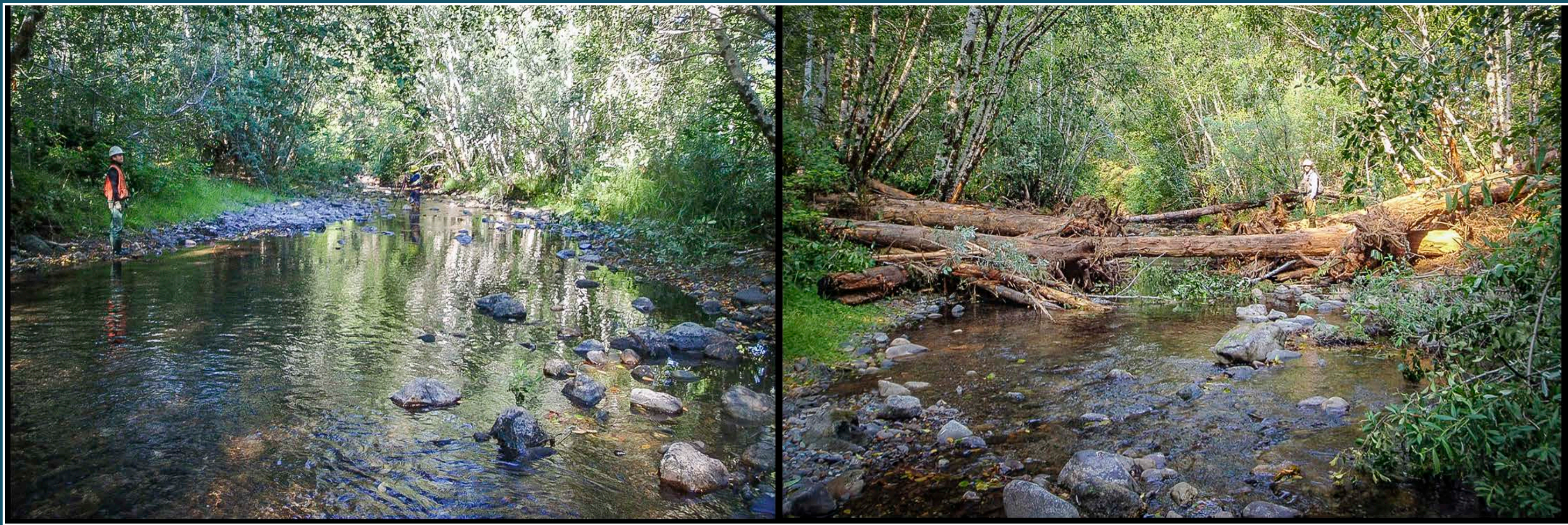


GREATER PRAIRIE CREEK ECOSYSTEM RESTORATION PROJECT

Aquatic Restoration



Construction of large woody debris structure in the East Fork of Mill Creek. The left photo displays conditions before construction and the right photo shows the same stretch following construction.

The Proposed Action involves placement of large wood in streams and floodplains to reestablish processes that create and sustain physical and biologic complexity. Large wood would be placed to improve habitat function by creating areas of lower velocity during higher flows, providing additional instream cover, scouring pools, sorting gravels, metering sediment, and facilitating floodplain connectivity and off-channel habitat. Wood placement is expected to occur in Mill Creek, East Fork Mill Creek, West Branch Mill Creek, and Rock Creek, all tributaries to the Smith River.

In a given year, no more than 20 structures would be constructed per stream reach. Where appropriate, structures would include a mixture of large, medium, and small volume stems with a target of 1 to 50 stems per structure. Whole tree material (>15" diameter) would be incorporated between riparian trees or existing structures to mimic natural wood jams. Periodically, wood would also be placed within the active channel and along floodplain reaches to augment wood loading, until natural recruitment and delivery processes become self-sustaining. Considerations in selecting large wood locations would include spacing for fish utilization; excavator access; and an assessment of effects to the streambed, floodplain, and downstream infrastructure, such as bridges and roads.



A large aquatic habitat structure in Mill Creek following the first rain.



An excavator places large wood into an aquatic habitat structure in Mill Creek. Large wood pieces are interlocked with existing trees on the stream bank to secure the structure.



A helicopter transports and places a piece of large wood that will augment previously constructed structures in Mill Creek watershed.



A smaller large wood structure provides essential habitat for anadromous fish in Mill Creek.