

## Mendocino to San Diego **Towing Water Bladders for Fun and Profit**

by Mark Scaramella

Local Mendocino County opponents of the Alaska Water Export Company's plans to barge large bladders of water drained out of the Albion and the Gualala rivers to San Diego are desperately groping for environmental and legal flaws in the plans.

AWE, as Alaska Water calls itself, insists that there won't be much impact on the rivers and California water law is based on "beneficial" use. Beneficial use is generally defined in California water law as water used for either domestic or profit-making use. If the State Water Resources Control Board operates true to form, it will approve the Alaskan outfit's application to draw winter flows from the Albion and the Gualala rivers, applying a few minor restrictions for the sake of appearances. But there doesn't seem to be any legal or environmental way to stop the rainy season siphoning of the two Mendo streams; Alaska Water Exports knows that, or they wouldn't go to the trouble of making a formal proposal.

Opponents can make the usual environmental impact arguments, and there may be some legal hurdles for the well-financed AWE to jump. But the company must also demonstrate that their idea is technically and economically viable. If AWE can't prove they can make money hauling water from the Mendocino Coast to San Diego the scheme must be declared not beneficial.

So what about AWE's viability? Is it awesomely operational and a likely sea-going cash cow?

Based on information available so far, the proposal looks completely unworkable. There would have to be a large

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*Mark Scaramella writes for the Mendocino County-based Anderson Valley Advertiser. This article is reprinted from the March 6, 2002 issue and updated with permission of the Anderson Valley Advertiser.*

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initial investment in set-up costs. The design and installation of the concrete river funnels and their plumbing won't be cheap. Then there's going to be interest on the loans to get the project up and flowing, and huge capital outlays for everything from security and maintenance at the river sites to water testing, the water-containing bladders, the tugboats to pull them, labor, management and overhead.

And AWE doesn't yet have a contract with San Diego's water department. In fact, a San Diego water department spokesman recently said that AWE will have to deliver water for less than \$444 per acre-foot for them to even consider

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The bladders are supposed to be towed during winter high flows when the weather on the Pacific Coast can be, um, challenging. Who's towing whom, here?

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buying Mendo aqua. Since the bladders are estimated to hold about 16 acre-feet, that's only about \$7,000 per bladder as a sales price, and where's the profit?

AWE's Ric Davidge (and never trust a Ric without a k) has said that pulling big bladders with tugboats is cheaper than hauling water in tankers or building pipelines to distant markets because tugboats cost "only" \$10,000 per operating tugboat day. Ocean-going tugboats are gas hogs and typically have a crew of five or six working around the clock because the boat is working around the clock.

But if a tugboat pulling a huge plastic bladder from Gualala to San Diego goes south at, say, 5 mph, it will take about 120 hours, or about five days down and maybe three days deadheading back to cover the 650 miles between here and there. That's upwards of \$80,000 for tugboat costs alone per delivered bladder.

Then you've got the seasonal limitations. Davidge says he's only going to draw water during high winter flows. That means the rivers are going to have to be gauged and flow rates monitored so that these restrictions are followed. Let's be generous and say AWE can draw water 50 days per year (not the entire "rainy season," only high flow days). Davidge has applied for a permit to draw up to 20,000 acre-feet per year. At about 16 acre-feet per bladder that would be about 1,250 bladdersful per year, or perhaps 25 bladders per day for 50 days. Or maybe 12 bladders per day for 100 days.

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## Arresting Developments

### Another Monterey Agreement Bust

In another defeat for proponents of the Monterey Agreement (see *SPILLWAY*, Winter 2000 issue), the environmental impact report (EIR) on a proposed transfer of 41,000 acre-feet of State Water Project (SWP) water entitlement from Kern County Water Agency and its member district Wheeler Ridge-Maricopa Water Storage District to Castaic Lake Water Agency in north Los Angeles County was decertified by the California Courts of Appeal, Second District, in January 2002.<sup>1</sup>

Kern-to-Castaic transfer was originally possible under terms of the Monterey Agreement, an unauthorized and illegal amendment of SWP contracts by SWP Contractors (the largest of which are Kern County Water Agency and the Metropolitan Water District of Southern California). But subsequent litigation found the Monterey Agreement EIR defective and the Third Appellate District Court decertified it in September 2000.

The California Supreme Court let that ruling stand in December 2000. It is now the subject of negotiations between the California Department of Water Resources (DWR) and the original plaintiffs, Citizens Planning Association, Inc., of Santa Barbara, and the Planning and Conservation League. DWR is expected to prepare a new Monterey Agreement EIR later this year.

The Castaic Lake Water Agency's EIR attempted to "tier" off of the Monterey Agreement EIR, since the transfer was believed possible under the Monterey Agreement EIR. ("Tiering" under California environmental regulations is possible when a "program" EIR is prepared and subsequent actions under the "program" focus in or "tier off of" the earlier EIR so as to avoid repetitive project analyses.) But

once the Monterey Agreement EIR was decertified in December 2000, no valid environmental review exists for the Monterey Agreement, and therefore no valid document exists from which other such EIRs may be "tiered."

The Castaic Lake area is one of the fastest growing areas of Los Angeles County, already the most populous county in California.

#### NOTES

1. Friends of Santa Clara River v. Castaic Lake Water Agency, 2002 DJDAR 1477, No. B145283, filed January 10, 2002, published February 8, 2002.

### What's in that Water?

The United States Geological Survey (USGS) unveiled the first-ever study of pharmaceuticals, hormones, and other organic waste water-related chemicals in streams across the nation in March 2002. And while the findings are significant in their own right, the work points to the need for more research in the future.

Published in the journal *Environmental Science & Technology*, USGS scientists detected these chemicals at very low concentrations in streams across the U.S. Many chemicals examined (81 of 95) do not have drinking-water standards or health advisories. Measured concentrations of compounds that do have standards or criteria rarely exceeded any of them.

Limited information is available on the potential health effects to human and aquatic ecosystems from low-level, long-term exposure or exposure to combinations of these chemicals. These new data can guide future research in these areas.

"Little is known about the environmental occurrence of many chemicals we use to maintain and improve the quality of our daily lives," said Dr. Robert Hirsch, USGS Associate Director for Water. "This study begins a process of exploring the occurrence of these chemicals in our nation's streams. The new techniques for measuring these chemicals will be very helpful for the many scientists who study contaminant movement, impacts on ecosystems, and human health effects."

The USGS study found chemicals used in households, agriculture, and industry entering the environment through a variety of wastewater sources, according to Dana Kolpin, a USGS research hydrologist and head of this national study. Those compounds include human and veterinary drugs (including antibiotics), natural and synthetic hormones, detergents, plasticizers, insecticides, and fire retardants.

The most frequently detected compounds included coprostanol (fecal steroid), cholesterol (plant and animal steroid), N-N-diethyltoluamide (insect repellent), caffeine (stimulant), triclosan (antimicrobial disinfectant), tri (2-chloroethyl) phosphate (fire retardant), and 4-nonylphenol (detergent metabolite).

"Overall, steroids, non-prescription drugs, and a chemical found in insect repellants were the chemical groups most frequently detected," Kolpin said. "Detergent metabolites,

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Courtesy of U.S. Geological Survey.

Map of 139 American streams studied by the United States Geological Survey.

steroids, and plasticizers were generally measured at higher concentrations than the other chemical groups, but concentrations measured in this study generally were very low (less than 1 part-per-billion).”

In addition, the USGS study found that wastewater chemicals often mixed in the streams sampled. In half the streams sampled, seven or more compounds were detected and in one stream, 38 chemicals were present in a single water sample.

To do this study, new laboratory methods were developed in five USGS research laboratories, providing the ability to measure the concentrations of 95 wastewater-related chemicals in water samples. During 1999 and 2000, a network of 139 streams in 30 states were sampled and analyzed for the presence of these chemicals. The streams drain watersheds of varied climate, geology, land use, and size. Most sites were located downstream of areas of intense urbanization and livestock activity, where wastewater is known or suspected to enter the streams.

Because this study is the first to explore the occurrence of these chemicals in the United States, the sites were selected based on where the chemicals are most likely to occur. Thus, this reconnaissance study sets the stage for future studies addressing the downstream presence of these chemicals from their sources, and how their concentrations vary with climate, land use, flow rates, waste characteristics, or treatment methods.

The paper “Pharmaceuticals, hormones, and other organic wastewater contaminants in U.S. streams, 1999-2000: A national reconnaissance” can be found in the March 15 issue of *Environmental Science & Technology*, or on the web at [toxics.usgs.gov/regional/emc.html](http://toxics.usgs.gov/regional/emc.html).

Water quality data from this study will be available in a companion report “Water-quality data for pharmaceuticals, hormones, and other organic wastewater contaminants in U.S. streams, 1999-2000,” USGS Open-File Report 02-94 on the internet at [toxics.usgs.gov/](http://toxics.usgs.gov/).

—Press Release, USGS, March 15, 2002

## Towing Water Bladders

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Whatever.

Imagine the kind of tugboat-and-bladder caravan that would be required.

Then we have the little matter of ocean currents. Mr. Davidge bases his proposal on his outfit’s “successful” shuttling of bladders from Turkey to the Mediterranean island of Cyprus. But that’s less than 100 miles in a sea less turbulent than the average Albion bathtub, not to mention the tsunami-like waves generated in an Albion hot tub on a full moon Saturday night. But AWE says it will have a 10-ton ocean-going tugboat pulling a 20,000-ton bladder, most of which will be underwater, in the Pacific, in winter.

Remember, the bladders are supposed to be towed during winter high flows when the weather on the Pacific Coast can be, um, challenging.

Who’s towing whom, here?

If a bladder gets away from a tugboat in the open ocean or has to be cut loose, what happens? Not only is the expensive bladder lost, but the untethered floating polyethylene bag would be a much bigger non-biodegradable plastic bag than a Safeway produce bag blown out to sea.

One financial analyst of AWE-style proposals has said that towing water bladders doesn’t become economical unless the bladders are ten or twenty times the size of what Davidge is suggesting. Which makes sense, economically speaking. But that kind of size increase would introduce another set of operational and technical problems. And nobody’s yet come up with a commercial bladder design of that huge size that is also sea-worthy.

It’s true that San Diego has experienced water shortages in the past—the city has even been threatened with loss of some industries for lack of water. Someday they might be willing to pay more than \$500 per acre-foot. I don’t know exactly which industries San Diego has had problems with, but drug manufacturing plants and electronics components fabrication plants are huge water users (and polluters)—and both require lots of what they call “ultrapure” water—typically millions of gallons per day. Like everywhere else, most of San Diego’s water is delivered to non-domestic users. Maybe a San Diego fabrication plant will pay Mr. Davidge more than \$7,000 per bladder through one of those new global water brokers who are cropping up in this new era of privatized water. But then the middleman will kick in to raise water costs to the end user or pressure the seller to lower their cost. Besides, big manufacturing plants need more than seasonal water, and they’re going to need lots of it, more than a few bags full.

If the water’s going to San Diego to make drugs or computer chips, it might be cheaper to build the fab plants in Mendocino, but then that would introduce a whole new set of problems for locals and would be certain to meet stout resistance in techno-phobic Mendocino County.

It could be that Mr. Davidge is much better at number-

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**Book Review****The Midas Touch of Water Markets**

by Tim Stroshane

Review of Brent Haddad, *Rivers of Gold: Designing Markets to Allocate Water in California*, Covelo, CA: Island Press, 2000, 177 pages.

Brent Haddad's *Rivers of Gold: Designing Markets to Allocate Water in California* comes with lavish praise from such California water notables as law professors Joseph Sax (UC Berkeley) and Brian Gray (UC Hastings College of Law), and resource economist Richard Norgaard (UC Berkeley).

But Haddad's *Rivers of Gold* is a disappointing, if muted, book. The professor of Environmental Studies at the University of California, Santa Cruz, argues that market institutions can and should be designed to reallocate water from farming regions to urbanizing regions of California, but he relies on a shallow analysis of actual water, policy, and economic conditions in California. *Rivers of Gold* treats inherently political issues as technical and administrative issues facing water transfer marketing, as economists are prone to do.

*Rivers of Gold* rewards readers with highly informative California-based case studies of recent historical water transfers, and recommends a regulatory framework that would enable water transfers to provide ecological and economic benefits, and public accountability. *Rivers of Gold* compares favorably with Sarah Bates and Marc Reisner's

1990 work, *Overtapped Oasis*.

But that doesn't mean Haddad's book is the last word on water markets. Haddad ignores prospects for urban change under way throughout California. Ultimately, key issues in water marketing are less the technical ones to which Haddad directs our attention, than the political and legal ones ensuring that only real, wet (not "paper") water is transferred, and that neither watersheds, ecosystems, local communities, nor downstream riparian right holders are screwed in the process. On these matters, *Rivers of Gold* is less reassuring.

A former securities salesman, Haddad was already familiar with markets for air pollution credits and believed he could apply what he learned there, together with his graduate education, to designing water transfer markets. "I view my role in water politics as informing a debate that others will decide," he freely acknowledges.<sup>1</sup>

In the early 1900s, ex-mayor of Los Angeles Fred Eaton and hydraulic engineer William Mulholland led a surreptitious effort to purchase riparian lands the length of Owens Valley. Only too late did valley residents awaken to the reality that a growing city 250 miles to the south had acquired their water rights and controlled the valley's foreseeable future.

This specter of struggling farming communities losing their livelihoods almost overnight to "city slickers" waving large sums of money and sucking their rivers, streams, and wells dry Haddad calls "the ghost of Owens Valley." Its legacy animates water market politics up and down agricultural California.

As if to choke off his readers' wandering expectations, Haddad opens Chapter 1, "A discussion of water reallocation



Courtesy of California Department of Water Resources.

East Branch of the California Aqueduct in the Mojave Desert. Water sold in market-type transfers is often transferred through canals like this.

begins with four questions: How much water is available? Where is it now? Who needs it? How will it get from those who have to those who need it?"<sup>2</sup>

Who "needs" water? While Haddad fails to examine this loaded word, let's talk about need. There is the matter of who needs water, but also what constitutes true "need." Is Newhall Ranch's "need" for water in the Santa Clarita Valley more important than the need of commercial fisheries to have adequate instream flows for anadromous fishes whose historical spawning grounds are flooded by huge dams? Is water and land speculation for urban sprawl and future water trading (sometimes called "water ranching") a legitimate "need" for water? Do population projections, which Haddad cites as portending future need, really signify water "need"? These are very political questions clothed as objective methodology, masking not only "need," but also "population growth," "capitalist development," and "profit."

Haddad's sympathies lie with "water traders," essentially large water agencies and corporate water speculators who no doubt remind him of the investors and traders he worked with as a securities salesman.

"What water traders want are institutions that allow them to engage in low-cost, reliable transactions," says Haddad.<sup>3</sup> They also want institutions governing water allocation that they, not environmentalists or local communities, can control. A California water market won't be for just anyone.

"Environmental organizations...are not likely to be major participants in long-term water-reallocation transactions. Environmental organizations cannot tax residents to raise money for water purchases, *so their pockets are likely to be less deep than those of water districts.* Moreover, the cost of building and coordinating a 'buyer's coalition' of environmental groups can be prohibitive. Further because water serving in an environmentally supportive capacity is a public good, there is a high risk of 'free riding,' in which some potential beneficiaries count on others to pay the cost of purchasing water. Water purchases for environmental purposes are therefore likely to be carried out by state or federal governmental agencies, where sufficient financial means exist and the cost is spread among a far wider range of beneficiaries."<sup>4</sup>

He's right about this, of course, but a more public-spirited author might recommend that the institutions engaging in water transfers be democratized. Many water districts in California are governed on a one-acre, one-vote basis, in sharp contrast to the American democratic tradition of one-person, one-vote. Reorganizing these institutions would be an important first step toward ensuring the accountability of water transfers to the California public.

Haddad's economics carries a Midas touch, making his prose abstract, grammatically actorless, and odious, as in this sample:

"Decisions must be made at many steps in the societal process of selecting new users of scarce water resources." Who decides? What are the steps, and in what societal process (democratic suffrage? primogeniture?) are "new water users" selected? Haddad fails to inform us here.



*Agricultural workers near Lost Hills, San Joaquin Valley. Farm jobs can be lost when water is transferred from agricultural production, causing farm workers and their families to be displaced from communities, and increasing their need for welfare and other public services.*

Or consider this metaphysical passage assuming, rather than striving to prove, markets' ecological beneficence:

"A resource allocation system that helps produce an economically efficient outcome (i.e., a well-functioning market) requires fewer resources to achieve the same level of use benefits than do other allocation systems. This characteristic is especially valuable when a natural resource is being consumed. In general, the less water that is pulled from natural systems (rivers, wetlands) into human-made systems (canals, reservoirs), the better is the health of the natural systems. Therefore, any allocation system that *makes the most of every drop of water* is indirectly serving the ecological interests of the natural supply system."<sup>5</sup>

Haddad hints strongly that a water market ("any allocation system that makes the most of every drop of water"—which could also describe the appropriative water rights doctrine) serves "the ecological interests of the natural supply system." As they say in Missouri, "show me."

To his credit, Haddad recognizes "abridgements" of the theory of "full or liberal ownership" of water rights in California. He recommends twelve broad principles that would help ensure the public's confidence in the benefits of water transfers.

But his transfer case studies stay safely within technical issues so that *Rivers of Gold* remains useful primarily to his water trading audience, and less to citizens wanting to grasp water marketing and what it means for California's future.

Another blind spot for Haddad is the changing urban geography of such places as Fresno and Bakersfield. These cities, together with the necklace of cities along State Route 99 in the San Joaquin Valley north to Stockton are rapidly growing regions in their own rights. They are becoming economic satellites of Los Angeles to the south, and of Silicon Valley to the west.

If developers cannot bring water to lands at the ends of aqueducts (because of potential obstructions involving the Monterey Agreement or the folding of CalFED's cards),

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## Book Review

# Making Sense of California Capitalism

by Tim Strohane

Review of George Henderson, *California and the Fictions of Capital*, New York, NY: Oxford University Press, 2000, 218 pages.

“It is easy to forget...that a crop does not only spring from the soil,” writes University of Arizona geographer George L. Henderson in his book, *California and the Fictions of Capital*. “It is deeply ingrained that America’s agricultural regions are places that ‘settlers’ made and less appreciated than at times money got there first.”<sup>1</sup>

Links between capital and nature are often missed by historians and ecologists. Henderson’s oddly compelling book addresses the circulation of capital—as money, credit, loans, what economist Karl Marx called “fictitious capital”—and its interaction with natural California as the state’s agriculture developed. But to get at this linkage Henderson grafts together three different modes of analysis—historical geography, political economy, and literary criticism—to yield a hybrid treatment of how fictitious capital’s role in the development of California was made a subject for 11 novels and assorted corporate “ad-fictions” in the late 19th and early 20th centuries, including such notable works as Frank Norris’ *The Octopus*, Mary Austin’s *The Ford*, and Harold Bell Wright’s, *The Winning of Barbara Worth*.

The stories form a canon he labels “rural realism” because they grapple with the cultural meaning of capitalist development in 19th-Century rural California. In that sense the novels and short stories he interprets are “fictions of capital,” making the book’s title a double entendre.

“More than once are the characters...led to the fields by bankers and developers rather than running there to get away from them,” he observes, adding, “Capital could bring the rural into being, and...would be the better for doing so.”<sup>2</sup>

How did these stories arise from California experience? What deals did financiers and speculators offer newcomers to California, and on what terms were new cycles of credit and debt spun as capitalism adapted and flourished in the Golden State?

Henderson’s opening chapter analyzes rural commodity regimes-complexes of agro-industrial production, packing,

and distribution that dominated California’s efforts to create and control local, national, and international food commodity markets. The spread of land baronages in the 30 years after statehood—Carey McWilliams’ phrase for them was “latifundia”<sup>3</sup>—relied on cattle, wheat, and grains until the global grain markets collapsed in 1873.

In search of cash, land barons subdivided their estates to maintain profits, simultaneously hoping to diversify California farming into specialty crops like fruits, nuts, nursery products, each of which are more productive “higher value” crops as compared with grains.

Backed by San Francisco-based financiers newly flush with profits from mining the Gold Rush and the (silver) Comstock Lode in Nevada, farmland developers bought and subdivided large pieces of the great estates and readied them for a diversified agriculture.<sup>4</sup> They leveled land, connected parcels and communities with roads, drained wetlands, built levees, diverted water from streams or drilled wells, and perhaps planted a few acres of a starter orchard crop.

Few new farmers buying these properties could pay cash in full, so they took out loans to buy the farm of their dreams and to finance the crops they grew. (And many learned farming from Chinese and Japanese immigrant laborers they hired to manage production.) This problem stimulated at least two responses in California: mechanization of harvest and packing, and the elaboration of credit systems to overcome the natural delay between the infusion of capital for crop planting and cultivation

and their eventual sale to market.

Extension of credit in anticipation of crop yields could bridge this yawning gap between, on one hand, investment of credit (to the farmer, the shouldering of debt) and the realization of income for the farmer and return on the credit to the banker, on the other. Multiplied across communities throughout the Central Valley and the southern desert valleys, California’s credit system spawned its rapid rise to agricultural power.

Henderson argues that California bankers were the venture capitalists of their day. A.P. Giannini’s Bank of Italy (later the Bank of America) bankrolled farmers through decentralized branch bank offices for and financed institutions that aided marketing and distribution of their crops—including purchasing bonds of early irrigation districts for dam and canal construction.

To Henderson, investment of capital founded a “second nature,” remaking whole California landscapes and ecosystems to conform to scientifically rationalized cultivation,



Alexander Valley vineyard, 1992.

harvesting, and distribution, what is also called here “industrial agriculture” or agribusiness.

This emerging “second nature” in California also created migrant farm labor. “Regardless of whether farm employers could have treated labor like any other commodity, they in fact treated labor unlike any other commodity,” Henderson observes. To achieve a predictable supply of labor power “farm employers subject ‘their’ [labor] to extraordinarily discriminating and difference-making practices,” sorted by their propensities toward group solidarity and sense of justice with respect to going wages and working conditions.<sup>5</sup>

To white farmers, writes Henderson, “or at least that faction of [them] concerned with issues of class mobility, we might say the California farm was supposed to be different. There was not supposed to be a permanent wage force in California agriculture, or at least it was not supposed to be white....Non-white labor was only with rare exceptions supposed to be upwardly mobile.”<sup>6</sup>

Rural realist fiction proved “useful to address class differences” in California, “not through changes in the rules of production” which could have benefitted white and non-white farm labor alike, “but through the mechanisms of circulation and through the production of cultural ‘welfare’—through stories we tell each other about our chances, our achievements, our dreams for a better competitive edge.”<sup>7</sup> In these novels, class differences were documented in telling detail, but authors avoided direct

confrontations between the classes to satisfy a character’s desires through property acquisition and ownership, by somehow achieving a stake in California’s landscape.

Rural realist writers, says Henderson, “were committed to making self-serving economic sense of California’s social and cultural dislocations, such that we might say the bourgeois culture of making sense of things is itself one of the contours of bourgeois economy.” Rural realism abruptly ended with publication of John Steinbeck’s *Grapes of Wrath*, which came hard on the heels of unprecedented labor militance in California’s fields during the 1920s and 1930s.

And the effort of making sense of California’s development languished as well. “Where are the big novels of dam building? The novels of the Bureau of Reclamation and the Army Corps of Engineers? Where is the novel of the Bank of Italy’s transformation into the Bank of America? Where is the novel of agribusiness investment? One wants these not for more wallowing in the spectacle of capital but for holistic narratives that map out capital’s troubled circulation,” writes Henderson.

“For all their bourgeois sympathies, racism, and rural

realist angst, the literary works studied here had a frightening honesty to them when it came to naming and detailing the workings of large forces and powers,” he concludes. “Later when resistance finally surfaced in a serious way, did something else go underground?”<sup>8</sup> It’s a question that makes *California and the Fictions of Capital* worth reading, despite George Henderson’s enthusiasm for postmodern theory.

His insights into capital’s fictitious life resonate today with the ambivalent “opportunities” afforded by water and energy marketing, and multilateral trade agreements, touted as stimulants to ever-greater farm and household indebtedness, and overproduction of crops and sprawling cities. They are rooted in an ethic of borrowing at the core of finance capital, an ethic Henderson tries to help us grasp.

We borrow energy from the past to use today (exemplified by petroleum-based pesticides and fertilizers applied in farming, and fossil-fuel reliance in automobile culture) with little thought or investment in energy sources for the future. And we borrow from the future (they’re called “bonds” because they bind our future incomes to payments of past

debts) to pay for buying energy used last year in California. The state is in hock up to its eyeballs to Wall Street’s wealthy bondholders.

Things are a bit different in water, but no less galling. In an arid climate like California’s, agriculture and urban development rely upon continuous growth in water demand, yet streams and reservoirs are overdrawn, and water specula-

tors jockey for position as rationing according to aggregate wealth (that is, through “water markets”) looms.

These debts to nature and the wealthy add to at least one  
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Courtesy of Department of Water Resources.

Farm workers irrigate a field crop.

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## Towing Water Bladders

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slinging than I am. After all, he's a former Alaska State water bureaucrat and former Reagan administration appointee. So he should know his stuff.

But if I were asked to invest in a project based on such obviously fuzzy math as Davidge has so far produced, I'm afraid I'd have to decline.

Maybe Mr. Davidge can come up with a more modest proposal to tug a small amount of winter runoff from the Gualala or Albion River a short hop up the coast to chronically parched Fort Bragg. If he could come up with a way to do it with a couple of see-through straws and a flex-hose without in-stream excavation in the Albion, heck, storing a few bladders in Noyo Harbor until the dry season wouldn't be opposed by anybody.

Meanwhile, Mendoland can calm down. The idea in anywhere near its present form doesn't hold water.

## Midas Touch

*continued from page 5*

they'll speculate in land further "upstream" along the aqueducts and transform the use of water and land from within irrigation and water districts. This would produce an "agriculture to urban" reallocation as surely as any interregional water market, except the water would still be used in the San Joaquin Valley. Haddad's own case study of Devil's Den Water District as a water ranch for the Castaic Lake Water Agency suggests an example of this process at work.

In 50 years' time, California's Central Valley could be paved from Redding to Tehachapi whether a water market develops in California or not, and anti-democratic water agencies could be transformed from within by land and water speculators. More and more, however, California's food

supply would have to come from everywhere else, if global trade and urbanization trends continue. Is this a future Californians desire? Will Californians even have a meaningful say?

Haddad's *Rivers of Gold*, while professionally lauded, is only partially-equipped to interpret California's politics of water, land, and people.

### NOTES

1. *Brent Haddad, Rivers of Gold, p. x.*
2. *Ibid., p. 1.*
3. *Ibid., p. xxi.*
4. *Ibid., p. 29, emphasis added.*
5. *Ibid., p. 33, emphasis added.*

## California Capitalism

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thing: California and the United States are poorly prepared to embark on a true path of ecological sustainability. And as George Henderson persuasively argues, Californians are way behind on trying to make sense of it all.

### NOTES

1. *Henderson, California and the Fictions of Capital, p. xi.*
2. *Ibid., p. xvii.*
3. *Carey McWilliams, California: The Great Exception, 1951.*
4. *Steven Stoll, The Fruits of Natural Advantage, Berkeley, CA: University of California Press, 1999.*
5. *Henderson, op. cit., note 1, p. 82.*
6. *Ibid., p. 114.*
7. *Ibid.*
8. *Ibid., p. 218.*

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