REDWOOD CREEK
Science and Ecology

COHO **SALMON**

- Listed by both the state and federal governments as endangered in the central coast of California
- Southernmost regularly occurring population in the U.S is in Redwood Creek, and is genetically distinct from other, nearby populations
- Born and live in fresh water streams for a little over a year before going to the ocean. Almost two years later they return as adults to the stream where they were born to spawn and die.
- Juveniles are camouflaged by a pattern of bars and dots. Their color, gills, and kidneys then change to prepare them for life in the ocean.
- Spawning adults have hooked jaws and teeth, bright red sides, dark bellies, and spots on their back.
- About 28 inches long and weigh between 7 and 11 pounds when full grown.
- Need a variety of habitats including backwater areas, floodplains, and woody debris that provide refuge from high stream flows and cover for juveniles

CALIFORNIA **RED-LEGGED FROG**

- Largest native frog (up to 5" as adults) west of the Mississippi
- Federally listed as threatened in 1996
- Populations in 23 California counties from Point Reyes to Baja, but range has decreased by 70 percent
- Major threats: Loss of habitat due to water diversion and reservoir construction, agricultural land use, urbanization, contaminants, and invasive species (like the bullfrog); and disease
- Population near Muir Beach is extremely small, but is the only one in the watershed

REDWOOD CREEK **WATERSHED**

- Total area covered is about 8.9 square miles
- In southwestern Marin County just five miles northwest of San Francisco
- Flows from its headwaters on Mt. Tamalpais, through the ancient redwood forest of Muir Woods National Monument, to Muir Beach, and then the ocean
- Part of the UNESCO Golden Gate Biosphere Reserve and one of 25 global biodiversity "hot spots" recognized by The Nature Conservancy
- Strongly influenced by cool, moist maritime air including heavy fog in the summer
- Once emptied into a 13-acre lagoon at Muir Beach

MUIR **BEACH**

- Channelization, levee construction, agricultural filling, and parking lot construction have put 6 feet of fill in the historic lagoon
- Floodplains, wetlands, and aquatic habitat have steadily lost their natural function—in particular, the ability to convey high flows to the ocean, carry sediment loads, and support salmon
- Occupied by 26 non-native plant species, most notably cape ivy, Himalayan blackberry, Kikuyu grass, Harding grass, and tall fescue