Water Diversions Threaten Endangered Species in Local Creeks
By Natasha Lohmus, California Dept. of Fish & Game

As an environmental scientist and a regular hiker in the hills behind Santa Barbara, I have been able to observe the health of our creeks, the wildlife, birds and especially the steelhead populations. What I am presently seeing is the continual degradation of our local creeks' ability to sustain aquatic species, such as steelhead trout, a federally listed endangered species. The fish population is on the decline, not due to over fishing, but to lack of spawning habitat and lack of water in the creeks during the dry season. Immature fish have died when the pools they over-summer in either dry up or the oxygen level drops. Approximately 97 percent of the steelhead-spawning habitat has been eliminated due to fish migration barriers, such as water diversions, low-flow vehicle crossings, culverts, or sediment control structures. National Oceanic and Atmospheric Administration (NOAA) Fisheries estimates that there is a maximum of 500 spawning adults from the Santa Maria River to the Mexican border. Most of the best habitat for the fish in that region is in the Santa Barbara area, Montecito, and the Santa Ynez River.

I am saddened to see several water diversions, by independent water companies or landowners, diverting water from our creeks during the summer months, especially during the drought. Summer water flows are critical for the willow riparian habitat, aquatic species, and the threatened and endangered species that are found here. These listed species include steelhead, red-legged frog, the two-striped garter snake and the southwestern pond turtle. The California Department of Fish and Game Natural Diversity Data Base consider willow riparian habitat itself a rare habitat.

Phone calls or contacts with these companies and landowners have revealed that the diverted water is mainly used for landscaping, lawns and orchards. Other water sources are available for these uses, such as the Montecito Water District, but the water has a monetary cost. These individuals avoid the water costs that the rest of the community faces, but the costs of their water diversions to our environment and to wildlife are huge.

Aquatic species, such as frogs, depend on water flows for survival. Mammals use the creeks as their main water source, as well as territorial migration routes. If water is not available in the creeks, coyotes, raccoons, bobcats and foxes will drink out of swimming pools, spas and water fountains. Some homeowners get upset when they see wildlife such as the coyote in their yards. Fearful homeowners, not understanding the ways of nature, then call government agencies or private companies to eliminate wildlife, as is now being done in Hope Ranch.

Steelhead need sufficient water flow, with a dissolved oxygen content of about 14 milligrams per liter (m/l), and water temperatures between 55 and 65 degrees. Water temperatures increase with lower flows, which decreases dissolved oxygen levels since warmer water holds less oxygen. When water is diverted, extremely low flows and stagnant water can result in the water having less than 5 m/l of dissolved oxygen. Fish will die below 5 m/l, as happened in Montecito Creek in 2002, where several steelhead trout died just below the Highway 192 bridge, below a water diversion.

Any water diversion, even if executed under legal water rights provisions, requires a Streambed

Alteration Agreement from the Department of Fish and Game. CDFG Code section 1602, states, "It is unlawful for any person to substantially divert or obstruct the natural flow...without notification to the Department." This is a renewable permit, which contains conditions to protect the species that rely on a healthy stream environment. CDFG codes require that enough water has to bypass the diversion to sustain wildlife resources downstream. In addition to lowering water flows at critical times of year, diversions tend to have water containment structures, which can be an impediment or barrier to migrating steelhead, or other aquatic species.

Efforts are being made to restore our creek environments in the Santa Barbara area. There are groups of concerned landowners, and local, state, and federal agencies that are obtaining grants to restore several creeks for steelhead, and /or other wildlife species. These waterways are Carpinteria Creek, Rincon Creek, Mission Creek and San Jose Creek. Santa Barbara Flood Control is looking into methods of retrofitting some of the debris basins to allow fish passage. Several other local creeks, such as Cold Springs and Montecito creeks have a great potential for restoration. All this effort should not be in vain. Is saving a few dollars for a greener lawn or a lemon crop worth the price of eliminating or reducing our endangered species, such as steelhead trout? Once these species are gone, they are gone forever.