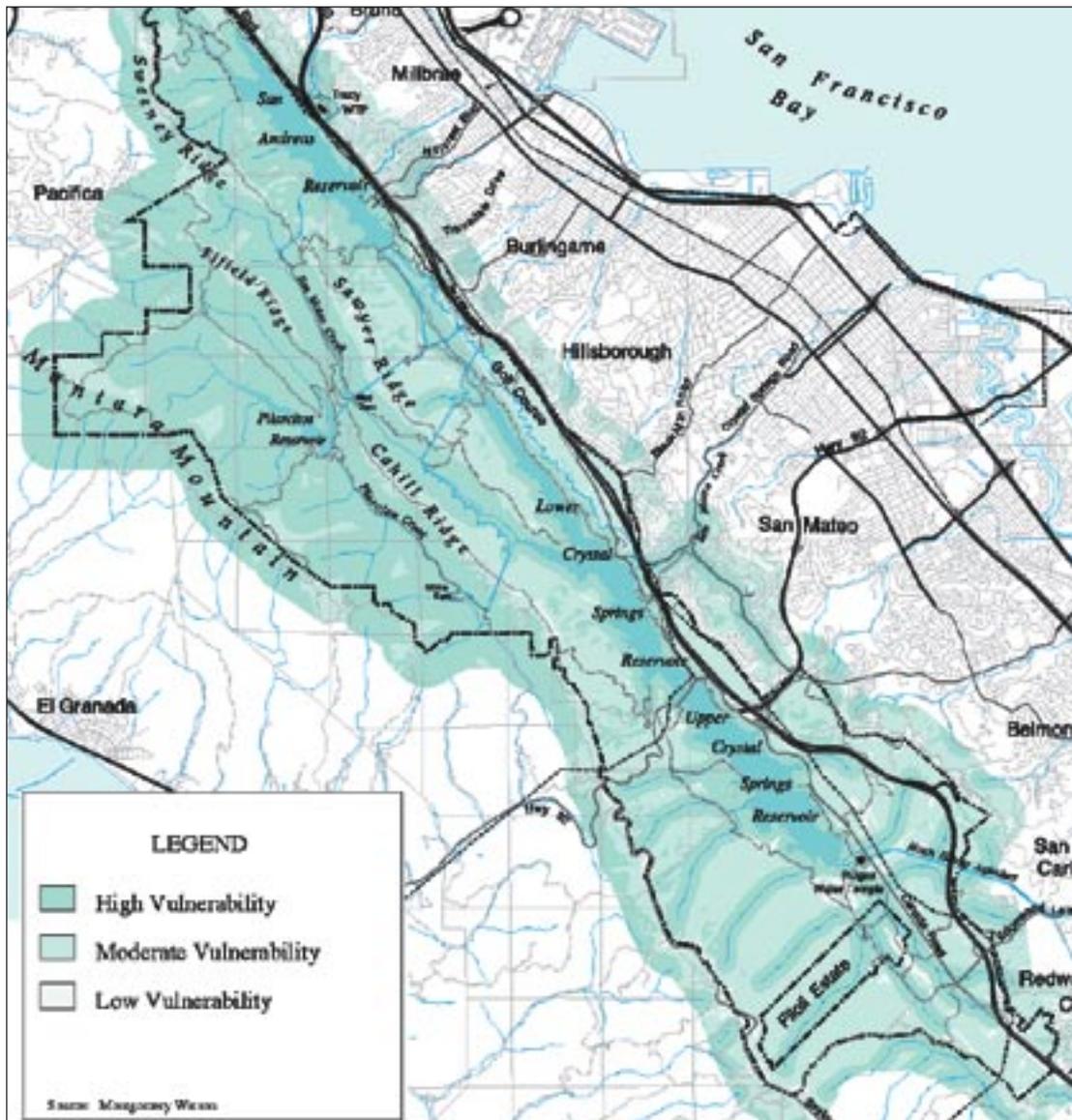


## FRESH WATER SUPPLY

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The quality (and quantity) of an area's water supply depends on several factors: soil characteristics, vegetative cover, rainfall intensity, wildlife concentration and types, and the ratio of imported water to local runoff. This map shows composite water quality vulnerability zones. The darker the green, the more vulnerable the supply is to shortage and contamination.

*Definition*

Common chemical substance, with a very simple atomic structure consisting of two hydrogen atoms bonded to an oxygen atom (H<sub>2</sub>O). The essence of all life on the planet.

*Description*

Where water exists, life is possible. Where no water exists, no life is possible. It is nature's main solvent, capable of washing mountains to the sea and the dust from flower petals. It cleans, transports, irrigates, cools, fuels, and stabilizes the functioning of everything from a single cell to the entire planet. It is what distinguishes Earth from the rest of the known universe.

Water, in other words, is a precious commodity—our most precious commodity—but paradoxically abundant enough for its true value to be overlooked or underappreciated—or perhaps simply misunderstood. In those areas of the world where water is scarce, issues surrounding its use are matters of life and death; some analysts suggest that the wars of the coming century will revolve around water—not oil or iron or gold or any of the traditionally valuable resources nations have fought over. Right now, one-fifth of the world's population doesn't have enough water to meet daily health and sanitation needs. Even some areas of water-wealthy nations—the western United States, for example, and northern China—where population growth has far exceeded water supply, are experiencing alarming shortages.

Explosive growth alone, however, does not account for the current water crisis. While world population tripled in the twentieth century, water use increased six times. We must look at the policies underlying the management of water resources, as well as at the ways and quantities in which water is used.

Water is made available in most developed countries via government subsidy. Because it is vital to human welfare and has been relatively abundant, it has made sense for governments to do so. But as conditions worsen, the need for conservation calls for radical shifts in regulatory policy: taxation based on use, limited expansion of irrigated agriculture, increased productivity of water (wiser use), and development of storage techniques are just a few of the emerging battlegrounds.

Some people have to walk miles to fill a bucket with water that may or may not be fresh, while others let the tap run while they brush their teeth. There is in fact enough fresh water for everybody, but fundamental problems of contamination, conservation, and equitable distribution remain very much on the center stage of global issues.

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