Oaks

SPRING/SUMMER 2020 CALIFORNIA OAKS

Oak restoration project a step toward returning indigenous fire

By Tom Greco, Lomakatsi Restoration Project

The story is all too familiar for those living in the West: dry, overly dense vegetation, combined with low humidity and high winds spreading flames at an alarming rate. Fires visited an oak woodland adjacent to the small rural town of Fall River Mills, in Shasta County—twice in the past two years.

In 2018, the Hat Fire burned 1,900 acres along State Route 299, from the eastern tip of the Shasta-Trinity National Forest to the edge of Fall River Lake, which borders downtown Fall River Mills. Then this past winter, fire returned to the same oak woodland, on 20 acres near where the Hat Fire scar was still visible. But this time, the fire was intentional.

Crews from Lomakatsi Restoration Project (Lomakatsi), a nonprofit based in Ashland, Oregon, partnered with the tribal community in Fall River Mills to conduct a controlled burn in December 2019. This effort marked a significant step for members of the Ajumawi people of the Ajumawi-Atsuge Nation in returning beneficial fire to their ancestral homelands.

The controlled burn builds on the Fall River Trail Improvement and Ecocultural Enhancement Project, a collaborative ecological restoration effort between Fall River Valley Community Services District, Lomakatsi, the Ajumawi, and Inter-Tribal Ecosystem Restoration Partnership, with funding from the Pacific Forest and Watershed Lands Stewardship Council. Carried out on Pacific Gas and Electric watershed lands, the project aims to improve oak woodland health and habitat for wildlife, while reducing wildfire risks to adjacent homes and the town of Fall River Mills.

Lomakatsi Restoration Project

The oak restoration project marking crew composed of staff from Lomakatsi Restoration Project and Issi Wah Ecocultural Restoration Services.

Species that will benefit from this work include black and white oak—both of particular importance to the tribal community—as well as the many wildlife species that call the oak woodland home, from acorn woodpeckers to mule deer.

By improving woodland health along Fall River Lake, which is part of the Pit River and greater Sacramento River watersheds, the work will reduce erosion and runoff, and enhance habitat for the endangered Shasta crayfish (*Pacifastacus fortis*) and threatened rough sculpin (*Cottus asperrimus*). Redband trout and Modoc sucker (*Catostomus microps*), which are important subsistence foods for the tribal community, also stand to benefit.

Oak woodland restoration will also enhance living cultural resources that the tribal community depends on for subsistence, such as acorns, which have been gathered as a major food staple for thousands of years. Guided by Traditional Ecological Knowledge, this effort reintroduces a sophisticated indigenous horticultural practice of favoring oak trees by reducing competition around them, and carefully applying fire to ensure a good mast of acorns for gathering.

The restoration began in 2019 when Lomakatsi and Issi Wah Ecocultural Services, Inc., a local, tribally-owned business, conducted ecological thinning and fuel hazard reduction at the site by removing dense juniper and pine near white and black oak trees. A major emphasis of the work was to protect the large, older oak trees—known as "legacy trees"—by reducing the small trees that cause stress through competition for nutrients, sunlight, and water. Fire-prone smaller trees can also serve as ladder fuels that allow fire to jump into the canopy.

— continued on page 3

Inside

California Oaks Coalition

California Oaks Coalition brings together national, state, regional, and local organizations to conserve and perpetuate the state's primary old growth resource. Members of California Oaks Coalition are united by the vital role of oaks in sequestering carbon, maintaining healthy watersheds, providing habitat, and sustaining cultural values:

Amah Mutsun Land Trust; American River Conservancy; American River Watershed Institute; Banning Ranch Conservancy; Butte Environmental Council; California Invasive Plant Council (Cal-IPC); California Native Plant Society (CNPS), including CNPS Dorothy King Young Chapter, CNPS San Diego Restoration Committee, and CNPS Sanhedrin Chapter; California Water Impact Network (C-WIN); California Wilderness Coalition (CalWild); Californians for Western Wilderness (CalUWild); Carpe Diem West; Center for Biological Diversity; Chimineas Ranch Foundation; Clover Valley Foundation; Dumbarton Oaks Park Conservancy; Elder Creek Oak Sanctuary; Endangered Habitats Conservancy; Endangered Habitats League; Environmental Defense Center; Environmental Protection Information Center (EPIC); Environmental Water Caucus; Foothill Conservancy; Forests Forever; Friends of the Richmond Hills; Friends of Spenceville; Hills For Everyone; Lomakatsi Restoration Project; Los Padres ForestWatch; Lower Kings River Association; Napa County Water, Forest and Oak Woodland Protection Committee; Northern California Regional Land Trust; Planning and Conservation League; Redlands Conservancy; Resource Conservation District of Santa Monica Mountains; River Ridge Institute; Rural Communities United; Sacramento River Discovery Center; Sacramento Tree Foundation; Santa Clarita Organization for Planning and the Environment (SCOPE); Save Lafayette Trees; Shasta Environmental Alliance; Sierra Club Placer County; Sierra Foothill Conservancy; Tejon Ranch Conservancy; Templeton Heritage Tree Foundation; Tuleyome; Tuolumne River Trust; and University of California Los Angeles Botanical Garden.

California Oaks provides four areas of support for coalition members:

1) Research and advocacy updates.
2) Information to educate and engage the public.
3) Tools for participating in planning processes and educating opinion leaders.
4) Materials to inform local, regional, and state governmental agencies of the opportunities for and benefits of protecting oak woodlands.

For more information, please contact Oaks Network Manager Angela Moskow, amoskow@californiaoaks.org or 510-763-0282.

Victory for the Richmond Hills

by Janet Kutulas, Friends of the Richmond Hills

Residents of Costra Costa County's El Sobrante valley have challenged proposals to build large-scale, unaffordable subdivisions in the Richmond hillsides for more than 40 years. These hillsides, which are prone to landslides, are adjacent to East Bay Regional Park District land and home to a diverse system of creeks, springs, ponds, wetlands, deep willow-filled canyons, and oak woodlands—habitat for native California plants and wildlife.

The Richmond Hills Initiative (RHI), modeled on similar successful measures in other nearby cities (notably Hercules and Dublin), was written by Friends of the Richmond Hills, a local and regional community organization, and member of California Oaks Coalition. RHI changes zoning regulations to secure permanent protections for approximately 430 acres.

Five thousand Richmond voters signed and endorsed the RHI petition, which was subsequently unanimously adopted by the Richmond City Council in January 2017. Shortly thereafter, several property owners/investors sued the City of Richmond, hoping to retain development rights. The case was heard in Superior Court in early 2018, and the judge ruled that the majority of the issues raised by the plaintiffs were not valid. He also ruled, however, that RHI creates an "inconsistency" in the Richmond General Plan because one land use designation and the plan's land use diagram no longer match general plan text amended by RHI. The judge issued a final ruling in May 2018 invalidating the initiative.

The Sierra Club appealed the decision, and in October 2019 the California Court of Appeal reversed the trial court and reinstated RHI. The appeals court held that the proper remedy to the initiative's inconsistency with the General Plan was not invalidation, but rather to have the city fix the inconsistency. The appeals court sent the case back to trial court with instructions to issue a writ of mandate to the city. The appellate opinion was certified for publication, and the case has become a statewide precedent.

These beautiful hillsides are some of the last unprotected natural habitat in the East Bay. With the passage of the initiative, there are now good prospects for proper stewardship of these lands.

Visit savetherichmondhills.org to learn more.

Donation of land

An 80-acre parcel within the RHI area was donated by developer Gray1 Forest Green, LLC to El Sobrante's East Bay Waldorf School in May 2019. The property is adjacent to the school's 11-acre campus and includes extensive oaks and two seasonal streams.

Stann Whipple, the school's point person for stewardship of this property, notes that it was left largely unattended by the absentee investment company and will require active management to restore its ecological health. Nonetheless, biologists who have visited the site have remarked on its extraordinary native riparian vegetation.

"Our vision for the medium to long-term use of the land is starting to emerge with a series of land visits that began last autumn and through the formation of a Land Use Advisory Committee," Whipple said. "We want to be good stewards of the land and see it improved for the betterment of its natural aspects. We would also like to see it utilized for environmental education and other appropriate uses by schools and local communities."

Stann Whipple

Getting to know our native oaks, up close.

RESOURCES

UC OAKS WEBSITE:
https://oaks.cnr.berkeley.edu/. Includes an "Ask an expert" link.

WILDLIFE RESCUE:
California Department of Fish and Wildlife maintains a listing of animal rescue facilities throughout the state: www.wildlife.ca.gov/Conservation/Laboratories/Wildlife-Investigations/Rehab/Facilities.

INFORMATION ABOUT NURSERIES AND TRANSMISSION OF *PHYTOPHTHORA* PATHOGENS:
California Oaks readers are generally familiar with the danger Sudden Oak Death (*Phytophthora ramorum*) poses to a number of California oak species, but may not be aware of other *Phytophthora* pathogens, which can be delivered into the landscape by infected nursery plants. These *Phytophthora* species can debilitate or kill the planted material, and spread from the planting site to attack and kill adjacent vegetation. The planting site can become permanently infested, causing long-term problems in the landscape, limiting the type of plants that can be grown, and serving as a source of spread to other areas. Phytosphere Research's website includes information on the wide variety of root-rotting *Phytophthora* species that are ubiquitous in the nursery trade: http://phytosphere.com/soilphytophthora/index.html.

Three papers published in Western Arborist provide additional detail:

http://phytosphere.com/publications/Swiecki_et_al_Phytophthora_Part1-Western_Arborist_FALL_2018.pdf

http://phytosphere.com/publications/Swiecki_et_al_Phytophthora_Part2-Western_Arborist_Winter_2018.pdf

http://phytosphere.com/publications/Swiecki_et_al_Phytophthora_Part3-Western_Arborist_Spring_2019.pdf.

The Phytophthoras in Native Habitats Work Group (see calphytos.org), part of the California Oak Mortality Task Force, was formed to help restoration practitioners and land managers identify practices needed to protect wildlands from destructive *Phytophthora* pathogens. Both the work group and California Oaks Coalition member California Native Plant Society have adopted best management practices (BMP) for producing nursery plants that are free of *Phytophthora*. A small number of native plant nurseries have successfully implemented these BMPs and are participating in a pilot nursery accreditation program. This program is entering its second year and will be expanding to additional California native plant nurseries.

Montecito Ranch is saved!

Wildlife Conservation Board

Westerly view of grasslands on an eastern portion of the Montecito preserve

by Angela Moskow, California Oaks

In 2015, San Diego County approved a 415-unit subdivision on the 950-acre Montecito Ranch for development despite the biological significance of the Ramona grasslands, a key component of the ranchland. A multiyear conservation effort led by Michael Beck, president of Endangered Habitats Conservancy (EHC), reversed this outcome in February 2020.

EHC formed a partnership with California Wildlife Conservation Board (WCB), Marine Corps Base Camp Pendleton, Naval Facilities Engineering Command Coronado, California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and California Wildlife Foundation, and raised $18 million to acquire and preserve the property. WCB contributed $5.6 million and the Department of Defense's Readiness and Environmental Protection Integration (REPI) program contributed $9 million. An additional $3.4 million was secured through federal Section 6 funding, which is for conservation activities that benefit threatened and endangered species on nonfederal land.

EHC, a member of California Oaks Coalition, will own and manage Montecito Ranch. The resulting protected area will expand the Ramona Grasslands Preserve, which serves as a core habitat area within a regional network of conservation lands in eastern San Diego County. The protection of Montecito extends the conservation lands to oak savanna, riparian woodlands, alkali playas, native perennial grasslands, and rock outcrops that contribute to the area's diversity and ecological functions.

At 5,000 acres with the addition of Montecito, the preserve coincides with federal critical habitat designations for San Diego fairy shrimp (*Branchinecta Sandiegonensis*), arroyo toad (*Anaxyrus californicus*), and California gnatcatcher (*Polioptila californica*). The biological significance of this habitat is further underscored by the southernmost population of endangered Stephens' kangaroo rat (*Dipodomys stephensi*) and a diverse raptor community, which includes nesting golden eagles (*Aquila chrysaetos*) and the county's largest population of wintering ferruginous hawks (*Buteo regalis*).

— continued from page 1

Without fire—either from lightning or indigenous cultural burning—juniper and pine can grow above and eventually shade out oaks, threatening the biodiversity that oaks sustain. In addition to removing encroaching evergreen trees, project crews also girdled some to create future dead standing habitat, especially in cases where they had grown interlocked with oaks and would have been difficult to fell.

The slash generated from thinning was piled by a six-person tribal youth crew employed by Lomakatsi through a training program, and managed by Ginger Amoroso, Lomakatsi's Tribal Partnerships Associate and elected Cultural Representative of

Lomakatsi Restoration Project

Members of the Lomakatsi Tribal Youth Crew pile slash from juniper trees thinned as part of an ecological restoration effort to protect oaks.

— continued on page 5

Rescuing wild seedlings on "Blue Oak Island"

This image is courtesy of the aerial photography collection in the University of California Santa Barbara Library's Department of Special Research Collections, with the notation added by Tim Vendlinski.

An aerial photograph from 1937 shows a large grove of mature trees that were later fragmented by the freeway.

by Tim Vendlinski, life scientist

About 200 wild blue oak seedlings growing within the Capital City Freeway interchange at Watt Avenue in Sacramento will be protected through a unique conservation project carried out in partnership with the Sacramento Tree Foundation (STF) and California Wildlife Foundation's (CWF) California Oaks program. The project focuses on seedlings germinated from acorns, many of which were collected and planted by California scrub-jays from a trio of majestic blue oaks within the interchange.

These venerable oaks have been growing along Arcade Creek for centuries, and they were spared by Caltrans in 1956 when construction of the freeway fragmented a large grove surrounding the creek. The trees continue to provide valuable habitat for oak-dependent species, including the jays and acorn woodpeckers, despite extensive plantings of non-native, invasive trees.

The project will remove invasive plants from around each seedling, perform corrective pruning on young trees damaged by routine maintenance practices, and install tree shelters to protect the seedlings for the next three to seven years—the period needed for their establishment.

The freeway interchange divides the east and west sides of Del Paso Regional Park, a 650-acre tract of city land surrounded by northern Sacramento County. The City of Sacramento purchased the park in 1910 when the fabled Rancho del Paso was subdivided by the Sacramento Valley Colonization Company. By then, the Valley Nisenan of the Maidu Tribe, who had stewarded the region for centuries, had been displaced.

Sacramento's City Council made a Natural Area designation in 1985 to mitigate for the clearing of oak savanna to build the Sacramento Softball Complex (see: fs.usda.gov/treesearch/pubs/28028). A second such designation, made in 2002, brought the total amount of protected land in the park to 100 acres, helping to secure one of the last strongholds for oaks in the region. An additional 50 acres of habitat suitable for Natural Area designation are currently threatened with conversion to pavement and turf, or transfer to private developers. Most of the park is devoted to intensive recreation on land that was once oak woodland, native grassland, vernal pool, and freshwater laguna.

The population of large, mature oaks across the region is succumbing to a multitude of stressors including ground disturbance, irrigation, vandalism, and drought. And yet, little is being done to conserve their legacy and genetic lineage through the stewardship of their acorns and wild seedlings.

Since 2016, I have collaborated with STF (a member of the California Oaks Coalition), the City of Sacramento, the Sacramento Horsemen's Association, Morton Golf LLC, the Sacramento Area Creeks Council, and the Girl Scouts on a re-oaking strategy for a half-mile segment of Arcade Creek within Del Paso Regional Park. We have planted and irrigated over 900 oak seedlings within the park's interior and rescued another 75 wild oak seedlings on the park's periphery. CWF's Vesta Fund supports the conservation of the 200 blue oak seedlings growing within the oval of the freeway interchange, bringing to nearly 1,200 the total number of oaks planted or conserved since the re-oaking strategy was initiated.

I am also urging Caltrans to designate the oval as the "Blue Oak Island Conservation Area," consistent with *State Senate Concurrent Resolution Number 17: Oak Woodlands,* and to change the maintenance practices to favor the recovery of the local blue oak population. (See below for more information on this resolution.)

As stakeholders plant and conserve oaks along the banks of Arcade Creek, we are helping Caltrans comply with provisions of Resolution 17, and the City of Sacramento to comply with oak conservation measures within the 2035 General Plan. In turn, we are helping to ensure that blue oaks remain a key feature of Sacramento's environmental portfolio, and that they provide shade, beauty, and biodiversity for generations to come.

Excerpts from Senate Concurrent Resolution No. 17—Relative to oak woodlands, enacted September 1989

WHEREAS, There are a number of state departments, agencies, boards, and commissions exercising land use planning duties and management with respect to public and privately owned oak woodlands, including, but not limited to, the Department of Fish and Game, Department of Parks and Recreation, State Lands Commission, California Coastal Commission, Department of Forestry, and Office of Planning and Research; now, therefore, be it

Resolved by the Senate of the State of California, the Assembly thereof concurring, That all state agencies, including, but not limited to, those specified in this measure, having land use planning duties and responsibilities shall, in the performance of those duties and responsibilities and in a manner consistent with their respective duties and responsibilities, undertake to assess and determine the effects of their land use decisions or actions within any oak woodlands containing Blue, Engelmann, Valley, or Coast Live Oak that may be affected by the decisions or actions.

Resolved, That those state agencies undertake, in the performance of their duties and responsibilities, to preserve and protect native oak woodlands to the maximum extent feasible and consistent with the performance of their duties and responsibilities, or provide for replacement plantings where Blue, Engelmann, Valley, or Coast Live Oak are removed from oak woodlands.

Tim Vendlinski

Open spaces along the Capital City Freeway in Sacramento could be managed to the benefit or detriment of the blue oak population in the Sacramento Valley; the choice is up to us.

Dumbarton Oaks Park: A Walk on the Wild Side

by Lindsey Milstein, President and Board Co-Chair, and Liza Gilbert, Board Co-Chair, Dumbarton Oaks Park Conservancy

White oaks spread their wide curving branches in Dumbarton Oaks Park, the only remaining wild garden designed by Beatrix Farrand. Located in Washington, D.C., the park is a 27-acre urban oasis and wild companion to the 16-acre formal garden of Mildred and Robert Bliss's Dumbarton Oaks estate.

Named for the towering white and black oaks on the property, Dumbarton Oaks is the product of a 20-year collaboration between the Bliss family and Farrand, a founding member of the American Society of Landscape Architects. It is a masterwork of landscape design, listed by the National Register of Historic Sites in 1967. The wild garden was gifted to the National Park Service (NPS) in 1941.

Dumbarton Oaks Park Conservancy (Conservancy) was formed in 2010 to work in partnership with NPS to restore, promote, and maintain the park. The site was in ruins due to inadequate NPS resources to control invasive vines and stormwater damage, which hindered the public from enjoying and learning about this historic landscape. As the stewards of this storied garden, we wondered what sparked the imaginations of Farrand and Mildred Bliss in 1921 when they first walked the site to envision and plan the construction of a wild garden. Was it the nestled stream valley with its dramatic topography that tapped into a sense of awe and possibility? Or the copses of noble oak, beech, sycamore, maple, and tulip poplar that created a ceiling that cast shadow and shade on the ground? Or the remnant meadows from the site's agrarian past?

These elemental pieces of the landscape remain, though affected by the passage of time. The brilliance of the design is that it incorporates each of these elements into a landscape story. Each visitor to this urban oasis experiences the depth of narrative that began over 98 years ago. Farrand wrote, "Perhaps the so-called natural garden is the most difficult to fit in with its surroundings, because there is no set line to act as the backbone to the composition, and the whole effect must be obtained from masses of color, contrasting heights and varieties of texture without any straight line to be used as an axis."[1]

The first steps for the Conservancy were to protect the health of the existing stands of historic canopy trees and stabilize historic built features. This nearly lost designed landscape requires restoration with integrated treatments for stormwater and invasive plant management, and reestablishing a native plant matrix within the framework of Farrand's original design. Farrand used the oaks and other native trees to create a tapestry of color, texture, and light in her designs.

Lindsey Milstein

Dumbarton Oaks Park: the historic Clifton Walk path

In the intervening years we have come to better understand the importance of trees beyond the aesthetic domain, including their role in carbon sequestration, sustaining flora and fauna, cooling urban environments, and connecting urban residents to the healing power of nature. This year the Conservancy, NPS, and Casey Trees, a local nonprofit dedicated to re-treeing Washington, D.C., are repopulating the oaks that have succumbed to age and disease to begin the garden's next century with a new generation of oaks, our national tree.

We can only save and restore these beloved and important landscapes through partnerships, such as our California Oaks Coalition, united by a shared vision of oaks' importance. Farrand once wrote, we must continue "with the vision that sees the future through the present and bravely works toward that vision."[1] Her prescience guides us as we work to revive and share the complexity and beauty of the wild garden design of her masterwork, Dumbarton Oaks. For more information on the Conservancy visit: dopark.org/.

[1] Pearson, C. *The Collected Writings of Beatrix Farrand: American Landscape Gardener: 1872–1959*. U Press New England, 2009. p 81, 220.

— continued from page 3

the Ajumawi. In addition to the youth crew, this project has provided employment for seven members of the tribal community, including leadership positions.

"By bringing all these partners together—including our youth, a tribal business, and community-based organizations—we're building the capacity of the Ajumawi to pursue collaborative ecocultural restoration of our oak habitats that have provided for our subsistence and survival for thousands of years," said Amoroso. "Our lands need to be cared for and protected for future generations. Through this effort, we're training our tribal youth and giving them an opportunity to work and build a positive place for people to enjoy in our Ajumawi homelands."

The next phase of the project will improve recreational trails and establish native plants used for cultural and subsistence purposes.

Like a singular acorn taking root, this 20-acre project is setting the stage for something much larger. Lomakatsi has been working for many years with tribal, agency and nonprofit partners to reduce threats to oak ecosystems and improve habitats across thousands of acres. Our team has worked on tribal, federal, state, county, city, and private lands as part of large-scale, statewide initiatives in Oregon and Northern California. As a new member of the California Oaks Coalition, Lomakatsi looks forward to forging new partnerships and expanding our work in the Sacramento River Watershed and beyond.

Anne Morkill's legacy of building, nurturing, and sustaining restoration partnerships

by Angela Moskow, California Oaks

I consider myself very lucky to stand in the footsteps of my many predecessors, and hand-in-hand with the amazing staff, citizen advocates, and partners who love these refuges as I do. —Anne Morkill

California Wildlife Foundation salutes Anne Morkill, who recently retired from federal government after a 30-year career focused on conservation and restoration of wild lands and wildlife.

"My most meaningful accomplishments have been in bringing together scientists, managers, and other stakeholders across various disciplines to address multidimensional issues and find creative solutions," says Morkill, who served as manager of the San Francisco Bay National Wildlife Refuge (NWR) Complex since 2012. "Those issues have ranged from endangered species recovery, habitat fragmentation, invasive species control, wildland fire management, to planning for climate change."

Morkill managed seven NWRs in the San Francisco and Monterey Bay areas and the Farallon Islands—over 40,000 acres of estuarine, coastal, and marine habitats that protect a diversity of migratory birds, seabirds, marine mammals, and native plants and animals. Focal species include many that are endangered and special status—some found nowhere else in the world—including Ridgway's rail (*Rallus obsoletus obsoletus*), Lange's metalmark butterfly (*Apodemia mormo langei*), Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*), and ashy storm-petrel (*Oceanodroma homochroa*).

A number of exciting large-scale restoration projects were completed or advanced with partners under Morkill's leadership. These include the Cullinan Ranch, Sears Point, Haire Ranch, and Sonoma Creek Marsh Enhancement projects on the San Pablo Bay NWR; the Bair Island Restoration Project on the Don Edwards NWR; and the San Francisco Estuary Invasive Spartina Project. Morkill also worked extensively on developing a project proposal to restore the Farallon Islands NWR's natural ecosystem by eradicating invasive house mice.

Restoring wetlands: During Morkill's first month on the job, the South Bay Salt Pond Restoration Project—the largest wetland project on the West Coast with the goal of restoring 15,100 acres of former salt evaporation ponds—completed its first phase. The effort is now well into its second phase. Led by California State Coastal Conservancy's San Francisco Bay Program, in co-management with the refuge and California Department of Fish and Wildlife, partners and stakeholders include Valley Water and U.S. Army Corps of Engineers San Francisco District, and a range of city, county, and regional agencies and conservation organizations.

U.S. Fish and Wildlife Service

Anne Morkill (right) with former managers Mendel Stewart, Eric Mruz, and Clyde Morris (left to right) at the breach event for the Bair Island Restoration Project.

CWF has been privileged to work with the above leaders over the past 20 years. —Janet Cobb, California Wildlife Foundation/California Oaks Executive Officer

Many years, and often decades, of environmental planning, permitting, design, and construction are required to advance these projects. For some, this culminates in the comparatively simple act of breaching a levee built 100 years ago to hold back bay waters for commercial salt evaporation production or farming. Morkill recalls these breach events as joyous celebrations:

"One of my most memorable breach events was at Cullinan Ranch, when, as the excavator scooped out the final bucket of dirt and the bay waters started rushing in, a flock of shorebirds flew over and landed along the water's edge, searching for food. Within several hours, once the high tide filled the project site, we observed hundreds of wintering canvasback ducks and other waterfowl enjoying their new habitat. That's the ultimate reward for the many years of work."

Partnering to achieve conservation goals: Initiatives to restore national wildlife refuges rely greatly on many different partnerships, leveraging resources to share conservation goals. Morkill says that an important common denominator among many of the projects she worked on was a close working relationship with the California Wildlife Foundation (CWF), which contributed and managed millions of dollars in funds and in-kind services toward these efforts.

"CWF established an innovative partnership with Pacific States Environmental Contractors, Inc. to bring in 1.4 million cubic yards of tested dirt generated from the Bay Area's building boom to beneficially reuse for building up subsided areas to marsh plain elevation and creating habitat features such as

— continued on next page

Cris Benton

Restoration of Pond A8 on the Don Edwards NWR in Alviso is part of the South Bay Salt Pond Restoration Project's effort to increase ecosystem benefits and public recreation while reducing flood risk as sea levels rise.

— continued from prior page

high-tide refugia islands and upland transition zones, to advance the pace of restoration and benefit wildlife," Morkill says.

"This innovative strategy, along with the beneficial reuse of dredged sediment from the Bay Area's ports and rivers, is essential to accelerate restoration of the tidal marsh ecosystem in advance of rising sea levels in a changing climate."

Restoring Skaggs Island: CWF has also been a vital partner in the restoration of Skaggs Island since 2011, when the U.S. Navy transferred a portion of the island—3,300 acres of former salt marsh converted to hay farming and radio communications facilities—to San Pablo Bay NWR. Navy funding for the clean-up of Skaggs Island has been held by CWF for ongoing maintenance, and San Pablo Bay NWR and CWF maintain pumps to keep the area dry to prepare the land for restoration to tidal wetlands.

"The maintenance and operation of these pumps also helped keep dry an adjacent hay farm operation called Haire Ranch, an 1,100-acre portion of Skaggs Island that remained in private ownership until 2013," Morkill says. "Subsequently, our partnership with CWF gave us the capacity to help Sonoma Land Trust and the Natural Resources Conservation Service in their restoration of Haire Ranch and to begin planning the restoration of historic baylands along Sonoma Creek, which also include Skaggs Island."

Morkill says that CWF has also been a critical partner in managing the Antioch Dunes NWR in Contra Costa County, a remnant of a once vast riverine dune system at the convergence of the Sacramento and San Joaquin Rivers and home to the world's only population of the endangered Lange's metalmark butterfly.

Building conservation connections: Morkill also helped to build a diverse and connected conservation constituency through the NWR Complex's public engagement programs, delivered through close collaborations with the San Francisco Bay Wildlife Society and Friends of San Pablo Bay NWR. Together, they provide environmental education, youth engagement, public outreach, citizen science, and volunteer programming, while offering outstanding opportunities for wildlife observation, nature photography, fishing, waterfowl hunting, and other recreational activities to over 30,000 students and 800,000 visitors each year.

"Especially here on the Don Edwards San Francisco Bay NWR, we are uniquely situated to offer an oasis not only for wildlife, but for people to get outdoors and enjoy nature in the highly urbanized South Bay," Morkill says.

Finally, Morkill reflects that professional relationships united by common goals are elemental: "I have come to realize that my conservation legacy is not the projects or plans that I completed, but rather it is the employees upon whom I've hopefully had a meaningful impact as they continue in their conservation careers."

Morkill notes: "I resonate with Maya Angelou's observation: 'I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel.'"

Sometimes you have to search for words to describe someone's leadership capabilities—that is not the case with Anne Morkill. She is confident and intelligent, has integrity, is adept at meeting and overcoming challenges, is skilled at team building...I could go on, but want to end with the fact that she is passionate and deeply committed to protection of species and their habitats.
—Florence LaRiviere, Chair Emerita, Citizens Committee to Complete the Refuge

Moving upstream

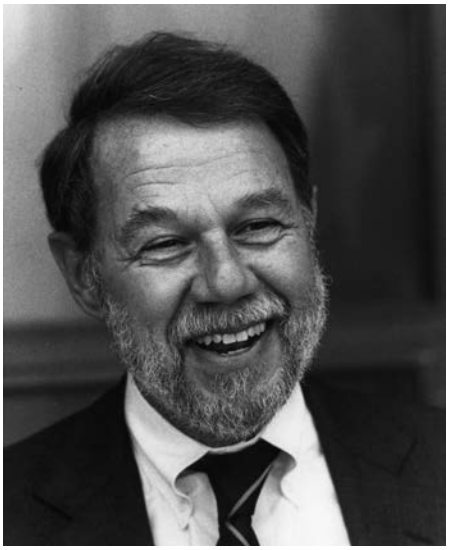
Although Morkill is retiring from federal government service, she continues to promote land conservation as the executive director of the Laguna de Santa Rosa Foundation. Founded in 1989, the foundation is a place-based organization focused on the Laguna de Santa Rosa and the wetland communities in its 250-square-mile watershed. Designated as a Ramsar Wetland of International Importance (see ramsar.org), the Laguna flows into the Russian River near Forestville. The nonprofit works with a diversity of partners and landowners to restore and conserve the Laguna and its watershed, and to inspire public appreciation through public education and volunteer stewardship.

Of interest to *Oaks* readers, the foundation is actively engaged in restoring native oaks—keystone species in the oak savanna and riparian plant communities within the watershed. Each year the foundation propagates and plants hundreds of oaks from locally collected acorns to ensure that the oaks being planted by their projects, or that they provide to their partners through an on-site native plant nursery, are grown from site-appropriate, locally collected genetic stock.

Many of the majestic oaks in the Santa Rosa plain are hybrids that evolved over millennia to the unique soil, climate, and hydrological conditions of the area. Oaks that the foundation typically grows and plants, listed in descending order of quantity are valley, Garry (or Oregon white), Laguna hybrid (cross of valley and Garry), coast live, black, blue, interior live, and scrub. The Laguna Foundation's work has been an important contributor toward oak recovery and restoration following the massive fires in 2017 and 2019.

Byron Sher: Beacon of modern California environmental law and policy

Courtesy of Planning and Conservation League



Byron Sher

By Kip Lipper, Chief Policy Advisor for Energy and Environment for the California Senate Leader and Jeff Shellito, principal consultant, Assembly Natural Resources Committee (ret.)

Byron David Sher celebrated his 92nd birthday in February, and as his former staff members, that occasion reminded us of his remarkable career. It is no stretch to say that Sher is perhaps the most influential elected environmental leader in modern California history.

Sher's 24 years of work as chair of the key natural resource and environmental committees in both California legislative houses remains unmatched. Even more remarkable, many of his landmark achievements occurred under conservative Republican governors not known for their natural resource sensibilities.

Sher started on the Palo Alto City Council as a council member and mayor. He also was a distinguished professor at Stanford Law School for many years. It is no accident that the insignias of both the city and the university are trees. Sher's interest and commitment to California's natural resources was a central theme of his career.

In 1980, Sher made what some considered an uphill run for the state assembly. That year, the historic Reagan landslide occurred, ousting incumbent President Jimmy Carter and sweeping Democrats out of office across the land. Byron Sher won election handily and took his seat in the state legislature, representing southern San Mateo County and northern Santa Clara County.

He immediately went to work authoring and shaping legislation that would transform California's natural environment. His work would become a model for, and the basis of, other states' laws and federal legislation enacted by the U.S. Congress.

Sher's portfolio of authoring environmental legislation is vast and all-encompassing, and includes the California Clean Air Act, the California Safe Drinking Water Act, the Integrated Waste Management Act, the Renewable Energy Portfolio Standard (one of the first laws in the California codes that formally recognized global warming), and the expansion of the California Wild and Scenic Rivers Act. The list goes on. He even authored a bill to make the banana slug the "California State Mollusk" to help teach grade-school children about the legislative process.

Sher's most epic challenges came on matters affecting forests and trees. The timber lobby in the Capitol was aggressive and effective. But he still managed to achieve significant reforms.

He successfully worked to require strict, enforceable logging and habitat protections before spending public monies to purchase the North Coast Headwaters Forest, the largest remaining stand of 2,000-year-old redwood trees in North America.

Sher also authored landmark legislation to stop strip mining on Native American sacred sites, which became the template for banning this destructive mining practice throughout California. He championed the law banning commercial fish farming of genetically engineered salmon ("Franken-salmon") and other aquatic species in the ocean waters of the state. He also authored the Natural Communities Conservation Act, the first multispecies habitat planning law ever enacted.

Sher's environmental portfolio is unmatched. But he also served with distinction on the Judiciary, Education, Ethics, and Criminal Law committees. Throughout his career, Sher was consistently ranked by Sacramento observers as among the legislators with the highest intelligence and integrity.

With all of these achievements, Sher was a *rara avis* as an elected official. His style was low-key, modest, and even quaint by today's world where self-promotion and social media reign supreme. He rarely put out press releases touting his landmark achievements.

Most Californians will never know that the air they breathe, the forests and mountains where they hike, and the water they drink are all better off for Sher's work. That's probably OK with him: after all, his vocation was protecting California and saving the planet.

For him that is achievement enough.

Byron and Linda Sher were long-time members of California Oaks. We are grateful for Byron's continuing support of our work on behalf of California's primary old growth resource.

—Janet Cobb, California Wildlife Foundation/California Oaks Executive Officer

How you can help:

- Donate to California Wildlife Foundation/California Oaks. A secure donation can be made from our website: californiaoaks.org.
- Spend time in an oak woodland or forest. Click on californiaoaks.org/resources for a partial listing of oak landscapes around the state that have public access.
- Please consider including oak conservation in your financial and estate planning efforts. Information can be found at: californiaoaks.org/donate.
- Be vigilant about threats to oak woodlands and oak-forested lands in your community and consult californiaoaks.org for guidance.
- Sign up for the Oaks e-newsletter at californiaoaks.org.
- Support local and statewide measures to protect natural resources.
- Hold decision-makers accountable for protecting our green infrastructure.

California Oaks is a fund within California Wildlife Foundation, federal tax identification number 68-0234744. Contributions of cash, stocks, and bonds are tax deductible.

CALIFORNIA WILDLIFE FOUNDATION
CALIFORNIA OAKS FUND

428 13th Street, Suite 10A
Oakland, CA 94612

tel 510.763.0282
fax 510.268.9948

WWW.CALIFORNIAWILDLIFEFOUNDATION.ORG

Click on the Newsletters link of californiaoaks.org to download prior newsletters.

Latin names are used for species with designated state or federal conservation status.