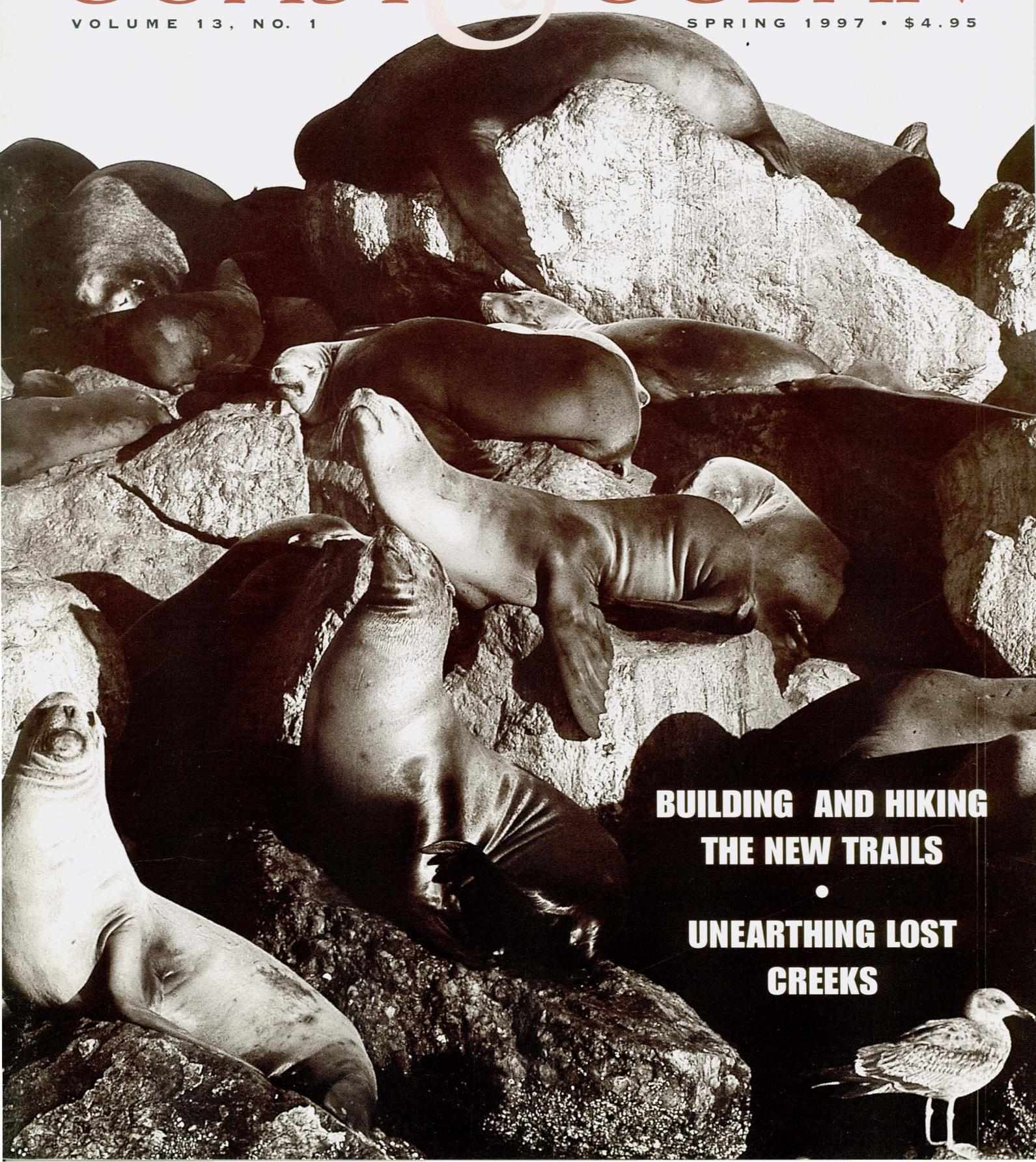


CALIFORNIA
COAST & OCEAN

VOLUME 13, NO. 1

SPRING 1997 • \$4.95



**BUILDING AND HIKING
THE NEW TRAILS
•
UNEARTHING LOST
CREEKS**

ABOUT THE COASTAL CONSERVANCY

The Coastal Conservancy is a state agency working to preserve, improve, and restore public access and natural resources along the coast and on San Francisco Bay. It builds trails and walkways, purchases threatened coastal land from willing sellers, enhances and restores wetlands and watersheds, protects open space and farmland, supports commercial fishing, helps cities develop and improve waterfronts, and crafts innovative solutions to land use conflicts. The Conservancy undertakes projects in partnership with nonprofit organizations, landowners, local governments, and other public agencies. It is funded primarily by bonds authorized by California voters.

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Cover:

California sea lions on the rocks along the Monterey Bay Coastal Trail, as captured by photographer Kip Evans, who is also education coordinator for the Monterey Bay National Marine Sanctuary's Water Quality Protection Program.

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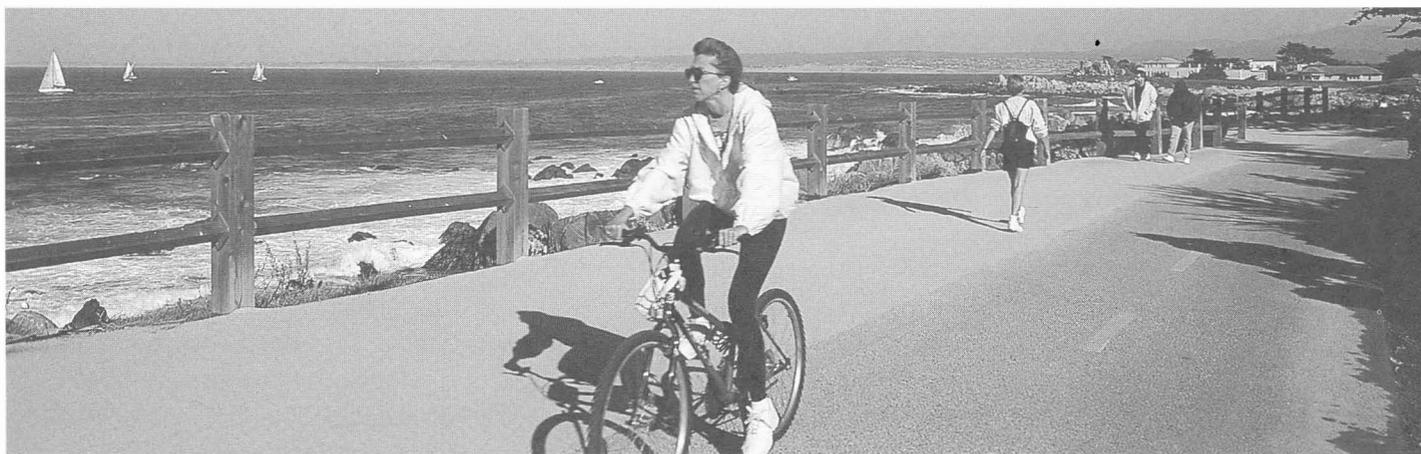
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CALIFORNIA
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VOLUME 13, NUMBER 1
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TIM JENSEN

2 *Following Trails*

3 **Linking Megalopolis With the Wild**

Ruth Taylor Kilday

The Santa Monica Mountains Backbone Trail

8 **Monterey Bay Coastal Trail**

Tim Jensen

Reclaiming the waterfront for people and wildlife

13 **San Francisco Bay Trail Update**

Good news, slowly

14 **Envisioning a Humboldt Bay Shoreline Trail**

Julie Brush

The dream is clear—now a plan is needed

17 **Hiking by Ear, Listening on Foot**

Bill O'Brien

Learning to hear the call of the wild

22 **If You Love Them, Please Don't Feed Them**

Ron Jurek

Feeding wild animals does harm, not good

24 **Urban Creek Sleuthing**

Bill O'Brien

How to find your "missing" creek

28 **The Urban Dweller's Guide to Watersheds**

Christopher M. Richard and Janet M. Sowers

You may have to think like a detective

35 **Living on the Edge in Pacifica**

The price of careless development

DEPARTMENTS

33 **EBB AND FLOW**

- More trails along Humboldt Bay
- Monterey will get a grand hostel
- "Living River" flood control for Napa
- Fitzgerald Marine Reserve to get help
- A safer railroad crossing at Surf Beach
- Mugu Lagoon Watershed Plan
- Coastal Zone 97
- Penny Allen's new post

37 **BOOKS**

39 **OTHER SHORES**

Borderlines South of the Fence

40 **LETTERS**



CRISTOPHER RICHARD

Following trails



~ Trails have captured the national imagination. They are being built beside waterfronts, old rail tracks, along creeks and shorelines, over mountain ranges. No sooner is a new trail open than all kinds of people are on it. Why such interest in footpaths and bike paths in a country of freeways?

PART OF THE ANSWER LIES IN the current obsession with physical fitness, and part in the fact that funds have been made available, particularly under the federal Intermodal Surface Transportation Efficiency Act (ISTEA), which provided almost \$1 billion for trails and related projects during the past seven years. (It expires this year unless Congress renews it.) But that's not all. Trails can serve as an antidote to freeways. They are congenial, and they allow us to move as we please. We look around, and smile at people we pass. We feel better on a trail.

Whether we realize it or not, we need to be in touch with natural surroundings. In our accelerated time, when so many people work too many hours, then rush to gyms to work out on treadmills, we take shorter lunches and shorter vacations. But we can occasionally spare a few hours to stroll on a pleasant trail.

In urban areas trails also offer opportunities to get a better sense of the place where we live. Walking, you may notice

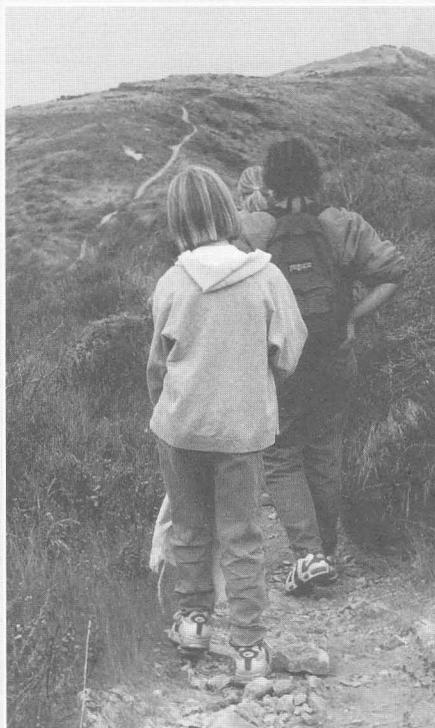
hills and valleys camouflaged by roadways, streams that run under streets, shorelines under fill. Another dimension in time and geography opens up within the urban jumble.

As for trail building, it's a typically democratic activity, much like stream restoration. They both rely on volunteers, bring together diverse folks who share a common interest, and grow from local roots into regional, statewide, and national coalitions.

On California Trail Days, April 26–27, thousands gathered at special events to celebrate, build, and repair trails. Some were persuaded to urge legislators to support funding for parks, open spaces, streams, and trails, as well as the Coastal Trail money in Governor Pete Wilson's budget.

In this issue, we bring you news about four evolving regional trails, connected to the California Coastal Trail, all is part of a growing web that will span the continent. National Trail Day is June 7. Something's happening on a trail near you.

—RG



NAOMI SCHIFF

THE SANTA MONICA MOUNTAINS BACKBONE TRAIL

Linking Megalopolis With the Wild

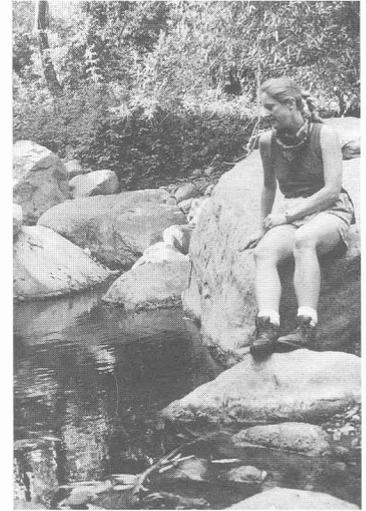
RUTH TAYLOR KILDAY

THE BACKBONE TRAIL winds along ridges and through valleys and canyons of the Santa Monica Mountains, linking southern California's megalopolis with the rugged, wild, and solitary beauty of its past. A few miles from urban edges, you can travel along the trail's 70-mile route on foot or horseback, passing streams that flow year-round, stopping at waterfalls, breathing in the rich fragrances of wildflowers and woodlands. You can encounter deer and bobcats and even mountain lions.

"This trail is the thread that sews together the major parkland areas spanning the

Santa Monica Mountains National Recreation Area to yield a marvelous fabric of recreational experiences," writes the Recreation Area's Superintendent, Art Eck. "As more users find their way to the magnificence of the Santa Monica Mountains, they will be irresistibly drawn to the realization that these mountains must be preserved."

The Backbone Trail has been a work in progress for two decades. Original plans called for it to begin at Griffith Park in Los Angeles and to span the entire Santa Monica Mountain range. By the time land acquisition began, however, so much development had occurred in the Griffith Park



BOB GARRETT/MCF

Below: The author's family, c. 1925, on a Sunday drive along the Malibu coast.



PHOTO COLLECTION MOUNTAINS CONSERVANCY FOUNDATION

THE COASTAL CONSERVANCY is the number one trail builder along the California coast and San Francisco Bay. In the past two decades we have spent millions of dollars and countless hours of effort to open the way to the shore by building pathways and opening access easements. On the San Francisco Bay Trail alone we have spent more than \$6 million. Our work has been patient and sustained. Right now our eyes are on three major challenges:

- To stitch together odd trail pieces, patch in the gaps, and complete the Coastal Trail and the San Francisco Bay Trail;
- To continue lending a hand to those working on other regional trails, in particular the Monterey Bay Coastal Trail (most of which is part of the Coastal Trail), the San Francisco Bay Ridge Trail, and the Santa Monica Backbone Trail; and
- To open the several hundred potential accessways to the beach that have been required over the years by the Coastal Commission but have not been opened, largely for lack of funds to build and manage them.

Because of the work of the Coastal Conservancy—always in partnership with local citizens and other agencies—regional trail plans now exist along much of the coast, and communities are vigilant to make sure that no major public or private coastal development omits a public accessway to the water's edge.

Trails are ideal Coastal Conservancy projects because they allow us to do what we like best and know how to do well: to help local people accomplish goals that are of greater-than-local interest. Until six years or so ago, we were able to

offer both technical assistance and funding. Now, however, funds for our public access program have all but dried up, so in most cases we are limited to staff savvy alone. We have been waiting for a bond act much as the desert waits for rain.

Now—we hope it's not a mirage—we stand to be watered with about \$2.5 million, if the Legislature approves proposals before it. The Governor's Coastal Initiative budget package includes \$1.5 million for our access program, specifically for developing offers to dedicate access easements and for the Coastal Trail.

Senator Bruce McPherson from Monterey has introduced SB72, which would require that coastal development permit fees collected by the Coastal Com-

mission be deposited in a new Coastal Access Account within the Coastal Conservancy Fund. This money, about \$500,000 a year, would be available for the development, operation, and maintenance of new and existing accessways. It would fill a special need: most of our funding sources cannot be tapped for maintenance, yet lack of maintenance money has kept easements and accessways from opening.

The Legislature is considering both these proposals, plus another, from the Conservancy, that would permit us to shift \$500,000 from our support funds to our access program. These new dollars don't mean that the long-awaited bond issue is no longer needed—not at all! We have a long coast, a lot of trail to build, and millions of new Californians coming to walk our coastal trails-to-be. Help us build them!

Michael L. Fischer is executive officer of the Coastal Conservancy.

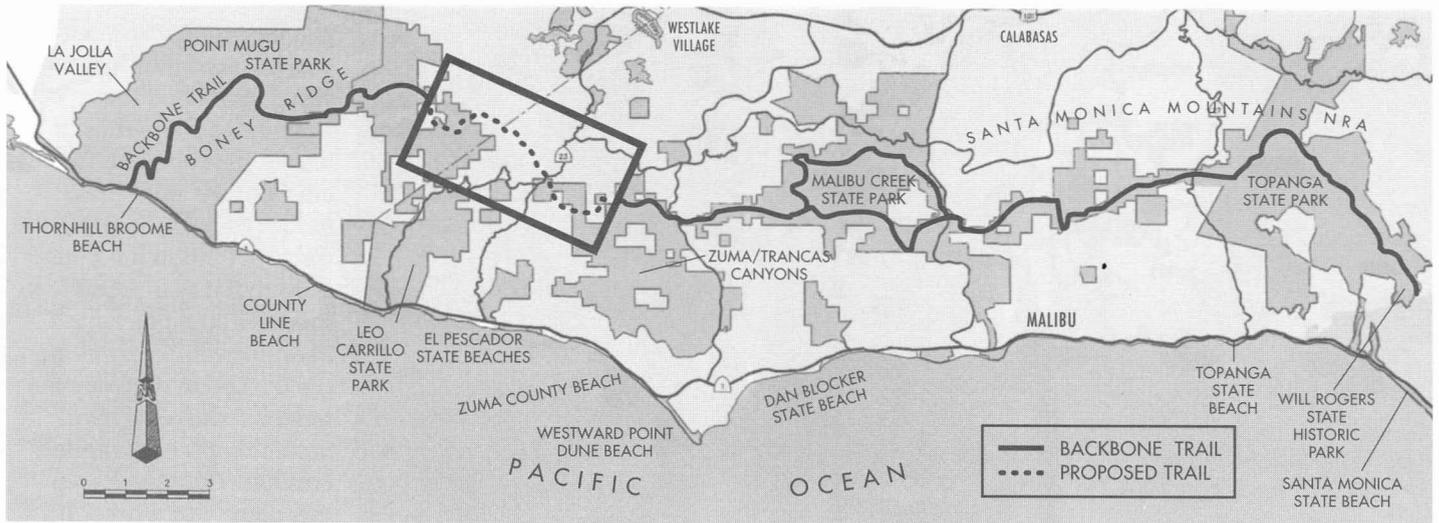
**NEW
FUNDS FOR
THE STATE'S
COASTAL
TRAIL
BUILDER!**

area that this plan no longer seemed viable. The eastern starting point of the Backbone was therefore set at Will Rogers State Historic Park. From there the trail runs west along the highest ridgelines to Point Mugu State Park. At present, all but six miles of the 70-mile trail corridor have been acquired. Of these 64 miles, all but six—which are currently under construction—already exist as functional trail.

Since 1978, when the Santa Monica Mountains National Recreation Area was created, the National Park Service has acquired more than 21,500 acres, which, combined with lands acquired by the California State Parks Department, the Santa Monica Mountains Conservancy, and other partner agencies, have brought the total acreage in the Recreation Area to over 60,000. To complete the last link, the Park Service has proposed acquisition of 460 acres of corridor owned by nearly two dozen landowners between Zuma Canyon and Triunfo Pass. This land is some of the most scenic in the area. It offers panoramic views of ocean, islands, valleys, sheer rock cliffs, and unique volcanic and sandstone formations. The price tag could be well over \$4 million.

Because government funds for land acquisition in the Santa Monica Mountains have been exhausted, the Mountains Conservancy Foundation last fall launched a Backbone Trail Completion Campaign designed to raise the necessary funds from private and corporate donors. In January 1997, the Foundation's efforts were substantially enhanced when the Santa Monica Mountains Conservancy voted to match every dollar raised, up to \$2 million, from its share of funds from Proposition A, the Los Angeles County Safe Neighborhood and Parks Act of 1996. This voter initiative provided \$319 million for parkland acquisition, community restoration, and youth programs.

In its campaign, the Foundation developed a strategy designed to promote a sense of personal ownership, a stake in the trail. It offered to "sell" the planned six-mile trail segment foot by foot. Donors receive "certificates of ownership" for pieces of the trail-to-be. One foot goes for \$100, 10 feet for \$1,000. A corporate gift of \$20,000+ "buys" 200 feet. The biggest seller over the winter holidays was the \$400 trail marker. Thirty-eight numbered markers will be installed by June at trailheads and junctions. A map and trail guide will show the names of the donors for



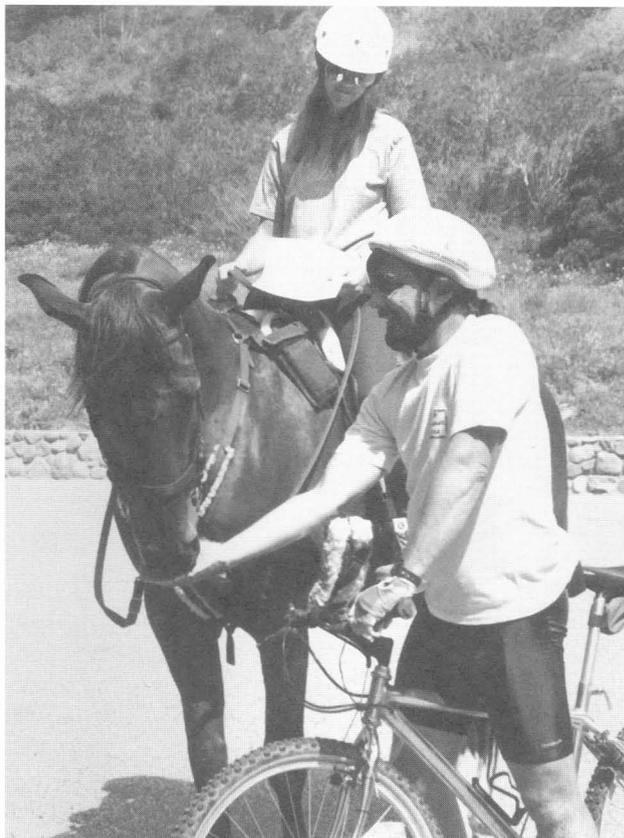
PHOTOS THIS PAGE AND MAP, MOUNTAIN CONSERVANCY FOUNDATION

each marker. The sales pitch was delivered by the irresistible Gregory Peck on a four-minute video being shown on cable TV and at public functions.

Some people develop a sense of ownership by donating to the Backbone Trail's completion, others by getting to know its routes intimately. I recommend both. I began to hike the Backbone eight years ago on Saturday mornings with a group of friends. My father was dying of cancer, and because he had been a great athlete and outdoorsman, these rather tough walks seemed an appropriate way to honor him, as well as a way for me to deal with the stress of his illness. We couldn't find signs, guideposts, or good maps. Often we couldn't even find the trail. The Backbone Trail became a metaphor to me for life's mental, physical, and spiritual challenges. Since my father's death his memory has continued to fuel my personal and professional efforts in behalf of the trail and the still-incomplete National Recreation Area. With others who share the dream, I am working for the day when you can hike or ride for 70 miles continuously on the Backbone Trail, stopping at wilderness camps and trail camps along the way.

NATURE VIEW AND DEJA VU

THE SANTA MONICA MOUNTAINS are world famous—not necessarily because of their parklands but because of the communities that continue to spread into them: Malibu, Hollywood, Beverly Hills, Bel Air. The Backbone Trail and trail connectors link these communities in a jigsaw puzzle of over 60,000 acres of vast canyon land, historic sites, streams, unusual



Top: Backbone Trail
Above: Roosevelt Highway (now Pacific Coast Highway) and the railroad brought weekend crowds to Malibu beaches (c. 1927).
Left: Los Angeles has more pleasure horses than any other county in the U.S., and mountain biking continues to grow in popularity.



geology, native and not-so-native grasslands and oak woodlands, and luxury beachfront properties. It was in part because Twentieth Century and Paramount Studios owned large tracts of land in the mountains that it was possible to preserve so much here. People meandering along the Backbone pathway may have a sense of déjà vu. Something seems vaguely familiar. They have seen this place, but where? It may have been on TV, disguised as Korea in *M*A*S*H* or, most recently, as the Old West in *Dr. Quinn, Medicine Woman*.

When hiking or riding the Backbone, you see country walked by the

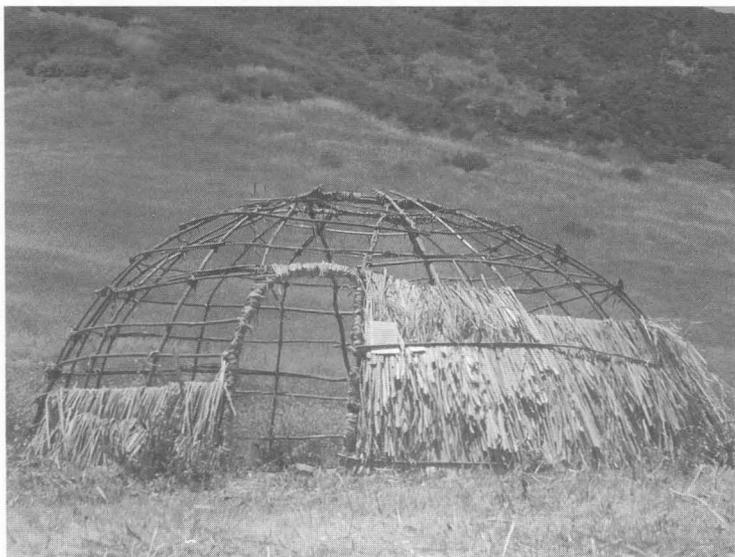


Chumash spiritual leaders bless Satwiwa, the Native American Cultural Center at the base of Boney Mountain, another trailhead of the Backbone Trail. A reconstructed village is planned here; the willow framework will be covered with cattails and bulrushes.

Chumash and Tongva for thousands of years. Their presence is still felt in the canyons, which appear velvety from a distance but are actually rough with chaparral and oak. They have left rock paintings, which are now protected, and names on the land, including Topanga, Malibu, Zuma, Piuma, and Mugu. As you move along, you come upon historic buildings and bits of old fencing—remnants of old homesteads, prospector camps, and the Spanish and Mexican land grant eras. Here and there, the trail is a 75-foot-wide corridor bounded by tennis courts and cyclone fencing. Elsewhere it is a scientifically documented wildlife habitat corridor, over a quarter-mile wide.

The proximity of Los Angeles can be seen as a detriment, but it also adds interesting dimensions to a trail adventure. After a vigorous and relaxing morning in the mountains, you have the option of spending the afternoon at the Getty Museum, a movie theater, or on the beach.

The trail begins at Will Rogers State Historic Park and ascends the steep slopes to Topanga. From there it follows a mainly western route, linking park enclaves, some of which are surrounded by development. From the former home of Will Rogers, 48 miles of trail link Topanga State Park, Malibu Creek State Park, and Zuma and Trancas Canyons. The six-mile gap waiting



for acquisition is bisected by the Los Angeles–Ventura County boundary. Currently, four campgrounds operate along the trail. Plans are under way to locate additional sites for camps, at 10-mile intervals.

One place where trailside campsites will be expanded beyond the gap is Circle X Ranch, a former Boy Scout camp now owned by the National Park Service. From the Ranch, the trail descends 18 miles to Point Mugu State Park on the coast.

Of course, one can hike from west to east as well, but westward is the historical direction for adventure in this country. Either way, you may meet bobcats, and see hawks and perhaps golden eagles. You will cross 14 year-round streams—except in rainy winters, when some of those streams turn into dangerous torrents. Looking along the coast you can see Catalina Island and the Channel Islands. During gray whale migration season, you may observe their passage offshore.

The Backbone Trail is the main accessway into the Santa Monica Mountains outdoor classroom. More than 30 schools and universities are within an hour's drive, and much research is under way. Since 1979

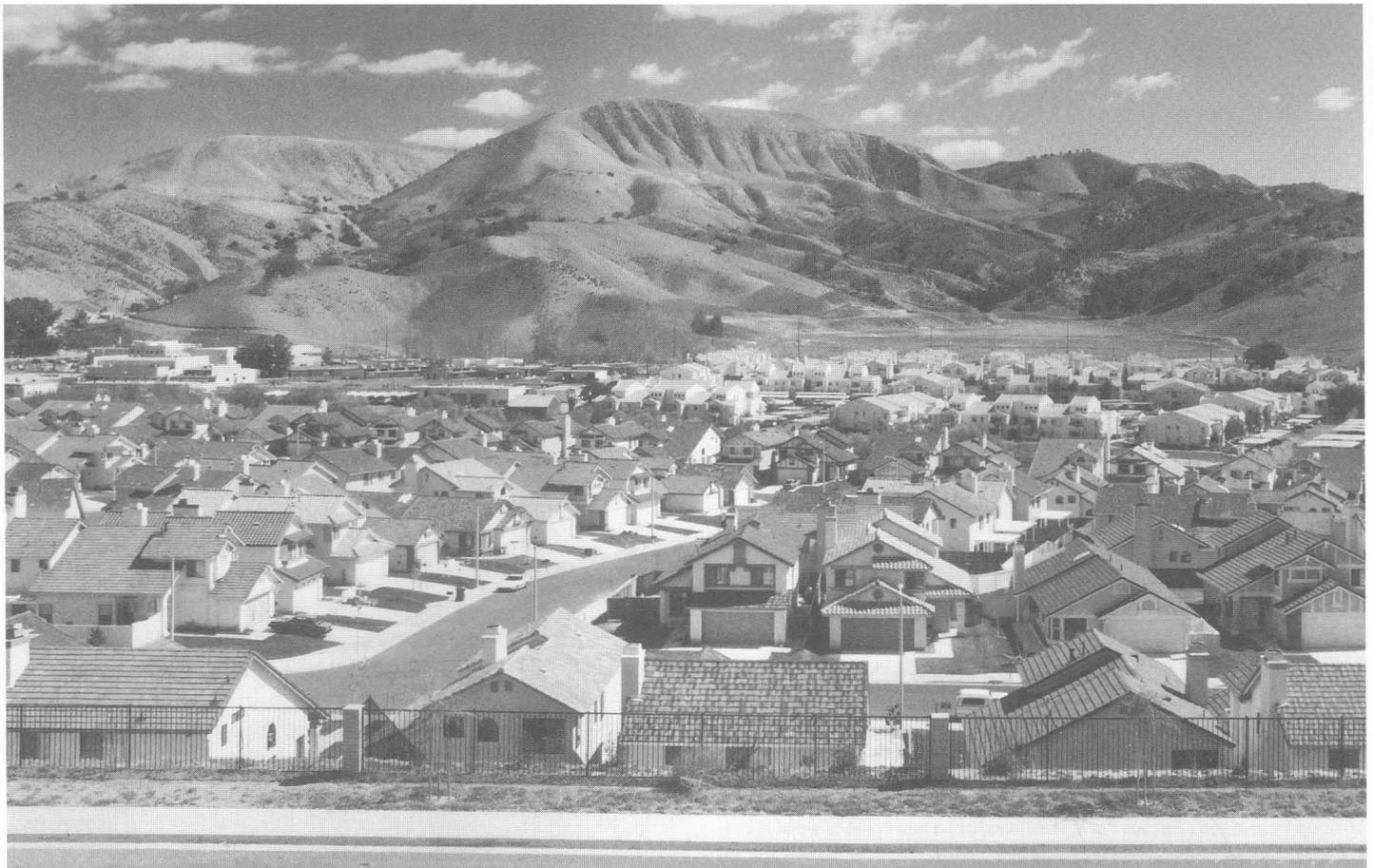
more than 200,000 children and adults have walked along the trail under the auspices of environmental education programs. Many come through the Recreation Transit Program, which serves schools and other groups that want to learn about the region and its history.

Walking or riding in this landscape, you can't help noticing how tenuous the human hold on the land is. The mountains are geologically unstable, they burn each year, they incur floods, and they slide toward the ocean. If that isn't enough, Mother Nature throws in earthquakes to loosen 30-ton boulders, reminding us of her ultimate authority. These are healthy reminders, and the trail offers the opportunity to ponder them, even as we enjoy its pleasures and the respite for mind and spirit.

The task at hand is to fill that last six-mile gap. That will not be easy, but it's a challenge we are determined to meet. ■

Ruth Taylor Kilday is executive director of the Mountains Conservancy Foundation. To learn more, contact her at 5775 Ramirez Canyon Road, Malibu, CA 90265, (310) 589-2400, FAX (310) 589-2430.

The area near the intersection of Highway 101 and Malibu Canyon Road was developed during the real estate boom of the 1980s.



TOM GAMACHE PHOTOGRAPHY



RECLAIMING THE WATERFRONT Monterey Bay Coastal Trail

TIM JENSEN

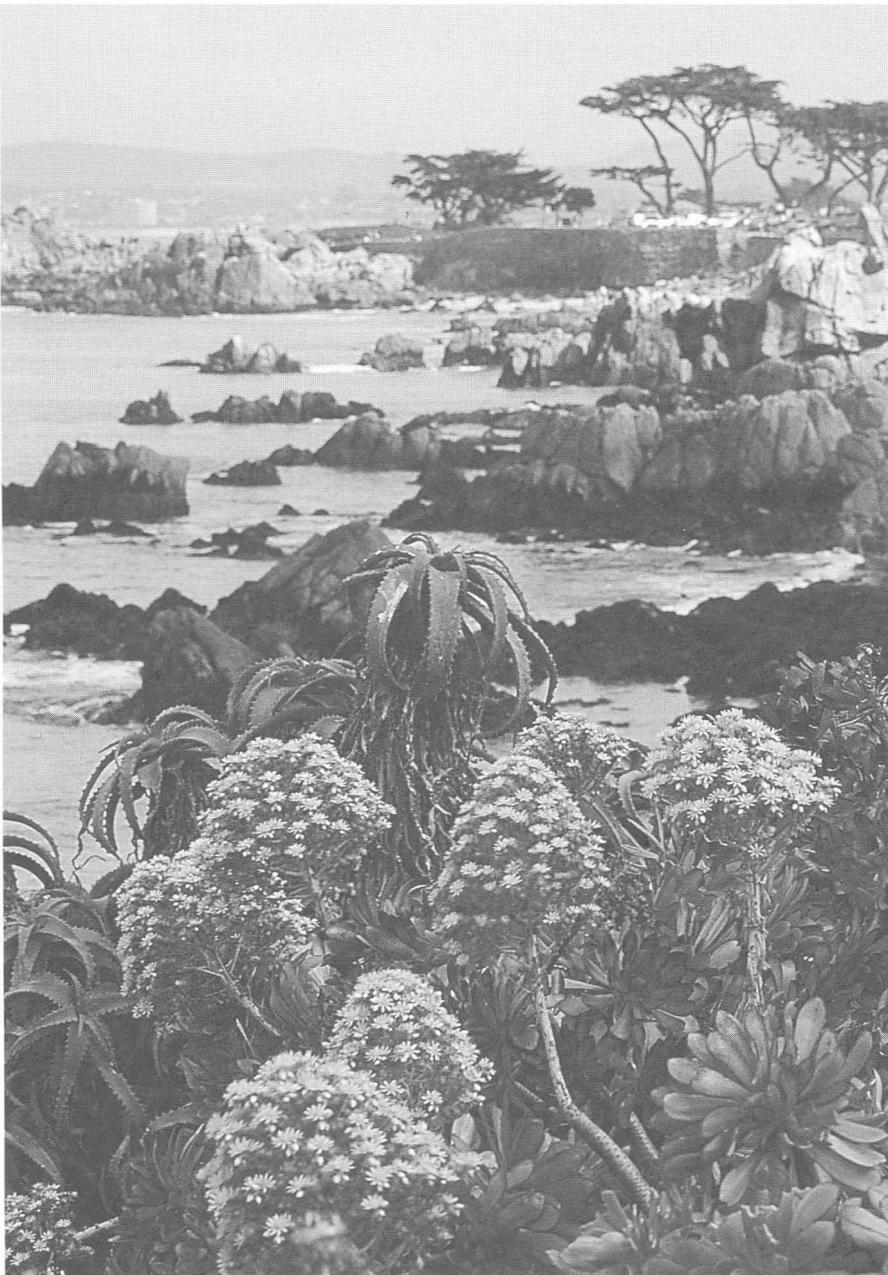
THE MONTEREY BAY COASTAL Trail meanders for 29 miles from Pebble Beach through Pacific Grove, Monterey, and north as far as the dunes at Marina, mostly along the water's edge. On any day and in any season, people are out on this trail, walking, jogging, in-line skating, bicycling, riding pedal-powered surreys, and cruising along in wheelchairs, in view of landscapes and seascapes incomparable in their beauty.

So dazzling are the views, so fresh and salty the breezes, that you simply have to relax and enjoy yourself on this trail. Gulls screech, sea lions bark, and human voices blend into a rich stew of ambient sound. When you want to pause and get closer to the water, there are plenty of places where you can step right up to the shore, into a pleasant plaza, or to a bench overlooking the bay.

For people who live on the Monterey Peninsula, the trail is a delight, an easy transportation corridor, and an economic asset. For millions of visitors, it is part of the Monterey experience, and a way to get to various attractions, restaurants, cafes, and shops. About eight million visitors flock to Monterey County each year, and the vast majority head for the coast.

Today the Monterey Bay Coastal Trail links all major points along the shore between Pacific Grove and Marina. In a not too distant tomorrow, it will extend north and south, connecting Point Lobos State Reserve with the Salinas River National Wildlife Refuge. It is, in effect, a linear urban park. As it expands, it serves as a catalyst both for coastal resource protection and nature-friendly economic development.

Like other regional coastal trails, this one is a work in progress. The Monterey Penin-



KIP EVANS

Looking from Hayes Perkins Park, northwest of Lovers Point, toward Monterey; Pride of Madera and aloe in foreground.

sula Regional Park District, together with the Coastal Conservancy and other agencies, is seeking funds to fill in missing links, to extend and also to improve the trail, most notably in areas where it runs along busy roads, separated from automobile traffic by only a yellow line. The 29 miles that are already in place, however, play an important role in the life of the Monterey Peninsula.

Come take a look; you may be surprised at what you'll find. By following this trail you can, among other things, see how far we have already come in efforts to restore dunes and wetlands that were destroyed in earlier decades, and to reclaim this waterfront for public enjoyment.

The northern end of the Monterey Bay Coastal Trail starts at the 20-acre Locke Paddon Wetland Park, where you might pause to watch waterbirds on the freshwater pond and read interpretive signs that explain the ongoing wetland restoration here. A trail runs along the park perimeter, and provides access to the pond's edge, as well as to picnic tables and restrooms. Nearby is Marina State Beach, a 170-acre expanse of dunes and beach. A sinuous 2,000-foot boardwalk leads from the parking lot into an impressive dune restoration project. Non-native iceplant has been removed to make way for native species, such as beach sagewort, pink and yellow sand verbena, silver beach lupine, California beach poppy, and seaside painted cup.

Continuing south, the trail runs just west of the highway along the edge of the newly established 860-acre Fort Ord Dunes State Beach. You pass abandoned bunkers, small-arms firing ranges, and Stillwell Hall, a two-story building that once housed a splendid officers club, with fine murals, an oak parquet dance floor, and exquisite chandeliers. This building now stands empty, serving as a geologic yardstick for coastal erosion: built in the 1940s hundreds of feet from shore, today it is perched on the edge of an eroding coastal bluff. Because the Army has been reinforcing the



KIP EVANS

bluff with riprap for many years, the old building has a temporary lease on life. The State Parks Department believes that its life expectancy is long enough to merit its conversion into a visitor center and natural history museum. Here's a place to pause and reflect on the many ways our coast has been used, and on the efforts now under way to restore some natural harmony.



KIP EVANS

FORT ORD TRANSFORMED

THE 20,000-ACRE FORT ORD Army post closed in 1995, and is now being transformed. A new campus, California State University at Monterey Bay, is already open with an enrollment of 2,000, and is expected to grow to 20,000 undergraduates. It now occupies 1,350 acres and has asked for 100 more. The University of California at Santa Cruz has begun final plans for its Monterey Bay Science and Technology Center on 500 acres, with another 600 acres dedicated as nature preserve. Of the total land area of Ft. Ord, 65 percent will be permanently protected. The Bureau of Land Management has opened about 8,000 acres for mountain biking, hiking, and equestrian use. Within Fort Ord State Beach, an existing native plant preserve will anchor State Parks' efforts to restore about 650 acres of dunes behind the four-mile beach.

Continuing south, the trail enters Seaside

TRAIL RATINGS

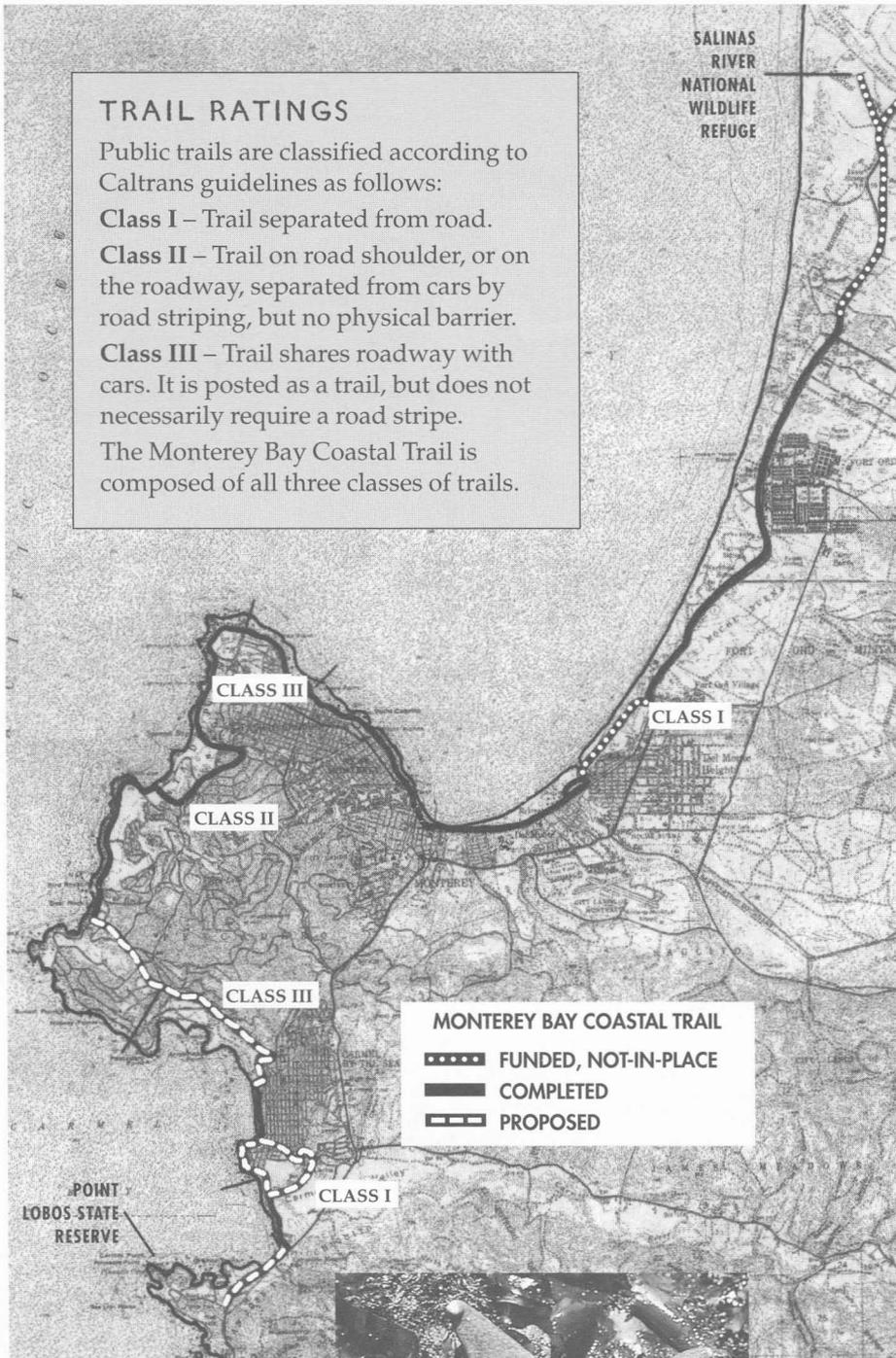
Public trails are classified according to Caltrans guidelines as follows:

Class I – Trail separated from road.

Class II – Trail on road shoulder, or on the roadway, separated from cars by road striping, but no physical barrier.

Class III – Trail shares roadway with cars. It is posted as a trail, but does not necessarily require a road stripe.

The Monterey Bay Coastal Trail is composed of all three classes of trails.



and changes from a Class I trail, separated from the road, to a Class III trail, which is merely a lane in the roadway, shared by fast automobile traffic. This will soon change: about a mile of Class I trail will be built this summer along the backside of the dunes in adjacent Sand City—dunes that have seen hard times. In the past 50 years they have been mined, bulldozed, stripped, or used as landfill. Restoration is already under way at an abandoned landfill in Sand City and has been completed at Seaside Beach. Between these sites, the new Class I trail link will be built.

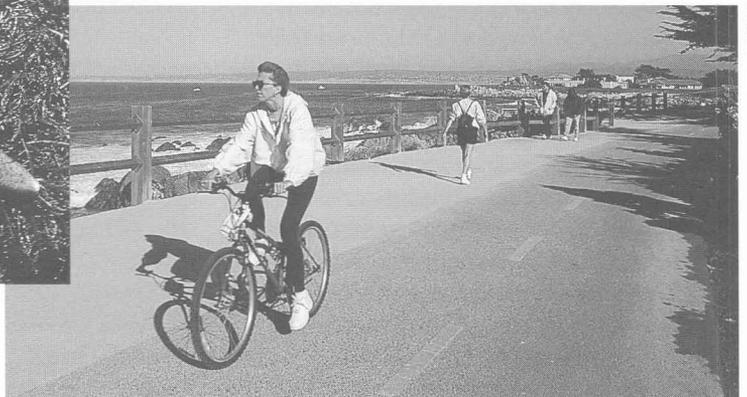
PARKS WEREN'T PERMITTED

SAND CITY IS HARDLY a typical city. It was incorporated in 1960 as an industrial city of sand mining and warehouses. Its residents number only 190, and only 32 of them voted in the November 1996 election. Sand City's certified Local Coastal Plan (LCP) did not recognize parks and open space as a legitimate land use in the coastal zone. Despite this, the Regional Park District and State Parks acquired almost 30 percent of the city's land. The Coastal Commission certified the LCP in 1984. Later, however, in response to the park district's argument that there was a greater-than-local need to revisit this plan, the Commission, for the first time in its history, stepped in and revised a certified LCP. On April 8, 1996, the Park District, State Parks, and the City reached an agreement that permits almost 80 percent of the Sand City dunes to be acquired for parks and open space.

Leaving sand city, the Monterey Bay Coastal Trail skirts a restoration project at the popular Seaside Beach (a unit of Monterey State Beach), where fantastic



KIP EVANS



TIM JENSEN

kites fly on weekends and sunbathers sprawl across the sand like so many contented seals. In autumn, lucky observers may see thousands of sooty shearwaters streaming by in a feeding frenzy just offshore.

The trail winds inland past Roberts Lake, where it again becomes a Class I trail. Remote-controlled model powerboat races are held here occasionally, and it's a good spot to scope the waters for many seasonal shorebirds migrating along the Pacific Flyway. You proceed next into the City of Monterey, along a spectacular Class I section of the trail. It hugs the backside of the dunes while shadowing Del Monte Boulevard on a three-mile section of the former Southern Pacific Railroad line. You move past the Naval Postgraduate School, and through a forest of 200-foot-tall eucalyptus. A trail and stairway lead over the dunes and to the beach.

WINDOWS ON THE WATER

CONTINUING ON, YOU ARRIVE AT Window on the Bay Beach and its volleyball park. At this point you can take a side trip, leaving the trail to explore the harbor in a kayak, available for rent from Monterey Bay Kayaks. You can cruise the shoreline, keeping an eye out for sea otters and sea lions, or you can head a little farther out to enjoy a unique view of the Peninsula. If you paddle far enough, you might even see white-sided dolphin or, on a rare day during the winter-spring migration, a gray whale.

Between Municipal Wharf No. 2 and the Monterey Bay Aquarium (a distance of about 1.5 miles) you pass more than a dozen parks, public areas, and historic sites, as well as many stores and restaurants. There's a buzz of activity in and around Custom House Plaza, by Fisherman's Wharf, as there was in the 1800s when Monterey was the state's first capital. This is a state historic park now, and includes the capitol, a few blocks inland. As the trail curves along the shore—not sandy here but rocky, punctuated by tidepools—you arrive at San Carlos Beach, where scuba divers gather. Continue along the old rail line to Cannery Row and the Monterey Bay Aquarium, where the new Outer Bay Wing opens a window into the vast expanses of the open ocean.

Just beyond the Aquarium is Pacific

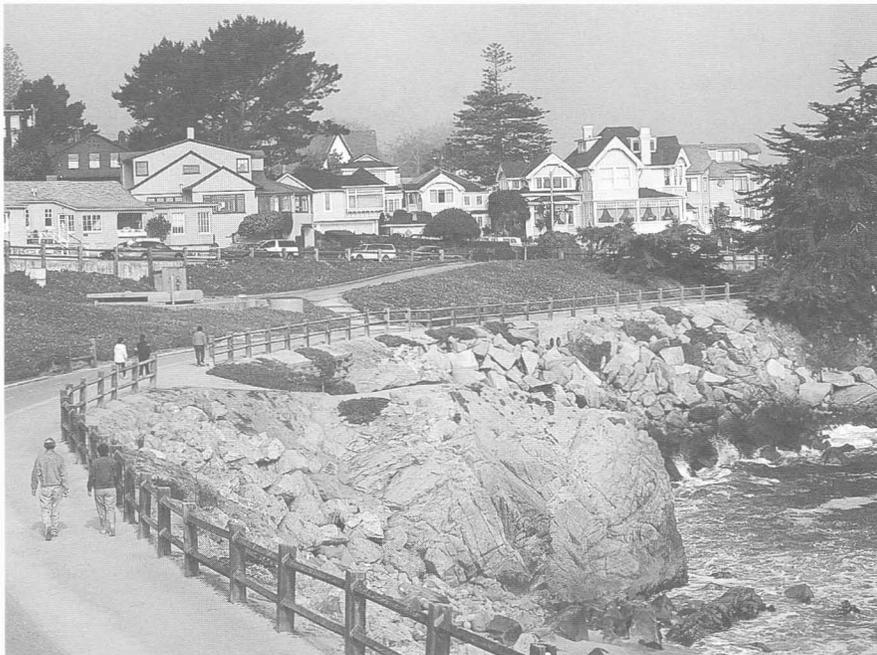
Grove. The trail hugs the blufftop for the next mile or so to Lovers Point and its popular beach. You might stop at one of the many trailside benches and look across the bay toward Santa Cruz, enjoying unobstructed views of the coastal mountains. Shoreward, search out the Pacific Grove Museum of Natural History at the corner of Central and Forest Avenues (admission free). At Lovers Point you can rent a kayak or play some informal yet competitive volleyball, surf, snorkel or scuba dive, warm up a barbecue, or simply sit on the beach.

The trail continues through Pacific Grove along Ocean View Boulevard as an unmarked Class III route. If you are walking, rather than biking, you can use a Class I pathway atop the bluffs. Near Point Piños the trail improves to Class II and passes the 1855 lighthouse, the oldest continuously operating lighthouse on the West Coast. Here you might keep a lookout for whales during migration season. Ocean View Boulevard turns into Sunset Boulevard at Asilomar State Beach, a haven for surfers and visitors to the Asilomar Conference Center. A public boardwalk leads through restored coastal strand habitat, the kind that once covered much of the area but is now rare. Here again is a place to take heart: at one time most of these dunes were eroded down to bedrock, today we can enjoy showy spring flowers on 55 revitalized sandy acres.

After Asilomar Beach the trail leaves the shore and swings up Sunset Drive into the community of Pebble Beach (if you drive up to the Pacific Grove Gate you pay; if you bike or walk, there is no fee). Among the towering Monterey pines of the Del Monte Forest, you will be enveloped in serenity, as well as a sense of wealth and privilege. Pause awhile, then continue downhill on 17-Mile Drive past Spanish Bay (a world-



Harbor seal



Top: Shoreline Park in Pacific Grove, approaching Lovers Point. Above: Looking toward Monterey (from Pacific Grove) in the 1970s. The tracks are gone now.

class golf course and resort) and return to the shoreline at Point Joe. From there the trail hugs the coast for another mile or so before ending just onshore from Seal Rock, at the intersection of 17-Mile Drive and Spyglass Hill Road.

WHERE IT MAY LEAD, IN TIME

PRESENTLY, THIS IS THE END of the trail. However, the Regional Park District is working with Monterey County and the Pebble Beach Company to connect Seal Rock with the City of Carmel-by-the-Sea. The company provides only an unmarked Class III trail here. Follow Spyglass Hill Road to Stevenson Drive and back onto 17-Mile Drive, which will take

you to Carmel Way and the Carmel Gate. South of Carmel, at Rio Park, the Park District is planning a crossing of the Carmel River and an extension of the Monterey Bay Coastal Trail as a Class I trail through Carmel River State Beach.

Eventually, the Monterey Bay Coastal Trail is to extend still further south, as far as Point Lobos State Reserve. There are no specific plans for this stretch yet. However, the Point can be reached by traveling on the shoulder (Class II) of Highway 1.

Meanwhile, in the north, federal funding has already been secured for a two-mile segment that will link the cities of Marina and Castroville with the Salinas River Wildlife Refuge. The Class I route will follow Del Monte Boulevard from where the trail now begins, Locke Paddon Park, and head north into Castroville, where a Class II trail already exists. Along this stretch, you will be able to look west across artichoke fields as far as the Martin Dunes, some of the most pristine dunes along the central coast. They are high on the wish list of the U.S. Fish and Wildlife Service and other wildlife agencies, for they provide excellent habitat for several endangered species, including the western snowy plover and Smith's blue butterfly.

Large-scale public projects take much time and persistent effort. The Monterey Bay Coastal Trail originated in 1974 with a partnership of the Regional Park District and the cities of Pacific Grove and Monterey. Later, the Coastal Conservancy joined the project. There was some opposition in the early years, notably from the Cannery Row Merchants Association. Twenty years later, with thousands of visitors a day on the trail, the Association petitioned the City of Monterey for permission to open the back sides of buildings toward the trail, so that cafes and bistros could become trailside attractions. These merchants, along with others, now see the trail as a major recreational and economic community asset. In time, the Monterey Bay Coastal Trail will surely come to be seen as a grand achievement in progressive regional planning, a worthy complement to the Monterey Bay State Seashore and the Monterey Bay National Marine Sanctuary. ■

Tim Jensen is the coastal unit supervisor at the Monterey Peninsula Regional Park District.

It takes a dream, hard work, persistence, and creative thinking to build a grand regional trail.

Bay Trail Update

MORE THAN HALF of the San Francisco Bay Trail is still just a winding line on various maps and construction money is scarce as rain in July. But the future of this grand 400-mile shoreline pathway looks good because trail advocates are working to make sure that no options are foreclosed or neglected. The nonprofit Bay Trail Project, the Coastal Conservancy, the Bay Conservation and Development

Commission, and others have been crafting new ways to advance the trail since 1987. Citizen trail supporters and local governments are working cooperatively in 42 cities to carry out the Bay Trail Plan.

Every time an opportunity presents itself, someone is ready to pick it up, and every time a threat to the trail appears, someone is there to avert it. Here's what's funded or being built now:

(1) Caltrans is engaged in some major construction at the eastern approach of the Bay Bridge. To mitigate impacts to marshes, 4.5 miles of multi-use waterfront trail are being built between Powell Street, Emeryville, and Gilman Street, Berkeley. Scheduled to be completed in summer 1999, this stretch will link up with **(2)** a stretch being constructed along the Albany shoreline by the City of Albany and the Coastal Conservancy and **(3)** a two-mile stretch completed last year between Point Isabel and Marina Bay in Richmond by the East Bay Regional Park District.

(4) Caltrans will put in a bike lane on the Carquinez Bridge replacement.

(5) Wildcat Creek Trail in San Pablo is to be extended by 850 feet of paved Class I trail from Rumrill Boulevard to Davis Park in the city of San Pablo this year.

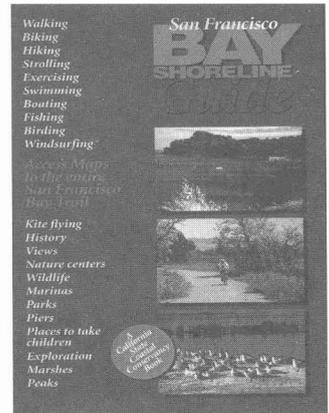
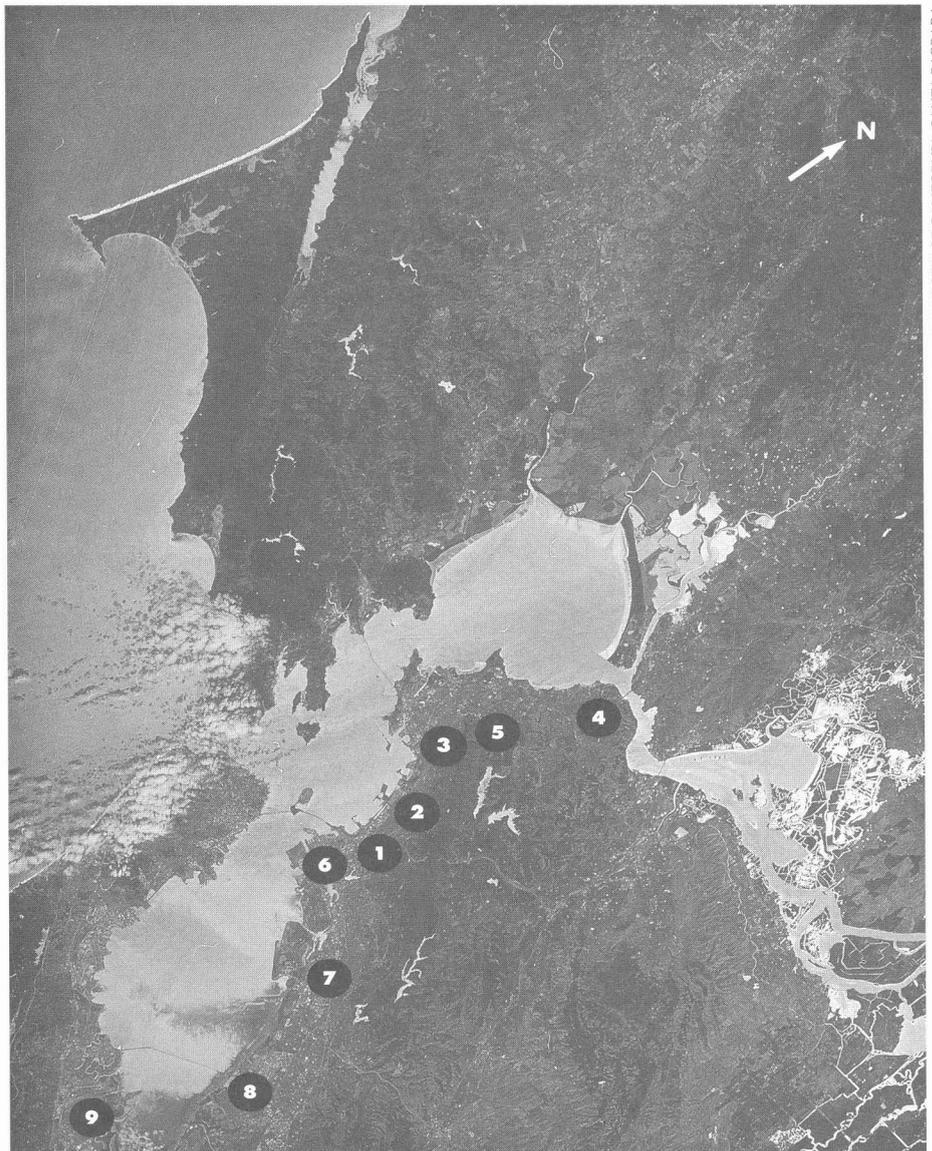
(6) The City of Oakland and Port of Oakland are cooperating on the city's 18-mile shoreline. More than three miles of bicycle lanes along the Embarcadero have been funded.

(7) In San Leandro, the last mile of Bay Trail passing through the Oyster Bay Regional Shoreline to Davis Street will be completed within the year.

(8) On the San Mateo Bridge Caltrans will build a north-south overpass across Route 92. It will provide trail continuity along the Hayward shoreline.

(9) The Sunnyvale Bay Trail project will open 2.75 miles of levee trails and will also provide access to another four miles of levee trails. ■

Sunglint on the San Francisco Bay area, photographed from the NASA Space Shuttle 281 miles above the Earth on April 9, 1991.



Find your way to the Bay Trail with the Coastal Conservancy's *San Francisco Bay Shoreline Guide*, available at bookstores or from the Coastal Conservancy. Call (510) 286-0933 for more information.

COURTESY NASA AND JOHN CLOUD, GEOGRAPHY DEPARTMENT, UNIVERSITY OF CALIFORNIA, SANTA BARBARA



THE DREAM IS CLEAR—
NOW A PLAN IS NEEDED

Envisioning a Humboldt Bay Shoreline Trail

JULIE BRUSH

HUMBOLDT BAY is only 250 miles north of San Francisco, but it was overlooked by early European explorers and remains largely unexplored today, despite its natural beauty and other assets.

In 1806, sailors on an American fur trade ship, the *O'Cain*, saw the opening between the two sandspits that separate the bay from the ocean. But they decided, as recorded in the ship's log, that "entrance for vessels of a large class is not convenient, and even impassable for any kind of vessels in strong southwest winds." The log states that the shores were "thickly populated with natives and plentiful otters and seals."

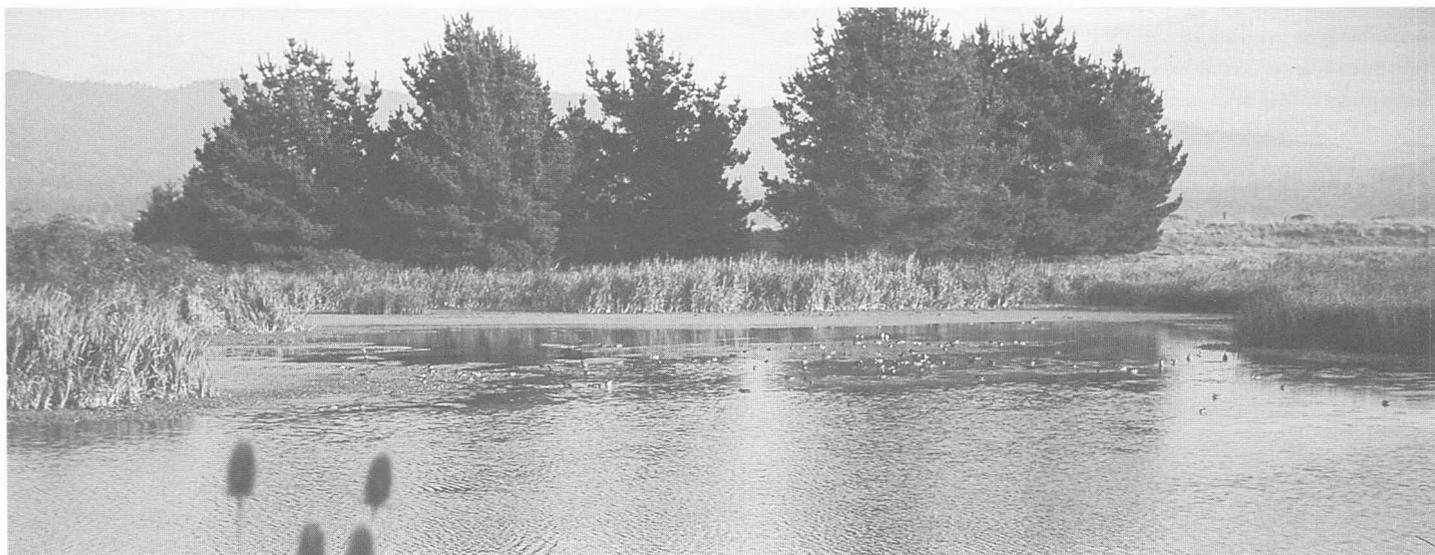
The native Wiyot continued to live on the bay undisturbed by outsiders for another 44 years. Ship captains plying coastal waters between Trinidad and Mendocino apparently did not notice the bay entrance

obscured by the sandspits. Not until 1850 did the *Laura Virginia* sail into California's second-largest enclosed estuary. Captain Douglas Ottinger named the bay after Alexander von Humboldt, the German geographer-naturalist, not knowing or not caring what the local people called it. The Wiyot name for the bay is *Qalawaloo*.

Soon mills had been established onshore and Eureka became a major shipping center for timber exports. Ten years after the *Laura Virginia*'s arrival, 34 Wiyot women and children were murdered in the night on a bay island, along with the six men standing guard while the other men were ashore. This island is now called Indian Island. A small Wiyot community at Table Rock reservation commemorates the 1860 massacre every year.

To this day Humboldt Bay has remained a place apart, remote from currents and

Arcata Marsh



PHILIP WRIGHT

events that have wrought drastic changes in other coastal areas. The entire region has suffered severe hardship with the decline of the two major industries, timber and fishing. The local airport is often closed because of fog: it was built during World War II at a site deliberately selected for its bad weather, to allow pilots to practice landing in difficult conditions. This may make for a charming story now, but it is not helpful to a community that hopes to attract some new, fast-moving industries.

In conventional terms the Humboldt Bay area is an economically depressed community. Jobs are scarce and many people struggle hard to survive. But from another point of view, this beautiful area has great potential. It has retained an environment that can provide a kind of life many people long for and can no longer find in prosperous, densely developed coastal areas.

It's quiet here. You can step out on the shore and see no other people at all. Wildlife abounds in the smooth bay waters, broad mudflats, and wet diked meadows. Dairy cattle and egrets stand side by side in the green spring grasses. Local residents dig for shellfish

along the shore, canoe and kayak on the bay, and scan its surface for waterfowl resting on this stopover along the Pacific Flyway. They go out onto the ocean to fish, go inland for sunshine on foggy Sundays. Summer months bring a surge of tourists and visitors, but this traffic is slight compared to that of other coastal regions.

The 25.5-square-mile bay has one operating pulp mill and a power plant on its western edge, and when the wind is right, an odor from the mill permeates Eureka. But in the wake of a successful lawsuit by the Surfrider Foundation, the mill's effluent is clean enough for surfing at the North Jetty. Eelgrass grows in the bay, and eelgrass—so important to the biological integrity of the bay—requires clean water.

In September 1996 a new vision for the watershed emerged at the Humboldt Bay Symposium, which brought together community leaders, officials, and both universi-

ty and high school students to develop a collective vision for the future of the watershed. In roundtable discussions, participants agreed that better recreational access to Humboldt Bay should be a priority. Specifically, there was strong support for a trail around the bay.

A Humboldt Bay Trail would not only provide for commuting and recreation, but would also serve as catalyst for activities that would generate further economic benefits, speakers said, pointing to other regional waterfront trails that have paid off for the communities that have built them. These include the San Francisco Bay Trail and the Monterey Bay Coastal Trail, both works in progress. These trails connect museums, aquariums, restaurants, parks, boating and bike rental spots, and other services, all within view of the water. They are popular with both residents and visitors.

Some trails already exist on Humboldt Bay, but you cannot get from one to another without driving. Eureka has a 2.32-mile walkway along its historic waterfront, built as part of the city's waterfront revitalization project. With the help of the Coastal Conser-

vancy, trails have been built around the Arcata Marsh and Wildlife Refuge, along the Mad River Slough and Dunes area, on Palco Marsh in Eureka, and in Manila Park. In all, 15 miles of trails run along the 48-mile bay shoreline. In addition, the nine-mile Hammond Trail connects Clam Beach and the mouth of the Mad River Estuary, across fields, neighborhoods, parks, and along bluffs above the river to its mouth. All these could be connected with new trails, creating a network of trails. About 75 percent of the shoreline is in public ownership.

To date, however, there is no comprehensive plan to provide the necessary foundation for a regional trail that would knit all the separate pieces together along the entire 48-mile length of the bayshore. In the case of the San Francisco Bay Trail, the vision was embodied in legislation sponsored by Sen. Bill Lockyer, who saw to it that \$300,000 was provided for a comprehensive plan. Because



HUMBOLDT COUNTY CONVENTION & VISITORS BUREAU



HUMBOLDT STATE UNIVERSITY CENTER ACTIVITIES

Left: Old town Eureka. Above: canoeing on the Mad River



Students from Humboldt State University and others indulge in bird observation.

the plan existed, communities and agencies incorporated the trail into general and specific development plans over the years. In the absence of a comprehensive Humboldt Trail Plan, opportunities may be overlooked as easily as the bay has been for so long.

Some opportunities are on the horizon, in the form of public

works projects now being planned. The City of Eureka and the Humboldt Bay Harbor, Recreation, and Conservation District are in the midst of negotiations to dredge portions of the inner-reach channel along the city's waterfront to improve navigation and safety and to make Humboldt Bay competitive as a world-class port. Part of the goal is to attract regular cruise ship visits and increase the demand for visitor services. Trail advocates argue that a waterfront trail should be part of the harbor improvement project. Tourists on cruises will come without cars, and will want to walk or rent bikes, surreys, and kayaks. They will want to explore beyond the historic district's shops and move out into the wild.

Meanwhile, the Redwood Community Action Agency (RCAA) in Eureka has taken on the task of developing a Bikeway Improvement Plan. With a grant from the North Coast Unified Air Quality Management District, RCAA seeks to reduce automobile emissions by increasing the attractiveness of alternative commuter options. The focus of this project is on potential improvements or construction of bicycle routes between and within the communities of the central Humboldt County

Coast, which includes Humboldt Bay.

Heather Gramp, a member of the Humboldt Bay Bicycle Commuters Association, believes that people would commute by bicycle to Eureka more often if the routes were safer. She rides on the inland route between Arcata and Eureka, along Old Arcata Road. The shoulders of this heavily used road have been slated for widening for years. "I have been blown off the road, so I would prefer to avoid high-speed traffic in my commute," Gramp says. "At the same time, I would love to use a path around the bay to walk my dog on weekends."

The feasibility analysis for the RCAA project, scheduled for release in July, will highlight several potential routes, possibly along abandoned railroad trestles, on levees, along a city right-of-way for the waterline from the pump station on the Mad River to Eureka, beside the highway, or next to active railroad tracks.

No funding has been proposed for the Bikeway Improvement Plan. So is this study merely an exercise in futility, an idea

destined to be filed away?

Jennifer Rice of the RCAA says no, the analysis is an essential first step. "No alternative transportation or recreation options we



have today would exist if someone hadn't explored the possibilities," she says. "Our hope is that people will take this plan and expand on it. Turn thoughts into pathways!"

Trail advocates point out that there will never be a time more propitious than now for a trail plan: as more people discover the attractions of the Humboldt Bay area, waterfront development will foreclose major options that are open today. ■

Julie Brush is a member of the AmeriCorps Watershed Stewards Project. She served last year with the Coastal Conservancy in Eureka, assisting Conservancy project manager Mark Wheelley in developing the Humboldt Bay Symposium. She currently works at the Humboldt Bay Harbor, Recreation, and Conservation District.



LEARNING TO HEAR THE CALL OF THE WILD

Hiking by Ear, Listening on Foot

BILL O'BRIEN

IF SOMEONE ASKS YOU about a hike you've taken, chances are you'll describe something you saw along the trail—the bright red stripe on a blackbird's wing, the graceful loping of a deer as it disappeared into the bush. But if you've just been out walking with Paul Matzner, you'll be more likely to talk of what you heard—the “too-wheets,” “whoos,” and “pripps” emitted by various birds, or maybe the scrabbles, rustles, and crackles of critters moving unseen through the undergrowth.

Matzner is a founder of the Nature Sounds Society and curator of the California Library of Natural Sounds of the Oakland Museum of California. He has spent countless hours listening to animals and tape recording them in the wild. He is also keenly aware of the intrusions of human noise on natural places.

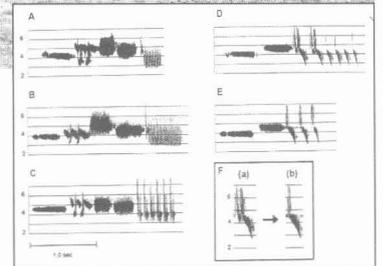
I met with him early one Sunday morning at Oakland's Arrowhead Marsh. This 50-acre wetland, which is shaped like an arrow that points across San Leandro Bay toward Alameda, is an excellent place to observe the aural interplay between human and natural activities. Flocks of shorebirds feed on the water's edge, and even the endangered California clapper rail finds refuge in the cordgrass. It is not unusual to see hundreds of mallards, coots, widgeons, and dozens more species swimming offshore. Behind the marsh is a popular trail and a large lawn that invites sunbathing and picnicking. More important, the wetland itself is sandwiched between the Oakland Airport and the industrial zone along the Nimitz Freeway.

Matzner has been here many times with



his tape recorder. Today he is decked out in typical birdwatcher fashion, with powerful binoculars around his neck and a well-worn copy of *Peterson's Field Guide to Western Birds* in his pack. It's about 8 a.m. when we meet, and the scene is relatively quiet. Few planes are taking off, trucks and machinery are at rest. The only other humans we see are two joggers.

There's plenty of activity out on the water, however—noisy activity. Two western gulls dominate the soundscape, one pursuing the other, swimming close behind it, following every twist and turn, emitting a long plaintive cry over and over. “I wish I knew what that means,” Matzner says.



Above: “I often hear a tapestry of song when a sighted person might only hear a few crescendos,” says Ezio Alviti, a statistician who lives in Menlo Park. **Below:** Bird dialects, recorded by Dr. Luis Baptista. **A, B, and C:** Alaskan dialect of the white-crowned sparrow. **D, E, and F:** San Francisco dialects of the same species.

JAY JONES

LUIS BAPTISTA



JOE SAMBERG

Paul Matzner at work

"I've never heard a gull make that kind of sound before."

We all know that birds vocalize for a variety of reasons—courtship, marking territory, danger warnings, and quite possibly for the pure pleasure of singing. Matzner and other researchers worry that loud human noise may interfere with these important communications. A 1979 laboratory experiment measured the effects of 95 db sound (about the same volume as a dune buggy) on desert kangaroo rats. The study, conducted for the federal Bureau of Land Management by M. C. Bondello and B. H. Brattstrom, found that these rats did not react to the presence of their archenemy, the sidewinder rattlesnake, until the snake was less than an inch away, too close to escape.

Our ears serve as warning devices; for prehistoric hunter-gatherers, they were literally lifesavers.



They normally begin kicking sand toward the snake's eyes when it gets within 16 inches. The study also showed that the rats did not recover from the hearing loss for three weeks.

In the mid-1980s, sound recordist and musician Bernard Krause did a spectrographic analysis of nature recordings he had made of animal species living on a small patch of land on the island of St. Maarten in Borneo. Their calls varied from very low to very high frequencies, but each

species seemed to have its own "niche" on the spectrum. They seemed to avoid areas where similarly pitched calls were being made by other animals. Krause pointed out that the frequencies of some human-made sounds, such as that of a chainsaw or airplane, matched those of certain animal sounds, causing potential interference with communication. He believes, along with Matzner and others, that further research in this area is badly needed.

HARD-BOILED SHOREBIRDS

THE GULL'S LOUD KEENING has distracted us from other birds' calls. But a sudden "kaww" behind us causes Matzner to wheel around. "That was a gull dive-bombing a Cooper's hawk in that tree over there," he says. Looking through the binoculars, I see the gull flying off, while the hawk, a bit ruffled, settles onto an upper branch. "This is a typical reaction to a hawk. Any bird in the neighborhood will chase it," Matzner explains.

When you listen, you notice much more of what's going on around you than when you simply watch. We never would have noticed the hawk if the other bird hadn't cried out. Our ears serve as warning devices; for prehistoric hunter-gatherers, they were literally lifesavers, Matzner reminds me. "We're smack in the middle of the food chain. We needed to listen for predators and for our food in order to survive." Now that we no longer worry about being stalked by man-eating beasts, the old

VALERIE WINEMILLER

survival skills can serve to enhance our appreciation and enjoyment of wild places.

We have stopped on a shoreline path and are looking across the water toward the airport. Some long-billed, long-legged willets are standing on a rock just offshore. "Listen," says Matzner. "They make a peculiar cry when startled." He rushes toward them, loudly clapping. But the willets barely look around. He tries again. The willets stay put. "These are some hard-boiled shorebirds here," Matzner says.

Indeed, the birds at Arrowhead Marsh seem to have made peace with the airplanes and other noises they're subjected to every day. This is true in other noisy places as well. The largest breeding colony of endangered least terns north of Santa Barbara is just a few feet from the runway at the Alameda Naval Air Station. To survive, they have had to adapt—since so many of California's wetlands have been destroyed, they have to do with what remains, noisy or not.

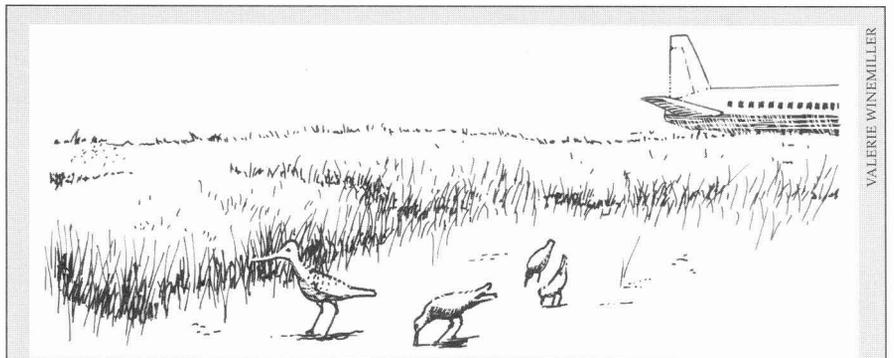
The world is becoming noisier all the time. Matzner and his colleagues in the Nature Sounds Society travel widely to record bird and animal calls. A couple of decades ago, they could find places in national parks where they heard nothing but pure natural sound for 45 minutes or more. Now they're lucky if they get more than ten minutes of quiet even in the most remote places. In California, Matzner says, it's "almost impossible" to go more than four or five minutes without hearing an aircraft motor or other human-generated noise.

As the day progresses, Arrowhead Marsh becomes noisier as well. By 9 a.m. the din from the airport is almost constant, and the roar of industrial compressors and trucks comes steadily from the freeway side of the marsh. But we can still hear the soft whistles of American widgeons, the musical calls of marbled godwits, and the comical, half-mumbled complaints of a dozen or so slate-colored coots as they forage along the banks. One by one the coots hop off a low embankment onto a mudflat, each landing with a loud "plop" and then waddling away. "They're kind of heavy-footed," Matzner says, laughing.

We watch as a clapper rail repeatedly dips its head into the mud, searching for small clams. It's a rare sight. Suddenly a willet lands nearby, causing the rail to fly up with a loud, startled "kracck." Matzner sighs. "I've held a microphone up here for

half an hour trying to get that squawk."

A bearded man with a gentle wit, he is a biologist who did doctoral work in animal behavior at Rutgers University. He came to his current occupation via some years of work in natural history education, including a program he called "Fun with Frogs" for kindergartners and first-graders, in which "you learned about ecology by meeting an animal." When he came to the Oakland Museum's Library of Natural Sounds in 1984, Matzner says, "my first assignment was to travel around the state and listen to natural environments in preparation for



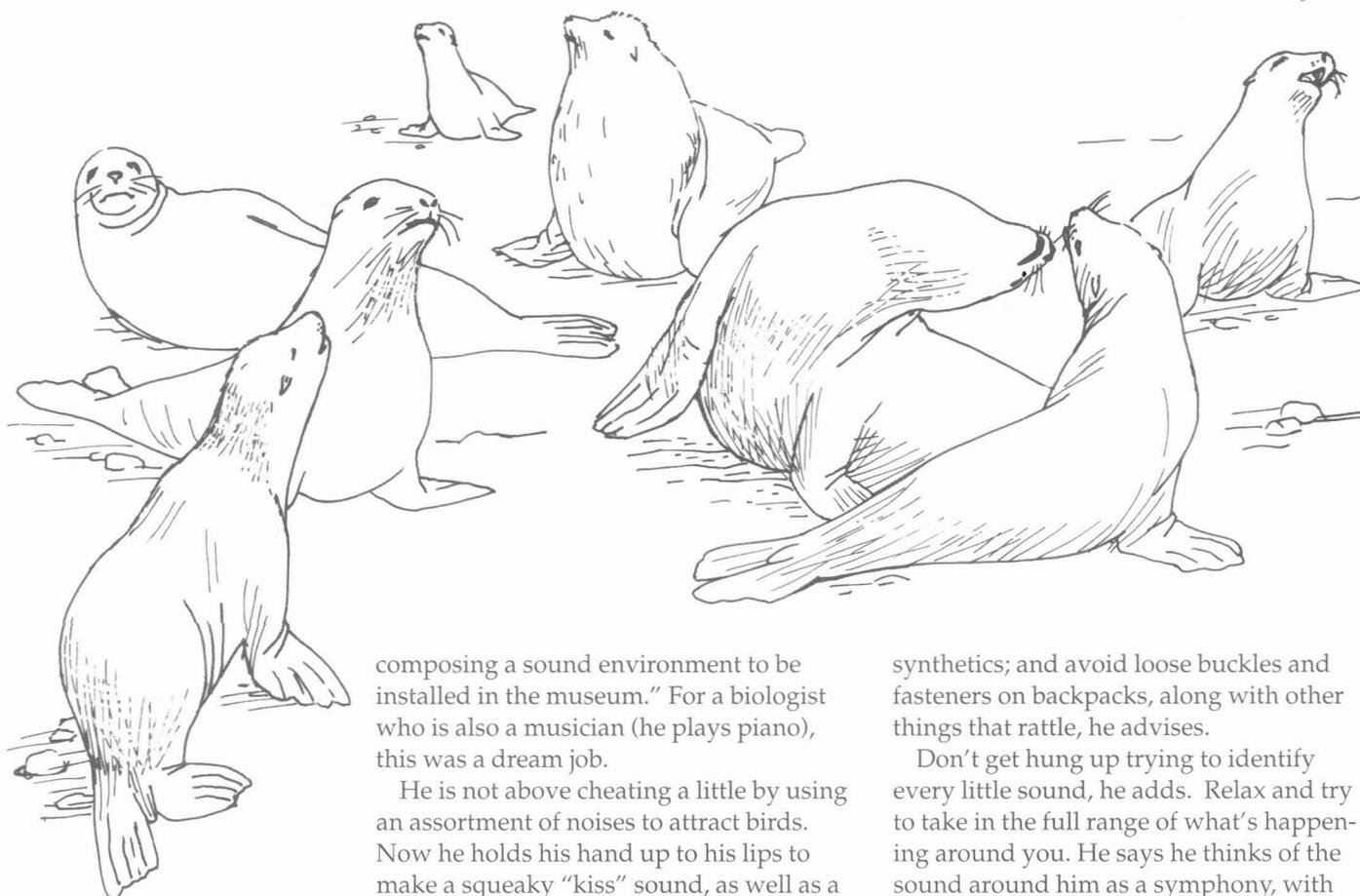
Too Much Noise! Quiet, Please!

THE ISSUE OF NOISE IN THE NATIONAL PARKS is getting louder, and so are demands for action to restore natural quiet. The din has grown especially in—and about—the Grand Canyon.

People who hike many miles into the canyon to experience its wonders and get away from each other are assaulted by the roar of airplanes—500–1,000 flights a day in high season, flying at the level of the rim, their noise amplified by the canyon, which acts as a sound chamber. On Earth Day 1996, President Clinton issued an executive order to "immediately" and "dramatically" reduce the noise in this and other national parks. So far, however, there have been no improvements, according to Rob Smith, Southwest staff director of the Sierra Club. He said commercial tour overflights now number about 100,000 a year.

Ten years ago, in an effort to address the problem, Congress passed the National Parks Overflight Act. It directed the Secretary of the Interior to make recommendations to the Federal Aviation Agency (FAA) on ways to reduce noise of flights over the Grand Canyon. The FAA was then to issue appropriate regulations. In the ten years since the act was passed, however, "the number of flights has doubled and the natural quiet of this national park crown jewel has been ruined," according to Adam Werbach, president of the Sierra Club, in a letter to Vice President Al Gore on February 24. Together with six other organizations, the Sierra Club has filed suit against the FAA.

The issue of noise in national parks may get a hearing in Congress this year. Senator John McCain of Arizona has introduced SB268, which is modeled after the 1987 Overflight Act but would apply to all national parks where natural quiet is part of the resource and the visitor experience. The bill is expected to be heard later this year before the Senate Commerce Committee, which is chaired by Senator McCain.



composing a sound environment to be installed in the museum." For a biologist who is also a musician (he plays piano), this was a dream job.

He is not above cheating a little by using an assortment of noises to attract birds. Now he holds his hand up to his lips to make a squeaky "kiss" sound, as well as a high-pitched "whisch" and a lower-pitched "pshish." An Anna's hummingbird perched in a nearby tree answers back with its own shrill call, then flits off the branch and flies toward us. It hovers, not six feet from Matzner's face, absolutely still and fearless, staring directly at him for several seconds, then zips off into the distance.

"I thought it was going to attack me," Matzner says with mock relief in his voice. At this time of the year, the hummer was probably trying to set up its territory and perceived him as a potential threat, he explains. As we walk back to the parking lot, a familiar chirping comes from the trees

I might easily have missed all this and more if I'd been focusing too much on the visual beauty of the place.

along the path. "Those are song sparrows in full song," he says. "Spring is coming."

Matzner figures that he can identify around a hundred different birds by ear, and I ask him for a few tips for improving my listening skills. Learn to walk quietly, he says; wear cotton and wool clothing, which doesn't rustle like nylon and other

synthetics; and avoid loose buckles and fasteners on backpacks, along with other things that rattle, he advises.

Don't get hung up trying to identify every little sound, he adds. Relax and try to take in the full range of what's happening around you. He says he thinks of the sound around him as a symphony, with each animal, the wind, his own footsteps, and even cars and airplanes playing different parts. Once you're aware of this symphonic soundscape, it's much easier to notice subtle changes, such as the far-off tapping of a woodpecker, which you may have otherwise missed.

WHO'S THAT ZWEEPING?

ABOUT A WEEK LATER, I DECIDE to try out what Matzner taught me. For the sake of a challenge, or maybe just out of perversity, I head for one of the most visually alluring places on the California coast—Point Lobos, just south of the town of Carmel.

This is a place that almost everyone knows, if not from a personal visit, then from the black-and-white photographs by Edward Weston, Ansel Adams, and Brett Weston that hang in galleries throughout the world, as well as the bright color pictures taken by lesser artists that grace the pages of countless guidebooks. What could possibly be gained by focusing on the aural features of such a place, especially on a beautiful winter morning, with the last traces of mist still clinging to the rocks of Weston Cove?

As soon as we arrive I see I'm in a minority here. Photographers toting the latest high-tech equipment aim their cameras into every nook, cranny, and tide pool, or at the lone cattle egret stalking a meal in the shallows. Some gather in small groups to discuss f-stops and exposure times. Even my own wife, Sandy, is anxious to try out a new zoom lens.

Not surprisingly, the sound of the ocean is dominant here. I listen to the variety of wave sounds—the booming crash of big breakers on the rocks, the subtle lapping of smaller waves in the coves, the “shushh” of water as it recedes from a pebbly beach. The egret notices, too. Every time it hears a wave break, the bird picks its head up, probably looking to make sure it's not going to be inundated.

Even the most dedicated photographers are distracted by the raucous cries of six oystercatchers chasing each other around the cove. Heading south along the shoreline trail, I find that listening complements my visual enjoyment of the Point. Hearing a familiar “zweeep,” Sandy and I look up to see a hummingbird high in the air. Again and again it hurtles toward the ground, pulling up at the very last second in a spectacular mating display. The upland trees are filled with birdsong, ranging from sparrows' tiny peeps to the ominous caw-caws of crows. On a high cliff, a group of tourists is making comical noises at a harbor seal resting on a rock below. The seal eyes them briefly, then goes back to sleep. Out in the water, a baby sea otter cries loudly and plaintively as it tries to crawl onto its mother's belly. I might easily have missed all this and more if I'd been focusing too much on the visual beauty of the place.

Afterward, Paul Matzner and I take an evening stroll in the East Bay Hills. We discuss the Zen practice of “listening to your breath” and how little quiet we actually experience in our daily lives. “We're not really taught there's a value in silence,” Matzner says. “We're afraid to be quiet. We're afraid to listen.” But we come to a broad overlook, and far across a valley, past the drone of the highway below, we hear a pair of great horned owls hooting in the darkness. As their calls reverberate back and forth, neither of us is tempted to utter a word. ■

Bill O'Brien is a freelance writer in Berkeley.

Tips for Listening to Natural Quiet

NATURAL QUIET IS NOT SILENCE. It's natural sound, heard without the intrusions of man-made noise. In this quiet you hear wind, water, and wildlife. You will hear the natural quiet better, and have a much better chance of seeing birds and wildlife, if you:

WALK QUIETLY.

- Sit still long enough to let the natural rhythm of sounds revive around you.
- Walk in silence; listen to your footsteps and the sounds around you.
- Wear clothing that makes a minimum of noise—cotton and wool as opposed to synthetic fabrics that tend to rustle.
- Use your ears as other animals do, to track and locate, turning your head to find where animal sounds are coming from.

TAKE A NIGHT HIKE.

On camping trips, most people sit around fires in the evening, talking. Yet many mammals, birds, amphibians, and insects are most active at night. Take a night hike and listen for owls hooting and screeching, frogs singing, coyotes howling, insects whirring and chirping. Along the central coast, listen for otters banging shellfish against rocks, which they hold against their bellies as they float on their backs. Know the times of day and year when animals are most active acoustically.

TRY TO BE OUT AND LISTENING AT SOME OF THESE TIMES:

- Spring/Dawn—Just before dawn, all male breeding birds in an area sing at once in a complex and prominent dawn chorus. It is believed that this song stimulates females to nest successfully.
- Spring/Dusk and well into the evening—Many owls and frogs whose breeding season starts in winter are still very vocal in early spring.
- Summer/Dusk and nighttime—Acoustic insects such as crickets, cicadas, and katydids mature and take over summer evenings and nights with their mating songs. In some parts of the state and country, these sounds form an overwhelming chorus.
- Winter—Along the coast, look for large flocks of waterbirds, shore birds, and ducks. In California's Central Valley, expect large flocks of ducks, geese, sandhill cranes, and tundra swans. At Año Nuevo State Park, along the Point Reyes National Seashore, and at Point Piedras Blancas, north of San Simeon, visit the breeding colonies of northern elephant seals and listen to their remarkably rich sounds. When out watching whales, listen. If they're close enough, you may hear their exhalations.

VISIT PLACES WHERE THERE IS WATER YEAR-ROUND.

Along the coast, along rivers and creeks, on estuaries, lakes, and in wetlands, you will hear a great variety of sounds, for many species gather in these places.

Practice listening to California's natural quiet by visiting the Oakland Museum of California. The *Walk Across California* in the California Hall of Ecology includes sounds from environments ranging from desert to coast. These are also on *Quiet Places: A Walk Across California*, a compact disc produced by the Museum and available in its bookstore (\$15).

—Paul Matzner



DANIEL BROUSSARD

If You Love Them, Please Don't Feed Them

RON JUREK

DEAR SIR: Unlike many other people I enjoy possum visits to my yard. Please advise me of foods they enjoy and anything I can do to encourage them to stay. It would be very nice to have them."

The task of answering this letter, addressed to the Resources Agency, fell to me. I responded carefully, for here was another opportunity to help wildlife by passing on some vital information to an interested person. I reassured the writer that opossums are omnivorous, that they find the food they need on their own, and explained why feeding them or any other wildlife is unwise, inhumane, and may be dangerous. I pointed out that food put out for opossums would attract



DAVID WELLING

rats, cats, dogs, and raccoons, as well as other scavengers. These night visitors might stop by at other neighbors, who, not appreciating them, might call animal control officers to have them trapped and relocated. I explained that opossums are not native to California, and that in

natural areas they are detrimental to indigenous wildlife. I listed several other reasons for not feeding the opossums and concluded: "I hope this information will help you in living with, and enjoying, the wild animals in your area."

After some weeks another letter arrived: "Thank you for your most helpful, informative letter. . . . My little cluster of opossums is semi-civilized, I'm afraid, with housing all about this area, and I'm electing to feed them. We took their space and they don't have many sources of food. After six months of feeding—dried cat food, avocados, eggs, and grapes—no adverse effects. . . . I'll keep feeding, as they have no other places to go unless we provide train/bus tickets."

Once again my arguments had failed. This correspondent was one of many well-meaning but ill-informed people who treat wild animals as though they were pets. They feed them because they want to help them, in a vague, sentimental way, not realizing that their help is not needed—in this form. Or they do it because the animals are charming, they want to see them up close, they want to have a picture of themselves with a wild animal. Yet by offering food to birds, deer, raccoons, and other creatures living at large, these people unintentionally cause serious harm to the animals they feed, to other animals, and sometimes to humans. In my 26 years as a wildlife biologist with the Department of Fish and Game I have seen the problems associated with feeding grow and multiply.

Take deer. People who feed deer that come near a campground often have no

Deer seen but not fed



EARSHAL LONG

idea what deer eat. What they see is deer picking up things around the campground, and that's the wrong food. If these animals regularly feed on junk food, the microorganisms in their digestive tracts can't keep adjusting; they cannot process the food. Deer also have trouble discriminating between junk food and the packaging it comes in. Many have died from stomachs filled with candy wrappers and all kinds of garbage that they associate with something to be ingested.

Then there is the matter of disease. Skunks are major carriers of rabies, deer carry the ticks that spread Lyme disease. When animals cluster at campgrounds or homes in abnormally high numbers expecting food, the chances of disease transmittal rise sharply. There is much evidence of this, but the people who are attracting the animals are unaware. They usually do not see animals sick and painfully dying of distemper, mange, parasitic worms, or the vast array of other communicable diseases and parasites that afflict wildlife.

FEED A DEER, GET A LION

CAN DEER BE DANGEROUS? Yes. People who think campground deer are tame may find that they can attack suddenly. A woman trying to feed apple slices to a deer was hospitalized after a buck tossed her into the air on his antlers, breaking her tailbone. I have heard of someone trying to put a child on the back of an elk, thinking that wildlife in parks must be tame.

Attracting deer also may attract animals that prey on deer. A wildlife officer was called to a home in the Sierra foothills where a mountain lion had been seen several times. He learned that the residents had put a salt lick on their porch. Placing salt blocks out for deer is illegal under the 1996 state regulation prohibiting big game feeding (Title 14, California Code of Regulations, Sec. 251.3). The mountain lion's main food is deer. By routinely bringing in deer, you may attract mountain lions.

The key point in all this is that animals that become habituated to human feeding change their behavior. In Los Angeles recently, a child in Griffith Park was severely bitten by one of a number of coyotes that had become accustomed to being fed and had acquired the dangerous habit of coming too close to people. Years before in Los Angeles, another child was dragged

from her yard and killed by a coyote emboldened by feeding. A child might mistake a coyote for a dog and move in to pet it. In some situations a coyote might mistake a small human child for a prey animal, though coyotes do not normally attack humans.

"Bear problems" have increased as more people have moved into bear habitat. Often, people feed bears inadvertently by failing to close garbage can lids securely, or worse, give them handouts. Sometimes such bears must be killed, simply because people who live in or near bear habitat do not recognize their responsibility to make sure they don't attract bears in the first place.

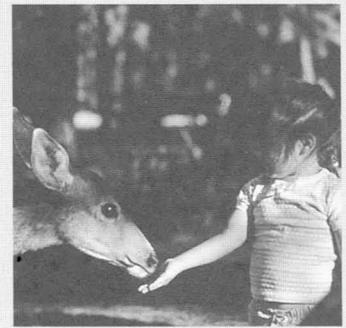
Each time a human being is injured by a wild animal there is an outcry, with people demanding that these animals be eradicated. When fed animals become a nuisance, the feeders, or their neighbors, often want someone to relocate the animal in a humane way. This is an unwise and often unauthorized remedy that doesn't solve the real problem, but instead creates new ones—it moves the problem to a different location and puts relocated animals at additional risk in unfamiliar areas. Yet we could easily share our environment with some wild animals if we'd only learn to respect their independence and their wildness.

HOW TO LIVE TOGETHER

MUST WE GIVE UP ALL ENCOUNTERS with wild animals, then? Not at all. The best way to see them and hear them is to walk away from the campground, to walk into a wilderness and just look and listen. (See p. 17 for more on listening.) Some people are afraid to do that. They can do it from their cars, sitting quietly, windows open. The car will serve as a blind.

The impulse to offer food is natural. It's called hospitality when we offer it to our own species. It gives us pleasure. But let's not inadvertently kill wildlife with kindness. If we truly care about wild animals we will learn more about them, make sure they have the habitat they need, respect their self-reliance, and spare them our charity. ■

Ron Jurek is a wildlife biologist in the Nongame Bird and Mammal Conservation Program of the California Department of Fish and Game. He works with the California condor and other endangered and threatened species.



ANGELO GARCIA, JR.

TIPS FOR LIVING WITH WILDLIFE

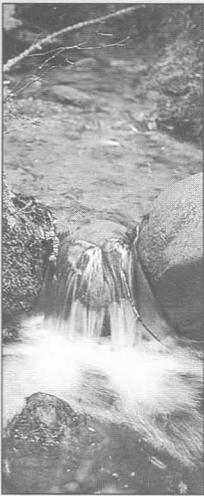
- Never feed wild animals, no matter how friendly they are.
- Don't leave dog and cat food, or even the pets' dishes, outside.
- Secure garbage can lids.
- When picnicking or camping, pack food away securely when you leave the scene.
- Never leave food packaging where wild animals can get to it.
- Instead of feeding wild birds in your backyard, consider planting a variety of plants to provide food. If you do feed birds, *keep feeders clean.*

FOR MORE INFORMATION:

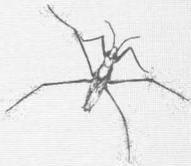
Wildlife Protection Division, California Department of Fish and Game, P.O. Box 944209, Sacramento, CA 94244-2090.

National Wildlife Federation, 1400 Sixteenth St., Washington, DC 20036-2266.

Partners for Wildlife. Contact the U.S. Fish and Wildlife Service Regional Office that works with your state. Address to "Partners for Wildlife Coordinator, U.S. Fish and Wildlife Service."



CREEKS
RETURN
TO LIFE
AND
MIND



≈ Creeks are still being channelized and buried to make way for new buildings and streets—but this practice is no longer routine. Public agencies have become much more aware of the hidden costs of ignoring natural hydrological patterns; they now tend to favor a watershed-based approach to stream management. Last winter's floods once again demonstrated that rigidly confined creeks will fight back.

≈ Meanwhile, not coincidentally, growing numbers of citizens are getting to know their local creeks and watching over the shoulders of those who seek and issue permits that can either destroy or protect them. First, however, they must find their creeks.

Urban Creek SLEUTHING

BILL O'BRIEN

CHRISTOPHER RICHARD, JANET Sowers, and I are searching for a creek. But we're not, as you might expect, scrambling over boulders, slogging through the mud, or negotiating our way through dense underbrush. Instead, we're cruising along on Interstate 580 just a few miles south of Oakland toward the city of Castro Valley. We exit onto busy Redwood Road, turn left onto Fourth Street, then drive through a neighborhood of one- and two-story homes, past Lucky Cleaners and Quart House Liquors, and onto Sparks Way, a cul-de-sac.

What we're looking for is a very small stream, a tributary of Castro Valley Creek, itself an offshoot of San Lorenzo Creek, which flows from the East Bay hills to San Francisco Bay. This creek could be dried up in some places, barely flowing in others.

Richard and Sowers are putting the finishing touches on a project for the Oakland Museum of California, a map depicting the creeks and watersheds of Hayward and San Leandro. Most of the work has been done, but Richard, the museum's curator of aquatic biology, and Sowers, a geologist consultant, are filling in the fine print—or in this case, a very slender blue line on the final map.

Sowers has studied this area pretty thoroughly, using maps from the U.S. Geological Survey (USGS) and the San Francisco Estuary Institute, among others. The maps seem to indicate that there is a creek here, but the section we're looking for has been encased in a culvert, or routed into an open concrete channel. Sowers, however, has a hunch that at least part of the stream might still be in a more or less natural state.



CREEK STORIES, PHOTOS BY CHRISTOPHER RICHARD

1. Many creeks would look like this one in Big Basin State Park had they been protected. But until recently, most planners and developers viewed urban creeks not as valuable natural features but as nuisances to be removed.

We're still not sure exactly where the creek is, however. As we turn onto the side street, Sowers stares intently at a topographic map and tells Richard, "If there's a dip in the road, then this is the right place." Sure enough, there is, so we stop the car, get out, and head for a storm drain. The two researchers cock their ears to the grate and hear a faint trickle of water. We peer over a nearby fence into someone's backyard, where Richard spots trees and undergrowth typical of a riparian habitat. "There's a creek down there," he says. What shape it's in, though, we can't tell.

We wander up and down the street. No one seems to be home. We stretch tall to see over the fences, but the water is just too far away. Sowers sighs. "This is where the difficulty comes in when you're mapping urban creeks," she says. "It's always tough when

you can't get access to see things." Gazing over fences into people's backyards can make neighbors suspicious. "Sometimes I take a hard hat with me," she says with a chuckle. "It makes me look kind of official."

Just down the street is a small park, but we still can't get close enough to complete our inspection. "It's a creek, anyway," Sowers says. "Whether it's in concrete or not, I don't know." As we ponder what to do next, a car pulls into the driveway of one of the homes bordering the creek. Richard goes up to the house and explains our mission.

"Want to go down and look at it?" a friendly gent asks, then leads us back around the house. In a moment we are scrambling through bushes, over boulders, and around the tall eucalyptus trees that line the muddy creekbed. We pass the remnants of some ancient machinery—a pump

LEARNING
WHERE
CREEKS ARE
BURIED IS
A STEP
TOWARD
PROTECTING
THE BEACH
FROM
POLLUTION

UNCOUNTED
STREAMS
FLOW THROUGH
OR UNDER
VIRTUALLY
EVERY CITY
ON THE
CALIFORNIA
COAST.

perhaps—next to a rustic-looking barn-red dilapidated shed.

There's hardly any water in the creek now, but our host says that in the winter this trickle quickly swells. Though no nearby homes have been damaged by the creek, he tells us, "It can get really crazy down here." The stream, he adds, is called Deer Creek. Deer regularly browse on the thick vegetation.

We reach a point where the creek disappears into a tangle of blackberry brambles that have grown over sand washed down and deposited here. It's nearly impossible to continue, so we head back to the street, thank our host, and move on. "We lucked out," Sowers says, then turns to Richard: "Well, Chris, I think I'm going to have to change something." The final draft of the map will show a solid blue line for Deer

Creek, indicating that it is above ground and unchanneled here. The line will replace a series of dots that had been penciled in to indicate an underground culvert.

The Hayward/San Leandro map is the second in a series by the Oakland Museum. The first, showing creeks in Oakland and Berkeley, was issued in 1993 and updated last year. Work on a map of Fremont is under way. The mapping project grew out of a desire to reach beyond the museum walls with ideas that originated in the Aquatic California Gallery. Richard had overseen the creation of that project, which features a large wall chart showing the entire creek system of the East Bay. The printed maps are much more detailed, with creeks overlaid on a street grid and bands of color to show different watersheds. Sowers's firm drew the maps for the museum. Financial support has come from the Alameda County Flood Control District, which saw the maps as tools for public education and to help meet federal water quality requirements for control of non-point source pollution.

Among those using the maps are teachers and people involved in creek restoration. "We take them to all our meetings," says Brenda Chatfield, education program coordinator for the San Francisco Estuary Institute, who has helped to set up watershed awareness programs in Oakland and San Leandro. "We have used them to describe what a watershed is and where a watershed is." Learning about their creeks and watersheds "gives people a connection with the environment other than just their streets," she explains. That in turn can lead them to realize that dumping oil down a storm drain or spraying their garden with a heavy dose of pesticide has far-reaching repercussions. "That's a big plus in trying to reduce urban runoff pollution." Looking at the maps, some people have discovered that they're living right near a creek, Chatfield says. "Then they say to themselves, 'Maybe that's where the raccoons cutting through my backyard are coming from.'"

The researchers used many tools in creating the urban creek maps, including USGS maps, city and county flood control maps, aerial photographs, and historical maps.

In the hills, it's generally pretty obvious where a stream is, or at least was. On a topographic map, too, a creek seeker can see:

CREEK STORIES, *continued*



2. Much of Oakland's Sausal Creek was channelized and buried in the 1950s. Here it disappears underground. It's not a pleasant spot.

3. The Montclair Golf Club was built over the creek, which runs in a culvert directly below the driving range. Golfers whack balls down from the porch of the clubhouse (out of sight, right), and the ball-picking machine picks them up.



"There's a hill here, there's a hill there, so there must have been a creek in between," Sowers says. Down in the flatlands it's a more complex task—researchers must find clues on the maps, such as small ridges that indicate traces of natural levees on the alluvial fan. Richard notes that slow-flowing flatland creeks sometimes actually build up their own sedimentary ridges, then shift their courses to nearby lower ground as a result of earthquakes, flooding, or some other occurrence.

Determining watershed boundaries can also be difficult. In addition to studying the ridgelines on the topo maps, they've found the storm drain maps kept by local flood control agencies to be particularly useful. Storm drains generally flow into creeks, and by studying the maps a person can determine which way water is flowing.

But the accuracy of the maps Richard and Sowers used in their project could never be taken for granted. That's one reason they do what they call "ground truthing": going to different sites to see what's really there. "I visit as many open sections of creeks as I can," Sowers says. "Then I sit down with my colored pencil, trying to make sure everything connects."

The East Bay is crisscrossed by hundreds of creeks, and there are uncounted numbers of streams flowing through, or under, San Francisco, Los Angeles, and virtually every other city on the California coast. City dwellers only see the tiny bits of a creek that haven't been encased in concrete, says Sowers, so it's very difficult for them to envision a whole stream from its source to its mouth, and even harder for them to picture an entire watershed. "With the maps, people can see there is a whole stream system. If you can find your house on a map you can tell what watershed you live in." ■

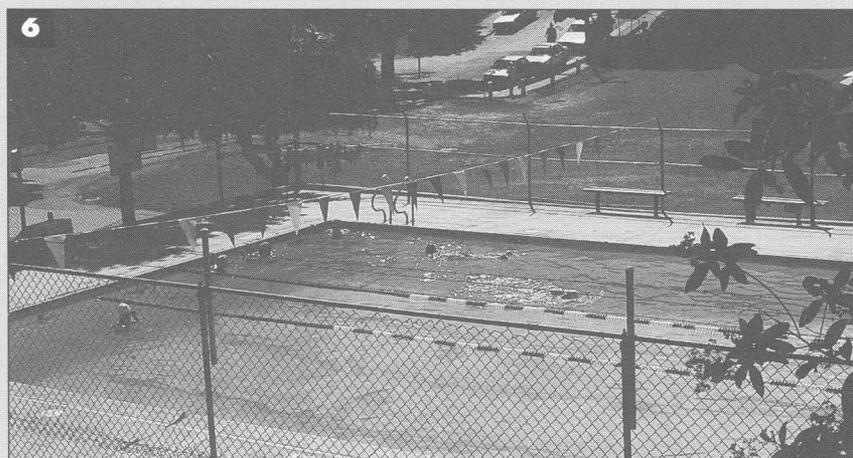
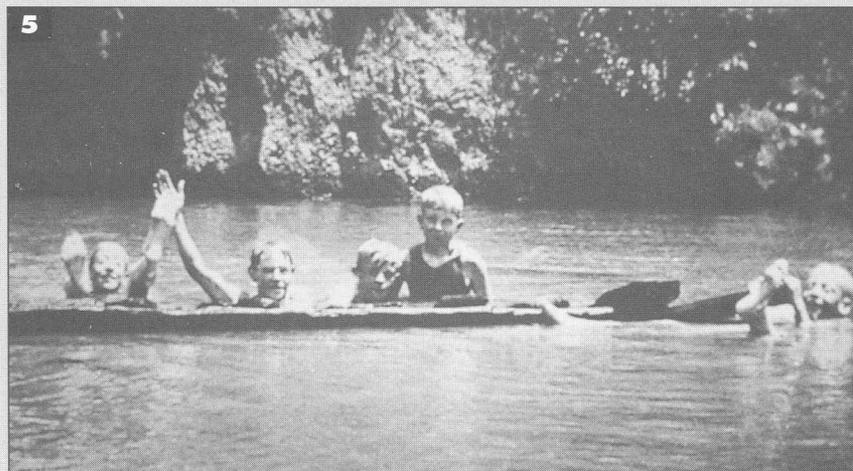
Bill O'Brien, a freelance writer, lives in Berkeley.

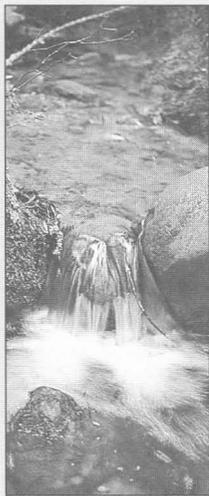
*A revised version of the **Guide to East Bay Creeks**, published as a companion to the map series, is now available. The book, edited by Richard, contains chapters about the ecology and history of urban waterways, five "walking tours," and a resource list for people interested in creek preservation and restoration. See www.museumca.org/creeks.*

4. In the 1930s the Works Progress Administration built this concrete structure at the site of a low waterfall to keep Sausal Creek from downcutting its bed. But the creek did what it would, leaving this tongue of useless concrete.

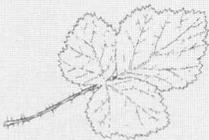
5. This was a typical scene on Sausal Creek in around 1910. At that time, temporary wooden dams were built each summer to impound water for recreational use. Before the start of the winter rains, these dams were removed.

6. This public swimming pool is within 100 yards of the scene above. The creek itself is underground here.





CREEKS
RETURN
TO LIFE
AND
MIND



≈ You may have to think like a detective.

The Urban Dweller's GUIDE TO WATERSHEDS

CHRISTOPHER M. RICHARD AND JANET M. SOWERS

WHEREVER YOU ARE on earth, you are in a watershed. Practically speaking, the watershed is the most useful unit for land use management and conservation actions of all sorts: it follows the way nature organizes and divides the landscape. Beyond that, finding your watershed, even in an urban environment, seems to be a very good pathway to deeper understanding of your place in the world and where it is you call home. The more you study watersheds, the more you see the many ways that life and the land are related.

Just what is a watershed? It's the portion of a landscape that drains to a particular stream, river, or other body of water. If rain falls on saturated soil, it will "run off" downhill. Runoff from all the hillsides in a watershed eventually will reach the stream or river for which the watershed is named. For example, the American River watershed is the area between the western ridge of the Lake Tahoe basin and Sacramento; any rainfall will run off into the American River. Across the ridge to the north of this watershed is the Yuba River watershed; across the ridge to the south is the Cosumnes River watershed. Of course, just as the American River is a tributary of the Sacramento River, the American River

watershed is part of the Sacramento River watershed. Most watersheds are part of a larger watershed and, in turn, can be subdivided into smaller watersheds.

The boundaries between watersheds are called divides, and generally follow ridge crests. The Great Divide, along the crest of the Rocky Mountains, separates waters flowing to the Atlantic Ocean from those that flow to the Pacific.

If you live in a city or an urbanized area, you may need to think like a detective to discover your local watershed. Many creeks have been confined to underground culverts beneath streets and buildings. Although many bigger creeks remain open, they may run in concrete flood control channels that bear little resemblance to natural creeks. Still, these altered creeks define your watershed.

The best tool for discovering your local watershed, and your place in it, is the umbrella. On a rainy day, start on your front steps, follow the rainwater down across the sidewalk and into the gutter. Which way is the water running? Follow it. Soon you will come to a storm drain. This is where the game gets interesting. Maybe the water just flows back out of a storm drain across the intersection, or maybe it falls into



7. A walk through Dimond Park in Oakland invites contemplation of our heritage. This is the first place where ancient redwood trees were clear-cut, from the years after the Gold Rush through the rebuilding of San Francisco after the 1906 earthquake and fire. These trees have sprouted

from the burl surrounding the stump of a felled giant. They are the oldest second-growth redwoods anywhere. Compare their size with that of the stump remnant to get a sense of how long it takes a redwood tree to grow. Sausal Creek flows freely through this park.

a culvert. Watch out for traffic, and peek down the drain with a flashlight; which way does the water run? Look around; is there an apparent downhill? That is probably the direction the culvert runs, typically under a street. Follow it and listen at each storm drain for the sound of water. Follow the sound. Remember that you are following a storm drain, not a sanitary sewer. Look for manhole covers that say "storm drain," not "sewer"—unless you are in San Francisco, or parts of Sacramento, where the two are combined. With skill, and some luck, you will find the point where the storm drain spills into a creek. The creek's name is frequently stenciled on the bridge where the road crosses it. The name of that creek is the name of your watershed.

In hilly areas, simply walking downhill is a reliable way to find your local creek—the creeks are in the bottoms of the canyons or valleys. But if you live in a flatter area, such as the flatlands of Berkeley or along the floors of the San Fernando and San Gabriel Valleys, you may get fooled. In these areas the creeks have built natural levees and actually run across the high points on the landscape.

Now find the divide surrounding your watershed. It will be a high point, although in flatlands the difference in elevation may be barely visible. Back at the gutter, walk upstream from your house. Eventually you will come to a spot where the water pools in the gutter. Farther still, the water in the gutter begins to flow in the opposite direction; there, you've crossed your watershed boundary.

Now you will understand where you are in relation to the land and water immediately around you. It's only the first step, for your little watershed is part of a bigger watershed, and so on. But at this point you may understand a few things that may have mystified you earlier: why water flows through a neighbor's basement every winter, for instance. That neighbor's house may be standing over a culverted creek, or just uphill from one, in the path of groundwater flowing toward the former creek. Ironically, an open creek might have drained this groundwater—the culvert may be preventing that drainage.

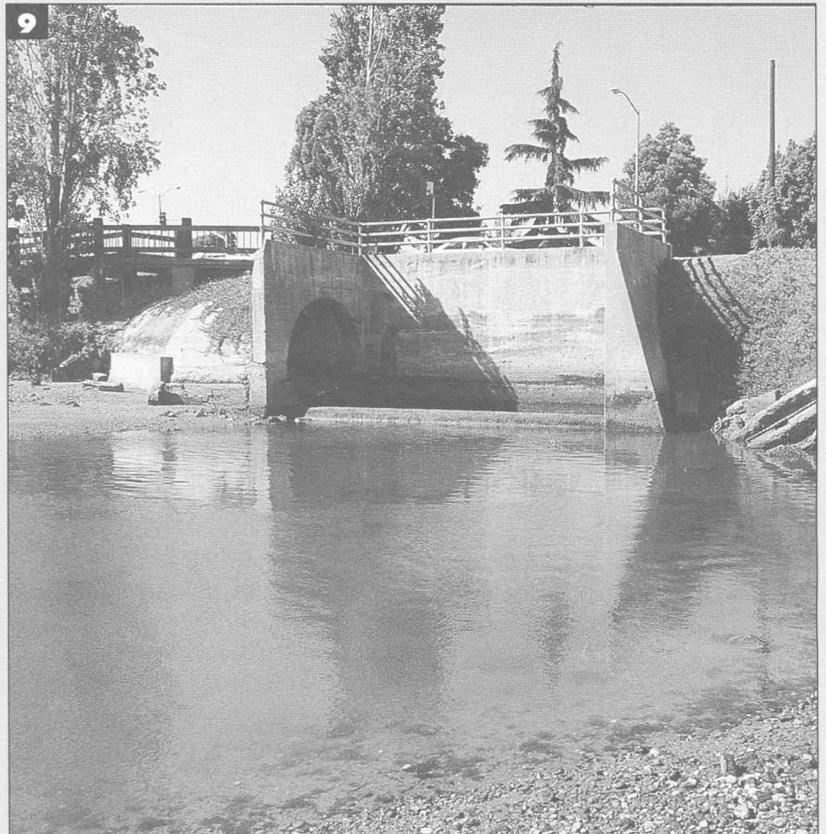
The umbrella is the best tool in your watershed quest, but it's by no means the only one. Look for a line of trees—in Spanish, an *alameda*. Alameda County was

CREEK STORIES, continued



8. As it winds through Dimond Park, Sausal Creek is lush with life, a pleasure to hikers along the path beside it. In this quiet pool, alder leaves are breaking down, providing nourishment for the creekside community, while eucalyptus leaves float uselessly.

9. Leaving Dimond Park, Sausal Creek again disappears into a culvert. Here at the Fruitvale Avenue Bridge it enters the Oakland Estuary and its waters mix with those of San Francisco Bay.



named for the rows of trees that followed the creeks from the East Bay hills, proceeding across the flatlands and down to San Francisco Bay. Many of these rows of trees still cut across the urban landscape, even where the creeks are today buried in culverts. In northern California these trees are frequently maples, redwoods, eucalyptus, and willows; in southern California look for sycamores, cottonwoods, and willows.

There are other clues you can look for. Traveling along many large suburban boulevards, you may be crossing creeks, or the flood control channels they have become, without ever noticing, for the crossings do not look much like bridges. But if you see short stretches of matching high-security fencing on opposite sides of the street, that's a clue. Such fencing is frequently erected to discourage junior hydrologists from chasing water striders in what remains of the creek flowing under the road.

Maps are a great help, of course. Several types are useful. California State Automobile Association maps do a good job of showing remaining urban creeks in northern California, but sadly, the same is not true in southern California. Even the north-

ern California maps are not without oddities, such as creeks and roads "rerouted" around the map legend or street index. The U.S. Geological Survey topographic maps are great, especially in less developed areas. Creeks are clearly marked, as are the ridge-crest divides between watersheds. But topo maps are often out of date because, typically, the urban landscape has been altered since the map was produced. Take a blue marker and highlight the fine blue lines that represent creeks on the map showing your neighborhood. Then walk around double-checking what they show. You'll probably find lots of differences.

If the map you are using shows few actual creeks, still other clues await you. A street that wiggles across the map with little alignment to the local street grid may be built over or alongside a culvert laid in a creek. Glendale Boulevard, Laurel Canyon, and the Pasadena Freeway in the Los Angeles area are all good examples, as is 14th Avenue in Oakland.

To get a detailed picture of the storm drain and creek system in a region, you need the storm drain maps from city and county public works departments. These maps show block-by-block detail of storm



10. Creeks clean themselves up, if they are allowed to flow. This spot was choked with silt from urban runoff after winter storms. By summer, in the deepest channel, where the flow is fastest, clear water runs over clean gravel again. If there were more summer flow, the entire streambed would be cleansed.

11. In contrast to Sausal Creek, Cordonices Creek was considered an asset to this neighborhood near the top of the watershed, also in Oakland. The architect of these houses included the creek in the plans. Had the houses been built farther downstream, a wider berth would have been a good idea, to accommodate heavy flows and changing meander patterns.



drains, and usually the creeks as well. However, even if your local agency has done a good job of mapping, the maps may be incomplete. Most agencies record only culverts they build themselves or for which they issue permits to contractors. Culverts built without permits seldom appear on these maps. Sometimes culverts that were not built show up on the map because a permit was issued. Where creeks are the border between counties, culverts may not be recorded by either county.

Another great resource is old maps. They often show the creeks before your neighborhood was built. Central libraries and university libraries often have map rooms or history rooms with maps of the Spanish land grants, government survey maps from the 1850s, or real estate maps from the turn of the century. Aerial photos may be available as well. These are all

treasure troves, rich sources of further information to help you understand your watershed.

Locating your creek and watershed in an urban environment can be a challenging task, but it can be eye opening. If you're lucky, you may live in an area where someone has published detailed creek and watershed maps. These are great tools for your quest, but they are no substitute for actually going out with your umbrella to follow your runoff. You will see how this water, hidden and confined, still nourishes plants and wildlife, and come to appreciate the direct connection between your home and the natural world. ■

Christopher M. Richard is curator of aquatic biology at the Oakland Museum of California. Janet M. Sowers is a geologist at Lettis & Associates, a consulting firm in Walnut Creek.

CREEK STORIES, continued



12

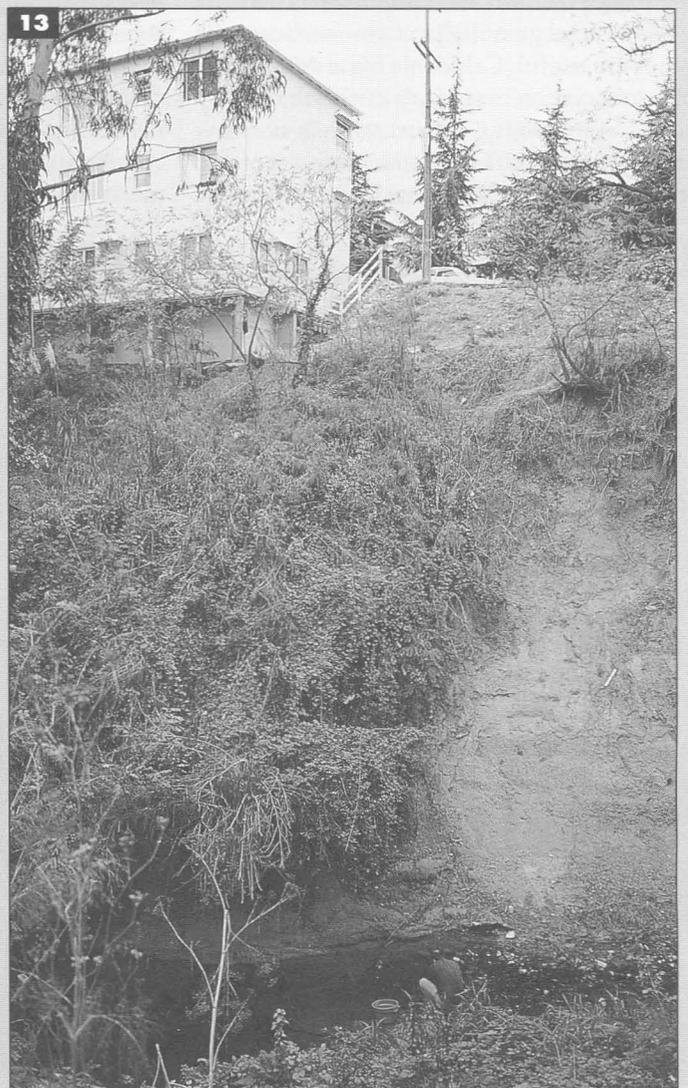
12. Here Berkeley's Strawberry Creek emerges from underground, freed by the efforts of creek activists in 1984. "This was the first victory for the daylighting movement in California," says Christopher Richard.

13. Here's the home of someone who would rather not have any more downcutting.

14. Richard immersed in his work, painting a rock to make a mold for an exhibit.



14



13

COASTAL CONSERVANCY NEWS

AT ITS MARCH MEETING, the Conservancy moved ahead with several important projects that have grown out of years of careful preparation and community involvement. Each of these projects addresses multiple purposes and is being undertaken in partnership with other public agencies and with citizens organizations.

MORE TRAIL ALONG HUMBOLDT BAY

THE COASTAL CONSERVANCY approved \$76,500 to the Redwood Community Action Agency (RCAA) toward the construction of 2.25 miles of multi-use trail at Humboldt Bay. The new segment will extend the evolving Hammond Trail to a total of about six miles between the Mad River bridge and Clam Beach County Park by linking already-completed trail segments.

The total cost of the new trail segment is estimated at \$211,875. Joining with the Conservancy and the RCAA in this project are Caltrans, Humboldt County, the McKinleyville Community

Services District, and the California Conservation Corps. The RCAA will also assume responsibility for trail maintenance.

The Hammond Trail is expected to stretch to about 10 miles, eventually linking Trinidad and Eureka. It follows part of the route of the former Hammond Railroad, which extended from Fortuna to Trinidad. It is also part of the California Coastal Trail.

The newly funded trail segment will run through Clam Beach County Park west of Highway 101, separated from the road by a vegetated buffer. Hikers and joggers will use the ten-foot-wide crushed-granite pathway, while equestrians will be accommodated on a graded but unsurfaced shoulder. All trail users will be able to enjoy views to Trinidad Head and the entire Mad River estuary.

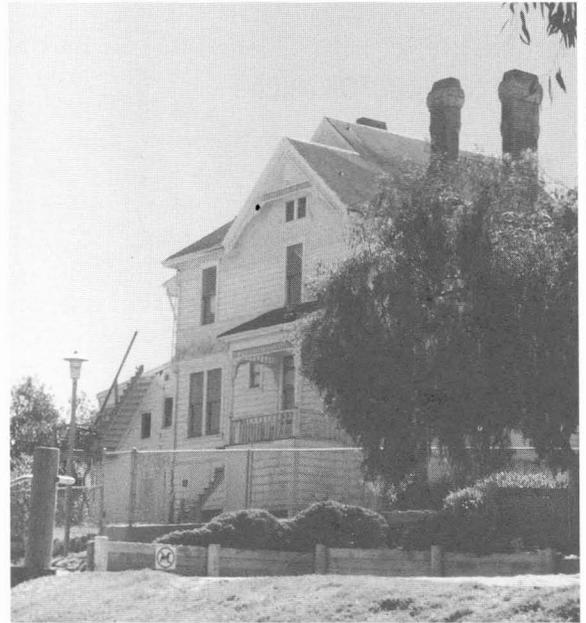


PHOTO BY MARGARET LIMBERATOS

Monterey hostel will offer low-cost accommodations.

MONTEREY WILL GET A GRAND HOSTEL

ONE OF MONTEREY'S LAST grand Victorian houses will be renovated to become the city's first year-round hostel later this year. The Coastal Conservancy approved \$120,000 for the project in March, to be combined with \$136,000 from the City and \$60,000 from American Youth Hostels. The Lou Ellen Parmelee House, now property of the City of Monterey, is within walking distance of the city's major visitor attractions and of public transportation, grocery stores, and restaurants.

"Monterey is a popular tourist destination, but the cost of most lodging in the area deters many visitors," said Coastal Conservancy chairman Penny Allen. "The new hostel will provide visitors from around the world with low-cost accommodations."

The Monterey Parmelee House Hostel will have the capacity for 30 overnight guests and will, in addition, provide space to nonprofit organizations for meetings and events. The house was built in 1896, subdivided into apartments in 1962, and has stood boarded up and vacant for the past five years. The project has received widespread neighborhood support.

Tijuana Estuary Connector Channel

CONSTRUCTION ON THE TIJUANA Estuary Connector Channel is near completion. The channel, just south of the Tijuana Estuary Research Reserve visitor center, will improve

tidal flow in some 200 acres of marsh. The Coastal Conservancy's partners in this project are the U.S. Fish and Wildlife Service and the Southwest Wetlands Interpretive Association.



JIM KING

**"LIVING RIVER"
FLOOD CONTROL FOR NAPA**

SINCE 1862, THE CITY OF NAPA and its surrounding valley region have experienced 28 floods. In 1986, a flood caused \$100 million in damages, destroyed 250 homes, and led to three deaths. Congress has repeatedly authorized studies and designs for flood control improvements, and the U.S. Army Corps of Engineers has proposed projects, but all attempts to address the problem have foundered in disputes about expense, design, and environmental impacts. In 1995 federal and state resource agencies reviewed the most recent Corps plan, which calls for deepening and channelizing the river, and gave notice of significant regulatory hurdles ahead.

In response to this impasse, the Napa County Flood Control and Water Conservation District in 1995 organized the Napa River Community Coalition, which has devised a strategy designed to provide flood protection while maintaining a "living river." It drew up a plan with the cooperation of the Corps. A key component of the design is to let the river spread into its

floodplain at selected natural sites, instead of speeding its flow by channelizing it. This plan has become a national model for restoration-based flood control project design.

At its March 27 meeting, the Coastal Conservancy moved the Coalition plan forward by approving \$50,000 to Napa County to assist in the preparation of an enhancement plan for 605 acres on both sides of the river and from the Highway 12 crossing to just north of Imola Bridge. The County will use the Conservancy funds together with \$10,000 of its own monies in this project.

Implementation of the Coalition's plan will require the purchase of land, easements, and rights-of-way; reconnection of the river to its historic floodplain; restoration of a geomorphically stable river channel; and environmentally sensitive stream bank treatment in the urban reaches of the City of Napa. Although no acquisition funds are now available, the governor had proposed that \$2 million be allocated to the Conservancy in the state's 1997/98 budget for such purchases and related improvements along the Napa River.

Napa River supports a wide array of

terrestrial and aquatic wildlife, and over a dozen unique and sensitive plant species. Twenty-five species of fish are known to inhabit the Napa River, including a remnant steelhead and salmon population and two other species of special concern. Some fishery specialists are confident that the previously recommended Corps channelization project for the Napa River would have destroyed remaining habitat for these and other species. The revised plan will avoid those impacts and will be significant as an example of how to design an environmentally sensitive flood management project.

FITZGERALD RESERVE TO GET HELP

THE COASTAL CONSERVANCY has agreed to grant \$20,000 to San Mateo County toward preparing a plan for environmental and visitor-serving improvements at the James V. Fitzgerald Marine Reserve. The plan will be designed to ensure that people can continue to visit and learn about the rich habitats here, without damaging what they come to see.

Each year some 135,000 people, including crowds of schoolchildren, come to observe life in the tidepools, along the rocky shores, and in the wetlands of this 440-acre marine reserve, located just north of Half Moon Bay in San Mateo County. The wetlands are a critical stopover for migratory ducks, geese, shorebirds, and songbirds, although they have been degraded by adjacent development and by a road cut.

The County's enhancement plan will allow for continued public use and interpretation while protecting and restoring sensitive resources. After the plan is completed, its partners will work together to secure funds to implement it. This project is a priority for the San Francisco Bay Joint Venture.

SAFER RR CROSSING AT SURF BEACH

WITH THE HELP OF \$80,000 from the Conservancy, the County of Santa Barbara will improve a popular

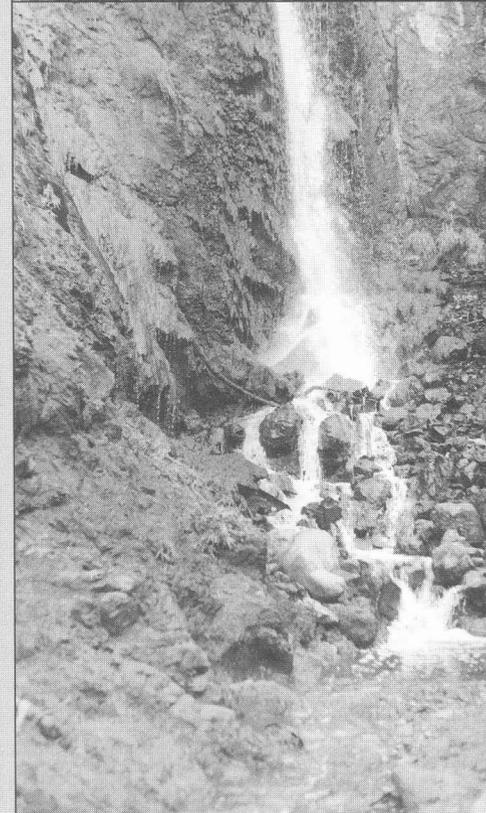
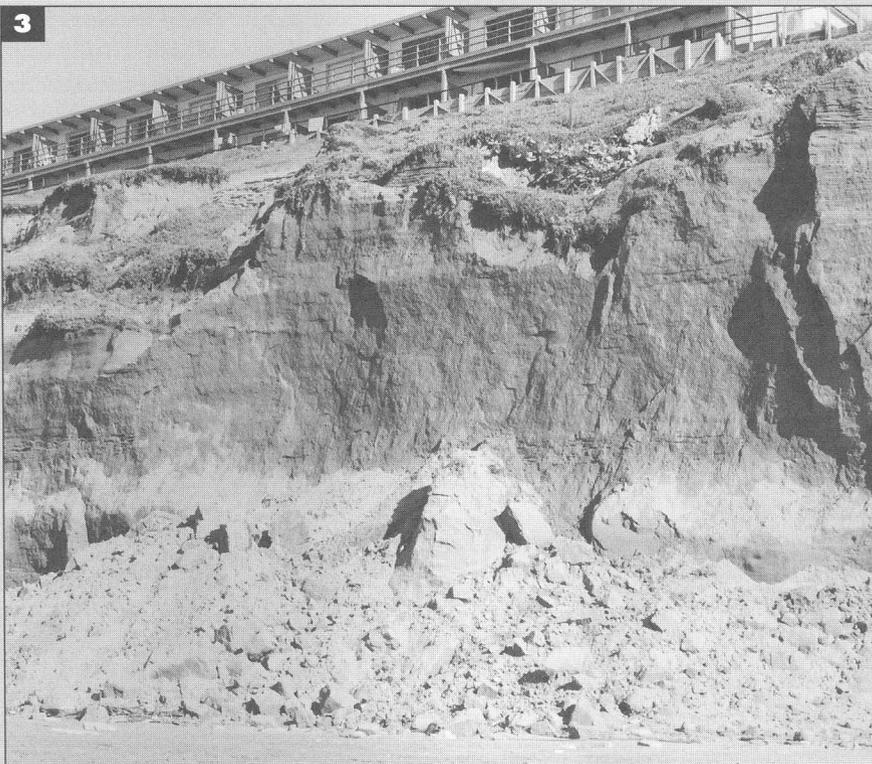
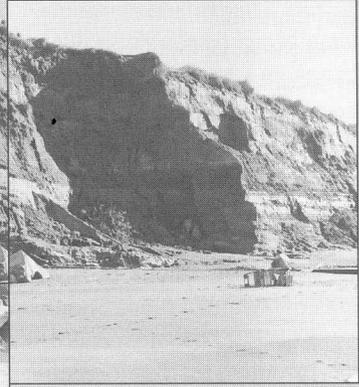
Arrow indicates Napa marshlands to be enhanced for flood control and wildlife.



SCOTT HINER

Living on the Edge in Pacifica

ON NEW YEAR'S DAY, huge volumes of storm water blew off the end of a five-foot drainage pipe that had extended down to the beach. (1-2) The water poured from the 70-foot blufftop, taking out 50 feet of bluff and also some of the Edgewater Apartments' parking lot. "This was a time-bomb, and it came due this year," observed City Engineer Tim Molinare. "The upslope was developed with no creek to drain into, leaving it to us, 30 years later, to figure out how to keep the bluffs from ending up in the ocean." The City is spending \$300,000 on remedial work. It brought in boulders to stabilize the bluff and is installing a polyethylene pipe that is expected to adapt to the face of the bluff as it retreats. But the City lacks funds for such projects. (3) The beach is moving closer to these apartments just upcoast from the Edgewater. (4) Another storm drain waterfall accelerates erosion in a nearby canyon. Meanwhile, Edgewater owner Ralph Behling marvels that only a couple of his 39 tenants moved out after the bluff failure. "They love the ocean view and now they can see it better, there's less in front of them," he explained.



but dangerous route to Surf Beach, near Lompoc.

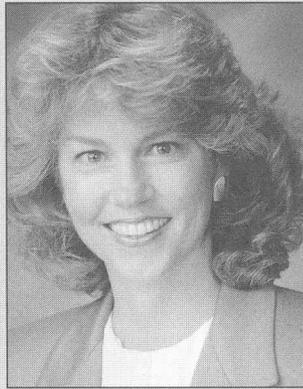
People have been using the unpaved parking area at the end of Ocean Avenue and crossing four sets of railroad tracks to get to this beach. There have been several accidents, and a young child was killed. When the railroad company tried to close the area by fencing off the tracks, the Coastal Commission issued a cease and desist order, arguing that "the site . . . is one of only two points of readily available public access within the entire 35-mile stretch of coastline owned by Vandenberg Air Force Base." There is no access through the privately owned Hollister Ranch, Bixby Ranch, or at Cojo to the south or Point Sal to the north; some 60 miles of coastline lack formal public access.

The County, in conjunction with Amtrak, is building an unstaffed passenger rail station at this location, so the number of people crossing the tracks is expected to rise. The parking lot will be paved, and lighting will be installed. The County will install a restroom facility within the parking lot, and pay for a ramped pedestrian crossing and a warning signal. This will result in much safer access to Surf Beach. The project is expected to be finished within a year.

MUGU LAGOON WATERSHED PLAN

MUGU LAGOON IS ONE of the highest-quality wetlands remaining in southern California, and supports the greatest concentration of water-associated birds between Morro Bay and Anaheim-Bolsa Bay. It is, however, slowly disappearing. Unless the flow of sediment into this 1,474-acre lagoon is diminished, it is expected to fill in within 50 years. It has already shrunk to half its former size as a result of conversion to farmland and the construction of the Pt. Mugu Naval Air Station.

The Conservancy approved the Calleguas Creek/Mugu Lagoon Watershed Enhancement Plan and authorized \$305,600 for erosion control and environmental improvements on the creek near Camarillo. The funding goes



Penny Allen's New Challenges

PENNY ALLEN, WHO SERVED AS CHAIRWOMAN of the Coastal Conservancy, has resigned to assume new responsibilities on the California Coastal Commission. She was appointed to the Commission on March 24 by Governor Pete Wilson and replaces William Rick, an engineer from San Diego.

Allen, 49, of Chula Vista, San Diego County, enjoys high regard for her understanding of coastal issues. "She is a bridge builder and consensus maker who has worked on hundreds of public access and environmental restoration projects along the California coast," noted Warner Chabot, Pacific Region director for the Center for Marine Conservation.

She is the owner of Allen & Company, which assists both public- and private-sector clients to develop and implement long-range strategic and community relations plans. Her community service experience is extensive. She will be the president of the Downtown San Diego Rotary Club in 1998/99, serves as past chair on the South Bay Family YMCA board of directors, served as chairwoman of the Chula Vista Economic Development Commission, the YMCA of San Diego County Board of Governors, and the the Chula Vista Elementary School District Board of Trustees.

to the Ventura County Resource Conservation District (RCD), which will stabilize stream banks along a tributary that flows into Calleguas Creek through Grimes Canyon. The RCD will revegetate the banks and use innovative biological techniques, expecting to create a model for further erosion control efforts in the 325-square-mile creek watershed. The Conservancy's funds will be used together with \$182,000 from the U.S. Environmental Protection Agency (EPA) and landowner contributions.

All the farmers along the Grimes Canyon tributary have agreed to join in contributing labor and materials to match the Coastal Conservancy and EPA grants.

The Coastal Conservancy earlier funded the preparation of this watershed plan, in partnership with the Natural Resources Conservation Service, which provided most of the technical expertise. The plan concentrates on erosion and sedimentation issues and the problems caused to farms and habitat

in the rural subwatersheds. The worst sediment production areas are identified and prioritized. The plan identifies a series of public works projects and private initiatives which, if fully implemented, would reduce sedimentation by 62 percent. ■

COASTAL ZONE 97

COASTAL ZONE 97, THE 10TH biennial conference on coastal and ocean management, will be held July 20-26, in Boston, MA. CZ97 provides a forum to examine complex, multidisciplinary problems facing the world's coastal zones. In keeping with the permanent conference theme, "Spotlights on Solutions," the conference will seek to identify and resolve such problems. For information, contact Martin C. Miller, USAE Waterways Experiment Station, Attn: CEWES-CR-O, 3909 Halls Ferry Road, Vicksburg, MS 39180.

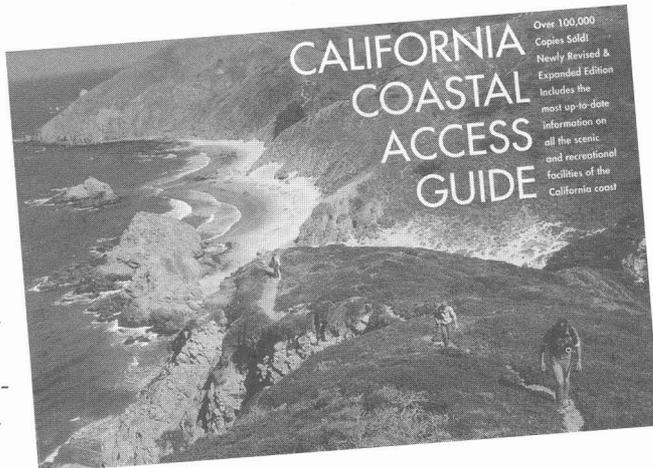
California Coastal Access Guide, California Coastal Commission, San Francisco, CA, 1997. 304 pp., \$17.95 (paper).

EVER SINCE ITS first edition in 1981, the *California Coastal Access Guide* has been the essential reference for all who want to explore the 1,100-mile coast, learn about it, or find the way to the shore. Prepared by the California Coastal Commission, this unique book provides detailed information about more than 850 coastal areas that are accessible to the public. More than 300 illustrations and 125 maps complement text on natural history, environmental issues, and local marine and coastal wildlife.

The just-published fifth edition, billed as "newly revised and expanded," contains updated access information and phone numbers, a new cover, and some new entries. Most of the contents are unchanged, however, and some notable sites have been omitted. These include the Point Cabrillo Light Station and Preserve in Mendocino County, Point Dume State Reserve in Los Angeles County, and South Shores Park in San Diego, as well as some significant whole access improvements made in recent years. You may therefore discover even more public access than the *Guide* describes.

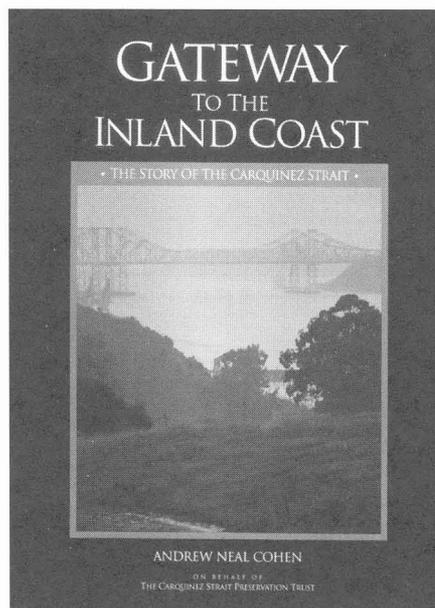
Gateway to the Inland Coast: The Story of the Carquinez Strait, by Andrew Neal Cohen. Carquinez Strait Preservation Trust/California State Lands Commission, Sacramento, CA, 1996. 162 pp., \$21.95 (paper).

IN TODAY'S BUSY, AUTOMOBILE-dominated life, one catches only a glimpse of the Carquinez Strait while driving 65 miles per hour over the Benicia or Martinez Bridge. Few people who live in the area, and far fewer visitors, know much of its rich history,



understand the complexities of the aquatic habitat of the "null zone," or know the value of the strait for shipping. As a geographer, I appreciate a book that touches on all geographic fields: the physical, the economic, and the cultural. *Gateway to the Inland Coast* does that and more, providing a history that includes the native peoples; a study of the unique physical environment and its role as a transitional area between the freshwater delta and the saline bay and ocean; and a look at the region as a recreational resource.

For those interested in the history of the San Francisco Bay Area and of California as a whole, this book is a wonderfully informative read. The Carquinez Strait played a key role in many chapters of the state's history,



including commercial fishing, the years of international wheat shipping and export, and the years of shipbuilding at the Matthew Turner Shipyard in Benicia and at Mare Island. *Gateway* was written for the Carquinez Strait Preservation Trust, whose mission is to provide information on the public trust resources and uses of the Strait, including those related to recreation, scenic views, habitat, and water-related commerce. The book contains rare maps, historic prints and sketches, old and current photos, and lots of lists and charts, all beautifully presented in soft sepia tones. The separate chapters bring lots of information together in one document, including current information about land uses—recreation and transportation—that will be useful to decision makers in the region. The appendices also list government agencies with interests in the area, detailed chronologies, and an extensive list of references for further reading.

Margit Aramburu is executive director of the Delta Protection Commission.

Gateway to the Inland Coast is available from the California State Lands Commission, 100 Howe Street, Suite 100-South, Sacramento, CA, 95825-8202, attn: Dwight Sanders.

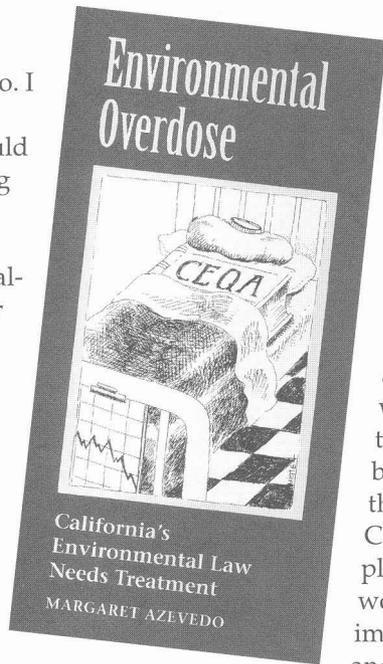
Environmental Overdose: California's Environmental Law Needs Treatment, by Margaret Azevedo. Wood Rat Press, Tiburon, CA, 1996. 127 pp., \$8.50 (paper).

COAST & OCEAN'S REQUEST that I review a book by Margaret Azevedo, a long-standing member of the Coastal Conservancy's board, had to give me, a Conservancy staff attorney, some pause. What was I getting into? *Environmental Overdose* offers a number of case studies illustrating the silliness of California's Environmental Quality Act (Public Resources Code, Sec. 21000 et seq.), along with the author's comments and proposed solutions, and is filled with the kind of witty, down-to-earth insights and commonsense advice that Conservancy staff is accus-

tomed to hearing from Ms. Azevedo. I also might have known that I would find myself taking issue with any number of her points, only to realize that that *is* her point: a law “noble in purpose, but flawed in practice” has been perverted and taken to ridiculous (and costly) extremes through its explication and growth in guidelines, explanations of guidelines, interpretations of ill-defined terms, responses to any and all manner of public comments, and the ever-present threat of lawsuits.

This isn't your standard anti-environmental, anti-government tract, though. Azevedo clearly respects the processes of government—when they work—and thinks that the environmental impacts of actual physical changes to the landscape should be considered and mitigated. It's all the unrelated extras that have become attached to CEQA, in “that obscure process by which laws, after the manner of stalactites and stalagmites, accumulate odd excrescences,” that she objects to. She offers, in addition to specific proposals for amending the Act and its guidelines, a range of “ways to go,” from worst to best—the best, in her opinion, being simply to absorb CEQA into local general plans. I don't know if this is really the best solution, but all of her suggestions are worthy of attention and probably of further analysis (of the sort Margaret Azevedo would really hate).

The horror stories and criticisms offered in this book aren't likely to inflame the passions of real CEQA zealots, pro or con, who have different



battles to fight. General audiences may be wryly amused by the tales of excess reported here, but will probably lose interest when they get to the discussion of specific provisions of the law and guidelines, or Ms. Azevedo's discourses on local general plans. But I think that anyone who has struggled to work with CEQA will be entertained and perhaps enlightened by this book. Dedicated to “all those City Councilpersons, County Supervisors, and local planning commissioners who wonder why environmental impact reports have to be so long and tedious,” *Environmental Overdose* is short, clever, and refreshingly to the point.

—Marcia Grimm

Lightly on the Land: The SCA Trail-Building and Maintenance Manual, by Robert C. Birkby. *The Mountaineers*, Seattle, WA, 1996. 267 pp., \$19.95 (paper).

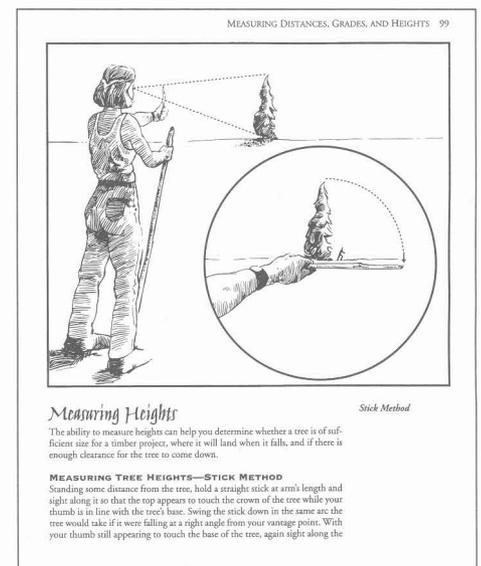
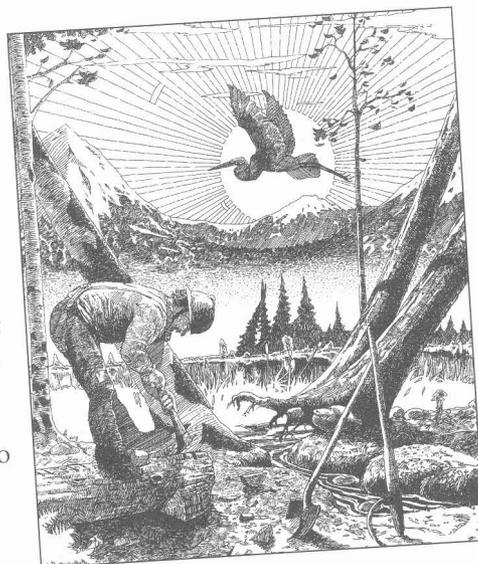
THE PURPOSE OF THIS MANUAL is to pass along the collective knowledge of those who have spent their lives caring for the land to those who need the skills to do the same, and it

certainly accomplishes that task. The text is easily understood and highlighted with drawings and diagrams that not only explain trail construction but also provide suggestions about camping, safety, tools, and etiquette while living in the wilderness.

The Student Conservation Association's *Lightly on the Land* is more comprehensive than Malcolm Margolin's *The Earth Manual* (1975), which is still widely used, because it makes an effort to reach a broader range of users and to teach a wider range of skills. It offers guidance on how to select materials and construct projects, provides instructions on safety, necessary tools and their use, and includes philosophical sidebars related to chapter topics.

For those who teach trail building and environmental education, this manual is a fine resource. For those beginning careers in trail construction, whether as volunteers or as professionals, this book should be required reading. It is, however, too basic for experienced trail builders seeking a management tool for a trail system; such professionals may want to consult the *Klamath District Trail Manual, North Coast District, State Parks Department*, which is available for \$16.50 from the California Trails and Greenways Foundation, P.O. Box 183, Los Altos, CA 94023.

—Richard Retecki



Borderlines South of the Fence

RIGOBERTO GUARDADO FRANCE parked the green van just south of the border fence, which extends out into the ocean. Nobody said a word about that ugly metal fence as we walked down the eroded seacliff to the beach. Nobody had mentioned it when we rode alongside it from San Ysidro uphill and down through Tijuana.

Our hosts were Professors Guardado France and Guillermo E. Avila Serrano, and three graduate students from the School of Marine Sciences, Autonomous University of Baja California in Ensenada. They were taking us on a field trip to view beach erosion at three locations. The trip was part of the California and the World Oceans (CWO97) conference held in San Diego March 24–27.

The beach we found was not the wide, sloping, crowded Playas de Tijuana strand we had been shown on a postcard from the 1970s; it was far narrower, and, aside from some children, the only people visible were busy at work, shoring up precariously perched houses. Rocks, bricks, old automobile tires, and vegetation had been strategically installed here and there, but the structures' life expectancy was not great. "The erosion rate is now one meter a year. We expect it to continue for three kilometers," Professor Guardado France, a geologist, told us.

The story of Playas de Tijuana may sound familiar to coastal dwellers in southern California, especially in Encinitas, Carlsbad, Oceanside, and other places where beaches keep washing away.

In 1963, 523,000 cubic yards of sand (mostly silt) was brought down from the hills and placed onshore to widen the beach and create new oceanfront

property. By 1983 it was all gone and the waves were eating at the seacliffs.

In the past, the beach had a dynamic balance. De Las Palmas (Mexico) and Cottonwood (U.S.) Rivers brought sand down from the hills, replacing what waves washed away. Some of the sand washed away by storms had stayed in the delta and would return with gentle summer waves. After dams were constructed on the two rivers, however, the sand stayed behind them, and the beach began to starve.

Artificial feeding did not help: the sand imported in 1963 turned out to be too fine. The delta began to erode, the beach ceased to cushion the shore against the waves, and the seacliffs came under attack.

In the winter of 1977–78, violent storms brought catastrophe. Several city blocks disappeared. "This was a four-lane boulevard," Professor Guardado France said, pointing to a half-washed-out shoreline road. "Now we will go to San Antonio del Mar, where much money is being spent on seawalls."

We headed south, arriving shortly at a handsome new development of Spanish-style houses (here known as California-style), which fronts a beautiful white-sand beach and is owned almost exclusively by people from the United States.



International Monument—The white marble obelisk, erected in 1851, marks the initial point of the boundary established in 1849. The fence was built much later.

"This used to be a very popular beach before the [shoreline toll] road was built and development began," one of our student hosts said. "Now it's secluded." Although Mexico's law requires that public access be provided to the shore, local people no longer feel welcome here, we learned. One student said he stopped surfing here after a man accosted him and suggested he try another location.

Every house on this beach has a seawall, built with private funds, and some have as many as three: walls built only five years ago had already crumbled. "In a few years we will have everything protected by seawalls here, and then there will be no more beach," Professor Guardado France predicted.

Our third and last stop was in Rosarito, a lively town where the beach had an open and friendly feel, with families

lounging on blankets, children building sand castles, and a man pushing an ice cream cart along the shore.

This beach, too, is eroding. A breakwater and groin built to channel cooling seawater into the Rosarito power plant just north of here are diverting sand from the beach into an enclosure, where it settles and is then pumped back over the breakwater. Why isn't it pumped downshore to Rosarito Beach instead? Professor Guardado France shrugged: "The man who pumps it has a contract to do it this way."

He did, however, hold out some hope for Rosarito Beach: the federal company that operates the power plant is considering the feasibility of destroying the breakwater and extending a pipe five kilometers offshore to take in cooling water.

We headed back to the border, pondering how similar engineering errors and political pressures are on both sides of the border. It took a much longer time to get back into the U.S. than it had taken to enter Mexico. We did succeed, however—unlike the unfortunate panelist from the Port of Ensenada who was turned back because of some question about her papers and thus was unable to make the presentation she had prepared for the CWO97 conference.

Again, what to say? I reflected on the obelisk I had seen at Playas de Tijuana, erected in the 1930s on the border line—then unfenced—to celebrate friendship between the two countries. This monument is now locked into the fence. On the U.S. side, picnic tables stand empty in Borderfield State Park. Yet whatever fences divide us, we share a coast and a watershed. These have their own natural systems and laws, which consistently override all of ours.

—Rasa Gustaitis

In our next issue, Jim King will look north of the fence at marsh restoration in the Tijuana River National Estuarine Research Reserve.

WHAT OF THE LOST WORKING FAMILIES OF OUR COAST?

Dear Editor,

Your Winter 96–97 issue bathed me in a flood of objections, agreements, memories, and regrets. Big accomplishments: how about the emerging coastal trail, the voluntary, private protection of Trinidad Bay's coast, or the conservation of the great dune ecosystem surrounding Oso Flaco Lake? Great losses: certainly people like Dwight May, Bill Grader, Erv Renner, Pat Stebbins, Tom Pratte, and others listed on page 20. I miss them as much as the big timber that once graced the approach to the Klamath River's Redwood Highway bridge or the beaches buried in revetment at the Carpinteria slough.

But why no mention of the evisceration of the Coastal Act's guarantee that affordable new housing would assure that all Californians could enjoy the coast's clean air and scenery? And what of northern California's fishing industry, whose lost vibrancy amid all the efforts to preserve shoreline habitat and harbors' fishing facilities makes the coast feel like Egypt's pyramids—a grand monument sacked of its treasure. The coast will always have waves, scenery, celebrities, advocates, and corruption, but the working families it is losing are as unrecoverable as lost marshes and farmland.

Dan Ray
Minneapolis, Minnesota
(former Coastal Commission staff
1977–1987)

"WET" COAST NEEDS ATTENTION

Dear Editor:

Given the hue and cry over coastal zone management that erupted in California last year, I found the last issue of *Coast & Ocean* a surprisingly dispassionate and thorough review of the real progress our state has made in protecting the coastal ribbon over the past decades. One can't help but be amazed by how far we've come while at the same time daunted by how complicated the challenges that remain are.

Coastal land use decisions and public versus private access debates seem like child's play when compared with the technical and jurisdictional conundrums presented by problems such as non-point source water pollution and sustainable migratory fish management.

These tough issues now require our attention if we are to preserve the health and beauty of the coast into the 21st century. We've made good progress in managing the "dry" side of the coastal zone; now it's time to turn seaward to the "wet" side. It's a complicated task to develop sensible policies that work for the people who depend on coastal resources for their livelihood and the general public that treasures these resources. We can only hope to do so by working with a broad coalition of interests.

This year the Natural Resources Defense Council is working with more than 30 other groups, including commercial and recreational fishermen, to push a coast and ocean agenda in Sacramento. There's a new breed of coastal legislators of both parties who are willing to ask the tough questions and propose bold solutions. Twenty-five years after the passage of the Coastal Initiative, it's high time we renew our efforts to promote sound coastal land use and take on the challenge of sound marine resource management.

Sincerely,
Ann Notthoff
Senior Planner,
Natural Resources Defense Council

WHAT'S ON YOUR MIND? WRITE TO US AT:

Editor
Coast & Ocean
1330 Broadway, 11th Floor
Oakland, CA 94612

Or e-mail us at:
calcoast@igc.org

Cosa Nostra?

Costanoan?

Coastal Motion?

Ah....Coastal Notion?

Oh, I get it—

Coast & Ocean!



KEN DOWNING

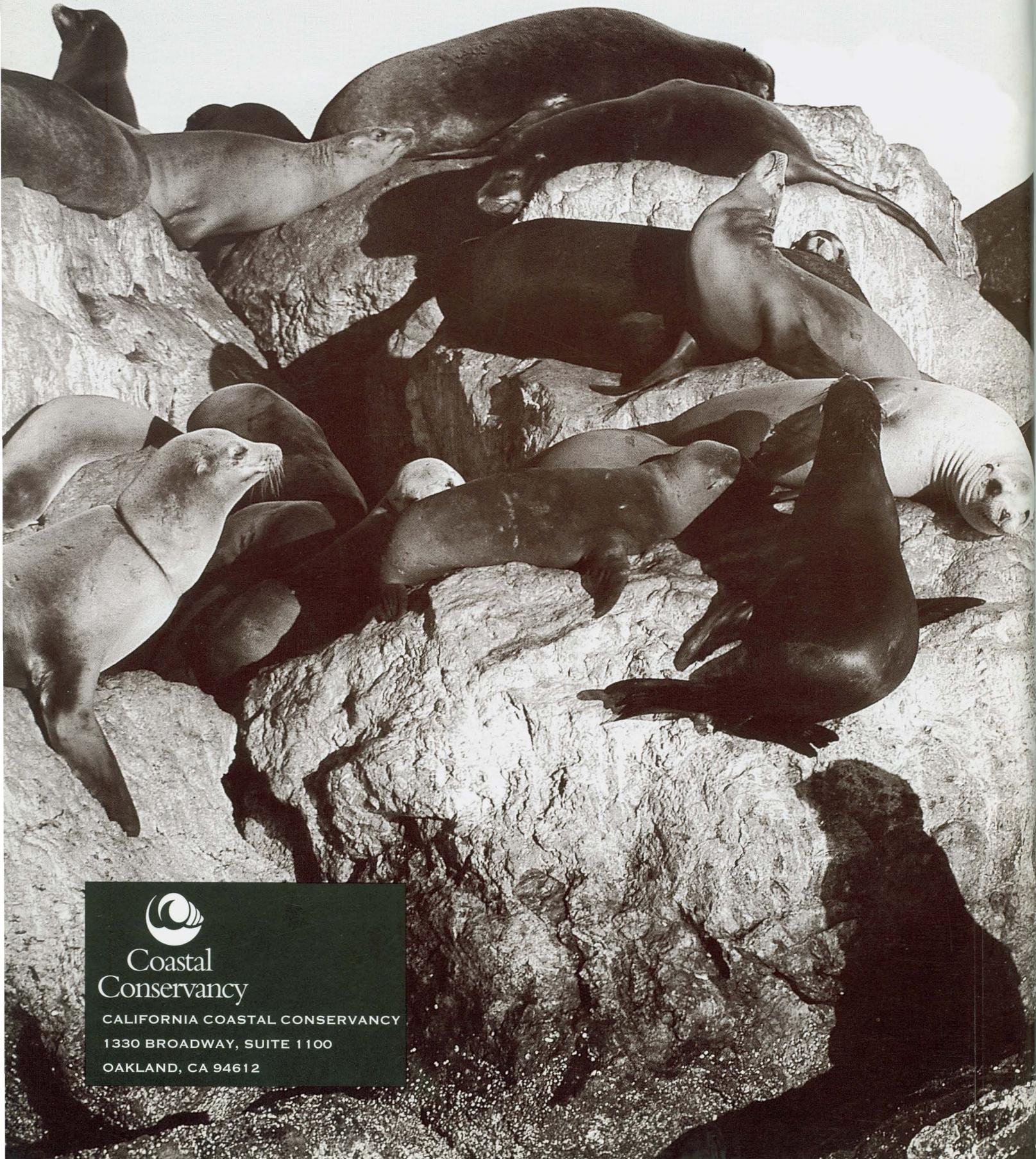
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Coastal
Conservancy

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