

WHOSE WATER? OURS

Clearing Fallacies about Implementing Common Rights

By Mason Gaffney

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"A wise man can learn more from a fool than a fool can learn from a wise man." - Cato

The above observation from a Roman philosopher and statesman, speaking to us through two thousand years, may explain a lot about the continued viability of higher education in America. I hope also it may motivate you to attend to what follows, even if I begin by calling foolish and false what you've been told is wise and true. Be patient. Like Harry Truman's economist, I have two hands: wait for the one you like better.

Once I was young and foolish and made many promises. I learned they are easy to make and hard to keep, so I turned to forecasts. Those are also easy to make, but hard to abide when they turn wrong. Next I tried prescribing public policy. That is safe if the advisee is in Tierra del Fuego, and you in the privileged sanctuary of a U.S. academy or bank. The going gets rougher as you diagnose and prescribe closer to home and offend the local Chamber of Commerce or water establishment: these bite back. One could join protest marches, but I weary of "colonialist" mentalities who trash others' initiatives and offer nothing better.

That left other choices. One is to acquire property, so I bought a small irrigated farm with a senior claim on the Santa Ana River, to get a grip on the conservative side of water issues. The second choice is to identify and refute fallacies, the weakness indulged in the present paper. This is good clean fun, and appropriate when you have been asked to be "provocative." It is fair and even spine-tingling when you have heard some of those fallacies from the lips of previous speakers who should still be present to rejoin. It is also constructive. These fallacies, some of them spread by special pleaders ex parte, muddy the waters and darken the light needed to implement common rights, draft better water legislation, and raise the general welfare.

The late Senator Albert Beveridge of Indiana in 1922 suffered the fate of Oregon's Congressman Al Ullman: he was retired by the voters for proposing a national sales tax. Thereafter, he mellowed into being a scholar and biographer. In these philosophical years he wrote "You know, I've learned in the Widener Library at Harvard that most of what I was taught as a boy in Indiana is pure bunk." That is also true of much of what we ordinarily read and hear about water economics and ownership. I am giving you a list of things I submit are pure bunk, or mostly so. My first points may seem radical, but stay your judgment, I have some right-wing thoughts coming "on the other hand."

FALLACIES CLOUDING THE WATER

1. "Water rights are real property"

Wrong! To begin, the word "right" is wrong. A right is something like free speech, possessed by everyone. The only water rights, properly speaking, are common, which present water permits certainly are not. Private water interests are claims, licenses, permits, holdings, reservations, privileges, or possessions. I do not say "property," except in reference to the state. Water is the property of the states.¹

Most private water claims are licenses, at least in the 17 western states. As Law Professor James Huffman says in his paper, most state constitutions read that the water of a state belongs to the state (in trust for the people of the state). Professor Ralph Johnson cited a phrase to the same effect from the Washington Water Code, although he declined to be pinned down on its interpretation.

If economists have two hands, a lawyer has more than a squid has arms, and as much ink to darken the waters. Murky ideas make for clouded titles and blinded citizens. Now and again, however, one finds a pure ray of light like this from Oregon Chief Justice McBride (In re Hood River, 1920): "It does not seem to me that a license to appropriate water in this State ever rose above the dignity of a mere privilege over which The Legislature has complete control."

There is a good deal of paltering on the matter. Legal opinions seldom stop with the bottom line. When you dig, however, it comes out like this. A water license has about the same standing as the privilege some airlines had (before deregulation) to occupy certain airport gates and time slots; the privilege of a cab to work the streets of New York after securing a medallion; a license from the FCC to use a specified frequency; or a grazing permit on Federal lands. It is like the old Oregon and California Railroad land grant which was revested when the grantee failed to perform. It is subject to conditions, and to forfeiture for failure to meet same.

The evidence is, you do not find water licenses recorded like title deeds to real property. More important, you do not find them on the real estate tax rolls. Never have I heard a licensee demand to be taxed because he holds real property. He

¹There are complex intergovernmental issues at the boundaries among states. There are Federal properties, too, and dozens of issues and lawsuits between states and the U.S. Here we confine our attention to one state.

will, if pressed, tell you the water right is taxed indirectly through the value of taxable real property it serves. There is no more than a half-truth there. The untrue half is that unused and misused water reservations (the standard case in California) do not raise the value of any land anywhere, and are not taxed at all, directly or in-.

Lawyers habitually intone "property" when describing water permits, especially their clients'. This is ceremonial and tendentious, to bolster the particular case. It is also a group shibboleth, to bolster all clients' cases against all the outside, unlicensed public. Call it a class bias. After all, most lawyers get in this field to represent licensees, individually and collectively.

The upshot is that The Legislature has more latent power than most of us imagine. As electors and citizens our hands are not tied, but rather our minds. That's part of a lawyer's job, and they are good at it. So much the more honor to a lawyer like James Huffman who lets lay citizens know their latent powers over water permits.

2. "Real Property is Sacred and Untouchable"

Wrong! Suppose this layman writer and the Oregon Chief Justice were in error, and water permits were real property. That is just out of the frying pan, into the fire. What does "real" mean, applied to property or estate? It is not the opposite of "imaginary." No, "real" is an elided English form of the French "regal," taken into English when English kings spoke their native French. Real property is The King's. We threw out kings in 1783, but not the royal powers. Rather, we transferred those powers to our State governments. By succession, real property means government property!

Every landowner is a tenant of the king or his successors in interest. The very word "own" comes from "owe." An owner is one who owes. What he owed historically was fealty to his sovereign. That used to mean bending the knee, kissing the royal foot, swearing allegiance, and showing up on demand to smite the enemy. It has evolved into servitudes like eminent domain, the police power, the public trust doctrine, and something else that our lawyers may have glided over, but economists underline: the tax power. We will return to that.

These concepts are basic to the common law which, as Professor Huffman points out, has been brought into every U.S. state constitution (save Louisiana's). Moses was not just whistling Dixie when he he quoted The Lord as saying "The land shall not be sold forever; for the land is mine, and ye are strangers and sojourners with me." Chief Seattle would have

approved. So would Brigham Young, who founded the once-independent nation of Deseret on that principle.

Moses was also speaking just as William the Norman spoke after he conquered England, except that Moses was also a theocrat. "You hold title to this land from me; observe my rules." That is the law we have inherited; that is how the system works. In one form or another it is found around the world, except in the minds of abstract economic theorists like those of the Chicago School. These philosophers construct systems from introspectively derived axioms, turning away from the historical origins and conditions of the absolute property rights they preach so ardently.

3. "You cannot take real property without compensation"

Wrong! Whoever said that has not been following zoning law. As a rule of thumb, zoning can take away about 85% of the use value of land before it is declared an unconstitutional "taking" of property. The owner must be left with some "economically viable" use, meaning almost any use whose revenues exceed expenses, however small the net gain.

As to other property, well! No one has yet been compensated for losing the fruits of his sweated brow to the IRS, at rates which once soared as high as 90% in the top bracket. Let's put a lid on loose and wishful preaching about absolute property rights that never existed.

4. "If property falls, America falls"

Wrong, at least in my opinion. Property is not an end in itself; it is a means of getting resources put to their best use for the general good. To secure that end, property rights are instituted among men, deriving their just standing from the consent of the unpropertied. Whenever any form of property becomes destructive of that end, it is the right of the people to alter or to abolish it, and to institute new principles most likely to effect their safety and happiness.

Consent of the unpropertied? That means property must work for the benefit of all, not just those who own property. But abolish property!? That is a red flag indeed, but note I said alter or abolish, and it is our own Declaration of Independence I am paraphrasing. Like Jefferson, I generally prefer alter to abolish: "abolishing" something is nihilistic until we know what we want to replace it with. The point is, we have many degrees of freedom as citizens; we are not bound body and soul by decisions made, or allegedly made, in the past.

5. "The cost of water is passed through to consumers in higher prices"

Wrong! At last I'm in my own field. Prices are determined by supply and demand, not cost. If you sell in a national or world market, or even a competitive local market, you are a price-taker, not a maker. You can't pass cost hikes on to consumers; you have to eat them.

In addition, water (like energy) is an unusual kind of input whose high price may actually increase production. It would be easy to assume, using the good old idea of diminishing returns, that dearer water would reduce intensity of land use. It certainly cuts water use, but when you pay more for water you often switch to higher-valued crops. That is what southern California farming is all about. You substitute capital and labor for water on the same land, and often raise yields per acre.

You cannot afford to dump high-priced water on barley, or alfalfa, or rice, or irrigated pasture, or any other of these domesticated phreatophytes that guzzle up most of our underpriced water today. A number of fairways and cemeteries would also give way to higher-valued uses.

With dearer water you use less by controlling it better, switching from primitive furrow irrigation to sprinklers, spitters and drip. This in turn lets you do new things like growing avocados on steep hillsides formerly barren, yielding more dollars of product for less water (and in this case on waste land).

The above facts point to a fascinating, portentous corollary: you can tax water withdrawals without wrecking the water economy. On the contrary, such taxes (carefully crafted to be constructive) can encourage conservation, getting more bins and bales for the bucket, so to speak. Americans are raised on anti-tax slogans masquerading as economic analysis, always presuming taxes destroy good incentives and wreck the economy. Here is a kind of tax that raises revenue while strengthening the economy. This corollary is too good to drop, and is highlighted later.

6. "You can't stop a landowner from pumping on his own land"

Wrong! You can even control his hunting and fishing there, and apply police power. As to pumping, it depends on whether he owns what is under his land. If it is oil, we all know mineral rights are routinely severed from surface rights by sale, reservation or lease. Water can be subject to constraints, too.

They are traditionally weaker, but not always, and never necessarily.

Limits on pumping water are not as common or severe as Huey Johnson and I think they should be, but they do exist. In coastal areas, pumping is limited and/or taxed to stop salt water intrusion. Further inland, pumping can be stopped to control movement of toxic plumes that destroy valuable aquifers: this is done in the Bunker Hill aquifer under the Santa Ana River, threatened with fouling by toxins from Norton Air Force Base, San Bernardino.

Pumping is routinely stopped to prevent "export" of water from lands overlying an aquifer: California calls that the "correlative rights" doctrine. It is not always well observed, and not often well-advised, but very well established. If that does not suffice to stop overdraft, pumping is controlled to prorate water among surface owners, and shorten pump lifts. Also, pumping wells near streams can be stopped to prevent the indirect diversion of surface water. This happens on the alluvial fans that are so common in the west.

A simple solution to half our intractable water problems would be a severance tax on water withdrawals. If you can regulate it you can tax it. A tax can be viewed as nothing more than an economic price charged by the owner of water (the state) for using its property. If Chicago-School (and Rand Corporation) economists were more consistent in their ardor for the price system, and less consistent in their anarchistic mistrust of legislatures, they would seize upon this obvious application of the price system and boost it with all the considerable influence they wield.

Whether one chooses taxation or regulation, we must control pumping in some manner if any system of surface control is to work. As Huey Johnson points out, while California rations and conserves surface water, landowners in the arid San Joaquin Valley just punch more and more wells into the aquifers and pump up free water the State keeps recharging at high cost. Thus they play out their destined role in The Great Water Treadmill: subsidized water supply followed by overdraft followed by State rescue projects followed by new overdrafts, etc. ad bankruptcy.

This treadmill got well started in 1913 when Los Angeles tapped the Owens Valley waters to supply free water in the San Fernando Valley. The lands there were timely prepurchased by insiders, giving a clue to the forces behind the premature seizures and diversion of water. The episode was dramatized in the cinema Chinatown, so the scenario is often now labelled the "Chinatown Syndrome," although the key names like Mulholland, Otis and Chandler sound distinctly occidental.

It is not just history, it is the present and near future: the Great Treadmill keeps turning. The Metropolitan Water District of Southern California (MWD), which now presides over our destinies, keeps pressing for more water sources, preaching domestic conservation and imposing rationing on its old customers - and annexing new desert lands to water. Kern County landowners keep irrigating desert lands, overdrafting, and petitioning Sacramento for "emergency" aid.

7. "Economics is hostile to environmentalism"

Partly wrong, although some economists are guilty as charged. Economics, properly pursued, deals with how best to meet human wants. Recreation, fishing, wildlife, amenities, clean air, pure water, sustained resource supply, watershed protection, good health, and conservation are legitimate human wants. Many economists, I confess and deplore, are blind to such values, and think only of maximizing GNP measured in the brutal old-fashioned way, developed during World War II for war's emergency purposes and never revised. Others, cowed by cow college deans, dare not think at all, and write only of sustaining farm land values: damn the cost to others. Many others, however, are leaders in developing environmental and resource economics. Today wise environmentalists, rather than sniping at all economists, are allying with the last kind. Here are four reasons why environmentalists and economists are natural allies.

A. Economizing is conserving.

Rationalizing water use, the proper aim of economics, is inherently conserving. For example, if we put the Santa Ana River to its highest and best use, it would obviate megatons of water imports, and with them the associated environmental damage. I myself possess a share of this river, which rises naturally in an area of intense water shortage, yet I waste it. Why? There is hardly any variable charge imposed on me for using more. There is a yearly fixed cost, at about \$20 per acre-foot for a "standard" amount.² The "standard" hasn't changed in a century, and is much more than I properly need.

Meantime, the State is importing water here at a true social cost of about \$2,000 per acre foot, 100 times what I pay (see p. 21). If there were a market where I could sell my "right" for a tenth of that price I would surely do so, but there isn't, so I am waiting. If there were a price charged to me at a tenth of that cost, I would not buy, but there isn't, so I am taking. Thus I, and thousands like me, just stand pat and waste water.

²The small charge covers expenses of the Gage Canal Co., which delivers to me in the cheapest old-fashioned way, by gravity, in rotation with other users. There is no charge at all for water as such.

Abuse of local waters in arid areas of high demand, like southern California, results in "hydro-imperialism."³ The prevailing ethic is mixed-up macho. Conservation is for sissies: Real Men don't conserve water; Real Men prove they possess predatory genes by preying on peaceful people's waters. The predators can build more golf courses in the Sonoran desert of the Coachella Valley.

B. Subsidy wastes both dollars and ecologies.

Hydro-imperialism is the common enemy of Sierra Clubbers and economists. That is lucky for economists, because Sierra Clubbers have more clout. For example, twenty years ago some porkbarrellers proposed pumping water from the lower Mississippi River up to West Texas, to overcome drought in Lubbock. It was to be one the The Great Boondoggles - a real record-smasher for pure waste.

I laughed when I read ecologists were fighting it to save the habitat of some unremembered nothingbird, say the "Least Southwestern Shiny-rumped Fleapicker." It seemed so funny to have a few ocular bird-freaks dragging in their eccentric boy-scout hobby, when billions of real values like dollars were at stake. I'm not laughing any more: the Shiny-rumped Fleapickers won! Damn the billions, Congress doesn't care, but it jumps for organized ornithologists.

Now I dare admit the truth, I'm an old bird-freak myself, complete with ancient bird study Merit Badge on my old scout sash, and an honorable arrest for trespassing in hot pursuit of, as I recall, an Oven Bird. Even bird-hating economists should be glad, because ornithologists are winning our battles. We are natural allies.

"You have no right to stop growth," says the hydro-imperialist. I agree, but insist on the counterpart: we have no duty to subsidize growth. Hydro-imperialists and allied land speculators have no right to demand subsidies.

Water supply and flood control and navigation projects, the traditional kinds, are heavily subsidized. Subsidy generates waste almost by definition, in the amount of the subsidy. If it is a subsidy to withdraw water it also creates scarcity of water where nature may have given us plenty. Consider the lower Colorado River. Every major user is subsidized, mostly by Congress. No one pays a dime for water at the source, but everyone gets paid to suck it up and take it home. No wonder there is a shortage. No wonder there are 82 golf courses

³Apologies to etymological purists for combining a Greek with a Latin root: I just like the sound of it.

operating in the Coachella Valley, a Sonoran desert, and 50 more planned. No wonder The U.S. Bureau of Reclamation can't even find takers for water carried to Phoenix in its multi-billion dollar Granite Reef Aqueduct. I could go on, but exhorting Congress not to waste money is scolding sinners in Sodom. Come on, ecologists, find an endangered species!

C. Correct economic analysis prescribes more water for fish.

Twenty years ago a study⁴ on the S... River of B... prescribed sacrificing the fishery to a proposed power project, reasoning as follows. The fishery has no value because it is overcrowded: its "rent has been dissipated by the tragedy of the commons." The value of the catch is only great enough to pay the fishermen. The fishery as such therefore has no residual value; it adds nothing to the total value. Take it away and nothing is lost, net of costs.

That is a profound fallacy. You will have noted it is a way of "dehumanizing" fishermen and assuming away their readjustment costs, but that is not my main point. It says you should remove water from the use that is crowded with people, and dedicate it to the use of fewer people. This violates the basic law of diminishing returns (a.k.a. variable proportions). It violates good marginal analysis, a bedrock of economics.

My friend the author happened not to be an economist by training, but (alas! for education in economics) some "trained" economists would do the same. In fact, however, the crowding of a resource does not mean it is worthless. Rather, it has become extremely scarce to those crowded onto it, and the marginal value of water added to that use is extremely high. In terms of variable proportions, it has the same effect as removing some fishermen, which the writer would have approved.⁵

D. Correct economic analysis presumes public trusts.

Another thing some economists do right is to acknowledge that "entitlements" - the initial assignments of property rights - have a major effect on the relative bargaining power of different parties. For years, economists would ask, say, canoers what they as individuals would pay to keep a river wild. They got rather low valuations, and duly reported them as the

⁴The author is a personal friend, whom I decline to name.

⁵The good instinct behind the writer's point was that access to fisheries needs to be limited or otherwise better managed. That much of his work is valid; too bad it took such a false twist.

value of recreation. This was an effective defensive strategy for dam builders.

One day it occurred to some unsung genius to ask not what the canoer would pay for the wild river; ask what the power company would have to pay the canoer, and all potential canoers, to extinguish their entitlements. The second question presumes that canoers, as citizens, already own the wild river. Lawyers Huffman and Johnson have already given us reason to think, in fact, the citizens do.

In recent years ecologists have been catching onto this point and rubbing the noses of legislators and bad economists in it. In the current lingo, one arguing ex parte the canoers stresses that canoers' WTA (Willingness to Accept) is the relevant dollar value, and it is higher, perhaps much higher, than their WTP (Willingness to Pay).

In defense, the black-hat economists are developing the new defensive strategy of trivializing the matter by claiming $WTP = WTA$. They follow a Chicago-School guru, one Ronald Coase, who has written it doesn't really matter how you assign entitlements so long as it is clear and firm. Then just call the signal for "Free Market!" and punt: everything will work out for the best. Property will be allocated the same, no matter who starts the game with all the chips, because $WTP = WTA$.

Bunk! You are not surprised when someone says "My home is not for sale. I will not sell at any price," even in our highly mobile, commercially oriented society. They can take that attitude when they hold the initial entitlement. You would be amazed to hear anyone say "I will pay any price." There are many documented instances of a person swearing under oath his land is worth no more than \$X for tax assessment purposes, and soon thereafter swearing again it is worth \$15X when being condemned for a park or other public use, because he wouldn't sell it for less.

"Modern" micro-economics, dominated by Chicagoans like Coase, is a throwback to the old Manchester School, some of whose members carried Adam Smith far beyond Smith's intent. They prescribed "free trade in land" as the solution to all resource problems - free trade beginning with entitlements inherited from millenia of conquest, corruption, aristocracy, confiscations, negligence, covin and fraud.

In this narrow view, everyone is an economic man; everyone has his price; all decisions are marginal; etc. Facts are forced to fit that theology. One modern Coasian, Richard Carson of California, works the northwest Pacific Coast these days taking questionnaire surveys to put a value on environmental values. He has written that he rejects and screens out WTA answers when they

exceed WTP answers by more than 5%. They don't fit the Coase model, so they are invalid "aberrations."

If so, aborigines are aberrations. Consider Indian tribes with Treaty Rights to fish. Their WTP for those rights is minimal, partly because their ability to pay (ATP) is minimal. In addition, the mere hypothesis they are the ones who must pay implies they are impoverished and cannot pay anything.

On the other hand, their WTA presumes their Treaty Rights are valid and they are in control. In their culture, traditional land rights rank very high relative to money. They have seen people squander money and be ruined by it; land is not squanderable, by nature. Land has more than marginal value to them because they have just one way of life, based on fishing. Substitution of other lands is not part of their ethic. Religion is also involved. It is entirely believable they mean it when they say they will not sell "at any price." They may be unreasonable, but that's the point: ownership lets you be as unreasonable as you please. We only notice when someone else has the entitlement.

Politics and institutions are involved: Treaty Rights are the most valuable mode of holding property there can be. They enjoy legal supremacy as high as The Constitution itself (Article VI, Section 2), preempting contracts and ordinary legislation. All those, and other important institutional and sociological considerations are outside the "perfect-markets" ambit of Carson and his sometime co-author R.C. Mitchell.

Indians are an extreme case, but most of us have a streak of their psychology. Not many generations back we share the same kind of culture, a dependence on traditional lands we held in common, in trust for our descendants. These traditions affect current behavior, and are totally disregarded in mechanical-type formal micro modeling (except perhaps as tautological "revealed preferences").

So, a pox on economists who belittle the importance of entitlements. They deserve the scorn and paranoia they evoke in environmentalists. The proper answer to them is, "if entitlement doesn't matter, give it all to me." At the same time, give a break to other economists who are on your side. We need all the help we can get.

8. "Water conservation begins at home"

Wrong! Charity and consciousness-raising begin at home, but cutting domestic water use is tokenism and guilt-tripping carried to absurdity. Put bricks in the toilet tank, they say; shower with a friend, drink less water, drain your pool, wear clothes

until they smell bad, drive a dirty car, stop hosing your driveway, and so on.

In Solvang, California, near Santa Barbara, a sign on the restaurant table says they don't serve water unless you demand it. This is by request of the local water conservation authority. Be a good citizen; do your part; help the desperately dessicated community; (order from the bar, instead.)

Bunk! Solvang is surrounded by sleek horses, playthings of the prodigal, chomping happily on irrigated pasture. There is a vast luxury golfing resort. On the back of a paper doily I calculated how many glasses of water it takes to irrigate a golf course. One acre-foot is about 4.5 million glasses of water. One acre of grass drinks some 6 acre-feet/year, or 27 million glasses. One golf course is 200 acres or more, needing over 5.5 billion glasses a year. That is what a lawyer might call the "incorporeal hereditament" of a golf course. Go ahead, drink your water without guilt, you're as good as a horse or a putting green.

Most "domestic" water use is not in-house at all, it is watering lawns. Most water use is not urban at all, but farm use. Most farm use is not in labor-intensive, job-making crops like berries, tomatoes or fruits, but in low-yield uses like alfalfa, irrigated pasture and rice. Huey Johnson points out you can, indeed, save significant shares of in-house water putting bricks in the toilet tank, in spite of what a minuscule share of total water use that is. It gives you some idea of what a loose water economy we have, and how really non-radical are the adjustments needed to overcome a water shortage.

9. "Water is too important to be left to the market"

Wrong! Yes, I have read Dickens with appreciation. I have seen Les Mis, and enjoyed hearing Threnadier sing "Master of the House." I have been rooked and cheated a few times - who hasn't? But what have you found that works better than the market?

Real estate, which is even more basic than water, has been allocated by the market for a long time. It's not the most efficient market we have; I am a severe critic and ardent proposer of reforms. However it does work, even in its present crippled form, better than anything known in Cuba or Russia. Lois Krieger, Board Chairman of MWD, has said that water markets would never work, your "water is here today and gone tomorrow." Now she is in the market herself, trying to buy water from the Imperial Irrigation District. We all can learn, bit by bit.

However, she articulated a common anxiety. "You can't trust the market because it may take away your water, and then you never can get it back." If you can't get it back, it's not a market. The market looks like a one-way street, always leading away, only to those who are used to getting things for nothing. In the ante-bellum southeastern states, slave-owners felt that way, too: "A labor market will never work, the workers won't be here when you need them." Of course they won't be here if you won't pay them. Likewise, water won't be yours unless you pay what it's worth. That's what markets are all about; that is how they will shift our waters to more productive uses.

In 1972 Newsweek had an issue headed "Are we running out of everything?" Panic! Raisins were short, coffee was short, even toilet paper was short. These minor shortages were left to the market so responsible public officials could care for the really important one: energy. Within a few weeks hoarders disgorged or used their surpluses of raisins, coffee and toilet paper, shortages disappeared and were forgotten. The shortage that lasted was energy, the one that was too important to leave to the market. The market really is pretty good at handling shortages.

10. "The market can solve all problems"

Wrong! I warned you I have two hands. Dearly as I love the market, it has limits. Here I discuss four of them.

A. Some human rights are unalienable.

You may not pledge your body for debt. You may not sell a child, or pledge its body for debt, or leave your debts to the child (unless attached to assets you leave).

If you may not sell a child, may you sell the common rights of a child, rights bequeathed to you by earlier generations? May we collectively sell the common rights of all children, or pledge them for debts, or let them be taken away through our negligence or ignorance? Here we are on contestable ground. The Nation has been hocking its future tax revenues to service a soaring debt. The debt is a lien on children's future taxable incomes. If individuals refuse to pay, they can be jailed. In this way, we have been indeed selling our children's bodies to cover our debts.

Putting it that way, it looks like bad policy, but the guilty deed is done. To atone, I suggest we begin now protecting whatever other birthrights we can leave future generations. What common birthrights belong to all infants? Water belongs to the states, as trustees for all citizens. I construe that to mean the states are trustees for the rights of every helpless child born to pay future taxes.

That may be a right of access, where feasible. Increasingly, open access is not feasible. As Merrill English points out, access must be often limited in order to manage the resource efficiently. Historically, this has often been the occasion to extinguish common rights, as happened in England during the enclosure movements. It need not be so, however. We need merely replace the common right of access with a state duty to collect revenues, and use them to serve common public needs.

A right of revenue means a state would charge people for withdrawing its water to use on private lands, instead of subsidizing them to do it, as now. It would "turn Negabucks into Megabucks" for the state treasuries and their trustors. Not only would the price raise revenue and replace other taxes, it would also promote water conservation and efficient use. Those are two plump birds to hit with one stone. Has anyone even suggested any other policy to achieve so much at a stroke?

B. Water distribution is a natural monopoly.

Water moves through pipes and canals. An aqueduct's capacity grows with its cross-section, which grows with the square of its radius. Its capital cost grows with its circumference, which grows with the first power of its radius. It follows that more capacity always means lower cost per unit of capacity, so there is no place for parallel, competing lines. Accordingly, water conveyance and distribution are almost everywhere public, cooperative, or regulated. There is no free market in water conveyance, nor could there be.

Some of those who preach for free markets do so mindlessly, overlooking this vital matter. Others, more advanced, do give it thought, and solve it to their satisfaction by denying the relevance of the reasoning above. They note that conveyance lines are getting longer, reaching out farther and higher to find supplies and, at the demand end, doing the same to reach sprawled-out customers. Then they "meld" all costs together (consolidate accounts), and find that more capacity means higher, not lower cost per unit. Presto! Competition, marginal cost pricing and free enterprise are again viable.

Such "melding," however, violates the spirit of marginal analysis on which it relies. Marginal analysis calls for deconsolidating accounts, looking at increments separately, and distinguishing different effects. These thinkers have failed to distinguish "volume effects" and "distance effects." The effect of greater distance is to raise average costs, true. The effect of greater volume, carried a given distance, or distributed within a given perimeter, is always to lower average costs. It thus remains true that conveyance and distribution are natural monopolies.

Water markets, water "banking," water pricing, and other excellent economic ideas now emerging from a century of suppression, are music to my ears. They will not work, however, just by sloganeering "trust the market." There must be a central conveyance agency, regulated in the public interest at a high level of economic and financial sophistication, doing what a market would do if a market would work.

That is not a simple task, yet neither is it an idle dream. It is substantially what the state public utility commissions do for electric power, gas, communications, etc. These commissions are imperfect - what isn't? It takes hard work to keep them honest and capable. My plea to you is to accept that necessity and get on with it. You'll find a large battery of dedicated professional lawyers, engineers and economists have been doing so industriously, often capably, sometimes thanklessly, for a century. They need your support.

C. Markets only work when sellers are motivated.

In the 1950s the learned journals were full of sanguine allegations, right out of Dr. Pangloss, about all the water trades taking place. The problems of the past had been solved, the wise men then said. Investigation, however, showed their claims to be without substance. Writing then, I attributed much of the problem to legal barriers to transfer.

Among the false promises and prophecies of my youth is that ridding water of legal barriers to alienability would make it merchantable and let the market move it quickly to serve higher needs. With doctrinaire zeal and righteousness I upheld this position in a debate⁶ with Frank Trelease, then Dean of the Wyoming School of Law, and won some points with a few Chicago-school colleagues in Economics: market freaks were a beleaguered minority then, and I was one. I wish dear Frank were still with us to see his influence on what follows.

Now we are a majority, a condition that lets doctrinaires run wild. I still believe in markets, within reasonable limits. The Rand Corporation in Santa Monica is a think-tank with economists who preach the market without reasonable limits. Their speakers cover the hustings repeating "Let's put a pink slip⁷ on every water right, and all will be well." An enlightened legislator, Richard Katz, reflecting their viewpoint, carried forward-looking legislation about seven years ago to remove many

⁶Mason Gaffney, "Water Law and Economic Transfers of Water: a Reply." JFE 44(2):427-34, May 1962.

⁷Pink slip is California-speak for title to an automobile.

ancient legal barriers to selling water permits. Climbing on the wagon, the Environmental Defense Fund, an activist reforming group, has converted itself into a brokerage, combing the state to negotiate deals.

The results are less than meager, and more than disappointing. There are negotiations and promises, but a wide gulf between negotiation and consummation. The water market is still no more fluid than glue. None of the big, obvious deals have gone down, and very few of the small ones. This is true even after five years of drought, with desperate crises in enclaves of great wealth like Santa Barbara and Marin County, whose ability to pay cash for water is a couple of standard deviations above the mean.

Something else is wrong, and it is this: the sellers are unmotivated. Water flows are perpetual, so who's in a hurry? Unmotivated sellers love to negotiate, while every year the demand goes higher. Real estate brokers understand that too well, from costly experience. These brokers now screen out unmotivated sellers, who waste everyone's time. A motivated seller is an ordinary family moving to Philadelphia, or anyone with surplus land subject to debt and/or subject to property taxes. A regular cash drain from property taxes, the broker's delight, attracts the attention of any holdout seller and motivates him.

Farm water districts are not moving to Philadelphia, even if individuals do. The lands they serve are not moving. Water permits are free of debt (banks don't lend on precarious tenures), and free of property tax. Districts with surplus waters (there are many, and the surpluses are gross) are much like hoarders during an energy crisis, except it is a perpetual condition. Demand keeps growing: why not hold out another few years? To change the motivation, and get this market working for the common good, we need some constructive use of property taxation or the equivalent.⁸

Even if a few big deals are finally cut some day, what will that prove? The real estate market works, such as it does,

⁸A water license is not real property, but a privilege. There is some question whether, or in what legal sense, privileges are property at all. Recall that Congress passed a corporation income tax in 1909 as a license fee for the privilege of doing business as a corporation. Congress did this at a time before the 16th Amendment when it could not (practically) tax the income from property. On such nice semantic distinctions do mighty issues turn. California's tax limit applies strictly only to "property" in the conventional sense. This raises the interesting possibility that a tax based on water licenses might be exempt from California's tax limit.

because there are hundreds of thousands of deeds recorded every year. A good water market would call for the same level of activity; it is nowhere in sight.

D. "Rent-seeking" perverts the market.

Scarce waters where demand exceeds supply yield rent. With demand expected to grow, abundant waters where demand is now low are expected to yield future rents. In anticipation, persons and organizations with an eye to future rents are ready to do what is needed today to lay claim to future waters.

What is needed today is to divert water and put it to "beneficial use." This is the prevailing appropriative doctrine of water law, under which no one pays a state to take its water, now or in the future. Rather, one acquires a permit that ripens into something resembling perpetual ownership, by the very process of taking. In practise, "beneficial use" is nominal, a token, an economic bad joke. Taking is the essence. Local water boosters call this "foresight," and regard it as a cardinal virtue. "Use" may be wasteful, and often is.

This appropriative doctrine is the locus classicus of what is now called "rent-seeking," i.e. distorting present investment to secure future rents. The motive is to divert, develop and half-use water before its economic time, to lay claim to its future. Bismarck is often quoted that those who like sausages and laws should not watch them being made. Let us add water licenses to Bismarck's list. Market fundamentalists tell us to firm up property rights, then let the market work its magic. In their faith and ardor they blind themselves, willfully it seems, to the process of firming up. Claims to water are constantly being made, expanded and firmed up, and the process violates all the virtues a market is supposed to possess.

As we segue toward a market system there is a gray area between older, stationary water licenses and the coming new, movable ones. A class of speculators are moving in to acquire permits from present holders who still value them in their stationary traditional uses. The speculators visualize commercializing the water for distant growing cities or industries, using their political influence to secure needed rights-of-way, and legislation to modify the rights to make them more mobile.

This is a new, modified, more sophisticated form of rent-seeking, blended with plain old-fashioned land speculation.⁹ It is raising great anxiety and resentment among environmentalists, and others too. It causes many to reject the idea of a market in water, saying "A water market just means a plague of absentee speculators like Maurice Strong and his greedy consortium profaning our native waters with their foreign lucre."

There is a better way. Just as we never had to give away water to get it developed, neither need we give away unearned increments to the value of water to get it transferred to higher uses. A policy of taxing water withdrawals (as advocated herein), based on the opportunity cost of water, will do the job without giving away the benefits. Of course that does mean our own governments must take a hand and assess the market value of water. It's that or the absentee speculators: take your choice.

11. "Indians are the Untermenschen of America"

Wrong, in part. Indians have many grievances (so do you); we have much to learn from Indian philosophy (and nothing to teach?); the Iroquois may have inspired our Federal system (it's still a moot question, and maybe a passing fad); Indians gave us squash, maize, and potatoes (and tobacco and cocaine); Indians have dignity and noble bearing (and a high rate of alcoholism); Indians' ancestors were here first (mine were here before yours, though); Indians have treaty rights (I wish I did). All that, and more, I freely grant.

⁹This writer believes plain old-fashioned land speculation is a blight on the free market. Others see it as an integral part of the market. The writer's position on this is in the following. "Tax Reform to Release Land." In Marion Clawson (ed.), Modernizing Urban Land Policy. Baltimore: Johns Hopkins Press, 1973, pp. 115-52. "Land and Rent in Welfare Economics." In Marion Clawson, Marshall Harriss and Joseph Ackerman (eds.) Land Economics Research. Baltimore: The Johns Hopkins University Press, 1962. Pp. 141-67. "The Unwieldy Time-dimension of Space." AJES 20(5):465-81. October 1961. "Land Rent, Taxation and Public Policy." Papers of the Regional Science Association Volume 23, 1970. Pp. 141-53. "Privatizing Land without Giveaway." Conference on Social Collection of Rent in the Soviet Union, August 1990, pp. 1-58. Conference papers to be published 1991, Nicolaus Tideman and Adele Wick (eds.) "Economic Aspects of Water Resource Policy." AJES 28(2):131-44 (April, 1969). "Ground Rent and the Allocation of Land among Firms." In Frank Miller (ed.) Rent Theory, Problems and Practices. North Central Regional Research Bulletin 139 (University of Missouri Research Bulletin 810). Pp. 30-49; 74-82.

Americans take a dim view of privileges based on ancestry. Should Indians be an exception? The "aborigines" who happened to occupy parts of this land when Europeans arrived were the survivors of earlier and ongoing lethal struggles. They had displaced or were displacing earlier "aborigines." They allied with various Europeans to fight other Indians. They committed their share of atrocities. Their claims would seem no more ethically based than ours.

They interbred with Europeans and Africans; "they" are partly "us," and "we" are partly "them." Can we not meet our moral obligations by taking them into our society as equals? We have, in fact, taken some in as our superiors. The Agua Caliente Band of Cahuilla Indians, for example, own some half of Palm Springs, California, a goodly heritage, where they collect market rents from "Anglo" and other tenants, in the same European tradition the Duke of Bedford applies in Grosvenor Square. That is better treatment than any Africans, or 99% of Europeans receive.

Tom Paine observed in his Agrarian Justice that the life of an Indian is a continual holiday compared with the poor of Europe. That was because the Indian enjoyed access to land and a living without paying rent. Indians believed the land is for everyone, a public trust. Chief Seattle's words are often cited. This is an aspect of Indian lore we are taught to revere; it would be ironic to turn it around to justify excluding most of us from the land.

Those who would fight for the underdog should consider the landless in America. The life of some Indians is still a continual holiday, compared to theirs. These landless ones are the true Untermenschen. They have nothing to sell but their labor power; they have to make the rent every month in order to have any right even to exist legally (for without occupying space on this Earth, how can anyone exist?); some sleep on sidewalks and under freeways; they are subject to income taxes and payroll taxes, when they are lucky enough to find work, and sales taxes when they buy; they enjoy no inherited lands or other privileges, but only the common rights and duties of all citizens.

As to water, they have no standing in court; they have no ability to put water to beneficial use, and hence to claim water permits that are given away free and with subsidies to those owning land; they have no voting rights in most kinds of water districts, even though said districts are organized under state laws, borrow the sovereign powers of the state, and are tax-

exempt;¹⁰ they generally lack money to sustain court cases. These are the Untermenschen that most concern me, and I hope you.

Should some Indians, or those claiming to be partly Indian, enjoy special privileges because some of their ancestors were the first Americans? Think what else that entails. The Hurons would demand the return of lands from which they were driven by the Iroquois; the Sioux from the Chippewa; etc. ad inf. Mayflower descendants might come next in line, along with Hudson Valley Dutch, and Hispanics from St. Augustine and New Mexico. The D.A.R. would be right up there, except they would be upstaged by descendants of Tories who lost their lands to victorious revolutionaries and fled to Britain and Canada. The Daughters of the Confederacy would be heard from, perhaps demanding back their ancestors' slaves that were taken from them by force. Irishmen and Germans would be ranked by when their respective ancestors arrived, generally taking priority over Jews and Italians of the next wave.

In California and the rest of the Mexican Cession of 1848, many old Spanish grants, possibly fraudulently or unfairly alienated, would have to be returned. Native Sons and Daughters of the Golden West would get special attention. Asians from the 19th Century would outrank Okies and Arkies from The Grapes of Wrath, who would take priority over Asians and Central American refugees of the 'eighties. The last wave can only join Woodie Guthrie's nice summary of life in the Golden West: "Believe it or not, you won't find it so hot if you ain't got that Do-Re-Mi."

Where would it end, if ever? Is that the kind of society we want? Is it a society at all? Could anyone enjoy quiet title to land anywhere? It seems more likely we should become like East Germany today, with multiple claimants for every parcel of land, and paralysis of production.

¹⁰In the Irvine Water District of Orange County, California, there were recently 50,000 registered voters of whom only four (4) could vote in Water District elections. That is because the Irvine Company owns all the land titles, just leasing land to residents.

A notable exception to this pattern is the so-called "Wright Act" Irrigation District of California. All resident registered voters are eligible to vote in districts organized under this Act. This exception was once the rule. These were the original water districts of the State, a product of the Populist and Progressive eras. Since then the franchise has been progressively narrowed.

The Irvine arrangement was revised a few years ago, after intensive citizen pressure and a suit by a public action law firm. Generally, however, the trend is toward lower levels of voter control.

The problems are complex and philosophical, but I know a woman of action who, as women will, cut the knot with a stroke. Irene Hickman said "The solution is to give all the land back to the Indians, then tax it properly." Hmmm - think about it.

12. "The cost of water is the cost of developing it."

Wrong! It costs \$20/acre-foot to develop and distribute the water I get from the Santa Ana River, way down in Southern¹¹ California. Meantime, the State is wholesaling imported water half a mile from me for ten times as much, \$210 per acre-foot. MWD is preparing to reclaim polluted ground water for more than that. The controlling idea is that pure, sweet water rising naturally in this arid region is only worth what it costs to withdraw it from the river. At the source it has no value, and may be lavished and wasted accordingly. It makes more sense to say water at the source has a high value, proven by people's willingness to spend \$210/unit to buy other water just like it.

That's what economists call "opportunity cost." The true social cost of withdrawing water is the cost imposed on others by preempting it from them. It is the same as what FERC today calls "avoided cost," i.e. the cost of providing a substitute for what is taken. FERC (Federal Energy Regulatory Commission) has made good use of this concept, making electric utilities buy co-generated power from independent sellers at a price equal to "avoided cost."¹²

That's not the half of avoided cost, however, because State water is heavily subsidized in a dozen ways. Its wholesale price of \$210 is way below the high cost of bringing it down here. State water comes from the Feather River, 600 miles north of us, and is pumped over the Tehachapi Mountains. Its true social cost is more like \$2,000 per acre-foot, give or take a few hundred.¹³ \$2,000 is ten times what they charge for it, and 100 times what I pay for my local water.

¹¹Local boosters insist on the capital "S" in Southern California.

¹²The use of "avoided cost" in lieu of the neo-classical "opportunity cost" harks back, like so many pithy locutions, to Henry George, who wrote that the value of a thing is the labor avoided by owning it. (Science of Political Economy, p.249.)

¹³No one ever could figure it out to the dollar, so cooked are the books.

A variation on this basic theme is to admit water has value at the source, but trivialize it by saying it is the historical purchase price, if any. This is like saying that Manhattan is worth no more than the \$24 Pieter Minuit once paid the Indians for it: case closed.

13. "We don't use water consumptively, but return it to the river."

Half wrong. This is the rice-growers' refrain. They do indeed return part of their extremely heavy withdrawals to the river. (They also lose 3-4 feet per acre to evaporation.)

Carrying this a step farther, any water user could cite the Law of Conservation of Matter, and disclaim using any water at all (or anything else, for that matter). He returns it all to nature. In terms of the Laws of Conservation of matter and energy we consume nothing, we just turn it into garbage. Ah, but that is the point, isn't it: who wants garbage?

To understand the meanings of "use" or "consume" in economics we must think in terms of The Second Law, the law of entropy. The water user adds entropy (chaos, disorganization) to water. He takes in pure water, at high elevation, at a time and place of his choice. He returns less pure water, at lower elevation, at whatever time and place suits him, however inconvenient for those below. August water is worth many times September water; rice growers hold August water on their land and release September water.

Water users also often preempt water from those above. On many streams the senior permits are downstream. Many fine legal careers have been made as downstream seniors enjoined upstream juniors from diverting water, to be sure a suitable amount reached the downstream intakes. A good deal of valuable elevation is thus dissipated to the benefit of no one.¹⁴

14. "You can't put a dollar value on a sunset"

Wrong! The market does it all the time, for example in pricing view lots. Putting a value on something simply means weighing it against other things. We do it every time we make a choice. It is a nihilistic cop-out to say we can't do it. We have to do it, and do every day in the course of living.

¹⁴Elevation of water has great value, even if not used to generate power, because it is a means of free transportation by gravity flow.

Mistakes are made, as with everything. Progress is a matter of doing it better. Jack Knetsch, now at Simon Fraser, and Marion Clawson, retired from Resources for the Future, have worked out ingenious practical ways to put values on parks, including those with water-based attractions. Let's get on with such constructive efforts, and never be caught dead complaining we can't do something we must do.

15. "Common rights lead to the tragedy of the commons"

Garrett Hardin in 1966 wrote as follows: "All men are, by nature, unequal ... man is an animal ... One World is a mirage. ... survival depend(s) on the fragmentation of the species into well-separated populations. ... It might be a matter of ... some sort of caste system, that would permit genetic isolation with geographic unity; ... "¹⁵ Published along with "Man, the Racist Animal" by Wilmot Robertson, a sympathetic review of "Hitler's Economic Policies" by Andrew Paul, and an ad for "The Thunderbolt, a Political Action Racist Paper," this early effort reached only a narrow audience whose views were running against a strong tide.

Later, Hardin struck gold with his more subtle phrase, "tragedy of the commons." Here the racism and elitism, if any is still intended, has become subliminal, socially acceptable, and liberally correct. Hardin's phrase has become part of the culture. The culture had already possessed Arthur Young's classic epigram, "The magic of property turns sand into gold," from his 18th Century Travels in France, but Hardin's new version swept Young down the memory tubes. Coupled with Hardin's companion "lifeboat theorem" (pull up the ladder, no more room aboard), it seemed to justify exclusionary policies at all levels. It sounded the right chord to reconcile genetic isolation with liberalism.

Analytically and economically, however, it does not hit the nail on the head. Overdrafting aquifers is a tragedy, all would agree. Aquifers are not a commons, however: their use is restricted to overlying landowners, on overlying lands. The tragedy of overdraft could also be ascribed to landowners' unconstrained assertion of private property rights. Overuse per se is the tragedy. Blaming it on common rights is biased and tendentious.

Asserting common rights need not imply open access and unrestricted use. It is often the opposite. Here are five examples of asserting common rights by restricting use:

¹⁵Garrett Hardin, "Equality, One World and Science," Western Destiny, April, 1966, p.17. Published monthly by the Noontide Press.

- 1, constraining water use by taxing withdrawals;
- 2, constraining hunters and fishers by imposing bag limits;
- 3, constraining pollution of common waters by imposing effluent charges;
- 4, protecting watersheds by regulating timber harvest practices;
- 5, protecting swimmers and small boaters by limiting size and power of boats.

When, if ever, our leading economists become truly "value-free," as they like to believe they are now, I suspect "the tragedy of overuse," a phrase that is free of class and race bias, will replace the "tragedy of the commons." Overuse will be most often ascribed to suppressing common rights, not upholding them.

16. "Water trades are win-win deals"

Partly wrong. There are "win-win" outcomes in water trading, but too many of them are "win-win-lose" outcomes. The losers are the general public who aren't represented. The "win-win" buffs unconsciously rule the unlicensed majority out of the game. Of course that is what licensees and their lawyers have always done, but the new win-win champion, the Environmental Defense Fund, enjoys tax-exemption supposedly to represent the general public.

What we're losing is beneficial ownership of water. It is wonderful when and if trading moves water to higher uses. Every economist applauds better allocation of scarce resources as readily as he jerks his knee. As to distribution of the gains, he is taught "don't worry, be happy," only churls quarrel over spoils. However, every sale or trade of existing licenses creates another "innocent purchaser" to legitimize and sanctify the seizure of common property by powerful individuals and the "public" water districts they control.

"Win-win" has a constructive ring. Water, however, is a limited resource, like land. The only way Smith can get more is for Jones to get less. No amount of happy talk can blot out this basic Malthusian truth.

Water banking is a great idea. So is assertion of common rights. What we need is a "win-win-win" deal. We can have water banking and common rights: make water permits transferable, but subject to taxation. Severance taxes, property taxes, and gains

taxes, in combinations of your choice, should do nicely. This way Smith wins, Jones wins, and the public wins (win-win-win).

17. "Private property rights will make the market work"

Wrong! History says otherwise. Way back in the 1940s and 1950s some bureaucrats (those awful people) in the U.S. Bureau of Reclamation tried to implement water banking along California's Friant-Kern Canal, (a facility ideally suited to it). They promoted something called "9e contracts," providing for periodic review, renegotiation, repricing and reallocation. They were viciously blocked by the private lobbies who pushed for inflexible, perpetual appurtenancy of waters to specific lands. The private landowners' concern was with distribution, not allocation, and all they wanted was more.

When I say "viciously," I mean they played very hard ball. Promoters of water banking were "Communists" (this was in the McCarthy era). As a punitive measure and object lesson, The Bureau of Agricultural Economics in the U.S.D.A. was wiped out. Heads rolled. Careers in the U.S.B.R. were broken or made, survivors cowed. If you want to equate private property with free markets, either in practise or in spirit, start by reviewing this record, it is quite an object lesson. Historian Richard Kirkendall has done so in a sober, dispassionate manner.

Thus it is that "government" water agencies become really private agencies masquerading as public ones. They are sheltered by government powers and immunities, but carry water (in two senses) for the power establishment. This in turn harks back to the original distribution of landownership, when politicians distributed public lands to private parties on highly political criteria. Subsequent laws are twisted in application by the political weight of the original beneficiaries and their successors at the apex of the pyramid. They get away with it because the original land grab gives leverage and power to get more, and most people go along to get along.

18. "A severance tax on water withdrawals would destroy incentives and hurt the economy"

Wrong! Americans are reared on anti-tax slogans; "down with taxes" is what "economics" means to half the people. Let's pull together and review, however, what we've already said about this. When you pay for water, you often shift to higher-valued crops. You substitute capital and labor for water, raising yields. Thus, we can tax water withdrawals without wrecking the water economy, but getting more bins and bales for the bucket. Here is a kind of tax that raises revenue while strengthening the economy (item 5).

We must control pumping to prevent overdraft, if any system of surface control is to work. A tax is nothing but an economic price charged by the owner of water, the state, to control the use of its property (item 6).

Common rights may be asserted as open access, where that is feasible; or rights of revenue, where efficient management calls for closing access. Not only would the tax-price raise revenue, it would promote conservation and efficient use, turning "Negabucks into Megabucks" for state treasuries and their trustors, the people (item 10,A).

Water markets do not work today because sellers are not strongly motivated. Most sellers are at most weakly motivated because water permits are not subject to any cash drain, and prospective selling prices keep rising indefinitely. To overcome this resistance, we need to subject water licenses to heavy property taxes (or the equivalent) based on their opportunity cost values (item 10,C).

Taxes on water would let water markets work without granting unearned increments to speculators in water rights (item 10, D; item 16).

Taxing water withdrawals is a practical way to express common rights to water under conditions when it is not practical to allow open access (item 15).

There, then, are 18 fallacies to filter out, and some better ideas to replace them, as you set about implementing common rights to water. Be warned, though, that I have been scolded for speaking out on public policy from my privileged sanctuary. Academicians should maintain silence before practical persons, I am told, and never never give any answer to "Whose Water?" other than "The present owners, of course." Here is my response.

Academia is not the safe haven of legend; it is penetrated by the jungle. Much of the system has been coopted, with rewards for those who support certain interests, and penalties for those who hold out. To the extent that academicians are free to tell the truth without running, be glad. Society needs people to withdraw their consent from error and corruption. Being funded by the taxpayers, without compulsion to cater to wealthy patrons, academicians in public institutions have an unusual chance to speak for the public interest. We would be derelict not to.

We all have to work in the system in order to live. Some also manage to invest in the system, to rise above subsistence. One goes along to get along. However, it's not just the going along that implies consent: it's the compulsion to rationalize and defend going along. Withdrawal of consent has to start in the

mind, and be conserved and nurtured there during adversity. The uncoopted mind is your bridge over troubled waters to the rest of the human race. We have to survive, but we don't have to love Big Brother. Revere your mind, don't ever give away your freedom, not even to your material interest. The last is only of the moment, a ripple in the ocean, and is probably adverse to that of your own children. Your free thoughts are for everyone, forever. Let us cherish and keep this one part of our lives, and the rest we're going to find one of these days.