

C A L I F O R N I A  
**COAST & OCEAN**  
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OUR WATER?**

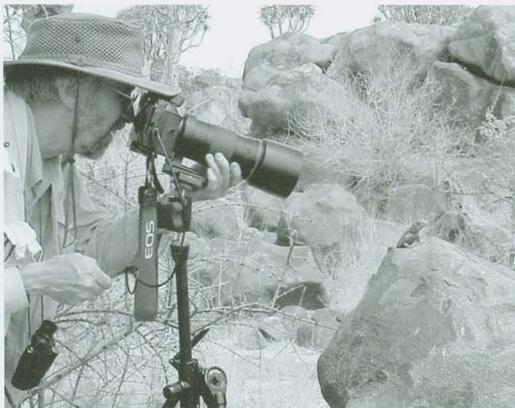
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**Cover photo:** Glenn McCrea has been fascinated with wildlife all his life. He is a self-trained photographer who, since obtaining some very good equipment about eight years ago, has mostly pursued macrophotography.

**Back cover:** Black-bellied plover by Morgan Ball.



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Rasa Gustaitis, Editor  
Dewey Schwartzburg, Managing Editor  
Hal Hughes, Senior Associate Editor  
Anne Canright, Associate Editor  
Phyllis Faber, Wesley Marx, Contributing Editors  
Tom White, Circulation Consultant

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**CALIFORNIA COAST & OCEAN**

1330 Broadway, 11th Floor  
Oakland, CA 94612  
e-mail: [calcoast@igc.org](mailto:calcoast@igc.org)  
Subscription information: (510) 286-0515  
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# COAST & OCEAN

VOLUME 19, NUMBER 4

WINTER 2003-2004



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A kelp blade partially eaten by beach hoppers

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## Shrinking Government

**S**EVEN YEARS AGO, the San Francisco Mime Troupe, known for its biting political satire, put on a play in which two government employees, a NASA scientist and a geologist working for the U. S. Geological Survey, confronted the Soulsnatcher from Outer Space that was turning people into zombies by feeding them poisoned hamburgers. The mayor, having partaken, was about to sell the town. But the two heroes, with the help of lots of other people, saved both the town and the country.

The message, as usual, was that We the People are the government, and the power to build a just and joyous society is in our hands. Still, the fact that civil servants had been cast as the heroes made me wonder: Was the Mime Troupe defending government because our government was in peril?

Well, by now the answer is in. Government at all levels is showing signs of severe damage resulting from years of persistent assault and ever more severe fiscal malnutrition. And just as a plant that has gone too long without water weakens and can no longer fight off pests, the body politic has become easy prey to corporate interests that see opportunities to profit from its chronic and worsening disabilities.

A family that can no longer pay the rent and feed the kids begins to sell and pawn its assets. Governments—local, state, and federal—are handing over to private for-profit corporations many services they have traditionally provided. The justification may be financial necessity or cost efficiency, but what “efficiency” means in this context—who benefits and who pays the costs—is not self-evident. The interests of public agencies and private firms are

not the same. Corporations are created to bring profits to their investors. That is their primary responsibility. Public institutions are created to serve the public, and are directly responsible to the citizens. How privatization of public resources and services fits with our democratic values, local citizens’ power to shape their communities, and the need for natural resource conservation remains to be seen.



MARCIA GRIMM

A major reason the civil service was established was the perceived need to shield public agencies from the hazard of corruption. While a corporate employee’s job may depend on successfully closing a particular deal, a civil servant’s job does not. The public employee is therefore free to focus on assigned public duties.

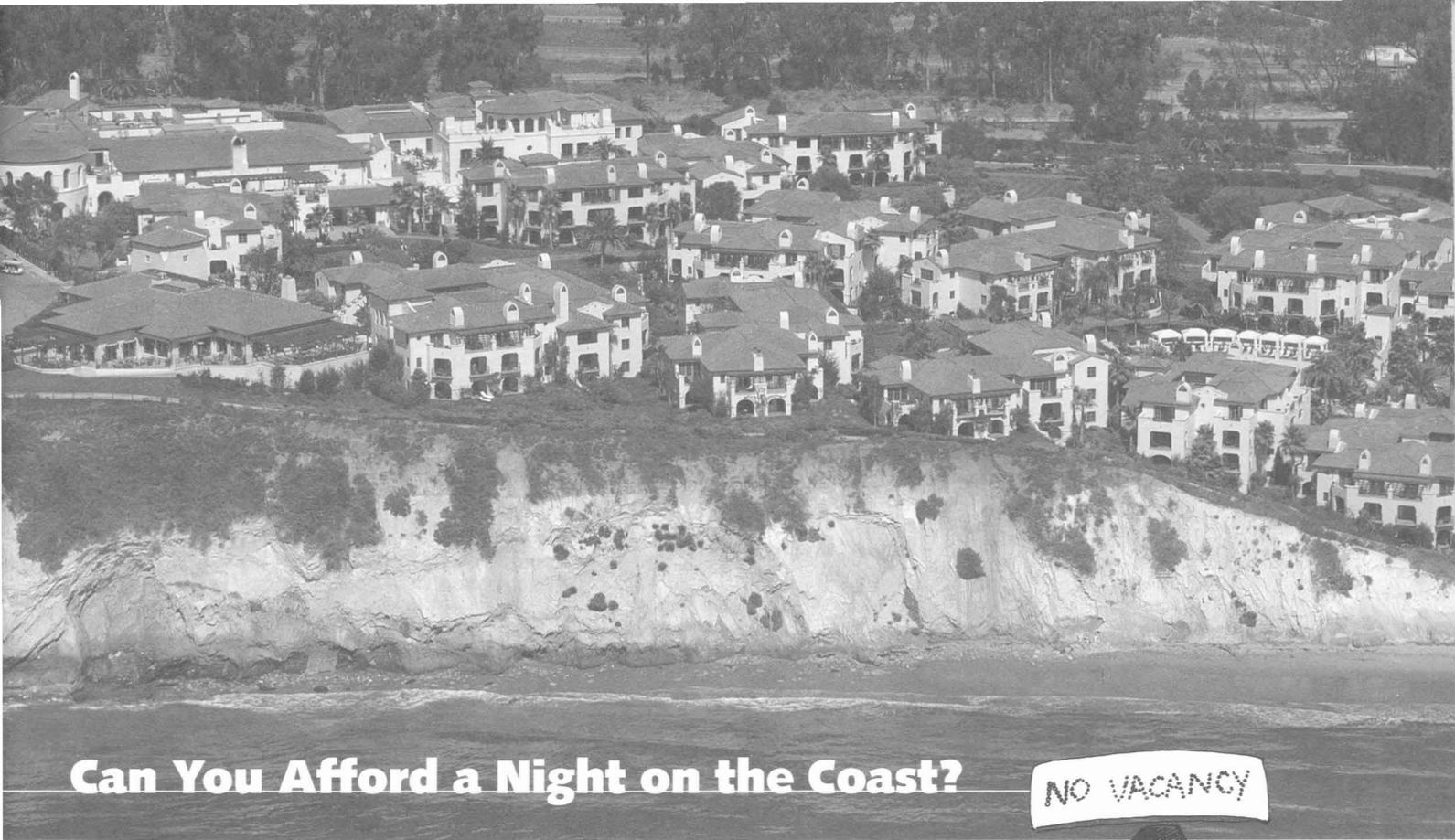
So far, a consensus seems to exist that certain essential services, such as police and fire protection and highway con-

struction, are too important to be carried out by any other entity but government. Throughout the country, however, public schools—essential to the education of a citizenry capable of supporting a highly diverse democratic society—prisons, sewage treatment systems, and other public works constructed with taxpayer money are being turned over to private management. A few huge corporations almost completely dominate the airwaves, which are owned by the public.

As the underfunded National Park Service struggles with a growing maintenance backlog, it has been suggested that the solution might be to replace rangers and other professional park staff with private contractors. Meanwhile, in the military, private contractors have been given substantial roles, performing duties formerly carried out by military personnel. Their interests and obligations may differ. In letters published in *Stars and Stripes*, servicemen in Iraq complain bitterly about shortages of bottled water, hot food, and—most bitterly—about the poor mail service provided by Halliburton.

In this issue Shirley Skeel reports on the rapid privatization of water services. The water flowing from the taps in many coastal California homes is now managed by multinational corporations or their subsidiaries. Some implications of this shift are discussed here. We also offer John Woodbury’s report on a bold conservation goal for the San Francisco Bay Area, which is being pursued through partnerships among government agencies, nonprofit land trusts, and private landowners. Both articles signal new directions in coastal resource management at this time of shrinking government.

—Rasa Gustaitis



## Can You Afford a Night on the Coast?

NO VACANCY

CALIFORNIA COASTAL RECORDS PROJECT

STEVE SCHOLL

**B**ACK IN 1976, the story goes, when Jerry Brown was California's governor, he stopped at a hotel built on a sandy beach in Monterey County. Gazing out a window at the inky blue waters, he reflected: "That's why we need a Coastal Act: so we can have more places like this." "No," said Bill Press, Brown's director of planning and research. "We need a Coastal Act so we *won't* have more places like this."

The story is still relevant today because it captures a tension within California's coastal protection law, which Governor Brown signed that summer more than 27 years ago. The hotel was on the beach. The Coastal Act allows for, even encourages, hotels to be built along the coast, but it also requires protection for the beach. Communities and the state are to "maximize public access to and along the coast and maximize public recreational opportunities," while also protecting what the public comes to enjoy: beaches, scenic views, coastal farms, wild lands, and the special character of coastal communities. "Public access" includes places to stay overnight—for all members of the public, not only those who can afford the best. The law makes that clear: "Lower cost visitor and recreational facilities shall be protected, encouraged, and where feasible, provided."

That's a tough assignment. How well has it been fulfilled? Are there enough hotels, inns, and other overnight accommodations that meet the needs of coastal visitors of all income groups without major damage to the coast?

The answer is mixed. The Coastal Act, as administered by the Coastal Commission under the watchful eyes of citizens, has spared California's shoreline from the degradation inflicted on many other beautiful shorelines in this country and abroad. It prevented the construction of view-blocking high-rise beach hotels (a few, including those in Ventura and Santa Cruz, were built before the Coastal Act took effect). A sizeable number of new mega-hotel complexes have been built in recent years, but each has had to meet stringent design and environmental requirements. In addition, small inns have proliferated along the entire coast, particularly in central and northern California, most of them fitting easily into the landscape.

However, prices are steep. "From the beginning of the coastal protection movement in California, there was a concern that the coast would not be affordable," says Peter Douglas, the Coastal Commission's



MARCIA GRIMM

**The Bacara Resort in Santa Barbara County was built under a coastal permit approved in the mid-1980s.**



PHOTOS THIS PAGE: CALIFORNIA COASTAL RECORDS PROJECT



**Top: The Coast Santa Cruz Hotel (formerly Dream Inn), built before the Coastal Act, sits on the beach in Santa Cruz, blocking ocean views. It would be unlikely to get approval today.**

**Above: The Hyatt Regency in Huntington Beach, shown here under construction, opened in 2003 inland of Pacific Coast Highway.**

longtime executive officer. That concern has proved well founded.

## A Place to Stay If You Can Pay

SINCE 1976, CALIFORNIA'S population has grown by 60 percent, from about 22 to 35 million. The number of coastal visitors, from all over the world, is huge; a study by Philip King of San Francisco State University found that annual visits to California beaches total 240 million annually, exceeding visitation to all national parks and monuments nationwide. Coastal tourism and recreation are dominant elements in the state's economy, earning more than ports, commercial fishing, or other coastal industries. The average traveling family, however, is more likely to find an affordable place to stay in one of the many campgrounds—with luck or advance reservations—than in a hotel or inn.

In southern California, some major resort hotel complexes have been built since 2000, including the Bacara Resort in Santa Barbara County, with nearly 400 rooms priced at \$425 to \$895; the St. Regis Monarch Beach Resort and Spa, in Orange County, with 400 rooms and advertised rates of \$375 to \$435. The Montage Resort and Spa in Laguna Beach quotes rates at \$450 to \$625, with bungalows and suites going for \$950. The Lodge at Torrey Pines in San Diego opened in 2002 with 175 rooms priced at \$325 to \$625.

The Hyatt Regency Huntington Beach advertises somewhat lower rates, starting at about \$200 per night for its 575 rooms and suites. Perched on a bluff at Half Moon Bay in northern California, the 261-room Ritz-Carlton, opened in 2001, advertises rooms from \$325 to \$695. Farther north, no coastal hotels of this scale have been built because of limited road, water, and sewage disposal capacity, as well as community resistance. These factors and lack of airports also exclude the convention trade. There you find the smaller inns, scattered north to the Oregon border.

The huge hotel complexes clearly serve a limited clientele. They cater to conferences and conventions, competing with similar complexes in Arizona, Hawaii, and other places endowed with natural beauty and benign climate. Guests tend to fly in and spend much of their time within the complex.

New hotels that cater to individuals rather than groups include the Post Ranch Inn in

Big Sur, which is invisible from Highway 1 and offers breathtaking views from cliffside rooms at \$485 to \$935 a night. At the relatively simple Costanoa resort in San Mateo County, tent cabins go for \$70 to \$130 a night while rooms are priced at \$165 to \$195.

If you're looking for a place with fine amenities at a much lower price, you can now find it in the far north of the state, in Crescent City's new 54-room beachfront Hampton Inn. Opened in fall 2003, the hotel offers rates of \$100 to \$125—moderate for most of the coast, although considered high-end there, according to Diane Mutchie, the City's planning director. Crescent City is 750 miles from Los Angeles, 350 miles from San Francisco.

"The problem of the coast being lined with high-end resorts is acute," says Mark Mas-sara, the Sierra Club's coastal program director. "They cater to a very narrow spectrum."

Among alternative accommodations—not exactly low-priced but more affordable and coast-friendly—are the bed and breakfast inns. Most are owned and operated by local residents who participate in their communities and have a self-interest in protecting coastal resources that attract their guests. B&Bs have mushroomed in coastal areas in the past two decades, with the Coastal Commission's blessing. In 1980 there were fewer than 50 in the whole state, but by 1986 there were some 500, according to Pat Hardy, former Santa Barbara inn owner and cofounder of the Professional Innkeepers Association. Many started with only a few rooms, but today "ten or more rooms is probably a threshold" for financial viability, says Barbara Reed, proprietor of Reed Manor in Mendocino. An internet search showed rates ranging from about \$135 to \$280 along the entire coast. Bed and breakfasts don't draw conventions; the attraction is usually the coast itself.

## Wrestling with the Problem

THE CHALLENGE FOR CALIFORNIA has been not in providing hotels but in getting affordable ones," says Sonoma County Supervisor and Coastal Commission Chairman Mike Reilly. In trying to address that challenge, the Commission has insisted that those who want to build high-end hotels also fund less expensive accommodations. The developer of the Ritz-Carlton Hotel in Half Moon Bay, for example, provided \$350,000 to be used for a nearby camp-

ground or hostel project (yet to be built).

The developers of the Marina Marriott Hotel in Marina del Rey directed \$750,000 to Hostelling International's facility on Second Street in Santa Monica. The hostel charges \$24 for a bed in a dorm room, \$59 for a private room. The developer of a planned 500-plus-room hotel in Rancho Palos Verdes, on the site of the old Marineland aquarium, has committed \$540,000 toward a future hostel, perhaps in nearby Long Beach.

Earlier, the Coastal Commission considered another approach, one suggested by a developer: providing rooms at lower rates



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to people coming from lower-income areas, based on the visitor's zip code. That idea ran into a huge controversy and was dropped. The legislature reacted by amending the Coastal Act to prohibit the Commission from requiring that overnight room rentals be fixed at any particular level or from attempting to identify people of low or moderate income to determine their eligibility for subsidized room rentals.

## Why So Many Big, Pricey Hotels?

LAND USE DECISIONS are affected not only by the Coastal Act's goals but also by community preferences, potential tax revenues, market demand, and other factors. Hotels bring in money. They are economic engines for coastal communities, generating jobs, sales taxes, and income from transient occupancy taxes—nine to 10 percent of room receipts in most coastal counties (14 percent in San Francisco). That tax is one of



PHOTOS THIS PAGE: DAN ROBBIN

**An inn in Olema (top) and a “boatel” in Inverness are among lodgings that fit with the character of their communities.**

the few sources of unrestricted funds available to local governments. A large hotel with \$300 to \$400 rooms brings in much more, of course, than a more modest one with lower-priced rooms. In its first nine months of operation, the Bacara Resort in Goleta generated over \$1.7 million in such taxes, according to the local auditor-controller. In nearby Santa Barbara, which derives around \$10 million per year from its transient occupancy tax, city voters approved an increase from 10 to 12 percent that took effect January 1, 2001. The city plans to use the additional income to improve water quality and protect creeks. In Mendocino County, which has lost income from the dwindling timber industry but has gained in tourism, transient occupancy tax income grew by 52 percent between 1992 and 2000.

Not surprisingly, luxury hotels often get a friendly reception among impoverished local governments. Residents also tend to prefer them to more moderately priced hotels, according to Steve Bone, president and chief executive officer of the Robert Mayer Corporation, which built the Hilton and Hyatt Regency hotels in Huntington Beach. “If the neighbors are being asked whether they want a Best Western or a Hyatt Regency next door, they’ll go for the Hyatt,” he said.

The Sierra Club’s Massara, however, believes that more can be done to make a night at the beach more affordable. Despite the Coastal Act’s preference for public recreational facilities, hotels with prices well above the low or even moderate cost category are sometimes built on land owned by the public. Massara points out that the two hotels Bone’s firm operates were built on leased public land, as were the Marina Marriott in Marina del Rey and the Bahia, Hilton, Hyatt Regency Islandia, Dana Inn, and Paradise Point in San Diego’s Mission Bay Park. In San Diego’s South Embarcadero area, near downtown, the Port of San Diego plans a major convention hotel with up to 1,200 rooms for the old Campbell Shipyard site. The port already has 14 hotels with a total of over 5,700 rooms. “One thing to do is to stop those,” says Massara. “No more resorts on public property.”

## Coastal Costs

SO WHAT ABOUT THE OTHER side of the equation? Have the new hotels been built, and inns established, without major damage to coastal resources?



## OTHER SPOTS FOR COASTAL SLEEPING

**R**OOMS NEAR THE BEACH at \$80 to \$100 a night can still be found in older motels in San Diego's Mission Beach, along the Pacific Coast Highway in Orange County, and in smaller towns such as Marina, in Monterey County, and Fort Bragg, in Mendocino County. During off-season, bargains can be found here and there, and websites such as Expedia.com and Priceline.com may offer good deals anytime. There are, however, other ways to spend a night in scenic locations within the sound of the waves. Hostelling International has over 1,000 beds in 13 coastal hostels, State Parks maintains at least 6,000 individual campsites, and private campgrounds and RV parks rent over 10,000 sites.

### State Park information:

[www.parks.ca.gov](http://www.parks.ca.gov);  
camping reservations:  
[www.reserveamerica.com](http://www.reserveamerica.com).

### National Park information:

[www.nps.gov](http://www.nps.gov).

### Hostelling International:

[www.hiayh.org](http://www.hiayh.org).

### California Division of Tourism:

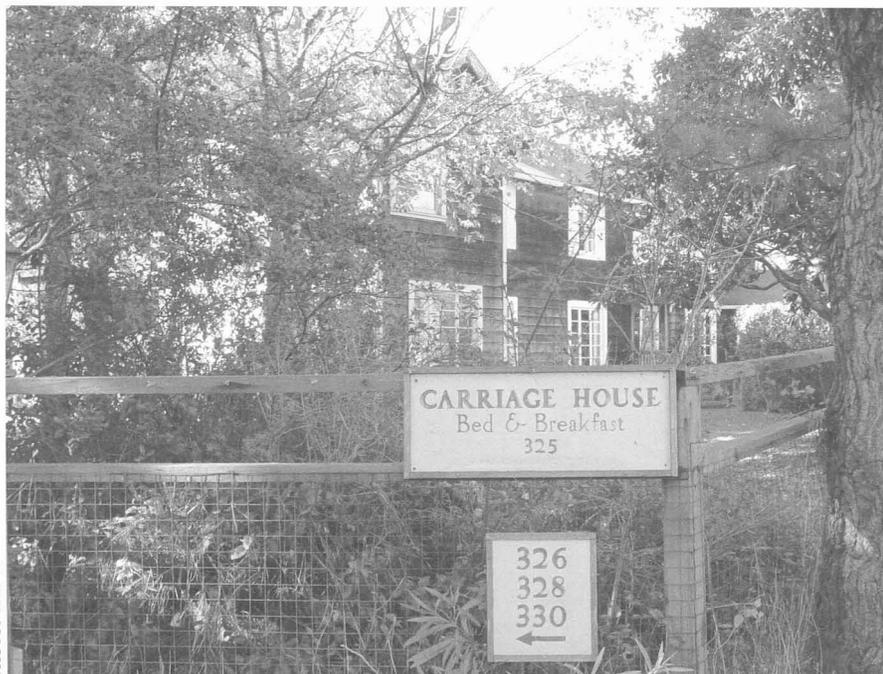
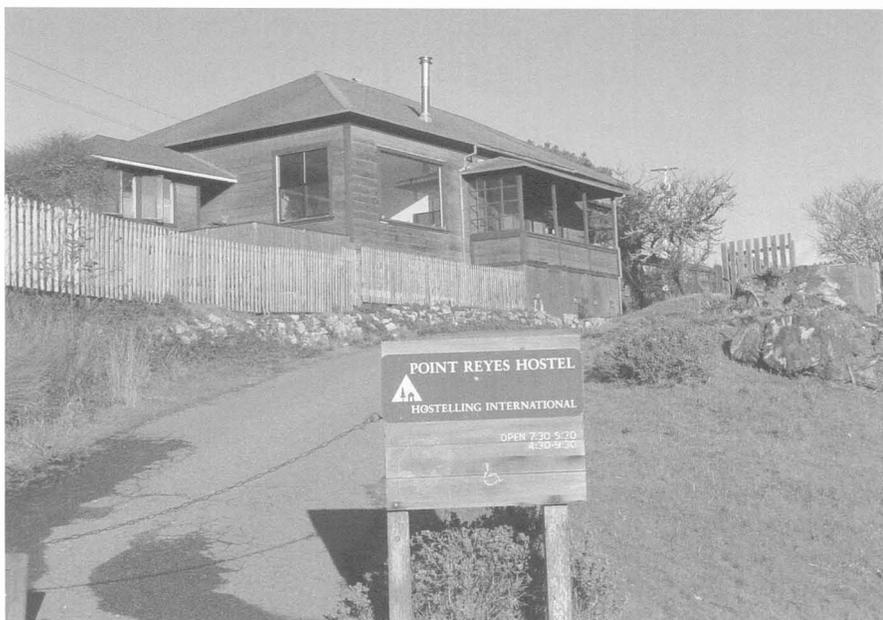
[www.gocalif.ca.gov](http://www.gocalif.ca.gov).



PHOTOS THIS PAGE: ELEANOR REARDON; DRAWING BY MARCIA GRIMM



Santa Monica's hostel is one of 13 run by Hostelling International in scenic coastal spots.



PHOTOS THIS SPREAD: DAN ROBBIN

**The HI hostel and a bed and breakfast in Point Reyes**

To Massara, they are simply too big. “The effect they have, like the Hyatt at Huntington Beach—it’s huge,” he says. “It took up land that could have been a wetland restoration area. Look at the aerial photos of Bacara [in Santa Barbara County],” says Massara. “There’s no setback from the bluff.”

Coastal Commissioner Mike Reilly points to improvements in the quality of what has been built under the Coastal Act, including hotels. “In the last few years,” he says, “we’ve had exponential growth in information about polluted runoff and water quality, wildlife corridors, and other resources.

Projects are better now, because of the conditions that are placed on them.”

For instance, the Coastal Commission’s 2003 approval for the former Marineland site in Rancho Palos Verdes of a hotel with up to 582 rooms, conference facilities, and a golf driving range was conditioned on a long list of requirements. These include a system of public trails with components that comply with the Americans with Disabilities Act, a public park, coastal bluff scrub and coastal sage scrub habitat restoration, an integrated pest management plan favoring nonchemical strategies, a site-specific stormwater management program to minimize siltation and stormwater pollutants, employee training in best management practices for maintenance of water quality, and a contribution of \$540,000 toward a hostel.

There is no way to build anything large on the coast without damaging natural resources. How bad the damage is, what the trade-offs are, depends on the makeup of the Coastal Commission at the time the development takes shape and on what citizens demand. Not every large project is approved. Oceanside’s Manchester resort project, for example, which would have closed off public streets and intruded on the beach, was turned down by the Coastal Commission in June 2002.

In 1997 the State Parks Department signed a lease with a developer who wanted to build a luxury resort in Crystal Cove State Park in Orange County, on a site occupied by a rambling array of small cottages. The plan was greeted with such protest that in 2001 State Parks bought back the lease with a grant from the Coastal Conservancy. The cottages will be restored, and about 90 lucky people a night will be able to stay there for \$25 each.

## Experiencing the Coast

AS IN THE CASE of Crystal Cove, what’s at stake is more than the price of rooms in new inns or hotels. “In the days when Proposition 20 [the Coastal Initiative of 1972] was being written, those involved thought that tourism was a driver of the economy, but also that tourism was a way to encourage stronger support for conservation,” says Peter Douglas. The idea was that those who visited the coast and experienced its opportunities for recreation and learning would be likely to support protection of coastal resources.

That is more likely to happen among those who stay in the smaller establishments. The new high-profile coastal resorts seem to focus on opulent comfort rather than nearby attractions, including the natural world at their doorstep. Advertising features 400-thread-count bed linens, marble baths, and "relaxed luxury," items that are presumably available at expensive resorts anywhere in the world. These hotels may not need coastal protection to make a profit. They are largely self-contained, like luxury liners, offering ocean views and the scent of salt water.

It's different for smaller inns and bed and breakfasts. Pat Hardy, founder of the Professional Innkeepers Association, says bed and breakfast guests expect to be told about local resources, whether historical, natural, or other. "They don't look for those little folders in the lobby," she says. "They expect a packet of information in the room." Barbara Reed, of Mendocino, says, "We are well aware that tourists come to our areas to enjoy the scenic beauty. It's in our own self-interest to protect our environment."

Because they are in fact a cottage industry, bed and breakfasts and small inns fit readily into the special character of their communities and are more inclined to promote conservation. "Conservation means saving dollars too," says Hardy. In a nationwide survey in 2002, 80 percent of the 876 B&B operators who responded (of about 2,400 who received the survey) stated that they engage in recycling, 81 percent give guests the option to reuse linens, 73 percent use energy-efficient lighting, and 41 percent practice composting.

For now, the boom in major hotel construction seems to be over. With average occupancy rates of the southern California coastal resorts down from 76 percent to 63 percent over the last three years—perhaps reflecting the recent increase in the supply of rooms—new projects are looking less attractive, says Steve Bone. Large hotels require 10 to 20 years of planning, he says. The number of bed and breakfast inns has been growing at a rate slower than in the 1980s, but the overall room count has continued to grow, because inns have typically increased in size.

Meanwhile, ecotourism has taken hold in some communities, especially on the central and north coast, bringing modest new income and creating opportunities for hotel development that is harmonious with coastal resource protection. The City of Arcata has been supportive of a proposed overnight facility that combines

## THE NEWS GETS WORSE

**FEES FOR CAMPING** in all state parks will go up on July 1. The largest increases will be at the most popular campgrounds during the busiest times. Family camping fees, for example, which now range from \$8–13, will be \$11–25, plus a \$10 fee for premium sites, and annual passes, now \$67, will rise to \$125. "After repeated budget reductions, we have reached the point where there is no other choice," said State Parks Director Ruth Coleman. "This is a reasonable solution to help get the State through hard budget times. This plan keeps the system open and operating, while also keeping it as affordable as possible for all Californians." The budget of State Parks was cut \$35 million over the last three years, plus another \$15 million in 2004–05. The steep fee increases will avert the need to close 100 parks, according to State Parks. Fees will also rise for day use, RV hookups, museums and historical sites, boat launching, and reservoir and annual boat passes. Fees for disabled visitors, veterans, seniors, and Golden Bear members will not change. The new fees are already in effect for camping reservations for the month of July. Telephone reservation hours have been reduced as well. Online reservations can still be made around the clock. For details, see the State Parks web site: [www.parks.ca.gov](http://www.parks.ca.gov), or call (800) 444-PARKS.



MARCIA GRIMM

camping options with a 30-to-50-room lodge, built using sustainable materials. A major tourist attraction is the Arcata Marsh and Wildlife Sanctuary, created on the site of a degraded marsh, as well as the community redwood forest and coastal trails. "We have an economy in concert with protecting those areas," said Michael Sweeney, director of the Institute for Ecological Tourism at Humboldt State University. Ecotourism is a way to encourage saving resources by supporting the local economy. California's coastal protection program makes that possible. ■

*Steve Scholl is a former deputy director of the Coastal Commission, with a background in city and regional planning.*



Off-season visitors are sometimes lucky.



MATT JAMES



MATT JAMES



MORGAN BALL

# A Feast Interrupted

BEACH GROOMING TAKES AWAY SHOREBIRDS' DINNER

HAL HUGHES

**E**VERY FEW DAYS—in some places as often as twice a day—tractors roll along a hundred miles or so of sandy beaches in southern California, scooping up not only trash but also seaweed that's washed ashore, along with the myriad small creatures that shelter in it. This mechanical "beach grooming"—practiced for decades—helps keep up the classic sand-and-surf image that draws millions of people to the region's beaches, but it also sweeps away a resource that provides vital nourishment for shorebirds.

"Grooming sandy beaches changes rich coastal habitats into barren plains of unstable sand," says Jenifer Dugan of the Marine Science Institute at the University of California, Santa Barbara, whose team has surveyed over 40 beaches, both those that are regularly groomed and beaches where beach wrack—kelps and seagrasses brought ashore by waves and tides—is left in place. Their ongoing studies since 1995, funded by California Sea Grant, California State Parks, Minerals Management Service, and the National Science Foundation, have found far fewer creatures and far lower diversity of life on beaches that are regularly cleaned by "sanitizer" tractors.

On beaches where wrack was left undisturbed, "Our surveys have found a very high abundance and diversity of intertidal life compared to similar beaches in other parts of the world," Dugan says. "The abun-

dant life of natural beaches provides food for large numbers of wintering shorebirds of many species, and for nesting western snowy plovers." In contrast, the upper intertidal zone of many beaches where wrack is removed is populated only by a few flies, leaving little for shorebirds to eat. Her studies show that without the nutrients supplied by kelp and other organic matter that washes ashore, beaches are not hospitable to many animals, including shorebirds.

Beach wrack accumulates at the top of the intertidal zone, where it becomes home for tiny creatures like beach hoppers that feed on it and help to break it down. Other animals feed on the beach hoppers, and an intricate food web and succession of life develops in piles of decomposing wrack. These little critters in turn become food for shorebirds. Undisturbed beach wrack establishes a rich, dynamic zone of life that links marine and terrestrial habitats. Waves and wind constantly shift this zone, so the creatures that rely on this moveable feast are adapted to living and eating on the run.

Dugan and her colleagues have found that the wrack piles also catch and hold beach sand, which helps to form hummocks and larger dunes. This gives dune plants a foothold and needed nutrients, and increases the stability of the beach. On groomed beaches, fine sand is washed or blown away more readily, leaving coarser grains behind.

**Top left: A male beach hopper (*Megalorchestia californica*) perches on a kelp bulb.**

**Above left: Dune beetles (*Coelus* spp.) and their larvae like the embryonic dunes and hummocks formed by beach wrack.**

**Top right: Black-bellied plovers (*Pluvialis squatarola*) feed on creatures found in beach wrack.**

Focused on abundance and diversity, Dugan's research found beach hoppers (*Megalorchestia* spp.) to be among the most abundant macrofauna (animals that are large enough to be seen with the naked eye) on natural California beaches. These tiny crustaceans stay hidden under the sand and wrack during the day. After dark, beach hoppers emerge and go to work on the kelp, rapidly devouring the lighter portions and hastening the breakdown of the rest. These and other animals that thrive in or under beach wrack—beetles, flies, isopods, and other insects and crustaceans—are delectable treats for shorebirds like plovers, sanderlings, godwits, and sandpipers. The wrack line also attracts mammals and birds from inland. She has seen foxes, feral pigs, flycatchers, even endangered Belding's savannah sparrows come to feed there.

The results of Dugan's research have encouraged some beach managers to reexamine the practice of mechanical beach grooming. On a few formerly groomed beaches, wrack is now being left in place. At San Buenaventura State Beach, in Ventura County, where one stretch directly in front of the lifeguard station has been left ungroomed, "dune plant recovery has been dramatic," said Dugan. "For natural beaches, wherever beach wrack is left undisturbed, animal colonization is very rapid—a matter of hours."

Meanwhile, in San Diego, Sea Grant-supported studies are investigating whether grooming damages the eggs that grunion lay on beaches during high tides between March and August. This research has already led to revised grooming practices.

"The more we study beach wrack," says Dugan, "the more we learn how important this resource is to coastal ecology." The dominant species on California beaches is, of course, *Homo sapiens*, which uses sandy shores for recreation. Some people don't like decaying seaweed, others don't like flies or other little critters to disturb their sunbathing. (Mechanical grooming is unknown on the cooler beaches of northern California.)

Dugan hopes there's room for compromise to restore beach life after years of grooming. "It might be possible to designate some zones to be left ungroomed," she said. "If the wrack were left year-round, the communities of plants and animals could recover. Then they'd process much of the wrack naturally." ■



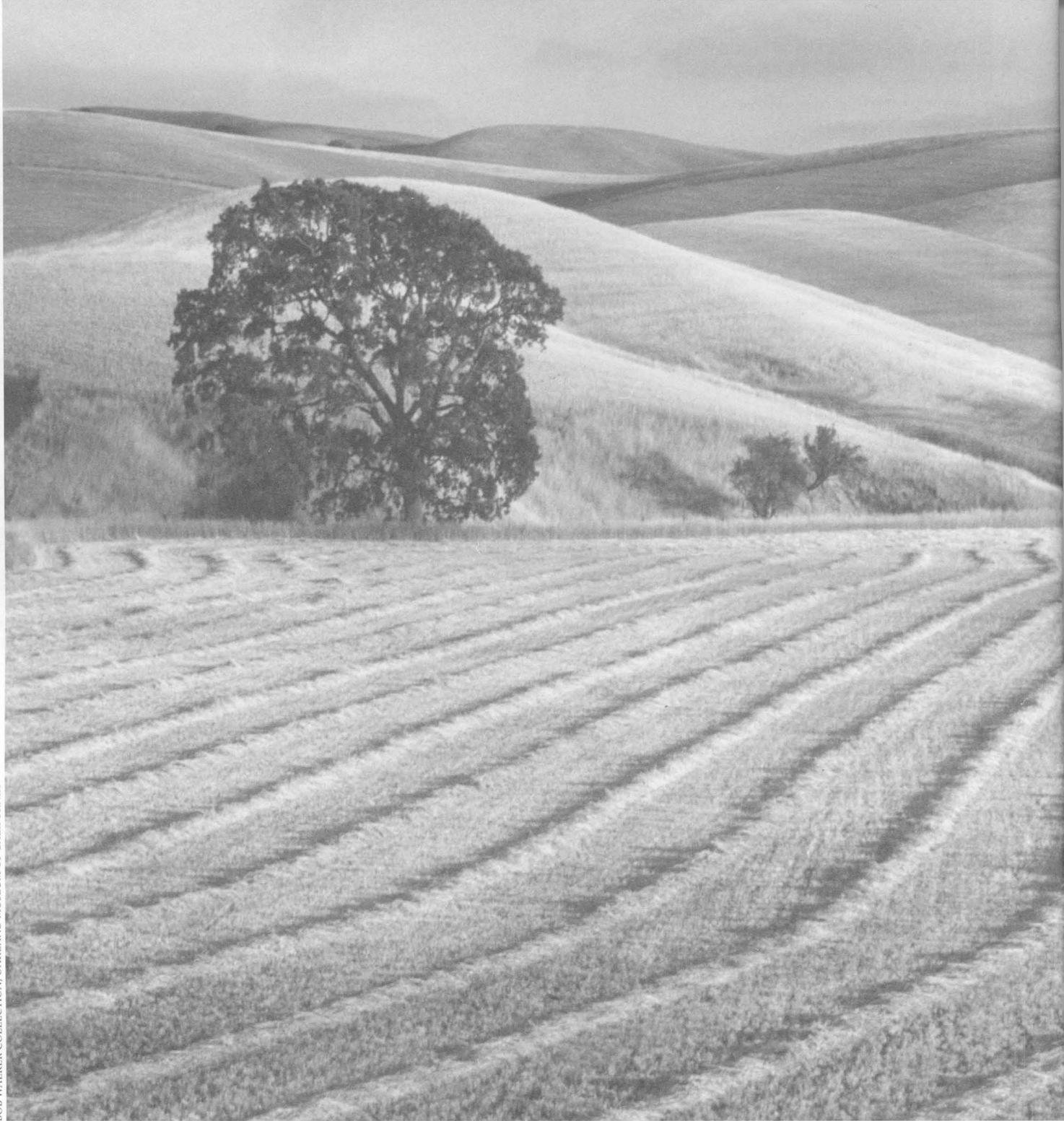
PHOTOS THIS PAGE: DAVID HUBBARD

**Top:** These mostly nocturnal beach hoppers are migrating up the beach before sunset because an incoming tide has flooded their burrows.

**Center:** Jenifer Dugan talks to a beach groomer on Coronado City Beach to learn about schedules and what happens to removed wrack.

**Bottom:** East Beach at Santa Barbara is flat and featureless after grooming.

BOB WALKER COLLECTION, OAKLAND MUSEUM OF CALIFORNIA



**THE NEXT** Million **ACRES**

SAN FRANCISCO BAY AREA GROUPS DRIVE  
TOWARD AMBITIOUS 25-YEAR GOAL



**G**AZE OUT FROM MOUNT DIABLO on a crisp winter day and you will see rolling hills and woodlands extending all the way to the horizon. Although nearly seven million people live in the nine-county region which contains this peak, the most prominent landmark in the East Bay, much of what you see appears free of human imprint. Long ridges sweep from southeast to northwest, some cloaked in redwoods, some covered with grass and

dotted with oaks. You're looking at much of the San Francisco Bay Area's protected open space, which adds up to about a million acres.

Look down, however, and you're likely to see traffic backups on Highway 4, I-580, I-680, and—well, just about every highway. Subdivisions, malls, and office parks have filled most of the valley floors, and fingers of development are creeping up a great many canyons.

JOHN WOODBURY

**This hay field north of Livermore was the site of a proposed town of 40,000 people. Development on that scale has been prevented, but land in the foreground of this 1986 photograph is no longer agricultural.**



JOHN WOODBURY

**Rugged grasslands in the Diablo Range define the northern limits of kit fox range.**

At this time, wittingly and otherwise, the inhabitants of the San Francisco Bay region are in the process of determining whether the array of ridges visible from Mount Diablo will be reduced to isolated green fragments within urban sprawl or will survive as a connected landscape. Islands of open space may be pretty, but they can not sustain wildlife, native vegetation, and agriculture while also enabling a growing population to experience nature—even wilderness—close to home. To secure a connected landscape, much more open space must be permanently protected—and soon. This is the judgment of the Bay Area Open Space Council, a consortium of more than 50 nonprofit organizations and public agencies at all levels of government working to acquire and manage urban and regional parks, open space, and agricultural lands and easements. Last September, at its annual conference, the Council announced this goal: to protect another million acres by 2028, on top of the million or so acres the public has already secured for posterity.

The Council was formed in 1990 to maximize the effectiveness of the individual members' land conservation efforts. Unlike most cooperative groups, which tend to start out by trying to develop a master plan—a process that takes time and can split a group into factions—the Council moved right into the heart of the matter: how to generate more funding for the kind of regionally significant projects the members wanted to do.

The first major victory, in 1997, was to create a Bay Area Conservancy program within the Coastal Conservancy. Legislation sponsored by Senator Byron Sher expanded the scope and jurisdiction of the Coastal Conservancy, giving the agency the specific responsibility to manage a program of projects and grants in the nine Bay counties. During the next six years, the Council worked to raise money. Cumulative authorized funding for the Bay Area Conservancy program is now up to \$125 million.

Only after working together for a decade did the Council decide it was time to set

specific goals for the entire region, so as to keep pace with population growth.

## A Modest Goal

CONSIDERING THAT IT took over 100 years to protect the first million acres of park and habitat lands, a goal to double that acreage in one-fourth of that time is ambitious. Yet this is no grand scheme, nor is it a visionary leap of faith into the unknown. This goal, like the Council itself, is the cumulative outgrowth of many small plans and projects, built on its members' past achievements. Indeed this goal, although bold, is exemplary in its modesty.

In the past, land conservation almost always meant public acquisition. During the past decade, however, about half of all new land protection in the Bay Area has taken place on private lands, with the use of conservation easements negotiated by both land trusts and public agencies. Government simply can't own and manage enough land to achieve today's conservation needs. In addition to preserves and parks, the Open Space Council is looking to protect working landscapes, where it supports a balance between private profit making and public resource protection.

The million-acre goal, expected to cost roughly \$5 billion, is modest when compared, for example, to what the region is prepared to spend for other purposes. Over the next 25 years the Regional Transportation Plan, adopted by the Metropolitan Transportation Commission, proposes spending over \$108 billion for transportation projects—over 20 times more than the estimated bill for open space.

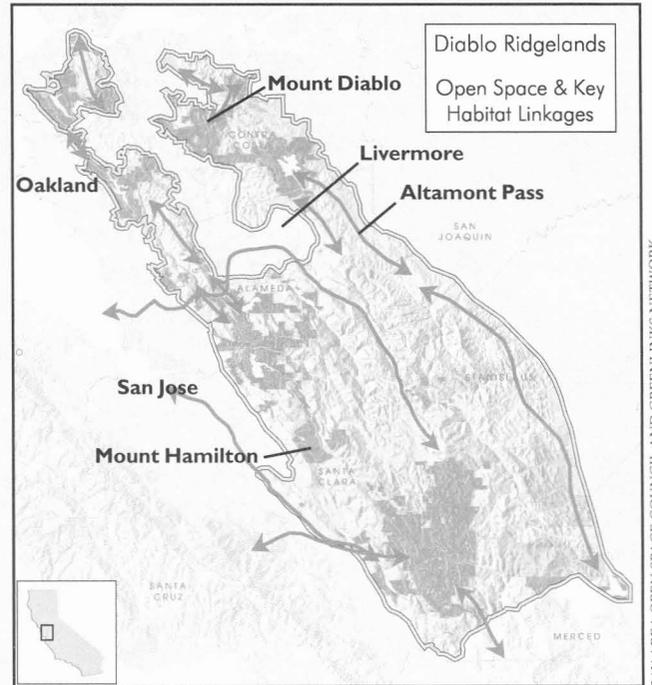
It is a modest goal measured in terms of need and urgency. Statistics and personal experience tell us we have at most two decades before population growth and sprawl make further large-scale conservation a moot issue. Scientific study has established the high ecological value of Bay Area habitats, and there is little doubt that significant and irreplaceable resources will be lost should we fail to act. Bay Area residents have shown time and again that they value open space. When Proposition 40, the most recent statewide park, open space, and water bond, went to the ballot in March 2002, it was passed by 64 percent of Bay Area voters (compared to 57 percent statewide).

## FROM LANDMARK TO LANDSCAPE

AVE MOUNT DIABLO is an excellent case study for how land conservation has evolved in the Bay Area. Established in 1971, this nonprofit organiza-

tion was focused first on the peak itself, then moved to preserve an entire ecosystem, in collaboration with other organizations. Parcel by parcel, a small state park surrounding the peak has been expanded to a ring of protection 20 miles wide, encompassing several East Bay Regional Park District parks, City of Walnut Creek open space, Contra Costa Water District watershed lands, Livermore Area Recreation and Park District holdings, and several properties protected by conservation easements.

Meanwhile, other nodes of protection have grown to the west in the Briones Hills and the watershed of San Leandro Creek, and to the south in the Sunol Wilderness and around Henry Coe State Park. Today, some two dozen agencies and organizations are hoping to link nearly 400,000 acres of protected core habitats together into a continuous landscape of public and private lands extending 90 miles north to south in the Diablo Range.



Arrows indicate likely mammal migration corridors.



Suburban tract development is a conspicuous cause of habitat loss in Contra Costa County.

## THE WORKING LANDSCAPE

THE MARIN AGRICULTURAL LAND TRUST (MALT), founded in 1980, was the first agricultural land trust in the United States. Over the past 25 years it has acquired 49 easements protecting more than 32,000 acres of ranch and dairy land in central and western Marin County.

MALT pioneered the blending of environmental and agricultural interests, with a board of directors that draws from both communities. It has shown that a program of voluntary easement purchases, sustained over time, can add up to landscape-scale protection. MALT is also one of the first land trusts to seriously tackle the thorny issue of monitoring easements to ensure that the promised agricultural and habitat benefits are realized.

The MALT experience illustrates the challenges presented by the use of easements, and the conditions necessary for success. MALT is supported by the county's

strong land use controls and policies, which support agriculture and discourage nonagricultural activities outside the urbanized band along the edge of San Francisco Bay. Without such controls and policies, a program based on the voluntary sale of conservation easements would have a more difficult time succeeding.

MALT now faces a major hurdle: closing the gaps between clusters of easement-protected farms and ranches among the oak-studded hills of central and west Marin. This is difficult not only because every acquisition requires a willing seller and its own fundraising

campaign, but also because success in agriculture depends on economies of scale, proximity of operations, and the absence of conflicting land uses.

Following MALT's lead, other agriculturally focused land trusts have been formed throughout the region. Together with multiple-purpose land trusts, these nonprofit organizations are active in nearly all the remaining agricultural landscapes of the Bay Area.

In 1990 agricultural easements went mainstream in a big way, with the formation of the Sonoma County Agricultural Preservation and Open Space District. Funded through a 0.5 percent sales tax, it is the largest public program in the nation to use easements, rather than acquisition, as a principal resource conservation tool.

## Reality Check

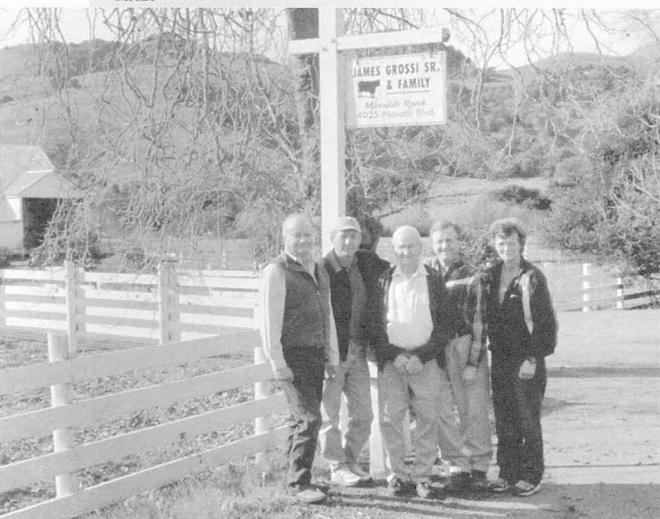
YET, DESPITE ALL THE arguments about modesty, many still question whether the Bay Area really has the ability—and the willpower—to permanently protect and ensure appropriate stewardship for another million acres of open space, and make enough of it accessible to the public fast enough to meet the demands of a growing, urbanizing population. This question led me to the Map Room, at the University of California, Berkeley.

It wasn't the place I remembered from my student days, located in the Bancroft Library, with wood-paneled rooms, overstuffed chairs, and drawer after drawer of index cards hinting at the mysteries contained therein. It had been moved to the modern McCone Hall, and I had to get help from a purple-haired, lip-pierced student even to figure out the computerized catalog. But inside shiny steel cases the Map Room still had maps, some crisp and new, some yellowed and tattered around the edges, each offering a different glimpse of the past. Slipped in between a map of the Hetch Hetchy aqueduct and an oblique aerial sketch of early Oakland was just what I needed—a 30-year-old, hand-drawn map showing all of the parks and regional recreation lands in the San Francisco Bay Area in 1970.

After electronically scanning and importing the map into the latest Geographic Information System software, an encouraging fact emerged: the rate at which permanently protected, publicly accessible open space had been expanded during the last three decades exceeded regional population growth. In 1977, with just over 400,000 acres of park and recreation lands, there were 12.92 people per publicly accessible open space acre. By 2003, thanks to strong public support and a lot of hard work, the region had nearly 820,000 acres of park and recreation lands, which even with a dramatic rise in population works out to 8.3 people per acre.

While remarkable, this achievement is far from adequate. An ever more urbanized population increasingly relies on public lands for the opportunity to see, touch, and smell nature, and they all tend to do it on the same holidays and weekends. At times the wilderness can seem pretty crowded, and it's only going to get more so. Nonetheless, the fact—verified by an obscure decades-old map—that the provision of publicly accessible open space had out-

MALT



**The Grossi family (left to right) James Jr., Ed, James Sr., Ralph, and Beverly sold MALT an easement on their 870-acre ranch two miles from Novato.**



JOHN WOODBURY

paced population growth over the past 30 years—offers hope for the future. It also suggests that the Council's million acre goal is achievable.

## A Not-So-Modest Challenge

EVEN SO, THE CHALLENGE is daunting. Open space in the Bay Area is being consumed and fragmented by both urbanization and rural development. While urban sprawl may be more obvious, especially to the eye, the construction of residential enclaves in the rural landscape is more problematic.

As of 2000, about 17 percent (750,000 acres) of the nine-county Bay Area was developed at urban densities (defined as at least one dwelling unit per 1.5 acres). Still, one could argue that while the extent of urban development seems overwhelming

when one is stuck in traffic on Interstate 880, 17 percent is not that much for a region that contains a world-class metropolis. And there's always an escape: drive half an hour west or east of Silicon Valley and you're in the forests of the Santa Cruz Mountains or the oak woodlands of the Diablo Range.

Much less apparent than tract homes and strip malls, but potentially more significant, is rural development. Mostly invisible from the highway but sticking out like a sore thumb when seen from the air, are a rapidly increasing number of McMansions, rural estates, boutique vineyards, ranchitos, weekend hideaways, and retirement homes. No one has a statistical handle on what is happening, but from the standpoint of native plants and animals the impact must be devastating. No sooner do people move to the country than they start clearing out the native vegetation, immediately planting and actively cultivating exotic invasive plants. Many of these plants used

**"Sore thumb" developments have sprouted in the rolling grasslands, oak woodlands, and chaparral around Mt. Diablo (top left).**

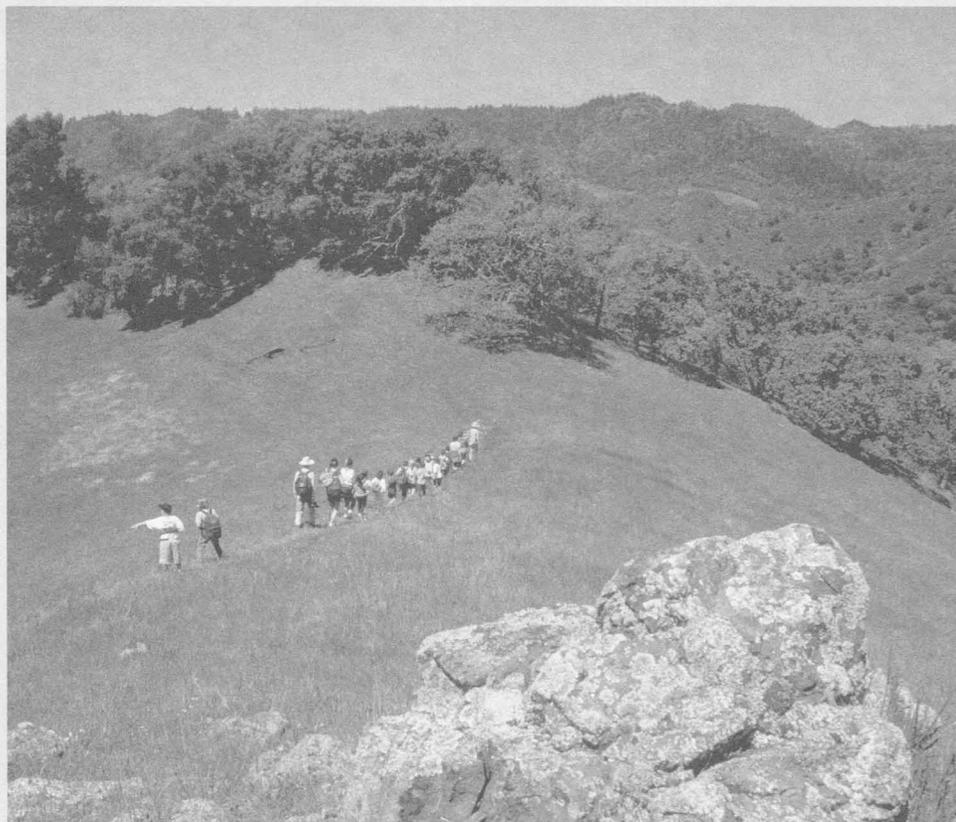
## SECURING PUBLIC ACCESS TO LANDS PROTECTED BY EASEMENTS

**T**HE RAPID INCREASE in the use of conservation easements is good news for habitat and agricultural land protection, but problematic for a growing urban population eager to experience the outdoors. Public lands are typically open to the public with minimal restrictions. Not so easement-protected lands. Few landowners welcome the liability, loss of privacy, and interference with agricultural operations that can come with public access.

In an attempt to diminish that problem, the Sonoma County Agricultural Preservation and Open Space District is using a creative strategy. It has helped to establish LandPaths, a nonprofit organization that contracts with the District to organize tours, hikes, picnics, educational programs, and restoration projects on easement-protected lands. The District also lays the groundwork for public access when it negotiates easements with landowners. Those draft easements provide not only for resource protection but also, where appropriate, for future public trails.

The success of this strategy will depend on the District's ability to negotiate trail easements that connect enough with each other to be useful. It also depends on finding the funding to construct and maintain such trails.

Also attempting to provide public access through the use of easements is the nonprofit Bay Area Ridge Trail Council. It is seeking—and getting—private landowners along the proposed route of the trail to donate or sell trail easements.



PHOTOS THIS PAGE: CRAIG ANDERSON

**Top: A LandPaths hike**

**Above: LandPaths' In Our Own Backyard environmental education program**

to make subtle forays from urban edges; now they are being injected forcibly into nearly every valley and ridgetop. Even the family tabby, when moved to the country, transforms into an efficient small-mammal and ground-bird killing machine.

## Connecting Habitat

RURAL AND URBAN development, together, mean habitat fragmentation. Some great habitat nodes have been protected, but the connections keeping these nodes from becoming island prisons for wildlife are tenuous and disappearing fast. Protecting and restoring these connections is a central concern for natural scientists today, and a major consideration guiding the development of Bay Area open space goals. But figuring out which species to focus on, and what habitat connectivity actually means, is tough. No less tough is the challenge of providing public access to protected lands without conflicting with habitat needs.

Lynn Sadler, executive director of the Mountain Lion Foundation, argues that habitat planning should focus on the needs of the state's top predator. "Just because you connect two areas together doesn't mean mountain lions will use this connection," she said. "We've spent a lot of money buying land to connect the dots, sometimes only to find that no self-respecting lion would travel by the route we've chosen. And in our zeal to build support for our acquisitions, we like to combine purposes, like putting a trail in the same corridor with the mountain lions. Talk about a setup for someone getting hurt—and the one most likely to get hurt is the lion the first time there's a sighting and a panicked response."

For regulatory agencies, the Endangered Species Act defines the course of actions: animals and plants identified as threatened and endangered get first dibs on the money available for habitat protection. Highest priority goes to the most threatened places with the greatest concentrations of these rare species. Places where the most pristine land can be acquired for the least cost are preferred.

This presents a challenge for the Bay Area. The region *does* have many rare and endemic species and habitats, but generally not the best or the biggest or the charismatic species and most notable habitat types. Land prices are sky high and large unspoiled parcels are hard to find. Sure, there are some really fine redwood groves

## THE BIGGER CONTEXT: GROWTH AND SPREAD

THE UNDERLYING FORCE driving nearly every environmental challenge in the region—more and more people—is hardly a secret. Not quite as obvious, but still well known, is the fact that each person on average is consuming more land. Urban densities in the Bay Area were fairly compact and stable until the 1940s, with about 15 people per acre. The end of World War II brought a sudden and dramatic change. By 1974, the ratio had dropped to nine per urban acre.

Since then, there has been a shift and now urban densities seem to be slowly increasing. Whether this is the result of more enlightened regional planning or of shrinking open space is open to debate.

The numbers also don't capture the recent growth of suburbs beyond the nine-county region. Tract homes are sprouting on former farmlands in and around Tracy, Modesto, Stockton, Hollister, and the Sacramento area.

here, but they're not as big as those on the north coast. There is some coastal scrub, but the central coast has more. There's chaparral, but southern California is where chaparral reigns supreme. Even the Bay Area's trademark oak woodlands would have a hard time in a head-to-head competition with all of the oak woodlands that stretch from Santa Barbara to Lake County on both the east and west sides of the Central Valley.

What makes the Bay Area exceptional is the diversity of habitats in close proximity to one another—a veritable mixing zone of habitat edges as complicated as the fog flows and heat sinks that define the region. Edges are where habitats get interesting. Edges are where the genetic outliers of a species thrive, take hold, and fill the chromosome bank with the variety that gives resiliency to the population.

The reason habitat protection is imperative in the Bay Area is that we can't afford to lose this incredible mixing zone. Over and above the core habitats, or the linear corridors that connect them—though these too are important—it's the mile after mile of unique adjacencies that especially need to be preserved. Turn one corner and you're in kit fox habitat. Turn another corner and you could encounter a mountain lion, an antelope, or a cow.

No one has yet come up with a master plan for habitat protection in the Bay Area. What exists is a de facto plan—a fairly haphazard blending and intermingling of the ideas and passions of many different agencies, organizations and individuals. One of the challenges for the next few years is to make some sense of how this all best fits together.



Sprawling development like this Cisco “campus” consumes remaining Bay Area flatlands, destroying habitat and adding to massive commuter flows.

## Linking Parks and People

A WIDE DIVERSITY of habitats in close proximity to one another is not the only compelling reason to protect Bay Area open spaces. At least as important is the wide diversity of habitats in close proximity to a highly diverse human population. As the Trust for Public Land regularly points out, the issue is “Land and People.”

For some Bay Area residents, having a pretty backdrop to their home in the city is reason enough to protect open space. For others, knowing there is an “other” place out there, one not filled up with manmade things, is what matters. Most of us, however, have a need for the direct experience of smells, sounds, and dirt—all available in parklands interlaced by a network of trails.

Trails provide intimate and personal opportunities to experience nature. Collectively, they define a system for understanding the region’s open spaces. The Bay Area has three major trail systems in the works. Two are concentric: the 400-mile San Francisco Bay Trail, near the water’s edge, is more than half completed; and the 400-mile Bay Area Ridge Trail, with nearly 250 miles completed.

Progress on the California Coastal Trail, which will run through the region on its way from Oregon to Mexico, is harder to measure. Although it theoretically exists on the shoulder of Highway 1 or on the beach below the high-tide mark where there is no separate improved trail, having a trail in theory is not the same as having a trail that one can, or would want to use. In 2001 the Legislature assigned responsibility for the Coastal Trail to the Coastal Conservancy, raising this trail’s status and rate of progress.

Connecting these three regional trails is a network of another 3,221 miles of regionally significant trails, of which 1,267 miles (39 percent) are in place. Many of these connecting trails link neighborhoods to creeks, shorelines, nearby parks, and to the larger network.

The trail network, when complete, will enable Bay Area residents to move from parks near home to wild areas along the bay shore and among its rolling hills and peaks. Like habitat protection, the regional trail network requires continuity and coherence. Completing that network is no small task, however. And one major requirement is money, for acquisition, operation, and management.

## Money—the Glue That Holds It All Together

BUYING ANOTHER MILLION acres of land—in fee title or with easements to protect them forever and trails to connect them—is a big, exciting challenge. Equally big is figuring out how to take care of what will be protected, and how to enable the public to experience what it has paid to protect. Adequate funding is essential.

Recent voter-approved bonds for land and water resources have yielded results. To continue the recent progress in protecting and restoring the environment, another statewide bond will be needed by 2006.

In addition to statewide park and water bonds—which cannot be counted on—a reliable flow of regional funds will be required. The Council is currently sponsoring legislation—AB 204—that would provide a stable regional fund for at least some purposes. The objective is to restore and protect natural resources that have been adversely impacted by motor vehicles and related infrastructure, particularly through pollution associated with road runoff. The regional fund proposed by the bill would be especially useful in projects to restore urban creeks and bay wetlands—important and very expensive components of the region's million-acre goal.

Funding for operations and maintenance must also be secured. Local governments are seriously hobbled in their ability to raise money for ongoing stewardship obligations—including security, fire management, control of invasive species, and interpretive programs. At the state level, the park system is also severely underfunded. As a result, the days are gone when a local land trust could scrape together the dollars to buy a prime piece of property, and assume an easy transfer of the land to State Parks. Absent fundamental reform of how local government is financed, the options for operating funds are limited: parcel, property, sales, and other miscellaneous taxes that require a two-thirds vote, or special benefit assessment districts that require a majority vote. With the majority-vote advantage of the assessment districts come some disadvantages, not the least of which is that anti-tax groups have challenged the use of such districts for park and open space purposes. Although two recent trial court cases have resulted in strong legal opinions upholding the assessment districts, the issue won't be

settled until at least an appellate court ruling, which could take some time.

## Stewardship through Easements

AT THIS TIME, WITH FUNDS for acquisition and maintenance drastically diminished, the only practical way to protect the next million acres of open space is by supplementing fee-title acquisitions with a large conservation easement program. This means that private landowners must have incentives to take on the burden of stewardship and economically viable ways of shouldering it. That in turn means that the Bay Area's land conservation community has a big interest in supporting the ability of these landowners to make a living while stewarding the land.

In this new paradigm for land conservation, the focus is less on who owns the land and more on getting desired outcomes—for habitat, recreation, and agricultural production. Even with extensive use of conservation easements, however, the cost of maintaining the region's permanent greenbelt will be substantial. The job now is to save the last great places. The job of the next generation will be to take care of those places. Today's job is the easier one.

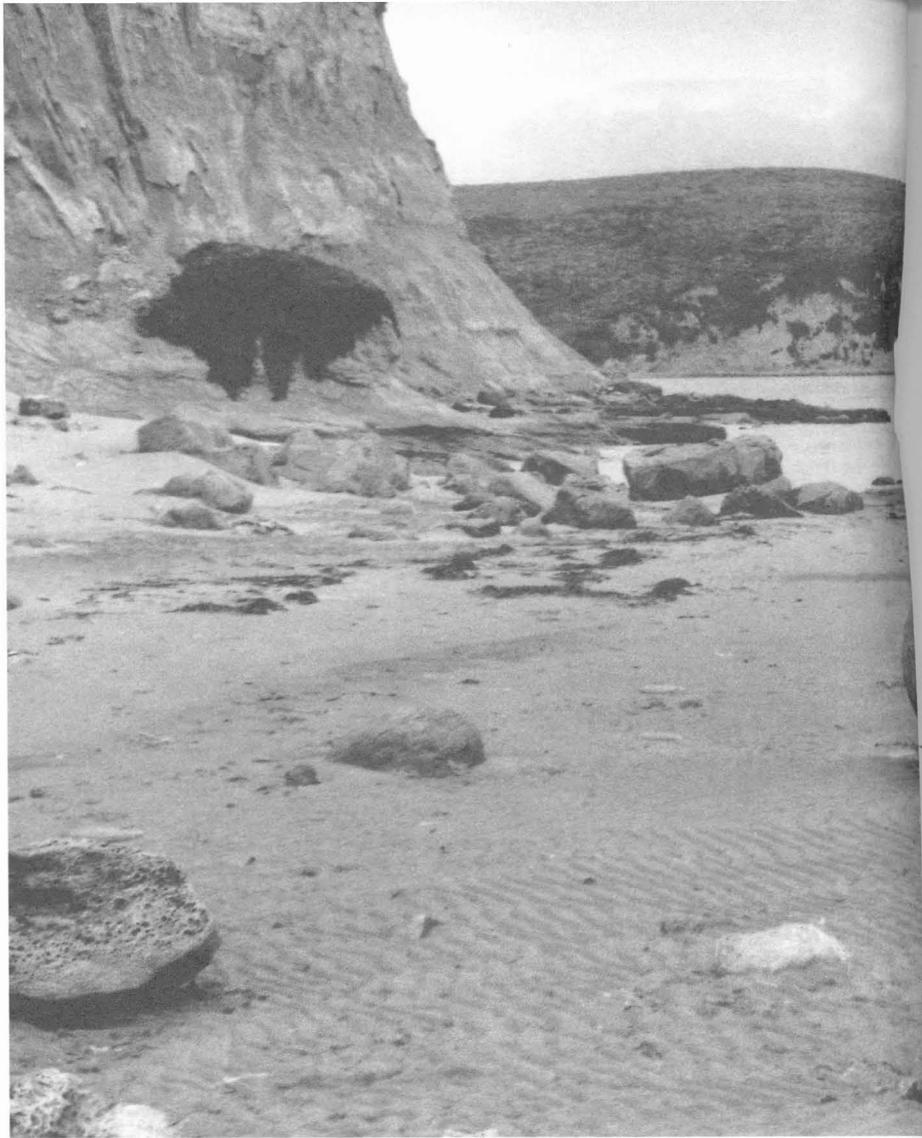
EARLY PIONEERS BELIEVED it was their moral right and obligation to develop nature, and they toiled tirelessly to remake the wilderness in their own image. However, even in the early days of European settlement, some people were already working to preserve the spectacular natural features that weave through the Bay region. Today, there are over a million protected acres—a magnificent achievement.

On a crisp winter day from Mount Diablo you can see protected ridges lined up and rolling across the horizon from one end of the sky to the other. The next million acres of open space will ensure that these are not isolated outcrops in an urban sea, but a vibrant and connected ecosystem, both embracing and interlacing one of the world's great metropolitan areas. ■

*John Woodbury has been the director of the Bay Area Open Space Council since 1993. He earlier worked for the Oakland City Council, as a planner for the City of Alameda, and as a community development coordinator for the City of Concord.*

GREGG ELLIOTT

## Letter from Memphis



**T**HIRTEEN YEARS AGO I arrived in California from Washington, D.C., knowing almost nothing about the state and its citizens. My East Coast stereotypes of beautiful, superficial people were quickly shattered. I soon realized that California was ahead of the nation in many ways, particularly with respect to environmental issues.

Last November, somewhat reluctantly, I moved to Memphis, Tennessee (that's right, Elvis), where the people I've met nod their heads sagely when they hear I've come from California. Many of our conversations include some version of "Y'all are so far ahead of us" or "we are years behind California." So far, these remarks have been alluding to fitness trends or fashions or the tolerance for alternative life styles. But I have also noticed that local environmental issues rarely seem to make headlines in Memphis or come up in conversation. Now living in a city that is currently bumping up against Clean Air Act limits on ozone pol-

lution, I am reminded of California's leading role in recognizing, understanding, solving, and seeking to prevent environmental catastrophes.

More than a decade of immersion in the wildlife and habitat issues of California and the Pacific Ocean left me acutely aware of the tremendous conservation problems and complexities that must be confronted. Development pressure along the coast, the collapse of the West Coast groundfish fishery, introduced invasive species, and diseases such as Sudden Oak Death are real and growing problems.

Chronic oil spills and other forms of pollution, persist—and will surely increase now that sweeping provisions of the recently passed House energy bill promise to simplify offshore oil and gas projects. All these troubles threaten to swamp the state's ability to conserve and manage its natural wealth. At times, the more I learned about these issues, the more overwhelming they seemed.



CLIFFORD BAKER

Or perhaps because of them, most Californians seem primed for action. A November 2003 poll conducted by the Public Policy Institute revealed that 88 percent of the state's residents consider the condition of ocean and beaches *personally* important, and a majority say they support actions to protect marine, coastal, and wetland habitats even if this means economic sacrifice. Perhaps most telling, a majority of Latinos—projected to be the state's largest ethnic group by 2025—view pollution, seafood contamination, and declining sea mammal populations as big problems.

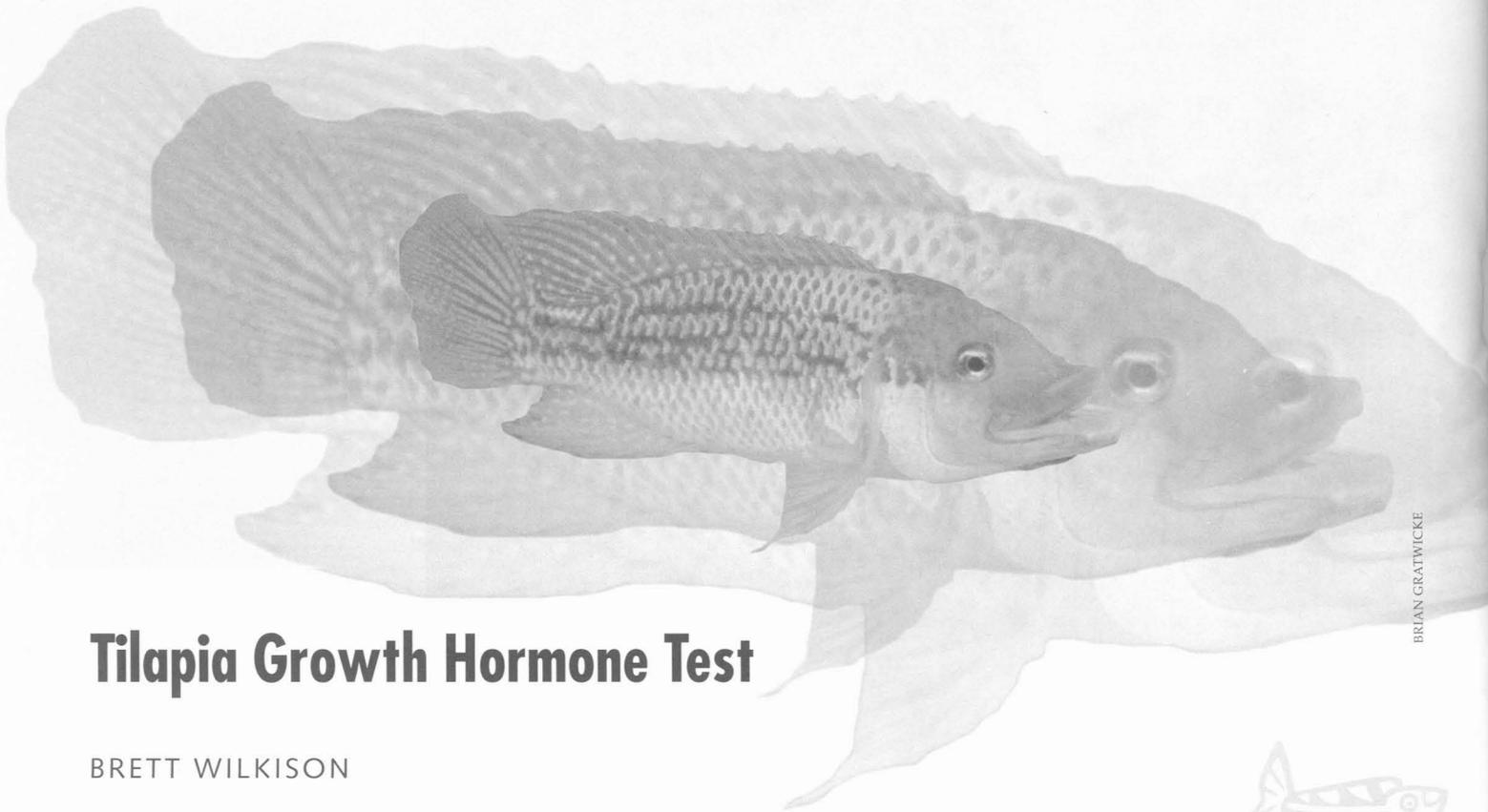
Where the occasional headlines about wildlife originate as often from the West as from Tennessee, I can see clearly that California has more cause for celebration than despair: the Channel Islands Marine Reserve, precedent-setting state legislation in support of marine protected areas, science-based fisheries management, public awareness campaigns to safeguard coastal resources, and conservation partnerships

among unusually diverse interests. These are all hallmarks of the California state of mind with respect to conserving the natural world.

Absence does indeed make the heart grow fonder—or simply more aware of what is no longer within easy reach. I have been gone less than a month, and I am now haunted by memories of loveliness. The salty tang of Bolinas Lagoon muds at low tide. Elk slowly materializing out of the mists of a Point Reyes morning. The musical cacophony of pounding waves, barking seals, and screeching gulls on the Farallon Islands. A vision of over 400 prancing dolphins arcing out from the bow of a ship on Monterey Bay. The sigh of the surf heard from within a zendo's silence at Green Gulch Farm. My longing is as deep as my certainty that Californians will not sacrifice these treasures to ignorance or greed. ■

*Gregg Elliott's "The S.S. Jacob Luckenbach: A Ghost Story," appeared in the Summer 2002 issue of Coast & Ocean.*

Estero de Limantour, Pt. Reyes



BRIAN GRATWICKE

## Tilapia Growth Hormone Test

BRETT WILKISON

**A**N INCREASINGLY POPULAR fish at your local market could be in line for growth hormone treatment.

Scientists at the University of Hawaii's Institute of Marine Biology have shown that tilapia injected with recombinant bovine growth hormone, or rBGH, grow to be nearly twice the size of control fish in four weeks. The four-year study, a collaborative effort by the University of Hawaii and University of California Sea Grant Programs, was partly funded by the Monsanto Company, which developed and patented the rBGH drug POSILAC.

According to lead scientist Gordon Grau, the study's goal was merely to find out whether rBGH, injected into the fish, would promote its growth. "This growth hormone is not something that is going to be practical overnight," Grau said, as quoted in California Sea Grant's fall 2003 *Sea Grant News*. Research to develop a practical application method would require approval from the Food and Drug Administration (FDA), a time-consuming process. Sea Grant provided \$100,000, and Monsanto a one-time unrestricted gift of \$80,000 toward the project, according to Mary Donohue, associate director for Hawaii Sea Grant. Others at Sea Grant deferred questions about the research to

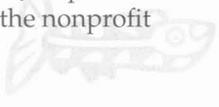
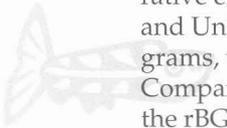
Grau. Repeated efforts to reach him, however, were unsuccessful.

Tilapia growers have expressed cautious interest. "If proven safe, I think the industry would jump all over it," said Mark Wil-lows, marketing director of the North American Fish Farmers Cooperative. "It will take additional market research to determine demand for fish treated in this manner," added Kevin Fitzsimmons of the American Tilapia Association.

Opponents of the FDA's 1993 approval of rBGH to increase milk production in dairy cows, who continue to oppose the synthetic hormone's use, voiced concerns. "It's preliminary at this point, but this project raises many animal health, human health, and environmental questions," said Joseph Mendelsohn, legal director of the nonprofit Center for Food Safety.

### Popular Newcomer

TILAPIA, A FRESHWATER FISH native to eastern Africa, is now the third most popular farmed food fish in the United States, after salmon and catfish. A mild-tasting white fish that can substitute for flounder and rockfish, it is marketed when about two pounds in weight. Between 1996 and 2002 the amount of tilapia sold annually in



Mozambique tilapia (*Oreochromis mossambicus*) is one of two species of tilapia that can be farmed in California.

this country rose from 36,000 metric tons to 133,000 metric tons (live weight). In 2003, that amount climbed to an estimated 182,000 metric tons.

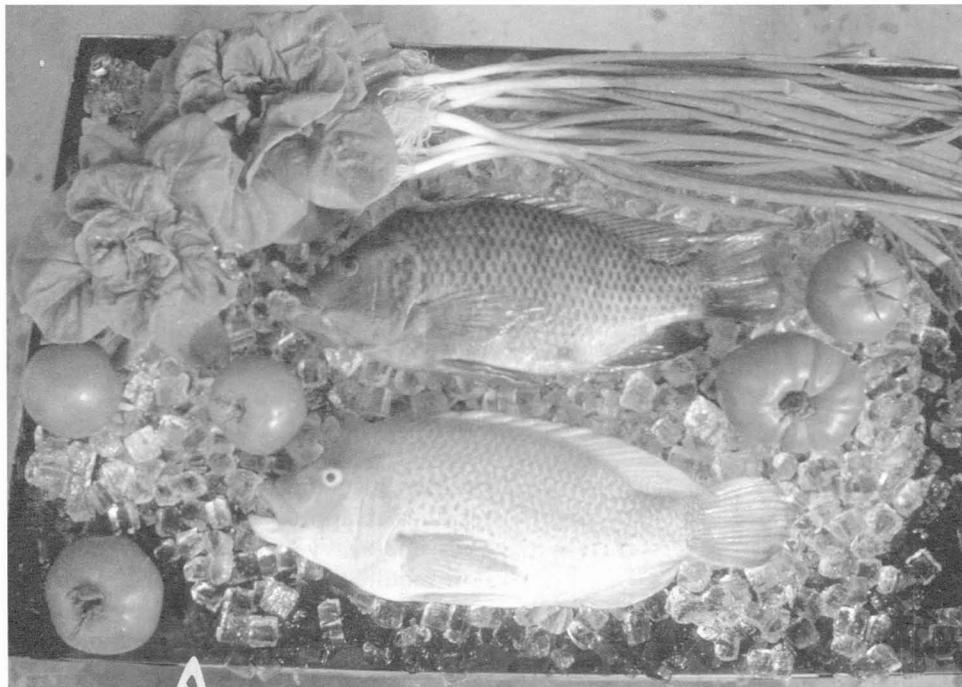
With wild-caught fish becoming scarce and consumers alarmed by recent reports of polychlorinated biphenyls (PCBs) in farmed salmon and mercury contamination in tuna and other wild species, demand for tilapia is expected to rise. The American Tilapia Association predicts that tilapia sales will continue to grow in this country from an estimated \$269 million in 2003 to over \$1 billion in 2010, and during the same period, from \$2 billion to \$4 billion worldwide, making tilapia the "most important aquaculture crop in this century."

Monterey Bay Aquarium's Seafood Watch, which discourages consumption of species that are overfished or that, like farmed salmon, have negative environmental impacts, recommends tilapia as a good low-impact source of protein. Unlike salmon, a carnivorous species, tilapia are fed mostly grains. Also unlike farmed salmon, which are raised in open coastal waters in net pens and cages, a method that causes nearshore pollution and risks escapes which can lead to genetic mixing with wild salmon, tilapia are farmed in isolated ponds, tanks, and raceways. In the United States, wastewater from these systems is used to irrigate field crops, the effluent serving as fertilizer. Farmed tilapia have found their way into streams in Florida, Texas, and California (and are considered a management problem in the two southern states) but are not a concern in California because their population "doesn't seem to be expanding and they're not in serious competition with other fish species," according to Dwayne Maxwell, senior biologist at the California Department of Fish and Game. They have been found in the Salton Sea and its drainages and the San Gabriel, Santa Ana, and Los Angeles Rivers.

Yet the increasing demand for tilapia and its good environmental image may not bring in more dollars for growers in this country. Only seven percent of the tilapia consumed in the United States is raised here. Almost all of it sells at high value to Asian-American markets, bringing growers an annual average of \$30 million. Whole frozen tilapia, and fresh and frozen fillets, which are gaining popularity in mainstream markets, are all imported; about 30 percent comes from China, long the world leader in aquaculture; 24 percent from Taiwan; another 30 percent from Ecuador, Costa Rica, and Honduras,

according to the American Tilapia Association. Mark Willows predicts that international producers will continue to dominate the market, because of advantages that include cheap labor and few environmental regulations. "We're not even close to being on the same playing field," he said.

A growth-enhancing product could give American growers an edge, allowing them to turn market-ready fish over to live-haul truckers in less than four months, instead of seven to eight. Ted Batterson, director of the North Central Regional Aquaculture Center, administered by the U.S. Department of Agriculture, said the only additional costs for growers would likely be the "price paid for the bovine growth hormone treatment itself, and any marketing costs needed to offset negative reaction to the use of the hormone."



AMERICAN TILAPIA ASSOCIATION

## Worries about rBGH

THE CONTROVERSY over the first commercial application of recombinant bovine growth hormone, to increase milk production by dairy cows, is on tilapia growers' minds. Ten years ago, when rBGH was up for approval by the FDA for use in dairy cows, opponents cited research that showed increased cases of laminitis, a hoof disease, and mastitis, a bladder infection, among cows treated with growth hormone. They also raised questions about elevated levels of insulin-like growth factor 1 (IGF-1) in milk from cows treated with

rBGH. IGF-1 had been linked to tumor promotion in humans, specifically in prostate and breast cancer. The debate about the alleged presence of IGF-1 in dairy products from treated cows, and about possible effects on humans, continues today. Partly as a result, the European Union, Canada, Japan, Australia, and New Zealand prohibit the use of rBGH or the import of any dairy products from cows treated with rBGH.

In light of these and other concerns, the first testing ground for rBGH-treated tilapia might be a country where regulation is less strict, according to Barry Costa-Pierce, director of Rhode Island Sea Grant and a leading author on tilapia. "China and India, for example, are at the cutting edge of implementing the West's newest technology," he said, "often before the market has had a chance to catch up and gain governmental approval, which is a very long process in the U.S." Should this occur, any economic gains from the use of rBGH would go to foreign growers rather than U.S. aquaculturists.

If such fish were then imported, consumers might not have a clue. "It would be almost impossible to label or distinguish between treated fish and non-treated fish," said Willows. Even if it were possible, the inspection process for imported seafood products is minimal. Just over one percent are inspected, according to the FDA. The products that do get inspected are sampled for microbiological contamination, decomposition, histamines, violative drug residues, unapproved food and color additives, and heavy metals. The FDA does not now require that fish imports be identified as wild-caught or farm-raised, and while there are methods for detecting antibiotics commonly used in aquaculture, there are none for detecting hormones. FDA public information officer Linda Grassie said the agency's Center for Veterinary Medicine is developing new techniques to detect drugs in imported foods. According to the FDA's Center for Food Safety and Applied Nutrition, over the last two years the agency has increased the number of personnel hours spent on seafood inspection, so that now an estimated 150-200 of its total force of about 1,000 food and drug inspectors are working on seafood. The agency has also hired a private firm to investigate drug use in foreign aquaculture.

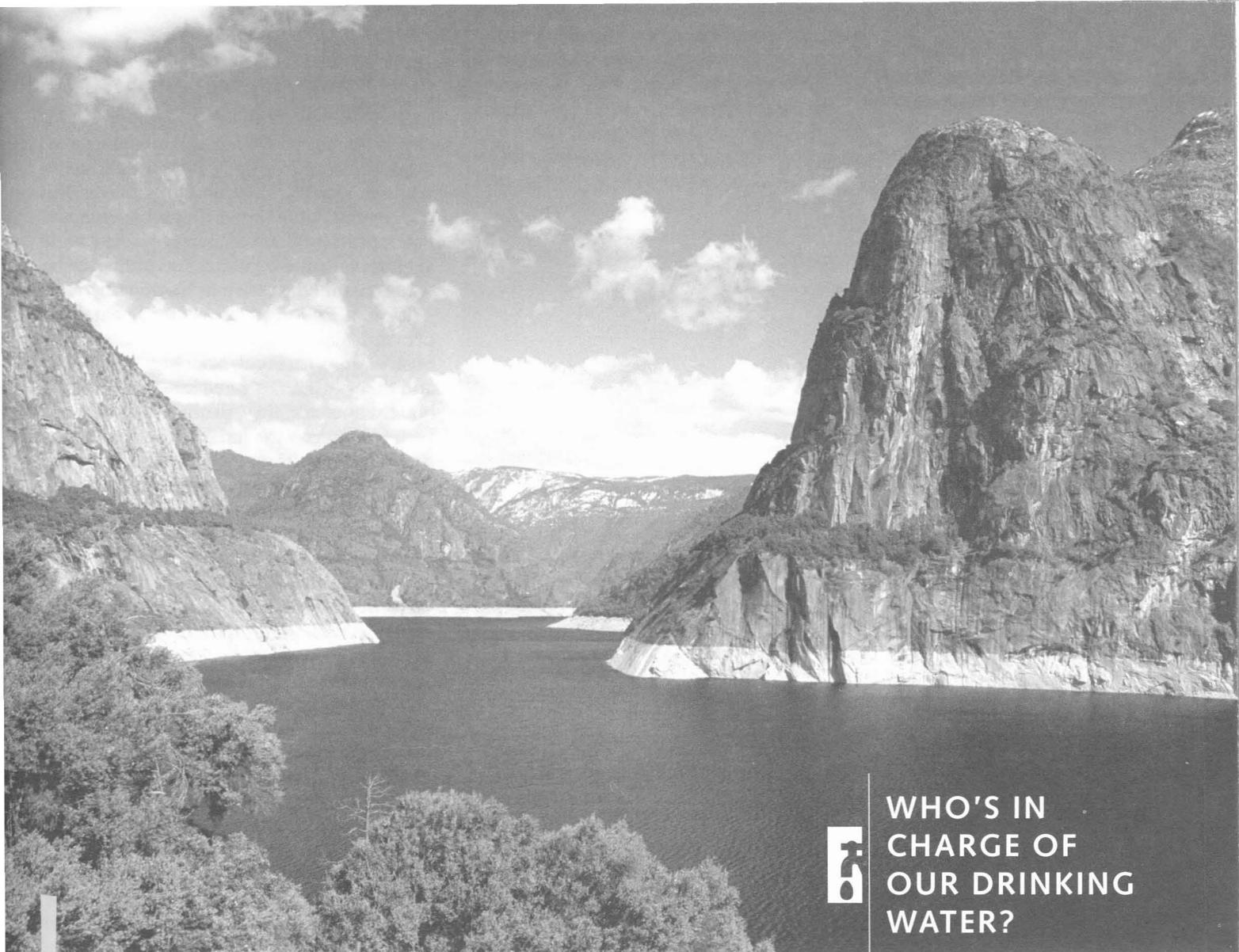
## Do Enjoy Your Tilapia!

HOW LIKELY IS IT that consumers will be looking at hormone-treated tilapia soon? Monsanto spokesperson Janis Armstrong said the company "has no intention or interest at this time in moving forward with the results of this research." That may effectively stall any movement on rBGH-treated tilapia, according to National Coordinator for Aquaculture New Animal Drug Applications Rosalie Schnick, at Michigan State University. Schnick says that U.S. aquaculture is such a small industry that it doesn't readily attract the attention of private biotechnology companies that develop drugs and take them through the application process. The most common drugs in use or development for aquaculture are therapeutants (drugs to control diseases), anesthetics, and spawning aids. The only growth-promoting drug for fish now being considered for approval by the FDA, Schnick said, is 17-methyl testosterone, a gender manipulation aid that enforces the male sex in fish, which in turn promotes increased growth.

The study of tilapia and rBGH, as well as FDA consideration of another growth-enhancing aquaculture drug, indicates that fish farming may be moving in the same direction as animal husbandry, where hormones and drugs are used to increase production on a large scale. Lately, public anxiety about possible human health risks, as well as growing awareness of environmental impacts of such farming, have raised consumer demand for drug-free meat and milk. Colin Bornia, manager of Pacific Aquafarms, California's largest tilapia producer, is aware of this trend. "Anything that has the potential to increase the growth of fish is exciting to think about," he said. "On the flipside, we have to have a product esteemed by our customers. A BGH-treated fish might scare off our consumers."

For now at least, tilapia continues to be cultivated without growth-enhancing drugs and can be enjoyed without guilt or fear, with the understanding that its production will not injure other aquatic creatures and will do you no harm. ■

*Brett Wilkison is interning with Coast & Ocean.*



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## WHO'S IN CHARGE OF OUR DRINKING WATER?



### MULTINATIONAL CORPORATIONS ARE BUYING UP LOCAL WATER SERVICE SYSTEMS

SHIRLEY SKEEL

IS THE MUNICIPAL WATER supply a public trust resource, to be distributed equitably as a common good, or can it also be a commodity sold for profit? The question is more than philosophical. Two giant French corporations, Suez and Veolia Environnement, as well as German conglomerate RWE, are purchasing private water companies and signing contracts to run municipal water and wastewater systems, in a coast-to-coast movement to crack what financial analysts regard as "America's last great monopoly"—the water supply. "The two big monopolies preceding it—electricity and telecommunications—have become among the most dynamic business areas in America," according to ITT Industries, a New York state-based engineering and manufacturing firm that makes equipment for both industries.

In January 2003, Germany's RWE snapped up California-American Water Company

(Cal-Am), thereby becoming the state's fourth biggest private water supplier, with 480,000 customers in coastal areas as far-flung as the Monterey Peninsula and Imperial Beach. French-owned USFilter has won nine contracts to run publicly owned wastewater systems in California, including those in Petaluma, Richmond, and Rialto, just east of Los Angeles. Meanwhile, RWE and Connecticut-based Poseidon Resources have been pitching to build desalination plants in Moss Landing, Huntington Beach, and Carlsbad, to convert ocean water to drinking water. (See *Coast & Ocean*, Autumn 2003.)

The arrival of foreign-based multinationals in coastal communities has caused a stir, and in some cases outright revolt. Many residents, environmentalists, and politicians are livid that the water out of their taps is under the control of some distant conglomerate whose sole reason for being is to generate profit for its stockholders.

The Department of the Interior has proposed that rent paid by San Francisco on Hetch Hetchy Dam and Reservoir (above)—the city's main source of drinking water—be raised from \$30,000 to \$8 million a year. These funds would go toward costs of operating Yosemite National Park.

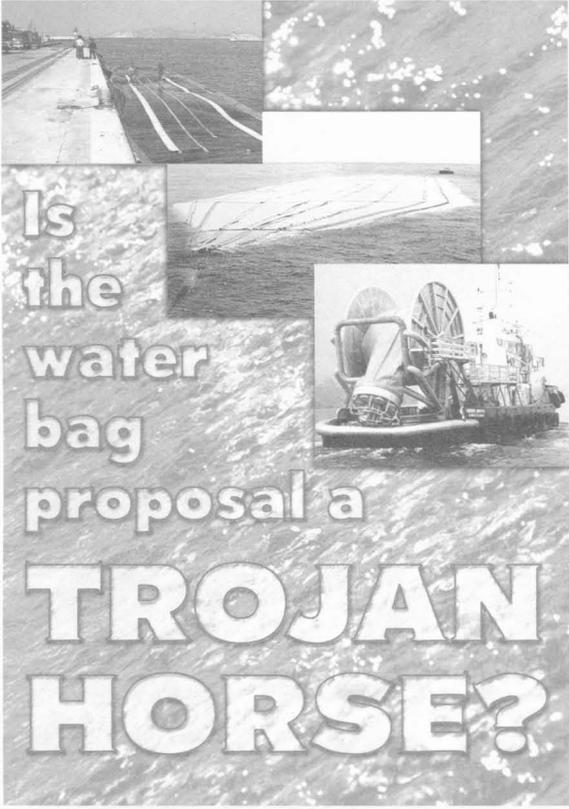
**LASKA ENTREPRENEUR** Ric Davidge raised a furor on the North Coast with his proposal to tow enormous bags of water behind a converted sea tugboat from the Albion and Gualala Rivers in Mendocino County to southern California. That idea was scotched after then-Governor Gray Davis signed AB 1168, officially protecting sections of the two rivers. Davidge then proposed to tap the Mad River, where his chances for success could be greater, although he

has not had a warm welcome there either.

Since the Simpson Timber Company closed its pulp mill in 1998, the Humboldt Bay Municipal Water District had been advertising that it had 20 million gallons of excess industrial water available. "We'd love a new customer to come in here—for everyone's benefit," said District Manager Carol Rische. Simpson had been one of the District's biggest customers, paying 40 percent of its water bills. The hope was that a business or industry, perhaps marine-related, might relocate to the area, fueling the local economy. Rische sees Davidge's water export proposal more "akin to a hostile takeover."

A phone call to Davidge's Alaska number reached him in a Los Angeles coffee shop, where he had been served a cool cup of coffee and was waiting for a hot one. He said his Humboldt project is on hold right now, pending the resolution of some issues. "I'm going for a 60 percent minimum American investment. Before, there was too much foreign investment," he said. Saudis and Japanese are among those already participating, he said. Meanwhile, he is working on 12 projects in Italy, some of which would tap pure Albanian mountain water for export across the Mediterranean.

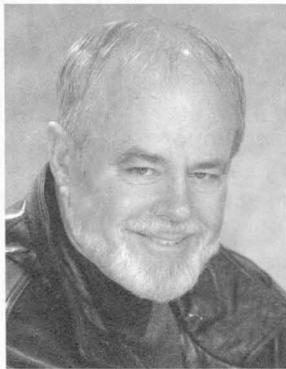
—RG



# Is the water bag proposal a TROJAN HORSE?

**Top: Cover of the North Coast Journal's February 6, 2003 issue**

**Right: Ric Davidge**



"If you commoditize the things you depend on for your life, and the dollar rules, those who can pay, pay, and those who can't, can't. . . and you have a Malthusian world," says David Keller, a former Petaluma City Council member who fought against complete privatization of the wastewater treatment system in his own district.

Thomas Robert Malthus's "dog eat dog" principle has, of course, always ruled the business world. Food, housing, transport, and other essentials have long been bought and sold for a profit, splitting society between the haves and have-nots—but water?

"Our water is part of the public trust. We all own the water," says Sarah Christie, legislative coordinator of the California Coastal Commission. "The idea of selling water for a profit is absolutely hideous."

Not everyone shares this view. Advocates of privatization agree that the public owns the water in rivers and reservoirs, but argue that private enterprises are often better than public agencies at laying pipes and running the system. They contend they have greater expertise and can operate more efficiently to ensure that customers get the best product at the best price. They also see California—with the world's fifth-largest economy, a diminishing water supply, and rising demand—as an investment opportunity.

Traditionally, water supply systems in major U.S. population centers have been built and managed by public agencies. Privately owned water systems have also been around for more than a century, however. As developers built new residential tracts in rural areas, many set up their own water utilities, said Sharun Carlson, executive secretary of the California Water Association (CWA), a trade body for investor-owned water distributors. Today about 160 private distributors, most of them small, supply 20 percent of the state's residents. They own or operate the distribution systems and are regulated by the state Public Utilities Commission (PUC). The biggest is the 77-year-old San Jose-based California Water Services Company (Cal-Water), serving two million people.

In recent years, some of the smaller water companies have been absorbed by larger firms, and growing numbers of municipal utility districts have outsourced operations and management to private enterprises. Stan Ferraro, vice president of business development at Cal-Water, said the takeovers were friendly and were often initiated by ailing public-water municipalities.



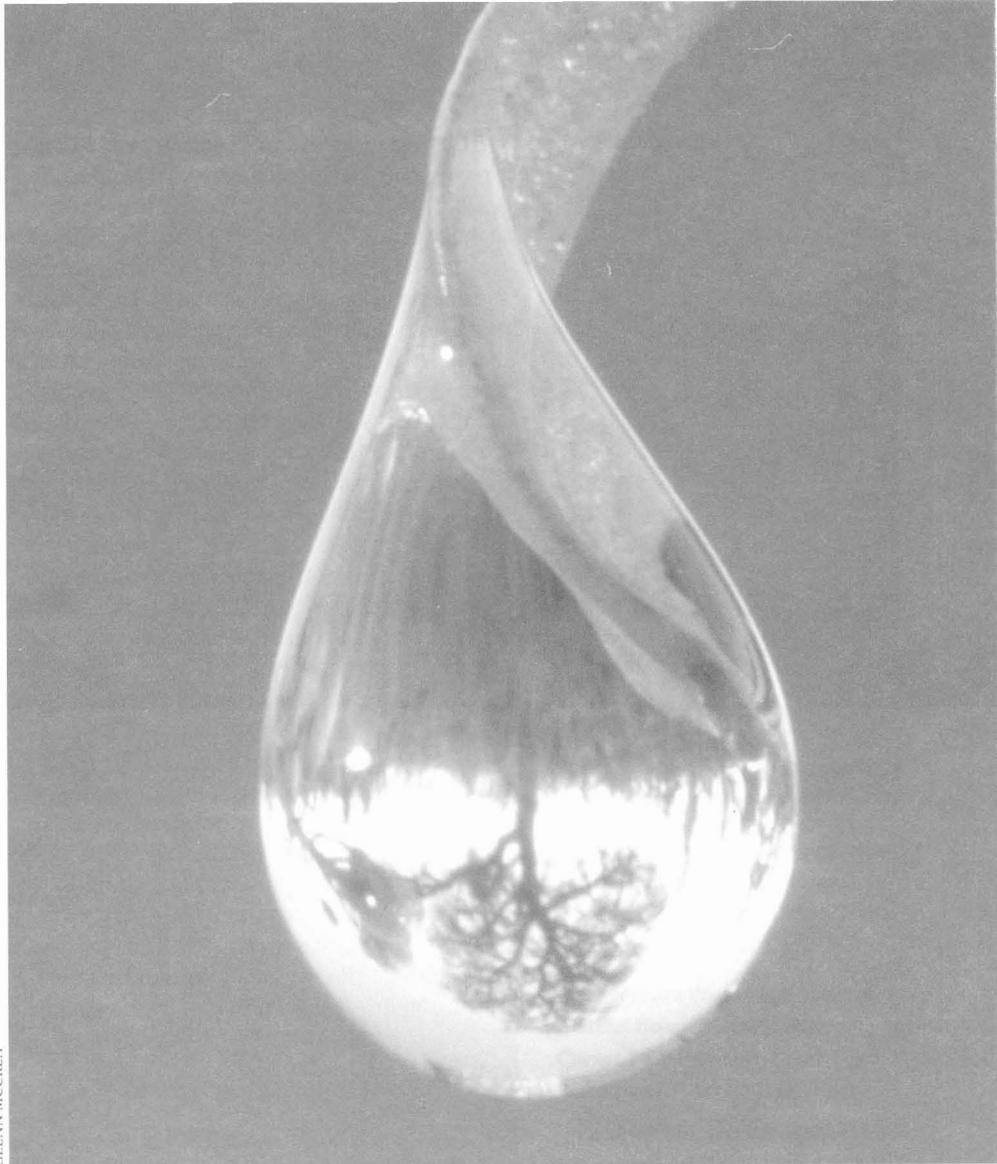
The advance by the European water companies into California began in 1999 when Paris-based Vivendi (now Veolia Environnement) paid \$7.9 billion for USFilter of Palm Desert, which in just a few years had become the biggest water-related company in the country by rapidly buying up small water companies, water service equipment firms, and bottled water firms, as well as signing contracts to build and run wastewater systems. USFilter's annual sales were almost \$4 billion, according to a company spokesperson, when it was bought by Vivendi. The French company now provides water and sewage services to 14 million Americans in 45 states.

In 2000, France's Suez bought United Water for \$1 billion, giving it 11 million customers in 18 states, including California. In January 2003, German industrial giant RWE paid \$8.7 billion for American Water Works Company (owner of Cal-Am). The European companies generally own the water plants, pumps, and pipes in their districts and either have legal rights to water from local reservoirs, wells, or rivers, or buy water from a wholesaler, such as the Metropolitan Water District of Southern California.

Together these three multinationals control more than half of all water managed by for-profit firms, according to Steven Shrybman's study, *Thirst for Control*, released in 2002 by the nonprofit Canadians' Blue Planet Project. They have operations on every continent except Antarctica. What drew them to the U.S. over the past four years?

Debra Coy, a water analyst with Schwab Capital Markets in Washington, D.C., points to one overwhelming attraction: the opportunities for growth. In the U.S., only 15 percent of the population buys water from privately owned utilities, according to the *American Water Works Journal*. In Europe, around 40 percent do so. In addition, the fiscal distress of states and local communities has created substantial opportunities to buy or run public utilities, Coy said, essentially opening doors to private water enterprises.

According to the Environmental Protection Agency, U.S. utilities need to spend \$350 billion over the next 20 years to get aging water and sewage systems up to scratch. Local governments can only borrow so much without damaging their credit ratings, Peter Cook, executive director of the National Association of Water Companies, points out. Federal funds are no longer read-



GLENN MCCREA

ily available, as they were at other times when the country was investing heavily in infrastructure, as for freeways in the 1950s and sewage treatment systems in the 1970s.

Cook contends that water prices must go up to encourage conservation and cover the cost of supply. Americans have to face the fact that their water is "dirt cheap," he said. Private firms can act as the shock troops to bring this about, he argues, sparing elected officials who are wary of upsetting voters.

The entry of European multinational firms into California's water supply management marks a qualitative change, according to Juliette Beck, California director for the Water for All Campaign of Public Citizen, a consumer advocacy organization. These giant firms have an aggressive track record for expansion and, because of their global reach, may have little vested interest in local communities, she said. Beck believes they are intent on privatizing more public utilities and squeezing what they can out of local water systems to pay off billion-dollar debts accumulated through global expansion.

Turning more water systems over to big private firms brings a host of risks, Beck said: profiteering or market manipulation, as happened in the case of Enron and the California power crisis; higher rates as companies pay dividends to shareholders, high executive salaries, and corporate taxes—expenses that public agencies do not have; poor customer services and deteriorating public works as they cut corners to boost profits; potential damage to public health and the environment by companies that find it easier to pay fines than spend money on adequate personnel and expensive upgrades; and new pressures for development, and loss of local control. In addition, there is apprehension that water could fall under international trade agreements that might ride roughshod over local laws.

Private operators respond that these concerns are groundless. They say the PUC and other regulators ensure that they set fair rates and meet strict standards. "The scrutiny of the PUC is rigorous," says Tom Thoren, spokesman for German-owned American Water Works Company, which serves 18 million people in 28 states. "We deliver boxfuls of information year after year."

## Local Resistance

THE TAKEOVER OF AMERICAN WATER Works (owner of Cal-Am), by Germany's RWE was vigorously opposed by San Diego, Thousand Oaks (Ventura County), and Montara (San Mateo County) whose

representatives argued at PUC hearings that a distant foreign owner, burdened with debt, would push for exorbitant rate increases and let service slip. They also feared RWE would try to squeeze local ratepayers to cover the \$1.8 billion premium it paid for American Water Works over its net asset value, although RWE executives pledged that this would not happen. Felton, an unincorporated town in Santa Cruz County, has since joined the chorus.

The PUC cleared the takeover in December 2002, listing 29 conditions, among them that the burden of debt financing not be passed on to ratepayers. Schwab analyst Debra Coy, however, said that ultimately RWE will have to recover that premium, and that the money will come from its ratepayers—though probably over a larger base of customers as the company expands.

Though privatization and ownership consolidation are moving forward, public resistance has led to a small countertrend. In Atlanta, Georgia, a water services contract with French-owned United Water was ripped up by the city last year, after several warnings were sent out to residents urging that they boil their tap water, and a dispute arose over an extra \$80 million in costs for repairs on the city's water and sewage treatment system. The utility's staff had been cut by half. Petaluma, in Sonoma County, spent \$2 million and more than eight years trying to make a deal work by which a division of Waste Management, Inc. would finance, design, build, own, and operate a new sewage treatment facility, according to former City Council member David Keller. "It was an extraordinary series of lessons," he said. "The ultimate decision was that the company could not reasonably assure ratepayer protection. It was ratepayer interest versus the mandate to turn a profit." Petaluma went on to design a municipally owned system that includes wetlands as part of the treatment along with trails and wildlife protection. It promises to bring in tourism.

In 2002, the Montara Water and Sanitary District, which serves tiny Montara and Moss Beach on the San Mateo County coast, decided to buy their Cal-Am water services system. The 1,650 households and businesses in the District had been putting up with low-pressure showers and leaking pipes for years under the water network's previous owner, Citizens Water (purchased by Cal-Am in January 2002), said Scott

**The Montara Water and Sanitary District board is collaborating with the nonprofit Peninsula Open Space Trust in its stewardship of this land above the town.**



SCOTT BOYD

Boyd, president of the District's board. "Rates were going up, there was a lack of maintenance, and water quality concerns, while every year the company was pumping out more profit. We decided we had to do something."

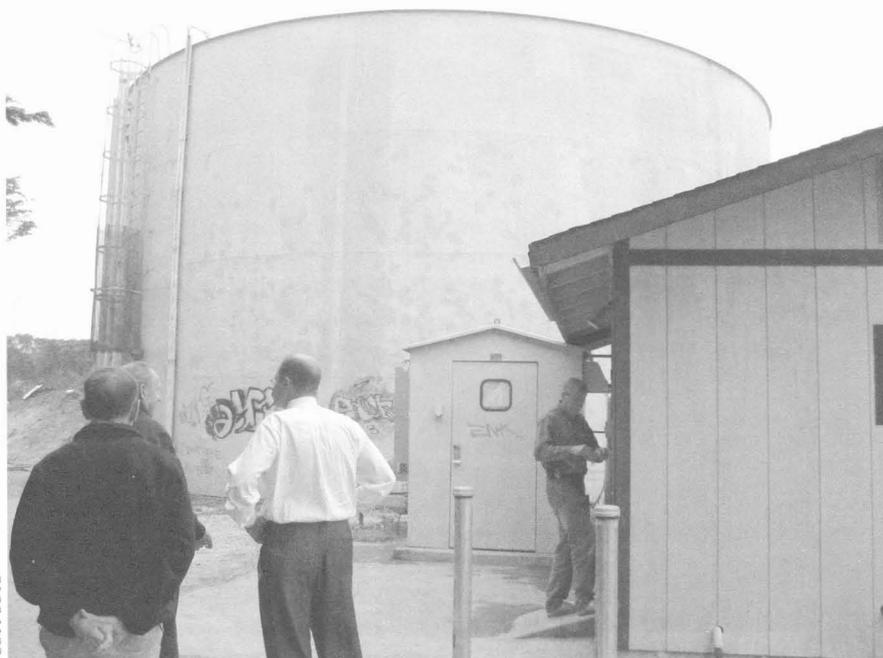
The District passed a \$19-million bond measure and filed suit in San Mateo County Superior Court, claiming eminent domain over the water system. The court struggle went on for months, but was ultimately resolved when the PUC instructed Cal-Am to sell as a condition of its merger with RWE/Thames. In May 2003, the District agreed to pay \$11 million for the water system. Boyd says it was a "painful" price, but worth it to win control of rates and service. In February, six months after taking over, the District had already made substantial improvements, Scott said. The bonds will be paid off over 25 years.

Felton and Thousand Oaks are considering similar takeovers. In Felton a proposed buyback went into limbo last October when the main instigator, Santa Cruz County Supervisor Jeff Almquist, was appointed to the Superior Court. The new supervisor, Mark Stone, is researching the matter to see what is best for the community, an aide said. In Thousand Oaks, Deputy City Manager Scott Mitnick said residents served by Cal-Am are paying one-third higher rates than neighbors across the street, who buy water from the city.

"This is the 'Enronization' of water," Mitnick said, referring to the Texas energy company that played a major role in bringing on California's 2000 energy crisis, then collapsed, and later was found to have manipulated the energy market. "They're exporting the profits out of California, and the end result will not be lower rates. It will not be more efficiency."

Some early signs suggest he could be right. Felton, Larkfield (a community near Santa Rosa, Sonoma County), and parts of Sacramento County are facing up to 57 percent rate jumps from Cal-Am this year, worth \$9 million in total to the company. Felton and the Office of Ratepayer Advocates are disputing the rises before the PUC, which sets private utility rates. Their analysis suggests price increases only half that size are justified.

In a submission to the PUC, former supervisor Almquist said the rise would be "grossly unjust" to Felton's "primarily working-class community," where rates are already high. He said American Water



SCOTT BOYD



WILLIAM HILL

**Top:** One of several storage tanks and treatment facilities in the Montara water system. Most facilities are underground.

**The Montara Water and Sanitary District Board:** Kathryn Slater-Carter, Paul Perkovic, Scott Boyd, Bob Ptasek (bottom), Jim Harvey

Works had just reported a 26 percent jump in income for the third quarter of 2002 and was paying its two top officers a combined \$1.1 million a year. American Water Works spokesman Kevin Tilden responded that rates in these areas have not changed for five years. He said energy prices are up and security costs have rocketed since the terrorist attack in New York. The PUC case is ongoing.

While these disputes have been an annoyance to Cal-Am and its German parent, they have been mere flea bites compared to the situation in the Central Valley city of Stockton where a Hollywood-style feud has been raging between its mayor, Gary Podesto, and a group of angry citizens.

In 1999 the City was fined \$100,000 for spilling chlorine into the San Joaquin River.



MICHAEL BIALECKI

Rally on courthouse steps in Stockton, March 2003

It faced the prospect of paying tens of millions of dollars for a new sewage plant to meet federal standards. Podesto, having picked up some new ideas from a recent U.S. Conference of Mayors, believed he had the solution: a private-public partnership, in which the City owns a plant, but hires a private firm to run it. The Stockton City Council investigated the possibilities and lined up a preferred bidder: OMI/Thames Water, a joint venture between Denver-based engineering firm OMI Inc. and Thames Water, owned by RWE.

On October 22, 2002, dozens of residents skipped the World Series to show up at City Hall and protest the hand-over of their water system to a foreign giant. They had collected thousands of signatures for a March ballot measure that would force the City Council to put the issue to a city-wide vote. The Council heard the citizens out but steamrolled ahead. A month later, Morris Allen, a 61-year-old engineer, stepped down as director of the Stockton Municipal Utility Department, a post he had held for 16 years. He was forced to resign after asking too many hard questions about the bid, he said. "They just wanted me out of the picture."

Mayor Podesto and Boston consulting engineers ARI said the OMI/Thames bid to build a new plant and run the water and sewage treatment systems would save the City \$175 million over the 20 years of the \$600 million contract. Allen claims the purported savings were a "total fiction" because the City Council's price comparison was based on an out-of-date plan that

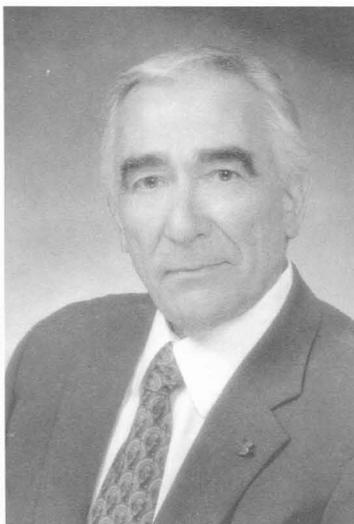
was no longer being recommended by the City's engineers. The Pacific Institute, an independent research and policy center based in Oakland, analyzed the bids and concluded that the City might save \$20 million of capital cost if OMI/Thames were hired to expand the wastewater treatment plant, but that the savings resulted from using a type of treatment process that involved environmental risks. They further concluded that if the private firm were also hired to run the facility, and inflation over the next 20 years were the same as the past 20 years, the City would pay OMI/Thames \$1.7 million more than it would spend under continued City operation. Podesto says he does not "put much confidence" in these numbers.

In February 2003, the Stockton City Council rammed through the OMI/Thames contract—less than two weeks before the election in which citizens passed a ballot measure that requires the Council to get voter approval on such contracts. "There was blatant arrogance and disregard for the public desire all through the process," said Ann Johnston, a former City Council member. Podesto countered that "this was an administrative decision, not to be bogged down by a proposal put on the ballot." Pointing out that the City Council heard some 100 hours of public testimony on the project, he said that Council members were elected to make just such decisions. OMI/Thames started operating the system August 1, 2003.

It didn't end there. The Concerned Citizens Coalition of Stockton and others promptly took the City to court, claiming it should have done an environmental review before signing the contract. On October 21, Superior Court Judge Bob McNatt ruled against Stockton, accusing the City of an "abuse of discretion." Because a profit-seeking firm might operate differently than a public body, he said, an environmental review was essential. To the delight of the plaintiffs, Judge McNatt followed up this ruling seven weeks later with an order that the contract with OMI/Thames be voided. The company and Stockton City Council were stunned. The City is appealing the ruling.

The Stockton contract was seen by some as California's biggest test yet of a private-public partnership. Many such contracts already exist in the state. And in the view of some officials, many do work. USFilter, now owned by France's Veolia, has almost

Stockton's Mayor Gary Podesto



COURTESY CITY OF STOCKTON

300 water and sewage contracts across the country, in cities including Burlingame, in San Mateo County. Jim Good, USFilter's vice-president of business development in the western states, said 90 percent of their municipal customers renewed their contracts last year.

The City of Richmond, on San Francisco Bay, faced a bitter battle with unions and residents when it hired USFilter last year to renovate and run its neglected water pollution control plant. In the end, USFilter did the job for \$7 million—less than half of the City's \$18 million cost estimate. Richmond assistant city manager Rich McCoy said the strife over cutting staff and paying environmental fines has been passed on to USFilter. Efficiency is up, he noted, and water rates are likely to rise little, if at all, at the next review. Staff was cut from 25 to 14, according to assistant plant manager John Whitfield.

Geoffrey Segal, of the pro-privatization Reason Public Policy Institute, said private firms bring economies of scale, international expertise, and a profit motive that "focuses them on creating a better mousetrap." He refers to a 1999 study by the National Association of Water Companies that looked at 29 public-private partnerships serving three million customers. It found all the contracts led to lower rate increases than were previously planned, and that one in six cities reported 10 to 40 percent cost savings.

Public Citizen's Juliette Beck, however, argues that public bodies can be just as efficient as private firms; they can also keep rates down because they borrow money more cheaply and pay no taxes, dividends, or fat executive salaries. "A lot of things could be more efficient," she said. "But if your roof is leaking, you fix the roof. You don't sell the house." Some cities, including San Diego and Phoenix, had reaped considerable savings by collaborating closely with municipal worker unions in "re-engineering programs" that provided incentives for cost-cutting measures, Beck said.

Another point of dispute relates to private firms' environmental record. In both 1999 and 2000, England's Environment Agency named RWE-owned Thames Water the country's worst polluter, following violations that included allowing raw sewage to flow onto streets and lawns. Tom Thoren, at RWE/Thames-owned American Water Works, explained that under UK laws, Thames takes the blame for incidents outside its control, such as other companies'

spills into rivers. American Water Works was not cited for a single environmental violation in 2002, he said.

How conservation of water may fit with the interests of investor-owned companies is also a matter of dispute. "They make money from selling water," explained Peter Gleick, president of the Pacific Institute. "It's not in their interest to tell customers to use less." Thoren's response was that private companies do encourage customers to save water because if they didn't, the PUC could deny rate increases.

On a global scale, critics of multinational commodification of water supplies worry about the implications of international trade agreements such as the General Agreement on Trade in Services (GATS), one of 21 multilateral commercial agreements enforced by the World Trade Organization (WTO). GATS was approved by Congress in 1995 and subsequently reopened for further negotiation for expansion. In March 2003, U.S. trade representatives, responding to a European Union request, agreed that wastewater services will be among the "committed services" that GATS aims to ensure are open to trade. Although drinking water was not included, it could be in the future. These agreements could put public agencies in a difficult spot. Should a municipality bring in a foreign private partner then find the deal doesn't work out, cancel the contract, and choose to do the job alone, the United States might have to pay millions in compensation to other GATS members for removing a business opportunity.

Even more ominously, talks are now under way to implement GATS rules that would allow any foreign company to challenge the United States if it felt its business (or attempt to set up business) was being impeded by domestic laws or regulations that were "more burdensome than necessary to ensure the quality of the service."

Joe Brenner, director of the Center for Policy on Trade and Health (CPATH), a nonprofit research group, said this vague and still undefined proposal could mean that a local, state, or federal body seeking to invoke health, environmental, or planning regulations could be challenged in an international tribunal. For example, the California Coastal Commission, which has some of the strictest coastal protection rules in the world, could be challenged if it tried to impose new marine life protection measures upon a foreign-owned wastewater treatment plant. While GATS does allow

Rally in March 2002 in San Francisco honoring Oscar Olivera, an activist from Cochabamba, Bolivia



MICHAEL BIALECKI

laws that protect human, animal, or plant life, warns Brenner, the judgment on whether they may be “more burdensome than necessary” is wide open to interpretation. “It’s decided by an international trade tribunal that may have no sense of what the U.S. considers public welfare, or any experience in public health.”

The North American Free Trade Agreement (NAFTA) Chapter Eleven clause on “investors’ rights” is also causing anxiety. It gives companies the right to take a member country to court if they believe their property has been “expropriated,” leaving them with a financial loss. For example, U.S. Metaclad Corporation won a \$17-million claim against Mexico when it was stopped from building a hazardous waste facility on land already so contaminated by toxic wastes it threatened the groundwater. According to *Thirst for Control*, most companies challenging local environmental rules under NAFTA have won.

Tom Thoren, at RWE’s American Water Works, dismisses the trade issue as “just another ruse,” commenting that “there is no truth in any of it. The preponderance of legal experts say there is no way RWE could use these tactics to trump over local and U.S. laws.”

Across the country new contracts are being signed at a slow but steady pace. Bill Reinhardt, editor of *Public Works Financing*, said revenues to private operators of public water and wastewater plants have been growing at a rate of about 10 percent a year since 1995, reaching \$1.1 billion in 2002. About 2,400 public plants are now privately run—but none in a major U.S. city, he said.

Internationally, water privatization has been controversial for years. The Bolivian city of Cochabamba, for example, hired a consortium, led by San Francisco-based Bechtel, to improve and run the city’s water system. Water rates skyrocketed and violent protests erupted, prompting Cochabamba to pull out of the contract. Bechtel has sued Bolivia for \$25 million under an international trade agreement.

Although most water services worldwide are provided by public agencies—nearly 95 percent, by some estimates—the number of people served by private companies grew from 51 million to 300 million between 1990 and 2002, report Peter Gleick, Gary Wolff, and Meena Palaniappin in the January–February issue of the *Journal of Water Resource Planning and Management*.

According to *Fortune* magazine, sales in the global water supply industry were \$400 billion in 2001. That equaled 40 percent of the oil sector’s sales and more than the sales of the entire pharmaceutical sector. Joe Brenner at CPATH says the sums to be made in the U.S. alone are “staggering.”

That is a disquieting observation. Unlike electricity or telecommunications, the other former “monopolies,” water is fundamental to life. Sharing it is not just a matter of economics. The public needs to take note of who’s in control. ■

*Shirley Skeel is a freelance reporter and independent radio producer based in Berkeley. Her last article in Coast & Ocean, on desalination, appeared in the Autumn 2003 issue.*



## THE VIEW FROM ISRAEL

**D**ILIGENT READERS of *Coast & Ocean* may have noticed that I had no column in the last issue. Instead of writing, I traveled to Israel for a tour focused on environmental issues and environmentalists. It may sound odd, but I was struck at how similar Israel and California are in terms of issues, climate, and geography. They share a Mediterranean climate along with South Africa, the West Coast of Australia, and coastal Chile. Both have very high biodiversity, California because it is walled off from the rest of North America by mountains and deserts and has a wide range of habitats; Israel because it lies at the crossroads of Europe, Asia, and Africa. Both California and Israel are grappling with serious air pollution problems, caused in part by transportation systems dominated by automobiles.

In both the Golden State and the Holy Land, water is a scarce and contested resource. Water wars have shaped California's history. An old adage has it that "in the West, whiskey

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**The successful restoration of the Alexander River demonstrates that ordinary Israelis and Palestinians can cooperate in a way that improves the environment for everyone. Imagine what will be accomplished when the full energies of both peoples are unleashed to heal their common earth.**

is for drinking, water is for fighting." In Israel, and indeed the whole Middle East, water is the most serious and intractable environmental issue. Israel and its neighbors are overdrawing the Jordan River system so severely that the Dead Sea is dropping a meter a year. At the current rate of withdrawal, the major aquifers in Israel will be

depleted—or polluted—within the lifetime of most of our readers.

As in the United States, so in Israel: the environment is seldom a "top of mind" issue. Because Israeli politics is completely organized around the conflict with the Palestinians, everything else is secondary. The terms "left" and "right" in Israeli politics refer to one's position on this issue alone.

Although Israel has the full range of environmental organizations many other countries have, none of its major environmental problems—international water issues especially—can be solved except in the context of a peaceful resolution of the Israeli-Palestinian conflict.

Fortunately, healing the earth draws people together. In California during the last four years, people of all political persuasions voted for four resource bonds, Propositions 12, 13, 40, and 50, which are having a profound effect on our landscape and natural resources. In Israel, we saw restoration projects that have brought Israelis and Palestinians together. A particularly exciting example was the Alexander River project.

The Alexander River is known for its remnant population of about 100 Nile soft-shell turtles. These turtles once ranged from the river Nile in Egypt to Turkey, but are now found only in this river, which had become, in effect, an open sewer. As it enters Israel from the West Bank, it carries about 6.5 million cubic meters of sewage per year from about 250,000 people and industries in and around the Palestinian city of Nablus.

Israelis and Palestinians cooperated to bring the Alexander back to life,



building one of the largest settling basins in Israel, as well as the world's largest cattle manure-to-biogas facility. Cooperation also produced Israel's first constructed wetland and a gloriously restored riparian corridor. All that was accomplished during the second intifada, and although bullets were flying all around, no one in the project was ever hurt.

The secret? Neither the Israeli government nor the Palestinian Authority were involved. The project was people-to-people, with only local officials from the Israeli and Palestinian communities having a hand in it.

It is heartening to think that in the midst of one of the bitterest conflicts of our time, ordinary people can come together to nurture the earth and restore their own piece of the natural world. I have no illusions that cooperating on environmental issues will lead to peace in the Middle East. Even so, the successful restoration of the Alexander River demonstrates that ordinary Israelis and Palestinians can cooperate in a way that improves the environment for everyone. Imagine what will be accomplished when the full energies of both peoples are unleashed to heal their common earth.

When I returned to California, I reentered the world of environmental impact statements, stakeholder meetings, lawsuits, and budget deficits. We have no conflicts that come anywhere near the ferocity of the disputes that divide the Middle East. If the Alexander River can be restored even in the face of flying bullets, restoration can be done anywhere. It can certainly be done here in California, and all of us who work at the Coastal Conservancy are privileged to be a part of this effort every day. ■

—Sam Schuchat

# COASTAL CONSERVANCY NEWS

Actions in December included:

## HABITAT PROTECTION IN OTAY RIVER WATERSHED

**J**UST EAST OF Lower Otay Reservoir, in southwestern San Diego County, two properties with almost 1,300 acres of habitat will be acquired for permanent protection by the Wildlife Conservation Board (WCB) with \$13.8 million in Proposition 12 funds approved by the Conservancy.

This acquisition will link Department of Fish and Game holdings that are now separated and will consolidate protected habitats from Otay Mountain to the Jamul Mountains. It will also preserve critical north-south habitat links between the watersheds of the Sweetwater and Tijuana Rivers and east-west links between the Cleveland National Forest and South San Diego Bay.

The Coastal Conservancy has provided over \$20 million for additions to Otay Valley Regional Park, on the southern border of Chula Vista since the late 1980s, and recently contributed over \$7 million for the State's purchase of the 2,000-acre Honey Springs Ranch in Hollenbeck Canyon near Upper Otay Lake.

The new WCB acquisitions will add to thousands of acres of land already protected under the State's Natural Communities Conservation Planning program (NCCP), established in 1991 to conserve ecosystems while accommodating compatible land uses. The City of San Diego's Multiple Species Conservation Plan, a component of NCCP, led the establishment of this preserve in southwestern San Diego County.

## UPPER NEWPORT BAY RESTORATION

**U**PPER NEWPORT BAY, in Newport Beach, is the largest fully functioning tidal wetland in southern California, supporting a wide variety of wildlife and native plants, including several threatened and endangered species. Of the upper bay's 1,000 acres,



STEPHEN JOSEPH

752 are protected as an ecological reserve managed by Fish and Game.

This valuable habitat is severely threatened by sediment and nutrients flowing from upstream, particularly from San Diego Creek. Open water is being replaced by mudflats and marsh, and yellow-green algae mats are covering the surface.

The long-planned restoration of the upper bay is about to go into action. In December the Conservancy approved \$12.5 million in Proposition 12 funds to Orange County to allow the U.S. Army Corps of Engineers to begin the work, following guidelines developed by several federal and state regulatory agencies. The Corps is contributing \$25 million to the restoration, and would not have been able to do so without the Conservancy's funds.

More than two million cubic yards of sediment will be removed from two sediment basins within the bay, and a program established to dredge these basins about every 20 years. In addition, channels will be dredged to improve tidewater circulation and reduce predator access to bird habitat. Native vegetation will be planted.

To reduce the flow of sediments and nutrients at their source, a San Diego Creek Watershed Committee has been formed, including federal, state, and

In February the Conservancy approved \$2.2 million to the East Bay Regional Park District toward purchase of the 673-acre Gleason property in Contra Costa County. It will expand the adjacent Las Trampas Regional Wilderness to nearly 5,000 acres, providing diverse habitats, protecting major wildlife corridors, and improving trail links.

local agencies, researchers at the University of California, Irvine, and local environmental groups.

## SANTA MONICA BAY RESTORATION

**E**XCESS FLOWS of recycled water in Malibu Creek inhibit the closing of Malibu Lagoon and thus allow pathogens to contaminate the beach. To reduce these flows, the Las Virgenes Municipal Water District plans to divert about 300 acre feet of this water annually for use on a public golf course now irrigated with potable water by extending a recycled-water line. The Conservancy approved up to \$444,000 for final engineering design and feasibility studies, in keeping with the Santa Monica Bay Restoration Plan.

Also part of the Plan is an effort to restore beach bluff habitat between Balona Creek and the Palos Verdes Peninsula. Two acres of the bluffs will be revegetated to demonstrate the feasibility of bluff restoration. The Conservancy approved \$62,957 in Proposition 12 funds to the Los Angeles Conservation Corps for this pilot project, which will involve at-risk youth and is a cooperative effort with the Los Angeles Department of Beaches and Harbors. The funds will also help to establish a native plant nursery in the community.

## MORE PUBLIC ACCESS IN MALIBU

CALIFORNIANS will enjoy new beach access in Malibu with the acquisition of a vacant beachfront lot, for which the Coastal Conservancy approved \$1,250,000. The narrow, cobble lot near the intersection of Rambla Vista and the Pacific Coast Highway adjoins a parcel acquired by the Conservancy in 2000 near the border of Carbon and La Costa Beaches.

Together, the two properties include almost 400 feet of shoreline and offer the only public beach access along a three-mile stretch of the highway. Public parking and a Metropolitan Transit Authority stop are nearby. After purchasing the property, the Conservancy will prepare a plan for management and constructing access improvements. It expects to enter into a management agreement with a local government or nonprofit organization.

## SOUTHERN WETLANDS RECOVERY

THE SOUTHERN CALIFORNIA Wetlands Recovery Project is a partnership of 17 state and federal agencies working in concert with scientists, local governments, environmental organizations, business leaders, and educators to preserve and restore southern California's coastal wetlands and watersheds. A fundamental tenet of the partnership is that resource decisions should be based on the best available science. To this end, a panel of wetland scientists was assembled in 1998. The Conservancy authorized up to \$200,000 of Coastal Impact Assistance Program funds, from NOAA, to enable the panel to continue its work.

## PISMO BEACH COASTAL TRAIL

THE CITY OF PISMO BEACH, in San Luis Obispo County, will build a one-mile pedestrian boardwalk linking its beach boardwalk to the main beach access point at Grover Beach, using \$115,000 in Conservancy-approved Proposition 12 funds. This project is recommended in the Conservancy's Coastal Trail report. The boardwalk, with signs and fencing, should help to reduce the damage now being inflicted on dune vegetation and snowy plover habitat by unrestricted access.



Along the trail linking Pismo Beach with Grover Beach

## SONOMA BAYLANDS TRAIL

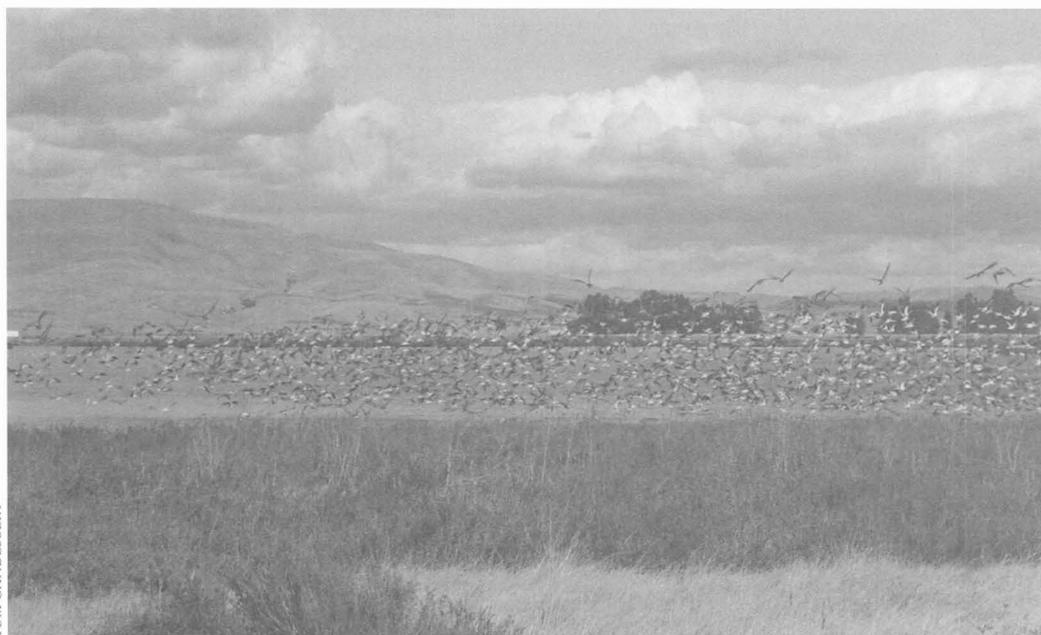
THE SONOMA LAND TRUST will begin to build a wheelchair-accessible levee trail next summer to enable the public to visit the pioneering Sonoma Baylands wetland restoration project, and to enjoy the sight and sound of shorebirds and waterfowl gathering there. The 1.5-mile trail, funded by \$500,000 of Conservancy-approved Proposition 12 money, will be accessible from Highway 37.

The 322-acre restoration site at the mouth of the Petaluma River was converted from diked hayfields to salt-marsh in the mid-1990s through an innovative collaboration among the Conservancy, the U.S. Army Corps of

Engineers, and the Port of Oakland. Clean materials dredged from the Port's ship channel were used to fill subsided land and speed the return of tidal marsh. Use of such materials, which used to be dumped into bay or ocean, is now planned for other restoration projects, including those at Hamilton Field and Bel Marin Keys in Marin County.

## GARCIA RIVER FOREST PROTECTED

WITH A HUGE BOOST from the Conservancy, the nonprofit Conservation Fund has purchased over 23,500 acres in the Garcia watershed, in southwestern Mendocino County, to protect salmon and steelhead trout habitat and provide a model for sustainable forestry on the North Coast. The Conservancy contributed \$10 million in Proposition 50 funds toward the \$18-million purchase from Coastal Forestlands, Ltd.; the Fund will repay \$4 million by the end of 2004. The Nature Conservancy chipped in \$3.5 million for a conservation easement over the land, which lies east of Point Arena between Highways 1 and 128. Over seven miles of the Garcia River's main branch, almost all of its north fork, and many miles of tributaries run through the property, which is dominated by coastal redwood and Douglas fir forests that have been harvested commercially over the last century.



View of Sonoma Baylands from the planned levee trail



## CALIFORNIA DINOSAURS

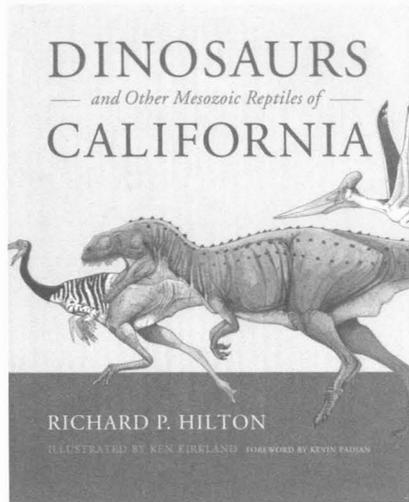
*Dinosaurs and Other Mesozoic Reptiles of California*, by Richard P. Hilton. University of California Press, Berkeley, 2003. 356 pp., \$39.95 (hard cover).

**R**ICHARD HILTON'S *Dinosaurs and Other Mesozoic Reptiles of California* is a phenomenal book. Densely illustrated with glorious watercolors and line drawings by artist Ken Kirkland along with a score of historic photographs and many more taken by the author, it's bound to be the definitive book on this topic for decades to come. It's hard to envision anyone doing a better job.

Although California isn't known for its dinosaur fossils (only a few dozen have ever been found), that poses no problem for Hilton. He dives into details about each discovery and makes the animals come alive. The book's strongest appeal for me came when the subject matter turned to the extinct seagoing reptiles: the ichthyosaurs, plesiosaurs, mosasaurs, turtles, and the little known and exquisitely weird thalattosaurs. California, not surprisingly, has no lack of these marine contemporaries of the dinosaurs. Alas, the marine reptiles are always relegated to second billing status by the marketing department.

What I found particularly refreshing about this book is that the latter half celebrates the people who have devoted their lives to hunting for fossils in the hills, deserts, and beaches of California. Amateur rock hounds and erudite scientists are given equal billing, each with fascinating tales to tell.

Anyone with an interest in California's ancient past will find this book a treat. For a paleo-nut like myself, I found it almost impossible to put down. Hilton has kept abreast of all the latest discoveries and obviously knows the topic well. His easy to read text is nicely complemented by Kirkland's illustrations. The watercolor profiles in particular are things of beauty. Camouflage



patterns and carefully observed anatomical details help to give the reader a genuine sense of what these vanished animals must have looked like.

The book is comprehensive in its scope, including an appendix that lists all of the Mesozoic reptile finds in the state, including species names, locales, and the names of the people that discovered them. It's a terrific achievement—every state in the union needs a book like this! As an Alaskan I'm filled with envy.

—Ray Troll

## EXPLORING THE SEA

*Exploration of the Seas: Voyage into the Unknown*, by the National Research Council. National Academies Press, Washington, D.C., 2003. 228 pp., \$49 (paper).

**W**HILE THE BUSH administration eagerly promotes the exploration of space, exploration of another realm, closer to home, languishes. The oceans cover much of our planet's surface, yet their waters and the seafloor remain largely unexplored. This comprehensive report by the National Research Council urges the United States to take the lead in developing a global ocean exploration program. Priority targets would be marine biodiversity, the Arctic Ocean, and deep water and its influence on climate change. The report advocates a vigorous outreach program to bring new discoveries into the class-

room and into general television programming so as to make the public more ocean-literate. A buildup of scientific resources in developing nations is envisioned to promote "good stewardship of our shared oceans."

To accomplish these laudable goals, the report recommends that the United States fund a dedicated exploration flagship and a fleet of underwater vehicles at an initial cost of \$270 million, with annual operating costs of \$110 million. The price tag seems modest given the opportunities and the critical need to learn more about our oceans. With soaring federal deficits and President Bush's passion for exploring seemingly lifeless planets, however, these recommendations may remain in political drydock. The study team responsible for this report included two Californians, John Orcutt of Scripps Institution of Oceanography and Marcia McNutt of the Monterey Bay Aquarium Research Institute.

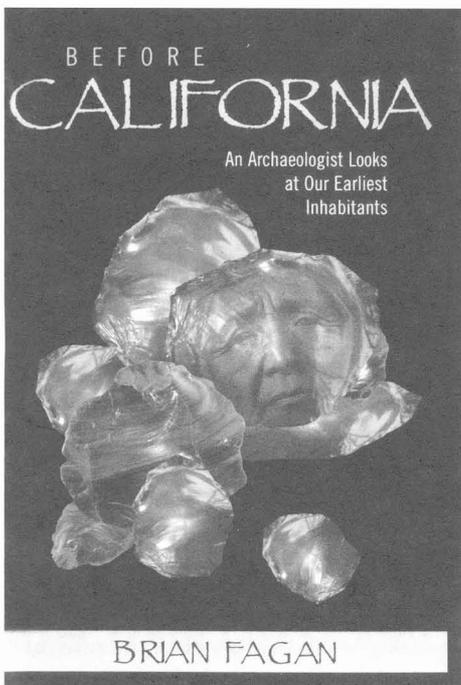
—Wesley Marx

## A FRESH LOOK AT OLD WAYS

*Before California: An Archaeologist Looks at Our Earliest Inhabitants*, by Brian Fagan. Rowman & Littlefield, Lanham, MD, 2003. 400 pp., \$24.95 (hard cover).

**I**N THIS HIGHLY READABLE and enlightening book, archeologist Brian Fagan bridges the gulf that separates today's Californians from their predecessors. He takes the reader back more than 13 millennia to the beginning of human settlement, then forward as far as the arrival of the Spanish in 1542 A.D., providing a narrative portrait that is startlingly different from what most people believe.

Transfixed by the tragic chain of consequences that befell the people of this land after the Europeans' arrival, most of us tend to view California's history in "before-and-after" terms. The popular image is rather static, of people living simply and peacefully in small



communities, cooking acorns, sitting around fires telling stories, having plenty of wild food and time to bask in the sun. It's a romantic illusion pieced together from scraps of information and wishful thinking in the "after" time. The Native American holocaust has swallowed up all but scattered artifacts and accounts by elderly survivors. From these, archeologists and anthropologists have put together small pictures, but these tend to offer only isolated fragments of information.

*Before California* provides continuity and a broad view of cultural and social change over time, in response to changing conditions. Writing "for the broadest possible audience" at the invitation of the Society for California Archeology, Fagan shows the people of this land adapting to radical climate change, sea level rise, alterations in food sources, water supply, and population growth: evolving technology and appropriate institutions.

Some revered authorities turn out to have been mistaken on many counts, Alfred Kroeber especially. He did not believe that native people built seagoing craft, figuring that the Yurok and Tolawa dugouts were inspired by Europeans. And he dismissed evidence provided by a giant shellmound in Emeryville, on San Francisco Bay, that diet, tools, and burial customs changed radically during the 1,000 years it was used.

*Before California* reveals that California has always been a place of constant

change and that its people, then as now, have kept on adapting. Anyone who wants to understand California needs to read this book. Fagan is an eminent scholar, and he did not sacrifice scientific knowledge for the sake of readability. Instead, he has asked big questions, then cut through the arcane to tell us, broadly, what is known, what can be surmised, and what is still being debated. It's all woven into a story that makes history come alive.

Again and again he is compelled to say: that's all we know about that, the rest is irretrievably lost. Yet with this book, which should be assigned reading for California studies at high school and college level, we come much closer to understanding this land's history. We may also realize that, despite many differences, we have quite a bit in common with the people who were here before us.

—RG

#### COASTAL ACCESS

*California Coastal Access Guide, sixth edition, by the California Coastal Commission. University of California Press, Berkeley, 2003. 304 pp., \$22.95, (paper).*

**T**HE LATEST EDITION of this indispensable resource includes dozens of new entries: beach accessways, viewpoints and blufftop overlooks, stairways, hostels, trails, and campsites that have been added since the last (1997) edition. All maps, contact infor-

mation, and other resources have been updated (changes in area codes, ADA-compliant upgrades, and more). The format remains the same as the previous edition. The most noticeable change is the new color contour maps for each county. It's significant that very little access was lost since the last edition, while much has been gained. Thornton State Beach is no longer listed because of a road collapse, but you can still hike in along the beach.

#### MORE THAN BEAUTY

*San Francisco Bay: Portrait of an Estuary, by John Hart, photographs by David Sanger. University of California Press, Berkeley, 2003. 206 pp., \$34.95 (hard cover).*

**C**LEVERLY DISGUISED as a gorgeous coffee table book, this volume turns out to be a quite substantial and readable source of up-to-date information on the state of the West Coast's largest estuary. It's easy to get lost in the 158 color photographs, but dipping into the text reveals that they are not only beautiful, but also vividly illustrative of the history and pressing concerns of the region. At times it seems like in the Bay Area even the problems are pretty to look at, but as Hart's text shows, it has taken decades of struggle to bring the Bay estuary back from the brink of destruction, and the hard work of protecting and restoring its glories is far from over.

—HMH



DAVID SANGER



# Border Fence Update

Looking east down the road with the new border fence on the left and the old fence on the right

**T**HE TRIPLE-FENCE fortification project proposed by the Department of Homeland Security for the westernmost 3.5 miles of the San Diego-Tijuana border violates the California Coastal Act, the Coastal Commission has found. In unanimously rejecting the project at its February 18 meeting in La Jolla, the Commission had near-unanimous support from state and local elected representatives from the area, as well as resource agencies and environmental organizations that work there.

Federal projects within the Coastal Zone are legally required to be consistent "to the maximum extent practicable" with state and national coastal management programs. The Bureau of Customs and Border Protection (CBP, now part of the Department of Homeland Security) contended that its triple-fence project meets that requirement. The Commission, however, pointed to major conflicts with state coastal law and said the CBP had failed to provide adequate information about final plans and the proposed design. Executive Director Peter Douglas invited the Bureau to work with the Commission to resolve differences between its proposal and more acceptable alternatives suggested by the Commission. If no resolution is reached, the Commission can seek an injunction in federal court.

The CBP proposes a 150-foot-wide barrier, to be constructed just north of the existing border fence, consisting of two more steel fences, with paved

roads running between the second and third of these for the use of the Border Patrol. The fences and roads would either cut through or wrap around Monument Mesa and Borderfield State Park, informally known as Friendship Park. This site, where the two countries meet at the Pacific Ocean, would be turned into a fenced and gated area.

The CBP intends to keep the roads at grades of 10 percent or less. To achieve that across canyons and hilltops of the Border Highlands, it plans to cut into mesas and fill canyons, moving 4.3 million cubic yards of soil. It would, in effect, build a 160-foot-high earthen dam across Smuggler's Gulch, and block smaller drainages. Habitat here and at nearby Lichty Mesa is protected under San Diego's Multiple Species Conservation Program and is the last refuge of some of the rarest plants in California. The area also contains important archeological sites.

Sen. Denise Ducheny, one of the elected officials arguing that the triple-fence project is damaging, unnecessary, and an obsolete approach to border problems, said: "It's staggering to think of the amount of dirt they are thinking of moving." County Supervisor Greg Cox, whose district includes the coastal border region, said the proposal would "irreparably damage" the sensitive resources of the Tijuana River Valley and "wholly disregards our efforts" to restore them. Smuggler's Gulch drains into Tijuana River Valley Park and the Tijuana Estuary. Soil in the highlands is

PHILIP ROULLARD  
highly erosive. Public agencies and local groups have worked for over 20 years to protect the area.

The proposed 3.5-mile project before the Commission is part of a 14-mile Border Infrastructure System being built between Otay Mountain and the Pacific Ocean. It was originally conceived to thwart illegal immigration and was mandated under legislation sponsored by Rep. Duncan Hunter, of El Cajon. "I started the border fence 12 years ago," Hunter said. Since then, due to assorted security measures that include increased staff for the Border Patrol, apprehensions of people trying to cross illegally have dropped five-fold, from 500,000 to 100,000 a year, Hunter noted. In the past two years, however, three San Diego sector agents died in accidents on hazardous roads. Now, he said, there is "the terrorism dimension. . . . Let's get this business finished."

Arguing that three fences are not needed, Rep. Bob Filner, of Chula Vista, agreed that "security has to be a prime concern," but said "we will not have significantly more security for the great damage that is done." Filner, who represents this border area in Congress, added: "Remember, we have to take the brunt of any problems that occur."

Among the few individuals who spoke in support of the triple fence was Robert Beken of San Diego: "Thousands of Mexican males are planning their break tonight right across those three and a half miles," he said. Another speaker pointed to the proximity of San Diego's defense installations.

The Coastal Conservancy, in a statement opposing the current proposal, noted: "Current trends indicate that San Diego/Tijuana will become one of the great North American centers of the 21st century, unique in its international geography and character and in its social and economic integration." It urged that a creative solution be crafted in keeping with that future.

After the Commission voted, chairman Mike Reilly pointed out that "state and local officials are pretty much unanimous [in opposing the project]. If the Bureau of Customs and Border Protection is interested, [Commission] staff has laid out in some detail what it will take to get [a resolution]. The choice is really in their lap." ■

—Rasa Gustaitis



## How to Be a Good Bat Neighbor

Here are a few basic rules about building a successful bat house:

- Bats drink a lot of water, so bat houses within a quarter of a mile from streams, rivers, or ponds have a better chance of attracting bats than those with no nearby water sources. Swimming pools also make excellent bat watering holes. Bats drink by swooping down and grabbing a mouthful of water on the wing.
- Don't hang your bat house in a tree like a birdhouse; fasten it to the trunk so it won't swing around. Bats like their houses high above the ground, mounted on the side of your own house up under the eaves or on a pole. Ten feet or higher is best.
- Temperature is the most important single factor in bat house living. Houses that receive more than four hours of direct sun each day

seem to get the most activity. If your bat house isn't going batty, it's probably not getting enough sun. Move it to a warmer spot and see if that doesn't help.

For more information, see Bat Conservation International's web site: [www.batcon.org](http://www.batcon.org).

***The Raccoon Next Door: Getting Along with Urban Wildlife***, by Gary Bogue, illustrations by Chuck Todd. Heyday Books, Berkeley, 2003. 160 pp., \$16.95 (paper).

This delightful and informative little book offers plentiful insights into the complex relationships between humans and wildlife, as well as common-sense advice such as this: "If you let your household pets out to play in local open space areas where they can be eaten by wild predators, they automatically become an active part of nature's wild food chain, like it or not." The author was curator of the Lindsay Wildlife Museum in Walnut Creek for 12 years, and wrote a daily newspaper column on pets, wildlife, and the environment for 33 years.





# Coastal Conservancy

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1330 BROADWAY, 11TH FLOOR

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**Also in this issue:**

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**A Million Acres of Open Space  
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