity of main building complex as they were not essential to conveying the site's significance (Corbett 2000).

The key spatial organization of the site is retained. The buildings are organized around the driveway, with the PCFH operations on the north and east sides of the driveway, and housing on the south. Spatial organization of the cultural landscape retains integrity.

CIRCULATION

Circulation comprises the spaces, features, and applied material finishes which constitute systems of movement in a landscape.

Circulation within PCFH historically consisted of a main drive from Highway 101 used by both vehicles and pedestrians, and pedestrian-only walkways. These pedestrian-only walkways consisted of both concrete sidewalks adjacent to the houses as

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Figure 43 : Concrete sidewalk South of Assistant's House. (CLRG, 2019).

Figure 44 : Concrete sidewalk East of Assistant's House (CLRG, 2019)

Figure 45 : Detail of concrete sidewalk South of Assistant's House (CLRG, 2019).



well as a dirt footpath from the Shed to the upper dam. This footpath also included a wooden walkway atop the pipeline's stream crossing.

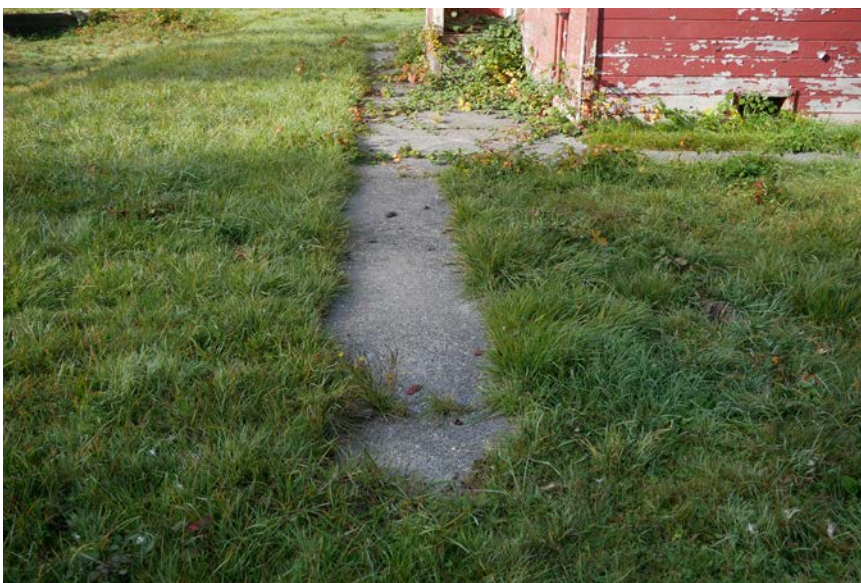
Portions of the circulation system retain integrity today. The main entry was moved to the south and a new entry road constructed after Humboldt County took over operations in 1958 and took ownership of the facility in 1961. The original entrance was fenced off at this time, and the original drive served primarily as a maintenance yard. Today, the concrete sidewalks are mostly still in place, although one section between the back of the Superintendent's House and the Assistant Superintendent's House has been removed. The footpath has become overgrown, and the walkway suspended over the pipeline stream crossing no longer exists.

Contributing Features

Sidewalks (IDLCS 58076, PCFH04, 1936-1943).

Concrete sidewalks were located both north and south of the houses, as well as on the east side of each house, see Figure 43, Figure 44 and Figure 45, right. Although 18-inch wide straight sidewalks remain in place today in these locations, they were likely reconstructed when the raised rectangular tanks were built. This conclusion is based on observation during the 2011 CLI fieldwork, because concrete used in the sidewalks more closely matches that used in the tanks.

In addition, about 30 feet of sidewalk between the Superintendent's House and the Assistant Superintendent's house is missing. This may have happened at reconstruction or a later time. However, this is only a





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Figure 46 : Tower to support pipeline on north bank of Lost Man Creek. Tower on south bank, now no longer upright, contributing. (CLRG, 2019).

small portion of the total sidewalk area. Furthermore, it does not affect the feeling of the historic houses being part of a small district with separate yards connected by walks. In addition, a comparison between 1950 aerial photographs and 2011 on-site observations indicates that the sidewalks likely occupy the same footprint of the originals, see Figure 32 and Figure 33. As a result, they retain their integrity of location, design, setting, feeling and association. Overall the sidewalks retain integrity to the period of significance.

Pipeline stream crossing (IDLCS 58087, PCFH07, 1936).

The structure, which originally served to carry the pipeline across Lost Man Creek, along with a wooden walkway atop the pipeline, is no longer intact. This structure was part of the original footpath from the Shed to the upper dam. It consists of a small suspension bridge with a steel tower on either side of the creek and steel cables. The towers are rectangular frames braced with crossing diagonal members in an X shape. Suspended from the cables are the pipeline and the wooden walk above it. The pipeline tower on the northside of Lost Man Creek exists upright in its original position, Figure 46, however, the tower on the south bank of Lost Man Creek has fallen over and the pipeline and wooden walk no longer exist.

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Figure 47 : Hatchery Building, contributing (CLRG, 2019)

Figure 48 : Superintendent's House, north face, contributing (CLRG, 2019)

Figure 49 : Assistant Superintendent's House, south face, contributing (CLRG, 2019)

Non-Contributing Features

Main Drive (1936, modified circa 1962).

As built in 1936, the site was historically accessed from U.S. Highway 101 via a linear driveway, around which the original buildings were arranged in a U-shaped plan. The driveway was

roughly 40 feet-wide and 225 feet-long. Between the Hatchery building, and the Superintendent's- and Assistant Superintendent's-houses, the center of the drive was occupied by an approximately 10 foot-wide by 90 foot-long median which divided the drive into two 15 foot-wide driving lanes. Although records are not available as to the paving surface, as seen in a 1950 aerial photograph, Figure 33, it appears to have been gravel. Areas on either end of the Hatchery building, west of the Superintendent's House and south of the Shed also contained gravel. Although they were not differentiated from the main drive by materials or design, they had the feeling of being away from the main traffic flow. This is because the linear arrangement of the buildings and the median visually organized the space into a central main drive with utility areas on its sides.

Following the transfer of PCFH by the state to Humboldt County, around 1962 the main drive was significantly altered. The main entrance to the site was moved to the south and the original entrance was blocked by a fence. A new driveway was built from the moved entrance, with visitor's approaching the cultural landscape from its backside at the Garage-Shop. In addition, the median was replaced with a much smaller ornamental pond. Additionally, the area between the ornamental pond and the Hatchery building was raised with dirt fill. Therefore, the visual hierarchy that began with entering the site on an east-west axis surrounded by the main buildings has been lost. The area between the buildings took on the role of a maintenance yard, utilitarian in character. In addition, the gravel areas were paved with asphalt or concrete, which changed from the dirt or gravel paving that existed during the period



of significance. The asphalt has not been maintained since the site was abandoned in 1992. It is presently disintegrating in many areas, with vegetation growing through cracks and gaps in the pavement.

The sidewalks still convey the importance of pedestrian connections between features of the early PCFH. The main drive does not have integrity, since the entry was moved after the period of significance and the drive itself was modified with the removal of the median and addition of dirt fill and asphalt pavement. The pipeline stream crossing does not retain integrity, since the wooden walkway and pipe have been destroyed. The southern tower has fallen; however, the tower on the north side of Lost Man Creek exists upright in its original position.

BUILDINGS AND STRUCTURES

Buildings are features constructed for sheltering any form of human activity. Structures are features constructed for purposes other than sheltering human activity, and may include mechanical and structural engineering systems. In addition to buildings and structures, there are many engineered structures that form a water system to support PCFH operations. Because of their interrelated nature, these are described in the Constructed Water Features section.

The buildings at PCFH were typically utilitarian in appearance and little decorated, being clad in ordinary rustic siding with a minimum of decorative trim. This reflects the paradigm for California fish hatchery design before 1947. Contributing buildings include the Hatchery building, Superintendent's House, Assistant Superintendent's House, Garage-Shop, and Shed.



The July 1996 Historic Resources Study survey indicated that the windows and doors of the buildings had been nailed shut with plywood. In 1997 the NPS undertook basic repairs, and efforts to ‘mothball’ (preserve for future use) the structures. At this time, the houses, Garage-Shop and Shed were reroofed, all windows and doors covered with plywood with openings for ventilation, brick chimneys banded for stabilization, and gutters added at the Hatchery building’s north and south elevation entryways to divert water from the stairs and landings. During a 2011 visit the mothball measures appeared to be working well. In general, window sills and sash remain intact and without rot. Water leakage was only observed in one area: the southeast workroom/tool area in the Hatchery building, which had a minor leak via an abandoned vent flue. The houses showed no evidence of pests. Pest presence in the Hatchery building was primarily in the east end work areas, near floor drains lacking covers.

Building configurations and features are relatively unchanged. According to records, the buildings were originally whitewashed, but since 1981, have been dark red with cream colored trim. At some time in-between, the houses were painted a golden-tan color, and trim was painted red. Historic photos indicate that the residences may have been a different color than the Hatchery buildings. Additional features were installed in the 1960s, primarily stone veneer walls at hatchery building stairways, and may be contributing to wood rot problems at both the north and south entries by trapping moisture and inhibiting air circulation.

In addition to the existing buildings described below, several changes

have occurred to PCFH buildings. A bachelor’s cabin, built in 1928 for the Prairie Creek Station (experimental) on the south side of Lost Man Creek, was demolished circa 1967. The eastern-most workers house, built in 1936, was demolished about 1972. A non-historic mobile home moved to a concrete pad on the east side of the shed was sold and moved away around 1992. Two structures indicated in 1950 aerial photographs, see Figure 33, remain undocumented because they are no longer present on site and it is unclear whether these existed during the period of significance. One was positioned between the shed and pipeline crossing, and appears to have been a windowless utility building. Also, a filter house was positioned at the northeast corner of the Hatchery building. This is understood to have been the rock filter that was replaced by the present-day aerator.

Contributing Buildings and Structures

Below is a detailed description of the contributing buildings and structures located at PCFH. The List of Classified Structure (LCS) numbers and dates of construction are also referenced.

Hatchery building (IDLCS 58008, PCFH01, 1936).

The Hatchery building at PCFH, Figure 47, was typical for its time, with its large column-free room with bands of windows on outside walls to provide light for operations. The building is a one-story rectangular side-gabled roof building measuring 41 by 130 feet oriented on an east-west axis. It has a heavy timber frame trussed structure with wood stud frame infill. Structurally the building is divided into bays based on a 16 foot interval, with 5½ inch by 6 inch posts set on concrete

piers supporting a system of braced English timber trusses (Urquhart 1950:401). Truss vertical members are steel rods and diagonal members are wood, with steel bolted fasteners. Bolted steel angle gussets tie the truss bottom plates to the supporting posts, and bolted steel toe plates tie the truss top chords to the supporting posts. At mid-span a diagonal timber truss running perpendicular to the trusses provides lateral bracing, running full length of the building. A system of blocked purlins supports the corrugated metal roof; the overhanging eaves are enclosed with narrow tongue and groove V-joint wood siding at the underside and wood fascia. Exterior walls are sheathed in 7 inch tongue and groove V-joint siding with 1x4 inch corner lap-joint trim. Two-over-two double-hung windows are spaced three per bay, each two stud spaces in width. The corrugated metal roof has a rolled-type ridge cap. The Hatchery building is entered through several doors: one centered at the east elevation, one at the southwest corner of the west elevation, one roughly centered on the south elevation, and one offset to the east on the north elevation. The side doors are replacements of hollow core construction; the east end door is paneled. Outside the east end of the building was a shed-roofed lean-to, covering a “Harmon Cooler” refrigerator installed in the 1970s, both the shed and cooler were removed in 2016.

Inside, the two easternmost bays are partitioned and the seven remaining bays are open. Above the partitioned spaces is a loft. The partitioned area is divided by a central corridor, with a food preparation area on the north side; and a shop, office, and bathroom on the south side. The food preparation area, where liver was

ground, includes a storage cooler and a concrete floor tank with a faucet and drain. The shop has built-in shelves and a metal chimney or vent pipe. The office opens not into the corridor, but into the main space. Knob and tube fixtures indicate that electricity was provided early in the life of this building.

The remainder of the Hatchery building interior is a column-free space, open through the trusses to the underside of the roof. During the period of state operation, from 1936 to 1955, there were 80 troughs in the building. Troughs are narrow open flumes which step down from north to south, in which the eggs are hatched and the fish start to grow. Today there are six pairs of redwood troughs at the west end, fed water by a flume along the north wall. Each trough steps down at the center. Between the troughs and the partitioned area are two sunken rectangular tanks of reinforced concrete; four round redwood tanks; and metal racks with plastic incubator trays (installed after 1971). The floor in this area is a raised wood deck added because of water damage to the original floor below (Will 1996).

Superintendent’s House (IDLCS 58043, PCFH02, 1936).

The westernmost of the three original houses was originally designated the Superintendent’s House and was slightly larger than the others, Figure 48. The house is a simply built Arts and Crafts bungalow style with simple geometry, well detailed porch ceilings, attic vent detailing, and picturesque brick chimneys. The open eaves with enclosed rafters are unusual for the style.

It is a rectangular one and one-half story front-gabled roof building (26

feet 3 inches by 38 feet 6 inches) oriented on a north-south axis set facing the Hatchery building. A projecting gable covers the entry porch (12 feet by 7 feet – 6 inches), which fronts on the main driveway area. A small gabled back porch abutting the southern boundary of the parcel is set off center on the south elevation. Porch detailing includes double chamfered posts, chamfered top rails, simple balusters with eased edges, and chamfered newel posts. Original boxed stairs are missing, replaced by utilitarian open risers. Porch ceilings are enclosed with narrow profile V-joint siding with quarter molding trim.

The simple asphalt shingled gable roofed structure is built of wood stud (light) frame construction on a concrete perimeter foundation with wood framed floors over a ventilated crawlspace. Clad in 7 inch tongue and groove V-joint siding with 1x4 inch corner lap-joint trim, exterior openings are trimmed out with plain boards. Windows have sloped sills with a plain apron. The overhanging open eaves have enclosed rafters with 7 inch tongue and groove V-joint siding, with a continuous plain fascia all around. Both gables (north and south) have distinctive gable infill vents with vertical slotted openings for attic ventilation. Although no gutters are extant, remnants of some downspouts exist. The interiors are lit by double-hung wood sash single glazed windows (one-over-one), except the upstairs gable end window which has been replaced with an aluminum window. Entrances at the front and rear are paneled wood doors with glass upper panels. A small flue vent chimney constructed of red common brick with an arched top is set at the east side of the ridge.

The rectangular plan of the house is structurally divided into two bays, with a supporting wall dividing the public and bedroom areas. The house is entered from the front porch directly into the living room. The living room and rear kitchen occupy the west side of the house; the east side has a bedroom in each corner with a short corridor and a bathroom in between. The northeast corner bedroom has a wood stair leading up to an attic bedroom. Interior finishes originally included wood baseboards and cornice moldings, and wood battens between wallboard panels. Original finishes are intact in the corridor and the southeast bedroom, as is most of the standard manufactured hardware. Heat is provided by a wood stove (which replaced an early stove about 1971) in the living room, vented through a metal flue to the brick chimney on the roof. Electricity and plumbing were originally provided. The bathroom is partially remodeled, but retains some original tile and fixtures. The northeast bedroom, living room, and kitchen have been refinished. The attic bedroom was finished about 1943.

Assistant Superintendent's House (IDLCS 58070, PCFH03, 1936).

This is the easternmost of the two remaining houses; originally it was the middle of three houses, Figure 49. The house is a modestly built Arts and Crafts bungalow style with simple geometry, well detailed porch ceilings, attic vent detailing, and picturesque brick chimneys. The open eaves with enclosed rafters are unusual for the style.

It is a rectangular one and one-half story cross-gabled roof building (26 feet 3 inches by 34 feet 6 inches) oriented on a north-south axis set facing the Hatchery building. A

projecting gable covers the entry porch (8 feet 3 ½ inches by 6 feet), which fronts on the circular drive area. A small gabled back porch (4 feet by 6 feet 10 inches) abutting the southern boundary of the parcel is set off center on the south elevation. Porch detailing includes double chamfered posts, chamfered top rails, simple balusters with eased edges, and chamfered newel posts. Original boxed stairs are missing, replaced by utilitarian closed risers. The Smedley and Laidlaw collection of historic photographs clearly indicate that the Assistant Superintendent's House porch steps were relocated at some point to the west side of the porch, see Figure 71 and Figure 72. Porch ceilings are enclosed with narrow profile V-joint siding with quarter molding trim. The two foot extension of the kitchen at the west side of the building is achieved with a transverse (cross) gable.

The simple asphalt shingled cross-gable roofed structure is built of wood stud (light) frame construction on a concrete perimeter foundation with wood framed floors over a ventilated crawlspace. Clad in 7 inch tongue and groove V-joint siding with 1x4 inch corner lap-joint trim, exterior openings are trimmed out with plain boards. Windows have sloped sills with a plain apron. The overhanging open eaves have enclosed rafters with 7 inch tongue and groove V-joint siding, with a continuous plain fascia all around. Both gables (north and south) have distinctive gable infill vents with vertical slotted openings for attic ventilation. Although no gutters are extant, remnants of some downspouts exist. The interior is lit by wood sash, double-hung windows (one over one). Similar to the Superintendent's house, all gables (north, south and east) have distinctive gable infill vents

with vertical slotted openings for attic ventilation. Entrances at the front and rear are paneled wood doors with glass upper panels. A small flue vent chimney constructed of red common brick with an arched top is set at the east side of the ridge; the arch top is broken, with several rows of brick missing.

The rectangular plan of the house is structurally divided into two bays, with a supporting wall dividing the public and bedroom areas. The house is entered from the front porch directly into the living room. The living room and rear kitchen occupy the west side of the house; the east side has a bedroom in each corner with a short corridor and a bathroom in between. A stair in the southeast corner bedroom leads upstairs to an attic bedroom. Interior finishes originally included wood baseboards and cornice moldings, wood battens between paperboard wall panels, and standard manufactured hardware. Original finishes are generally intact in the kitchen, corridor, bathroom, and southeast bedroom. Living room and northeast bedroom finishes have been remodeled. Heat is provided by a wood stove (which replaced an earlier stove about 1971) in the living room which is vented through a steel pipe to a brick chimney on the roof. Electricity and plumbing were originally provided. The attic bedroom is finished in sheet rock, and was not originally a finished part of the house.

Garage-Shop (IDLCS 58083, PCFH05, 1936).

This building plays an important visual role in the complex due to its location closing the east end of the U-plan, and the strong geometry of its form and detailing, see Figure 50. It is a one-story side-gabled roof building, rectangular

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Figure 50 : Garage-shop, contributing (CLRG, 2019)

Figure 51 : Shed, contributing (CLRG, 2019)



in plan (48 feet 4 inches by 24 feet 4 inches), and oriented on a north-south axis. This is a simple corrugated metal gable roof structure built of wood (medium) frame construction placed on a concrete slab foundation. Walls are clad in 7 inch tongue and groove V-joint siding with 1x4 inch corner lap-joint trim. The medium pitch gable roof is supported by purlins notched and set at four feet on center over wood frame Howe trusses that are approximately six feet on center. The corrugated metal roof has a rolled-type ridge cap; overhanging open eaves have enclosed rafters with 7-inch tongue and groove V-joint siding and plain fascias, with a deeper fascia at the gable end rake. Exterior openings are trimmed out with plain boards. No gutters or downspouts evident.

The building's vehicular entrance consists of three large rolling track doors centered on the west elevation. The doors are mounted on two tracks, the center panel being on a single track mounted at the exterior, the remaining flanking doors mounted on a single track mounted at the interior of the opening. Each door is constructed of planks set vertically, with X-bracing, and plywood at the interior side. At the south elevation a man door is flanked symmetrically by two windows; the north elevation has two windows with a man door; the east elevation has three windows symmetrically arranged. All windows are two-over-two double hung wood sash single glazed windows. Inside, the floors are concrete, with raised sections at either end. The south end is partitioned for storage with horizontally planked unpainted wood walls. At the north end is an oil tank and a gas generator (AC generator, DC exciter) manufactured by International Harvester, with a plate stamped "Signal

Corps U.S. Army; Power Unit PE 215." The interior is unfinished. No gutters or downspouts are evident.

Shed (IDLCS 58086, PCFH06, 1936).

A small rectangular one-story building (14 feet 6 inches by 12 feet), oriented on a north-south axis, positioned just east of the garage-shop, Figure 51. The shed is a simple asphalt shingled front-gabled roof structure built of wood stud (light) frame construction on a concrete foundation, it is clad in 7-inch tongue and groove V-joint siding with 1x4 inch corner lap-joint trim. Exterior openings are trimmed out with plain boards. The medium pitch roof has overhanging open eaves with exposed plain cut rafter ends with no fascia; the gable end rake has a medium two-part bargeboard detail. The south gable has an opening for an infill vent, similar in size to those still extant at the residences – although no vent remains. The single interior space is lit by awning type windows, one each centered in the east and west side walls. A diagonally braced site-built wood plank door mounted on surface mounted strap hinges provides entry to the one room space. No gutters or downspouts are evident. A simple post and beam timber frame stands at the east elevation; early photographs indicate some sort of lean-to shelter at the east side, whether canvas or a built roof is unknown. The interior was not visually accessible for inspection.

Buildings and Structures Features Outside Historic District Boundaries

Pump House (1962).

This is a small square one-story building (8 feet by 8 feet) located outside the PCFH property near the new south gate that was established

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Figure 52 : Pump House (1962), near the south gate, outside of historic district boundary (CLRG, 2019)

Figure 53 : Pump House (1971) south of Superintendent's House, outside of historic district boundary (CLRG, 2019)



in the 1960s on the north edge of Lost Man Creek, Figure 52. This is a stud-frame structure on a concrete perimeter foundation. It is clad in 7 ¼ inch tongue and groove V-joint siding with 1x4 corner trim; exterior openings are trimmed out with plain boards. It has a front-gabled roof with overhanging eaves and exposed rafters. The roof is clad in asphalt shingles. The building is ventilated by louvered openings on each side and a roof monitor. It has a wood door and no windows. There is a pipe running between the southeast side of the building and the ground above the creek. No gutters or downspouts are evident.

Pump House (1971).

This is a small rectangular one-story building (6 feet 3 inches by 8 feet 2 inches) oriented on a north-south axis, and located south of the superintendent's residence outside the boundaries of the parcel, Figure 53. The simple asphalt shingled front-gabled roof structure is built of wood stud (light) frame construction on a concrete slab foundation; clad in 7-inch tongue and groove V-joint siding with 1x4 corner lap-joint trim, it has a large wood louvered vents positioned high on the east and the west sidewalls for ventilation. Exterior openings are trimmed out with plain boards; the interior is unfinished with exposed framing. The gable roof overhanging eaves are open with exposed plain cut rafter tails (no fascia); gable end raked eaves have a large scale plain fascia. Both doors have been damaged and are missing. Inside is a 40-horsepower Holloshaft® Pump Motor. No gutters or downspouts are evident.

Gauging Station.

This is a small rectangular one-story pitched-roof gauging station with board and batten siding, see Figure 54 and Figure 55. The gauging station is oriented along the north bank of Dead Man Creek south of the Historic District Boundary. The structure is used for Dead Man Creek data collection by NPS.

Buildings and Structures Features Removed or Demolished

There are several buildings and structures features that were part of the PCFH facilities that have been demolished or removed. Within the historic district, these included the easternmost residence, a cabin on the south side of Lost Man Creek, a gable roofed outbuilding positioned between the shed and pipeline crossing, and a shed roof structure positioned at the northeast corner of the PCFH. These last two structures are not well-described in the site's history, but are visible in a 1950 aerial, Figure 33. The shed roof structure may have been the original rock filter that was replaced by the Aerator circa 1962.

“Indomitable” Sculpture (1974).

Associated with the PCFH, but outside of its historic district boundary, there have been two carved, redwood sculptures (approximately 21 feet in length) at PCFH in recognition of a well-publicized salmon which returned to its place of origin in the PCFH by an improbable route through pipes and screens in 1964 (see additional information in section 8). The first sculpture stood from 1974 until about 1981, by which time it had deteriorated. The second stood from 1981 to 1992 when PCFH closed.

Right

Figure 54 : Gauging Station, view northeast, non-contributing. (CLRG,2019)

Figure 55 : Garage, Shed, and Gauging Station along existing entry road. (CLRG, 2019)



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Figure 56 : Five Round concrete water tanks, view east facing, non-contributing (CLRG, 2019)







Each carved redwood sculpture of Indomitable was mounted on a metal pole in a concrete pad just inside the new gate. The pole, and concrete pad remain. The dedication plaque for Indomitable does not remain, and it is uncertain when it disappeared. It is possible that it was stolen soon after the CLI was completed with the rash of metal theft on the site at that time. The dedication plaque read: “As a lasting tribute to the never ending struggle within nature for the survival of the species . . . This replica of the indomitable salmon was presented to Humboldt County and its Prairie Creek Fish Hatchery on March 5, 1974, by the following as a symbol of the interdependence and common spirit that binds man to nature and all living things.” Also remaining are stone-faced steps from the driveway down to the concrete pad.

CONSTRUCTED WATER FEATURES

Constructed water features are the built features and elements that utilize water for aesthetic and utilitarian functions in the landscape.

Water features within PCFH belonged to two categories: those used to provide and manipulate water for facility operations, and those for domestic uses. With regard to hatchery operations, water was delivered in a pipeline carried across Lost Man Creek on a suspension bridge with a walkway above the pipe. The dam where the pipeline began was a concrete gravity dam with a plank apron and a 4-foot by 54-foot spillway in the center. Its reservoir backed up roughly 800 feet behind the dam (Shoup 1988). About 3,000 feet of riveted steel pipe led from this dam to an elevated water filter located behind

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Figure 57 :

Rectangular, Above Ground Concrete Tanks, non-contributing (CLRG, 2019)

Figure 58 :

Dedication Pond, non-contributing (CLRG, 2019)

Figure 59 : Rock-Lined Earthen Ponds, non-contributing and outside historic district boundary (CLRG, 2019)

the east end of the Hatchery building, where the easternmost round tank now stands. The filter was a wood cage full of rocks. When the water had passed down through the filter, it was distributed to the Hatchery building and probably to an above ground rectangular earthen tank, previously thought to be the five round concrete tanks on the north side of the Hatchery building. At the Hatchery building, it was carried in a flume across the north side of the building and distributed to the troughs. From the bottoms of the troughs, it was carried as waste in an outfall line southward into Lost Man Creek.

For domestic uses, water was diverted from the filter through a pipe leading to a pump, most likely gasoline-operated, north of the Hatchery building. This raised it 60 feet up the hillside to a round redwood tank with a roof, placed on a stand.

In the early days, PCFH operations required fairly intensive human interaction with the constructed water features. Salmon swam up the creek and were trapped behind the dam. They were dipped out, examined, and, if ripe, eggs were removed from females and spawned from males in buckets. Fertilized eggs were then carried to the Hatchery building and set inside the troughs in baskets with holes. The baskets were turned, eggs hatched, and fry grew to fingerlings. Fingerlings were then moved to outside tanks to grow. When they were large enough, they were placed in milk cans with aerators, loaded in trucks and carried to streams in Humboldt and Del Norte Counties.

Constructed Water Features Changes After Period of Significance

After 1946 water quality deteriorated because of logging operations in the watershed above. These operations resulted in flooding, increased sediment, and higher water temperatures. This adversely affected PCFH operations and required improvements to the water delivery system. As a result, many changes were made over the next 40 years which significantly altered the site's water features and PCFH operations. Some improvements include the late 1940's installation of five redwood tanks outside the Hatchery building. Improvements made in the 1960s and 1970s were more permanent, but with the exception of the aeration tower all were outside of the historic district's boundary.

As a result of post-1946 changes, much of the original water supply system has been destroyed or removed. The upper dam and its reservoir was removed in 1989 (Sanders 1996). Most of the pipeline, except the stream crossing (described below) is gone as it lay falling apart and unused on the ground during most of the 1960s, and washed away in a flood circa 1971-1972. The original filtration tank was removed around 1962-1965. The domestic water supply system was taken apart and the original domestic water tank was reused inside the Hatchery building. Other structures which were added after 1955, including an electric weir, two mechanical weirs, and two silt fences have since been removed. A pond, levee, and culvert from 1967 to 1970 are silted up and overgrown with plants.

These facilities, combined with changes inside the Hatchery building, modified the hatchery process. Salmon returned up the fish ladder to the big rectangular concrete tanks where they

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Figure 60 :

Top-Fish ladder from Lost Man Creek, view Northwest, non-contributing. (CLRG, 2019)

Figure 61 :

Bottom-Fish ladder from Lost Man Creek, view North, non-contributing. (CLRG, 2019)

Note: Fish ladder connects to easternmost rectangular concrete above ground tanks.





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Figure 62 : Round concrete water tank number four (of five), non-contributing (CLRG, 2019)

Figure 63 : Aeration Tower, non-contributing (CLRG, 2019)

were spawned; eggs were moved to incubators; fry were then moved to the troughs, which were “ponded” into sections; growing fish were moved to inside tanks, then outside tanks, then the rock-lined earthen ponds, then the rectangular concrete tanks again before release.

Impact on Integrity

Constructed water features retain minimal integrity to the PCFH’s period of significance. However, although some features have been removed and others have been added, the remaining features associated with the original development support enough meaning to convey its feeling and association with historic fish hatchery operations. The removal of the original dam does not affect integrity, because as the 2000 National Register nomination stated, it was located upstream of the facility, hidden from view and not part of the visitor experience of PCFH.

Detailed descriptions of the contributing and non-contributing constructed water features located at PCFH are below, including the List of Classified Structure (LCS) numbers, if assigned, and dates of construction.

Non Contributing Constructed Water Features

Five Round Concrete Tanks (IDLCS 58126, PCFH08, unknown).

It is not clear when the five round water tanks located outside the north wall of the Hatchery building were built, although it was previously thought that it was within the period 1936 to 1943. Photographic evidence, see Figure 18 and Figure 19, revealed during the CLR process indicates that there was an above ground rectangular earthen tank in this location during the period of significance. The round tanks

are of reinforced concrete construction and measure 20 feet in diameter, see Figure 56 and Figure 62. They are sunk into the ground so they project only a few inches above the ground on the outside, but are about a foot deep. The walls are about four inches thick and the bottoms slope slightly to a drain at the center. At one point a pipe was cantilevered from the side toward the center of each tank. This replaces an earlier system for aerating the water. The aggregate in the concrete is exposed below the waterline in the tanks and presents a distinctive appearance.

Aeration tower (ca. 1962-1965).

This is a concrete frame supporting an elevated wooden aeration tank. See Figure 63.

Rectangular Above Ground Concrete Tanks (ca. 1973).

This pair of reinforced concrete tanks was built in the early 1970s as elements in a redesigned water supply and hatchery process. The rectangular tanks are side by side and share a common wall, see Figure 57. Vertical grooves in the concrete walls are designed for the placement of moveable gates. Valves at either end allow water and fish to be moved in and out of the tanks. Each tank is approximately 79 feet long by 10 and 1/2 feet wide.

Dedication Pond (ca. 1962).

A pond was built between the Hatchery building and the houses about 1962 when the original driveway was removed from the area, see Figure 58. This pond is referred to locally as the “dedication pond” and contains a metal plaque inscribed with: “In Memory of Joe D. Walker, Fish and Game Conservationist, Bella Vista Rod

and Gun Club.” The rectangular pond is approximately 38 feet long and 11 feet wide. It is faced with irregular-cut stone in concrete mortar. At either end of the pond are ornamental plantings of juniper and ferns.

Lower Dam (1969-1971).

The lower dam, consisting of a concrete dam between wing walls, was built to try to maintain a source of water in Lost Man Creek after the original (upper) dam was silted up. The lower dam has been described as being located upstream about 100 feet from the pipeline crossing. However, because of overgrown vegetation and high stream conditions its exact location, dimensions, and condition could not be verified. According to Vicki Ozaki, park geologist, the lower dam “failed when a large old growth root was lodged in the spillway and the stream eroded around it. While it is not a partial barrier to endangered fish anymore, it does cause bank erosion on the Hatchery side of the creek.”

Non Contributing Constructed Water Features outside of the Historic District Boundaries

Rock-Lined Earthen Ponds (ca. 1965).

This pair of ponds was excavated in the area south of the PCFH property. The ponds were lined with rocks and linked at either end by concrete channels with valves and gates. Each pond is approximately 96 feet long and 15 feet wide. Currently, the ponds do not contain water and grass has grown through the rock lining.

Fish Ladder (ca. 1973).

This reinforced concrete fish ladder was built to enable returning salmon to climb to the new rectangular concrete

tanks. See Figure 60 and Figure 61.

Pond, Levee, Culvert (ca. 1967-1970).

These are overflow facilities to accommodate growing salmon when the normal capacity of the PCFH was exceeded. These facilities consist of a pond on the north side of Lost Man Creek about 100 yards above the Lower Dam, a levee, and a culvert. The pond and culvert are silted up and overgrown.

Constructed Water Features Removed or Demolished

There are several constructed water features that were part of PCFH facilities that have been demolished or removed. Within the historic district, these included a portion of the pipeline, the original filter (a wooden cage filled with rocks) that was replaced by the concrete aerator as well as the rectangular above ground earthen pond north of the Hatchery Building. Outside of the historic district was the remainder of the pipeline, the upper dam, and the reservoir above the dam.

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Figure 64 : Top-Conifer snag along Lost Man Creek, non-contributing. (CLRG, 2019)

Figure 65 : Middle-Red plum tree inside entry gate, non-contributing. (CLRG, 2019)

Figure 66 : Bottom-Evergreen trees along entry drive, non-contributing. (CLRG, 2019)



VEGETATION

Vegetation refers to deciduous and evergreen trees, shrubs, vines, ground covers and herbaceous plants, and plant communities, planted or modified by humans. (Native vegetation and plant communities are discussed in Natural Systems and Features.)

With regard to ornamental vegetation and planted areas, no detailed visual or written record of the landscape of PCFH during its period of significance was found, although there are some historic photographs. Descriptions of the landscape provided by former PCFH residents during this period and historic photographs provided the record of plantings. The median in the center of the main driveway was said to contain dahlias and a stand of second growth redwoods. Photographic evidence, see Figure 77, supports this recollection. There were clotheslines and a garden south of the houses, but this area is outside the historic district boundary. In Figure 80, a garden like planting is observed in the background behind the Assistant Superintendent's House. The tri-annual water licensee reports mention lawns and rhododendrons. During the period of significance, rhododendrons around the property were said to flourish because they were fertilized with salmon carcasses. At the north end of the Garage-Shop, Cecil Bruner roses were said to grow over the remains of a large tree stump.

Oblique aerial photographs taken in 1950, Figure 33, clearly show a hedge on the south side of the Hatchery building, cut lawn surrounding the houses, an ornamental shrub at the northwest corner of the center house (currently the eastern-most house), and a large shrub at the northwest

Right

Figure 67 : Top-Rhododendrons' on South face of Hatchery building. Re-plantings, non-contributing though compatible. (CLRG, 2019)



Figure 68 : Middle-Apple Tree west of Superintendent's House, non-contributing. (CLRG, 2019)



Figure 69 : Bottom-Tree Stump, likely apple, out of boundary along chain link fence line, non-contributing. (CLRG, 2019)



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Figure 70 : Blackberries grow naturally in the area, and now are located along the perimeter chain link fence and at base of many buildings, non-contributing (CLRG, 2019).

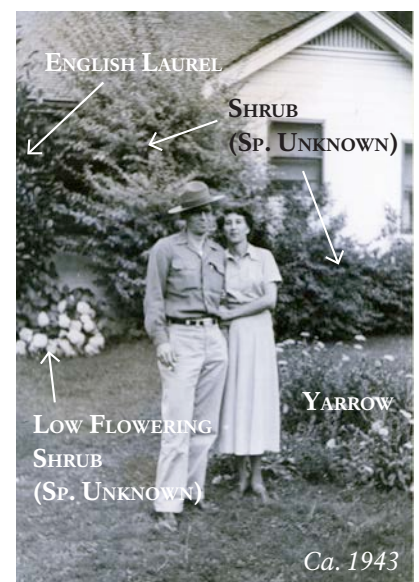
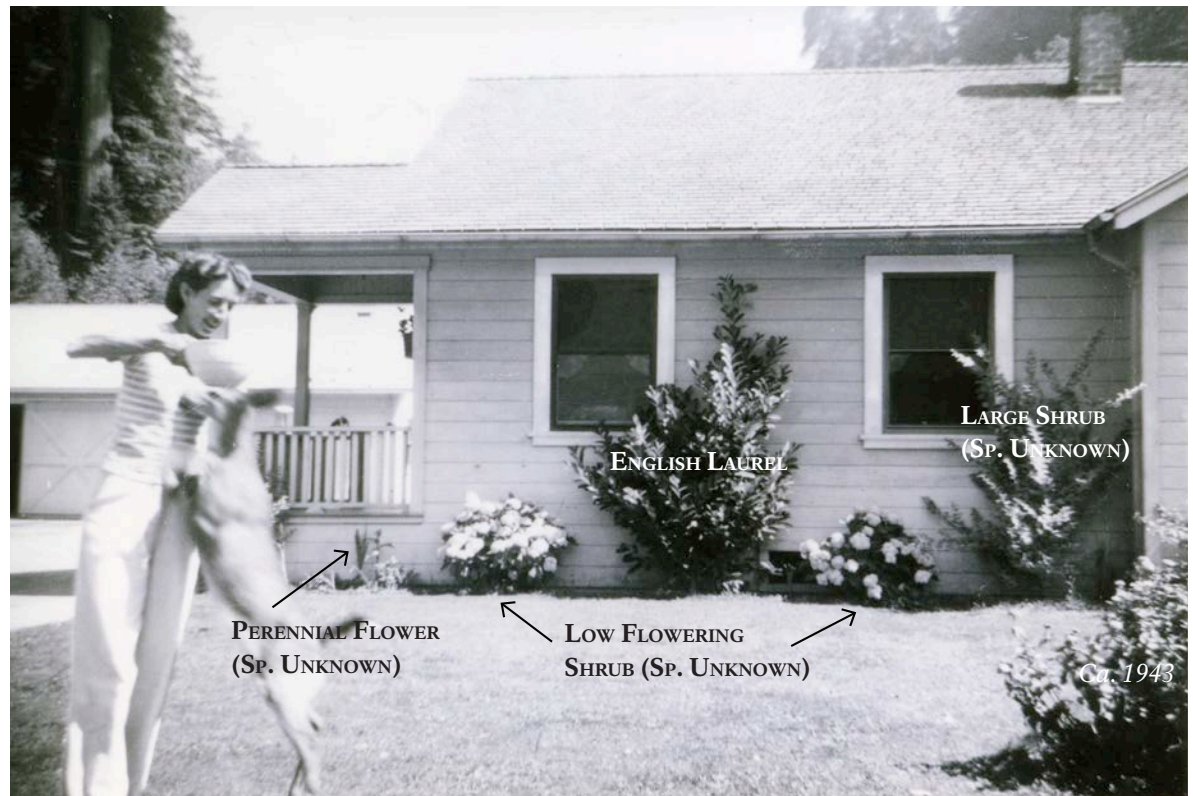


Right

Figure 71 : Top-
Historic Vegetation
Study: View east of
Superintendent's
House (Smedley and
Laidlaw Collection,
Ca. 1943)

Figure 72 :
Bottom left - Historic
Vegetation Study:
View east of Assistant
Superintendent's
House (CLRG, 2020).

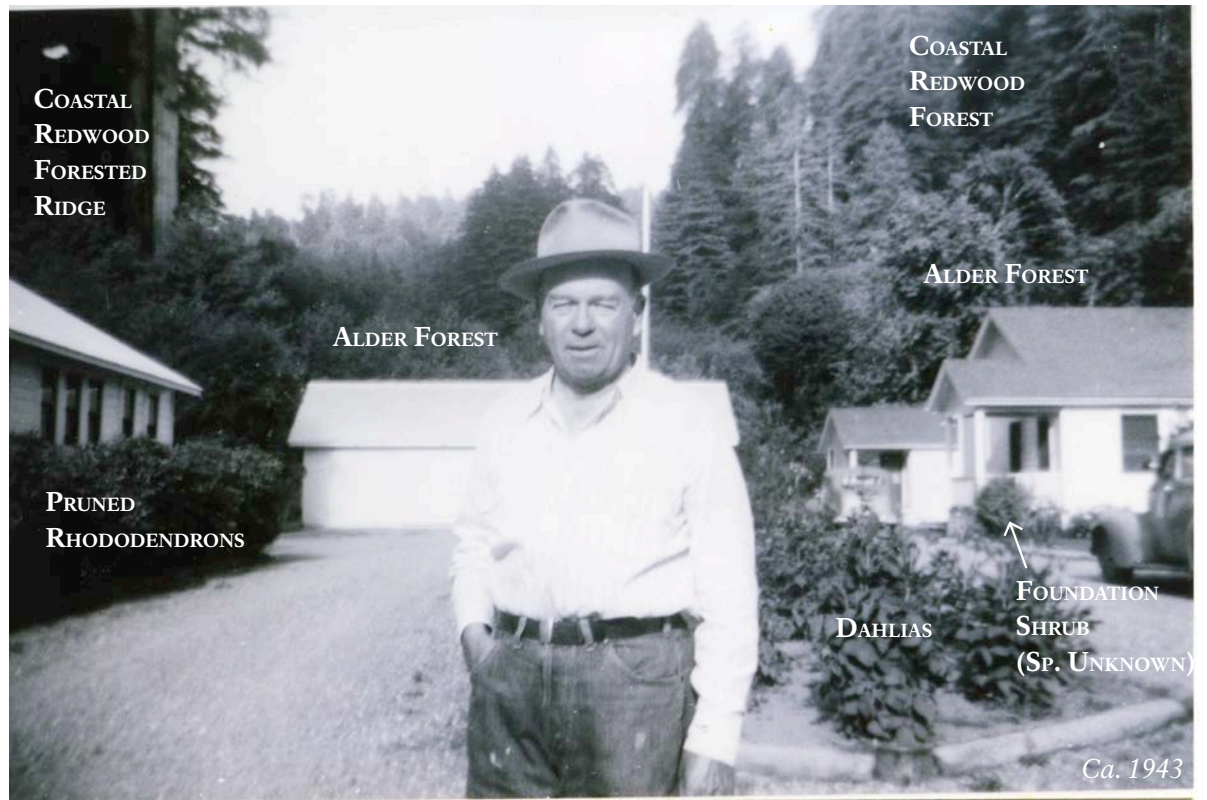
Figure 73 : Bottom
right - Historic
Vegetation Study:
View southeast
of Assistant
Superintendent's
House (Smedley and
Laidlaw Collection,
Ca. 1943)



Right

Figure 74 : Historic Vegetation Study: View east of central drive, Dahlia Planting bed and surrounding buildings and structures: Hatchery Building, Garage, third residency, and Assistant Superintendent's House (Smedley and Laidlaw Collection, Ca. 1943).

Figure 75 : Historic Vegetation Study: View north of central drive, Ornamental Planting bed in foreground and Hatchery Building Foundation Rhododendrons' in background (Smedley and Laidlaw Collection, Ca. 1943).



Right

Figure 76 : Historic Vegetation Study: View southwest of Superintendent's House, foundation planting and sidewalk (Smedley and Laidlaw Collection, Ca. 1943).

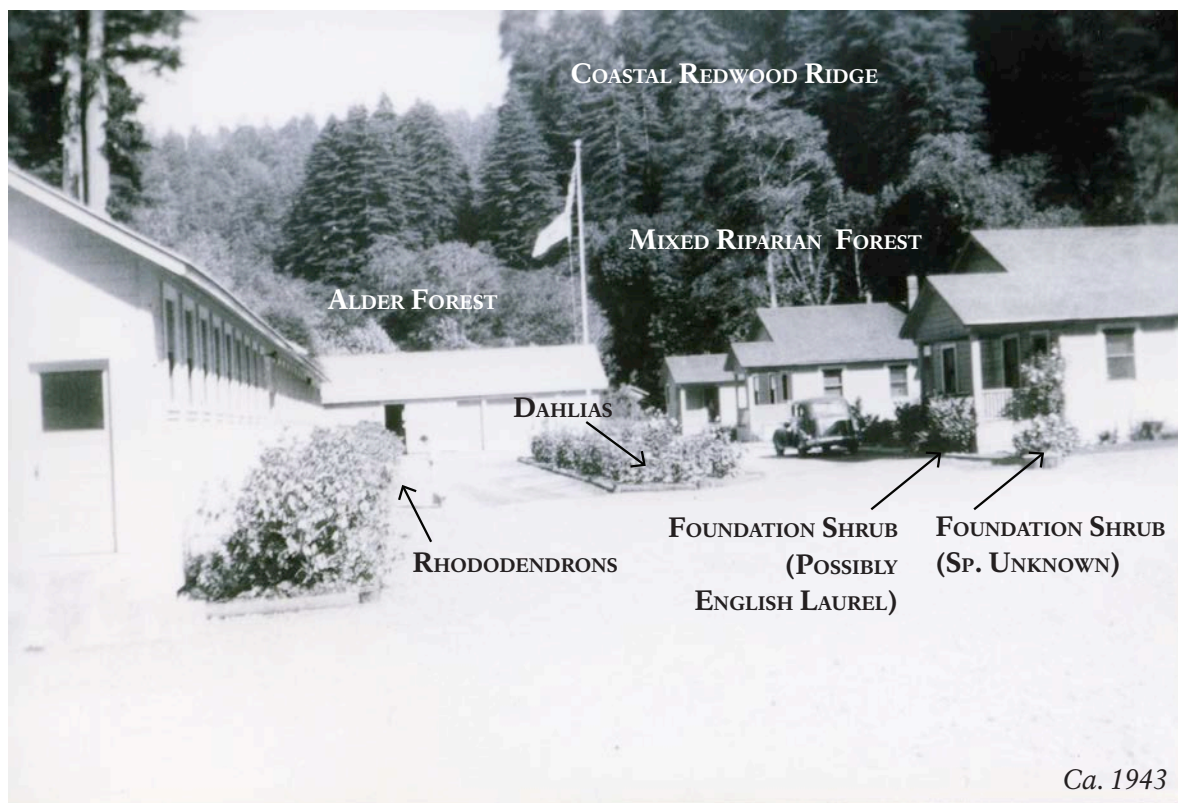
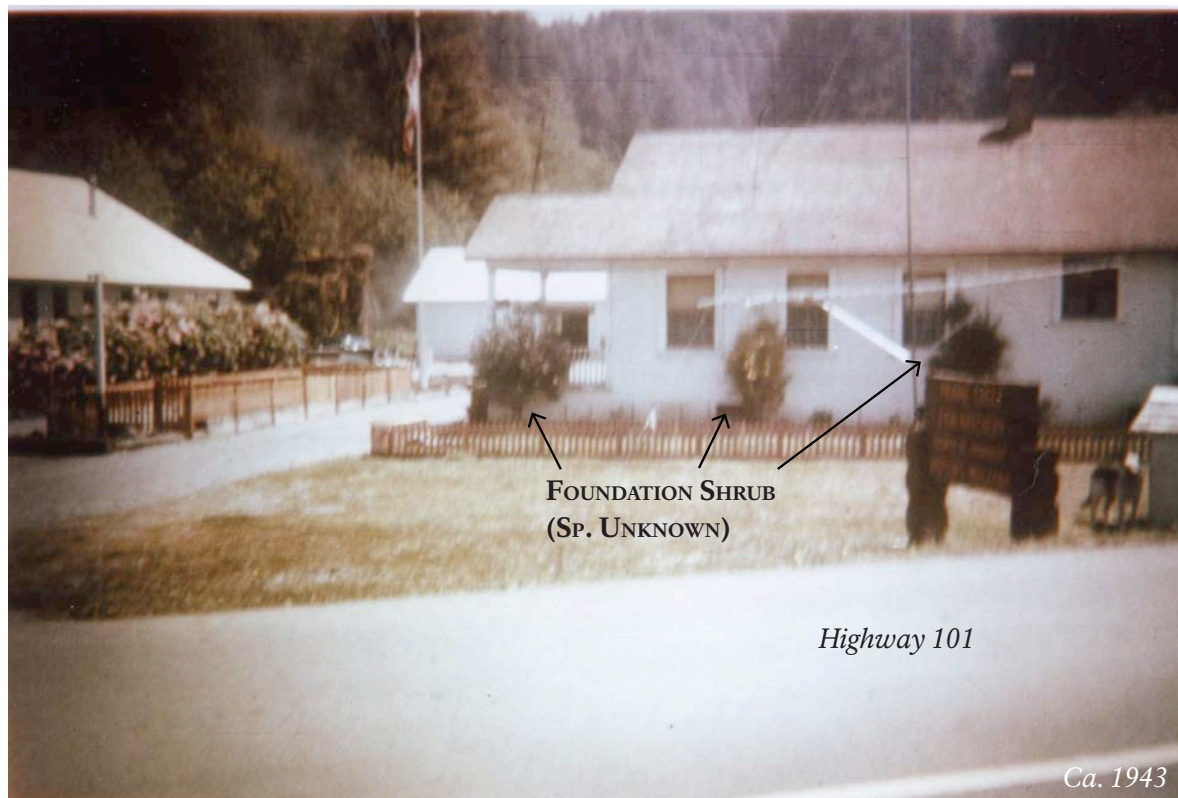
Figure 77 : Historic Vegetation Study: View northwest of central drive, Ornamental Planting bed in foreground and Hatchery Building in background (Smedley and Laidlaw Collection, Ca. 1943).



Right

Figure 78 : Historic Vegetation Study: View northeast of central drive, early dedication pond, Hatchery Building, Garage, and Superintendent's House foundation shrubs (Smedley and Laidlaw Collection, Ca. 1960).

Figure 79 : Historic Vegetation Study: View southeast of central drive, central ornamental planting bed, Hatchery Building, garage, third residency, Assistant Superintendent's House, and Superintendent's House (Smedley and Laidlaw Collection, Ca. 1943).



Right

Figure 80 : Historic Vegetation Study: View southeast of original Highway 101 entrance to PCFH, Hatchery Building, Garage, third residency, Assistant Superintendent's House and Superintendent's House (Smedley and Laidlaw Collection, Ca. 1943).

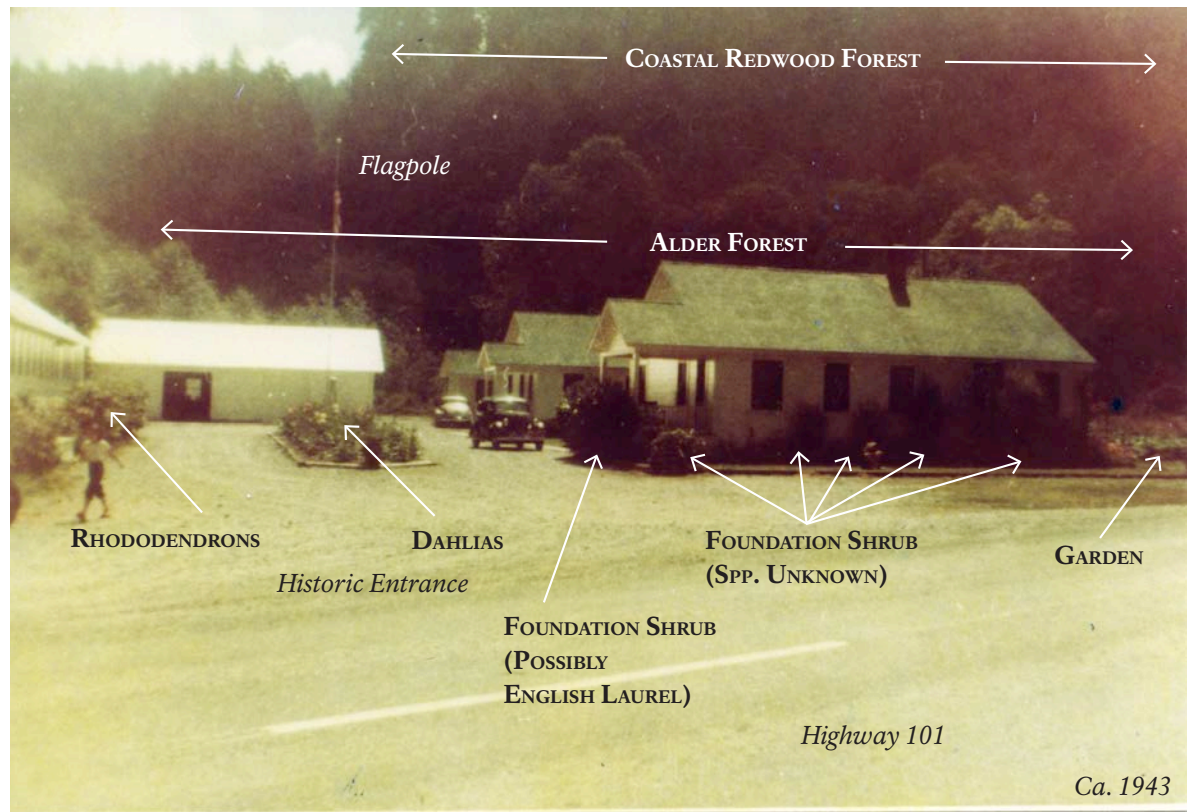


Figure 81 : Historic Vegetation Study: View northwest of lawn between Superintendent's House (in frame), and Assistant Superintendent's House (out of frame, right) (Smedley and Laidlaw Collection, Ca. 1943).



corner of the garage. The median in the center of the drive may have contained lawn.

Today, a few echoes of these plantings remain. The area surrounding the houses still consists mainly of mown grass, and there is an ornamental shrub at the northwest corner of each house. Also, the Hatchery building has a few rhododendrons along its south wall, replanted in the 1990's.

However, many ornamental plants were likely put in place or grew naturally after the period of significance. Most of them likely date from the early 1960s or 1970s, and were planted separately with no overall plan. They include rhododendrons on the south side of the Hatchery building, vinca and other groundcover plants on the west side, and ferns transplanted from the surrounding forest on the north side. Trees were planted by Humboldt County, including two fruit trees, three evergreen trees along the current entrance driveway and a red plum inside the entrance gate. Other plant materials include holly at the northwest corner of the Superintendent's House, a species that looks similar to *escallonia* is located at the northwest corner of the Assistant Superintendent's House, juniper and ferns at either end of the Dedication Pond, Himalayan blackberries along all of the chain link fences and at the base of many building walls, *escallonia* on the west side of the raised concrete tanks, daffodils in the planting bed along the west side of the Hatchery Building, grasses and Himalayan blackberries growing through cracks in the asphalt, and grasses growing through cracks in the five round concrete tanks. Much of this vegetation was planted by Steve Sanders, former superintendent,

specifically ornamental shrubs, lilies, ferns, the red plum, and trees along the entry driveway.

To better understand the vegetation that existed during the period of significance, historic photographs were analyzed to identify ornamental plant species, vegetation structure, maintenance and the surrounding ecological types. A collection of historic photographs was sent to Redwood National and State Parks in January 1998, by Susanne Hackbarth, who lived at Prairie Creek Fish Hatchery as an infant. These photographs are the primary source for the historic vegetation study.

The collection "Contact Prints and Negatives from Smedley and Laidlaw Family Photos: Prairie Creek Fish Hatchery" consists of photographs across time. Changes in the size of vegetation over time and range of photographic are apparent in the collection. The exact dates of the photographs are unclear, however Susanne Hackbarth who donated the photographs dates them to circa 1943.

Two historic photographs show a collection of foundation plantings along the west side of the Assistant Superintendent's House. Perennial flowers, two low flowering shrubs, a large upright shrub, a medium horizontally branching shrub (species unknown) and an English Laurel were identified in historic photographs, see Figure 71. During a March 2020 site visit, an English Laurel was identified in the same location as in historic photographs, see Figure 72, although it is uncertain whether this specimen is circa 1943 or a later replanting of the same species.

Other foundation species identified along the houses include *Nasturtiums*

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Figure 82 : Top-Features associated with the Dedication Pond construction include rock facing around wooden steps into the north side of the Hatchery building, non-contributing (CLRG, 2019)

Figure 83 : Middle-Steps south side of the building, having similar treatment to steps on north side, non-contributing (CLRG, 2019)

Figure 84 : Bottom-Concrete steps on east side of Hatchery building, undetermined (CLRG, 2019)



lining the sidewalk, and many ornamental flowering perennials, vines and shrubs whose species are unknown.

Summary

The vegetation that was present during the period of significance includes the lawn areas and the ferns on the north side of the Hatchery building. The Rhododendrons on the south side of the Hatchery building were replanted and are not original, although they are compatible with the original intent of the planting.



SMALL-SCALE FEATURES

Small-scale features are the elements which provide detail and diversity for both functional needs and aesthetic concerns in the landscape.

Remaining historic small-scale features provide insight into hatchery operations and document boundaries and land use areas during and after the period of significance.

Undetermined Small-scale Features

Pipe Play Structure West of Superintendent's House (unknown).

A freestanding pipe structure stands west of the Superintendent's house, see Figure 88. It is not mentioned in historical documents, and therefore its date of construction is unknown. The structure likely related to domestic activities of the house, and could have accommodated swings for children. It is constructed of segments of one inch water pipe, connected with standard elbows to form a free standing double u-shape.



Right

Figure 85 : Asphalt paving, view south, west of Garage-shop, non-contributing (CLRG, 2019)



Right

Figure 86 : Concrete paving north of Shed, non-contributing (CLRG, 2019)



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Figure 87 : Split rail fence remnant north of Hatchery building, situated between the round tanks farthest east, non-contributing (CLRG, 2019)

Figure 88 : Pipe play structure west of Superintendent's House, undetermined (CLRG, 2019)





Concrete Steps into Hatchery building (ca. 1962).

Concrete steps have been placed at two entrances to the Hatchery building, see Figure 84. The current steps were likely constructed when the raised rectangular tanks were built. This conclusion is based on observation during the 2011 CLI fieldwork, because the materials used in the steps more closely match that used in the tanks and the five round concrete tanks. It is unknown whether they replaced deteriorating concrete steps or wooden steps.



Pipe Trench North of Hatchery Building (ca. 1962).

Pipes that delivered water to the Hatchery building and the five round concrete tanks were placed below grade in a concrete lined trench with a wooden plank covering, see Figure 82. The trench appears to have been constructed at the same time that the raised rectangular tanks were constructed. This conclusion is based on observation during the 2011 CLI fieldwork, because the concrete used in the trench more closely matches that used in the tanks than in older features, such as the five round concrete tanks. Furthermore, the pipes within the trench are made of PVC, which indicates they were likely installed after the trench was constructed. It is unknown whether this trench is largely a reconstruction of a previous concrete trench, or a improvement made outside of the period of significance. Planks atop the trench have deteriorated, with many rotted and missing.



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Figure 89 : Top-Features associated with the Dedication Pond include rock facing on the western concrete steps into the Hatchery building, non-contributing (CLRG, 2019)

Figure 90 : Middle-Features associated with the Dedication Pond include planter walls installed on the west end of the Hatchery building, non-contributing (CLRG, 2019)

Figure 91 : Bottom-Features associated with the Dedication Pond include a rock retaining wall between the pond and the Hatchery building. Steps on the south side of the building have a similar treatment, non-contributing (CLRG, 2019)

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Figure 92 : Several PG&E poles were installed north of the buildings in the 1980s, including this pole north of the Shed and Hatchery building, non-contributing (CLRG, 2019)

Non-contributing Small-scale Features

Features Associated With The Dedication Pond (ca. 1962).

Several features were added to the PCFH at the same time as the dedication pond and are built of the same materials. Wooden platforms with stone-faced steps were added to the south (front) and north entries of the Hatchery building. A raised stone-faced slab with steps was added to the west entry of the Hatchery building. In addition, low, stone-faced, retaining walls that contain planting beds were added to the front (south) side of the Hatchery building on either side of the entry porch. These walls connect to the dedication pond. The planting beds in front of the Hatchery building contain rhododendron. There is also a stone-faced, planting bed wall along the west side of the Hatchery building.

PG&E Poles (1984).

Several poles were installed in 1984 to supply additional electric power needs of the increasingly mechanized facility. See Figure 92. The pumps in particular required an additional reliable power supply.

Footbridge (after 1968).

To accommodate an increase in tourism after the park was established in 1968, Redwood National Park built visitor facilities at PCFH. These included a wooden foot bridge across Lost Man Creek, and a picnic table on the south side of the creek. Of these, the footbridge was deteriorating, and removed.

Chain Link Fence (after 1971).

A six-foot high chain link fence along the west boundary of the PCFH was added well after the period of

significance, and is considered non-contributing. It blocks the original entrance to the site, and extends south below the parcel boundary. See Figure 70.

Concrete Slab Surrounding Shed (ca. 1981).

The area north of the shed, as well as the area between the shed and the garage, was hardened with concrete. This likely took place when a mobile home was placed on the site for additional employee housing in 1981. This slab is on existing grade and is in contact with the bottom of the buildings' cladding, which has impeded drainage and caused the cladding to rot in places. This concrete slab is non-contributing.

Split Rail Fence (after 1971).

A split rail fence is located to the north of the five round water tanks outside the Hatchery building. See Figure 87. This type of fence is also located to the east of the driveway. The fence consisted of three split rails with posts approximately 9 feet on center. However, only one section of this fence still remains.

To accommodate an increase in tourism after the park was established in 1968, Redwood National Park built visitor facilities at PCFH. This included a split rail fence along the south side of the driveway along the north bank of Lost Man Creek. A few sections remain beneath the planted conifers south of the pipeline tower. Portions of the split rail fence remain, although most portions of the fence are missing.

Flagpole (ca. 1936).

Originally, the site included a flagpole with a cross bar for two flags. This was located in the center of the driveway.





This was likely removed when the dedication pond was constructed. However, this original flagpole was possibly moved to the south side of the Hatchery building, where a flagpole is currently located.

Small-scale Features Removed or Demolished

Vertical plank fence (after 1971).

A vertical plank fence was installed in the 1970s or 1980s on the north side of the garage-shop and shed, south of the Superintendent's House, and south of the Assistant Superintendent's House. This fencing was not part of the original structure and was built outside of the site's period of significance. All of the plank fencing was removed sometime between 2000 and 2003.

ARCHAEOLOGICAL SITES

Archaeological sites are the location of ruins, traces, or deposited artifacts in the landscape, and are evidenced by the presence of either surface or subsurface features. Evaluation of these sites and features under Criterion D is outside of the scope of this study.

Archaeological investigations have not been carried out at the Prairie Creek Fish Hatchery, nor have possible archaeological resources been identified. However, these might aid in understanding the significance and extent of historic activities within the historic district. Therefore, Redwood National Park staff should consider performing a limited archaeological survey to determine whether further investigations are warranted.

Figure 93 :

Forested ridge
between Hatchery
Building and Garage,
north of PCFH.
(CLRG, 2019)

**List of Character Defining
Features**

CIRCULATION FEATURES:

• **Feature: Pipeline Stream Crossing**

Feature Identification Number:
154307

Type of Feature Contribution:
Contributing

IDLCS Number: 58087

LCS Structure Name: Pipeline
Stream Crossing

LCS Structure Number: PCFH07

• **Feature: Sidewalks**

Feature Identification Number:
154313

Type of Feature Contribution:
Contributing

IDLCS Number: 58076

LCS Structure Name: Sidewalk

• **Feature: Main Drive**

Feature Identification Number:
154309

Type of Feature Contribution: Non
Contributing

**BUILDINGS AND STRUCTURES
FEATURES:**

• **Feature: Hatchery Building**

Feature Identification Number:
152127

Type of Feature Contribution:
Contributing

IDLCS Number: 58008

• **Feature: Superintendent`s House**

Feature Identification Number:
152129

Type of Feature Contribution:
Contributing

IDLCS Number: 58043

• **Feature: Assistant
Superintendent`s House**

Feature Identification Number:
152131

Type of Feature Contribution:
Contributing

IDLCS Number: 58070

• **Feature: Garage-Shop**

Feature Identification Number:
152133

Type of Feature Contribution:
Contributing

IDLCS Number: 58083

• **Feature: Shed**

Feature Identification Number:
152135

Type of Feature Contribution:
Contributing

IDLCS Number: 58086

CONSTRUCTED WATER FEATURES:

• **Feature: Five Round Concrete
Tanks**

Feature Identification Number:
152147

Type of Feature Contribution: Non
Contributing

IDLCS Number: 58126

- **Feature: Aeration Tower**

Feature Identification Number:
152149

Type of Feature Contribution: Non
Contributing

- **Feature: Rectangular Above
Ground Concrete Tanks**

Feature Identification Number:
152151

Type of Feature Contribution: Non
Contributing

- **Feature: Dedication Pond and
associated retaining walls**

Feature Identification Number:
152153

Type of Feature Contribution: Non
Contributing

- **Feature: Lower Dam**

Feature Identification Number:
152155

Type of Feature Contribution: Non
Contributing

SMALL-SCALE FEATURES:

- **Feature: Pipe Play Structure**

Feature Identification Number:
152157

Type of Feature Contribution:
Undetermined

- **Feature: Concrete Steps into
Hatchery building**

Feature Identification Number:
152159

Type of Feature Contribution:
Undetermined

- **Feature: Pipe Trench North of
Hatchery building**

Feature Identification Number:
152161

Type of Feature Contribution:
Undetermined

- **Feature: Features Associated with
Dedication Pond**

Feature Identification Number:
152163

Type of Feature Contribution: Non
Contributing

- **Feature: PG& E Poles**

Feature Identification Number:
152165

Type of Feature Contribution: Non
Contributing

- **Feature: Chain Link Fence**

Feature Identification Number:
152167

Type of Feature Contribution: Non
Contributing

- **Feature: Asphalt Paving**

Feature Identification Number:
152169

Type of Feature Contribution: Non
Contributing

- **Feature: Concrete Paving
Surrounding Shed**

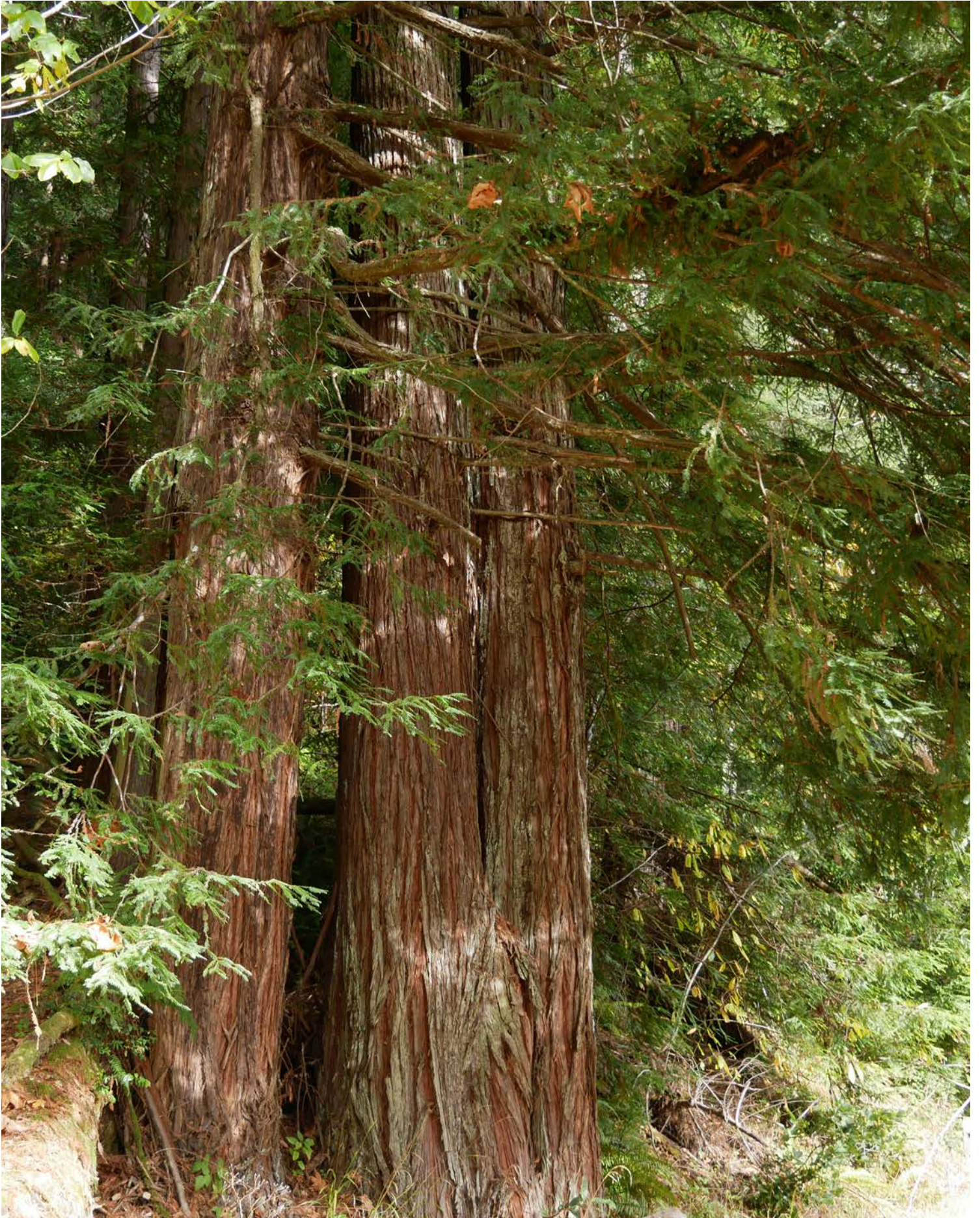
Feature Identification Number:
152171

Type of Feature Contribution: Non
Contributing

- **Feature: Split Rail Fence**

Feature Identification Number:
152173

Type of Feature Contribution: Non
Contributing



Part two:

Treatment

INTRODUCTION

This chapter of the Prairie Creek Fish Hatchery CLR presents guidance and recommendations for the short and long-term treatment and management of the Historic District's cultural landscape, with the objective of preserving the character defining features that help convey its historic significance. Cultural landscape treatment guidelines in this chapter address the entire historic district, and include different treatment for three programmatic options, based on a range of public access. Based on the findings outlined in the CLI site history, and analysis and evaluation of existing conditions, the intent of the preservation treatment chapter is to establish a framework for decision-making for treatment of the cultural landscape. This framework includes both broad philosophical guidelines and site- and feature-specific recommendations for managing the landscape characteristics that contribute to the significance of the property. This framework also addresses other management objectives associated with contemporary use, public accessibility and safety. Construction documents, detailed design plans, specifications and cost estimates for implementing these guidelines and tasks are beyond the scope of this effort. Discussions with NPS staff helped guide the

identification of issues which are addressed in this chapter.

This report recommends Rehabilitation as the primary treatment for the historic district with some characteristics and features, notably those that are character-defining and significant, being treated with a preservation or limited restoration approach. The end year of the period of significance is 1946, therefore rehabilitation and preservation treatments of the cultural landscape, to the extent possible, should be guided by the character in place around that date.

The goal is to have all treatment decisions consistently match, or be compatible with, the character of PCFH as it existed at the end of the period of significance. Using documentation that dates as close to the end of the period of significance as possible provides the most consistent direction in terms of the materials, scale and design details of any feature that is being rehabilitated or preserved. As a guiding rule, the rehabilitation treatment guidelines and recommendations in this chapter follow the overarching character of the District from 1936 to 1946.

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Figure 94 : Coastal Redwood, *Sequoia sempervirens*, along base of ridge North of central hatchery district. (CLRG, 2019)

The Preservation Treatment chapter contains three sections:

- Treatment Approach identifies the programmatic treatments that will guide the treatment frameworks and recommendations, below. This section also includes standard guidelines for the selected approach(es).
- Treatment Framework defines the distinguishing characteristics of the Prairie Creek Fish Hatchery Historic District, updated from the 2011 CLI. Based upon discussions with park staff, the Framework section includes alternative programmatic options, which, along with the distinguishing characteristics, will serve as the guiding approach for future treatments at PCFH.
- Treatment Recommendations identifies recommendations for specific landscape characteristics, features and issues that have been raised and need attention and resolution. In coordination with the programmatic options represented in the Framework section, some of the treatments apply to all of the options, while others address specific options. The information combined in these sections provides both a guiding framework and specific tasks that are needed to address current and future landscape needs.

TREATMENT APPROACH

The primary goal is to rehabilitate the landscape to maintain the overall character of the historic district and its character-defining features while providing visitor interpretation of the PCFH during the period of significance, and to increase the capacity for contemporary uses. Contemporary features to support the programmatic options and

safety can be sensitively added. The recommended cultural landscape treatments are primarily based on the character of PCFH in 1946. They address existing character-defining features, current conditions of the landscape and its associated characteristics and features, park priorities, visitor services, and staff discussions and recommendations.

For the historic district, consider using non-physical interpretation methods for self-guided visitation (podcast, brochure, phone tour, etc.) whenever possible to minimize the introduction of contemporary elements. This will vary based upon the selected programmatic plan, as discussed below.

Rehabilitation

Rehabilitation is defined as a treatment making possible a compatible use for a property through repair, alterations and additions while preserving those portions and features that convey its historic significance. Rehabilitation could include, for example, alteration of an historic building for a contemporary new use; altering a path so that it provides a more stable and accessible route for those with limited mobility; or adding signage to provide better interpretation and wayfinding. It also includes recommendations that preserve or restore landscape characteristics and features associated with the historic district, such as removing trees that block a historic vista, or maintaining the species composition in historic planting areas. When considered valuable for effective use of the site, missing historic features that were essential to the historic landscape character may be replaced within a Rehabilitation treatment. However, replacement

must be substantiated by documentary and physical evidence, and it must be consistent with the identified treatment date for the landscape. If substantial documentation is not available, then it must be clear that an additional feature is not historic and does not date to the historic period but is nonetheless compatible with the historic character of the site. The Prairie Creek Fish Hatchery Historic District has a high degree of integrity, allowing for better retention of the historic character and fabric of the features. However, based upon the programmatic options, contemporary uses and needs still need to be addressed and the Rehabilitation treatment will help ensure these modifications are made in a sensitive way.

Secretary of Interior Standards for Rehabilitation

(Birnbaum, Charles A. and Christine Capella Peters. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Cultural Landscapes*)

1. A property will be used as it was historically or be given a new use that maximizes the retention of distinctive materials, features, spaces and relationships.
2. The historic character of the property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize the property will be avoided.
3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other history properties, will not be

undertaken.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where replacement of a distinctive feature, the new materials will match the old in composition, design, color, texture, and where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archaeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations or related new construction will not destroy historic materials, features and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale, proportion and massing to protect the integrity of the property and its environment.
10. New additions or related new construction will be undertaken in such a manner, that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

STREAMSIDE DEVELOPMENT CODE AND ORDINANCES

There are numerous federal and state laws/codes that require compliance or permits for working in or near streams. These include, but may not be limited to: Army Corps of Engineers permits, CEQA, NEPA, CDFW, Clean Water Act, and CA Regional Water Quality Board regulations.

Specifically, Humboldt County Streamside Management Areas (SMA) and Wetland Ordinance provides minimum standards for use and development of land.

Development at Prairie Creek Fish Hatchery, specifically the area along Lost Man Creek which is not specifically mapped as SMA, is subject to the following codes:

61.161.1.7.6.2 For areas along streams not specifically mapped as SMA and Wetland (WR) Combining Zones, the outer boundaries of the SMA shall be defined as:

61.1.7.6.2.1 One hundred (100) feet, measured as the horizontal distance from the top of bank or edge of riparian drip-line whichever is greater on either side of perennial streams.

Where necessary, as determined by the responsible department, the width of SMAs shall be expanded to include significant areas of riparian vegetation adjacent to the buffer area, slides and areas with visible evidence of slope instability, not to exceed two hundred (200) feet measured as a horizontal distance from the top of bank as necessary to include slides, or areas with visible evidence of slope instability.

61.161.1.5 Permit Required and Processing. All development as defined

in the General Plan within or affecting SMAs, wetlands or other wet areas not exempted under Section 314-61.1.4 shall require a permit pursuant to an application for development within SMAs, wetlands or other wet areas and processed as a special permit pursuant to the Humboldt County Zoning Regulations (Section 312-3.1.1 et seq.).

If development is pursued within SMA, Mitigation Measures (161.1.10) at a minimum include: Erosion Control Measures, Confirmation of Development within SMA, a Biological Report and a Mitigation and Monitoring Plan. See Humboldt County Code Section 314-61.1: Streamside Management Areas and Wetland Ordinance for detailed information.

TREATMENT FRAMEWORK

To meet the goals of this project, it is critical to understand the historic character of the landscape and articulate an overarching vision for the site that helps guide decision-making. This framework rises above the more specific preservation treatment recommendations, which follow, to highlight how this cultural landscape can be preserved while enhancing a range of user access and experience, and facilitating park administrative uses. This framework is also intended to provide a foundation for making decisions about issues which may be raised in the future but not specifically addressed in the recommendations.

In addition, and to assist in future decisions, three options for site use are presented. The options present a continuum of public access opportunities, and are purposefully conceptual in approach, based on discussions and consultation with

park staff. The range of access is illustrated by a variety of potential site uses, however recommending uses themselves is not a task of the CLR. The goal of the site use illustrations is to indicate the existent and potential impact of the cultural landscape resources, and appropriate responses, to the different levels of public access. Specific site use decisions will need to be made with other factors in mind, including park priorities, other park improvements, budget, personnel and collaboration with non-NPS partners. The intent is to present broad access levels associated with generalized programmatic options, and their potential impact on the cultural landscape and its character-defining features.

Prairie Creek Fish Hatchery Historic Character

Prairie Creek Fish hatchery is a developed cultural landscape, one of approximately 150 hatcheries built in California during the late 19th - and early 20th- centuries. Although it was built at the end of this period, it is a representative hatchery for the period, one of only three remaining in California as of this date.

The historic character of PCFH is still evident in the following landscape characteristics: natural systems and features, spatial organization, vegetation, circulation, buildings and structures, and small-scale features. Based on the evaluation of these characteristics, the cultural landscape at the PCFH exhibits key patterns, relationships, and features that convey the historical significance of the district. Overall, the landscape is in good/fair condition.

Prairie Creek Fish Hatchery (PCFH) has experienced a number of changes since the end of its period of significance. These changes consist of improving and enlarging facilities after 1947 to provide an increasingly mechanized operation. However, many of the original buildings and structures, and other features, still survive, which provide insights into early California fish hatchery operations. Some facility modifications have resulted in effects to the cultural landscape. Fortunately, these changes have not irretrievably damaged the landscape's integrity.

NATURAL SYSTEMS AND FEATURES

The natural systems and features include hydrology, topography, and vegetation. Natural systems retain integrity to the period of significance, particularly with the improvement in water quality due to discontinued logging operations. However, the presently overgrown state of the abandoned PCFH is much more vegetated than during the period of significance and presents some management and preservation challenges.

SPATIAL ORGANIZATION

The spatial organization is primarily defined by the building complex, consisting of a driveway flanked by buildings and structures for PCFH operations on its north and east sides, and houses for workers on its south side. Additional structures adjacent to buildings supported their functions.

Next page

Figure 95 :
Redwood Forest
on ridge North of
PCFH with Assistant
Superintendent's
House. (CLRG, 2020)



VEGETATION

There are many aspects of the existing vegetation that convey the historic condition, although generally overgrown and lacking regular maintenance.

Today, a few echoes of these plantings remain. The area surrounding the houses still consists mainly of grass, and there is an ornamental shrub at the northwest corner of each house. The Hatchery building has a few rhododendrons along its south wall.

CIRCULATION

Circulation within PCFH historically consisted of a main drive from Highway 101 used by both vehicles and pedestrians, and pedestrian-only walkways. These pedestrian-only walkways consisted of both concrete sidewalks adjacent to the houses as well as a dirt footpath from the Shed to the upper dam. This footpath also included a wooden walkway atop the pipeline's stream crossing.

Portions of the circulation system retain integrity today. The main entry was moved to the south and a new entry road constructed after Humboldt County took over the facility in 1962. The original entrance was fenced off at this time, and the original drive served primarily as a maintenance yard. Today, the concrete sidewalks are mostly still in place, although one section between the back of the Superintendent's House and the Assistant Superintendent's House has been removed. Although the footpath has become overgrown, the walkway suspended over the pipeline stream crossing still exists.

BUILDINGS AND STRUCTURES

The buildings at PCFH were typically utilitarian in appearance and little decorated, being clad in ordinary rustic siding with a minimum of decorative trim. This reflects the paradigm for California fish hatchery design before 1947. Contributing buildings include the Hatchery building, Superintendent's House, Assistant Superintendent's House, Garage-Shop, and Shed.

CONSTRUCTED WATER FEATURES

Character-defining constructed water features within PCFH are in two categories: those used to provide and manipulate water for facility operations, and those for domestic uses. For hatchery operations, water was delivered in a pipeline carried across Lost Man Creek on a suspension bridge with a walkway above the pipe. The suspension bridge no longer exists. For domestic uses, water was diverted from the filter through a pipe leading to a pump, most likely gasoline-operated, north of the Hatchery building. The existing aeration structure and five round tanks are non-contributing.

SMALL-SCALE FEATURES

Existing historic small-scale features provide insight into hatchery operations and document boundaries and land use areas during and after the period of significance.

Undetermined Features

Pipe Play Structure West of Superintendent's House (unknown).

This portable feature was, and is worth noting as, an indication of family life at the site, however movable features are not included in the CLR.

Concrete Steps/Stone Facing into Hatchery building (ca. 1962).

Pipe Trench North of Hatchery Building (ca. 1962).

Programmatic Options and Associated Public Access Alternatives

EXISTING USE

As part of the park’s mission to monitor impact of management decisions on ecological systems, the hatchery site includes a station to monitor the flow and conditions of Lost Man Creek. According to Vicki Ozaki, park geologist, “Road removal began in the Lost Man Creek watershed in 2000 and was completed in 2009 with the exception of one small road segment. In 2019, the last road segment in Larry Dam Creek was removed. A stream gaging network in Lost Man Creek was established in 2003 to monitor the effects of watershed restoration on water quality as proposed in the NOAA Fisheries Lost Man Creek Road Removal Biological Assessment. The primary objective of the study was to evaluate the effects of road removal on downstream turbidity and suspended sediment concentrations. More recently, second-growth thinning has occurred in the watershed and this station monitors for water quality and sediment impacts. The gaging station located at the Lost Man Creek Fish Hatchery was a key station in this study since it is located near the mouth and measures all sediment produced in the watershed. This gaging station has been in operation for 17 years and is part of the long-term gaging station network in Prairie Creek. It provides data for a recovering watershed in contrast to our other two stations in Prairie Creek located in pristine old-growth redwood watersheds. Following the road removal in 2019, we anticipate monitoring at the gaging station for at least 5 years and at that time will evaluate the station data to see if we

need to continue operations.”

All of the buildings on site (with the exception of the gauging station) have been appropriately mothballed. There is no public visitor access, and the site receives necessary minimal oversight from park staff. However, vandalism has been a problem at this site.

THREE PROGRAMMATIC OPTIONS AND ASSOCIATED PUBLIC ACCESS ALTERNATIVES

Based upon discussions with park staff, there is a need to determine the level of public access and potential uses for the site for the continuum of access levels, and develop treatments consistent with the overall treatment approach. Three access levels and programmatic options are briefly presented, with associated treatments specific to each access and use option. The emphasis is on a continuum of potential access levels, with examples, but not recommendations, of related land uses.

Park Administrative Site (no public access) – for example, RNSP administrative needs or park employee housing, equipment storage, etc.

Non-profit or partner organization research center (limited public access) – for example, regional watershed research center in cooperation with a non-profit organization and/or local Tribal communities, etc.

Commercial venture (full public access) – for example, a bike shop for sales and repair, a commercial restaurant, a micro-brewery, a hostel or vacation rental, etc.

TREATMENT RECOMMENDATIONS

The Treatment Recommendations are divided into three sections. The first section includes General Recommendations (A-I) that apply across the landscape. The second section includes thirty-four Specific Recommendations, for preservation and rehabilitation of character-defining features, regardless of the programmatic options. The third section includes additional specific recommendations for each option.

General Recommendations

NATURAL SYSTEMS AND FEATURES

- A. Collaborate with ecologist/arborist to develop vegetation management plan for the entire site, especially on north side and along Lost Man Creek.

CIRCULATION

- B. For concrete repairs, use treatment similar to the historic (pre-1946) materials in color and texture.

Buildings and Structures

- C. Continue to monitor and maintain all mothballed buildings.
- D. Remove encroaching vegetation at foundations, especially Himalayan blackberries, in accordance with the park's Invasive Plant Management Plan.
- E. As necessary, repair and maintain hatchery, Superintendent's House, Assistant Superintendent's House, garage, shed, pump house 1 and pump house 2.

- F. Clean and paint contributing structures historically appropriate white: hatchery, Superintendent's House, Assistant Superintendent's House, garage, and shed. Conduct paint analysis prior to re-painting; do not use lead based paint, even if historically correct. Enact foundation planting protection measures while painting.

VEGETATION

- G. Remove invasive Himalayan blackberry and treat manually to inhibit regrowth.
- H. Develop and implement residential foundation planting plan, based on historic photographs.

SMALL-SCALE FEATURES

- I. Develop interpretation plan to install signage and other interpretive tools; level of signage will change based on programmatic options. Consider interpretation of the hatchery as evidence of basic trends in the uses and designs of hatcheries, in perceptions of environmental issues (especially the impacts of dams and forestry), and government actions and programs considered appropriate to address those issues.

Specific Recommendations

NATURAL SYSTEMS AND FEATURES

1. Maintain and manage vegetation on ridge on north side of historic district, thinning as necessary.
2. Monitor north side ridge for erosion, and replant or reinforce vegetation as needed.
3. Monitor and maintain banks of Lost Man Creek to resist environmentally harmful erosion.

SPATIAL ORGANIZATION

4. To maintain historic central open space between hatchery, houses and garage, do not add any buildings or structures, with the exception of the recommended historically appropriate flower bed.

CIRCULATION

5. Repair concrete sidewalks and remove encroaching and invasive vegetation. For concrete repairs, use treatment similar to the historic materials, or an appropriate technique that simulates color and texture of original material.
6. Stabilize and maintain pipeline stream crossing tower on the north side of Lost Man Creek. Consider setting upright and stabilizing pipeline stream crossing tower on south side of Lost Man Creek; do not reconstruct pipeline.
7. Remove non-historic blacktop covering main drive and other areas on site, with the exception of modern entry road, and replace with compacted gravel and gravel binder material (such as Stalok, or similar technology.) Grade away from the

building and slightly to the west to drain to the fence line along US 101. Consider swale in front of fence line to collect runoff and denote historic entrance.

BUILDING AND STRUCTURES

8. Repair as necessary, clean and retain red paint color of pump house one and two.
9. Repair, maintain and reconstruct, as needed, loading dock on south face of hatchery building.
10. Remove south steps at loading dock on south face of hatchery. Consider adding stairs and landing at east edge of loading dock.
11. Repair and maintain steps on east face of hatchery building. Explore potential to add wood or concrete ramp for ADA access extending south along hatchery to central open space.
12. Remove rock facing on the western concrete steps into the hatchery.
13. Repair and maintain stairs on north face of hatchery building (for access as needed, as hatchery entrance is associated with Dedication Pond and non-contributing).
14. If gauging station remains in place for park research program, consider using horizontal siding and paint red, in accordance with other non-historic, non-contributing buildings on site.

Note, see additional building and structures treatments below under Treatment Recommendations for Programmatic Options

Figure 96 :

Right - Original Entry view from Highway 101. (Smedley Photo Collection, Circa 1943)

Note: presence of third dwelling beyond Assistant Superintendent's House, flower bed and border.



Figure 97 :

Right - Original Entry view from Highway 101. (NR, 1996)

Note: central flower bed had been altered and dedication pond is present containing juniper plantings.

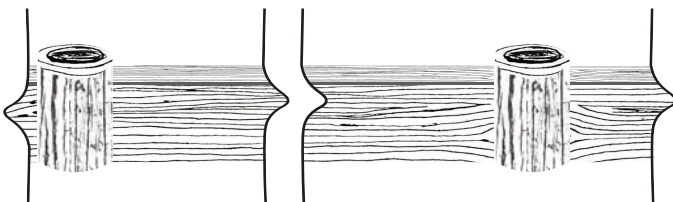


Figure 98 :

Right - Original Entry view from Highway 101 with limited vehicle use. (CLRG, 2019)

Note: dedication pond is overgrown with blackberries, minimal Juniper presence.





CONSTRUCTED WATER FEATURES

15. Inspect, repair (as needed), clean and maintain five round tanks on north side of hatchery, using appropriate materials and techniques (tanks are non-contributing).
16. Maintain aeration tower concrete structure; remove wood components.
17. Remove rectangular above ground concrete tanks. Consider adding footprint interpretation of demolished third living quarters.
18. Remove dedication pond and replace with historically appropriate ornamental flower bed, with wood border edging (See detail drawing). Consider using native deer/elk resistant plants instead of ornamental flowers (See Appendix(to be inserted)) for Compatible Plant Species List, species listed are collected to minimize maintenance and prioritize native species)
19. Remove rock retaining wall between the dedication pond and the Hatchery building. (feature associated with dedication pond)
20. Consider removal of the lower dam. Enact if determined that removal improves habitat quality and outweighs adverse effects to Lost Man Creek. According to Vicki Ozaki, park geologist, "This feature failed when a large old growth root was lodged in the spillway and the stream eroded around it. While it is not a partial barrier to endanger fish anymore, it does cause bank erosion on the Hatchery side of the creek."

Previous page

Figure 99 : Top - photos show central ornamental planting bed (Smedley Photo Collection, Circa 1943)

Figure 100 : Center - photo show a mixture of Rhododendron and ornamental flowers planted along the south face of the hatchery. (Smedley Photo Collection, Circa 1943)

Figure 101 : Bottom - Detail of appropriate wood border edging for central ornamental flower bed and Rhododendron foundation planters along south face of hatchery building. (CLRG, 2020)

Note: See additional treatments for Earthen Ponds and Fish Ladder below under Treatment Recommendations for Programmatic Options.

VEGETATION

21. Maintain lawn around residences.
22. Maintain and prune Rhododendrons along foundation on south side of hatchery.
23. Retain dead conifer near Lost Man Creek as snag for wildlife habitat.
24. Retain red plum tree, planted conifers, and apple trees. Do not replace at end of lifespan.

SMALL-SCALE FEATURES

25. For increased safety, replace missing wooden planks covering below grade concrete lined pipe trench on north side of hatchery.
26. Although not NPS responsibility, coordinate with PG&E to retain poles in place, consider reuse if programming requires upgrades to utilities.
27. Remove chain-link fence along Highway 101 and replace using appropriate fence structure. (See Figure 109)
28. Delineate, but do not open, historic entry from US 101.
29. Remove rock-facing of planting bed south of hatchery building, and grade away from building. Replace with wood border. (See detail drawing, Figure 101) (feature associated with dedication pond)
30. Remove concrete slab surrounding shed and replace with compact gravel and gravel binder material (such as Stalok, or similar technology.)

31. Add NPS sign indicating name and dates of historic district.
32. Consider re-introducing fish sculpture as site indicator; engage local artist and/or tribal community.
33. Maintain and interpret play structure.
34. Remove all split-rail fences.
35. Move flagpole to historic location in re-established flower bed at center of main open area, south of Hatchery.
36. Add bollards and removable chain, limiting vehicle use in historic central open space. Ensure clear pedestrian entry.

Additional Specific Treatment Recommendations for Programmatic/Access Options

The treatments associated with programmatic options are based on levels of public access. The specific uses are illustrative examples only, and are not detailed programmatic recommendations. However, the levels of access can be achieved in planned phasing, and gradually over a period of time as park priorities develop. Conceptual planning and design option alternatives consider Humboldt County Code and Ordinances for development within proximity to perennial and intermittent streams (see “Streamside Development Code and Ordinances” on page 95 for additional information regarding county code). When feasible, parking is located outside the Streamside Management Area (SMA). SMA for Prairie Creek Fish Hatchery is defined as 100 feet from the centerline of Lost Man Creek. Some design concepts propose parking within the SMA, which will require a permit pursuant to an application to Humboldt County for development within SMA’s (Section 314-61.1.4).

This ordinance and the presence of three endangered species in the creek suggest development within 100 feet should be avoided, however when schematic design concepts recommend development in the SMA, swales are proposed to filter and absorb runoff; additional mitigation measures may be required.

OPTION A. PARK ADMINISTRATIVE SITE (NO PUBLIC ACCESS)

Goal: Provide for storage of park materials and/or park housing, with no public access. Continue to use as site

for research and monitoring pertaining to Lost Man Creek. Maintain site security with no public access.

- A1. Earthen Ponds – maintain in current condition
- A2. Fish Ladder - maintain in current condition
- A3. Hatchery, garage and houses – inspect regularly and ensure that they maintain water-tight status, and are usable for storage of materials. Upgrade utilities to code to accommodate housing if used.

Option A requires no need for additional parking. If the site is used for NPS housing and/or storage, the main drive and historic entry area can be used for parking, as it was historically. The majority of the earthen ponds are retained as swales to filter water from parking area and entrance road.

OPTION B. NON-PROFIT ORGANIZATION RESEARCH CENTER (LIMITED PUBLIC ACCESS)

Goal: Provide an opportunity for regional or local research efforts in partnership with non-profit organization and/or local tribal communities. Maintain site security with limited public access.

- B1. Earthen Ponds – fill in as needed for additional parking
- B2. Fish Ladder - leave in current condition
- B3. Hatchery, garage and houses – renovate for office, research and (possibly) residential uses, including upgraded infrastructure (water, electric, sewage) as per code

requirements.

B4. Add bollards and removable chain, limiting vehicle use in historic central open space. Ensure clear pedestrian entry.

B5. Consider moveable seating and tables east of hatchery for day use (See Figure 118).

Option B requires a moderate need for parking spaces on site. Consider parking alternative one and two. Parking alternative one provides two ADA appropriate parking stalls within the Streamside Management Area and six additional parking spots outside of the Streamside Management Area (See Figure 119). Parking alternative two provides two ADA parking stalls and twelve additional parking spots, a portion of which are located within the Streamside Management Area. Parking aligns with form of non-contributing earthen ponds, utilizing the low elevation for a series of swales to filter parking runoff (See Figure 120).

OPTION C. COMMERCIAL VENTURE (FULL PUBLIC ACCESS)

Goal: Provide an opportunity for commercial use (such as: bike rental and repair, restaurant, micro-brewery, etc.) and associated public exposure to hatchery and regional history. Maintain site security with full public access in accordance with NPS guidelines.

C1. Earthen Ponds – fill in and develop area for additional parking spaces.

C2. Fish Ladder – remove

C3. Hatchery, garage and houses: major renovation for commercial use, including upgraded infrastructure (water, electric, sewage) as per code requirements and consistent with Secretary of Interior's Standards for

Rehabilitation.

C4. Provide infrastructure for visitors traveling by bike, such as: bike parking, mounted bike repair stand, tools and pump, etc.

C5. Consider moveable seating and tables east of hatchery for day use (See Figure 118 renderings and examples of compatible picnic tables, Figure 122).

C6. Consider development of hiking and biking trail connections between existing trail networks and the historic district. Explore opportunities for trail alignments that interpret the lower dam site, the historic footpath to upper dam, and/or connections south along Highway 101 to General Parking lot and Davidson Trail (Figure 104 and Figure 105).

C7. Consider interpretation of missing building and structure footprints such as but not limited to: the third residence, and filter house (rock filter) northeast of the Hatchery Building.

C8. Add bollards and removable chain, limiting vehicle use in historic central open space. Ensure clear pedestrian entry.

Option C requires the greatest need for additional parking spaces. Parking for this level and type of use is difficult, if not impossible, to establish directly adjacent to the district. Parking alternative three provides two ADA van accessible parking spots North of Lost Man Creek adjacent to the district and twenty-four additional parking spots South of Lost Man Creek. General Parking South of Lost Man Creek is connected to the site by a 170-foot pedestrian trail and bridge crossing. Alternative three provides parking

largely outside of the Streamside Management Area. The pedestrian bridge assumes an alignment where a former non-historic pedestrian bridge to the picnic area existed (See Figure 121). Parking opportunities are constrained by the site's steep topography and the alignment of Lost Man Creek and Highway 101, bisecting the alluvial plain. This greatly limits the capacity for RV and other large vehicles to park. Consider developing PCFH as a shuttle destination from the new Visitors Center, south of PCFH. A shuttle system to PCFH would allow car and RV travelers to visit the site and limit the need for parking on site.

Next pages

Figure 102 :
Specific
Recommendations.
(CLRG, 2020)

Figure 103 :
Treatment Plan.
(CLRG, 2020)

Figure 104 :
Existing Trails Map.
(CLRG, 2020)

Figure 105 :
Existing Trails Map
Inset. (CLRG, 2020)

Specific Recommendations

See Specific Treatment Recommendations II for full list of specific recommendations

NATURAL SYSTEMS AND FEATURES

1. Maintain and manage vegetation on ridge on north side of historic district, thinning as necessary.
2. Monitor north side ridge for erosion, and replant or reinforce vegetation as needed.
3. Monitor and maintain banks of Lost Man Creek to resist environmentally harmful erosion.

SPATIAL ORGANIZATION

4. To maintain historic central open space between hatchery, houses and garage, do not add any buildings or structures, with the exception of the recommended historically appropriate flower bed.

CIRCULATION

5. Repair concrete sidewalks and remove encroaching and invasive vegetation. For concrete repairs, use treatment similar to the historic materials, or an appropriate technique that simulates color and texture of original material.
6. Stabilize and maintain pipeline stream crossing tower on the north side of Lost Man Creek. Consider setting upright and stabilizing pipeline stream crossing tower on south side of Lost Man Creek; do not reconstruct pipeline.
7. Remove non-historic blacktop covering main drive and other areas on site, with the exception of modern entry road, and replace with compacted gravel and gravel binder material (such as stalok, or similar technology.) Grade away from the building and slightly to the west to drain to the fence line along Highway 101. Consider swale in front of fence line to collect runoff and denote historic entrance.

BUILDING AND STRUCTURES

8. Repair as necessary, clean and retain red paint color of pump house 1 and 2.
9. Repair, maintain and reconstruct, as needed, loading dock on south face of hatchery building.
10. Remove south steps at loading dock on south face of hatchery. Consider adding stairs and landing at east edge of loading dock.
11. Repair and maintain steps on east face of hatchery building. Explore potential to add wood or concrete ramp for ADA access extending south along hatchery to central open space.
12. Remove rock facing on the western concrete steps into the hatchery.
13. Repair and maintain stairs on north face of hatchery building (for access as needed, as hatchery entrance is associated with dedication pond and non-historic).
14. If Gauging station remains in place for park research program, consider using horizontal siding and paint red, in accordance with other non-historic, non-contributing buildings on site.

CONSTRUCTED WATER FEATURES

15. Inspect, repair (as needed), clean and maintain five round tanks on north side of hatchery, using appropriate materials and techniques (tanks are non-contributing).
16. Maintain aeration tower concrete structure; remove wood components.
17. Remove rectangular above ground concrete tanks. Consider adding footprint interpretation of demolished third living quarters and filter house.
18. Remove dedication pond and replace with historically appropriate ornamental flower bed, with wood border edging (see detail drawing). Consider using native deer/elk resistant plants instead of ornamental flowers.



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Specific Recommendations continued...

CONSTRUCTED WATER FEATURES CONTINUED...

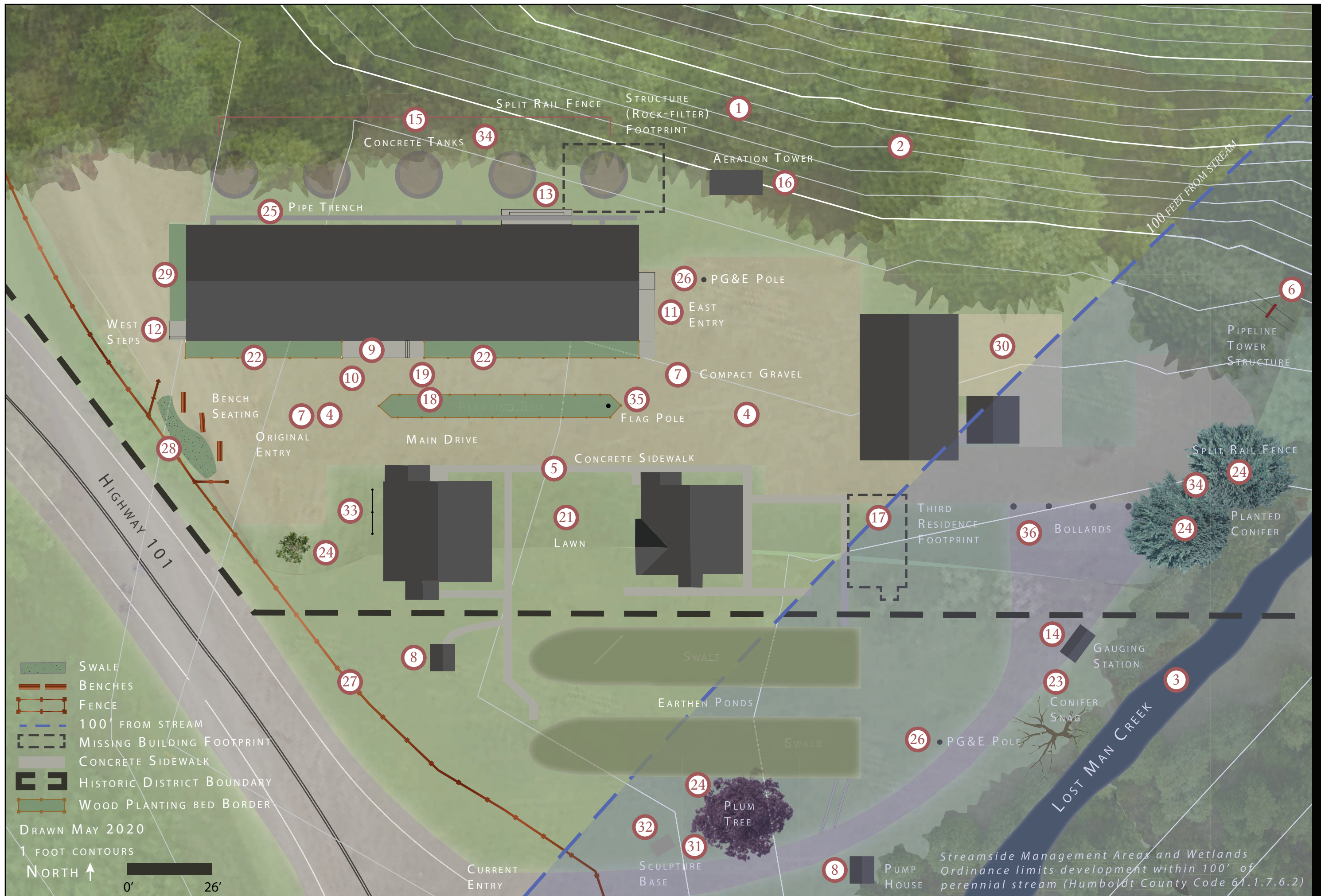
19. Remove rock retaining wall between the dedication pond and the hatchery building. (feature associated with dedication pond)
20. Consider removal of the lower dam. Enact if determined that removal improves habitat quality and outweighs adverse effects to Lost Man Creek (location outside map extent).

VEGETATION

21. Maintain lawn around residences.
22. Maintain and prune rhododendrons along foundation on south side of hatchery
23. Retain dead conifer near Lost Man Creek as snag for wildlife habitat.
24. Retain red plum tree, planted conifers, and apple trees. Do not replace at end of lifespan.

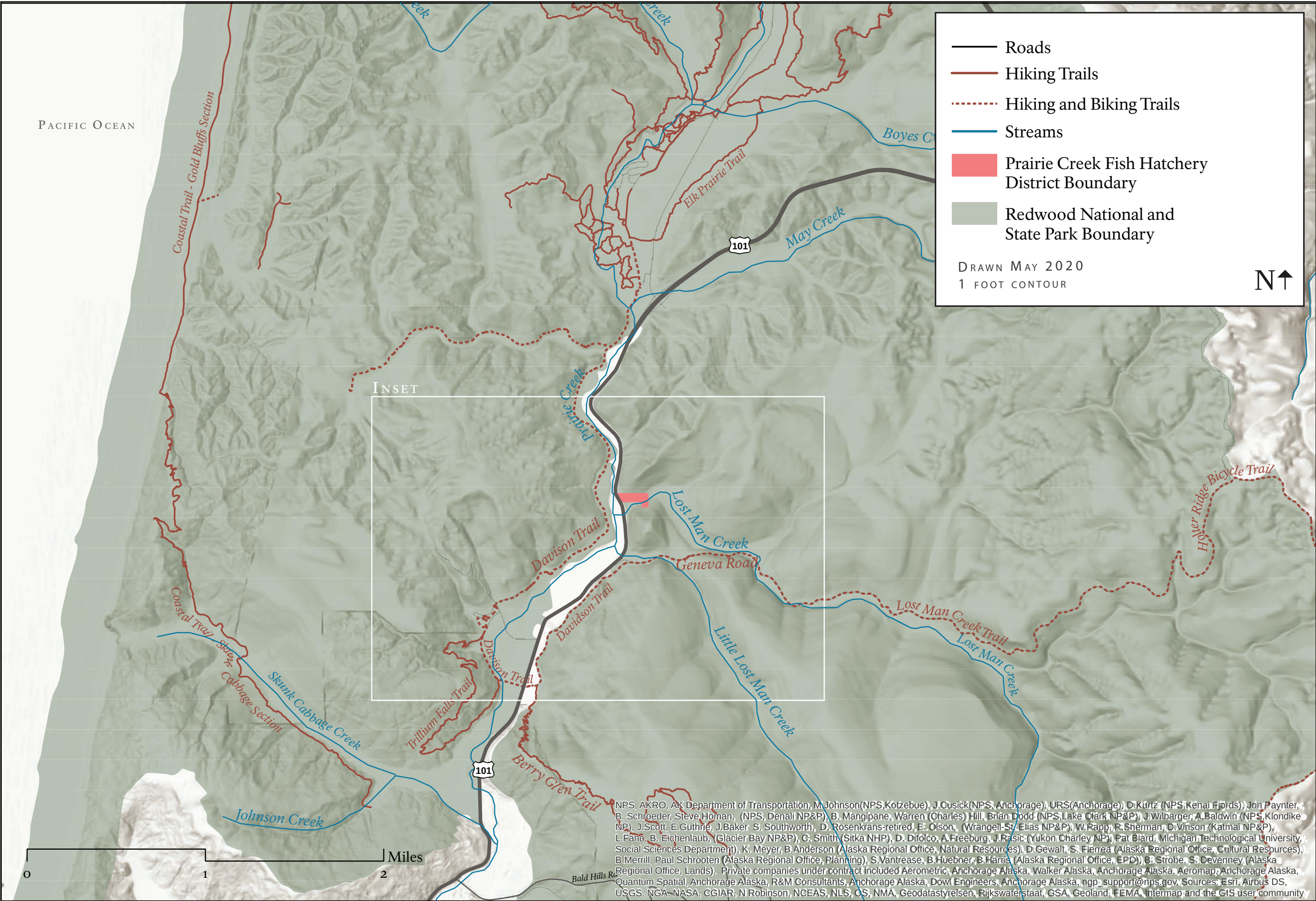
SMALL-SCALE FEATURES

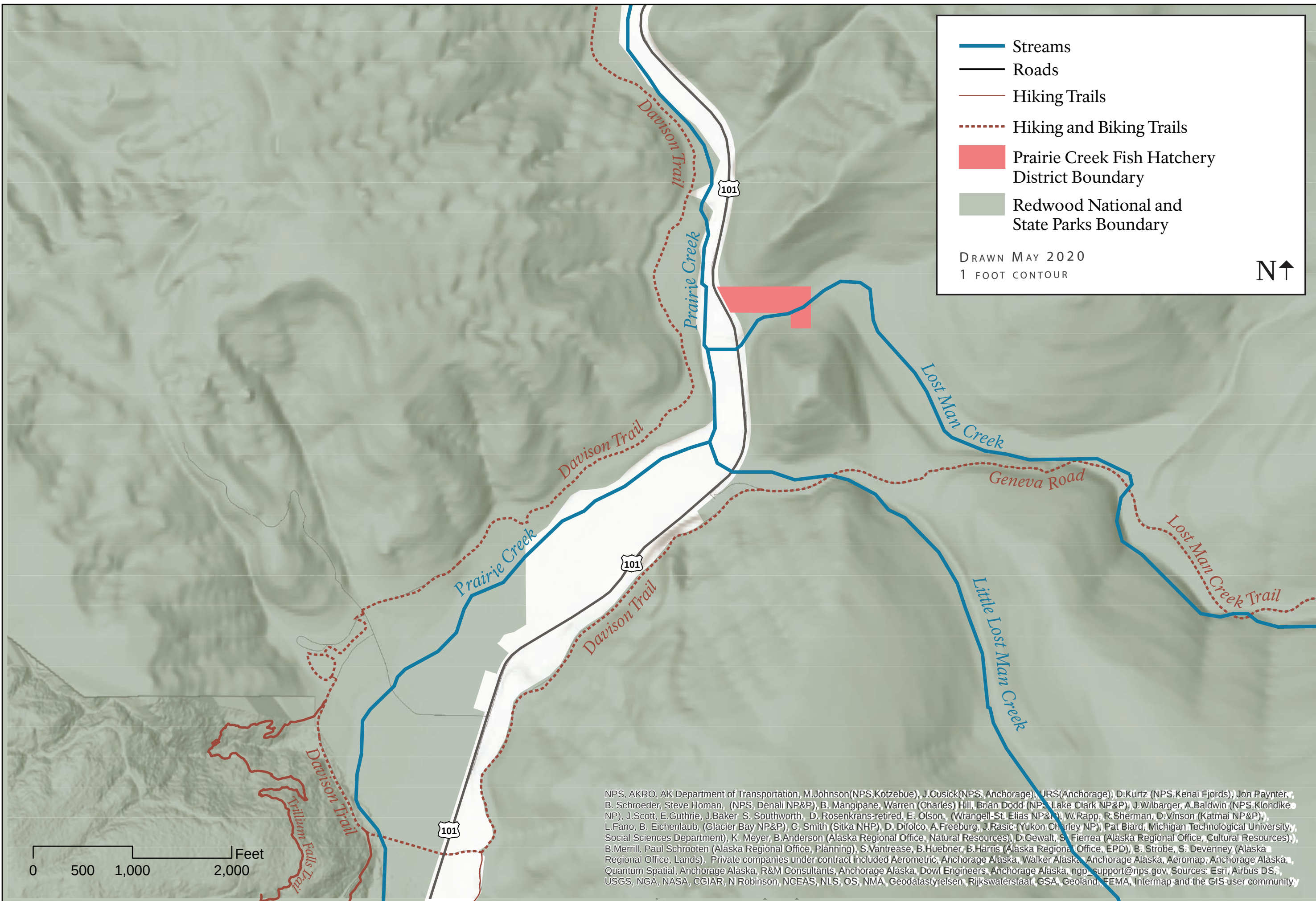
25. For increased safety, replace missing wooden planks covering below grade concrete lined pipe trench on north side of hatchery.
26. Although not nps responsibility, coordinate with pg&e to retain poles in place.
27. Remove chain-link fence along Highway 101 and replace using appropriate fence structure.
28. Delineate, but do not open, historic entry from Highway 101.
29. Remove rock-facing of planting bed south of hatchery building, and grade away from building. Replace with wood border (feature associated with dedication pond).
30. Remove concrete slab surrounding shed and replace with compact gravel and gravel binder material (such as stalok, or similar technology.)
31. Add nps sign indicating name and dates of historic district.
32. Consider re-introducing fish sculpture as site indicator; engage local artist and/or tribal community.
33. Maintain and interpret play structure.
34. Remove all split-rail fences.
35. Move flagpole to historic location in re-established flower bed at center of main open area, south of Hatchery.
36. Add bollards and removable chain, limiting vehicle use in historic central open space. Ensure clear pedestrian entry.



Existing Trails Map

Prairie Creek Fish Hatchery | Redwood National and State Parks | National Park Service
Cultural Landscape Research Group | Landscape Architecture Department | University of Oregon





Right

Figure 106 : View north to Hatchery Building and Dedication Pond (CLRG, 2020)



Right

Figure 107 : Design concept showing reestablishment of historic ornamental planting bed in foreground with Hatchery in background. (CLRG, 2020)



Right

Figure 108 :

Northwest view:
existing conditions
(2020): Original
Highway 101
entrance fenced
with chain link fence
and Himalayan
Blackberries (CLRG,
2020).



Right

Figure 109 : Design

Concept for fence
to delineate historic
entry. Fence curves
toward central open
space where the
original entrance
from Highway
101 existed. A
swale provides a
drainage basin for
the compacted and
sealed gravel. Bench
seating provides a
place to rest and
envision the historic
entry as workers and
visitors would have
experienced upon
arrival to PCFH
(CLRG, 2020).



Right

Figure 110 :
Northwest view
(2020) of existing
conditions:
Superintendent's
House Porch,
dedication pond and
Hatchery Building
(CLRG, 2020).



Right

Figure 111 :
Conceptual design
showing PCFH
central open
space looking
west. Restored
loading dock on
hatchery, central
ornamental planting
bed and porch of
Superintendent's
House. Fence
treatment in
background
indicates original
entrance. (CLRG,
2020)



Right

Figure 112 :
Northeast view
(2020) of existing
conditions: Himalayan
blackberries grow
on chain-link
fence in front of
original entrance.
Central open space,
Hatchery Building,
Garage, Assistant
Superintendent's
House and
Superintendent's
House in background
(CLRG, 2020).



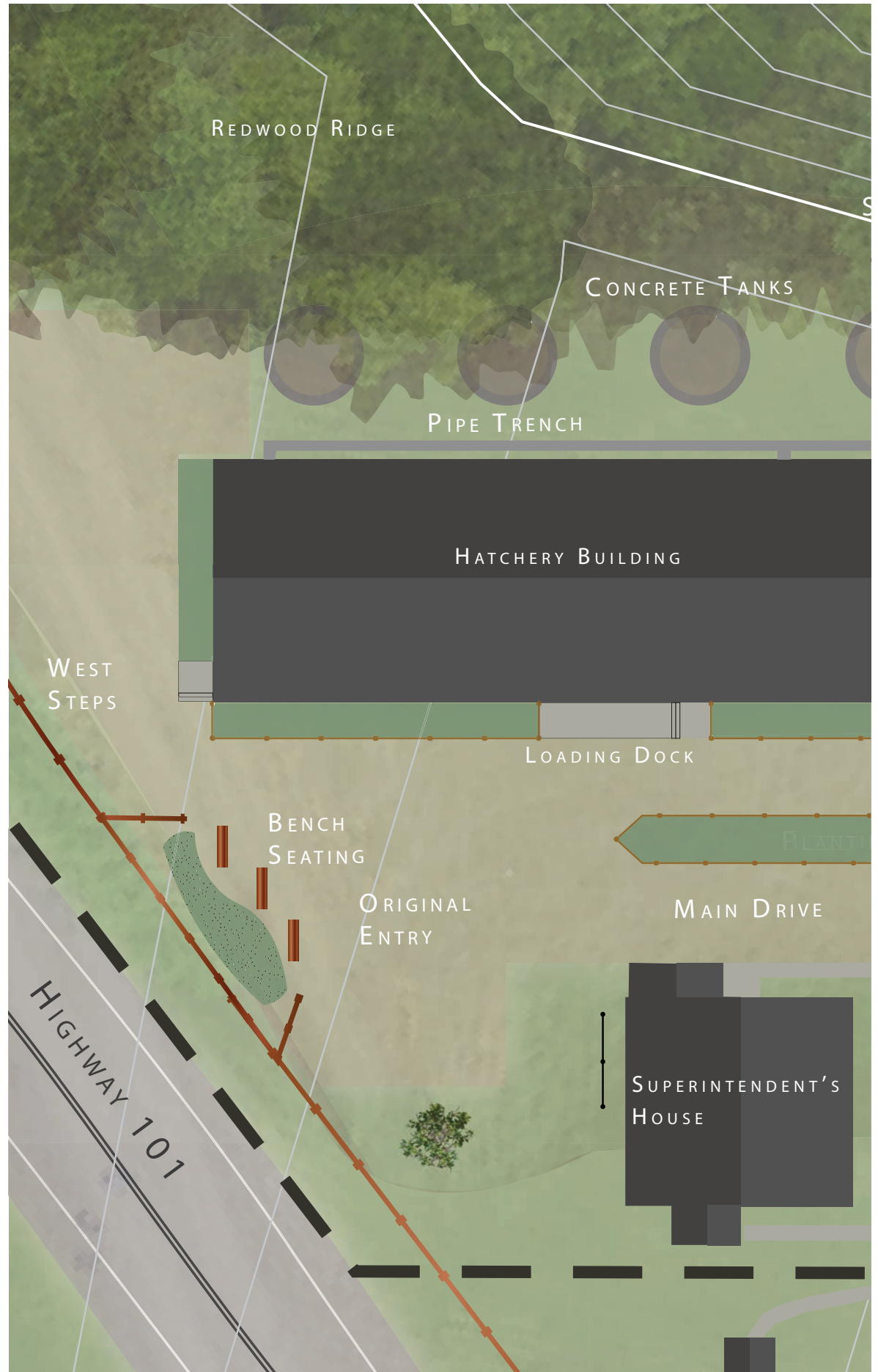
Right

Figure 113 :
Conceptual design
option showing
view of district from
original entrance into
central open space.
Fence treatment
and visitor seating
indicates original
entrance (CLRG,
2020).



Right

Figure 114 : Design Concept for fence to delineate original entrance. Fence curves toward central open space where the historic entrance from Highway 101 existed. A swale provides a drainage basin for the compacted and sealed gravel. Bench seating provides a place to rest and envision the historic entry as Hatchery staff and visitors would have experienced upon arrival to Prairie Creek Fish Hatchery (CLRG, 2020).



Right

Figure 115 :
Northwest view
(2020) of existing
conditions: Hatchery
Building and Aeration
Tower (CLRG, 2020).



Right

Figure 116 : Design
concept for
commercial use,
showing adaptive
open space with
movable seating
for food service
or picnic area.
Hatchery Building in
background shows
ramp for ADA access
on the East facing
entrance (CLRG,
2020).



Right

Figure 117 :
Southwest view (2020)
of existing conditions:
Superintendent's
House and Hatchery
Building (CLRG,
2020).



Right

Figure 118 : Design
concept for
commercial use,
showing adaptive
open space with
movable seating
for food service
or picnicking.
Hatchery Building in
background shows
ramp for ADA access
on the East facing
entrance (CLRG,
2020).



Right

Figure 119 :
Parking Alternative One provides two ADA parking spots within the Streamside Management Area and six additional parking spots outside of the Streamside Management Area. (CLRG, 2020)



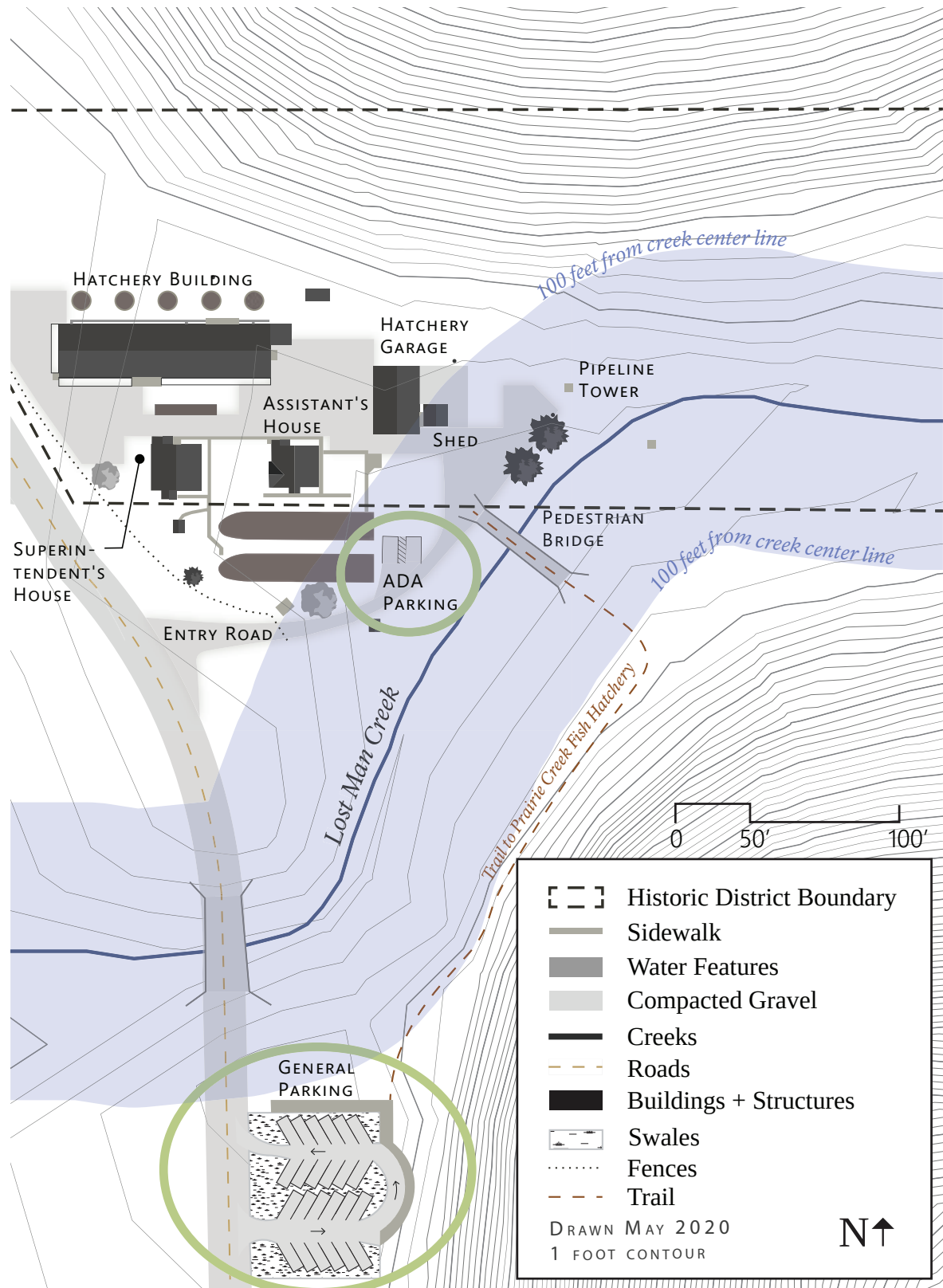
Right

Figure 120 :
Parking Alternative Two provides two ADA parking spots and twelve additional parking spots located within and outside of the Streamside Management Area. (CLRG, 2020)



Right

Figure 121 :
Parking Alternative Three provides two ADA van parking spots North of Lost Man Creek and twenty-four additional parking spots South of Lost Man Creek. General Parking South of Lost Man Creek is connected to the site by a 170 foot trail and pedestrian bridge. Option Three provides majority of parking outside of the Streamside Management Area. (CLRG, 2020)



Right

Figure 122 :

Examples of
compatible bench
seating. (NPS, 2019)



Manufacturer: Belson
Product: Recycled Plastic A-Frame Picnic Table (<http://www.belson.com/Recycled-Plastic-A-Frame-Picnic-Tables>)



Manufacturer: Pilot Rock RJ Thomas Mfg. Co.
Product: AFT End Accessible Traditional A-Frame Picnic Table using recycled plastic (<https://www.pilotrock.com/aspx/Shop/Series.aspx?seriesid=242#prod-desc>)



Manufacturer: Belson
Product: 8' Recycled Plastic ADA Picnic Table (<http://www.belson.com/Universal-Access-A-Frame-Picnic-Tables-with-Recycled-Plastic-Frames>)



Manufacturer: Bright Idea Shops
Product: Wheelchair Accessible Picnic Table (<http://www.brightideashops.com/Wheelchair-Accessible-Picnic-Table-Prodview.html>)

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Appendix A.

NPS Laidlaw and Smedley Photo Collection

NPS CORRESPONDENCE AND HISTORIC PHOTOGRAPHS

January 21, 1998

Ms. Martha Ruhe
% Redwood National and
State Parks
1125-16th Street
Arcata, California 95521

Hello Martha:

The enclosed are the only pictures that I could find for the Prairie Creek Fish Hatchery, as it was in 1943. As I mentioned, I was born in 1939, and my parents lived there, I believe, sometime, by 1937. The black & white photos are my sister at 18 months, as noted on the back. The color photos were taken in 1960, but an idea of what I remember from years before.

I am looking forward to the Fish Hatchery Report. Maybe I can put a name to these pictures of other fish hatcheries that my father, now I, have pictures of.

Thank you,



Susanne Hackbarth
28147 No. Alaminos Drive
Saugus, California 91350

New Phone Number:

805-296-6550

NOTES:
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*CULTURAL LANDSCAPE
DOCUMENTATION*

INDEX PRINT
February 25, 1998

*CONTACT PRINTS & NEG.
FROM SNEYLEY & MIDCAMP
FAMILY PHOTOS:
PRAIRIE CREEK
FISH MARSHES*



NOTES:
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February 25, 1998









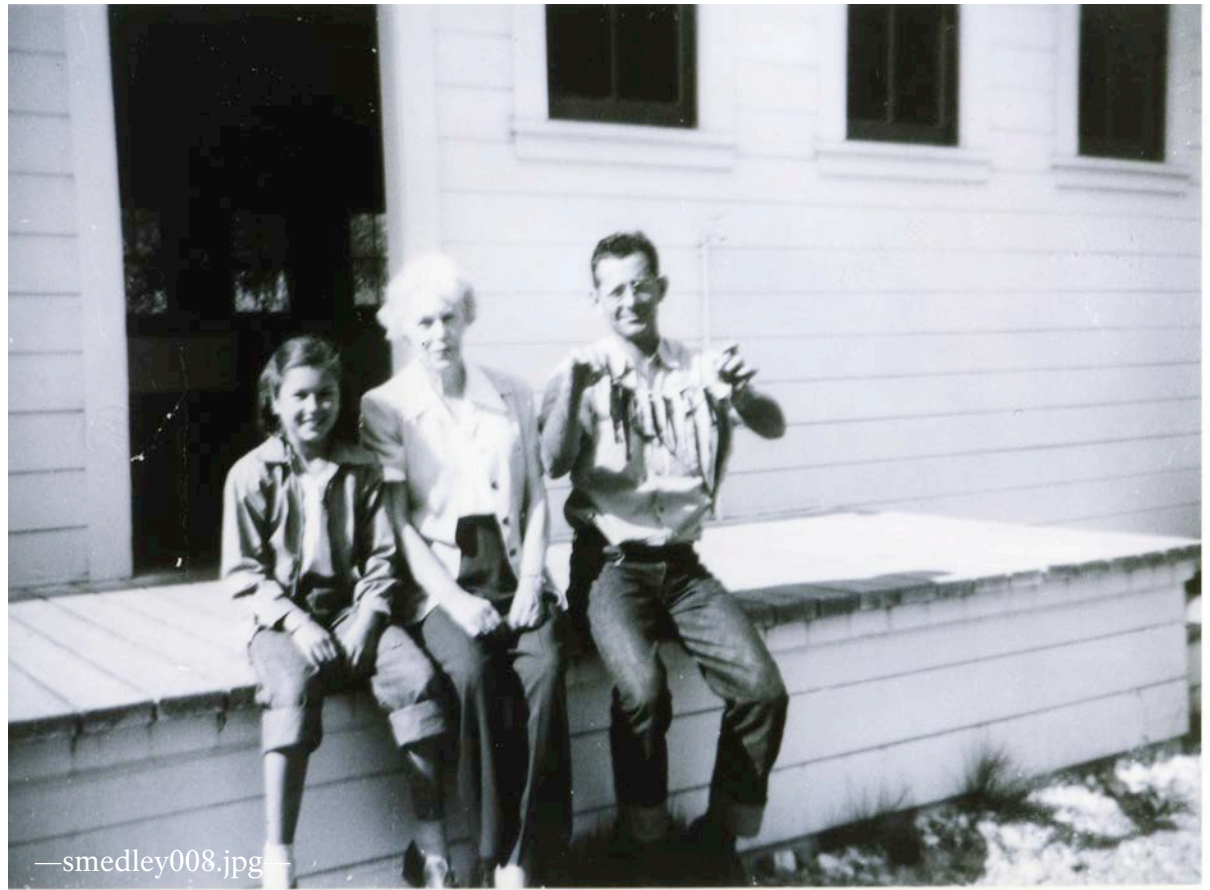
—laidlaw007.jpg—















—smedley012.jpg—



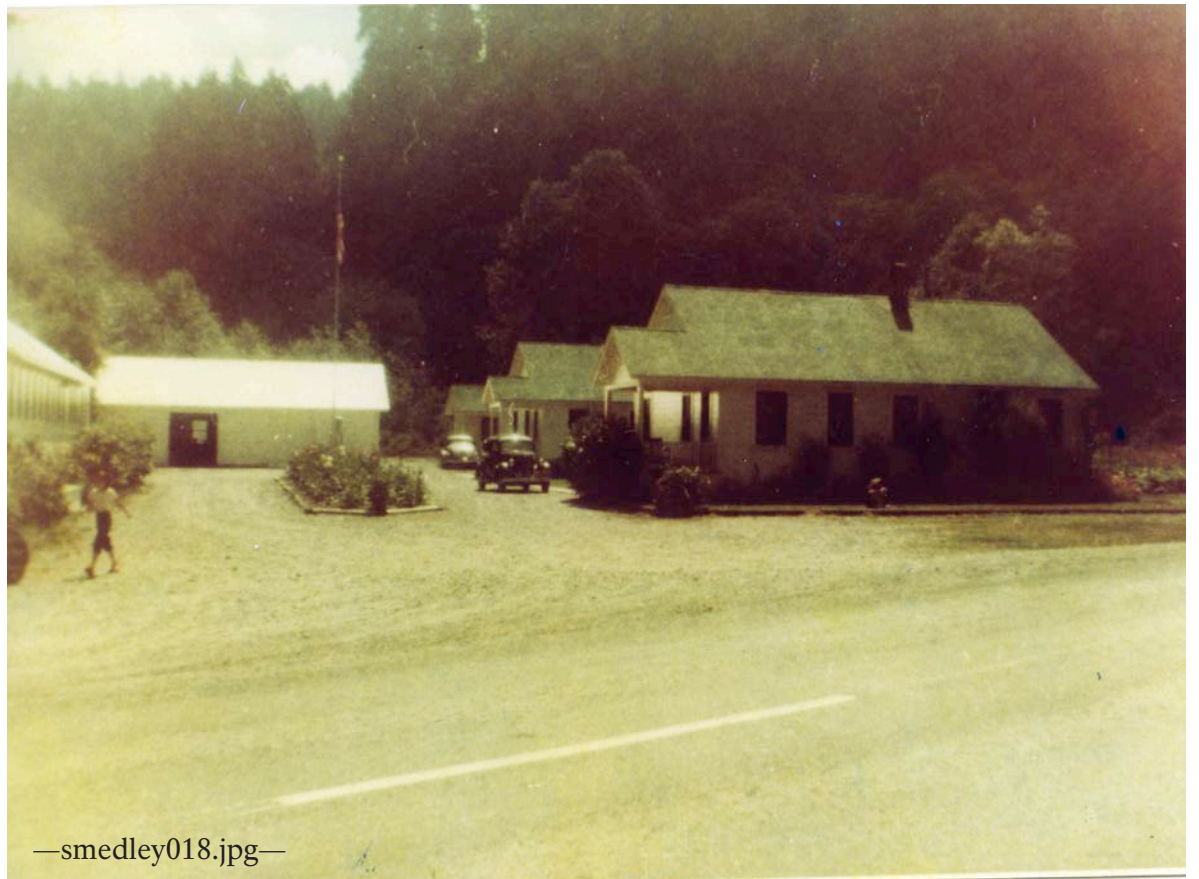
—smedley013.jpg—







—smedley017.jpg—



—smedley018.jpg—

Appendix B.

Comparison 2019 Existing Condition to Historic 1940's Photo Collection

NPS LAIDLAW-SMEDLEY PHOTO COLLECTION AND CULTURAL LANDSCAPE RESEARCH GROUP, SITE DOCUMENTATION. NOVEMBER, 2019

Above ground earthen pond north of hatchery (Laidlaw, n.d.)



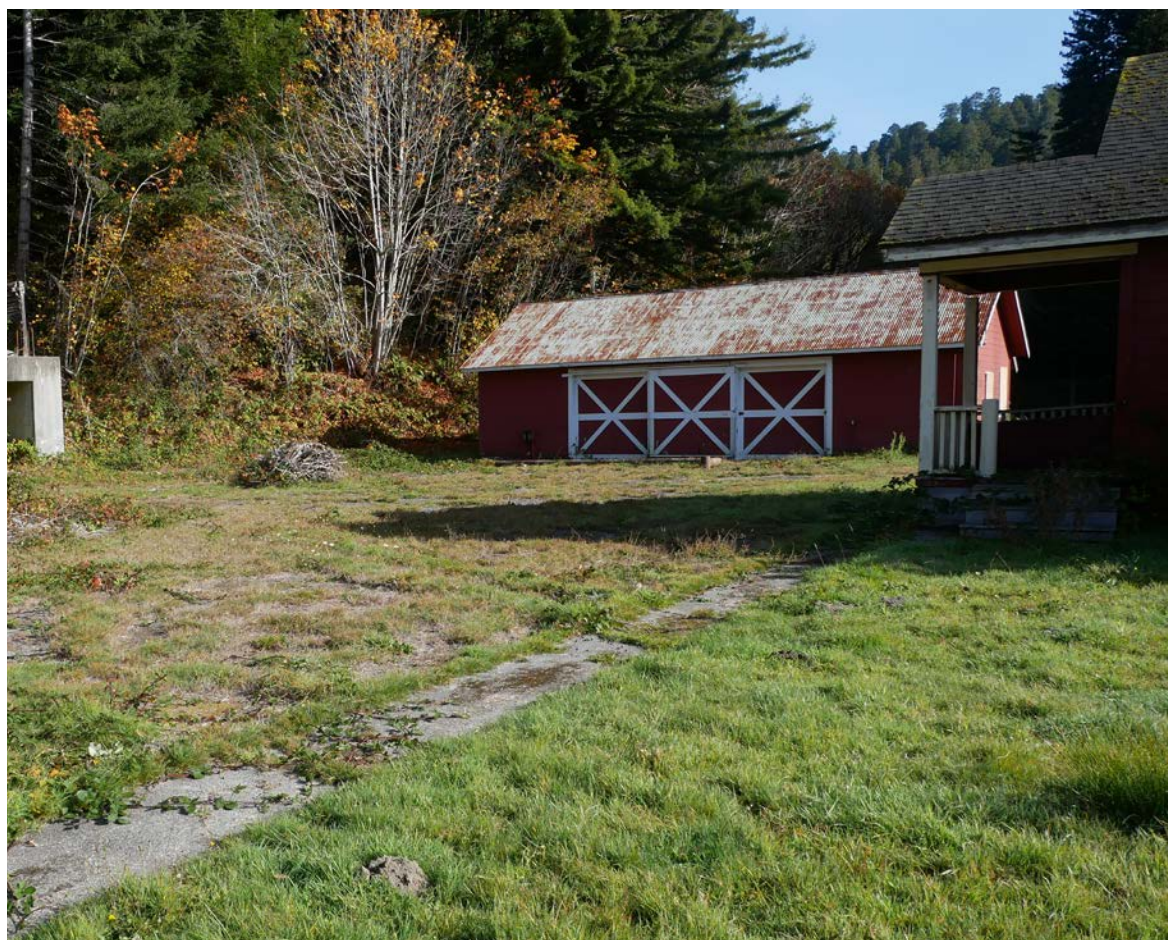
Five round concrete tanks north of hatchery (CLRG, 2019)



Garage and Assistant
Superintendent
House Porch
(Smedley, 1943)



Garage and Assistant
Superintendent
House Porch (CLRG,
2019)



Superintendent House, sidewalks and Lawn with the Hatchery Building in background (Smedley, 1943).



Superintendent House, sidewalks and Lawn with the Hatchery Building in background (CLRG, 2019).



Assistant
Superintendent
House, with the
garage in background
(Smedley, 1943).



Assistant
Superintendent
House, with the
garage in background
(CLRG, 2020).



Sliver of Assistant Superintendent House and lawn, with the Hatchery Building and Filter House (Rock Filter) in background (Smedley, 1943).



Sliver of Assistant Superintendent House on right and lawn with the Hatchery building and Aeration Tower in background (CLRG, 2020).



Fish and Game Commission Thirtieth and Thirty-First Biennial Report

SITE HISTORY

52

FISH AND GAME COMMISSION

Fort Seward Hatchery was one of those selected for the feeding experiments last season. As the report made by Dr. Coleman covered the matter fully, it is necessary only to say that the foods selected proved failures at this station. The superintendent desires to stress particularly the experiments made with salmon offal. It is no doubt a valuable and a cheap food, but the use of it is associated with conditions that it will be hard to eliminate and which render the use of it dangerous unless properly handled. These conditions are, first, that the material unquestionably must be frozen solid immediately after removal from the salmon at the packing house and held in a frozen condition until used at the hatchery; second, some container to be used in shipping must be provided to prevent leakage of fluids while the material is in transportation, otherwise, the transportation companies will refuse to accept it.

On the whole, the weather conditions have been dry during 1928, 1929 and 1930. We have had quite a lot of scattered rain during the winters, but none of the normal continuous downpours as in former years. As a result, the creeks have been below normal in flow. This subnormal flow has further been induced by the fact that forest fires in the watersheds have removed the ground cover and the run-off after rains is unimpeded and rapid, very little of the falling moisture sinking into the ground.

Total number of fish distributed from this station during the biennium:

260,730 Rainbow trout.
2,593,350 Steelhead trout.
100,000 Cutthroat trout.
1,261,880 Silver salmon.

PRAIRIE CREEK STATION (Experimental)

This experimental station was established in the early fall of 1928. No major improvements have been made at this station other than the building of a garage, which was a necessity. Only work that was absolutely necessary for the operation of the station has been done, as we still consider the station in an experimental stage and unproven as to either its continuance or as to its abandonment.

The climatic conditions prevailing during the past two years have been so adverse as to preclude an opinion as to the merits of the location as a potential egg supply. One or two bad breaks in the racks have been repaired.

Information from residents of the district is to the effect that there is a good run of steelhead trout in Prairie Creek about once in five years. We have planted the creek heavily during the past two years in the hope of ultimately building up a regular steelhead run in the creek. If we are able to succeed in this endeavor, it will be very good proof of the plan of planting large numbers of small fish instead of a few large fish. A further study is to be made of the streams of the district with a view of establishing dependable sources of egg supply. Redwood Creek has been under consideration for a number of years as a source of supply of salmon and steelhead eggs, but lack of funds to

establish a permanent station have prevented carrying out of plans for this purpose. The United States Fish Commission attempted to establish an egg-collecting station on this stream over thirty years ago, but owing to the small sum of money used in the construction work and the tremendous floods during the period the experiments were carried on, the station was abandoned. With improved methods of trap construction, new roads to available sites, when funds are available this creek should be considered. Redwood Creek is a stream that carries several thousand second-feet of water during flood stages and any work must be of a substantial nature that will stand the high water conditions.



FIG. 17. Taking spawn from a ten-pound Tahoe black-spotted trout. Taylor Creek, El Dorado County. Photo by Joseph H. Sanders.

TAHOE HATCHERY

The operations at Tahoe station have been carried on to its full capacity. Since the construction of the reservoir and aerating system, the spring water has been greatly improved and the fish are making a much better growth during the same length of time than they did when the hatchery was first built. The improvements during the last biennial period consisted of the installation of a power grinding machine for preparing the food and the purchase of a Dodge screen-side truck for the distribution of fish at the Tahoe and Tallac hatcheries.

PRAIRIE CREEK

During the summer and fall of 1927, a survey was made to find a stream on the northwest coast from which cut-throat trout eggs could be obtained. After a close study and from data gathered in former years, we decided to establish a temporary hatchery and traps on Prairie Creek, Humboldt County. Prairie Creek is a tributary of Redwood Creek, one of the large streams of northern Humboldt County. Racks and traps were installed by an experienced crew, but the heavy rainfall in that section made the work difficult. The men, working in mud and water in the dense redwoods where there is very little if any sunshine during the winter months, and where even in the summer there is a heavy shade nearly all day from the giant redwood trees, caused the ground to be soft and muddy all winter. The tent hatchery was established under trying conditions, but by the middle of November the racks were in place and the crew was ready to collect cut-throat trout eggs as well as steelhead eggs in the spring. The station is located on Prairie Creek below its junction with Lost Man Creek. Eight eyeing troughs were installed at first and later the number increased to thirty. The water for the eyeing troughs was taken from Lost Man Creek and carried to the troughs through about 2500 feet of twelve-inch flume.

Two cabins were also built to accommodate the employees. The material was not on the ground soon enough to have the racks finished for the run of Chinook salmon and the high water allowed the cut-throat run to pass over the top of the racks. During the run of the silver salmon, 208,000 eggs were taken and the fry hatched at the station, excepting 60,000 which were taken to Fort Seward Hatchery to be liberated in Eel River.

During the steelhead run about 1,400,000 eggs were taken. 762,000 were shipped to Fort Seward Hatchery and the balance hatched, reared and are to be distributed from Prairie Creek Station.

Judging from the first season's showing, we think the establishing of the station was justifiable and the station is a decided asset. There is ample water for hatchery purposes, even if the capacity is increased and the water seems to be good.

Several log jams and other obstructions in Prairie Creek below the racks made it hard for the fish to ascend the creek. These have been partially removed and all of those which are in the way will be taken out before the salmon run this fall.

There are four varieties of fish that run in the creek—Chinook salmon, silver salmon, cut-throat trout, and steelhead trout. The Chinooks and steelhead are desirable for general distribution and the silver salmon and cut-throat trout are of value for distribution in Humboldt County.

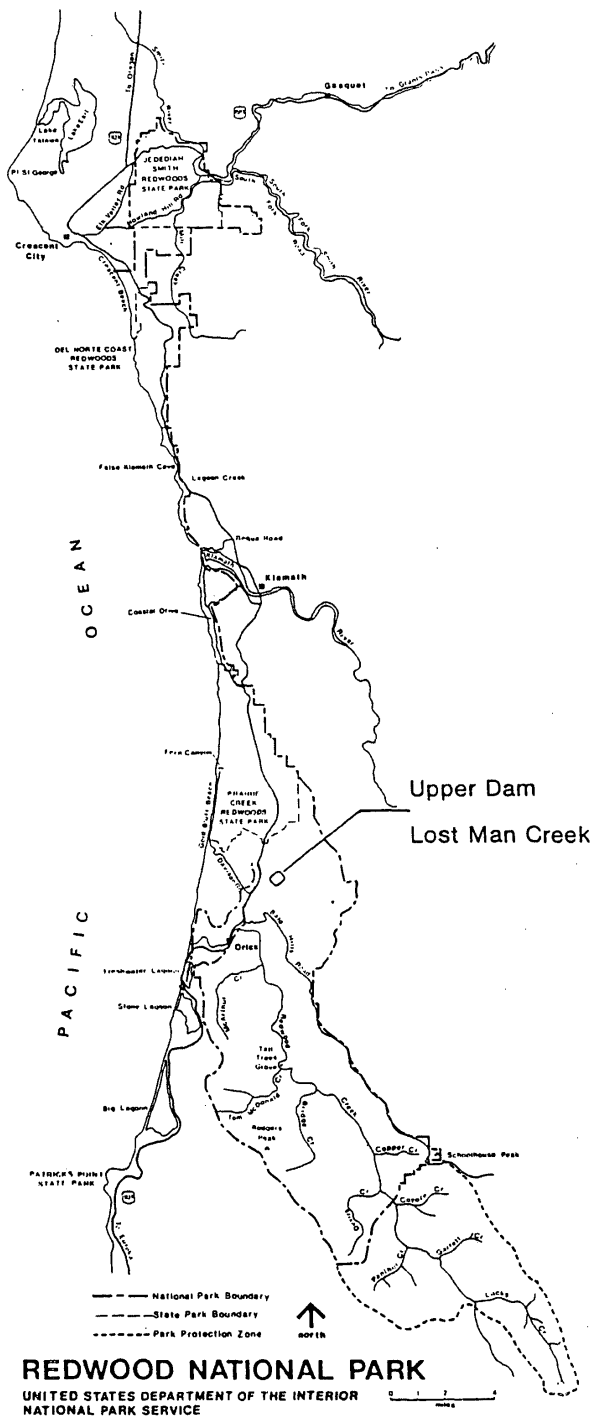
BROOKDALE HATCHERY

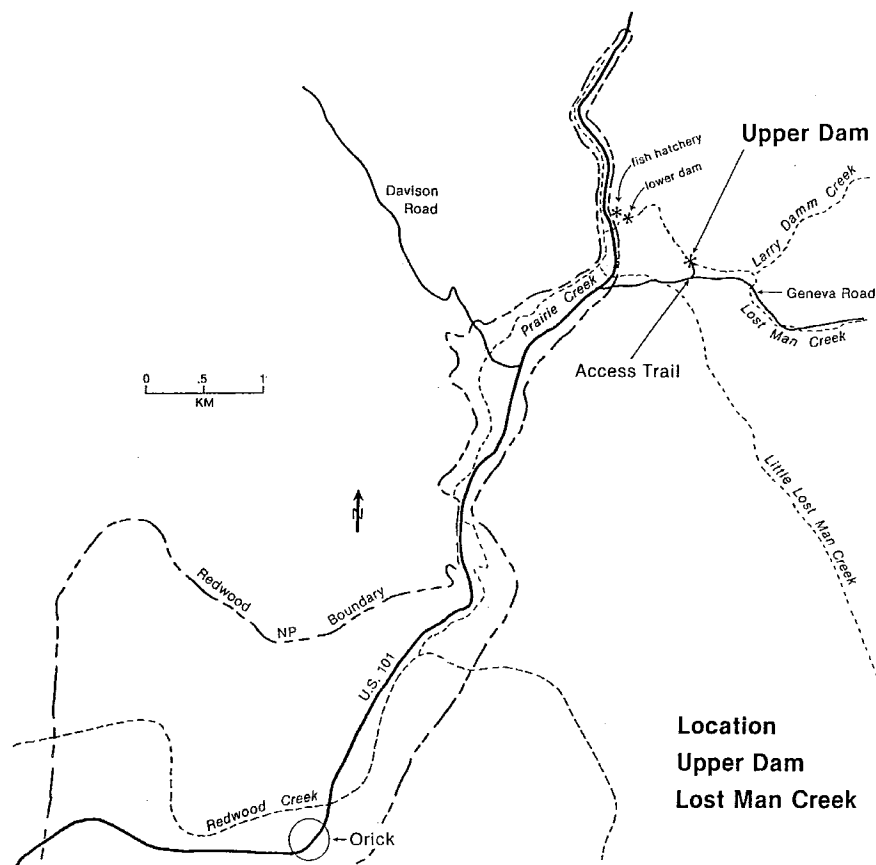
After being in operation since 1905, we had the first epidemic of any consequence among the fish at this hatchery during the spring of 1927. An epidemic broke out among the fish in the hatchery that would not respond to any treatment that usually gives results. Dr. George A. Coleman made a pathological study and discovered a protozoan parasite affecting the fish that was deadly in its ravages. The source of this parasite was not discovered, but the condition of the fish was such that they were not resistant to any infectious disease as the water had been

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1988, Environmental Assessment Upper Dam Removal Lost Man Creek Summary Report

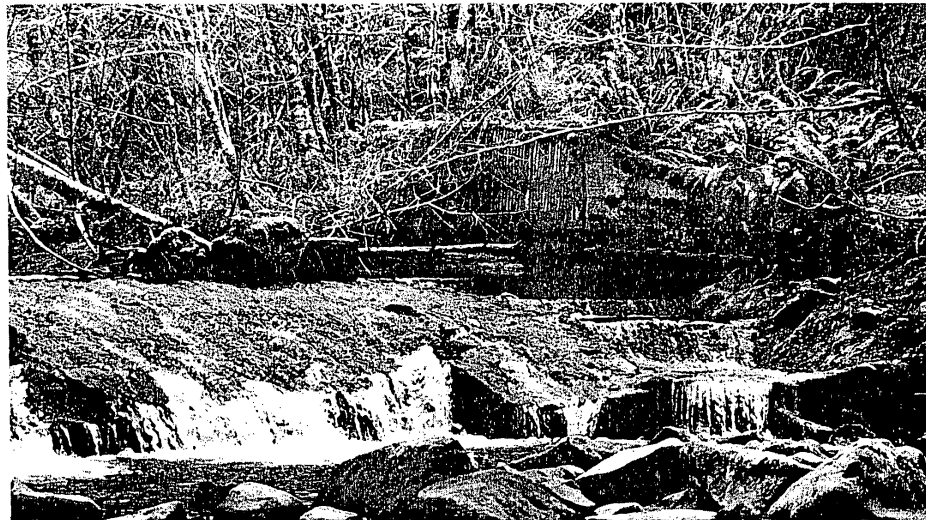
MAPS, IMAGERY AND LONGITUDINAL PROFILE







Upper Dam, Lost Man Creek looking upstream at dam. In this view, the south bank (including wing wall, water intake, and fish ladder) is to the right.



View of south end of dam, showing water intake, fish ladder, and south wing wall.



Close-up of water intake and south wing wall.



View north, across dam face. Note the north wing wall and deteriorating condition at bottom of dam face.

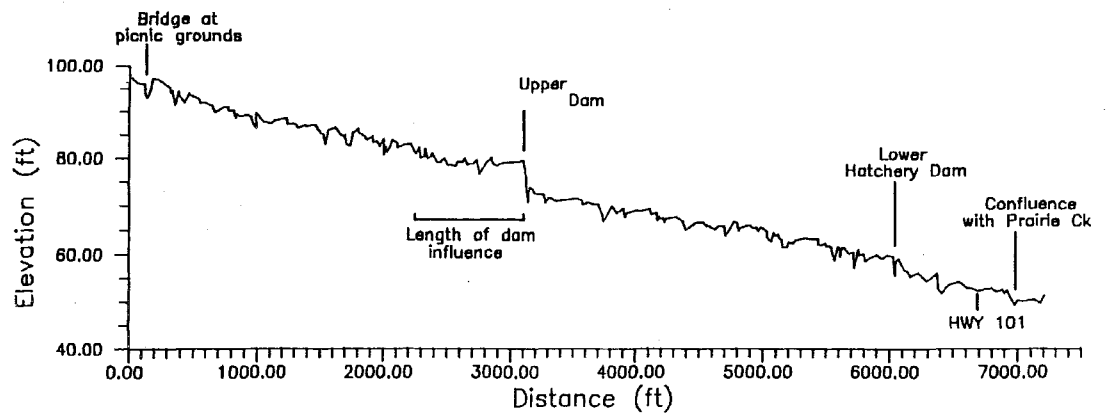


View upstream from top of the dam.



View downstream from top of the dam.

Lostman Creek Longitudinal Profile



Appendix E.

Comparison 2019 Existing Condition to 2005

**HISTORIC AMERICAN ENGINEERING RECORD, SEPTEMBER
2005 JET LOWE PHOTOGRAPH COLLECTION AND CULTURAL
LANDSCAPE RESEARCH GROUP, SITE DOCUMENTATION.
NOVEMBER, 2019.**

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CA-334-4

Perspective view,
Exterior of main
hatchery building
looking east,
northeast.



CLR-2019

P1030-368

Repeat photo of 2005
CA-334-4



CA-334-32

Detail of gate, gate slots, and connection between the two segments of the rectangular rearing tank. Pump house (1962) at entrance is in the background. View to the southwest. Sic. Dedication Pond



CLR-2019

P1030-369

Repeat photo of 2005
CA-334-32



CA-334-5

Perspective view,
Exterior of main
hatchery building.
View to the west,
northwest.



CLR-2019

P1030-370

Repeat photo of 2005
CA-334-5



CA-334-18

Superintendent's quarters with pump house in the foreground and the hatchery in the background. View to the northwest.



CLR-2019

P1030-371

Repeat photo of 2005
CA-334-18



CA-334-20

Perspective of the superintendent's house, assistant superintendent's house, and pump house near Highway 101. View to the northeast.



CLR-2019

P1030-374

Repeat photo of 2005
CA-334-20



2005 description not available.



CLR-2019

P1030-376

Repeat photo of 2005
CA



2005 description
not available.



CLR-2019

P1030-377

Repeat photo of 2005
CA-334-33



CA-334-33

Detail of pump that is attached to rectangular rearing tanks (pair).

Pump located on the north end of rearing tank. View to the northwest.



CLR-2019

P1030-379

Repeat photo of 2005
CA-334-33



CA-334-35

Aeration tower/
pump. View to the
north.



CLR-2019

P1030-380

Repeat photo of
2005 CA-334-35



CA-334-21

Perspective of the exterior of the assistant superintendent's house with the superintendent's house in the background. View to the west, southwest.



CLR-2019

P1030-381

Repeat photo of 2005
CA-334-21



CA-334-22

Shed and garage,
perspective shot, view
to the northwest.



CLR-2019

P1030-382

Repeat photo of 2005
CA-334-22



CA-334-23
Perspective of the
garage. View to the
north.



CLR-2019
P1030-383

Repeat photo of 2005
CA-334-23



CA-334-24

Perspective view
of the pump house
looking south 180
degrees.

This is the pump
house at the southern
most point of the
complex.



CLR-2019

P1030-384

Repeat photo of 2005
CA-334-24



CA-334-28

Elevation shot of spawning channels at southern entrance of complex. View to the west.



CLR-2019

P1030-385

Repeat photo of 2005
CA-334-28



CA-334-34

Perspective circular rearing ponds on north side of hatchery. View to the west, northwest. Includes view of ditch and step up to hatchery building on left side of image.



CLR-2019

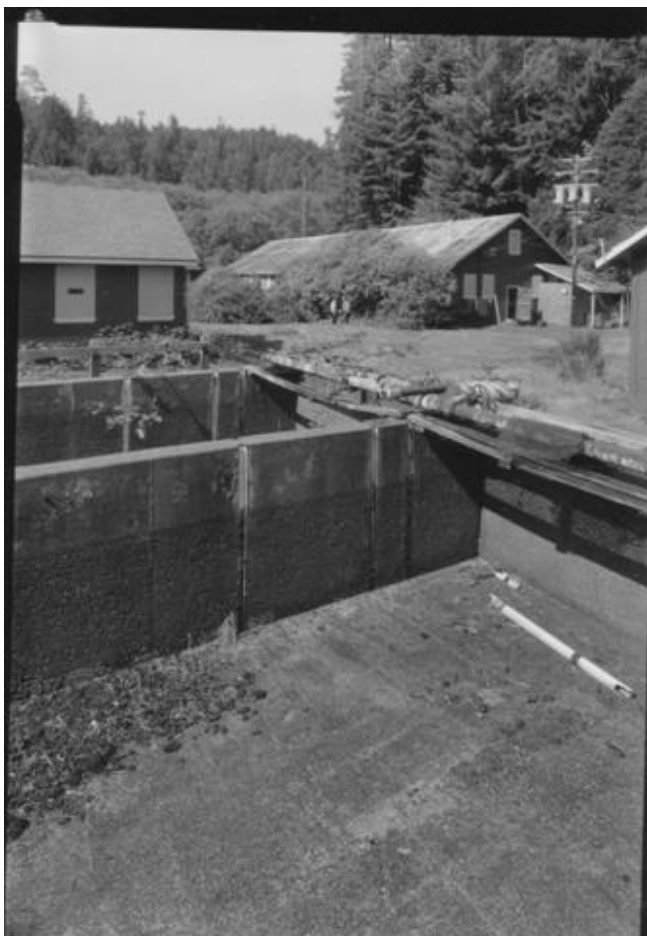
P1030-387

Repeat photo of 2005
CA-334-34



CA-334-30

Cement tank feature
with Assistant's
quarters in the
background. View to
the northwest.



CLR-2019

P1030-388

Repeat photo of 2005
CA-334-30



CA-334-29

Detail of spawning channels at south end of complex near entrance. Pump house in background. View to the southeast.



CLR-2019

P1030-389

Repeat photo of 2005
CA-334-29



CA-334-31

Elevation shot of large rectangular rearing tanks (pair). Warehouse in the background. View to the north.



CLR-2019

P1030-391

Repeat photo of 2005
CA-334-31



CA-334-19
Superintendent
and assistant
superintendent's
quarters with
the tank in the
foreground. View to
the southeast.



CLR-2019

P1030-392

Repeat photo of 2005
CA-334-19



CA-334-32

Detail of gate, gate slots, and connection between the two segments of the rectangular rearing tank. Pump house (1962) at entrance is in the background. View to the southwest.



CLR-2019

P1030-394

Repeat photo of 2005
CA-334-32



Appendix F.

Plant Species Lists

HISTORIC ORNAMENTAL PLANT SPECIES LIST AND COMPATIBLE PLANT SPECIES LIST

List of Historic Ornamental Foundation and Planting Bed Species

Species are identified through historic photographic analysis.

Common Name	Botanical Name	Present on site 2020	Source
English Laurel	<i>Prunus laurocerasus</i>	Yes	Smedley007.jpg
Dahlia	<i>Dahlia sp.</i>	No.	Smedley006.jpg
Rhododendrons	<i>Rhododendron sp.</i>	Replanted in 1990's and significantly pruned in 2016 and 2017.	Smedley004.jpg
Nasturtium	<i>Tropaeolum sp.</i>	No.	Smedley009.jpg
Cecil Bruner Roses	<i>Rosa x 'Cecile Brunner'</i>	No. Historically grew atop large stump outside north end of shop.	Laidlaw003.jpg Laidlaw001.jpg
Yarrow	<i>Achillea sp.</i>	No.	Smedley014.jpg

Compatible Plant Species List

Species are identified to minimize maintenance and prioritize native species.

Possible uses may include foundation or ornamental planting.

Common Name	Botanical Name	Notes
Azealia	<i>Rhododendron sp.</i>	Similar to Rhododendrons in shape, may reduce pruning needs. Consider at end of life of existing Rhododendrons.
Rhododendron	<i>R. roxieanum, R. recurvoides</i>	Slow growing Rhododendron, may reduce pruning needs.
Matilija Poppy	<i>Romneya coulteri</i>	Full sun. Drought and deer tolerant. Mixed reports on Romneya's deer resistance. Deer have been known to eat it. Shape and form of historic Dahlias.
Lupine	<i>Lupinus</i>	Deer/Elk Resistant
Narrow-Leaf Milkweed	<i>Asclepias fascicularis</i>	Excellent Pollinator species and unpalatable to most animals.
Yarrow	<i>Achillea Spp.</i>	Beneficial to butterflies
Blue-eyed Grass	<i>Sisyrinchium bellum</i>	Drought tolerant California Native
Douglas iris	<i>Iris douglasiana</i>	Drought tolerant once established, but occasional summer water will help keep foliage fresher. Deer resistant.

See next page for continued list...

Compatible Plant Species List Continued...

Common Name	Botanical Name	Notes
Creeping Mahonia	<i>Mahonia repens</i>	Native to Humboldt County. Winter color- dull blue-green leaves turn bronzy or pinkish when cold weather arrives. Short clusters of flowers in mid-to-late spring
Little Sur Manzanita	<i>Arctostaphylos edmundsii</i>	Native to Humboldt County. Neat gray-green foliage and soft pink flowers. 1' height.
California wildrose	<i>Rosa californica</i>	Native to Humboldt County. Beneficial to native bees and butterflies.
Salmonberry	<i>Rubus spectabilis</i>	Native to Humboldt County. Beneficial to native bees, bumble bees, hummingbirds, and used for nesting materials.
California Huckleberry	<i>Vaccinium ovatum</i>	Native to Humboldt County. Lustrous dark green leaves; black berries.

Sources:

Calflora Illustrated Plant List, Humboldt Redwoods SP, Eifert and Del Secco, 1994, California State Parks (1994-01-01) Berkeley, CA. calflora.org

Traci, Ferdolage, 2012 Humboldt Campus Standard Plant List, Humboldt State University, Arcata, CA. <http://now.humboldt.edu/news/staff-and-faculty-update-campus-plant-list/>