



# LA WEEKLY

FEATURES

## THE LOST STREAMS OF LOS ANGELES

*Uncovering our wet and wild past. Is it safe, or even possible, to let the water flow again?*

BY JUDITH LEWIS

Wednesday, November 8, 2006 - 4:30 pm



(Illustrations by Erik Sandberg, photos by Caludio Cambon)

*Southern Californians hate moisture like cats.*

—Carey McWilliams, *An Island on Land*

**A formidable chainlink barricade** surrounds the sunken patch of land wedged between the Los Angeles River along the Golden State Freeway and the far side of Griffith Park, just northeast of Hollywood. But Jessica Hall wants in. She shoves her purse through the slight gap between the fence and the pavement, flips around on her back, and inches under. I lift the ragged bottom of the fence to help her, and then follow.

Inside, we stand over what most people would call a pond of storm-drain runoff, littered along its banks with lids from fast-food drink cups, Styrofoam to-go boxes, plastic grocery bags and silver birthday balloons. It is stinky with stagnant algae.

None of this disturbs Hall, 38, whose hazel eyes seem as large as a fawn's. "Look!" she says, ignoring the trash and pointing toward a small black-headed bird in the reeds. "It's a towhee. It's got a little towhee head."

Hall views the unimpressive little swamp called North Atwater Creek as an opportunity to return a piece of Los Angeles turf, most of it rigorously engineered against every whim of nature, back to its native state. Here behind the fence, she sees a natural monument, a vestigial trace of something Los Angeles once had and lost: a vibrant network of free-flowing streams that ran through its basin — and may again if Hall gets her way.

It takes a big imagination to think like this, maybe even a few loose screws.

Officially, Hall works for the state's Santa Monica Bay Restoration Commission, coordinating efforts to restore the Ballona Creek Watershed. Less officially, she has appointed herself the keeper of Los Angeles County's small waterway legacy. She isn't alone in her interest: Mark Abramson, the Stream Team coordinator for beach-quality watchdogs Heal the Bay, has been working with the state park system to dismantle concrete bridges over the Las Virgenes Creek up in Malibu State Park, with the eventual goal of returning steelhead trout to the creek; Los Angeles City Council Member Eric Garcetti speaks proudly of creating functional green spaces such as Bimini Slough near Koreatown; Council Member Ed Reyes has been deeply committed to the idea of bringing back the freshwater marshes around the Los Angeles River, and the environmental group Santa Monica Baykeeper has filed critical lawsuits. But Hall stands apart. She spends nearly all her free time tracking streams — vaulting over walls, sliding down embankments and squeezing through holes in the locked fortresses Los Angeles has constructed around its remaining inland water in search of natural trickles ample enough to deserve the label "creek." With a short, sturdy frame that seems suited to this work, she tramples like some sort of native creature through the weeds and muck of the wetlands she finds.

Keep Reading ▾



Hall, who grew up in the South Bay city of Hawthorne and emerged from Princeton's architecture program and Cal Poly Pomona's graduate school as a landscape architect, has become extraordinarily sensitive to the signs of the city's buried hydrologic pedigree: The dip in a roadway was once most likely a streambed; the long row of sycamores almost certainly lined a creek's banks. Sometimes she even finds a remnant of a real, live perennial stream, like the one she calls Wonderland Creek, named by her for the street that runs parallel to it.

"Sweet, isn't it?" she says, her feet planted sideways to keep from sliding into the creek. "I'm sure it's fed by runoff from the canyon, but there are probably some springs up at the top, maybe buried."

This trickle of water gurgling its way down toward Laurel Canyon Boulevard does not show up on any U.S. Geological Survey map, nor on any official Los Angeles city or county inventory of water. Like almost all the streams of Los Angeles, Wonderland Creek has been run underground for most of its length. From where we stand, we can see the pipe the water flows into, and one or two properties up, out of our sightlines, is the pipe that feeds the creek. But if you ignore all that and just take in the natural beauty on this slope lined with coast live oaks and curvy sycamores — native, water-loving trees — it might strike you that everything you've been taught about the climate of Los Angeles is wrong. We do not live in a desert, after all. We have water. We just covered it up.



Urban neglect: Hazard Creek

"Do you know why there's sometimes fog at the intersection of Beverly and Rossmore?" Hall asks. "It's because there's a perennial creek that runs through the country club there," she says. "It goes underground beneath Beverly, and comes up again on the other side."

Hall has found streams in the backyards of Brentwood and Hancock Park mansions, in unkempt parks dotted with oil derricks, in parking lots, and on golf courses and university campuses. She compares what she finds to archival maps and oral histories she digs up in libraries. In her files are several hundred pages of transcribed stories told by people who lived in Southern California when it was still wild and wet. One 1902 federal map shows the Los Angeles basin, a bowl ringed by mountains from the Santa Monicas to the Santa Susanas to the San Gabriels, shot through with thin blue lines — streams — each of them tracing the thin line of a canyon: Benedict, Coldwater, Laurel, Franklin. Hall is on a mission to find the threads of every waterway Los Angeles has systematically buried since the late 19th century.

But here's the really crazy thing. Hall doesn't just want to find the waterways. She wants nothing less than to unearth these buried urban creeks. In landscape-architect-speak, she wants to "daylight" L.A.'s streams. She wants to recharge the depleted aquifers and dried-up springs. She wants to see Los Angeles once again trickling with water.

"When I was growing up here, the idea that there was any nature at all around me wasn't even on my mind," says Hall. "My father is from a rural part of Kentucky, so my childhood experience of nature was from there, or from New Mexico, where my mom was from. I had no experience of nature in Hawthorne, or even Los Angeles. It wasn't part of my consciousness. How can you ask people to be good stewards of the environment when they have no concept of what's around them?"

Driving around the city with Hall, you can't help but notice the landscape. "If you follow the curvy sinuousness of Silver Lake Boulevard, you realize that was a creek," she says. At the confluence of Silver Lake and Virgil and Temple streets, where you can imagine the intersection of the three roads that flow into it as a lakebed or the swamp it was, she adds, "You can sense by the terrain there was once lots of water coming in here." At Lafayette Park near downtown, she points to a statue, the woman of water, which commemorates what was once a perennial stream, flanked by tar seeps. A car-rental company now occupies the land over the seeps. Hall cases the fence around the lot for possible ways in; at one

point, she threads her fingers through the wire and begins to climb. I note the barbed wire at the top of the fence and suggest we simply walk through the official entrance.

Inside the lot, large scraps of carpet and plywood have been slapped over sticky upwellings of sulfurous tar. "I've seen things get stuck in them," Hall says.

"Like what?" I ask. "Mastodons?"

"No," she laughs. "Just pigeons."



Where the wild things are: Wilmington Slough

**Throughout the world**, engineers have tried to constrain rivers, freeze them in their paths and contain them in their banks, but no one disappeared creeks more efficiently than the people who built Los Angeles. In many other large cities, free-running creeks are something to construct a little paradise around — the desirable "water features" touted in so many development brochures. Here in Southern California, streams are regarded as a nuisance — ditches in the summertime that flood in heavy rains. We run them underground, pave them over and move them aside to install our pools or build our new housing and construct our retail developments.

"We are absolutely unique in that way," says Mark Gold, executive director of Heal the Bay. "The rest of the country laughs when they see what we've done. For Southern California, a stream seems to be a concrete trapezoidal channel."

Then again, in those other places, little brooks and big rivers babble and flow pretty much all year round. The streams of Los Angeles, taking a cue from the river they feed into, can't be trusted to shimmer with water for even half the year. In this land of meteorological mood swings, many creek beds turn to dusty ravines for several months, and then roar to life during winter rains, rising far beyond their banks and sometimes messing with the landscape by carving out new routes. In retribution for their inconstancy, Los Angeles has wiped out 94 percent of its streams, creeks and rivers. And we're trying to get rid of the rest.

Even as efforts to restore the Los Angeles River have become uncontroversially hip, efforts to divert, channelize and drain the Santa Clara River, just 30 miles north, have accelerated. A housing development along its banks, ironically named Riverpark, will require that the Santa Clara's banks be stabilized with rock and concrete; a cement mining operation scheduled for the river's upper reaches will deplete the aquifer that feeds its springs along its only perennial stretch.

This has consequences that go beyond aesthetics. City planners and architects now understand that streams and wetlands are excellent cleaning agents. By slowing, spreading and sinking water before it has a chance to reach the ocean, they allow sunlight and soil to act as a natural water-treatment system: The sun's ultraviolet light helps kill viruses; soil filters bacteria. Cattails and other wetland plants take up nitrogen and other nutrients.

Had Hall's beloved streams not been turned into fast-moving concrete channels and storm drains, she argues, Southern California's beaches would never have suffered from the pollution that blights them today. Instead, the toxic accumulation of our lives — our fertilizer, our dogs' poop, our plastic wrappers — speeds down our streets and through our storm drains toward the sea, only to wash up on our beaches every rainy winter. It also trickles down to the coasts in the summer and shows up in the depleted aquifers that some municipalities depend on for a fraction of their drinking water. Health officials close beaches in Los Angeles County twice as often as they do anywhere else in the country, and the people who monitor beach water quality increasingly target "dry-weather runoff" as a cause of summertime illnesses among surfers and swimmers.



A native spring blossoms at the Gardena Willows.

“The biggest source of water pollution in California is urban runoff,” says David Beckman of the Natural Resources Defense Council, which regularly sues the federal government to enforce its own water-quality laws established under the Clean Water Act. But when it passed in 1972, the Clean Water Act had nothing to say about pollution coursing through the circulatory systems of urban aquifers; it only regulated the water discharged from “point sources” — refineries, sewage-treatment facilities and factories. It was a little like making laws about air pollution and excluding cars. “The Clean Water Act didn’t bring urban runoff into its gamut until the early 1990s,” says Beckman, when Congress updated the law to include storm-water and dry-season runoff pollution. “So the focus of environmental advocates and regulators on the number-one source of the problem is only about 12 years old.”

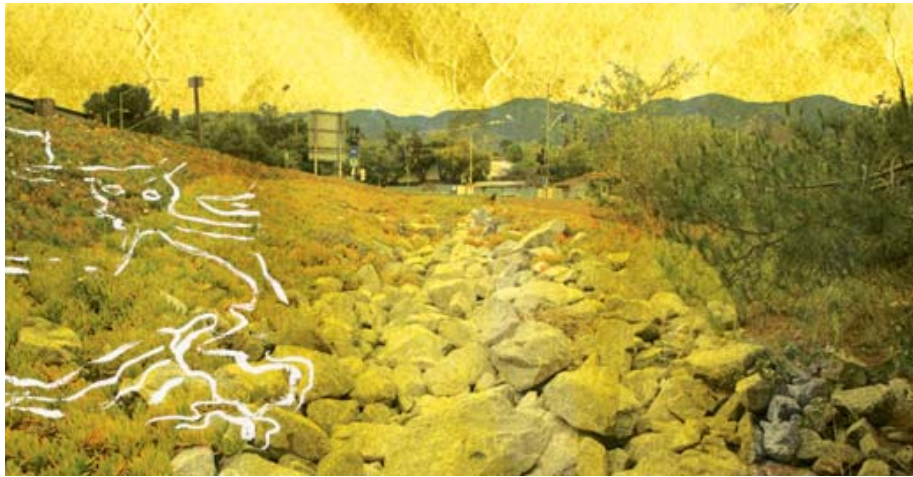
Actually, focus on the issue by regulators came even later. The U.S. Environmental Protection Agency and California’s Regional Water Quality Control Boards were so reluctant to enforce any rules that in the first 10 years of regulating urban runoff — which the U.S. government did by issuing discharge permits to cities — not a single enforcement action was taken.

“Believe it or not,” Beckman says, “for the first 10 years there was no requirement that said storm water was actually responsible for water quality — it was only procedural.” Authorities might have recommended that you stencil all your storm drains to remind people that what goes in them ends up in the ocean, for instance, but they didn’t hold you accountable if everyone ignored them.

Eventually, however, the EPA came up with its Total Maximum Daily Load program, developed in the days of the Clinton administration. Beckman calls it a “pollution budget,” an agreed-upon limit imposed on certain quantifiable pollutants, such as E. Coli, nitrogen and certain toxic salts. “They gave us an overall macro blueprint for what we were trying to achieve,” Beckman says, just a hint of exultation in his otherwise lawyerly voice. “The groundwork has been laid; the structure is now in place.”

Results, however, are still lagging, in part because the Bush-era EPA has been loath to enforce its own rules until some organization — the NRDC, Santa Monica Baykeeper, Heal the Bay — takes it to court.

“Meanwhile,” says Beckman, “as the country urbanizes and creates more hardscape for water to run off from, this source of pollution has been growing.”



The beauty of a dry creek bed: Flint Wash

*"Forty-five acres of ground, now a waste... will be reclaimed for use when this slough, which formerly carried away the waters of Sacatela Creek, is filled in. The live stream of this creek now flows through the Sacatela No. 3 stormdrain, leaving no excuse for the gullies and ravine which now exist."*

—Los Angeles Times, 1930

**All that's left today** of the once-perennial Sacatela Creek, which ran from St. George Avenue in Los Feliz through Silver Lake and to Koreatown, is the valley under the Shakespeare Bridge in Franklin Hills, from which its headwaters once bubbled up. At Myra and Fountain avenues in Silver Lake, Sacatela Creek is buried 30 or 40 feet under the surface. Hall has talked to longtime residents of the neighborhood who claim that among the material used to fill in the creek were old Pacific Electric Red Cars from the city's defunct trolley system.

"We're driving on the creek right now," says Hall as we sail down Hoover under the Sunset Boulevard overpass. "I took a friend from the Bay Area around, and we were driving down Sunset, and he said, 'Every time I go over one of these bridges, I keep expecting to see a creek down there.' And I say, 'Ah, well, that's what it was.'"

At the Koreatown intersection of Sixth Street and Mariposa Avenue, toward the end of the Sacatela's reach, is the Creekside Café. "I spoke to the owners," Hall says, "and they had no idea why the restaurant had that name. They inherited it. They had no idea there was actually a creek there."

Much of Sacatela Creek's fate is a mystery. It's possible that water still runs under the streets built on top of Sacatela Creek; it's also possible that the creek has dried up completely. Early descriptions of its flows suggest that springs that would have fed the creek have been capped. And the groundwater level may have run so low that the springs are now dead. What's not uncertain is why Sacatela Creek suffered the fate it did: In a photograph Hall unearthed from library archives, the intersection of Sixth and Mariposa lies under several feet of water.

And here we get to the principal reason Southern Californians hate water: Back when the Los Angeles River was lined with willows, Watts and Compton were marshland and Inglewood was "coastal prairie" (the reason a major thoroughfare bisecting the city from north to south is called "Prairie"), homes, farms and even people were regularly lost to the water.

Los Angeles used to be a land of catastrophic floods. One of the most devastating was the big flood of 1938, after which the U.S. Army Corps of Engineers stepped in to turn the Los Angeles River into the concrete channel it is today. Most Angelenos who complain about the concrete don't know how often floods happened here, and not just along the big river's banks: In 1811, 1815, 1822, 1825, 1832, 1842, 1852, 1858 and 1859, Los Angeles County flooded in various places from its southern reaches to the Santa Monica Mountains; in the winters of 1861-62, 1867-68, 1888-89 and 1914, those floods were disastrous. They ripped up buildings and swept away crops and cattle. They made it possible to sail from San Pedro to Compton, and impossible to travel over ground from Compton to Los Angeles.

"At about the 20th of February, rains began and continued without interruption for about 30 days," a beet farmer named L.W. Head said to his interviewer in the late summer of 1914. "It was believed that the sun was not seen during this time. The [floods] carried away the Nadeau vineyards, the sheds, warehouses and everything else movable."

Head's report is contained in a collection of oral histories assembled in 1914 by James Reagan, a flood-control engineer for the county at the time. In them, local residents who survived the 19th century's deluges tell of monthlong rains that sent great boulders tumbling down the San Gabriel River, of the Los Angeles River changing course several times along its route, and of large tracts of land in the south part of the county turned into useless swamps. But residents also recalled the

crushing droughts of 1862 to 1864, when “thousands and thousands of cattle and horses starved to death for food and water,” according to a farmer identified as C.W. Caseboom. “Around [the] springs the cattle crowded to get water. If a weak one got down, it was tramped to death by the others in their effort to get at the water . . . in digging wells I have found bones six or eight feet down in the mud that have been worked in by the countless number of animals that have tramped over them.”

Caseboom saw those wells dry up in his lifetime, and like many of the farmers interviewed, he suspected there were better ways to deal with floodwaters than run them off to the ocean. “Now it seems that the engineers should, instead of conducting the water to the sea where its value is completely lost,” said L.W. Head, “conserve the floodwaters and make them useful in irrigating the vast amount of land that only needs water to make every foot of it productive and valuable. That would mean millions to the county. It will cost millions of dollars to build channels and confine the flood to them. Why not then use this vast amount of money to hold the water and thus make it do double duty by controlling the floodwaters for irrigation purposes?”

In some cases this happened: Twenty dams have been built in Los Angeles County to contain floodwaters and recharge local aquifers, including the Hansen Dam and the Sepulveda Basin Dam, both finished in 1941. But even with all floodwater captured and every stream restored, there would never be enough natural water to sustain the new Los Angeles. As the population grew, Southern California’s cities began importing water from wherever they could find it, from the Colorado River, from Northern California and, most notoriously, from the once-fertile Owens Valley. And with the land’s natural water sources ruled out as a water supply, there was no good reason to protect them at all.

So barring any catastrophic event that would destroy the roads and uproot the springs — a massive global-warming-induced flood or an 8.0 earthquake along some undiscovered Silver Lake fault — Sacatela Creek will not be daylighted in our lifetimes. But Hall plots the future as if anything were possible; she has even drawn an outline for a daylighted Sacatela Creek along Myra Avenue, with cafés and shops in sight of the resurrected little stream.

“This housing development you see here, it’s on a 100-year floodplain,” she says. “The first floor is above the 100-year flood height.

“If I were the planning diva of Los Angeles,” Hall continues, “I’d put a halt on any building within that 100-year floodplain. I’d pull out the asphalt, and restore them as floodplain and detention areas, and if there were creeks buried there, I’d dig up the creek.”



Kuruvunga Springs bubbles out of the ground at University High.

“**Ten or 12 years ago**, if you’d asked me, I would’ve had a pretty firm belief that stream or river restoration in L.A. County contained an awful lot of unanswered questions,” says the writer D.J. Waldie, who has served as the city of Lakewood’s public-information officer since 1978. Twelve years ago, Waldie objected to a plan to restore the Los Angeles River on the grounds that it would lead to more downstream flooding — there’s a reason his city bears the name Lakewood.

“In the intervening time,” he says, “some of those questions have been answered, and my view is more complicated now.” The U.S. Army Corps of Engineers has raised the levees in the lower Los Angeles River to reduce the risk of flooding, and “now,” he continues, “it’s a question of what degree of landscape or nature restoration will fit into the pattern of certain communities.”

Waldie points to the restoration of the Upper Arroyo Seco in Pasadena as an example of stream restoration in a complicated landscape. "You have an existing flood-control channel, some restoration of a streambed, and the possibility in the long run of making that landscape look and feel more like it did 200 years ago. Do you restore the existing flood-control channel or jackhammer out the concrete and give that landscape back to nature? Those are the two poles I wrestle with."

On his recent Asian tour, Mayor Antonio Villaraigosa saw how the government of Seoul, South Korea, transformed the Cheonggyecheon stream, which flows through the city's skyscrapers, from an urban eyesore into a recreation attraction. He even signed a river-revitalization pact with Seoul's city leaders. "This agreement will provide us the tools to share environmental knowledge and technology, as we work to restore the Los Angeles River," said Villaraigosa at the signing. "The Cheonggyecheon River has shown that 'Yes, we can unpave paradise.'"

Few know better how hard it is to unpave paradise than Rex Frankel. As director of the Ballona Ecosystem Education Project, he has long fought — futilely, in some respects — to preserve the Ballona Wetlands, 90 percent of which has been compromised by development. He has come to realize that the Ballona Wetlands' health would improve if the county and city could fix the urban-runoff problem. And so he has also worked hard to put together the numbers to demonstrate that daylighting creeks and restoring wetlands may actually make financial, as well as environmental, sense.

The way Frankel sees it, Los Angeles has three options available to it for cleaning up pollution caused by urban runoff. It can install small-scale systems that capture as much pollution as possible close to its source — filtration devices that either stop garbage from flowing downstream or divert water to existing parks where it can percolate into the ground. "That's the city's one," says Frankel. "They think it's the cheap way of doing it."

The second option, also proposed in the city of Los Angeles' Integrated Resource Plan, is to divert the water to regional treatment plants, facilities that will treat urban runoff like sewage, and cleanse it of nutrients before it hits the beach. "And the third way," he says, "is to unpave our rivers as much as possible, acquire any potential vacant land along the rivers and use them as part of an expanded green-space network."

Frankel, a boyish-looking 42-year-old, almost always dressed in short-sleeved shirts and shorts, sits in his office on L.A.'s Westside where the walls are lined with maps — maps of the Los Angeles basin, of the Ballona Watershed, of a proposed greenway system that would connect all of the local area's open space with contiguous parks, daylighted streams and restored wetlands. "You can't stop the public from doing dumb things," he says as he talks about the reasons individual efforts, though crucial, aren't enough to solve our pollution problem. "Our existence every day produces trash and pollution, and the most concerned citizen can't always prevent it. You need a system that's a fail-safe to deal with it. You can't count on education; you've got to have the infrastructure. And it's going to be incredibly expensive to do it either of the first two ways."

The first option is based on the city's proposal to use some 30 publicly owned sites to reclaim water and use it for landscape irrigation around the region of Los Angeles known as the Santa Monica Bay Watershed — Venice, the Los Angeles Airport area, Pacific Palisades and El Segundo, from which all runoff drains into the ocean. It's a nice idea, says Frankel, but according to his calculations, "They were only capturing about 2 percent of the runoff that the city says it needs cleaned up to meet Clean Water Act standards. The number of days they'd violate health regulations wouldn't decrease at all."

By the city's own estimates, the project will cost \$30 million. "If that's \$30 million to clean up only 2 percent of the runoff," says Frankel, "that means you have to multiply that \$30 million by 50 to get 100 percent compliance [with EPA standards]." On top of that, the Santa Monica Bay Watershed constitutes only 10 percent of the land area in the city of L.A. "So you have to multiply that cost by 10," says Frankel. "That means that to enact this plan for the whole city would cost \$15 billion."

Treatment plants, he estimates, could come to \$15 billion too. "It's not just the treatment plants," he says, "it's getting the water to the treatment plants. You have to do a lot of digging up of old systems and building new ones." An underground water tank, or cistern, costs \$1 to \$1.50 per gallon. "So if you wanted to catch the city's entire runoff, the amount to comply with [EPA rules] would be \$14 billion."

For that money, however, Frankel admits, "You'd also add another 9 percent to the city's water supply."

But to Frankel, that's not necessarily such a good thing. "Isn't that giving every developer in the city a water permit? The only thing stopping developers from going crazy is that Los Angeles doesn't have enough water to accommodate all their plans."

"And in this case," Frankel continues, "river restoration pencils out to be the most economical choice." It is expensive — he suspects it might be more than \$15 billion. Daylighting streams and restoring wetlands would mean buying huge tracts of private property, ripping out its impervious surfaces and making sure those waterways have room to flood. "But once you've spent the money to acquire the land," Frankel points out, "it's self-maintaining. Unlike a treatment plant, it doesn't require power and tens of millions of dollars to maintain. If you're just worrying about your taxes, this is the best deal. Even the Coalition for Practical Regulation people, if they saw the viability of the river-restoration approach, they wouldn't oppose it. And think of all the parkland we'd create!"

Any way you do it, Frankel says, “We’re facing the biggest public-works project in the history of the city. You’re basically retrofitting a city that was developed in the wrong way. Los Angeles was not planned by visionaries. Back East, people knew they could neither pave over the streambeds, nor channelize streams; there was just too much water. Here, because the creeks were either dry or flooded so much of the year, we just said, ‘Screw it. Let’s get rid of them.’ ”

Frankel knows he’s proposing a radical solution. “It’s about changing the way we develop in a way that creates more parks and cleans up pollution,” he says. “It’s retrofitting the city in an environmentally sound way, as opposed to engineering in the old way. I would love to see the politically courageous elected officials in Los Angeles advocate for the third way. They need to see it’s been as beneficial economically as I say it is.”

**A few years ago, City Councilman Tom LaBonge** wanted to fill in Hall’s beloved North Atwater Creek and build a soccer field on top of it. Fortunately for her, other people imagined that the pool of stagnating runoff might be turned into a healthy little wetland with a little modern engineering. In August 2004, after Santa Monica Baykeeper filed a 1998 lawsuit, the U.S. Department of Justice, the EPA, the Los Angeles Regional Water Quality Control Board and several L.A. community groups, along with Baykeeper, reached a \$2 billion settlement with the city of Los Angeles over years of sewage spills. Not only does the settlement require the city to rebuild at least 488 miles of sewer lines, it must also spend \$8.5 million in environmental projects, according to the settlement announcement, “to restore streams and wetlands and to capture and treat polluted storm drain flows throughout the city.” Among the projects named in the settlement is the restoration of Hall’s North Atwater Creek.



LaBonge still believes “we need more sports fields in Griffith Park for the young men and women who play sports.” But he also understands that a process has been set in motion to restore the area as a wetland. “If we failed to get that grant, we’d continue that discussion,” he says. “I’m a great proponent of active recreation.”

And even with the current concrete-channeled water, he does worry about floods: LaBonge remembers watching a rush of water carry a cement mixer down the Los Angeles River on Martin Luther King Jr. Day a few years ago. “It went from Sixth to Seventh Street in nothing flat,” he recalls. But even LaBonge acknowledges that restoring rivers could transform Los Angeles. “In Europe, they’re doing it all over the place,” he says. “I just returned from Berlin, our sister city, and I understood from them that when the wall was there, the river was not loved. And now it is.

“You see,” he says, “cities can change.”

**Not far from Atwater Creek**, next to the University of Southern California Health Sciences complex in Lincoln Heights, plans have already been laid to restore Hazard Creek, a startling 24-acre cut of greenery in an otherwise blighted and institutionalized urban landscape, alongside Hazard Park. Mayor Villaraigosa has told of getting beat up on these grounds as a kid; some people in the neighborhood have dubbed it the “shooting gallery” for all the trouble that gets hidden behind its overgrown brush and fencing. But this small remnant of Hazard Creek also supports native vegetation that’s hard to find in urban Los Angeles, as well as red-legged frogs and black-headed towhees. The natural perennial stream known as Hazard Creek was filled in for a railroad spur at the turn of the last century; it once served as Macy’s Department Store’s loading dock. But in 1966, after the rail line had fallen into disrepair, a conservationist named Alex Man found springs bubbling up in the creek, proving it wasn’t just fed by storm water and runoff. Man launched a campaign to save the creek, but it took 20 years for the county to document the creek as a wetland. To this day, a municipal storm drain dumps dirty water into the creek in violation of federal law.

Recently, with funding from the Berkeley-based Earth Island Institute, the environmental nonprofit organization North East Trees began studying how to restore the creek, working with engineers and landscape architects to devise a plan that would both create habitat and serve the community. The design, which includes a system that will treat water before discharging it into the creek, will be ready in December. So far, however, there’s no funding to actually do the work. None even seems likely.

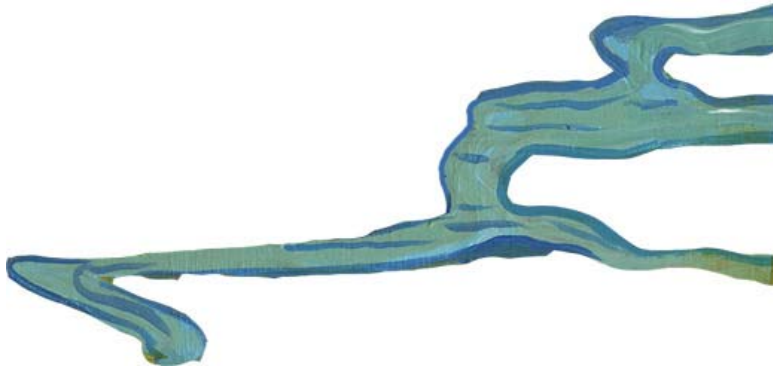
“We’ve been unsuccessful from a number of angles,” says Carrie Sutkin, a project manager at North East Trees. “We were turned down by the state for parks-and-recreation money and water-quality-control funding,” bond money from Propositions 40 and 50 that mostly went to coastal-wetland restoration and large-scale habitat projects. Right now, Sutkin is hoping to secure city-bond money from Measure O, which dedicated \$500 million in 2004 to fund water-quality improvement projects and open space. But she admits it’s a hard sell: Hazard Creek will never be what a lot of funders would like it to be — unsullied open space, a protected wetland.

Sutkin remembers when she believed that if people knew that Hazard Creek was a stream, they’d treat it with more respect. “We put up signs saying ‘Please don’t dump’ and all that, but they were all tagged. Kids do stuff like that. They might appreciate that we’re trying to restore the stream, and they might think it’s cool. But it’s their stream too, and if we restore it, we have to do it with that in mind.

"It's a paradox to have this stream in an urbanized area," she says. "It can't be a pure stream, wetland habitat sanctuary. It can't just be a place for clean water and wildlife. There are just too many people passing through, and in a densely populated urban area, open space is contested. We need to work as park designers to make sure we consider who the users are. This will be a compromised design."

Sutkin estimates that North East Trees and its collaborators need \$1 million to begin construction, and \$5 million to \$10 million to complete the restoration. They also need approval from the county, the city, the Army Corps, and California Fish and Game. And in the end, she worries that the project will fail not on its own merits, but "on forced definitions" of nature.

"The environmental movement has an idea of nature as this pristine thing, and a lot of it is based on the coast," she complains. "Look how many watershed studies have been done of Malibu Creek. But here, we tried to do an East Los Angeles watershed study, to understand what was happening in all these culverted channels and streams — because they're not daylighted, it makes it hard to understand where the water-quality problems are — and we had a hard time generating any interest at all."



**There's certainly more awareness** of water issues on L.A.'s Westside and in the Valley, but activists have a hard time there too. On the banks of an intermittent stream in a steep canyon near the eastern edge of Topanga Canyon Boulevard, river-restoration expert Tom Moody is talking to Los Angeles city engineers looking for ways to repair aging bridges, representatives of the Army Corps who insist the corps thinks about stream restoration as much as it does about flood control, and paid environmental activists. Moody's grandfather devoted his life to damming rivers; Moody has in turn devoted his career to taking them out, and teaching others how to follow his lead. His family history matches the Army Corps' own evolution: "Fifty years ago," he says, "all they talked about was flood control. Now it's habitat, water quality and groundwater recharge."

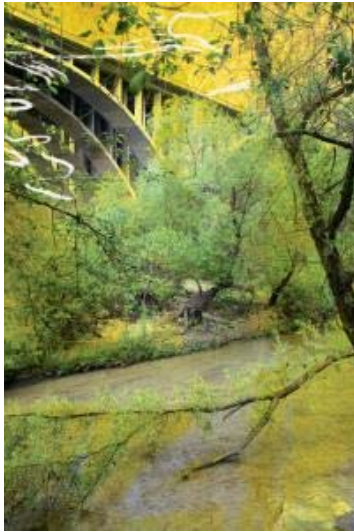
Moody is a tall man, with a woodsman's gray ponytail and beard, and a way of delivering dry information so good-naturedly you mistake it for entertainment. Today he's teaching what's known as "stream morphology," a scientific method to understand the way water works when it runs in a natural channel. But the place where we've come to observe what streams do, Devil's Canyon, is dry when we visit. It's also harder to reach than anyone anticipated; public routes have been blocked off by heavy machinery grading the slopes in preparation for a housing project. One of the workshop's participants, Mary Locquvam of the Wetlands Recovery Project, is livid. "These are the headwaters of the Los Angeles River," she says. "And they're burying them."

She takes my notebook and draws me a crude little diagram, a generous half circle, representing the Los Angeles River watershed. She draws lines coming down out of it into another line that runs down its middle. "From Topanga to the Arroyo Seco, they're all tributaries of the Los Angeles River," she says. "And we're still tearing them up, developing on top of them."

Early last spring, Hall had taken me to see Stone Canyon Creek, a perennial stream that runs out of the Brentwood Hills through the Westwood campus of UCLA. It's a beautiful sight, a stone-lined brook tumbling through a little woody area, hardly noticed by the people who sit in the nearby buildings with their backs to the creek. A few months later, I got a panic-stricken e-mail from her with pictures of large black pipes laid alongside the creek. "Here's an ominous sight," she wrote. A developer had bought the property and planned to pipe the stream to complete his backyard landscaping. He had not cleared his plans with any public agency that watches over streams or watersheds; he had only obtained a permit for his plans from Building and Safety. Hall quickly got on the phone and alerted every available agency, and managed to get Jamie Jackson from Fish and Game to call the owner and inform him that he couldn't culvert the stream without permits from Fish and Game and the Army Corps. But Hall remained worried. Jackson had made it clear that once the permits had been obtained, it would be perfectly legal to bury the stream. Her hopes sank deeper when she learned that the developer had been granted a subdivision permit by the city's Planning Commission that declared the development would have no impact on the creek. "But then the pipes showed up," Hall says.

A coalition of local residents, including Beverly Hills realtor Jon Douglas, appealed the decision, and on October 4, the Planning Commission heard their complaints. Douglas paid for a scientist to testify that containing the stream with a 6-foot

pipe would intensify downstream velocity to the point that it would tear it apart. Paul Herzog of the Ballona Land Trust talked about how culverting more tributaries to Ballona Creek — as Stone Canyon Creek is — would impair already-troubled waters downstream.



Arroyo not-so Seco

But by Herzog's own estimation, "The person of the day was Jessica Hall." She couldn't speak as an employee of the state, only as a citizen, but, Herzog recalls, "She did a little history and went into what would happen in a worst-case scenario — that the downstream stretches of the creek would be ruined."

In the end, the developer was barred from any activity that might affect the creek — even driveways have to be built as bridges. Stone Canyon Creek was saved.

But even as a handful of local activists protected one stream, other natural waterways still remain embattled. A small perennial stream in West Los Angeles, Kenter Creek, has already had a section diverted so one resident could build a swimming pool. Neighbors are up in arms, but no one seems to be able to stop him. Though springs bubble up to feed its year-round flow and minnows swirl in its step pools, the stream does not exist on county maps. And if no one knows it's there, no one can protect it.

Last spring, Los Angeles City Council Member Bill Rosendahl filed a motion asking that the Septic Tank Policy Review Task Force, a coalition of several city agencies, including Building and Safety and the Legislative Analyst's Office, provide "a revised definition of a stream for the City's regulations which is all inclusive and protective of the City's diverse watercourses." Rosendahl also called for a "stream-protection ordinance" of the sort some Northern California cities, including Oakland and Santa Cruz, have already adopted, defining streams, requiring their preservation, and

providing funding for the daylighting and restoration.

The possibility makes Hall giddy. "Can you imagine? It would change everything."

**In the same year** the *Los Angeles Times* celebrated the infilling of Sacatela Creek, John Charles Olmsted and Frederick Law Olmsted Jr., sons of the renowned landscape architect behind New York's Central Park, proposed a city plan for Los Angeles that would have kept development out of floodplains and opened hundreds of acres of park space along Ballona Creek. If city planners persisted in their plans to build walls around the city's rivers, wrote the Olmsteds, creeks like Ballona would "become a very ugly feature in the district, standing empty and dry most of the year; a receptacle for papers and rubbish."

The Olmsteds were overruled in Los Angeles. But down in Orange County, of all places, their anachronistically progressive ideals were heard.

The headquarters of the Irvine Ranch Water District sits on the former site of a duck-hunting retreat, part of which is now managed by the local chapter of the Audubon Club. If you squint into the horizon, you can spot shiny office complexes a few miles a way, but mostly it feels like summer camp here. Somewhere off in the distance you know there are grocery stores and hospitals and restaurants if you need them, but, as I walk the grounds with Irvine Ranch's director of environmental affairs, Norris Brandt, all that matters is counting the number of avocets and stilts — black-necked water birds with extremely long red legs — fishing at the center of the marsh.

On the surface, the San Joaquin Marsh, a 320-acre network of wetlands connected by a network of dirt hiking trails and trickling streams, could just be a very nice park where cool birds hang out. But it's actually an extremely sophisticated water-treatment system that captures flow from the adjacent San Diego Creek, removes many of its toxic substances, and returns it, much improved, back to the creek. The water then flows into Upper Newport Bay and into the ocean.

"Its main purpose is to improve urban runoff," says Smith. "But it has a nice side benefit in that it provides habitat, and an amenity for the community to come out and enjoy nature, and forget that they're in a big urban area." But remnants of what Los Angeles would have been had they prevailed linger in unexpected places.

At Wilmington Park and Nature Preserve, better known as the Wilmington Slough, Hall and I take turns hoisting ourselves over a wrought-iron fence and onto a dirt road. The air smells of methane gas from nearby oil wells, and industrial sounds rumble in the background — trucks beep as they grind into reverse, rusty cranes squeak as they lift pallets from flatbeds to stacks on the ground, engines of various torque and size rev. Homeless encampments line one side of the road.

But if you turn your back on the fence and face inward, face the water and the willows, you could be in a pristine glade where flora and fauna live in perfect balance. Two large turtles bask on a rock in the afternoon sun; scoters, small black water birds with bright white beaks, skim around on the surface. Native primrose grows along the banks near where we stand.

"Careful," Hall warns when I stray too close to the water, "you don't want to get eaten." Reggie, the wayward alligator who

disappeared from Machado Lake a few months ago, might easily swim this way.

“Look,” Hall says. “What if there were no wall there? And instead there was a restaurant complex? You’d need a buffer around here for adequate flood protection — the houses that are already here get flooded out — but just imagine. It could be a real draw.”

At the edge of the water, we stand scanning the water. I look for red-winged blackbirds; Hall listens. “There are frogs here,” she says. “I think I’ve heard two kinds.” I move down the concrete plank to the water’s edge, hoping to better hear the sounds. Planes buzz overhead, on their way to various airports. Random birds twitter.

“It’s weird here,” I confess. “It doesn’t seem to make sense.”

“It is weird,” Hall says sympathetically. “But it’s also kind of cool.”

A water bird with a rust-colored chest, a black crown and speckled black wings alights in the reeds. Time passes. We stand quietly, among the trash and oil rigs, listening for frogs.