



SAVE WETLANDS

Citizens Committee to Complete the Refuge

Issue 52

Advocates for the Don Edwards San Francisco Bay National Wildlife Refuge

Fall 2023

Honoring Florence LaRiviere on her 100th birthday

For regular readers of this publication, the story of how Don Edwards San Francisco Bay National Wildlife Refuge was first established and later expanded is a well-known tale. So too are the many contributions to those efforts made by Florence LaRiviere, founder and Chair Emerita of the Citizens Committee to Complete the Refuge.

As she celebrates her 100th birthday this December, we thought it would be fitting to celebrate the personal history of Florence the individual. In this article, we hope to shed a little light on how she developed her love for the outdoors, and what continues to motivate her after 60 years of work as an environmental advocate.

"I always had an awareness of the natural world."

Florence's love of the outdoors can be traced all the way back to her childhood years, growing up in the suburbs 20 minutes east from downtown Los Angeles. Back in the mid-1920s, the area was just beginning to transform into the huge metropolitan city it is today.

Out on the edges of town there were still wild areas — places Florence and



Florence grew up east of LA where she and her brothers loved to explore.



Florence walking at the Don Edwards San Francisco Bay National Wildlife Refuge in Fremont. Photo by Carin High.

her two brothers, Harry and John, spent their childhoods exploring. "We lived in a wonderful place," she remembered. "There was this wild area across the street from us with a creek, a pond, trees, and barren hills for a long way."

Her father encouraged these outdoor adventures, giving his children bird books and taking them out into the desert to find horned toads and desert tortoises. Florence has fond memories of those days, which the siblings filled by playing with pollywogs and sneaking snakes home in gunny sacks (much to the distress of her mother).

"Any kind of snake would drive my mother crazy, poor woman," Florence chuckled. "I think they were gopher snakes — they were nice snakes. We'd take them home and open the sack and say, 'Look what I have!'"

"We laughed a lot. We had a lot of fun."

In 1941, Florence and her parents moved north to the Bay Area, following her brothers. Both were studying at U.C.

Berkeley and Florence enrolled in the fall of that year. She would transfer after two years, and receive a B.S. in Nursing from San Francisco State University.

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What CCCR Did in 2023

CCCR advocates devoted 4000+ volunteer hours defending potential and current Refuge lands, special-status species, wetlands, watersheds and more, at meetings and workshops, in project plan analysis, in document and field research, with written comments, and at times working with expert contractors and nonprofit partners.

Actions protecting threatened lands that lie within the Refuge Acquisition Boundary, particularly:

- Alviso Lands: Monitoring status of the Shoreline Levee project and its planned restoration of Pond A18; monitor and protect lands that adjoin the community of Alviso
- BCDC Environmental Assessment for Operations & Maintenance Permit for solar salt ponds/Corps PN: monitoring status of review by the BCDC Engineering Criteria Review Board
- Cargill-owned ponds, Redwood City: continued bird observations to document habitat value of ponds
- Monitoring Menlo Park wetlands threats Ravenswood Triangle; Adams/University)
- Newark Area 4: continue to monitor, create social media posts to further Save Newark Wetlands campaign
- San Jose/Santa Clara Regional Wastewater Facility: Monitor the status of portions of the Plant buffer lands that adjoin Pond A18 and Coyote Creek and are suitable for sea level rise protection as tidal migration lands

Actions to avert threats to lands held by the Refuge including:

- Redwood City, 505 E. Bayshore Road (Alan Steel site): letter to Planning Commission on FEIR and an alternative to lessen potential impacts to nearby wetlands and Inner Bair Island
- Menlo Park, West Bay Sanitary District FERRF Project: meetings, submitted written comment letters regarding Corps, Water Board and BCDC permits on potential impacts to Greco Island and other wetlands and waterways
- Monitoring/reporting to Caltrans and Redwood City to prevent debris from entering adjacent tidal waterways that flow to the Refuge
- City of San Jose Bay Trail Plan: Monitoring and assessing options to protect Salt Pond Restoration actions on Pond A8 from the impacts of short-term build out of the Bay Trail adjoining the top edge of horizontal levee marsh infrastructure that is still in early construction

Actions on local projects:

- Capitol Corridor – monitor status of the projects
- CPUC Proceedings: continued to monitor for new commercial ferry operator applications for expansion of service in sensitive areas

- Dublin Fallon 580 Project: submitted comments to USACE regarding proposal to place over 9 acres of fill in waters of the U.S. and a 186-acre site for housing and commercial development and infrastructure. The site supports the state and federally listed California tiger salamander and federally listed California red-legged frog
- East Palo Alto Ravenswood Business District Specific Plan Update: comments to city, inclusive of multiple projects adjoining the Ravenswood Open Space Preserve and the Refuge's Laumeister Marsh
- Eden Landing Strategic Shallow Water Placement Project: attended BCDC meeting
- Google, projects in multiple cities: advisory and advocacy role on development, impact avoidance and mitigation of proposed and existing real estate and trail projects
- Midpeninsula Regional Open Space District: advisory and monitoring roles of management and planning actions in the Ravenswood Open Space Preserve and the Stevens Creek Shoreline Nature Study Area
- Newark, Integral Properties – Mowry Village: hired a CEQA consultant and an attorney to submit comments on the DEIR, submitted extensive DEIR comments, public meetings
- Newark Slough Mitigation Bank Proposal: periodic check-in with agencies
- OneShoreline-Burlingame and Millbrae Shoreline Area Protection and Enhancement Project: provided NOP scoping comments at public hearing and a Board meeting and in written comments on proposed alternative that would construct an offshore barrier in Bay waters
- Redwood City Focused General Plan Update: submitted written comments on errors/omissions in DEIR related to identification of sensitive baylands habitat and resources
- Redwood LIFE redevelopment project (Redwood Shores near Belmont Slough): comments to City Council at public hearing on initiation of CEQA review for a new specific plan for the project
- Palo Alto Baylands, monitoring multiple projects: Valley Water/USACE Sea Level Rise Levee, Valley Water Flood Basin Replacement Tidal Gate, Palo Alto Regional Water Facility horizontal levee project, Valley Water Purification Plant project, Measure E Lands Rededication– all impacting existing endangered species habitat

- Palo Alto Golf Course: monitoring status of compliance with regulatory wetlands restoration requirements
- SAFER Shoreline levee project in Menlo Park and East Palo Alto: attended meetings with SAFER staff
- South Bay Shoreline Levee Project: monitoring and commenting on actions of Phase 1 (Alviso); monitoring status of Phase II (Palo Alto/Mountain View) and Potential Phase III (Moffett Field/Sunnyvale)
- Sunnyvale Moffett Park Specific Plan Update: actions to protect existing wetlands, adjoining sloughs and creek habitat and to improve City consideration of sea level rise risks and adaptation
- TopGolf at Terra and adjoining North First Street property, San Jose: monitor development of proposed entertainment, retail and hotel multi-owner complex, next to lower Guadalupe River
- Valley Water Calabazas and San Tomas Aquino Creeks and Pond A8 Creek Connection and associated Feasibility Study of Pond A4: letter of support, comment in public meetings
- Valley Water Streambed Maintenance Plan 10-year review: meeting comments

Actions commenting on Bay Region, State, and Federal Plans and Policies:

- Alameda County Water Protection Ordinance and changes in the protection of streams: submitted comments, attended numerous public meetings
- Bay Alive 3 Chapter Sierra Club Sea Level Rise Committee: participate in meetings
- BCDC Regional Shoreline Adaptation Plan Guidance: meetings
- BCDC Ferry Permitting Policies: meeting on private ferry impacts to wildlife and sensitive sites
- California Senate Bill 272: meetings with environmental partners
- OneShoreline Draft Planning Guidance Policy to Protect and Enhance Shoreline Areas: submitted written comments on proposed policies for local jurisdictions in San Mateo County on flood and sea level rise resiliency, including nature-based solutions
- State Water Resources Control Board General Order for Electric Utility Operations and Maintenance Activities Related to Wildfire Mitigation and Other Similar Activities – meetings, submitted written comments
- Tri-City Multi-jurisdictional Local Hazard Mitigation Plan (Fremont, Newark, Union City): participated in public and stakeholder meetings
- USACE Regional General Permit/State Water Resources Control Board Water Quality Certification for Activities Pertaining to Wildfires – meetings, submitted written comments to both agencies

Actions on projects impacting special-status species and water quality impacts in the Bay Region:

- Tesla Park, Alameda County: supporting efforts to permanently protect this area through classification of these lands as a State Reserve due to many listed and special-status species and habitats and sensitive cultural resources

Actions of CCCR as facilitators, stakeholders, representatives at meetings/conferences and on boards:

- Alviso Neighborhood Community Group member
- BCDC Regional Shoreline Adaptation Plan (RSAP) – Advisory Committee
- BCDC – Bay Adapt RSAP Workshop: participated and provided public comments
- Meta (Facebook) Environmental Community Group Representative, Advisory role, Corporate Real Estate, ongoing planning
- Friends of the Estuary Board Member
- Google Ecology Club Member, advisory role, Corporate Real Estate Planning, ongoing
- Palo Alto Baylands Comprehensive Conservation Plan
- Plan Bay Area 2050+: organized and hosted meeting between Plan Bay Area staff and environmental groups, participated in a workshop
- Priority Conservation Area Refresh (PCA) – Metropolitan Transportation Commission (MTC)/Association of Bay Area Governments (ABAG) – PCA update process: submitted multiple comment letters, organized and hosted several meetings between MTC/ABAG staff and the environmental community, participated in workshops
- Santa Clara Valley Conservation Council Member
- San Francisco Bay Joint Venture Management Board
- San Francisco Estuary Partnership Implementation Committee
- Santa Clara County Office of Sustainability Working Group for Climate Resilience: meetings, comments
- Shoreline Advocacy Workshop
- Sierra Club, Bay Alive: Contributors as topic advisors and program presenters
- South Bay Salt Pond Restoration Project Stakeholder Forum, member
- Valley Water Environmentally-Focused Stakeholder Group
- Valley Water One-Water Guadalupe Watershed Planning Stakeholder
- Valley Water Sea Level Rise & Flooding Working Group: Stakeholder
- Valley Water - Water Reuse County-wide planning: Stakeholder
- Water Emergency Transportation Authority (WETA) 2050 Service Vision Plan: Community Advisory Group member

Refuge Report: Community Engagement

In August, the leaders of the U.S. Fish and Wildlife Service (Service) gathered outside of Washington D.C. to reaffirm the importance of engaging communities in conservation. Director Martha Williams made a point of noting that the mission of the Service begins and ends with people...

...to work with others to conserve, protect, and enhance fish, wildlife and plants and their habitats for the continuing benefit of the American people.

In her remarks, the Director also shared a piece of wisdom that she believes should guide the Service's work: "People support what they help build."

I don't know of another organization that embodies that sentiment more than the Citizens Committee to Complete the Refuge. You continue to be incredible advocates for the San Francisco Bay National Wildlife Refuge Complex, a vast network of public lands that the CCCR helped to build.

At the Don Edwards San Francisco Bay NWR Environmental Education Center (EEC) in Alviso, the Service has the chance to build upon the CCCR's legacy of community driven conservation. The landscape around Alviso and EEC is changing dramatically with the ongoing construction of



The Environmental Education Center in Alviso. Photo courtesy of U.S. Fish and Wildlife Service.

the South San Francisco Bay Shoreline Levee. Once finished (2025), this levee will protect Alviso and the EEC from climate change related flooding – while also enabling the Service and our partners to restore 3,000 acres of former salt-production ponds to native tidal marsh habitats. Unfortunately, the impacts of hundreds of trucks a day, rumbling through the backyard of the EEC, are taking the final toll on the facilities that had already exceeded their expected lifespan.

Recognizing the unique opportunity the completion of the Shoreline Levee presents, the Service will be investing \$600,000 in 2024 to engage the local community in the development of a master plan that will re-imagine what the

EEC landscape and facilities can become to best support the community.

The Service also recognizes that it is entrusted with the management of lands that are the ancestral homelands of Tribes that predate the National Wildlife Refuge System.



Tamien Nation and Service staff collaborating at Crissy Field. Photo courtesy of U.S. Fish and Wildlife Service.

When the Service and Indigenous Peoples work together on managing our lands and waters, along with the fish and wildlife that inhabit them, our long-standing relationships are strengthened and resources are better protected. To ensure that our master planning process is welcoming to all people, the Service is partnering with the Tamien Nation (along with the Davido Consulting Group) to create a comprehensive community engagement/master plan development strategy.

To kick off the partnership, members of the Tamien Nation, Davido Consulting and Service staff spent time touring public facilities around the Bay area to learn more about how they were developed, and how they are currently being used by the community.

Throughout 2024, we will be hosting a series of community meetings to solicit input from the public to help us shape the future of the EEC, and we look forward to hearing the voice of CCCR members at those meetings. The Service strives to ensure that this process is truly welcoming for all, and that the facilities that are ultimately developed are a safe and welcoming community asset. CCCR has shown us the way, and we continue to follow in your footsteps to benefit from your example that "people support what they help build." 🐾

For future updates, please visit the Refuge website:
www.fws.gov/refuge/don-edwards-san-francisco-bay

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Save Wetlands in Newark

A housing development called Mowry Village has been creeping through the maze of Newark City Hall for months.

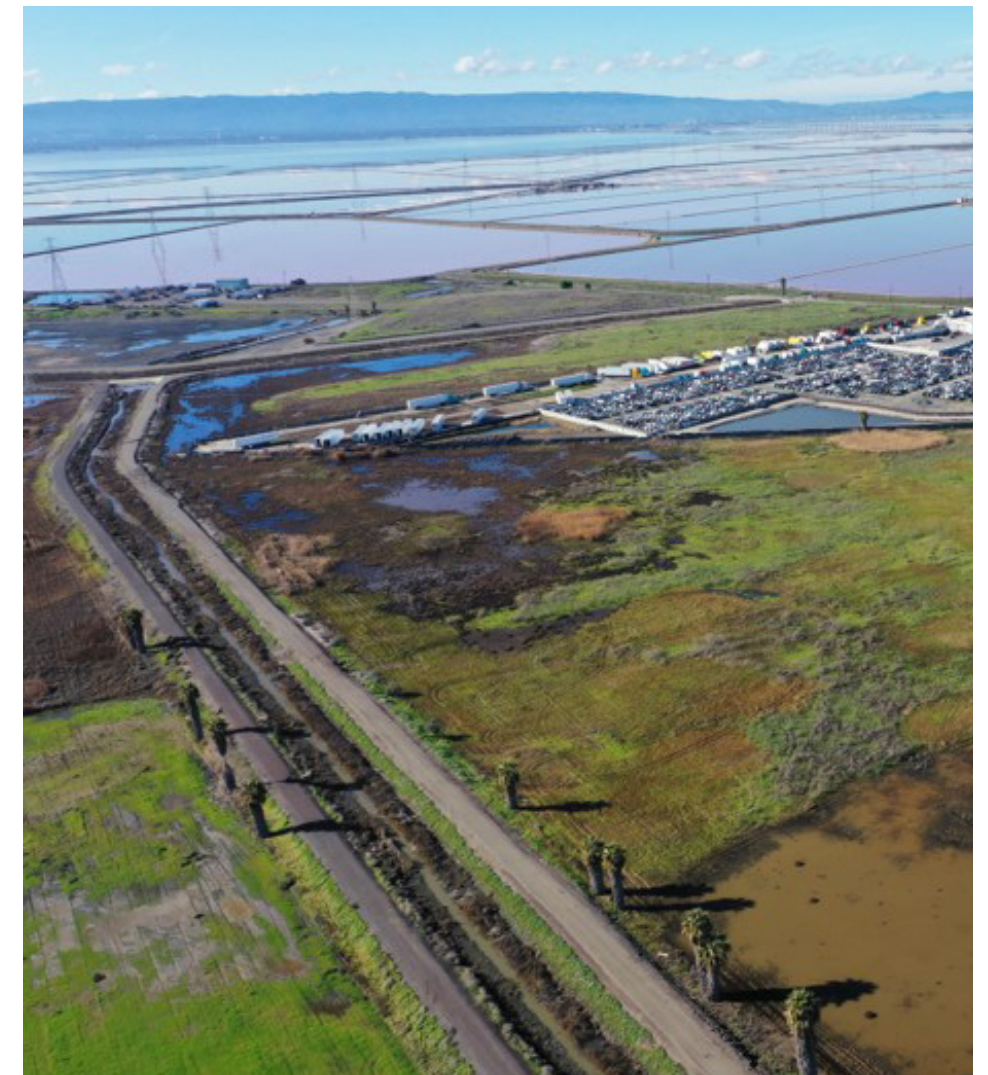
The most recent sighting was in August at a Planning Commission meeting. Members of the Planning Commission had few if any comments and gave the impression they had not studied any of the documents. The proposed plan consists of drawings of two-story houses and tree lined streets on 19 acres of an auto wrecking yard and adjacent 10-acre undeveloped parcel. These 29 acres are zoned as Park.

The project would require rezoning the site from Park to Single Family Residential with 6,000 SF lots. The imagined project consists of 203 houses and would include no public park land for Newark residents. Newark would lose 29 acres of future park or open space if the project is constructed.

There are at least two storm water detention basins which the project proponent believes will take the place of open space for Newark residents. The developers promise that the combined backyards of each house, the fill slopes and the detention basins will provide enough open space land for residents. A new neighborhood concept!

Mowry Village's location will provide future residents the ability to brag that they live on an island surrounded by rising sea level and groundwater. Housing will be built above what the city and developers claim will be the limits of sea level rise; however, the only access road, Mowry Avenue, will have no elevation changes.

Even more exciting is that Mowry Avenue, the only access point to the development, crosses at-grade, a busy rail line that separates the Mowry Village location from the rest of Newark. Emergency access to the proposed site could be blocked by



With a rezoning from Park to Single Family Residential, Mowry Village in Newark would replace 29 acres of potential parkland. Drone photo by Dan Miller.

train traffic, resulting in disruptions in police, fire and medical response times to the Mowry Village development and residents. Public transportation at the proposed location is lacking. Developers offer no relief for residents who would need to get in their cars to get to work, shopping, schools and other public amenities.

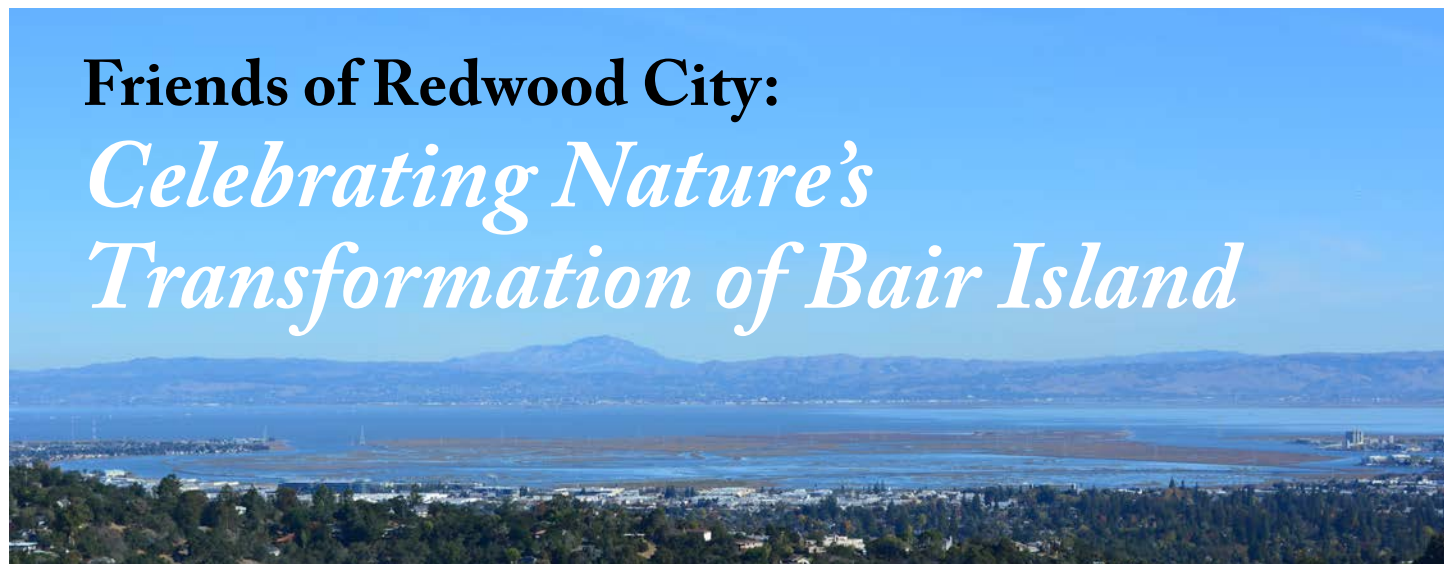
A draft Environmental Impact Report (EIR) was issued and the public and various environmental groups and agencies submitted comments. CCCR hired CEQA consultant Richard Grassetto to provide written comments, as well as attorney Jason Flanders, who submitted a joint comment letter with CCCR. At this time, we are waiting for the release of the Final EIR (FEIR) which we have been informed will be

available at the end of January 2024. Once released, CCCR, our partner environmental groups, regulatory agencies and the public will only have 10 days to respond to the information contained in the FEIR.

Meanwhile, the proposed location for Mowry Village continues to host Pick-n-Pull, an auto dismantler that has been in business for decades. The City of Newark is working to submit its Housing Element to the State of California as part of the General Plan. The Mowry Village proposal as last seen, was not included in the Housing Element. It might still be wandering through the City of Newark's document maze. 🐾

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Friends of Redwood City: *Celebrating Nature's Transformation of Bair Island*



Bair Island from Edgewood Park with Mt. Diablo in the distance. The three islands encompass over 3,000 acres of protected baylands between the Redwood Shores Peninsula on the left and Redwood Creek on the right. All photos by Matt Leddy.

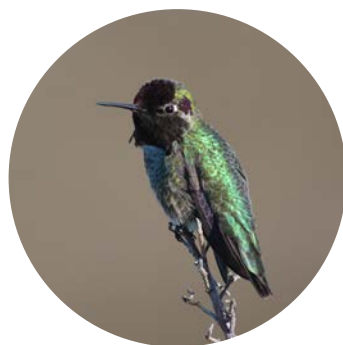
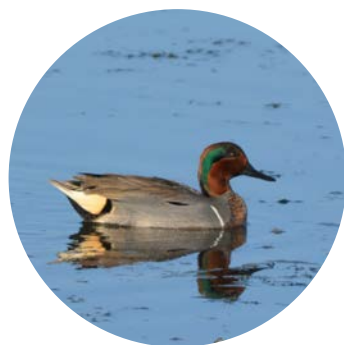
When did the Bair Island miracle begin? Was it the 42-vote margin of victory for the Friends of Redwood City's local referendum in 1982 that turned back the massive South Shores development? Was it that day in the 1980's when members of the Citizens Committee to Complete the Refuge and resource agencies placed the three islands on their wish list of properties for inclusion in a potential Refuge expansion boundary? Or maybe when Peninsula Open Space Trust stepped up to piece together the public/private funding needed to purchase the islands, enabling their acquisition by the Don Edwards San Francisco Bay National Wildlife Refuge in 1998.

The actual transformation of these islands back to tidal marsh began when the levees that had held back the Bay tides for over 100 years were finally breached. Since then, we've been blessed to have a "front row seat" for witnessing the amazing changes occurring on these baylands – in our lifetime! We would like to share our photos of this ongoing restoration story, and the transformative return of the mudflats, slough channels, marsh plants and wildlife. If you haven't already been to Bair Island in Redwood City, you won't be disappointed...and be sure to bring your binoculars and camera! 📷

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Google Earth image of Bair Island, part of the Don Edwards San Francisco Bay National Wildlife Refuge.



Bair Island Birds, L-R: Green-winged Teal, Black-necked Stilt, Anna's Hummingbird, Greater Yellowlegs

Salt marsh vegetation returns – and so does wildlife



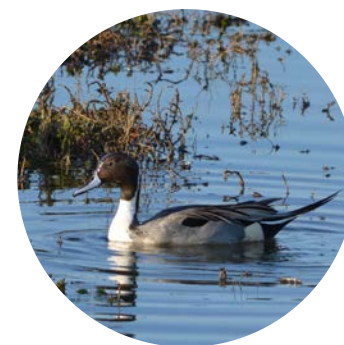
Pilot channel and rapid growth of pickleweed on Inner Bair Island from 2015 when the levee was breached, to 2017. This island was very subsided; the Refuge hired Ducks Unlimited to raise the interior elevation and create tidal channels.



Pickleweed and Pacific cordgrass growth at the northwest end of Inner Bair Island from 2016 to 2023. Cordgrass really started taking hold in the last few years.



Middle Bair Island from the north viewing platform on Inner Bair showing progression from mudflat to tidal marsh from 2015 to 2023. The levee on this island was breached in 2013.



Bair Island Birds, L-R: Great Egret, Northern Pintail, Northern Shoveler, Red-tailed Hawk

Baylands Conservation Committee

Rededication of Measure E site as part of Byxbee Park:

Earlier this year, the Palo Alto City Council delayed rededication of the Measure E site as recommended by the Parks & Recreation Commission. They instead referred the matter to the Utilities Advisory Commission to see whether they might want to use the site. So far nothing has happened there. Meanwhile, the Regional Water Quality Control Plant is exploring the possibility of acquiring adjoining sites along Embarcadero Way to give RWQCP more flexible options for their operations — a much more sensible idea than trying to squeeze new facilities on the 2.5-acre Measure E habitat corridor. Stay tuned for updates.



*A family of Pied-billed Grebes enjoy a dragonfly lunch.
Photo by Eleanor Muhlstein.*

Los Altos Treatment Plant Site: Construction has begun on a housing project on part of the LATP site on San Antonio Road. When the site was acquired, it was appraised based on an estimate that 6.5 acres of the 13-acre site were wetlands. However, now the City is only protecting 4 acres as wetlands. Palo Alto has used the site for Utilities and private company construction storage to raise revenue. The wetlands portion of the site should be protected and dedicated as parkland.

And Now for Some Good News: A young beaver has been sighted in Matadero Creek near the Renzel wetlands.

East Palo Alto's Ravenswood Business District Specific Plan Update: In 2020, as developers bought lands and introduced massive plans in this business district, we took notice while the city began to take action. It hired a consultant firm to manage updating of the 2013 Specific Plan. Three proposals would line the shoreline with eight-story buildings, towering over the adjacent, healthy tidal marshes that the city is fortunate to have. There are multiple significant concerns about this Specific Plan Update including buried toxic contaminants, lack of a designated setback for a shoreline levee, potential rising groundwater vulnerabilities, the impacts of night lighting, human disturbance on wildlife, bird safety in building design, shading on marshes, noise, trash and more.

Over these four years, we have engaged continuously and persistently in public comment opportunities, at community, commission and council meetings and through multiple letters usually written with partners including the Bay Alive Campaign of the Sierra Club Loma Prieta Chapter, Green Foothills and Sequoia Audubon Society. In 2022, we responded to the Notice of Preparation of an EIR. The city had hoped to produce a draft Specific Plan and draft EIR by last summer. In our most recent communication with staff, the

anticipated dates are now January 2024 for the Draft Plan and April 2024 for the Draft EIR. Stay tuned.

SAFER Bay Shoreline Levee Project: In 2022 the San Franciscito Creek Joint Powers Authority published its Notice of Preparation of its EIR. This project is intended to protect the shorelines of both East Palo Alto and Menlo Park from sea level rise. CCCR's exposure to East Palo Alto's development plans made it clear that the City's Specific Plan and the JPA's flood protection project were parallel and need to complement each other with their decisions. We knew also that the Menlo Park portion and much of the East Palo Alto shoreline requires very close

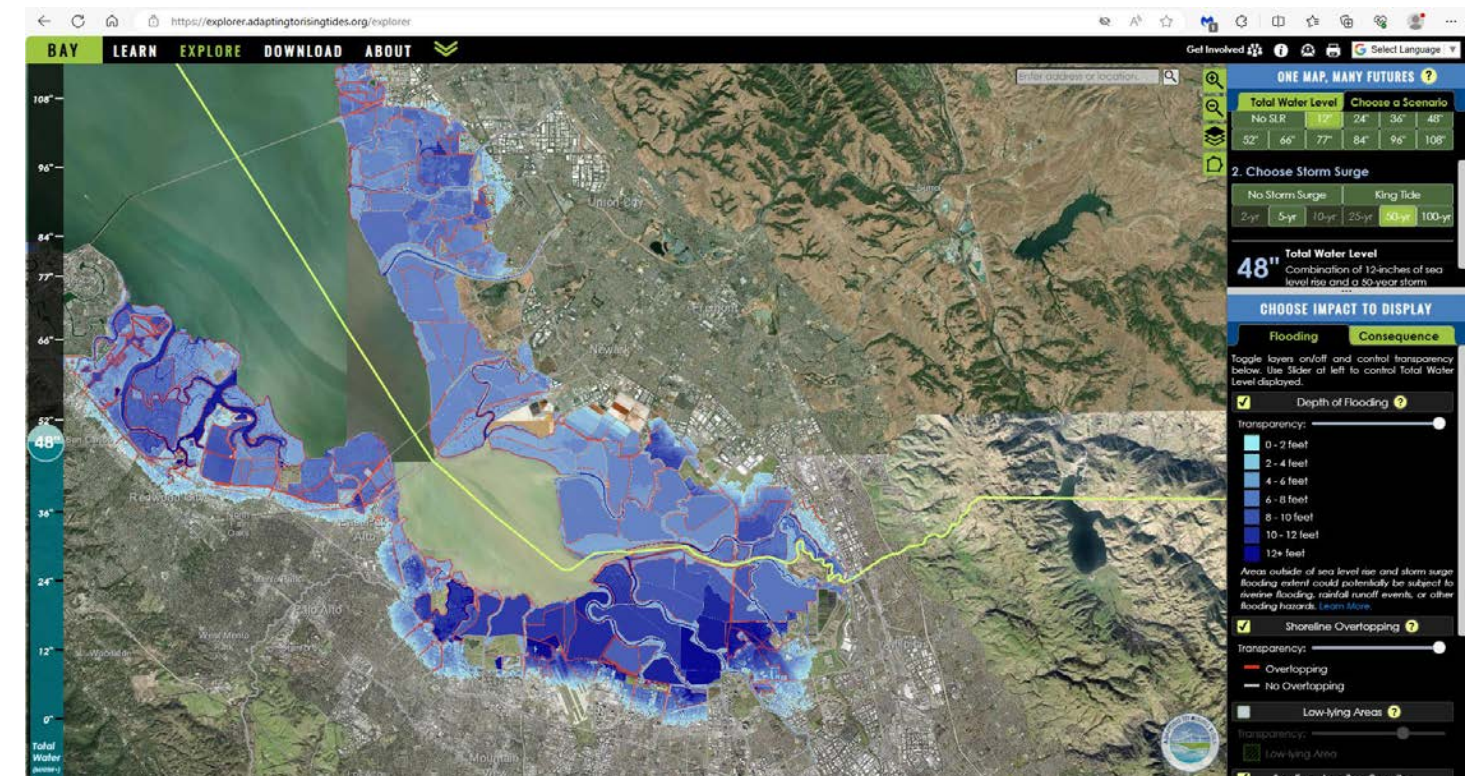
communication and coordination with the Don Edwards San Francisco Bay National Wildlife Refuge. We have learned that the Refuge and the Project Team meet with some frequency, that qualified biological consultants have been added by the JPA and that there remain critical concerns about the need for ecologically-sensitive actions to protect habitat and wildlife.

We responded by letter to the NOP, have since met with JPA staff, and will continue our vigilance on this project.

West Bay Sanitary Districts' Flood protection and recycling plant project: Earlier this year, the District was issued permits by the US Army Corps of Engineers, the Regional Water Board, the Bay Conservation and Development Commission and granted a lease by the State Lands Commission to build the flood protection for its site along both Flood and Westpoint Sloughs. As we reported last fall, we remain very concerned about this project as it will destroy wetlands, use public trust lands to support its perimeter levee and, especially during construction, could have impacts on endangered Ridgway's rails that thrive in the wetlands of the adjacent Greco Island and use the sloughs for foraging. We had meetings with and sent letters to the permittees detailing our concerns with science and facts. We are pleased that the USACE issued a new public notice of a revised project. This one reduced the acreage of wetlands that would be permanently filled. That is good but this project still leaves us with many concerns regarding the purported "temporary impacts." We are keeping an eye on it. In-water construction could begin in fall of 2024. 🐼

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Potential flood inundation risk to South Bay communities with a 12" rise in sea levels and a 50-year storm event. Map from explorer.adaptingtorisingtides.org/explorer.

Fremont: Planning for Hazards and Risks

CCCR members have been participating in the Tri-City Multi-jurisdictional Local Hazard Mitigation Plan (Hazard Mitigation Plan) process over the past six months. The Hazard Mitigation Plan is a partnership among the City of Fremont, City of Newark, City of Union City, Alameda County Water District, and Union Sanitary District. The plan is intended to identify risks from hazards, mitigation capabilities and mitigation strategies to reduce long-term risk and loss to people, property and the environment in the Tri-City area.

The State of California requires that all government agencies prepare a hazard mitigation plan every five years. This is the first time these five agencies have worked collaboratively to prepare a multi-jurisdictional plan. These local plans must be reviewed and accepted by the California Office of Emergency Services (Cal OES).

The Hazard Mitigation Plan must meet all requirements of the Disaster Mitigation Act of 2000 (Robert T. Stafford Act, 44 CFR Part 201) and the Federal Emergency Management Agency (FEMA) FEMA's 2022 Local Hazard Mitigation Planning Policy Guide (effective April 2023). FEMA's new policy guidance now requires hazard mitigation plans to address climate change impacts such as coastal flooding and sea level rise, groundwater rise, wildfires, drought, severe weather, etc., in addition to previously covered subjects

such as earthquakes and dam failures. FEMA now requires plans to evaluate the risks, not only to the built environment (housing, businesses, utilities, transportation systems, etc.), but also to the natural environment and cultural resources.

By planning for these hazards, the local jurisdictions hope to develop strategies to reduce community risk and loss when an event occurs. The hazard mitigation plans being developed around the Bay under the new FEMA policy guidance have the potential to shape the way local jurisdictions address San Francisco Bay. Will cities propose strategies that harden their shorelines or adopt nature-based solutions to address coastal flooding, sea level rise and groundwater rise risks? We will get a glimpse into these strategies in the Tri-Cities area when the draft Hazard Mitigation Plan is released in the coming weeks. The public is invited to review this document and attend the upcoming meetings on January 24 and 25. 🐼

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To take a survey or access the documents and meeting schedule, visit
www.my.fremont.gov/tri-city-hazard-plan.

Florence LaRiviere

...continued from front page

Florence met her husband Philip while at Berkeley, in a German language class with a total of eight students. For the rest of his life, Philip maintained that he learned more German while studying for that course than his future wife. "We both got B's, and he said either he should have gotten an A and I got a B, or he should have gotten a B and I got a C," she recalled with a smile.

The two of them remained in contact even after Philip joined the Air Corps after the United States joined World War II. He served as a navigator on a B-24 Liberator, flying missions over continental Europe. Throughout the war the two wrote frequently to each other. After the war ended, Philip returned home and they got married shortly afterwards.

"That was the beginning."

The pair graduated from college and had grown accustomed to the cool air and fog of the East Bay hills, but found they couldn't afford to settle in Berkeley and moved across the Bay to Palo Alto instead (which in those days was more affordable).

Both of them found the weather on the Peninsula positively sweltering in the



Philip and Florence at Charleston Slough, Palo Alto. Photo by Carin High.

summer. "During those hot summer months, we'd put dinner and the kids in the car," Florence reminisced. "There was an old, broken-down picnic table near where the harbor master house is now in Palo Alto. We just loved it down there in the evening, as the sun was setting and the tide would put the cordgrass in motion."

Unfortunately, the local tidal marshes the family regarded with such fondness were under constant threat, and Florence and Philip had front row seats

to observe the destruction. "The harbor basin in Palo Alto was being cleared of accumulated sediment with a clamshell dredge," she said.

"They had this dredge that would go up and down the channel, picking up mud from the bottom of the Bay, swinging the arm open, and dropping the mud on tidal marsh. Many, many acres were lost that way. We realized that activity was ongoing and that sort of stunned us. The edges of the Bay were being destroyed at a great clip for any number of things," Florence remarked.

"Airports, garbage dumps, sewage outfall, [and] the

marshes leveed off from the Bay for farming."

Marshes were buried by dredge spoils, filled to make way for houses and other development, or separated from the Bay to create industrial salt ponds. "That's why people who read Art Ogilvie's little blurb in the newspaper reacted," Florence emphasized. "They were already alarmed at what was happening to the landscape."

"The wetlands people seem like family."

Throughout the years of struggle to establish the Refuge, the later process to expand it, and the years afterward, Florence has remained grateful for the colleagues, friends, and found family members she has made along the way.

Environmental activists from as far away as Venezuela and Japan have reached out to her, forming connections and friendships based on mutual admiration. "Look for wetlands people," Florence says. "They're the kindest, nicest, most generous, most loving people you will ever find."

Florence also emphasizes the great support her family has provided her during her decades of advocacy work. For many years, she and Philip formed an impressive team.

Florence had a way of winning people over with her genteel nature, passion, and determination. Philip had the rigorous and technical mindset of a scientist, recording and presenting data he had personally collected about the region's marshes. At one point he even made himself a set of business cards that described himself as a "Swamp Physicist".

The couple each had their own strengths and were fond of teasing each other about their differing personalities. I can remember one particular instance many years ago when I was conducting an interview of the couple for a school project.



Florence at the Refuge. Photo by Carin High.

Philip playfully grumbled that Florence had a tendency to be loose with certain details, but Florence simply laughed and said, "We've spent 40 years arguing like this."

Philip grinned in turn, confirming that they sparred with each other over, "Every newsletter, every publication. She tends to be vague unnecessarily and I like to be specific."

"Unnecessarily," Florence cut in with a chuckle.

"You need to be persistent and never give up."

Philip unfortunately passed away in 2012, but he left behind a legacy of concerned citizen scientists who continue to

fight for the protection of the Bay's tidal wetlands and open spaces, while armed with facts and figures. Florence remains an outspoken and passionate environmental advocate, sixty years after she first started her work.

On occasion, reflecting on all that she has accomplished, people will sometimes ask if she hasn't done enough, if she isn't ready to stop her advocacy for the Bay. In a response so typically Florence she says, "People tell me that I should be satisfied. But how could anyone be satisfied with what's happened when a beautiful site like Newark Area 4 is out there unprotected?"

When asked if she had any advice for new activists, Florence replied, "You have to be patient and do a lot of homework. You'll have a lot of defeats, but the victories are glorious too."

She added, "Look at what we have on the edges of the Bay. Each place is a tribute to all the people who have put their hearts and souls into keeping those lands as they once were." 🐦

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The LaRiviere family, L-R: Ann, Celia, Ginny, Florence, Philip, and Philip Jr. Photo courtesy of the LaRiviere family.



Former Refuge Manager Eric Mruz and Florence LaRiviere on their way to view the Middle Bair Island levee breach. Photo by Carin High.

*To wish Florence a Happy 100th Birthday,
email your congratulations to
FMLR1002023@gmail.com.*



Offshore Barrier in Burlingame/Millbrae Shoreline Protection Plan Poses Unprecedented Threat to San Francisco Bay

Shorebirds foraging on extensive mudflat off Burlingame shoreline in area of proposed offshore barrier/lagoon. This mudflat is designated as an Important Shorebird Site by the international Western Hemisphere Shorebird Reserve Network. All photos by Matthew Leddy.

Not all local shoreline plans for addressing sea level rise necessarily protect or ensure the health of the Bay, as CCCR recently discovered while reviewing a proposal brought forward by the San Mateo County Flood and Sea Level Rise Resiliency District (known as OneShoreline).

In November, CCCR submitted comments in response to the OneShoreline *Notice of Preparation (NOP)* of an *Environmental Impact Report (EIR)* for the *Millbrae and Burlingame Shoreline Area Protection and Enhancement Project*. One of the primary Project objectives is to protect the urban development along the Bay shoreline, creeks and existing lagoons against current coastal flooding hazards and future sea level rise. While this is an extremely important goal, the plan selected for further study in the EIR would place 2.65 linear miles of fill into the waters of San Francisco Bay in order to construct an offshore flood protection barrier.



Burlingame shoreline showing close proximity of commercial building to the Bay, and the existing seawall and riprap.

Project location and preferred project alternative

The highly urbanized project area includes existing and planned commercial buildings and sections of the Bay Trail located directly adjacent to the Bay. This shoreline currently has a mosaic of features including low seawalls, riprap, two areas of tidal marsh habitat, a small area of sandy beach and the bayfront outlets of five creeks and two inland lagoons. An extensive mudflat offshore provides wintering foraging habitat for thousands of migrating and wintering shorebirds.

Although the project EIR will also evaluate a flood protection alternative “exclusively with features along the shoreline,” **the preferred project alternative is an offshore barrier** described in the NOP as follows:

The Project proposes to create a tidal lagoon capable of controlling the offshore water level through the construction of an offshore barrier composed of both hardened and natural materials that include habitat features and could include a pedestrian trail.

This barrier with habitat features, which has been described as a “living shoreline” in other contexts, would extend approximately 2.65 miles from southernmost coastal SFO location just north of Highline Canal to the southeast corner of the shoreline of Burlingame (see Figure 2). To expand its benefits, this barrier could be extended an additional 0.6 miles further south to high ground at the northwest edge of Coyote Point within the City of San Mateo. The proposed barrier’s height would be sufficient to enable onshore protection from future sea level rise and its width would depend on the amount of habitat and recreational features included in it.

...continued on next page

Offshore barrier threat

...continued from previous page

Figure 2 (below) from the NOP depicts a single lagoon tide gate/pump station; however, it is unclear from project documents how many tide gates/pump stations might be included in the offshore structure. Initially, tide gates would be closed only during large storm events so **the lagoon constructed inside the Bay would essentially serve as a large flood retention basin for winter creek flows during high tides**. As sea level rises, the tide gates would be closed more and more frequently throughout the year to prevent high tide flooding at the Bay shoreline.

What opportunities have scientists identified for this shoreline?

In 2019, San Francisco Estuary Institute (SFEI) and SPUR released the *San Francisco Bay Shoreline Adaptation Atlas: Working with Nature to Plan for Sea Level Rise Using Operational Landscape Units* (Adaptation Atlas). The *Adaptation Atlas* identifies the Burlingame/Millbrae area (included in the “Colma-San Bruno Operational Unit”) as one of the more highly developed shorelines in the Bay Area with limited opportunities for nature-based adaptation measures as shown in the SFEI map [above](#).

In Burlingame, coarse beaches could soften rip-rapped shorelines and help reduce wave run-up and erosion of seawalls. In Millbrae, the area adjacent to SFO may have some place suitable for an ecotone levee. Both cities could



Nature-based sea level rise adaptation strategies for the project area adapted from the San Francisco Estuary Institute Resilience Atlas Interactive Web Map (resilienceatlas.sfei.org). These strategies were developed by preeminent Bay Area scientists.

benefit from eelgrass beds and mudflat augmentation offshore to “help attenuate waves and provide important subtidal habitat”. Green stormwater infrastructure “implemented in the upper watershed could reduce fluvial flooding in the developed areas.”

Other adaptation opportunities identified in the *Adaptation Atlas* for this area include raising levees/seawalls for perimeter protection, elevating redevelopment and adding

floodable spaces in creek floodplains to reduce flooding. Alternatively, commercial activities along the shoreline could be relocated to higher ground. **Nowhere in any of the 30 “Operational Landscape Units” ringing the Bay does the *Adaptation Atlas* identify an offshore barrier, such as the alternative proposed by OneShoreline, as an adaptation measure or opportunity.**

What are the threats to San Francisco Bay?

Don’t be fooled by the description in the NOP –this is **not** a “green” project!

- The construction of an off-shore barrier for a flood retention basin in San Francisco Bay would cover existing valuable intertidal mudflat habitat with fill. It would **set a dangerous precedent for other shoreline protection projects being planned by local jurisdictions**, where selecting a project alternative with fewer economic costs is prioritized over a plan based on environmentally sound strategies that don’t fill in the Bay. If this is allowed in Burlingame, why wouldn’t other cities around the Bay adopt the same approach?
- The creation of an offshore artificial lagoon with muted tidal flow and water circulation could lead to potentially harmful water quality impacts from altered temperature, salinity, and trapped pollutants, including creating favorable conditions for Harmful Algal Blooms (HABs) that can kill fish and other organisms.



Tidal marsh in the Shorebird Preserve along Mills Creek in Burlingame would be inside the proposed project lagoon.

- Water in the creeks flowing into the lagoon during significant rain events would carry sediment. During high tides, the water will be held before discharge into the Bay allowing sediment to settle and accumulate in the lagoon. Over time, the lagoon may need to be dredged, removing mudflat invertebrates important for foraging shorebirds, destroying any subtidal vegetation like eelgrass, and then leaving a sediment sink that could pull sediment from the tidal marsh near SFO.
- Potential impacts to existing tidal wetlands inboard of the barrier from altered water salinity.
- Invasive *Spartina* Project surveys in recent years have detected nesting California Ridgway’s Rail, a federal and state endangered species, in the marsh near SFO. One end of the offshore barrier would be constructed within this area, permanently bisecting the marsh, with potential harm to habitat and wildlife from changes in hydrology, construction activities and human disturbance. 🦋

Gail Raabe and Matt Leddy
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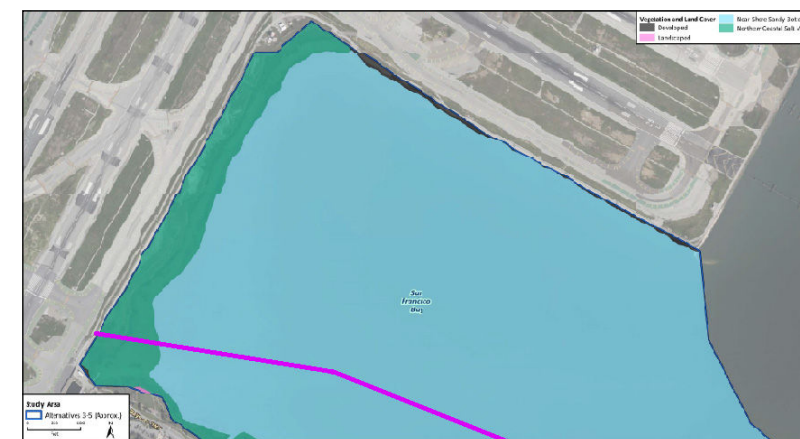
Tidal marsh in Millbrae between El Portal Creek and the airport. This marsh provides nesting habitat for endangered California Ridgway’s Rail.

For more information:

OneShoreline project
oneshoreline.org/projects/millbrae-burlingame
San Francisco Bay Shoreline Adaptation Atlas
resilienceatlas.sfei.org



Project NOP Figure 2 shows the shoreline of Burlingame and Millbrae, creeks and existing interior lagoons. The proposed offshore barrier (in purple) would create a 670-acre lagoon within Bay waters.



The proposed offshore barrier (purple) would cut through existing salt marsh habitat (green). (The project’s Biological Resources Constraints Analysis Figure 18. Vegetation Communities and Land Cover Types in the Alternatives 3-5 Study Area with approximate offshore barrier location from NOP Figure 2 overlay.)

It's time for Bay Area Wetlands Advocates to Speak Up for the Bay!

Several Regional Visioning Processes Could Have Big Impacts on Bay's Future

If you care about the ecological health of the Bay, now is the time to weigh in on some of the larger regional visioning processes focusing on shoreline sea level rise resilience currently underway. The outcome of this sea level rise resilience planning will profoundly influence whether we will live sustainably along the edges of the Bay in the future. Thus far, the emphasis of sea level rise adaptation and resilience planning has been focused on protection of the

Bay's important fisheries, as well as migratory waterbirds of the Pacific Flyway. In fact, the San Francisco Estuary is so important that in 2013 it was designated as a Ramsar Convention Wetlands of International Importance and it has been designated as a site of Hemispheric Importance by the Western Hemisphere Shorebird Reserve Network. It is concerning that, despite having lost 90% of its historic wetlands, the San Francisco Bay Estuary supports 77%



King Tides show us how rising water levels could affect our wetlands and shorelines. These photos show the same section of Newark Slough at low tide (left, November 2012) and during a King Tide (January 2017). Photos by Carin High.

built environment, while failing to acknowledge that vitally important Bay habitats are also at risk of disappearing as sea levels continue to rise.

The San Francisco Bay Conservation and Development Commission (BCDC) and the Metropolitan Transportation Commission (MTC)/Association of Bay Area Governments (ABAG) have initiated regional visioning processes and are seeking public input through surveys and public workshops. It's vitally important that these agencies hear loud and clear that Bay Area residents expect the health of the Bay to be a priority, and that protecting the Bay, now and into the future, must be incorporated into all aspects of planning and adapting to sea level rise.

Why we care: Tidal wetlands are crucial in maintaining the ecological health of the Bay and supporting our region's biodiversity, but they also provide incredible benefits for the shoreline communities that line the Bay. These benefits include carbon sequestration at rates between 10-100 times greater than forested lands, providing protection from wave erosion and flood inundation, improving water quality, cycling and filtering nutrients, and supporting most of the

of the State's remaining coastal wetlands. The negative consequences, if the Bay Area fails to rise to the challenge of protecting the ecological health and resilience of the Bay not only now, but in our planning for the future, could extend far beyond the geographic boundaries of the Bay Area.

One of the greatest challenges right now is to ensure that the health of the Bay ecosystem is not lost or compromised in climate adaptation planning. With our history of development right up to the edges of the Bay in many places, not only are our shoreline communities at risk from rising sea levels, but the Bay's shallow water and intertidal marsh habitats are equally at risk from drowning as well. To ensure these crucial habitats are sustained well into the future, we must be acting now to protect areas that could serve as tidal wetlands migration space. This is particularly important because the remaining areas that could provide migration space for tidal wetland habitats in the future currently have no state or federal protections.

The San Francisco Bay Joint Venture's 2022 *Restoring the Estuary* provides measurable criteria of regional acreages of habitat

we need to protect and restore. For example, the document recommends the restoration of 125,000 acres of tidal wetlands; protection of 16,500 acres of upland transition zone habitat, and restoration of 15,100 acres of that protected habitat; and protection of 14,019 acres of adjacent uplands habitat.

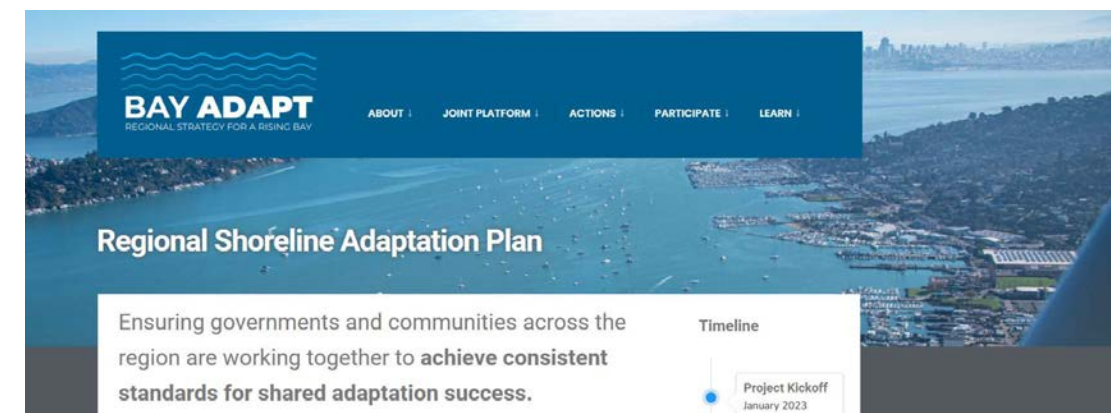
The San Francisco Estuary Institute's 2019 San Francisco Bay *Shoreline Adaptation Atlas* provides guidance regarding locations where the implementation of nature-based solutions can be implemented to "take advantage of natural processes" to provide "greater social, economic, and ecological resilience."

But wait! There's something we can all do to protect the Bay: You can help by speaking up for the Bay ecosystem through participation in agency online surveys and public workshops.

BCDC has initiated implementation of its Bay Adapt Joint Platform, with the launching of the **Regional Shoreline Adaption Plan** process (RSAP). The goal is the development of guidelines for how we respond to the challenges posed by sea level rise in a manner that is equitable, regionwide and will ensure resilience of Bay Area shoreline communities. Senate Bill 272 that was enacted this fall, requires that

RSAP page at www.bayadapt.org/regional-shoreline-adaptation-plan.

Another major visioning process currently underway is **MTC/ABAG Plan Bay Area 2050+** that is focused on where and how we will meet the region's transportation and housing needs, while also adapting to the challenges of climate change including sea level rise. MTC/ABAG will be undergoing a limited update to their Plan Bay Area program (this cycle it is identified as Plan Bay Area 2050+), since they don't need to address housing and the Regional Housing Needs Allocation (RHNA) this cycle. This update will focus on public education of the purpose of the plan, "updating assumptions to more fully reflect the realities of the post-COVID environment," and refinements to some of the strategies identified in Plan Bay Area 2050. The previous cycle of Plan Bay Area incorporated an environment element for the first time. While commendable, the focus of this element is predominately on environmental health from a human-centric perspective and not necessarily one that is equally supportive of a healthy Bay ecosystem. We are urging that the "Environment Element" of Plan Bay Area 2050+ be strengthened by recognizing the impacts of sea level rise on the natural environment, and not just the built environment.



shoreline communities submit sea level rise adaptation plans by 2034 that will be reviewed and approved by BCDC. The language of SB 272 also includes specific language referencing page 16 of the Bay Adapt Joint Platform, which states:

"Put nature first whenever possible - Prioritize natural infrastructure solutions that benefit ecosystems and the health of the Bay as well as people, especially in the near-term. Adapting to rising sea level will require a mix of green and gray infrastructure. Working with nature, instead of against it, can produce better results for both people and wildlife."

Resilience for the natural environment must be prioritized, because in protecting vital habitats such as tidal wetlands, we are also providing protection and resilience for our shoreline communities. To learn more about the RSAP process and sign up for notifications of upcoming opportunities for public comment, please visit the Bay Adapt

Just as with BCDC's RSAP process, the importance of providing resilience for the Bay ecosystem must be elevated in this regional visioning process and not siloed from planning for development and transportation. Inland open space lands adjacent to existing wetlands are limited. We cannot continue to plan

for development and transportation along San Francisco Bay's shoreline without also planning for the protection of places where tidal wetlands habitats can migrate inland as sea levels continue to rise. Similarly, adaption measures implemented for protection of our shoreline communities should not be to the detriment of the Bay ecosystem, and again, wherever possible, the use of nature-based solutions, and not sea walls or ripped levees, should be prioritized.

Plan Bay Area 2050+ (PBA) will be holding public workshops and providing opportunities to review and comment on PBA documents. **To sign up for notifications of opportunities to attend public workshops, to take online surveys, and to review and comment on PBA documents, please visit planbayarea.org.**

Carin High
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Citizens for East Shore Parks

The Importance of Local Actions: Speaking for the Planet

Worldwide we are experiencing major shifts in the environment, the oceans, bays and shorelines. July 2023 saw the world's hottest month in recorded history. Sea rise is finally being recognized as real and worsening floods and droughts are the new norm. Last year, a third of Pakistan was underwater due to flooding. The National Oceanic and Atmospheric Administration predicts that sea rise could be as much as 10 feet by the end of this century. With the climate crisis, sea rise and loss of biodiversity on our doorstep, local actions make a difference in worldwide efforts to curb climate destruction.

Local Picture

Environmentally bad shoreline land use decisions damage the planet. For nearly 40 years, Citizens for East Shore Parks (CESP) has worked to stop irresponsible shoreline decisions that degrade our communities. We champion smart land use decisions that increase shoreline protection, open space, parkland, habitat and recreation.



How McLaughlin Eastshore State Park could look with the addition of Golden Gate Fields. Illustration by Steve Price.

In Albany, Golden Gate Fields racetrack is closing. We are working to protect and incorporate Golden Gate Fields into the McLaughlin Eastshore State Park (MESP) – a truly fantastic opportunity to expand the park and experience an uninterrupted shoreline. The illustration above shows how the region might look with this added shoreline parkland.

Due to CESP's earlier work, the zoning in Albany for the shoreline does not allow development and to change the zoning requires a vote of the voters.

Berkeley is replanning its shoreline, as part of the Waterfront Specific Plan. CESP has worked for decades to protect the Berkeley waterfront for essential natural habitat for birds and aquatic species, plus the waterfront recreational opportunities. Currently, CESP is providing public input to the planning process, expressing the need to incorporate the correct priorities: use of the shoreline as open space, recreation and habitat protection with allowances for small watercraft recreation.

Richmond, Point Molate - CESP has just gotten great news – we won our appeal to decertify the flawed Environmental Impact Report for Point Molate. This means the development deal cannot proceed as approved and depending on further legal work, may be completely rescinded. On top of that, there are ongoing efforts involving

buying Point Molate by the East Bay Regional Park District with state funds (\$36 million) specifically allocated for the acquisition and development of a park at Point Molate. CESP has been working toward this goal for 20 years, along with wonderful community groups and residents, and stalwart environmental organizations. We are closer than ever. We are optimistic that fantastic news will be coming soon.

Visit Point Molate to see shoreline ecosystems with tiger sharks, angel hair and osprey and the amazing carbon-sequestering eelgrass – best in California – and honor the Ohlone land and its sacred spaces.

Richmond at the Zeneca toxic site presents the challenge of stopping the offensive and insane plans of a developer to put housing on top of a toxic waste site. This site was originally identified as a site for inclusion on the Super Fund list but was handed over to the State for remediation monitoring.

CESP, along with inspired community groups, brilliant community leaders, environmental allies and housing allies, has been waging a full-blown battle to stop this disaster before it happens. Our alliance stands firm that this project cannot go forward and that a full cleanup is required at this toxic site that is leaking into the Bay.

Future Collaboration Along the Shoreline

These local efforts to protect our shoreline often take years, decades. Collective action and persistence are key. We use multiple approaches to protect our shoreline – organizing, advocacy, collaboration and, when necessary, we go to court in the public interest, to speak for the environment and the planet.

CESP has initiated a dialogue with like-minded organizations (such as CCCR) to work on filling the gaps along the East Bay Shoreline to create continuous shoreline access (allowing for obvious accommodations such as ports and marinas). We have all been busy with our own segments of this effort but it is now time to start reinvigorating this more comprehensive approach. Look for our outreach to our colleagues for this push in the near future. 🐾

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Far South Bay

Sunnyvale Moffett Park Specific Plan Update

CCCR advocacy saw some rays of sunshine in the final decisions for Sunnyvale's Moffett Park Specific Plan Update. Begun and persisting through three years, partnering with the Bay Alive Campaign of the Sierra Club Loma Prieta Chapter and the Santa Clara Valley Audubon Society, we beat a drum for biodiversity, which has been incorporated as a plan objective. At the Bay's edge, our work prompted a Zoning Overlay, Ecological Combining District, that extends from the landfill at the end of Mathilda Avenue to Moffett Field. In addition to existing stormwater basins and canals, newly identified emergent pickleweed marsh is now protected within Lockheed's fenced lands. The Specific Plan now requires monitoring of groundwater levels, ensures qualified biologists assess special status species while setting extensive bird safe design requirements, policies to minimize or avoid dark skies impacts, and increased setbacks along creeks.



The Ecological Combining District (in red) extends from the landfill at the end of Mathilda to Moffett Field.



Trespassing by people eager to see the pink saline water at Don Edwards NWR posed problems for habitat and wildlife. Photo by Carin High.

Valley Water Creek Connection Project

City of San Jose planned actions that relate to Valley Water's Calabazas and San Tomas Aquino Creek Connection project have emerged as a threat to the success of habitat restoration on Pond A8. Dating back to its trail plans approved in ~2002, the city now plans to initiate build-out of the Bay Trail along the edge of the America's Center pond. It would adjoin the high point of the horizontal levee being built to reestablish tidal marsh and for recovery of the endangered Ridgway's Rail and salt marsh harvest mouse. A trail route for speeding bike commuters, some electric, will be a trail that keeps wildlife away. In 2003, A8 became part of the Refuge and part of the South Bay Salt Pond Restoration Project. Is there room for compromise or will this be another Alviso wildlife fiasco, akin to the pink pond? 🐾

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Ongoing Trespass into Pond A12 in Alviso

Other projects still require monitoring and persistent advocacy. The build-out of the Shoreline levee through the Don Edwards NWR continues as expected but not without a wary eye for the unexpected. The project currently requires strict control of water levels in Pond A12, next to Alviso Marina Park. That action and high salinity turned the water pink this year and produced inundation by hundreds of people, bypassing Refuge signage to tromp down pond edges and even walk in the water, all to capture images for social media. Those lands are used by species like the threatened Western Snowy Plover. Federal funds limit staff size and capacity to protect its thousands of acres. Wildlife protection is a public responsibility too.



The planned extension of the Bay Trail along the edge of the America's Center pond (in pink) is a potential threat to wildlife.

Reflections on 20 Years of South Bay Salt Pond Restoration



Panoramic view of the restoration underway in Pond A-19. Photo by SBSPRP.

The South Bay Salt Pond Restoration Project (SBSPRP) passed an important milestone in 2023 by celebrating our 20th “birthday”, as the former salt-production ponds to be restored and enhanced were acquired from Cargill in 2003.

Twenty years is a long time, but “time flies when you are having fun!” That’s true for both of us, as this project is the most fun and the most rewarding of our careers. Some readers may not know the origin story of the Restoration Project, so we want to share some project history, successes, challenges, and a quick look at what the future holds.

In 2003, 15,100 acres of former salt-production ponds were acquired from Cargill and returned to public lands for the purposes of habitat restoration, flood protection, and public access and recreation at the cost of \$100 million, with Cargill donating some of the area. Senator Dianne Feinstein played a key role in helping to negotiate the deal and make the funding come together.

About one-third of that area was added to the State of California’s Congressman Pete Stark Ecological Reserve at Eden Landing, and the rest became part of the U.S. Fish and

Wildlife Service’s Don Edwards San Francisco Bay National Wildlife Refuge. This acquisition resulted in a huge increase in the acreage of both areas, as well as improvements in habitat connectivity and value for wildlife.

A multi-year effort followed the acquisition to lay out goals for the Restoration Project and to develop a long-term restoration plan. Our Environmental Impact Statement/ Report analyzed the possible outcomes of different implementation pathways

and established processes for choosing which groups of ponds would be restored, suggestions for the order in which to advance them and a range of desired outcomes. During the 150 years of large-scale salt-making, many waterbirds, waterfowl, and shorebirds have grown accustomed to these pond habitats so it was important to develop a structure that would balance the critical decision about marsh restoration versus the retention and enhancement of managed ponds.



Levee being breached and tidal flows restored at Eden Landing in Hayward. Photo by SBSPRP.

During the early planning, the **Initial Stewardship Plan** was implemented to stop the salt production, stabilize levees, improve culverts to circulate water through the ponds to reduce salinity, and begin tidal marsh restoration in a few ponds. It made such a difference that migratory shorebirds began flocking to the upgraded habitat, and those initial breaches triggered marsh formation more quickly than expected.

With the aid of a science team, a National Science Panel, and a large group of stakeholders, partners and interested members of the public,

Phase 1, we **restored tidal flows and established nascent wetlands on more than 3,000 acres**, and we’ve seen endangered salt marsh harvest mice and Ridgway’s Rails return already. We kept and enhanced more than 700 acres of ponds for shorebirds, ducks, and other waterbirds by adding nesting islands, improving water quality, better managing water levels, and improving foraging habitat. We’ve opened 7 miles of new public trails, built many viewing areas with interpretive signs and even added a kayak launch.

Phase 2 is underway, with construction complete in some areas, other work

Of course, it’s not all peaches and cream. **We still face challenges in getting the marsh-pond balance right, and rising sea levels make it harder to maintain pond levees and add the risk of tidal marshes drowning.** To raise berms and build habitat features, we need greater volumes of clean fill than can be easily found. This simultaneously raises the cost and adds uncertainty to the timing of our projects, which means our grant-funded work becomes more difficult to complete on time.

Yet we are optimistic about our ability to meet these challenges and our 20-year track record is quite



Proof that restoration works! Photo of Pond A-21 showing the re-establishment of tidal marsh vegetation and habitats. Photo by SBSPRP.

the project developed a **rigorous science and monitoring program, and a detailed adaptive management program** to allow restoration to proceed in baby steps while checking to see how things went and when necessary, adjusting before moving on. This was enabled by the ongoing support from funders, regulators, neighbors, city and county agencies, and many other partners.

Twenty years later, we can point to plenty of accomplishments. During

wrapping up soon, and more work set to begin in 2024. It will be similar to Phase 1 in scale and will put almost 50% of the total project acreage on its way to full tidal marsh restoration, while ensuring more enhanced managed ponds will be added into the mix. But we aren’t stopping there. We are in active collaboration with external projects that overlap geographically with ours and that will add thousands of acres of tidal marsh restoration.

promising, and our long list of terrific partners and supporters – like the Citizens Committee – adds to this confidence. Finger crossed, with care in planning and monitoring we hope for as much success in the next decade as we have had in the first two. 🍀

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Friends of the Alameda Wildlife Reserve

For the past several months, the parent organization for Friends of the Alameda Wildlife Reserve (FAWR) committee has been operating under a new name, Golden Gate Bird Alliance (formerly Golden Gate Audubon Society), in an effort to be a more inclusive and welcoming institution within the conservation community.

Although some birds arrived earlier, the first Least Tern nest was not found until June 7, a full month late. This late start created worry and challenges from a variety of familiar predators. FAWR monitored with the Tern Watch program in 2023 and supported colony maintenance at the end of the season. The colony was topped with new sand this fall.

Other breeding birds at AWR are reminding us of the reproductive value of this site. Alameda's two Osprey nests were monitored: Encinal Basin nest failed due to predation by Corvids. The Seaplane Lagoon Osprey pair fledged three young.

The highlight of 2023 would have to be the arrival of a pair of young Bald Eagles who built a nest at Corica Park Golf Course. It is not possible to describe the lessons and various emotions they brought to FAWR and to the golfing community. Rick Lewis took photos, that only Rick



A Bald Eagle pair arrived at the Reserve and nested at Corica Park Golf Course. Photo by Rick Lewis.

could capture, of their unexpected behaviors. The nest was damaged in a late March storm and then completely downed during another wind event. Two eggs were broken. The eagles were last seen on June 28, but we hope they will return for 2024. They have, however, left a legacy at Corica Park. The park's management gave us permission to monitor the eagles daily, and even without eagles FAWR has been allowed to have birding trips to see bird species that would be hard to locate anywhere else in Alameda. Golf comes first, but it is clear that nature and wildlife are a strong consideration for park managers. We were delighted to find



The eagles captured attention from nature lovers, reserve visitors, and birders alike. Photo by Rick Lewis.

Least Terns foraging with eagles in the same carp ponds bordered with trees.

Monthly bird articles continue to appear in the Alameda Sun and an on-line Alameda Post offering other nature related stories. These articles are popular, increasing residents' awareness of local resources and environmental concerns.

A third grade Least Tern Natural History program continues. Another program was requested by a Wood Middle School teacher to help her 6th grade students learn to identify birds and take field notes in personal journals. So many skills are required to be a young field scientist, and it happens outdoors, perfect for restless students. The program has expanded to include other classes at the school.

Twice monthly "AWR Bird Surveys" continue for the nineteenth year in a row. The data is a helpful reference and a great example of citizen science.

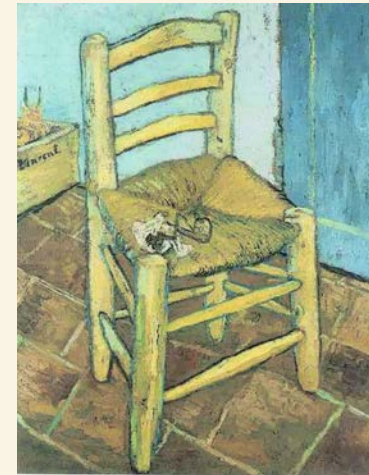
The DePave Park "wetland restoration project" is making progress. We're hoping to have one more building removed before the plan is adopted.

New species found at AWR in 2023 are: Rhinoceros Auklet, Nuttall's Woodpecker, American Robin. The total wild species at AWR is now at 217. Also seen was an African Domestic Goose.

FAWR has a growing team of dedicated and very talented volunteers, making all of this possible! 🐦

Leora Feeney

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The Uneasy Chair

Our group has been overjoyed to see our two bills enacted by Congress. The first in 1972, established the San Francisco Bay National Wildlife Refuge, and when we realized the acreage of the original bill did not adequately protect

rare and important baylands habitats, we returned to Mr. Edwards and the Congress for help which resulted in the 1988 authorization that doubled the size of the Refuge to 40,000 acres.

We were also elated when, at one of our meetings, Professor Howard Shellhammer of San Jose State, calmly announced that our Salt Marsh Harvest Mouse was listed as an endangered species by the U.S. Fish and Wildlife Service (USFWS).

"I learned today that the Fish and Wildlife Service has listed the mouse as endangered!"

— Howard Shellhammer
October 13, 1970

As a result of his steadfast commitment and professional skill, this charming little rodent, found only in the tidal wetlands of San Francisco Bay, was protected under the Endangered Species Act.

Some thoughts, in no particular order, about others briefly noted below who have brought light and laughter to our work.

Hunters, who understood wetlands loss, were enthusiastic at once. Wally Peters, Tom Espersen, and Dan Shattuc signed on and became strong voices for the protection of the tidal wetlands of the South Bay.

Sometimes we made friends of hikers in the baylands, and some, like Phyllis Browning who we just happened across during one of our trips out to the Bay, became an advocate for the protection of our baylands and a long-time supporter of CCCR's efforts.

Who will ever forget the day when Linda Patterson looked out her kitchen window to Mayhews Landing and saw a bulldozer plowing land where 40 endangered mice had been counted? She and her friend, Margaret Lewis, informed the Corps of Engineers, so a Cease-and-Desist Order led to the restoration of the site.

It was Trish Mulvey who said, "We should put out a newsletter," so she did; and it has been published annually now for over 30 years.

Donna Olsen argued with a banker in Los Angeles until he decided to sell the Carruf property to the FWS. It proved to be a favorite part of the Refuge for Ruth and Jim Gravanis.

It was a special pleasure for me to speak at the invitation of Bruce Beehler at the State Department when it planned and hosted a tribute worldwide to wetlands that included the Secretary General of the Ramsar Convention. Bruce's blog is an ornithological delight.

How exciting it was to be invited to Japan by Maggie Suzuki, of the Japan Wetlands Action Network.

If you receive information on our meetings, you know that Margaret Lewis' minutes are fun to read, like the time she advised us that she had established a website for the arachnids in her garden. Or the time she wrote about the Liquefaction Hazard Mitigation Bar over on Newark Area 4.

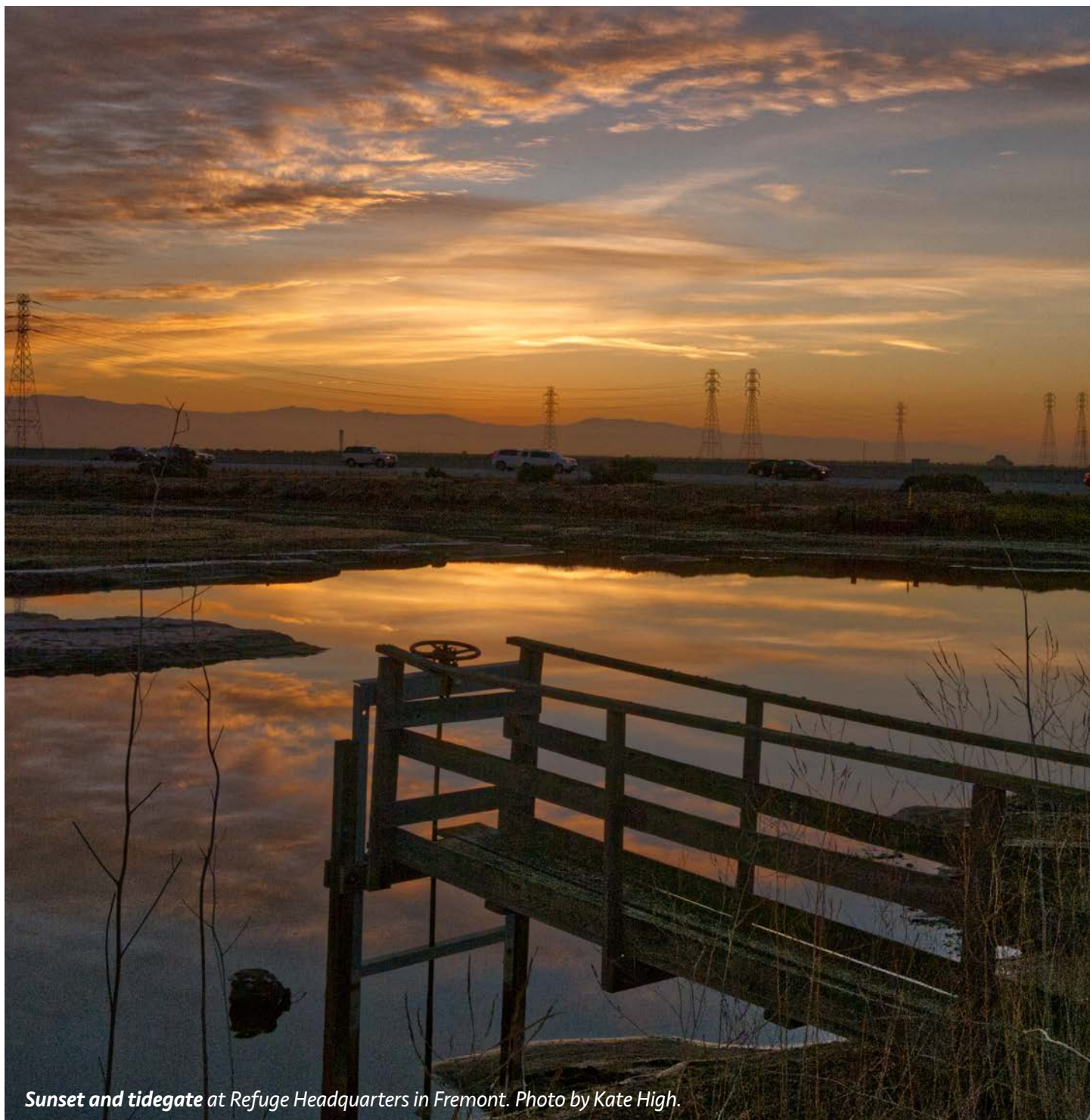
Then there was the unparalleled story of Bair Island and the restoration of its 3,000 acres! Players in the drama to save the lands from a harmful development proposal were the Friends of Redwood City, Carolyn and Ralph Nobles, and Sandra Cooperman. Then along came Arthur Feinstein and the Bay Area Audubon Council, plus the unsung hero, Bill Rukeyser who told me he had no idea what he was getting into, but then proposed we take out a full-page ad in the local edition of the *New York Times*. And of course, we are indebted to the Peninsula Open Space Trust.

Yes, yes, I know about sea level rise, and that is where the focus of our work lies now. Adding lands to the Refuge that will support tidal wetlands as sea levels continue to rise – lands like Area 4 in Newark and the Redwood City salt ponds. The fight to protect our internationally recognized Bay ecosystem continues!

I am deeply indebted to the members of my wetlands family, to my daughters, and to the volunteers who read to me with never a complaint of tired eyes or voice. Pratin Soni still reads me all those comment letters that our members continue to produce.

Thank you.

Florence M. LaRiviere
Uneasy Chair Emerita



Sunset and tidegate at Refuge Headquarters in Fremont. Photo by Kate High.

Save Wetlands is the annual newsletter of the **Citizens Committee to Complete the Refuge**, an all-volunteer nonprofit public benefit corporation.

Our mission is to save the Bay's remaining wetlands by working to place them under the protection of the Don Edwards San Francisco Bay National Wildlife Refuge, and to foster worldwide education regarding the value of all wetlands.

Support is welcome from anyone interested in saving wetlands; a tax-deductible contribution of \$20 per issue is appreciated.

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