

plow pan—a pan created by plowing at the depth of tillage, largely the result of the common practice of dropping the tractor wheels of one side of the tractor into the dead furrow for steering while performing the plowing operation.

polar easterly—when winds between latitudes 60° and the North Pole blow from the north and east, and winds between 60° and the South Pole blow from the south and east.

prior appropriation—when water rights are given to those who have historically used the water in a certain area.

profundal zone—in freshwater, the layer of water that is too deep for sunlight to penetrate. The profundal zone is an aphotic zone, and thus photosynthesizing plants or animals cannot live in this region.

rain shadow—the low-rainfall region that exists on the leeward (downwind) side of a mountain range. This rain shadow is the result of the mountain range's causing precipitation on the windward side.

red tide—a bloom of dinoflagellates that causes reddish discoloration of coastal ocean waters. Certain dinoflagellates of the genus *Gonyamylax* produce toxins that kill fish and contaminate shellfish.

R horizon—The bedrock, which lies below all of the other layers of soil, is referred to as the R horizon.

riparian right—the right, as to fishing or to the use of a riverbed, of one who owns riparian land (the land adjacent to a river or stream).

salinization—the process in which soil becomes saltier and saltier until, finally, the salt prevents the growth of plants. Salinization is caused by irrigation because salts brought in with the water remain in the soil as water evaporates.

sand—the coarsest soil, with particles 0.05–2.0 mm in diameter.

silt—soil with particles 0.002–0.05 mm in diameter.

Southern Oscillation—the atmospheric pressure conditions corresponding to the periodic warming of El Niño and cooling of La Niña.

subduction zone—in tectonic plates, the site at which an oceanic plate is sliding under a continental plate.

thermocline—a layer in a large body of water, such as a lake, that sharply separates regions differing in temperature, so that the temperature gradient across the layer is abrupt.

thermosphere—the outermost shell of the atmosphere, between the mesosphere and outer space, where temperatures increase steadily with altitude.

topsoil—the A layer of soil is often referred to as topsoil and is most important for plant growth.

trade winds—the more or less constant winds blowing in horizontal directions over the Earth's surface, as part of Hadley cells.