

Water in the West: Growing Beyond Nature's Limits

By Wallace Stegner

December 29, 1985; 12 AM PT

LOS ALTOS HILLS, CALIF. – Everything that makes the West different from other regions, and everything I loved about it while I was growing up in it, derives from aridity. Much of what is wrong with it now derives from our arrogant belief that we can conquer aridity and remake the region.

Except for parts of the Pacific littoral, mainly in Washington and Oregon, there is either not enough rain for unaided agriculture, or the rain falls at the wrong season. In high altitudes there is plenty of water, but the soils are thin and the growing season short. Great reaches of the desert and plains will support only a meager population. Animals there adapt to drought or become extremely mobile, and in general live sparsely. So, for a good while, did people. They learned to adapt and accept. Walter Webb was right, as late as the 1950s, in calling the West an oasis civilization.

Aridity has consequences both physical and spiritual. One is a sharp change in erosional landforms, another is a greatly altered flora, another an intensification of light. Those mean new shapes and colors. When artists started to paint the West they had to learn a new eye and a new palette, and virtually forget green.

Another consequence is spaciousness, an enlarging and exhilarating sense of openness and freedom. The air is dry and clear, the scale enormous. A man is small and lonely in such big landscapes, but important too: He can be seen a long way off, he peoples the unpeopled. He may even acquire an exaggerated notion of himself and embrace illusions of independence and self-reliance. These inflate the ego, but for most Westerners have not proved useful qualities. Bernard DeVoto liked to say that the true individualists of the West usually wound up on the end of a rope whose other end was in the hands of a bunch of cooperators. The myth of western individualism has been useful chiefly to boosters, and to politicians when they want endorsement of the energetic greed that "made America great."

Still another consequence is the public domain. It is concentrated in the 11 western states, and it remains public because the land was generally too dry and apparently worthless to tempt private owners. The West's spaciousness depends on it. It holds the oases apart. Park Service, Forest Service, Fish and Wildlife Service and Bureau of Land Management manage it, or are supposed to, in the public interest. They sell timber (too much, too cheap), and leases for grazing (too many, too cheap), coal (too cheap) and oil (too cheap) to individuals and corporations. They also protect watersheds (sometimes inadequately)

and provide recreation space. People from everywhere use these lands freely, but Westerners use them most freely of all because they are right next door. Often they think they own the public domain, or should, though in fact it belongs to and is maintained by the whole country.

These federal lands lie within the boundaries of the western states, but are not subject to state control or open to unchecked exploitation by the interests that dominate state governments. Periodically the states try to grab Forest Service or BLM lands they covet. The cynical outburst called the Sagebrush Rebellion was the latest instance. The perennial conflict between state and federal governments over the resources of the public domain is an unresolved part of the future that overhangs us.

But the vital resource of the West is water, not land. Land without water is worthless for agricultural, industrial or municipal use. John Wesley Powell, who understood the West better than any man of his time, thought that in the control of water lay the opportunity for a democratic and cooperative society in the West. He proposed political divisions along drainage divides, cooperative irrigation districts, irrigation and grazing homesteads surveyed according to the availability of water rather than by the rigid grid of the usual cadastral surveys.

Habit, ignorance, politics and western "individualism" prevented Powell's program from getting anywhere. Private capital developed the smaller and easier water projects. Cooperatives never materialized so western boosters and the politicians who worked for them got the burden of the future transferred to the federal government. After all, the West was public domain. And irrigation would turn the West into the Garden of the World. Powell's effort had been to prevent land monopoly based on control of water. The boosters, with federal help, made a degree of land monopoly immensely profitable, hence inevitable.

Let me hurry through this history lesson. The Newlands Act of 1902 that put the government in the irrigation business contained one democratic, Jeffersonian safeguard: Use of water from Bureau of Reclamation dams was limited to 160 acres per family. That provision has never been effectively enforced. Cecil D. Andrus, Jimmy Carter's Interior secretary, made the last attempt. The result was a "compromise" that allows 160 acres to each family member, and permits unlimited leasing. The growers can relax.

During the Depression years the West's destructive range practices came home to roost as dust clouds. One of the rescue efforts by the New Deal turned the till-then-ineffectual Reclamation Bureau loose on a major project, Boulder (Hoover) Dam. In the 50 years since, every western river has been harnessed and the West transformed. The Colorado is so tamed its saline waters die in the sand miles from the

gulf. The Missouri is a string of ponds, the Columbia turns turbines, the Sierra rivers are spread over the Central Valley or pumped over the Tehachapis to Los Angeles.

Water let industry establish itself in the West during the war years. Population followed, making more dams necessary, luring more industry. Once the West was raided by outsiders; now it helps raid itself. Its subsidized irrigation agriculture reaches world markets, at the expense of the agriculture in states that helped pay for western dams. We are brash, changing, booming, a magnet for the hopeful, America only more so, radically growing and growing worse. Los Angeles, San Diego, Albuquerque, Phoenix, Tucson, Denver, Salt Lake City, spread their suburbs and their waste dumps into the farmlands.

Many people look with wonder and pride on the water-engineering that has made all this possible. I guess I think of it as Original Sin.

For this West is not what it was before we began to manhandle it and change it into what it was never meant to be and cannot remain. Every western state is overpopulated, some grossly so. We grow beyond our limits and there are consequences of our intemperate tinkering.

Those consequences are everywhere, and make the West less livable as it grows greater economically and politically. The smogged air of Denver, Los Angeles, Billings, the once-crystalline Four Corners country, is a consequence. Poisoned ponds such as Kesterson Reservoir, where waste water toxic with pesticides and trace minerals breeds legless and wingless ducks, are a consequence. Contaminated beaches such as some on Monterey Bay are a consequence. Dwindling beaches, and coastal erosion, are a consequence, for dammed rivers bring no renewing sand to the sea. Diminishing fisheries and fading wildlife are a consequence.

You will say these are the usual disadvantages of growth, and may be recovered from. I suppose we will not die of them—we aren't that stupid. But the West is a different country than you know: arid, hence fragile, hence not as capable of healing as country protected by trees and sod.

One effect of continued irrigation is to raise the water table and draw salts to the surface by evaporation, creating, in effect, an alkali flat. The salts can be leached away, at least for a while, if you have enough water, and if the water itself is not saline from having passed over many such fields before returning to the rivers. But there isn't enough water, always, and sometimes it is saline. Of all the ancient irrigation civilizations only Egypt, with its annual Nile flood, escaped eventual salinization of the fields.

We have not escaped it. In the Gila Valley, in Utah, in California's Central Valley, land have already been abandoned to the alkali. The

Colorado's water is so salty in its lower reaches that we are having to build a desalinization plant to live up to our water commitments to Mexico. Desertification, according to the Council on Environmental Quality, proceeds faster in the United States--meaning the West--than in Africa.

There is just not enough water. Every river is oversubscribed. Dams will eventually silt up or wash out, and new sites are not unlimited. Even the underground water is not forever. In the Central Valley, the Santa Clara Valley, Tucson, western Nebraska, the pumps go night and day, recklessly lowering the water table, sometimes by a hundred feet or more, killing the goose that up to now has laid golden eggs.

Finally, where is the democratic, Jeffersonian, agrarian society the West hoped to become and once approximated? Every one of them, to establish and keep control of the waters of life, became an oligarchy. That is what the West is now, an elite of landowners and water experts on the top, an army of migrant aliens, most of them illegals, on the bottom. A book soon to be published, "Rivers of Empire," by Donald Worster, will tell you the whole sorry story.

The West cannot carry what it has lifted. It will make heroic efforts, always in the direction of more grandiose engineering works, and in the end it will subside back to what it was meant to be, an oasis civilization with one great deficiency and all the advantages that would flow from it if we would scale down our demands on our resources. Original Sin, while temporarily providing a livelihood for many, has depreciated life for all, and brought death into the world, with loss of Eden.

We need a Redeemer. We need a Congress that will say no to any more water boondoggles in the West. We need a moratorium on boosters and developers and raiders who can't or won't see the consequences of their acts. We need to scale down our expectations and advise a lot of hopeful immigrants that what they seek is not here.

For in creating the modern West we have gone a long way toward ruining this magnificent and fragile habitat. And as Marcus Aurelius said a long time ago, what is bad for the beehive cannot be good for the bee.

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Among many works, Wallace Stegner is the author of "The Sound of Mountain Water: the changing American West" (1969); "Angle of Repose," which won a Pulitzer Prize in 1972, and "The Spectator Bird," winner of the 1977 National Book Award.