

## E GREAT THIRST

Low-value, surplus, water-intensive crops like rice, alfalfa, cotton and pasture use 83% of California's water, yet contribute only 2.5% to its \$735 billion economy. A cutback of 10% in agricultural water use would supply all California cities for 20 years, do agriculture no harm, and eliminate the need for new projects.

Home to "the world's most complex hydraulic system," California moves, wastes, pollutes and misuses more water than many economies possess. How has such a colossus come to bestride our earth?

UCLA history professor Norris Hundley, Jr. tells the story in *The Great Thirst: Californians and Water, 1770's – 1990's* (551 pp., U. of California Press, 1992). Native Americans, having diked, dammed and ditched water for many centuries, to rinse acorns, irrigate crops and divert salmon and steelhead, left scarcely a scar on the land.

When Spaniards settled in the late 18<sup>th</sup> century, they found one of the most densely populated areas on the continent, and promptly began to Christianize its inhabitants. God, through the Spanish crown, had granted the settlers rights over every natural thing, including water and Indians.

Coming as they did from a country where water was precious, the Spaniards shared it, for the common good, and allowed no waste. Indians did most of the heavy lifting; they alone worked not for everyone's good, but for their masters, the Spaniards.

Numbering 300,000 (pre-conquest), Native Americans in California had dwindled to 20,000 by 1900. Europeans,

numbering 10,000 at the time of the American takeover in 1846, grew to 1,500,000 by 1900, driven by a “myth of superabundance” – of land, timber, game, etc. The American newcomers valued not community but “individual rights and minimal government interference,” their enthusiasms being wealth and laissez faire.

The gold rush left several legacies – environmental destruction, preeminently through hydraulic mining, blasting away forests and whole mountains; monopolization of water rights and vast acreages by corporations; moving water from areas of abundance to areas of scarcity, and cut-throat individualism.

After the financial panic of 1893 ruined many and put tens of thousands out of work, Republican values of increased federal control, conservation and faith in an educated elite, reigned for the next 40 years. In 1902 the federal Reclamation Act promised cheap water to small farmers and never to speculators and monopolists – a promise not kept, thanks to breaking the law or failing to enforce it. Huge farms were to become the norm.

From 1932 to the 1980’s we dammed most of California’s rivers, and crisscrossed the state with canals carrying water pushed by giant pumps – the gold miners’ dreams realized.

Who benefitted? L.A. and San Francisco, certainly, which saw growth as an end in itself and created California’s “core process” – replacing farms with houses and businesses. Also corporate farmers (by the 1980’s, 10% of California’s farms yielded 75% of production and income).

And the losers? Small farmers -- and farm workers, who despite Caesar Chavez continued to live in serf-like

conditions. Also the environment: the Delta, heart of California's water system, suffers salinization and selenium poisoning; it's sinking faster than any place on earth – some of it already 25 feet below a rising sea level, putting its levees at risk – and its toxic water has no place to go. Dams are subject to siltation and earthquakes; they're built to withstand 100 year floods, but we don't know what those are – data doesn't go back far enough.

Hundley's solutions are: wiser and less wasteful use in our fields, by eliminating cheap, subsidized water; cash rewards for urban conservation; instead of new projects, storage in aquifers, not reservoirs; and rational, unified water laws.

But no policy, Hundley reminds us, can succeed if we don't address world population, expected to double to 10 billion in 60 years.