

biological opinions issued pursuant to section 7 of the Act, the terms and conditions in a biological opinion must have an articulated, rational connection to the take of a listed species. The court stated that the Act provides for the designation of critical habitat outside the geographic range currently occupied by a listed species when "such areas are essential for the conservation of the species." Absent this procedure, the court stated that there is no evidence that Congress intended to allow the Service to regulate any parcel of land that is merely capable of supporting a listed species. Therefore, the mere listing of species, such as the Sonoma County California tiger salamander, will not result in land use restrictions.

*Issue 21:* One commenter was concerned that existing vineyards and wineries would be burdened by excessive costs when water permits are required or changed, or when planting or replanting permits are requested.

*Our Response:* Once a species becomes listed, section 9 of the Act sets forth a series of general prohibitions that apply to that species. The Sonoma County California tiger salamander is protected from "take" by any person subject to the jurisdiction of the United States. The definition of take under the Act includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. Harm is further defined to include significant habitat modification or degradation that results in death or injury to the listed wildlife by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. Harass is further defined to include actions that create the likelihood of injury to listed wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Therefore, if the action by a party, such as water use by a vineyard or winery, planting or replanting of vineyards, could result in "take" of a listed species, then authorization for incidental take should be obtained pursuant to either sections 7 or 10 of the Act.

*Issue 22:* One commenter felt that the CDFG considered the emergency listing inappropriate due to a lack of proper information and sufficient scientific support.

*Our Response:* Only species or subspecies, and not distinct population segments, of vertebrates can be listed as endangered or threatened under the California Endangered Species Act (California Department of Fish and Game internet web site 2003). However,

the California Department of Fish and Game has expressed concern for adverse impacts to the salamander and its habitat (R. Floerke, CDFG, *in litt.*, 2002).

*Issue 23:* One commenter stated that the breeding sites identified in the emergency rule for the Sonoma County California tiger salamander are not threatened, and the sites around the old airfield would not be destroyed because construction will avoid them and be limited to the runway. The commenter also felt the degree of threat, isolation of habitats, and barriers to movement were overstated and not based in reality. This same commenter believed that the Roseland Creek channel and asphalt run-way already constitute a significant barrier to migrating salamanders at the old airfield. Several other commenters noted the vernal pools at the Southwest Air Center (Air Center) have been damaged, destroyed, or are currently on the verge of being lost.

*Our Response:* Other than approximately 28 ha (70 ac) designated as open space, the remainder of the Air Center has been designated for development in the Southwest Santa Rosa Area Development Plan. One of the breeding sites could be destroyed by development and two others could be isolated and imperiled by a loss of estivation habitat. Upon development of this area, not enough upland will likely remain to support a viable salamander population even if two of the three breeding sites are not destroyed. Proposed development could also isolate the Federal Emergency Management Agency (FEMA)/Broadmore North Preserves.

Burrowing mammals also could be increasingly subject to control actions given the proximity of developed areas to any remaining estivation habitats. One proposed development project at the Air Center could fill two wetlands that make up one of the eight known breeding sites. Surveys of this site over the past 2 years have found breeding California tiger salamanders. Construction on the runway itself and extension of Fresno Avenue could result in total isolation of the FEMA/Broadmore North Preserves, a known Sonoma County California tiger salamander breeding site. We have determined that Roseland Creek Channel is not likely to be a barrier to salamander migration. Flows in the channel are minimal, except during the heaviest of rain events.

*Issue 24:* One commenter felt that the emergency rule overstated the effects of development at the Air Center because the runways are too hot for salamanders to cross.

*Our Response:* Hot runways are not a concern for this species because California tiger salamanders are in estivation during the dry, hot, summer months. The nocturnal adult animals concentrate their movements during rain events in the cooler fall, winter, and spring months. Researchers conducting night-time road surveys for California tiger salamanders during the fall, winter, and spring have documented this species crossing roads on many occasions.

*Issue 25:* One commenter stated that California tiger salamanders exist in the Central Valley and coastal areas of California and, therefore, they could not be endangered.

*Our Response:* Research has indicated there are six populations of California tiger salamanders occurring in California. These include the Santa Rosa area of Sonoma County; the Bay Area (central and southern Alameda, Santa Clara western Stanislaus, western Merced, and the majority of San Benito counties); Central Valley (Yolo, Sacramento, Solano, eastern Contra Costa, northeast Alameda, San Joaquin, Stanislaus, Merced, and northwestern Madera counties); southern San Joaquin Valley (portions of Madera, central Fresno, and northern Tulare and Kings counties); Central Coast Range (southern Santa Cruz, Monterey, northern San Luis Obispo, and portions of western San Benito, Fresno, and Kern counties); and Santa Barbara County (Shaffer and Trenham 2002). The Sonoma County population meets the requirements of our Distinct Population Segment policy and therefore can be separated from the remainder of the population in making this determination.

*Issue 26:* One commenter stated that much of the area defined as potential range of the Sonoma County California tiger salamander was based on soil types.

*Our Response:* The distribution of the Sonoma County California tiger salamander corresponds to the distribution of specific soil types. The known breeding sites of the animal in Sonoma County are restricted to Huichica-Wright-Zamora and Clear Lake-Reyes soils series/associations as defined by the USDA (1972, 1990). The poorly drained soils in the Huichica-Wright-Zamora association are considered prime soils for containing wetlands, and more specifically, prime soils for habitat containing California tiger salamander (P. Northen, pers. comm., 2002). The Huichica-Wright-Zamora association is restricted to the Santa Rosa Plain and the vicinity of the town of Sonoma (USDA 1972, 1990). The poorly drained soils in the Clear