



DEPARTMENT OF FISH AND WILDLIFE
Northern Region, Eureka Field Office
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Field Note: Stream Setback Measurements and Coho Salmon Detections in Noisy Creek, Tributary to the Mad River, Humboldt County, California.

Prepared by: CDFW Environmental Scientists Katie Rian and Jonathan Hollis

Objectives: The primary objective was to characterize the existing riparian buffer along Noisy Creek at the Kern Construction yard south of Glendale Drive (APN 516-151-016) by measuring stream-setback distances from the toe of a recently constructed berm to the bankfull channel edge. The Humboldt County Planning and Building Department consulted with CDFW regarding the unpermitted construction of the berm within the Streamside Management Area (SMA) of Noisy Creek. Kern Construction granted CDFW access to the property to evaluate existing conditions along the stream.

Survey Crew: CDFW Environmental Scientists Kathryn Rian and Jonathan Hollis

Survey Date: January 30, 2025

Survey Gear: Measuring tapes, iPhones, ArcGIS Field Maps, EOS Arrow 100@ Submeter GNSS Receiver

Survey Length: Approximately 365 feet

Survey Location: Kern Construction (2350 Glendale Dr, McKinleyville, CA 95519) northern operations yard (APN 516-151-016). Lat/Long: 40.898260, -124.009751.

Observations: The survey occurred from 1330 to 1530 hours on January 30, 2025. Noisy Creek was flowing at the time of the survey, with water depths ranging from inches in riffles to approximately two feet in pools. After passing through the culvert system beneath Glendale Drive, the channel curves westward before flowing south through a 12-foot CMP culvert. The substrate consists primarily of gravel, cobble, and silt suitable for spawning; in some areas, however, construction waste and debris (concrete and asphalt) dominate the streambed. Red alders (*Alnus rubra*) and willows (*Salix spp.*) characterize the riparian overstory, with scattered small-diameter coast redwoods (*Sequoia sempervirens*) and several California bay (*Umbellularia californica*). The understory consists primarily of Himalayan blackberry (*Rubus armeniacus*), with a minor component of California blackberry (*Rubus ursinus*), English ivy (*Hedera helix*) and sword fern (*Polystichum munitum*) (Figure 2). The opposite bank is less densely vegetated and generally lacks a developed understory, characterized instead by broad, grassy floodplain terraces with a few redwoods and several mature California bay (Figure 3).

To characterize the width of the stream setback, we made 18 measurements along the western bank of the stream, working in a downstream fashion from Glendale drive to the 12-foot CMP culvert (Figure 1). Measurements were spaced approximately 15 to 25 feet apart, depending on our ability to safely access the stream. We collected spatial data at each survey point along the berm using an EOS Arrow 100 @ Submeter GNSS Receiver. Additional spatial data were collected at corresponding points along the

streambank using the internal receiver of an iPhone 12. Using a measuring tape, we measured the horizontal distance (to the nearest foot) from the bankfull channel edge to the streamside edge (toe) of the berm (Table 1). The setback was substantially wider at the first two locations (75 and 41 feet, respectively) just below the Glendale Drive crossing, after which distances constricted dramatically (fewer than ten feet at the narrowest point). Distances ranged from 8 to 75 feet, with a median value of 13.5 feet. Fifteen of the 18 measurements were less than 25 feet. At several points, the riparian dripline extended beyond the toe of the berm (Figure 4).

While conducting our survey, we observed the carcasses of two adult coho salmon (*Oncorhynchus kisutch*) within the reach, a male and female displaying signs of having recently spawned (Figure 5). We did not survey the reach for redds, however, on a prior visit to the construction yard on January 6, 2025, CDFW staff incidentally observed several spawning coho salmon across riffles approximately 200 to 300 feet downstream of the large CMP culvert.

In addition to the salmon carcasses, we discovered waste concrete and asphalt debris abandoned in the streambed and channel (Figure 6). We recommend the composition and extent of this material be characterized and a plan for its removal and remediation of the streambed be developed and implemented following agency approvals.

Table 1. Horizontal distances in feet as measured from the streamside toe of a recently constructed berm to the bankfull channel edge of Noisy Creek at the Kern Construction yard, January 30, 2025.

Survey Point	Distance (feet)	Survey Point	Distance (feet)	Survey Point	Distance (feet)
1	75	7	8	13	15
2	41	8	9	14	13
3	22	9	10	15	13
4	16	10	12	16	14
5	12	11	11	17	18
6	11	12	16	18	25

Kernen Construction Yard



2/7/2025, 9:33:03 AM

- Habitat Alteration Point
- * Species Observed

1:1,128

0 0.01 0.02 0.04 mi
0 0.01 0.03 0.06 km

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California Department of Fish and Wildlife
Airbus, USGS, NOAA, NASA, CIGAR, NCEAS, NLS, OS, NMA, Geodatastyreisen, GSA, GSI and the GIS User Community | USGS National Map 3D Elevation Program (3DEP), January 02, 2025. | Authenticated | U.S. Bureau of Reclamation, California Department of Conservation, California Department of Fish and Game,

Figure 1. Map depicting the location of the California Department of Fish & Wildlife site visit conducted on January 30, 2025. Yellow dots denote survey points collected along the streamside edge of the recently constructed berm with an EOS Arrow 100® Submeter GNSS Receiver; distance measurement of the riparian buffer were made at each of these locations (Table 1). Yellow asterisks represent the approximate locations where coho salmon carcasses were observed by CDFW Scientists.



Figure 2. Characteristic riparian vegetation along the western bank of Noisy Creek. Red alder and willow dominate the overstory layer (left), with an understory primarily composed of Himalayan blackberry (right).



Figure 3. Floodplain terrace along the left bank (eastern side of Noisy Creek, with an overstory of red alder and willow. The understory shrub and herbaceous layers were sparse compared to the western bank (right).



Figure 4. The dripline of the existing riparian canopy of Noisy Creek extends beyond the streamside edge of the berm, documented during the January 30, 2025, survey effort.



Figure 5. Carcasses of adult female (left) and male (right) coho salmon (*Oncorhynchus kisutch*) observed in Noisy Creek during the January 30, 2025, survey effort.



Figure 6. Concrete and asphalt debris in the channel and streambed of Noisy Creek, observed during the January 30, 2025, survey effort.