

U.S. Immigration and the Limits of Supporting Earth Resources

By WALTER YOUNGQUIST

The problem of immigration and supply of supporting Earth resources can be expressed simply in the fact that more people use more resources. The physical standard of living is a function of how many resources each individual can command either directly or indirectly.

Appointed by the President of the United States to consider the matter of optimum size of U.S. population, the Rockefeller Commission in 1972 reported that there was no advantage to having more people. At that time, U.S. population was 232 million. It is now 315 million and still growing, for each year the U.S. takes in more immigrants than all the rest of the world's countries combined. U.S. population is projected to grow to 442 million by 2050 (Population Reference Bureau World Population Chart, 2012). Almost all this growth is due to immigration.

The two most important Earth resources to support population are fertile soil and fresh water. Nowhere is the problem of supplying these resources to a growing population better illustrated than in what is now our most populous state, California. Most Californians are barely reproducing themselves, but many immigrant families are averaging as many as three children. Now with 38 million people, at the current rate of growth, the California Department of Finance, Division of Demography, projects population will be 54 million by 2040. In 1970, the state's population was less than 20 million. Nearly all of California's population growth in just the last 10 years was due to immigration and births to foreign-born women. California, since 2010, has grown by 951,000 people, and in just one year, from 2012 to 2013, it grew by 332,000. The percentage of California's pop-

ulation composed of immigrants grew from nine percent in 1970 to 27 percent in 2008.

Fertile soil

Population pressures now consume about 50,000 acres of California farmland per year. One of every six acres developed in California since the time of the Gold Rush (1849) has been paved over between 1990 and 2004. This process continues in the most agriculturally productive area in the U.S., the San Joaquin Valley, where Sacramento and cities farther to the south expand. The American Farmland Trust notes that the underlying cause of farmland loss in California is rapid population growth. Asphalt is the last farmland "crop." As the valley produces about half the fruits and vegetables for the U.S., the impact of this problem will be felt in grocery supplies in many other parts of the country.

Water

A desert is defined as a region receiving less than 10 inches of precipitation a year. The Los Angeles basin and adjacent lowland regions receive only about eight inches annually. Here the water supply situation has become increasingly acute as population and corresponding water demands continue to grow. Over the years, this demand has been met in many ways. Documented by Mark Reisner's *Cadillac Desert*, the Owens Valley water supplies, once making possible Owens Lake, now a dusty flat, have been appropriated to serve Los Angeles. Farther north, along the eastern flank of the Sierra Nevada, many stream banks now display the sign "Property of Los Angeles Water and Power." Farther to the north, Mono Lake, an ecologically sensitive area important to waterfowl, was saved in its present reduced form from Southern California's water demands only by vigorous efforts of environmental groups.

However, to meet growing demands from the increasing population of Southern California, there is a proposal that a tunnel be made to carry some of the water from northern California's Sacramento River beneath the Sacramento Delta and on to the south. If this were done, it would have a major negative ecological

Walter Youngquist, Ph.D., is a consulting geologist who has studied the relationship between Earth's resources and its population in over seventy countries. A Fellow of the Geological Society of America and the American Association for the Advancement of Science, he is the author of GeoDestinies.

impact on both the agricultural and wildlife resources of the delta, the fish populations, including salmon, being especially adversely affected. In nature, you cannot do just one thing. Everything is connected to everything else.

California draws its water supplies from many sources, including the Colorado River. Water allocations exceed the annual flow of the river, which now barely, and at times not at all, reaches its delta area at the head of the Gulf of Lower California. The viability of the delta now is much diminished.

Exacerbating the problem of Colorado River water (that no legislative action can cause to increase), is the continuing growth of population along the eastern front range of the Rocky Mountains. Denver now, by means of a pipeline, draws water from the Colorado River headwaters west of the Continental Divide, across the divide to supply its growing population.

Farther east in the western Great Plains, the Ogallala Aquifer that has historically supported the extensive irrigated agriculture of the region is now being greatly overdrawn. The situation is described by the Kan-

sas Geological Survey as analogous to a bank account where by natural recharge a dime is being deposited and we are withdrawing a dollar. In the southernmost portion of the geographic extent of the aquifer, in north Texas, some 15,000 acres are no longer farmed as the depleted aquifer cannot now economically provide the needed irrigation waters. Everywhere, across the U.S., natural resources are under assault by the growing population. The U.S. is now the third most populous nation in the world, only behind India and China. It is projected to continue to retain that position through at least 2050, due almost entirely to immigrants and their descendents. As the Rockefeller Commission clearly concluded, the U.S. does not need any more people.

Population growth is now exacerbating nearly every environmental problem in the U.S., and tends to erase any gains made from conservation and technological advances. With its diminishing vital base of fertile soil and fresh water supplies, the U.S. is now in an unsustainable ecological situation about which everyone should be concerned. ■



California draws its water supplies from many sources, including the Colorado River. Water allocations exceed the annual flow of the river, which now barely, and at times not at all, reaches its delta area at the head of the Gulf of Lower California. The viability of the delta now is much diminished. ABOVE: the view of the Colorado River at Needles, California.