By Elizabeth Devitt

If you’ve ever picnicked at Point Reyes National Seashore, hiked in the Golden Gate National Recreation Area, or watched birds in the Don Edwards San Francisco Bay National Wildlife Refuge, then you’ve been among the countless beneficiaries of the Land and Water Conservation Fund. However, the fund might not have a familiar name. Despite granting more than $16.8 billion to preserve outdoor recreation areas in this country, with close to $66 million going to the Bay Area, the LWCF’s contributions often aren’t appreciated outside of conservation circles. That low profile may push the fund past its expiration date next year.

“`The LWCF suffers from a branding problem, “ said Amy Lindholm, LWCF campaign manager for The Wilderness Society. “A lot of folks know federal funds are used to buy these lands, but they don’t really know where that money comes from.”

Now a little recognition could go a long way; the fund needs reauthorization by Congress before the end of September 2015. A nationwide coalition of 1,000-plus organizations is ramping up efforts to get legislation passed that will keep the fund going forever. Although the bill (S. 338, Baucus) has bipartisan support in Congress, that may not be enough to save the LWCF — or the backlog of projects on its funding list — in these budget-crunching times.

When President Lyndon Johnson signed the Land and Water Conservation Fund Act into law on September 3, 1964, the idea was simple: Preserve access to natural resources with some of the money collected for using those resources. Congress authorized the LWCF to draw up to $900 million annually from revenue generated by offshore oil and gas leases, federal motorboat fuel taxes, and surplus property sales. Those monies could then be distributed to four federal agencies — the National Park Service, the Bureau of Land Management, the U.S. Fish and Wildlife Service, and the U.S. Forest Service — or to individual states for outdoor recreation lands, access, or parks. The LWCF could also grant money for related conservation efforts, such as saving working forests, easing land use conflicts with endangered species, or preserving historic battlegrounds.

Each year, after getting recommendations from the president, Congress votes on how much of those resource revenues actually end up in the fund’s coffers. Despite the high demand for LWCF grants, the full $900 million authorization
has only been appropriated twice during the last five decades.

“The fund acts like a big toolbox,” Lindholm explained. “It has a variety of ways to allocate money based on what conservation needs are within a given year.”

Over the years, about 62 percent of LWCF funding has been used for federal land acquisition, according to a 2014 Congressional Research Service report. Of that money, the National Park Service has received 42 percent of the federal agencies’ share. Nearly $14 million from these funds helped the NPS buy 3,858 acres of the historic Rancho Corral de Tierra in San Mateo County. This property became part of the Golden Gate National Recreation Area and helped connect the Bay Area Ridge Trail with the California Coastal Trail.

When grants from the LWCF are awarded to states, the outdoor recreation projects must have matching funds from other sources. The formula for portioning out that money is based, in part, on the state’s population. With more than 38 million people, California has qualified for a larger share of these funds — over $2 billion to date — than any other state.

Among the nine Bay Area counties, San Mateo is the top state grant-getter, with LWCF awards totaling $12,597,763. Most of those monies were received during the earlier decades of the fund. The most recent grant, of $540,913, was awarded in 2012 to improve the Crystal Springs Regional Trail.

Alameda County ranked second, garnering $12,058,604 in LWCF funds. The most recent award, in 2013, gave the East Bay Regional Park District $120,000 for campground improvements at Livermore’s Del Valle Regional Park.

In the past few years, other LWCF awards around the San Francisco Bay include: $249,835 for new multiple-use bike trails and other amenities at McLaren Bike Park in the City of San Francisco; $250,000 to help acquire about 83 acres to create the new Mark West Regional Park and Open Space Preserve in Santa Rosa; and $175,000 for improvements of Marin County’s Samuel P. Taylor South Creek Trails.

“Now is a key time for the park system: The East Bay Regional Park District is celebrating its 80-year anniversary, the California state park system is 150 years old, and the National Park Service turns 100 next year,” said Robert Doyle, the general manager of the East Bay Regional Park District. “All these parks are getting old, so we need to keep every funding opportunity available.”

To draw attention to places the fund has helped preserve, Secretary of the Interior Sally Jewell made highly publicized visits to urban parks and national recreation areas last summer. But without a media blitz, Doyle noted it’s easy to overlook the blue signs that mark the LWCF’s contributions to conservation areas.

“The [LWCF] impact is broad, but the places that resonate with people aren’t going to be the same,” said Kathy DeCoster, vice president and director of federal affairs for The Trust for Public Land. “So we also have to highlight the long-term investments these funds make, from iconic places like the redwood forests to local attachments for particular parks.”

In the Bay Area, spectacular natural resource areas have helped to consistently pull in large LWCF grants. For example, the Golden Gate National Recreation Area has received more than $88 million, Point Reyes National Seashore has been awarded more than $54 million, and the Don Edwards San Francisco Bay National Wildlife Refuge received more than $52 million. Farther afield, but popular with many people in this region, the LWCF granted almost $190 million for land acquisition and trail access around Lake Tahoe Basin.

But not everyone is sold on the LWCF. U.S. Representative Doc Hastings, chairman of the House Natural Resources Committee, thinks this is a good time to reevaluate the program’s priorities, especially given the current multibillion dollar maintenance backlog on our federal lands. Jill Griffiths, the committee’s communications director, said Hastings believes “we shouldn’t be spending millions of taxpayer dollars to buy more federal land when the government can’t afford to maintain the land it already owns.”

The LWCF does allow some funds to be used to maintain parks and facilities. But federal agencies cannot use LWCF grants to address critical maintenance projects as they best see fit — and that’s important because Congress is much more likely to fund ribbon-cutting projects than mundane projects like repairing leaky wastewater systems in national parks, said Shawn Regan, research fellow at the Property and Environment Research Center in Montana.

Other legislators want to see more specific designations for LWCF funds. For example, U.S. Representative Sam Graves of Missouri introduced the No More Land Act, which restricts LWCF funds to maintenance and prohibits land acquisition.

If Congress doesn’t pass the permanent reauthorization bill, the LWCF won’t necessarily disappear. But it will then need to be voted for on an annual basis.

“The LWCF is really a critical funding source now,” Doyle said. “Young people are moving into cities where there may not be national parks close by. We’re lucky. Not everyone has the Golden Gate National Recreation Area or Point Reyes in their back yard.”

Elizabeth Devitt is a freelance science writer based in Santa Cruz.
Monitoring a Microcosm: Study Yields Valuable Air Quality Data

By Alec MacDonald

Most people in the Bay Area have never heard of Forest Knolls, a small unincorporated community nestled in the San Geronimo Valley of western Marin County. However, it serves as a key site for air quality monitoring, yielding data that influences policy development for the whole nine-county region.

Why? Forest Knolls lies so far off the beaten path that its residents don’t receive natural gas service, meaning they must heat their homes through other means, in many cases by burning wood. Therefore, during winter the vicinity is characterized by high levels of wood smoke, an air pollutant that concerns scientists and authorities. A major source of fine particulate matter, wood smoke exacerbates asthma and other respiratory illnesses, as well as cardiovascular problems. It also contains an array of nefarious chemicals, including sulfur oxides, nitrogen oxides, carbon monoxide, and several carcinogenic compounds.

In an effort to protect public health, the Bay Area Air Quality Management District has been working to curb wood smoke for years. In 2008, the agency passed regulation targeting the pollutant, meaning that every winter since, Bay Area residents have been prohibited from burning wood on days with unhealthy air quality forecasts. The resulting reduction in wood smoke from fireplaces and other devices has helped minimize the number of times when the region’s air violated the federal health standard for fine particulate matter. Yet while the regulation has demonstrated clear success in this regard, room for improvement remains, which is why the Air District has been studying Forest Knolls.

In January 2013, the agency installed an aethalometer there. Through optical analysis, aethalometers can provide a sense of how much fine particulate matter in the air has come from vehicles and wood burning. As Forest Knolls has sparse traffic and no nearby freeways, its aethalometer readings can be expected to derive primarily from wood smoke. This assumption fits the data gathered so far, especially in comparison with air monitoring stations across the region. During the summer of 2013, Forest Knolls produced readings of less than half that found in San Jose, West Oakland, and Livermore, but in December, the tiny outpost more than doubled the large municipalities. Furthermore, wintertime readings in Forest Knolls barely changed from weekdays to weekends, the way they did in the three cities where commute patterns generated dramatically higher vehicle emissions Monday through Friday. These trends have continued in 2014.

While examining the dynamics of wood smoke around Forest Knolls, the Air District has also taken action to help mitigate the air pollutant within the San Geronimo Valley. In partnership with Marin County, the agency is currently offering rebates for valley inhabitants to replace outmoded woodstoves with cleaner burning appliances, the latest in a set of incentives and ordinances crafted by the two government bodies. Beyond such local programming, however, the monitoring in Forest Knolls may have a wider impact, because the Air District intends to consider the results as a part of an upcoming review of its wood burning regulation. In addition to scientific data, the review will incorporate public input from stakeholders across the region. Until the time comes to give this input, urban and rural residents alike can do their part now by saving their neighbors a little respiratory grief and putting on an extra sweater.

Alec MacDonald is the editor of the Bay Area Monitor.
Road Test: Pilot Program to Explore Mileage Fee

By Quynh Tran

The California Legislature’s new law on road use may eventually lead to drivers paying for how far they travel. Senate Bill 1077, passed on September 29, will create a pilot program to test the potential of replacing the state fuel tax with a road usage charge based on miles driven.

Supporters of the bill said the state will face decreased revenue for transportation needs as vehicles become more fuel-efficient and less gasoline is used in the future.

“The gas tax is ultimately an unsustainable way to fund adequate maintenance of our roads. We will need to examine several alternatives to the gas tax,” said SB 1077’s author, state Senator Mark DeSaulnier, in a press release issued while the bill underwent legislative review earlier this year.

Currently, California drivers pay 36 cents per gallon in state gas taxes and 18.4 cents per gallon in federal taxes. The Bay Area receives $350 million annually from the state from revenues generated by state gas tax. According to a report from the Metropolitan Transportation Commission, a road usage charge of a half cent per mile alone would raise $285 million a year for the region.

Gas taxes are considered regressive because they absorb a higher share of budgets in low-income households. A road usage charge is less regressive and would also equalize spending rates between all types of vehicles (whether electric, hybrid, or gas guzzlers) and types of road use (whether interstate, regional, or local).

The current gas tax funds specific transportation needs such as the construction and maintenance of highways, bridges, and pedestrian and bicycle paths, as well as the construction of mass transit systems. However, it does not include the operations of mass transit or purchases of its vehicles, such as BART trains.

Because the eligible uses of a road usage charge have not been defined, once implemented it potentially could fund the operations of mass transit systems as well as the purchases of new trains, an attractive option for Bay Area commuters.

California’s pilot program will be in place by January 2017 using several thousand volunteer drivers who are willing to have their mileage recorded. A 15-member technical advisory committee will guide the project and report its findings to the Legislature by June 30, 2018.

Selected by the chair of the California Transportation Commission, the committee members will represent the telecommunications industry, highway user groups, data security and privacy rights advocates, regional transportation agencies, and national research and policymaking bodies.

California is not alone in facing a transportation funding shortfall. Other states — including Oregon, Washington, and Minnesota — have examined the issue and provide clues to how California may implement its study.

After two earlier pilot programs, Oregon will launch a full-fledged program next July. The state will charge 5,000 volunteer drivers 1.5 cents per mile, which can be recorded using a GPS tracker, a daily logbook, or an odometer device.

Drivers will be billed monthly and then reimbursed to offset the gasoline tax they’ve already paid.

In Oregon’s most recent pilot program, drivers had four plans to choose from for reporting their mileage. The basic plan reported all miles driven. The participants installed their own mileage reporting devices into the diagnostic port in their vehicles, and in most cases did so easily without help and additional tools.

The smartphone plan required a smartphone application that recorded all miles or Oregon miles only; participants could control when location data was enabled or disabled.

The flat fee plan charged drivers $45 per month, equivalent to roughly 3,000 miles. This option turned out to be the most expensive, as it did not adjust for mileage changes throughout the study. Accordingly, few volunteers chose this plan.

Opponents of the California law cite privacy concerns. However, SB 1077 includes specific language to protect drivers from misusage of their information and excessive monitoring. Part of the reason for conducting the study is to see if a mileage-based fee could be collected in a manner that is respectful to the privacy of drivers, according to DeSaulnier’s office.

Quynh Tran is a writer and communications professional based in the East Bay.
Safe Harbor: Rigging the Water Trail to Welcome Everyone

By Chris Ingraham

Water recreation is a mainstay of Bay Area culture. And it’s about to become even more accessible. The San Francisco Bay Area Water Trail — a network of over 100 launch and landing sites for non-motorized watercraft throughout the nine-county region — is trying to better accommodate people with disabilities. To that end, the California Coastal Conservancy, the government organization primarily responsible for managing the Water Trail program, has recently developed a 173-page draft accessibility plan to help bring the ideal of universal accessibility closer to reality.

Although originally passed in 1990, the federal Americans with Disabilities Act did not address recreational boating facilities until 2010, and many owners of the Water Trail’s various launch and landing sites remain unsure how to meet the requirements. Responsibility for compliance rests with these independent site owners, but the Water Trail on the whole, as a state agency program, must be accessible to people with disabilities. The draft plan surpasses the letter of the law, however, recommending site features that improve access beyond the legal requirements.

The draft plan serves as both a guide to best practices and as a resource for site owners interested in furnishing more accessible options. One chapter describes the laws, regulations, and standards for disabled access to recreational boating; another chapter provides contacts and resources to consult for further insight. Ultimately, the draft plan concludes, three features of launch and landing sites are essential to fostering more accessibility.

One, they need to provide a firm surface for crossing any beaches, as it’s hard to maneuver a wheelchair through sand. One solution is something called a “beach mat,” a portable rollout pathway made of rubberized material. San Francisco’s Crissy Field, for instance, utilizes a woven plastic beach mat that goes to the high tide line. A more permanent option is coming to Ferry Point in Richmond, where the East Bay Regional Park District is putting in a concrete pathway.

Two, they need to provide low-float docks as opposed to high-freeboard docks. The latter are what you’d typically see at a marina, involving a ramp for motorboats to go down into the water. Such docks are not especially close to the water’s surface because the boats that use them ride higher. Low-float docks, however, are secured so as to float up and down, probably no closer than nine inches above the water’s surface; they’re designed to make it easier for people to get in and out of watercraft. The challenge, however, is more than making a launch and landing site accessible to people with disabilities.

Because different kinds of watercraft have different launching needs, the Water Trail sites also face the challenge of being accessible to different kinds of boats.

Three, sites need to implement “transfer systems” to facilitate getting boats and passengers in and out of the water. So far, there aren’t very many such systems around the Bay Area. A good example, though, is at Marina Green, just west of Fort Mason in San Francisco. The launch site there has a low-float dock, shaped like a “T” and fitted with rollers to help watercraft get into the water. The draft plan includes two appendices pertaining to transfer systems, as well as cost estimates for each of the different methods.

Moreover, the draft plan describes the nature of the Water Trail program, details the kinds of non-motorized boats it serves, and addresses the public’s specifically expressed water recreation needs. In addition to being a resource for site owners, in other words, the draft plan lays out the Water Trail’s internal program-level ideas and intentions: for instance, to help develop at least one “high accessibility site” in each of the 14 geo-regions that the system spans, potentially through grant funding. According to the draft plan, efforts are also in motion to provide more information on the Water Trail website, so that people can tell whether a particular launch or landing site will work for the needs of those with a specific disability.

The California Coastal Conservancy’s board of directors is scheduled to finalize the draft plan on January 29. After that, we’ll all be boating soon.

Chris Ingraham works as a freelance writer while completing a Ph.D. in rhetoric.
Cultivating Water Wisdom: New Ways to Encourage Us to Use Less

By Robin Meadows

California has such a glorious climate that we can usually skip the forecast. Southern California? Mostly nice and sunny. Northern California? Aside from a few furious storms, much the same. But three straight winters of blue sky has been too much of a good thing, turning us into weather followers. We are desperate for rain.

So far, signs point to a fourth dry winter, with exceptional drought likely through January 2015 in 60 percent of the state, according to the National Weather Service’s Seasonal Drought Outlook. This area includes the Sierra Nevada, which provides much of California’s water in good snow years.

Meteorology is an uncertain science, however, and we can still hope that this winter will be the one to deliver us from drought. But we can do far more than wait for the skies to open and save us. Conservation has the potential to cut urban water use by 57 percent statewide, according to the 2014 analysis by the Pacific Institute (PI) and the Natural Resources Defense Council (NRDC). Moreover, the report found that the combination of conserving and reclaiming water is cheaper than developing new supplies.

Australia, where periodic drought is also a way of life, is far ahead of us in water conservation. While Californians use about 200 gallons per capita per day, Australians use just 75, according to the California Department of Water Resources (DWR) and the Australian Bureau of Statistics, respectively.

How did Australia manage this? A 2013 UC Davis study by Ryan Cahill and Jay Lund credited three main factors: higher water rates, which are close to 50 percent more than in California; nearly comprehensive adoption of dual-flush toilets, which use as little as 1.5 gallons; and permanent restrictions on outdoor use. Melbourne, for example, prohibits outdoor watering between 10 a.m. and 8 p.m. all the time, not just during drought years.

In California, two obvious targets for conserving water are residential landscaping and leaks. Two-thirds of our urban water use is residential and about half of that goes to landscaping, said NRDC water expert Ed Osann. And 10 percent of our water is lost to leaks, according to DWR.

“We know how to conserve water,” Osann said. “We just have to start doing it.” The drought is nudging us. We used 10 percent less water statewide in September 2014 compared to a year ago, according to the State Water Resources Control Board.

And changing the way water is priced would push us to conserve even more, Osann said. Water rates are often flat, failing to differentiate between basic needs like bathing and laundry, and discretionary uses like sprinkling lawns. He advocated charging more for use above a baseline allowance, as is common for electricity and natural gas. In a recent pilot study in Riverside County, such tiered pricing cut residential water use by 15 percent.

Osann also recommended seasonal pricing, another tool used to cut power consumption. “Water costs the same year-round but is more expensive to supply in the summer,” he said. It takes electricity to treat and distribute water, and electricity rates rise in the summer when demand peaks. Likewise, water demand peaks when it’s hot: summer use rates can be double those of winter.

The major drivers of residential water use are wealth, lot size, and climate, according to UCLA sustainability expert Stephanie Pincetl, who helped supervise a 2014 research project that analyzed single-family residential water consumption across Los Angeles. The project found that mandatory restrictions are more effective than voluntary ones, cutting water use 23 percent compared to only 6 percent, respectively. “Just saying ‘please use less water’ is too vague,” Pincetl said. The project also found that people generally overwater their yards, which could be addressed by bumping up rates on outdoor use. Different rates for indoor and outdoor water would require separate metering, and this could be incorporated into the rollout of water meters in the Central Valley. “There are lots of places there without water meters and they’re mandated to be in place by 2025,” noted Pincetl. In the Bay Area and the rest of the state, dual water meters could be required for new construction and retrofits.

Why focus on cities when agriculture uses 80 percent of the water statewide? “We’re all in this together,” Pincetl said. “If we want to eat food that’s grown in California, we should...
allow agriculture to have the right amount of water. It’s kind of a zero-sum game.” California grows nearly half of the fruits, nuts, and vegetables produced nationwide, according to the California Department of Food and Agriculture. That said, agriculture statewide could cut water use by 22 percent and still maintain its irrigated acreage and crop mix, according to the PI-NRDC water conservation analysis.

Water districts can balance “sticks” like tiered and outdoor water rates with the new “carrot” approach of sending personalized reports on water consumption. These reports update people on how much water they use compared to matched households, with smiley or frowny faces as appropriate. This tactic encourages energy conservation, and the same holds for water. Such “positive peer pressure” reports cut water use by 5 percent, according to an East Bay Municipal Utility District pilot study funded by the California Water Foundation, a nonprofit that supports science-based solutions to our water needs.

“Changing people’s behavior is very difficult, and I like to call this approach ‘keeping up with the Joneses,’” said EBMUD spokesperson Abby Figueroa. “The biggest savings tended to be from people who got sad faces.” The reports incorporate techniques — such as amplifying motivation and increasing the frequency of triggers — found to change people’s long-term behavior by Stanford’s Persuasive Technology Lab. These home water reports are now being adopted by numerous other water districts in the Bay Area, said Jeff Lipton, spokesperson for WaterSmart Software, the San Francisco company that developed them.

Another key feature of the home water reports is detailed data on water use. “You can’t save water if you don’t know how much you use,” stressed Elizabeth Dougherty, founder of Wholly H2O, a Bay Area nonprofit dedicated to sustainable water management. An extreme water conservationist, Dougherty looks forward to getting the water statements that chart her progress. “It makes conservation super fun,” she said. Over time, she has pared her own water use to just 15 gallons a day. That might be too hard for the rest of us, but most of us could easily use less water than we do.

Robin Meadows (www.robinmeadows.tumblr.com) is the reporting fellow for the 2014-15 Water Education Initiative.

Bay Area Monitor History, Part II: The First Decade

By Leslie Stewart

The mid-1970s were times of change for Bay Area car owners. New federal air regulations were beginning to take effect, eliminating leaded gas and prompting a flurry of proposals for vehicle inspection programs (now Smog Check). By the late 1970s, the nation was in the throes of the energy crisis, with gas both expensive and hard to get.

Alternatives to driving faced challenges as well. According to an early issue of the Bay Area Monitor from December 1975, Southern Pacific Railroad wanted to sell the West Bay Corridor commuter line (now Caltrain), which it was operating at a deficit of over $5 million a year. BART, which had promised a seat to every rider, was standing-room only on the Concord line by 1978. In the spring of 1979, there was a fire in the Transbay Tube which shut down transbay travel for weeks while repairs were made and policies were revised. Ridesharing and vanpools were new concepts — the Golden Gate Bridge District made news in 1975 by allowing vanpools to cross the bridge for free during commute hours.

In 1979, the Grand Award from the Metropolitan Transportation Commission went jointly to Rides for Bay Area Commuters, a nonprofit vanpool organization, and Sara Conner, former League of Women Voters of the Bay Area president, for her volunteer work on transit. The League, and the Monitor, were very concerned with how driving alternatives would fit within a rapidly evolving transportation landscape, and they knew the region needed to meet the new federal air quality requirements. Accordingly, Holly Hollingsworth O’Konski, Monitor editor from 1977 to 1983, wrote about transportation and air quality issues worldwide with a focus on the Bay Area. A favorite feature was her “Ghost Rider” report on transit expeditions, such as one in March 1980 from the East Bay to Marin, about which she wrote, “If I had driven my car, travel time would have been 15 to 20 minutes less for each trip; but none of the time could have been spent productively,

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and the cost would have been about $15 more at 25¢ a mile.”

Recurring Monitor themes during the decade from 1975 to 1985 included the struggles to enact a statewide smog check program, transit funding allocations, the woes of the Peninsula Commute Service, and the developing and sometimes competing roles of regional agencies. Reports on joint planning committees, transit operator groups, and state transportation plans were a constant. Regional plans were followed step by step: airports, seaports, and ABAG’s 1978 Environmental Management Plan covering air quality, water quality, water supply, and solid waste.

In October 1982, the Monitor reported that the state had finally passed a smog inspection bill; by then the region was already in the midst of an update of the first air quality plan. Meanwhile, topics had expanded to intercounty rail transit projects and other commute alternatives like bicycles. An April 1983 article noted that “[a]ccording to MTC, a ‘Super Pass’ may be created, good on BART, Muni, and AC Transit, in about two years.”

At the same time, BART introduced its first weekly schedule.

After O’Konski’s departure in 1983, the next editors focused on a wider range of regional topics. As residents got used to Smog Check and began worrying about groundwater, articles began to cover issues such as sewer infrastructure problems and toxic pollution, as well as the staples of transportation and air quality. After 10 years, the Monitor was ready to cover the full scope of regional government.

Leslie Stewart is the most recent former editor of the Bay Area Monitor.