Commentary

Vernal Pools

by Sonya Hooker and Bill Korek

Vernal pools are seasonally flooded depressions found on impermeable soils such as hardpan, claypan or volcanic basalt. The impermeable soil allows the pools to retain water much longer than permeable soil. They can be anywhere from the size of a car tire to a football field. These pools are normally shallow enough to dry up each season. However, some pools may remain at least partially filled with water over the course of a year or more, but all vernal pools dry up periodically. Vernal pools often fill and empty several times during the rainy season.

The unique environment of vernal pools provides habitat for numerous rare plants and animals that are able to survive and thrive in these harsh conditions. Vernal pools often contain many plants (California orcutt grass, spreading navarretia, mesa mint, etc.) and animals (Spade Foot Toads, Wood Frogs, and Fairy Shrimp) that have adapted to this cycle of wet and dry in order to survive.

Vernal pools can be found in undeveloped areas. Activities that disturb the soil surface, such as discing and grading, can affect the impermeable soils that create and sustain the vernal pools. Vernal pools can persist even after some disturbance. Currently the biggest threats to vernal pools are development and agricultural conversion. According to the U.S. Environmental Protection Agency (EPA) less than 10% of California's vernal pools remain.

In California, vernal pools are unique and a "highly threatened wetlands." Presently, vernal pools are thought to be among the most threatened wetland ecosystems in the state. Federal, state and local laws have policies regulating certain activities in wetlands, including vernal pools, and may prohibit activities that could harm or harass threatened or endangered wildlife species. In California there are several environmental laws (federal, state and county) and policies that pertain to vernal pools. Vernal pools and their environmental issues are not limited only to California.

Written by Sonya Hooker, Albert A. Webb Associates and Bill Korek, Korek Land Company. For more information, please contact Ms. Hooker, Director of Planning & Environmental Services at Albert A. Webb Associates, providing environmental analysis (CEQA/NEPA), regulatory permitting, and planning for both public agencies and private sector clients throughout Southern California. Ms. Hooker can be reached at (951) 248-4263.

GUEST COMMENTARIES WELCOME, and may be printed at the sole discretion of **Korek Land Company**.

110410

*****

Previous commentaries available upon request: