

## Conservation

These articles consider preservation of California vernal pool landscapes from the perspective of government regulators, consultants, lawyers and the general public. The patchwork of existing vernal pool landscapes, now surrounded by urban development, adds to the complexity of these issues.

Cay Goude provides a perspective on conservation planning from her position in the Endangered Species Program of the U. S. Fish and Wildlife Service. This article points out that large-scale regional conservation planning needs to recognize connectivity between remaining fragmented vernal pool landscapes in order to reduce species losses caused by inbreeding and stochastic mortality. She considers *The Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* as an important large-scale conservation plan.

John Dittes, Josephine Guardino and Richard Radmacher propose a GIS-based index for vernal pool classification that can be developed from aerial photography, which allows planners to concentrate preservation strategies on important vernal pool landscapes. Much of the article considers the logic involved in developing this index as part of the South Sacramento Habitat Conservation Plan. The editors are pleased that we can include in this book a color map that illustrates the vernal pool index, which can be compared with another color map illustrating wetland distribution and geologic formations in the same area.

Laura Whitney provides an overview of the wetland regulatory program by the Army Corps of Engineers. This article discusses activities associated with the permitting process, including a definition of terms, and ends with comments on the importance of collaborative efforts.

Elizabeth Warne specifically addresses *The Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon*. The goal of this plan is the maintenance of secure, self-sustaining wild populations of species with the minimum necessary investment of resources. The plan combines the analysis of over thirty major plants and animals depending upon the preservation of vernal pool landscapes. Her analysis of this plan includes the need to cover specific actions for each species, and the importance of preserving core areas. Because plan actions are voluntary, implementation requires teams of committed individuals, including private landowners, researchers and government representatives.

Neil Levine presents a public-interest lawyer's commentary on litigation concerning the Endangered Species Act directed at vernal pool species. He points out that this litigation and recent legal decisions have resulted in recovery that goes beyond the simple consideration of specific actions that jeopardize individual species. These comments provide a valuable historical record of vernal pool species litigation that resulted in the Recovery Plan discussed by other speakers.

Carol Witham points out that land-use planning often fails to preserve vernal pool landscapes, and that political pressures often weaken the interpretation and enforcement of existing laws. This article advances the importance of the pressure placed on government by concerned citizens. It documents activism supporting vernal pool landscape preservation at Mather Field. This activism was a result of a public school education program considering the beauty and value of these natural areas. She also describes a gathering of environmental organizations in Sacramento in 2002. New partnerships developing out of these meetings include cooperation of environmental organizations and the U. S. Fish and Wildlife Service. This also resulted in an unusual alliance of environmental activists and range managers.

