

# Tideline



Don Edwards / Antioch Dunes / Ellicott Slough / Farallon Island / Marin Islands / Salinas River / San Pablo Bay

## First Urban National Wildlife Refuge Celebrates 40 Years – A Look Back at Milestones and the Challenges Ahead

by John Bradley

June 2012 marked the 40th anniversary of President Nixon signing the bill that authorized the creation of the Don Edwards San Francisco Bay National Wildlife Refuge. That event represented a milestone in a much broader campaign, waged by local citizens throughout the region, to stop the bay disappearing under asphalt and fill by ever expanding development.

Anniversaries are ritualized times for looking back, for remembering the struggles and relishing the victories, and by doing so becoming stronger and wiser. On this 40th anniversary we will remember the stories and lore that still circulate regarding the efforts of citizen activists to get a wildlife refuge created in the south bay.

It was just one year ago that we celebrated the role Redwood City citizen Ralph Nobles played with many, many others in protecting the then vulnerable baylands that became the Bair Island unit of the Don Edwards Refuge.

It was this past spring that we celebrated with Florence LaRiviere the national recognition bestowed upon her by the Environmental Law Institute headquartered in Washington D.C. for her long-term commitment and persevering efforts to assure wetlands protection in the south bay.

A citizen-based group, Save the Bay, co-founded by another remarkable woman, Sylvia McLaughlin, is marking its 50th anniversary of working to preserve and protect the ecosystem integrity of our golden-gated estuary.

The San Francisco Bay Wildlife Society, a special friend of the refuge complex, is currently looking back on 25 years of accomplishing its mission to promote public awareness and appreciation of the natural history of the San Francisco Bay and to

and supported them throughout the years. Remarkable also is their faith in the younger generation that has taken on and moved forward the struggle to preserve the beauty and steward the bounty of the San Francisco Bay region.



Photo by Ambarish Goswami

conserve and preserve the remaining bay lands as essential wildlife habitat.

As they grow into older stages of life those folks who began their environmental activism in the 1950s, 60s, and 70s will relish these environment-based anniversaries packed with both sweet and bitter memories. Speaking with them, one is struck not only by their sense of pride in the dreams they fought for, but also by their humility and gratitude to others who have inspired

Anniversaries are not only to remember and celebrate our past, but also to look forward and steel ourselves for the future. There remain goals to achieve and visions to create. The Don Edwards San Francisco Bay NWR is coming up on another milestone of sorts this Fall, namely arriving at closure on the Comprehensive Conservation Plan that will serve as a guiding document for refuge management over the next 15 years. This

continued next page

## Significant Milestones in the Last 40 Years . . .

**1972** President Richard Nixon signs H.R. 12143, establishing the San Francisco Bay National Wildlife Refuge

**1988** The Citizens Committee to Complete the Refuge urges Congress to approve the expansion of the San Francisco Bay National Wildlife Refuge by 20,000 acres. The bill passed and the refuge is able to add significant wildlife habitat without further congressional authorization.

**1997** Peninsula Open Space Trust purchases Bair Island in Redwood City and deeded the land to the Don Edwards San Francisco Bay National Wildlife Refuge. This was the result of local citizens' efforts, such as Carolyn and Ralph Nobles, to protect wetland habitat. This land, combined with California Department of Fish and Game's Bair Island Ecological Reserve, totaled 3,200 acres and was one of the largest restoration projects on the west coast.

**2003** An additional 9,000 acres of former salt ponds were added to the Don Edwards San Francisco Bay National Wildlife Refuge for wetland restoration. Working with California Department of Fish and Game and a host of other partners, the South Bay Salt Pond Restoration Project is the largest wetland restoration effort west of the Mississippi River.



*California Least Terns are vulnerable to predators. Photo by Aric Crabb*

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plan is the result of a vision and mandate articulated in the National Wildlife Refuge Improvement Act enacted by Congress in 1997. With over 550 refuges in the National Wildlife Refuge System, it's taken a while to develop and publish management plans for each of them. As one of the last refuges in the system to be funded for this effort, personnel at the Don Edwards refuge began their planning in 2010.

The planning process was not without its hurdles. Is there ever a time when thorough planning does not encounter differences in perspective and opinion regarding vision, goals, and strategy? On what exactly should management focus? What areas and which activities?

Of the many challenging issues dealt with during the planning process were predator management and invasive species control. One of the unique challenges that urban refuges face is how to protect threatened and endangered species such as California Least Tern and Western Snowy Plover from predators.

While protecting these sensitive species from invasive predators seems clear-cut, the issue is a muddled when the predators are native. Wildlife refuge managers increasingly encounter rising rates of predation on sensitive species from native species like gulls, hawks, falcons, owls and corvids - think California Gull, Red-tailed Hawk, Peregrine

and American Kestrel, Burrowing Owl and Common Raven. The urban environment often exacerbates these otherwise "natural" stressors through competition for space. This results in higher-than-normal predator densities, often sustained with human-based trash dumps. This "unnatural" clumped distribution of predators over the landscape and the availability of artificial structures that serve as perches for raptors also impinge upon the breeding sites of sensitive species.

Then there are those insidious non-native grasses and weeds that encroach onto the trails and into the marsh that takes unbelievable amounts of money to control. Urban areas often come with an abundance of hikers, motor vehicles and watercrafts big and small. These modes of transport easily distribute non-native weeds into natural environments, displacing the native vegetation.

One strategy in the 15-year plan is to continue to engage community-based volunteers in the on-the-ground stewardship of habitat and trails. Citizens of all ages and backgrounds are providing their generous labor to help via work parties and community service projects - one advantage of being in an urban location. In many cases this leads to reducing dependence on expensive chemical means of controlling the likes of wild fennel, star and bull thistle, mustard and pepperweed. Such maintenance work enhances habitat and becomes a novel way of learning about and interacting with the



*Native marsh plants colonizing a former salt pond just 1 year after levees were breached. Photo by Cris Benton.*

dirt, plant and animal life of the refuges. There is no doubt, however, that it requires persistent effort.

Challenges are grist for much wildlife


refuge management. The physical, biological and cultural environments are ever-changing. Organisms, including human beings, adjust, acclimate, and adapt. Some adapt quite well while others are struggling to keep up. The filling of San Francisco baylands for the purpose of expanding airports and accommodating growing residential, commercial and retail facilities may be a phenomenon of the past. In the past eight years I have witnessed the

breaching of salt pond levees followed by the natural deposition of sediments to levels sufficient to support the seedlings of marsh plants. During the past five years, I have


watched the deposit of one million cubic yards of fill into the subsided baylands at Inner Bair Island to jumpstart the tidal salt marsh restoration process. And over the past two years, I have observed a growing understanding by staff and volunteers of the transitional spaces between the marsh and the upland habitat for their ecosystemic usefulness in addressing the effects of sea level rise. We are beginning to incorporate the creation and regeneration of these ecotones into our design of salt marsh and terrestrial upland restoration.

The celebration of anniversaries of past accomplishments will re-motivate and rejuvenate us to meet future challenges.

*John Bradley is the Deputy Project Leader for the San Francisco Bay National Wildlife Refuge Complex. After working 22 years with the Fish & Wildlife Service, John Bradley will be retiring at the end of this year.*



**National Wildlife Refuge Week**



**October 14 - 20**

at Don Edwards  
San Francisco Bay  
National Wildlife Refuge


# Annual Sale of Native Plants

## Saturday, October 20, 2012

### 10:00 a.m. - 2:00 p.m.

*Help save water use by landscaping your yard with California native plants and attract hummingbirds and butterflies to your neighborhood. Sale will be held at the Visitor Center, located at the first parking lot to your right.*

**Don Edwards San Francisco Bay National Wildlife Refuge**  
2 Marshlands Rd, Fremont, CA  
For more information, call Carmen Minch at  
510-792-0222 ext. 476.





**The San Francisco Bay National Wildlife Refuge Complex is now on Facebook!**  
Like us and receive timely updates about the Complex.

# Summer youth employment offers teens first look at conservation careers

by Kimby Wells, *Environmental Education Specialist*

Weeding, painting, native plant propagation, salt marsh harvest mouse surveys, and outreach are just a few of the tasks taken on by youth this summer. The Youth Conservation Corp (YCC) is made up of members from the cities of East Palo Alto and Menlo Park. The last two years, YCC focused their efforts on levee restoration on the Don Edwards San Francisco Bay National Wildlife Refuge. This year, projects and tasks were shifted to incorporate several of the refuges in the San Francisco Bay NWR Complex, exposing the youth to a variety of habitats, wildlife and conservation careers in refuges. Volunteers and staff members from different divisions helped the crew learn new skills and build memorable experiences.

At Antioch Dunes National Wildlife Refuge, the YCC crew members pulled invasive vetch to improve habitat for native plants and for the endangered Lange's metalmark butterfly. At the Don Edwards San Francisco Bay National Wildlife Refuge, the youth installed

signs and led a trash clean-up for volunteers. At San Pablo Bay National Wildlife Refuge, the crew improved wildlife habitat by removing old fencing. The crew also attended the California State Fair to represent the U.S. Fish & Wildlife Service at a booth shared with other federal land management agencies.

YCC Crew Leader, Jessica Beatty, and I, the YCC Program Coordinator, have learned much from the youth while providing learning opportunities for them. In addition to career development, we introduce the crew to environmental issues, work to build their life skills and empower them to participate in conservation. This is not always easy but the program succeeds because of the hard work invested by the youth and all volunteers and staff involved. The crew improved habitat and facilities this summer and increased their skill set. I am confident that they will remember their experiences at the refuge complex and become good stewards of our natural resources long after the youth employment program has ended.



## Lee Ray Lovelady Remembered 1918-2012



For 18 years, Lee Lovelady conducted environmental education programs, lead nature walks and other programs, and assisted with administrative tasks at the Environmental Education Center at the Don Edwards Refuge. Always ready to greet visitors coming to the refuge with a smile and a "hello," Lee could be depended upon to orient visitors in the right direction.

Lee Lovelady was indispensable as a member of the refuge family. His specialty was teaching a marsh owl-pellet class with his personally designed skull charts and scat display. He visited 20 schools with his slide show and during the course of his volunteer

career, presented to more than 30,000 students. He could always be counted on to give presentations and nature walks at special events. By the time he retired from volunteering at the refuge in 2005, he had logged more than 7000 volunteer hours. He was the San Francisco Bay National Wildlife Refuge Complex's "Volunteer of the Year" in 1987. His enthusiasm and gift with people has influenced countless people with his love for nature and learning, including his family. Sadly, Lee passed away earlier this year in June 2012. He was truly an inspiration to all. Lee Lovelady will be missed.

SPOOKY



FREE

SLOUGH

Saturday, October 27

6:00 – 8:30PM



LIVE ANIMALS



HANDS-ON  
ACTIVITIES



WEAR A COSTUME!



Grab a flashlight and head to the Don Edwards San Francisco Bay National Wildlife Refuge in Alviso for this FREE Special Event celebrating our nocturnal neighbors!

Address: Environmental Education Center at 1751 Grand Blvd, Alviso  
For more information and directions visit [www.fws.gov/desfbay](http://www.fws.gov/desfbay) or call (408)262-5513

*Spooky Slough is sponsored by the City of San Jose, Santa Clara Valley Urban Runoff Pollution Prevention Program, San Francisco Bay Wildlife Society, and U.S. Fish and Wildlife Service*

# National Wildlife Refuge Week Oct. 14-20



## 24-Hour BioBlitz

**Begins at 3:00 p.m. October 20**  
**Ends at 3:00 p.m. October 21**  
**2 Marshlands Rd, Fremont**

To celebrate National Wildlife Refuge Week, the Don Edwards San Francisco Bay National Wildlife Refuge is gathering scientists and naturalists on the refuge for another BioBlitz! Meet the experts and see what they do first-hand. Become a field scientist and help the refuge document plants and wildlife, big and small at Refuge Headquarters in Fremont. Participate in one of our guided programs or take a documentation sheet and head out on your own. Programs include:

- Reptile Surveys
- Bird Surveys
- Plant Surveys
- Plankton Labs
- Song Bird Banding Demonstration
- Aquatic Invertebrate Lab
- Mammal Release
- And More!



*Marek Jaworski*



*Hal Geren*



*FWS Photo*

Don't forget to bring your camera! Upload your photos and findings into [iNaturalist.org](http://iNaturalist.org) and turn in your documentation sheet to the refuge to receive an official certificate and credit as a Contributing Field Scientist on the final report.

Call 510-792-0222 ext. 476 for more information. Open to all ages.

A full day's schedule and more information can be found on to our website beginning October 1 at <http://www.fws.gov/desfbay>.

**AMERICA'S NATIONAL WILDLIFE REFUGES...**  
*where wildlife comes naturally!*



# Be a Scientist for the Don Edwards Refuge!

Natural habitats are constantly changing and the animals that use those habitats change with them. In 2008, the Don Edwards San Francisco Bay National Wildlife Refuge received several grants to restore the upland areas along the Marsh View Trail at the Environmental Education Center in Alviso. The restoration project involved hundreds of hours of nonnative vegetation removal by staff and volunteers, and the planting of native grasses and forbs. Now that native plants have been established in this area, we are ready to

begin documenting what birds use this habitat.

Beginning October 1, you can help the Don Edwards Refuge in gathering bird-use data. The data collected will provide managers with valuable information on what species use this restored habitat. The data could also show changes in bird use over time and may provide insight into why this may be the case.

The San Francisco Bay Bird Observatory has developed a bird monitoring protocol for the data collection.

Individuals will submit their observations on-line to <http://www.eBird.org> from home. Or, if you have a smart phone, you can enter the data from the refuge by using the new Wi-Fi service offered by the San Francisco Bay Wildlife Society. Directions on where and how to make your observations, and instructions on how to upload the information can be picked up at the Environmental Education Center or downloaded from our website at <http://www.fws.gov/desbay> beginning October 1.

## Become Part of the Environmental Education Team – Train to be a Docent

Are you a retired teacher who wants to share your love of nature with kids? Are you an aspiring educator looking to gain new skills in the field of environmental education? Or are just you passionate about sharing nature with youth in a beautiful outdoor setting? Come join our Environmental Education team and teach students on school field trips! Learn more about the bayland

ecosystems and share it with students all while having fun!

**Our New Environmental Education Docent Training Course will be on Wednesday, October 24 from 10:00 am – 3:00 pm at the Environmental Education Center in Alviso.** You will learn more about the field of environmental education, the habitats, plants and animals of the bayland

ecosystem. Learn how to teach the activities in the Wetland Round-Up and Living Wetlands Field Trip programs. You will receive free educational materials. For more information or to sign up, call Genie Moore at 408-262-5513 ext 100 or email at [genie\\_moore@fws.gov](mailto:genie_moore@fws.gov).

All new Environmental Education Docents will need to be fingerprinted and pass a background check.

## Scout and Youth Group Programs

The Don Edwards San Francisco Bay National Wildlife Refuge offers free hands-on programs for youths. During the programs participants learn about endangered species, migratory birds, wetland habitats, and the relationship between personal habits and their effects on the San Francisco Bay. These programs are designed to meet badge/patch requirements of Scout Groups, but anyone can participate. Because of the popularity of such programs, reservations are required. Badges are not provided.

Below are the names, dates, and descriptions of the programs. Programs at the Environmental Education Center are sponsored by the Santa Clara Valley Urban Runoff Pollution Prevention Program and the San Francisco Bay Wildlife Society.

### Youth Group Programs at the Environmental Education Center in Alviso

Note: Ratio of 1 adult per 5 children maximum. Space is limited to 20 people, including siblings. Once the program is full there will be a waiting list. Call Debra at 408-262-5513 ext. 102 for reservations.

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#### Saturday, September 29

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**Webelos Naturalist Badge**  
Environmental Education Center, Alviso  
2:00 p.m. – 4:00 p.m.

Anyone out there need to earn a Naturalist badge? We've got the program that's right for Webelos! Learn about birds, migration, flyways, food chains, human impact, and the importance of wetlands. Then take a walk and use our binoculars to spot birds in the wild.

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#### Saturday, November 3

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**\* Junior Girl Scout Wildlife Badge**  
Environmental Education Center, Alviso  
10:00 a.m. – 12:00 p.m.

Calling all Junior Girl Scouts of Santa Clara County! Anyone out there need to earn a Wildlife badge? We've got the program just for you! Come to the wildlife refuge and learn about features of different creatures, observe animal behavior, see how you can help wildlife, and so much more. Take a walk to explore the habitats at the south end of the bay.

**\*Brownie Eco-Explorer Try-It Patch**

Environmental Education Center, Alviso  
2:00 p.m. – 4:00 p.m.

Come and learn about habitats, food chains, and how you can help wildlife. Then take a walk to explore the habitats at the South Bay. We'll have a special craft to round out the day. Space is limited to 20 people and program fills quickly.

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#### Saturday, November 10

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**Webelos Naturalist Badge**  
Environmental Education Center, Alviso  
10:00 a.m. – 12:00 p.m.

Anyone out there need to earn a Naturalist badge? We've got the program that's right for Webelos! Learn about birds, migration, flyways, food chains, human impact, and the importance of wetlands. Then take a walk and use our binoculars to spot birds in the wild.

### Youth Group Programs at the Refuge Headquarters in Fremont

The Refuge Headquarters offer Webelos programs for up to 15 Webelos. Call 792-0222 ext. 363 for reservations. All programs are led by June Smith.

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#### Saturday, September 8 Sunday, October 14 Sunday, November 4

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**Webelos Naturalist Program**  
Visitor Center, Fremont  
10:00 a.m. – 12:30 p.m.

Attention Webelos! Earn your naturalist badge in just 2.5 hours. During this hike, learn about birds, flyways, food chains, and the importance of wetlands. Bring your binoculars, or borrow one of ours.

# Thank you San Francisco Bay Wildlife Society Donors!

*We gratefully acknowledge the following donors who have made gifts to the San Francisco Bay Wildlife Society between April 1, 2012 and June 30, 2012. These gifts will be used for Tideline publications, capital, environmental education, habitat restoration, and interpretive programs at the Don Edwards San Francisco Bay National Wildlife Refuge.*

## Employer Matching Gift Program

SanDisk Corp  
United Airlines

## Sustainer

Tim & Cecilia Craig

## Sponsor

Marge Kolar & Gloria Laird

## Participant

Kim Brink, John B & Laura Jamieson,  
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## Family

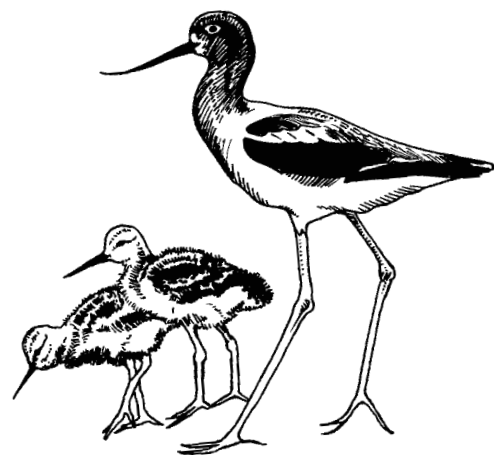
Jeffery B Allen, Margaret & Donald  
R Emery, Steve Ferguson, Lisa Garza,  
Kenneth & Theresa Goss, Craig & Barbara  
L Heckman, Brian & Fran Tennenbaum  
Kaye, Mary T Light, Karen McCreddin,  
Tom & Emily Nawalinski, Jed Somit, Bruce  
Watts, Peter White, Gregory & Osa Wolff,  
& Kathleen Yoshikawa

## Individual

Andrew J Blasband, Beverly Dahlstedt,  
Marlene S Grunow, Blanca L Haendler,  
Locke C Jorgensen, David R Thompson,  
Ruth Troetschler, & Stephen P Walker

## Senior/Student

Harriette Atkins, Rosemary Aurbrey,  
Patricia Callaway, Ken Crowley, William  
Donnelly, Susan Kozdon, Jonelle V Preisser,  
Hoag Schmele, Don J Thompson, Jean E  
Toonen, & Beverly Watros



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## Help Us Help the Refuge

**Mail your donation to: San Francisco Bay Wildlife Society, P.O. Box 234, Newark, CA 94560.  
You may also become a member at [www.sfbws.com](http://www.sfbws.com).**

For a gift membership, call 510-745-8170.

San Francisco Bay Wildlife Society is a not-for-profit 501(c)(3) organization which raises money and awareness for the San Francisco Bay National Wildlife Refuge Complex.

**YES!** I want to support San Francisco Bay Wildlife Society and its programs with my membership. My dues include a subscription to *Tideline* and 15% discount at the Don Edwards SF Bay National Wildlife Refuge bookstore. Enclosed is my contribution of:

- \$20 Student/Senior       \$50 Family       \$100 Participant       \$200 Corporation       \$500 Sustainer  
 \$35 Individual       \$75 Supporter       \$250 Sponsor       \$1,000 Leader

Check  Visa or MasterCard # \_\_\_\_\_ Exp. Date \_\_\_\_\_

Signature \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ **Thank you for your support!**



# Virtual Watershed Flight Campaign: Endow WOWW!



Help raise \$60,000 to create two interactive computer exhibits at the Visitor Center in Fremont and the Environmental Education Center in Alviso. You can contribute first-hand to education programs for local schools and the general public.

To donate, go to our website at [www.sfbws.com](http://www.sfbws.com) or call 510-745-8170

## Pilot Level

Donate \$5,000 or more

Recognition in Kiosk WOWW application program, shown as Sponsor on [www.sfbws.com](http://www.sfbws.com) website and special mention in *Tideline* for 1 year.

## Navigator Level

Donate \$1,000 or more

Recognition in Kiosk WOWW application program and special mention in *Tideline* for that quarter.

## WOWW Support Level

Donate \$100 or more

Receive a Wildlife Society memento of your choice: mug or mouse pad

## What is WOWW?

W.O.W.W. is the acronym for the Watching Our Watersheds & Wildlife Project that brings interactive learning kiosks and educational tools to introduce visitors and students to the concepts of watersheds, wildlife corridors, wildlife and plant identification, historical ecology, climate change, and the effects of pollution on the San Francisco Bay. This project will use the latest technologies to provide visitors the opportunity to “fly” their way through the Google Earth Alameda and Santa Clara County watershed maps when their zip code is typed in. They will see which creeks go by their houses or schools, observe valley historical ecology, or have the option to take an automated fly-through tour of the watershed.

This project will include two permanent touch-screen computers on the refuge, one at the Visitor Center in Fremont and one at the Environmental Education Center in Alviso. In addition, the fun, engaging learning modules can be uploaded from the San Francisco Bay Wildlife Society’s website for in-classroom and public use! The kiosks and the programs available for download are expected to be in place by the end of this year.

## Check out the new web site and domain for the San Francisco Bay Wildlife Society at [www.sfbws.com](http://www.sfbws.com)

The San Francisco Bay Wildlife Society has a new look and a new domain! The new website will be updated regularly with blogging, photos, the *Watershed Watchers* and *Living Wetlands* (formerly known as *Slow the Flow*) programs, and activities offered at the Don Edwards San Francisco Bay National Wildlife Refuge. Although the domain has changed to “.com”, we continue to be an active not-for-profit 501(c)(3) organization dedicated to environmental programs for the San Francisco Bay National Wildlife Refuge Complex. The Society Board of Directors and employees welcome your input to help us make the site an informative, helpful place for you.

Check out the site and send us your comments and ideas to [webmaster@sfbws.com](mailto:webmaster@sfbws.com).

*Thank you for your support!*

# Autumn Activity Schedule

## September

Saturday, September 8

### A Trip Back in Time

Visitor Center, Fremont

10:30 a.m. – 12:00 p.m.

Revive the vanishing knowledge of the history of the Don Edwards San Francisco Bay National Wildlife Refuge grounds by strolling the trails with docent Ray Studer. Using a collection of old photographs, the last vestiges of a way of life such as salt production, the old railroads, and homes can be traced back to the 1850s that led to the construction of the town of Newark in 1876.

### Twilight Marsh Walk

Visitor Center, Fremont

6:30 p.m. – 8:00 p.m.

Experience the salt marsh at twilight on an easy stroll along Tidelands (1 1/3 mile) Trail. At the setting of the sun we will observe the beginning of nature's night shift. Come discover the sights, sounds, and smells of the refuge as night descends. Not suitable for young children. RESERVATIONS REQUIRED. Call 510-792-0222 ext 363. Led by Mary and Gene Bobik.

Sunday, September 9

### Bay Bike Ride

Meet at the Visitor Center, Fremont

10:00 a.m.

Go on an 11-mile bike ride with docent Gregg Aronson along Marshlands Road and on the Shoreline Trail to observe birds and the occasional leopard shark! Pass through several habitat types along the way including salt marsh, salt pond, and the bay. The paved and dirt trails are mostly flat and trail and hybrid bicycles highly recommended. Helmets are required. Recommended for more experienced bicyclists. Program cancels if it rains the day before and the day of due to mud. Call 510-792-0222 ext. 363 for reservations.

### Story Hunters - Part 1

Visitor Center, Fremont

2:00 p.m. – 3:30 p.m.

Discover what stories lie hidden on the Don Edwards Refuge in this 3-part series by Art Garibaldi. After a brief introduction on how to use our GPS units, we'll give you a set of coordinates that will lead you to the landmarks that embody the rich human history that helped shaped refuge lands. GPS units are available for loan. Call 510-792-0222 ext. 363 for reservations.

### \*Bird Migration Hike

Ravenswood Unit (North), Menlo Park

1:00 p.m. - 4:00 p.m.

Our wetlands are an important stop on the Pacific Flyway, a major bird migration route. Take an easy, 4-mile hike with docent Laurel Stell to learn why the birds migrate, why they stop along the San Francisco Bay, and to spot the birds in action. Reservations required; call 510-792-0222 ext. 139.

Saturday, September 15

### California Coastal Cleanup Day - Alviso

Environmental Education Center, Alviso

10:00 a.m. – 12:00 p.m.

Come help out as we join others around the world in an effort to keep our coastal areas clean! Together with other courageous Californians, we'll pick up trash and tidy up the wetland areas near the refuge. Come with a hat, sunscreen, and a great attitude, and we'll provide the rest! Space is limited. Please call Debra at 408-262-5513 ext. 102 for reservations.

### \*Shorebirds Return

Ravenswood Unit (SF2), Menlo Park

11:00 a.m. - 12:30 p.m.

Come greet the shorebirds as they return by the thousands to San Francisco Bay every autumn. Docent Jane Moss will lead you on a 1.5 mile round-trip hike along Don Edward's unique interpretive trail and introduce you to the South Bay Salt Pond Restoration Project. Trail is easy and level. All ages and abilities welcome. For information, please call 510-792-0222 ext. 139.

### \*Butterflies, Etc.

Environmental Education Center, Alviso

1:30 p.m. – 3:00 p.m.

Do you know the difference between butterflies, moths, and skippers? Learn all about them, including their life cycles and migration. Then take a leisurely walk around our butterfly garden to see some of these beautiful insects. Suitable for ages 7 and up. Led by Ed Kantack. Call Debra at 408-262-5513 ext. 102 for reservations.

### Drawbridge Van Excursion

Environmental Education Center, Alviso

2:00 p.m. – 4:30 p.m.

There's a ghost town in the San Francisco Bay? That's right! Nestled on an island in the salt marshes of South San Francisco Bay, the town of Drawbridge once boomed. Was it a quiet, peaceful town full of nature lovers, or a rip-roaring town full of two-fisted rowdies? Find out at this program led by Ceal Craig. Start with a slideshow, and then take a short van excursion to view Drawbridge across Coyote Creek. Program is intended for adults and space is very limited. RESERVATIONS ARE ESSENTIAL. Call Debra at 408-262-5513 ext. 102. (Note: we do not visit the town itself)

Sunday, September 16

### World Water Monitoring Challenge

Alviso Marina County Park, Alviso

10:00 a.m. – 11:30 a.m.

In September over 50,000 people around the world monitor their local water bodies! Are you up for the challenge? The primary goal of World Water Monitoring Challenge

# Coastal Cleanup Day

Visitor Center,  
2 Marshlands Rd, Fremont

Sat., September 15, 2012

8:30 a.m. – 12:00 p.m.

Help wildlife and the environment! We will protect coastal habitats by picking up trash and removing invasive weeds. We'll supply plastic gloves (or bring your own) and trash and recycling bags. You supply energy, sturdy shoes, sun protection, and clothes you don't mind getting dirty. Bring a reusable water bottle.

RESERVATIONS REQUIRED!

Call 510-792-0222 ext. 363 to sign up. For more information, contact Paul Mueller at 510-792-0222 ext. 361.

Children 15 and under must be accompanied by an adult. All children under 18 must have a Volunteer Services Agreement form signed by their legal guardian. To expedite the registration process, log on to <http://www.fws.gov/desfbay> to download the form and bring to the registration table. Forms are also available at the registration table.

is to educate and engage citizens in the protection of the world's water resources. Many people are unaware of the impact their behaviors have on water quality. You'll be able to put your chemistry skills to use as you conduct simple monitoring tests and learn how to protect and keep your local watershed clean. Join us at the Alviso Marina County Park where we will be conducting water quality testing in the Guadalupe River. Call Julie at ext. 104 for reservations and directions.

### Nature Drawing for Kids

Visitor Center, Fremont

10:30 a.m. – 12:30 p.m.

Does your child have an interest in the arts? Introduce your child to outdoor sketching in this workshop by Travis Turner and increase their observations skills. We will learn how to draw what we see by incorporating common shapes, and learn about color value. We will then head out onto the trail and practice the various techniques. Paper and pencils will be provided. This program takes place outside. Dress warmly. Rain cancels. Kids age 7-12 only! Call for reservations at 510-792-0222 ext. 363. Minors must be accompanied by an adult.

\*Trails are generally level. Surface and trail conditions vary. Please call for accessibility information.

Visitor Center, 2 Marshlands Road, Fremont – (510) 792-0222 ext. 363 • Environmental Education Center, 1751 Grand Blvd, Alviso – (408) 262-5513

## Rise of Coyote Hills

Visitor Center, Fremont

2:00 p.m. – 3:00 p.m.

Join Roy Sasai on a hike to learn about, and view the inner core of Coyote Hills. What forces created this magnificent hill along the bay? What forces continue to move and shape the vista we see? What forces made a huge portion of Coyote Hills disappear? We will meet at the Visitor Center to begin our adventure, then hike 1.5 miles on steep terrain to view the core of Coyote Hills. The hike is recommended for the young and young at heart. Dress warmly, bring binoculars, and camera.

## Saturday, September 22

### Beginning Bird Drawing for Families and Adults

Environmental Education Center, Alviso

11:00 a.m. – 12:30 p.m.

Learn how to draw birds! Increase your confidence in drawing and learn skills to help you draw what you see. We will have a variety of mounted birds available for drawing and for observing bird anatomy. We will practice techniques for getting the proportions right. Appropriate for ages 8 to adult. Children, please bring an adult with you who would like to participate. Adults without children are also welcome. Bring a sketch pad and pencil or use ours. All skill levels welcome. Call Debra at 408-262-5513 ext. 102 for reservations.

### Intermediate Bird Drawing

Environmental Education Center, Alviso

1:30 p.m. – 3:00 p.m.

Learn techniques to help your bird drawings come to life! This class picks up where the morning class leaves off. It can also be taken independently. The morning class emphasized quick sketches and basic shapes. This class will emphasize the 3-dimensional form of the bird and will provide more advanced techniques and more time spent drawing. Appropriate for ages 8 to adult. Children, please bring an adult with you who would like to participate. Adults without children are also welcome. Bring a sketch pad and pencil or use ours. All skill levels welcome. Call Debra at 408-262-5513 ext. 102 for reservations.

### \*Family Bird Walk

2:00 p.m. – 4:00 p.m.

Visitor Center, Fremont

Let family walks become a shared time of nature learning. We'll begin by helping kids create their personal bird watching field guides, and then head out onto the trails to find those birds. A limited number of binoculars are available to borrow. Recommended for children ages 5-10. RESERVATIONS REQUIRED. Call 510-792-0222 ext. 363.

## Sunday, September 23

### \*Bird Migration Walk

Ravenswood Unit (SF2), Menlo Park

1:00 p.m.–2:30 p.m.

Our wetlands are an important stop on the Pacific Flyway, a major bird migration route. Stroll with docent Laurel Stell to learn why the birds migrate, why they stop along the San Francisco Bay, and to spot the birds in action. Trail is easy and level. All ages and abilities welcome. Meet at the SF2 trail parking area on the west side of the Dumbarton Bridge. For information and directions, please call 510-792-0222 ext. 139.

## Saturday, September 29

### Alviso Slough Trail – 9 mile-loop

Meet at the Alviso Marina, Alviso

8:30 a.m.

Let's Go Outside!

This is the 6th walk featured in the Refuge Rambler club. This trail in Alviso is a 9-mile loop, flat, and level. The walk is self-paced and you may turn back at any time. Hats, water, and

sunscreen are strongly recommended. There is no shade. You do not need to be a Refuge Rambler to join this walk. No reservations are needed. Carmen Minch will be there to greet you at 8:30 a.m. Directions: From Hwy 237, exit at Lafayette/Gold St. Head north onto the Gold St. Connector and left onto Gold St. Turn left onto Elizabeth St and right onto Hope St., which leads you to the Alviso Marina. Meet in the picnic table area adjacent to the restrooms.

### Explore the Weep

Environmental Education Center, Alviso

10:00 a.m. – 1:00 p.m.

Join microbiologist Dr. Wayne Lanier, who will take you on a short van ride to study microbial communities. The Weep is a shallow persistent pond fed by seepage. Throughout the year, it undergoes very wide swings in salinity, and the result is a uniquely rich microbial community of Cyanobacteria, Archeabacteria, Diatoms, Dinoflagellates, and protozoa. Boots are recommended! Ages 10 and up. RESERVATIONS REQUIRED. Please call Debra at 408-262-5513 ext. 102.

### Story Hunters - Part 1

Visitor Center, Fremont

2:00 p.m. – 3:30 p.m.

Discover what stories lie hidden on the Don Edwards Refuge in this 3-part series by Art Garibaldi. After a brief introduction on how to use our GPS units, we'll give you a set of coordinates that will lead you to the landmarks that embody the rich human history that helped shaped refuge lands. GPS units are available for loan. Call 510-792-0222 ext. 363 for reservations.

## Sunday, September 30

### \*Life at the Bottom of the Food Chain

Visitor Center, Fremont

10:00 a.m. – 12:00 p.m.

Wetlands microbes are often called "the lungs of the earth." Explore the dynamics of microbial communities in LaRiviere Marsh ponds. Join microbiologist Dr. Wayne Lanier for a brief presentation; then a microscope hike to LaRiviere Marsh where we will sample and view the most ancient creatures on earth. See how they produce the oxygen we breathe and take up the carbon dioxide we produce. Easy short hiking level. Ages 9-90 years. Call 510-792-0222 ext. 363 for reservations.

### Nature Yoga

Visitor Center, Fremont

10:00 a.m. – 11:30 a.m.

Enjoy the benefits of Yoga outdoors with great views of the salt marsh. Through story and postures, learn what attracted people and wildlife to the Bay. There will be a short hike to the site from the Visitor Center. Bring a yoga mat. A limited number of mats are available to borrow. Wear comfortable clothing. Consult with your doctor before participating. All ages and abilities welcome. Reservations are required. Call 510-792-0222 ext. 363. Led by Carmen Minch.

# Autumn Activity Schedule

### \*Marshland Rabbits

Environmental Education Center, Alviso

11:00 a.m. – 12:30 p.m.

Wascawwy wabbits are all around the wildlife refuge. They're little, fuzzy and warm, and so cute. Come meet and learn about the history and life of rabbits. Call Julie at ext. 104 for reservations.

### \*Salt Marsh Walk

Visitor Center, Fremont

1:00 p.m. – 2:00 p.m.

Take a walk with docent Gregg Aronson around the wetlands of the wildlife refuge and learn about their history. See examples of salt collection ponds and learn what is being done to convert them back to their original, natural salt marsh state. Hear how wildlife is affected by the two types of habitat, and why it is important to control the rate of conversion from salt ponds back to the salt marshes. Binoculars and/or a camera are recommended. Call 510-792-0222 ext. 363 for reservations.

### The Remarkable Gray Fox

Visitor Center, Fremont

2:00 p.m. – 3:30 p.m.

What is the typical annual lifecycle of a gray fox? What makes them different from all other foxes? Gray foxes are highly successful survivors. We will observe their habitat during our walk and learn the answers to these questions and more. Good walking shoes recommended. Led by The Fox Guy – Bill Leikam.

# October

## Saturday, October 6

### \*Marshlands of Dreams

Visitor Center, Fremont

10:30 a.m. – 11:30 a.m.

Join Paul Mueller on a 1-mile walk of the LaRiviere Marsh Trail to find traces of the past. Prior to marsh restoration, learn how Californians utilized the area for farming, quarrying, salt production, and transportation. There are opportunities for bird watching as well.

### Gardening at the EEC - Community Service

Environmental Education Center, Alviso

10:00 a.m. – 12:00 p.m.

Come help in our native plant garden by removing non-native plants, pruning, mulching, or various other jobs that help protect wildlife and clean up our gardens. We'll be starting preparations for planting native species. Bring your own gloves or borrow a pair of ours – tools are provided. Dress in layers and bring water and sunscreen. Be prepared to get dirty! Ages 9 and up. Participants 18 and under must be accompanied by a chaperone. Please call Debra for reservations at 408-262-5513 ext. 102.

\*Trails are generally level. Surface and trail conditions vary. Please call for accessibility information.

Visitor Center, 2 Marshlands Road, Fremont – (510) 792-0222 ext. 363 • Environmental Education Center, 1751 Grand Blvd, Alviso – (408) 262-5513

# Autumn Activity Schedule

## Sunday, October 7

### Story Hunters - Part 2

Visitor Center, Fremont

2:00 p.m. – 3:30 p.m.

Discover what stories lie hidden on the Don Edwards Refuge in this 3-part series by Art Garibaldi. New coordinates will lead you to two new landmarks that embody the rich human history that helped shaped refuge lands. We'll begin with a brief introduction on how to use our GPS units. GPS units are available for loan. This program is open to everyone. Call 510-792-0222 ext. 363 for reservations.

## Saturday, October 13

### Tidelands Trail/LaRiviere Marsh Walk – 1.5 mile-loop

Visitor Center, Fremont

10:00 a.m.

**Let's Go  
Outside!**

This is the final walk featured in the Refuge Rambler club. If you've completed six out of seven walks in the series, congratulations! Be sure to bring your passport to the Visitor

Center for your free All-Star T-shirt! This trail is 1.5 miles. The walk is self-paced and you may turn back at any time. You do not need to be a Refuge Rambler to join this walk. No reservations are needed. A refuge representative will be there to greet you at 10:00 a.m.

### Twilight Marsh Walk

Visitor Center, Fremont

5:30 p.m. – 7:00 p.m.

Experience the salt marsh at twilight on an easy stroll along Tidelands (1 1/3 mile) Trail. At the setting of the sun we will observe the beginning of nature's night shift. Come discover the sights, sounds, and smells of the refuge as night descends. Not suitable for young children. RESERVATIONS REQUIRED. Call 510-792-0222 ext 363. Led by Mary and Gene Bobik.

### Sunset Photography Hike

Eden Landing Ecological Reserve, Hayward

5:00 p.m.

Hidden among the salt ponds is one of the East Bay's most intriguing historical sites. The refuge and the South Bay Salt Pond Restoration Project are sponsoring this photography hike to the old Oliver Salt Works within the Eden Landing Ecological Reserve. We'll be walking into an area of the Reserve not yet open to the public so please be prepared to walk several miles on unimproved levees with your equipment. Reservations required. Please call 510-792-0222 x139.

## October 14-20 is National Wildlife Refuge Week!

## Sunday, October 14

### Intro to Nature Drawing for Adults

Visitor Center, Fremont

10:30 a.m. – 12:30 p.m.

Learn the basics of sketching nature. We will learn how to draw with negative shapes and shadows, and how to use color and light to add dimension. We will discuss how the changing horizon lines can offer depth. There will be opportunities to practice these techniques on the trail. Paper and pencils will be provided. Dress for the weather. Program begins in the pavilion. Call for reservations at 510-792-0222 ext. 363. Led by Travis Turner.

### \*Butterfly Garden Scavenger Hunt

Environmental Education Center, Alviso

11:00 a.m. – 12:30 p.m.

Do you have an eye like a hawk? Do you have a nose like a fox? If you want to know how you compare, come and see if you can find the wonders of nature in the hunt of a lifetime. Prove your naturalist skills as you use your newfound tools to make a craft. Call Julie at ext. 104 for reservations.

### The Remarkable Gray Fox

Visitor Center, Fremont

1:00 p.m. – 2:30 p.m.

What is a typical annual lifecycle of a gray fox? What makes them different from all other foxes? Gray foxes are highly successful survivors. We will observe their habitat during our walk and learn the answers to these questions and more. Good walking shoes recommended. Led by The Fox Guy – Bill Leikam.

### \*Chompers and Stompers

Environmental Education Center, Alviso

2:00 p.m. – 3:30 p.m.

Ever wondered why birds come in so many shapes, sizes, and colors? Come and find out why some birds exhibit wacky behaviors. We will examine different bird specimens we have collected over the years to see how birds have adapted some extraordinary features. Come admire the bird kingdom and then take a guided walk around the refuge to see these marvelous creatures in action. RESERVATIONS RECOMMENDED – All Ages are welcome. Call 408-262-5513 ext. 104.

### \*Salt Marsh Walk

Visitor Center, Fremont

2:00 p.m. – 3:00 p.m.

Take a walk with docent Gregg Aronson around the wetlands of the wildlife refuge and learn about their history. See examples of salt collection ponds and learn what is being done to convert them back to their original, natural salt marsh state. Hear how wildlife is affected by the two types of habitat, and why it is important to control the rate of conversion from salt ponds back to the salt marshes. Binoculars and/or a camera are recommended. Call 510-792-0222 ext. 363 for reservations.

## Saturday, October 20

### Annual Native Plant Sale

Visitor Center, Fremont

10:00 a.m. – 2:00 p.m.

This is your chance to purchase that perfect native plant to add to your garden! Whether you're looking to re-landscape your yard with drought-resistant plants, or you want to create habitat for neighborhood birds and butterflies, this is the place to be. Sale will take place at the Visitor Center in Fremont. Afterwards, take part in the refuge's BioBlitz!

### Wetland Safari

Environmental Education Center, Alviso

10:00 a.m. – 12:00 p.m.

Take a one-hour van tour around our former salt ponds. Bird life is generally more abundant farther away from the parking lot. We will make several stops for better viewing and photography (if desired). Plus, we'll take a look at what is left of Drawbridge. Due to limited van seating, a second tour will begin at 2:30 if needed. Call Debra at 408-262-5513 ext. 102 for reservations.

### Ravenswood Hike

Bedwell Bayfront Park, Menlo Park

10:30 a.m. – 12:30 p.m.

The 2.3-mile perimeter trail at Bedwell Bayfront Park offers great opportunities to discover winter wildlife and to discuss how future wetlands restoration will shape this piece of the Bay. Offered by the refuge and the Friends of Bedwell Bayfront Park. Meet at the main parking lot bathrooms at Bedwell Bayfront Park. Call 510-792-0222 x139 for information.

### \*Shorebirds Return 2nd Anniversary Walk!

Ravenswood Unit (SF2), Menlo Park

11:00 a.m. - 12:30 p.m.

Two years ago we opened the flood gates to restore a former salt pond to tidal action. Learn what happened over these past two years as we welcome the return of the shorebirds. Docent Jane Moss will lead you on a 1.5 mile round-trip walk along Don Edwards Refuge's newest interpretive trail and introduce you to the South Bay Salt Pond Restoration Project. Trail is easy and level. All ages and abilities welcome. For information, call 510-792-0222 ext. 139.

### Halloween Nature Drawing for Families and Adults

Environmental Education Center, Alviso

11:00 a.m. – 12:30 p.m.

Afraid of drawing? Come explore skeletons, spiders, bats, pumpkins, and other scary (and not so scary) stuff! Learn skills to make realistic drawings of what you see. Appropriate for ages 8 and up. Children, please bring an adult who would like to participate. Adults without children are welcome as well. Bring a sketch pad and pencil or use ours. All skill levels welcome.

## Saturday, October 27

### A Trip Back in Time

Visitor Center, Fremont

10:30 a.m. – 12:00 p.m.

Revive the vanishing knowledge of the history of the Don Edwards San Francisco Bay National Wildlife Refuge grounds by strolling the trails with docent Ray Studer. Using a collection of old photographs, the last vestiges of a way of life such as salt production, the old railroads, and homes can be traced back to the 1850s that led to the construction of the town of Newark in 1876.

\*Trails are generally level. Surface and trail conditions vary. Please call for accessibility information.

Visitor Center, 2 Marshlands Road, Fremont – (510) 792-0222 ext. 363 • Environmental Education Center, 1751 Grand Blvd, Alviso – (408) 262-5513

## Story Hunters - Part 2

Visitor Center, Fremont

2:00 p.m. – 3:30 p.m.

Discover what stories lie hidden on the Don Edwards Refuge in this 3-part series by Art Garibaldi. New coordinates will lead you to two new landmarks that embody the rich human history that helped shaped refuge lands. We'll begin with a brief introduction on how to use our GPS units. GPS units are available for loan. This program is open to everyone. Call 510-792-0222 ext. 363 for reservations.

## Spooky Slough!

Environmental Education Center, Alviso

6:00 p.m. – 8:30 p.m.

What types of creatures lurk about and fly around at night at the refuge? Find out at Spooky Slough! Kids are encouraged to come in costume. Learn about nocturnal wildlife and what you can do to help! Enjoy hands-on activities, live animals, a twilight trek, games, story time, and so much more! Be prepared for cold weather and bring a reusable bag for trick-or-treating. Fun for all ages! For directions or more information, please call 408-262-5513 ext. 102 for Debra or ext. 104 for Julie.

## Sunday, October 28

### Nature Yoga

Visitor Center, Fremont

10:00 a.m. – 11:30 a.m.

Enjoy the benefits of Yoga outdoors with great views of the salt marsh. Through story and postures, learn what attracted people and wildlife to the Bay. There will be a short hike to the site from the Visitor Center. Bring a yoga mat. A limited number of mats are available to borrow. Wear comfortable clothing. Consult with your doctor before participating. All ages and abilities welcome. Reservations are required. Call 510-792-0222 ext. 363. Led by Carmen Minch.

### Spooky Nature Drawing for Kids

Visitor Center, Fremont

10:30 a.m. – 12:30 p.m.

Does your child have an interest in the arts and is looking for something spooky for Halloween? Introduce your child to sketching outdoor creepy crawlies and spooky critters in this workshop by Travis Turner. We will learn how to draw what we see by incorporating common shapes, and learn about shading value. We will then head out to the trail to practice these techniques. Paper and pencils provided. This program takes place outside so dress warmly. Rain cancels. Kids age 7-12 only! Call for reservations at 510-792-0222 ext. 363. Minors must be accompanied by an adult.

# November

## Saturday, November 3

### \*Marshlands of Dreams

Visitor Center, Fremont

10:30 a.m. – 11:30 a.m.

Join Paul Mueller on a 1-mile walk of the LaRiviere Marsh Trail to find traces of the past. Prior to marsh restoration, learn how Californians utilized the area for farming, quarrying, salt production, and transportation.

## Sunday, November 4

### Story Hunters - Part 3

Visitor Center, Fremont

1:00 p.m. – 2:30 p.m.

Discover what stories lie hidden on the Don Edwards Refuge in this 3-part series by Art Garibaldi. New coordinates will lead you to two new landmarks that embody the rich human history that helped shaped refuge lands. We'll begin with a

brief introduction on how to use our GPS units. GPS units are available for loan. This program is open to everyone. Call 510-792-0222 ext. 363 for reservations.

### \*Salt Marsh Walk

Visitor Center, Fremont

2:00 p.m. – 3:00 p.m.

Take a walk with docent Gregg Aronson around the wetlands of the wildlife refuge and learn about their history. See examples of salt collection ponds and learn what is being done to convert them back to their original, natural salt marsh state. Hear how wildlife is affected by the two types of habitat, and why it is important to control the rate of conversion from salt ponds back to the salt marshes. Binoculars and/or a camera are recommended. Call 510-792-0222 ext. 363 for reservations.

## Saturday, November 10

### Community Service

Visitor Center, Fremont

9:30 a.m. – 12:00 p.m.

If you are interested in improving the refuge for visitors and for wildlife alike, join us at the Visitor Center for a community service project. We will do either a trash cleanup or a planting/weeding project. Dress appropriately for the task and for the weather. We will have gloves to lend and will provide the tools. Bring your own water bottle. Meet in the parking lot at the Visitor Center. Driving an additional 2.5 miles may be required since the project may be a different location. For more information, or to make reservations, call 510-792-0222 ext. 363.

### Water, Water, Everywhere

Environmental Education Center, Alviso

1:30 p.m. – 3:00 p.m.

How much water is there and where does it come from? Where does it go? How much of the Earth's water supply can we use? Learn about the water cycle and watersheds. Build a model of a watershed and see if you can predict where the water will go. Open to all ages but best suited to third grade and up. Led by Ed Kantack. Please call Debra at 408-262-5513 ext. 102 for reservations.

### \*Family Bird Walk

2:00 p.m. – 4:00 p.m.

Visitor Center, Fremont

Let family walks become a shared time of nature learning. We'll begin by helping kids create their personal bird watching field guides, and then head out onto the trails to find those birds. A limited number of binoculars are available to borrow. Recommended for children ages 5-10. RESERVATIONS REQUIRED. Call 510-792-0222 ext. 363.

### Twilight Marsh Walk

Visitor Center, Fremont

4:00 p.m. – 5:30 p.m.

Experience the salt marsh at twilight on an easy stroll along Tidelands (1 1/3 mile) Trail. At the setting of the sun we will observe the beginning of nature's night shift. Come discover the sights, sounds, and smells of the refuge as night descends. Not suitable for young children. RESERVATIONS REQUIRED. Call 510-792-0222 ext 363. Led by Mary and Gene Bobik.

## Sunday, November 11

### Oliver Salt Works Hike

Eden Landing Ecological Reserve, Hayward

9:00 a.m. – 11:00 a.m.

Hidden among the salt ponds is one of the East Bay's most

# Autumn Activity Schedule

intriguing historical sites. The refuge and the South Bay Salt Pond Restoration Project are sponsoring this hike to the old Oliver Salt Works within the Eden Landing Ecological Reserve. We'll be walking into an area of the Reserve not yet open to the public so please be prepared to walk two miles on unimproved levees. Reservations required. Call 510-792-0222 ext.139

## Saturday, November 17

### Story Hunters - Part 3

Visitor Center, Fremont

2:00 p.m. - 3:30 p.m.

Discover what stories lie hidden on the Don Edwards Refuge in this 3-part series by Art Garibaldi. New coordinates will lead you to two new landmarks that embody the rich human history that helped shaped refuge lands. We'll begin with a brief introduction on how to use our GPS units. GPS units are available for loan. This program is open to everyone. Call 510-792-0222 ext. 363 for reservations.

## Sunday, November 18

### The Remarkable Gray Fox

Visitor Center, Fremont

2:00 p.m. – 3:30 p.m.

What is a typical annual lifecycle of a gray fox? What makes them different from all other foxes? Gray foxes are highly successful survivors. We will observe their habitat during our walk and learn the answers to these questions and more. Good walking shoes recommended. Led by The Fox Guy – Bill Leikam.

## Sunday, November 25

### Wetlands Water Café

Environmental Education Center, Alviso

1:00 p.m. – 2:30 p.m.

Wetlands can be filled with all sorts of nutrients and organisms that build a diverse web of life. Come visit the wetlands of South Bay at the Environmental Education Center during this program. Participants will use our lab to observe wetland critters up close, and learn about their role in the ecosystem. Call Julie at ext. 104 for reservations.

### \*Bird Migration Walk

Ravenswood Unit (SF2), Menlo Park

1:00 p.m. – 2:30 p.m.

Our wetlands are an important stop on the Pacific Flyway, a major bird migration route. Stroll with docent Laurel Stell to learn why the birds migrate, why they stop along the San Francisco Bay, and to spot the birds in action. Trail is easy and level. All ages and abilities welcome. Meet at the SF2 trail parking area on the west side of the Dumbarton Bridge. For information and directions, please call 510-792-0222 ext. 139.

\*Trails are generally level. Surface and trail conditions vary. Please call for accessibility information.

Visitor Center, 2 Marshlands Road, Fremont – (510) 792-0222 ext. 363 • Environmental Education Center, 1751 Grand Blvd, Alviso – (408) 262-5513

# Field Trips to the Refuge

## General Education Program Information

We offer FREE field trip programs at two sites at the Don Edwards San Francisco Bay National Wildlife Refuge. Wetland Round-Up field trip programs are offered at our Headquarters in Fremont, and Wetland Round-Up and Living Wetlands are offered at the Environmental Education Center in Alviso. These programs actively involve teachers, adult volunteers, and students in investigating the diverse habitats and wildlife at the refuge. The hands-on, small-group activities are designed to teach basic ecological concepts and to introduce endangered species, migratory birds, and wetland habitats to the students. *All programs have been correlated to the appropriate State of California Education Standards.*

Educators and adult leaders conduct their own field trips after attending a Field Trip Training or Workshop. The Trainings and Workshops allow you to design and conduct your own field trip. In addition, adult volunteers must be recruited to lead the activities at the different learning stations and to chaperone the rotation groups of students. We provide easy to follow “scripts” for each station, but both “leaders” and “chaperones” are strongly encouraged to attend a Field Trip Workshop. New teachers must attend the New Teacher Training. It is our policy that lead educators must attend a workshop every third year. Location of activities and trail conditions may vary. Please call for accessibility information.

## Field Trips at the Learning Center in Fremont

**Wetland Round-Up Field Trips** –WE WILL NOT BE OFFERING THE REGULAR WETLAND ROUND-UP PROGRAM IN THE FALL 2012. However, during this time, limited opportunities will be available for classes to visit and assist us with Restoration Education and other Education Projects. If you are a teacher interested in having your class participate and help us with these projects, please contact the Environmental Education staff. See our contact information below. Details about scheduling a Spring 2013 field trip will be posted on our website and in the Winter issue of *Tideline*.

Contact the Environmental Education Staff at Fremont:  
Office: (510) 792-0222 x 475  
Cell: (510) 377-7269  
E-mail: ee.hq.intern@gmail.com

## Field Trips at the Environmental Education Center in Alviso

**Wetland Round-Up Field Trips** - Investigate the butterflies in the butterfly garden, taste pickleweed in the salt marsh, or discover the creatures that live in the slough water on a Wetland Round-Up Field Trip. This field trip program is designed for up to 65 students

in grades K-6. This fall, Wetland Round-Up is offered October to December, 2012.

## NEW! NEW! NEW! MAIL IN REGISTRATION!!

A new mail-in registration will replace the former call-in process. Here's how it works:

- Registration Forms will be available on-line at [http://www.fws.gov/desfbay/Reg\\_form\\_EEC.pdf](http://www.fws.gov/desfbay/Reg_form_EEC.pdf)
- You will be able to choose from a list of available dates and indicate your 1st, 2nd and 3rd choices on the form. Please make sure ALL these dates are good ones as availability may be more limited this year.
- PLEASE NOTE! Completed field trip registration forms should be mailed to our office in the following manner:  
U.S. Fish and Wildlife Service  
P.O. Box 411  
Alviso, CA, 95002  
WRFT Registration/ EE attn: Genie
- You may also FAX your request to: (408) 262-2867, attention Genie OR, you may drop off your completed form at the Environmental Education Center- 1751 Grand Blvd., Alviso. (Open Saturday and Sunday 10 am – 5 pm, Call for weekday hours). We will not be accepting electronic versions of the forms at this time.
- All forms received will be opened on September 12, 2012.
- Every effort will be made to accommodate your requests. However, we may need to offer alternative dates if we cannot assign you your preferred dates.
- Selections will be made in a timely fashion. You will be notified by your preferred method as indicated on your form.
- We will continue to take requests after September 12, 2012 until all available dates for the Fall season (October - December) have been filled.
- Details about Spring 2013 registration will be in the Winter issue of *Tideline* and also posted on our website by November 19, 2012. All registration forms will be opened on Thursday, December 6, 2012.

## New Teacher Field Trip Training

Teachers that have not yet attended a field trip orientation must attend one of the following New Teacher Field Trip Trainings  
**Thursday, September 20, 4:00 p.m. – 6:30 p.m.**

## Parent Leader, Chaperone and Returning Teacher Workshop

Parent Leaders, Chaperones, and Returning Teachers will be offered a separate workshop. We highly recommend that Parent Leaders and Chaperones attend one of the following workshops. We strongly encourage returning teachers to attend the workshop with their parent volunteers.

<b>Thursday September 27</b>	<b>4:00 p.m. – 6:00 p.m.</b>
<b>Thursday, October 18</b>	<b>4:00 p.m. – 6:00 p.m.</b>
<b>Thursday, November 15</b>	<b>4:00 p.m. – 6:00 p.m.</b>

For more information call the Environmental Education Staff at Alviso: (408) 262-5513 ext. 100 or email: [genie\\_moore@fws.gov](mailto:genie_moore@fws.gov)

# Living Wetlands Education Program

The Living Wetlands Program provides first-hand learning environment for students and educators to explore the topics of watershed health, wetlands, and habitat preservation. Activities and presentations focus on the relationship between personal habits and their effects on local wetlands. Living Wetlands is an environmental education program offered at no cost through the cooperative efforts of the City of San Jose, U.S. Fish and Wildlife Service, and the San Francisco Bay Wildlife Society.

## Living Wetlands Program Offerings:

**Integrated Field Trip Program (5th – 12th grades):** This program incorporates multiple activities related to wetlands and watershed health. Participating classes will receive one pre-classroom presentation from Living Wetlands educators, a field trip to the Don Edwards Refuge, and one post-classroom presentation. All include hands-on activities and demonstrations. For the Integrated Program, participating classes must be from the following cities: San Jose, Alviso, Milpitas, Santa Clara, Saratoga, Monte Sereno, Los Gatos, Campbell, and Cupertino. There is a limitation to 60 students per field trip, and a 1:10 chaperone to student ratio is required.

**Classroom Presentations (5th – 12th grades):** Currently there are three classroom presentation activities available: Watersheds and Wetlands; Mysteries of Wastewater Treatment; and Marsh Lab Study. Each of these presentations takes approximately one hour. Please contact us for specific classroom presentation needs.

**Field Trip and Guided Tours for other Schools, Colleges, Universities, and related organizations:** General presentations and guided tours are available and are generally 1.5 hours in length.

Educators are encouraged to contact us to discuss options for customizing field trips and classroom presentations. Reservations



for the Living Wetlands program are on a first-come basis. For more information, or to make a reservation, call Julie Kahrnoff, the Living Wetlands Program Coordinator at 408-262-5513 ext. 104 or email at [livingwetlands@sfbws.com](mailto:livingwetlands@sfbws.com).

### PLEASE NOTE CONSTRUCTION AT THE ENVIRONMENTAL EDUCATION CENTER:

The salt ponds (A16 and A17) adjacent to the Environmental Education Center will be undergoing construction for the South Bay Salt Pond Restoration Project. Restoring A16 and A17 will create 130 acres of tidal marsh habitat and 240 acres of shallow water foraging habitat for migratory birds, including nesting islands. *Thank you for your patience during this exciting restoration project!*

## TIDELINE

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## San Francisco Bay National Wildlife Refuge Complex

Administered by the U.S. Fish and Wildlife Service, San Francisco Bay National Wildlife Refuge Complex exists to preserve wildlife habitat, protect threatened and endangered species, protect migratory birds, and provide opportunities for nature study. Seven refuges are managed from the headquarters in Fremont: Antioch Dunes NWR, Don Edwards San Francisco Bay NWR, Ellicott Slough NWR, Farallon NWR, Marin Islands NWR, Salinas River NWR, and San Pablo Bay NWR.

Deputy Project Leader: ..... John Bradley

Wildlife Refuge Specialist: ..... Val Urban

Don Edwards Refuge Manager: ..... Eric Mruz

Don Edwards Wildlife Specialist: .....Melisa Helton

Don Edwards Warm Springs Unit Manager:.. Ivette Loredó

Farallon Refuge Manager:..... Gerry McChesney

Farallon Wildlife Specialist:.....Jonathon Shore

North Bay Refuges Manager:..... Don Brubaker

North Bay Wildlife Specialist:.....Louis Terrazas

South Bay Refuges Manager: .....Diane Kodama

Public Affairs Officer:..... Doug Cordell

Refuge Planner:.....Winnie Chan

Chief of Visitor Services: .....Jennifer Heroux

Park Ranger/Outdoor

Recreation Planners:.....Joseph Garcia, Carmen Minch

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A nonprofit 501(c)(3) cooperating association established in 1987 to promote public awareness and appreciation of San Francisco Bay and fund education and outreach programs at San Francisco Bay National Wildlife Refuge Complex.

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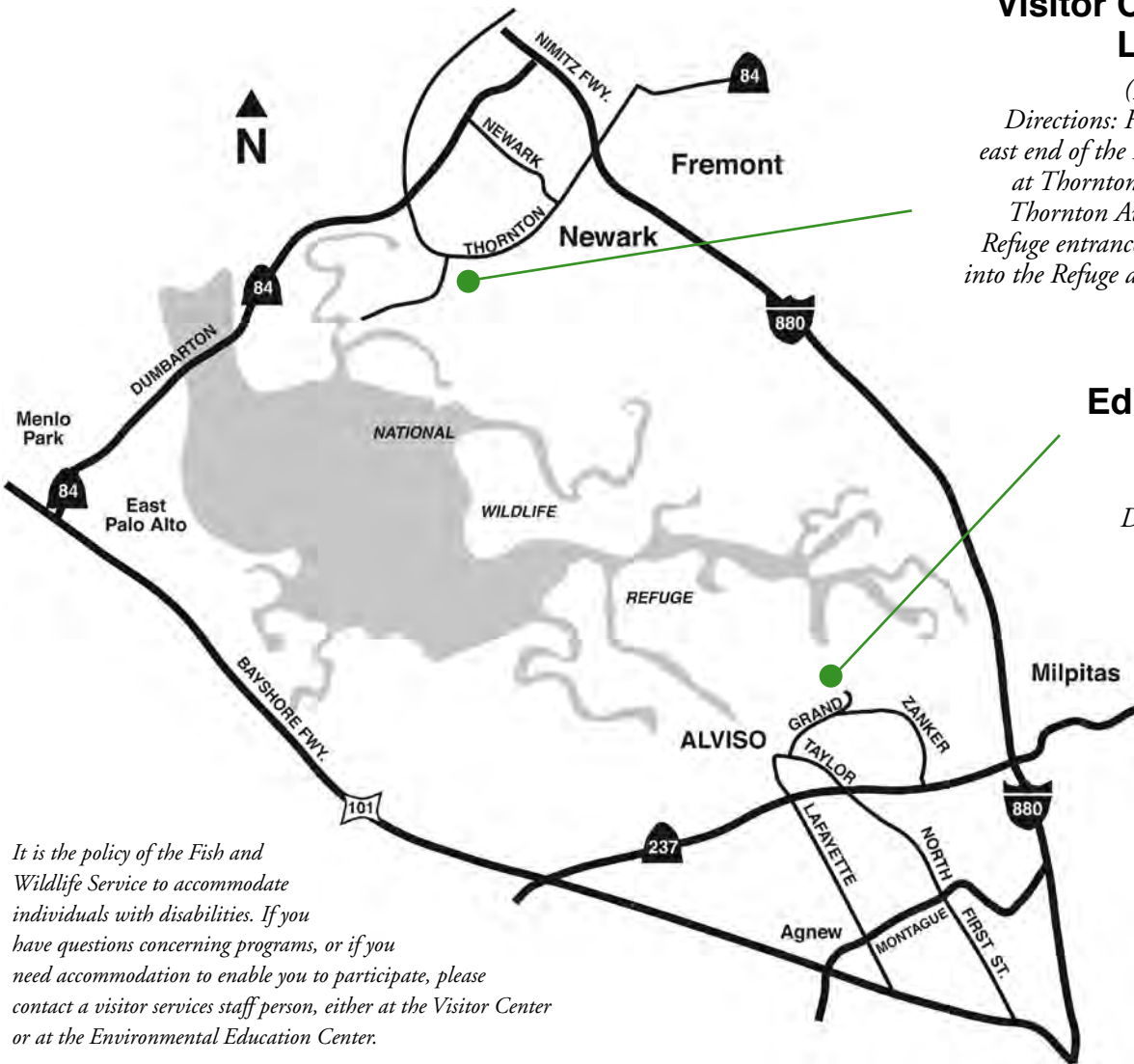


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# Tideline

Don Edwards / Antioch Dunes / Ellicott Slough / Farallon Island / Marin Islands / Salinas River / San Pablo Bay



## Visitor Center, Fremont Learning Center

(510) 792-0222 ext. 363  
 Directions: From Highway 84 (at the east end of the Dumbarton Bridge), exit at Thornton Avenue. Travel south on Thornton Avenue for 0.8 miles to the Refuge entrance on the right. Turn right into the Refuge and follow the signs to the Visitor Center.

## Environmental Education Center, Alviso

(408) 262-5513  
 Directions: From I-880 or Highway 101, exit on Highway 237 toward Mountain View/Alviso. Turn north onto Zanker Road. Continue on Zanker Road to the Environmental Education Center entrance road (a sharp right turn at Grand Blvd.) The distance from 237 to the entrance road is 2.1 miles.

*It is the policy of the Fish and Wildlife Service to accommodate individuals with disabilities. If you have questions concerning programs, or if you need accommodation to enable you to participate, please contact a visitor services staff person, either at the Visitor Center or at the Environmental Education Center.*