



# Ballona Wetlands Restoration Project

Advancing ecosystem health. Connecting communities with nature.

February 2012

[www.ballonarestoration.org](http://www.ballonarestoration.org)



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This winter the extremely high King Tides caused unusual inundation along the California Coast. The BWER tide channels did not experience any unusual activity due to the tide gates restricting tidal flow.

Punxsutawney Phil may have seen his shadow, but 2,527 miles away it sure doesn't seem like winter. With the warm weather and sunny days at the Ballona Wetlands Ecological Reserve (BWER), it seems that winter will end 6 weeks early!



## WHAT'S NEW ON THE WETLANDS...

### The Importance of Invertebrates: They are the 97%!

News flash: we are vertebrates living in an Invertebrate world! Invertebrates account for 97 percent of all animal species. But they are arguable the most politically disenfranchised taxonomic group. They perform crucial tasks such as pollination, nutrient cycling and decomposition and are a vital link between trophic levels and are part of most food chains. And with hardly any media coverage, lobbyists, or political clout! Think about, when was the last time you got a calendar featuring cute baby inverts? (Not counting the Xerces Society, [www.xerces.org](http://www.xerces.org)...) But fear not spineless friends, we are here to remedy the disparity!



Last month, multiple laboratories joined forces to further develop invertebrate monitoring protocols for wetlands across southern California. Students from Loyola Marymount University, and California State Universities, Channel Islands, Northridge, and Dominguez Hills worked in the CSUCI

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Email Elena Tuttle at

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... laboratories to sort and identify terrestrial arthropods. Students identified individuals to the lowest identifiable taxon, while retaining voucher specimens of each species of invertebrate. Invertebrates that were identified from the traps ranged from ants to scorpions to beetles and isopods!

These protocols are being developed and standardized across multiple wetlands as part of a regional wetland assessment program. This method standardization and calibration will allow a comparison of invertebrate productivity, and by extension provide some measure of system function, across wetlands throughout southern California.



As the critters that can be considered the underpinnings of an ecosystem, they can also tell us a lot about how their habitats are faring, whether their host plant is thriving, and if there is adequate food

sources for animals higher up the food chain. Next time you are out in nature, try to see or hear the smaller world that is laboring all around you: converting plant material to rich soil, pollinating flowers, and keeping down pest populations!

### **Invertebrates in the News!**

Marine Scientists made a discovery that exposes our relative ignorance of both the deep ocean and the invertebrate world. Supergiant amphipods were found in the Kermadec Trench off the northern coast of New Zealand. The largest measured 11 inches long (28 centimeters) and was brought up from a depth of about 4.35 miles (7 kilometers)!



**This project is co-sponsored by the California State Coastal Conservancy, the EPA, and CSUCI.**

## WHAT'S NEW ON THE WETLANDS... RESTORATION UPDATE!

### **Ballona Wetlands Restoration Project: Environmental Review Process**

The environmental review process for the Ballona Wetlands Restoration will be getting underway in the near future. On January 23rd, 2012, the project's Scientific Advisory Committee (SAC) held a meeting to receive an update from the Project Management Team (PMT) on refinements to the preferred restoration alternative. Over the past 2 years the PMT has been working with its technical consultants and permitting agencies to evaluate restoration constraints, permitting pathways, and address public concerns. Based on the comments received from the SAC and the public the PMT is further revising the proposed project description and hopes to release the Notice of Preparation/Notice of Intent (NOP/NOI) in late March 2012. The release of the NOP/NOI will be the first step and opportunity for the public to comment during the environmental review process. The PMT plans to hold a scoping meeting during the 30 day NOP/NOI public review period so that agencies and the public can provide comment on the issues that need to be considered and the environmental documents. Information about the NOP/NOI will be circulated by the lead agencies, via the Ballona Wetlands Restoration Project's listserv as well as posted to the project's website. Please contact Diana Hurlbert ([dhurlbert@santamonicabay.org](mailto:dhurlbert@santamonicabay.org)) for more information or questions about the environmental review process.

**Intern Q & A:**

Rodney Abbott, a star intern at the SMBRC and a graduate student at California State University, Dominguez Hills, takes a break from pursuing his Masters in Environmental Science to answer a few questions!

**How does your internship relate to what you do and/or study?**

One of my academic interests is in urban social ecology and how our concepts of "nature" mediate how we treat the environment. Too often urbanism is used as an antonym for nature, and this dualism has made it easy to allow the fragmentation and wholesale extirpation of vital ecosystems. I was attracted to the SMBRC internship for the reason that it was working to heal this breach and it got me away from my normally conceptual work and **got my hands dirty.**

**What do you like about the internship program?**

I loved seeing real environmental work being done. I work in ideas from environmental ethics to theories of social ecology, so **it was important for me to get into the field** and see



how SMBRC embodied theory with hard work that is really making a difference.

**How will it help you in achieving your career/study goals?**

My experience with SMBRC showed me how holistic and pragmatic environmentalism is done, and I hope to employ, in my own work, its **integration of good science and hard work with public outreach and education.**

**What is your favorite survey or activity?**

Whether counting flora using a laser pointer or putting out invertebrate traps, I loved being out in the wetlands assisting with its assessment and being a small part of its future restoration. The most fun I had was checking the **mammal traps** where we found harvest field mice that we had to measure, mark, and set free.

**What activities will you be participating in next?**

I hope to have time to work in the rain garden next to the LMU office. It's a great example of what sustainable gardening should look like in a Mediterranean climate. Someday, I would also love to dive with the Marine Programs Team in the restored kelp forests!



Before



After

**WHAT'S NEW IN THE WATERSHED...**

**Hot off the Press! Final Report: Culver City Rainwater Harvesting Program**

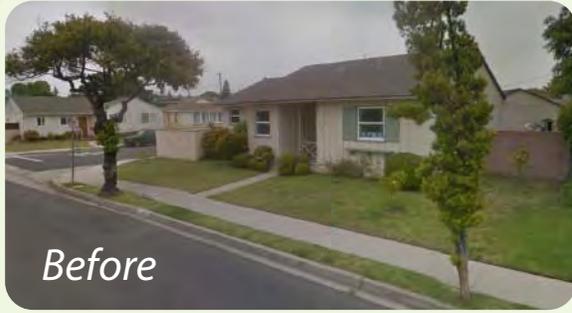
The Santa Monica Bay Restoration Commission (SMBRC) is pleased to announce the release of the Final Report for the Culver City Rainwater Harvesting Program (CCRH). The CCRH Program was a joint program implemented by the SMBRC and the City of Culver City which succeeded in installing and distributing 396 rain barrels, two cisterns, and two rain gardens! Program participants are now able to take advantage of free water falling from the sky while helping to reduce polluted storm water from entering our bays and oceans.

Excerpt from report: "Rainwater harvesting is the process of intercepting rainwater from a roof (or other surface) and utilizing it for beneficial purposes. By implementing rainwater harvesting techniques, residents gain an extra water supply while reducing the pressure on our limited water supplies.

Many residential and commercial properties in the City are fitted with downspouts; when it rains, water runs off roofs ...



## WHAT'S NEW IN THE WATERSHED...



Before

rainwater and reducing the amount of runoff flowing from their roofs and property into the storm drain system. The CCRH Program included the disconnection of downspouts that discharge to impervious areas and redirection to collect roof runoff into rain

### Want more information?

Email: [rainwater@santamonicabay.org](mailto:rainwater@santamonicabay.org)

Or go to: [www.ballonawatershed.org/CCrainwater.html](http://www.ballonawatershed.org/CCrainwater.html)

...through these downspouts, and usually onto an impervious surface, such as a sidewalk, driveway or parking lot. Rainwater harvesting helps increase local water resources by promoting groundwater recharge by redirecting the flow of runoff to pervious surfaces where it can percolate into the soil.

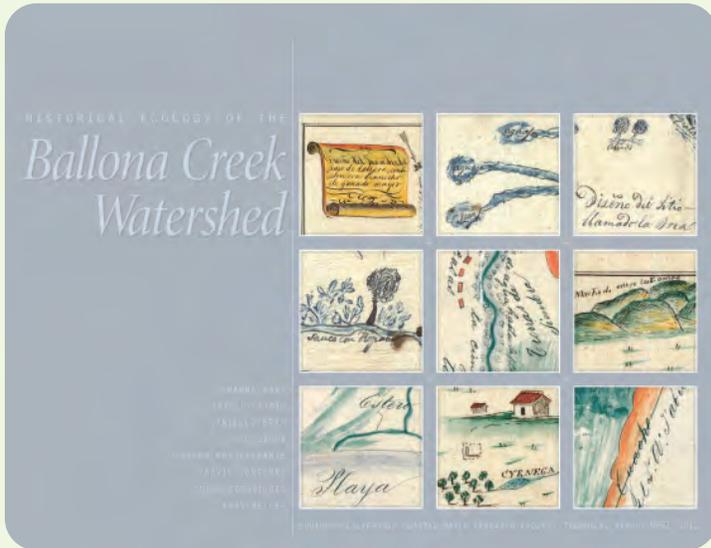
The CCRH Program has informed homeowners about the beneficial uses of capturing

barrels and overflow to pervious areas."



After

## WHAT'S NEW IN THE WATERSHED...



### Hot off the Press!

## Historical Ecology of the Ballona Creek Watershed

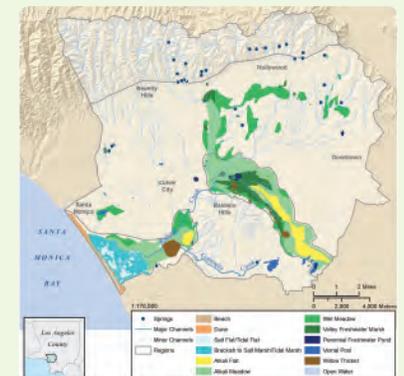
Excerpt from Dark et al. 2011: "Looking across the vast urbanized landscape in the Los Angeles Basin, it is almost impossible to imagine the natural landscape prior to human development. The remaining wetlands leave only a few clues about the past wetland complexes in this region. Nevertheless, the past is vital to understanding the foundation of landscape-processes, historical wetland



distribution, and human impact that lend to a better understanding of sustainable restoration plans within the constraints of the contemporary landscape.

The primary goal of this project was to identify the characteristics of historical wetland habitat types and describe the historical form of major creeks in the Ballona Creek watershed. Our target time period was 1850-1890, just prior to contemporary impacts but after the migration of the Los Angeles River, which fundamentally altered the hydrology and morphology of the watershed. It is also a time period

that is relatively data rich associated with information compiled around the time of statehood.



### Interested?

Read more at:

[www.ballonarestoration.org](http://www.ballonarestoration.org)

The report can be found under the Project Documents link.

We set forth to answer the following questions:

1. What was the extent (acreage) of persistent riparian, wetland, and associated floodplain habitat in the Ballona watershed?
2. What were the predominant types of wetlands in the watershed

and what was the spatial distribution of these wetlands within the watershed?

3. What potential resources are available for stakeholders and scientists wanting to pursue further and more detailed research on this watershed?"

**SAVE THE DATE: March 12<sup>th</sup>, 2012**

*Spaces are filling fast:  
Register now!*

## Southern California Urban Wetland Research Symposium

Join us for a scientific symposium that will highlight monitoring and research at the Ballona Wetlands Ecological Reserve and additional southern California wetlands. Featured keynote speaker Dr. Joy Zedler will present along with wetland scientists from throughout southern California. This event is cohosted by the Santa Monica Bay Restoration Commission, Loyola Marymount University, and the Center for Urban Resilience and Ecological Solutions. Registration begins January 2012 and is open to the public.

**When:** Monday, March 12<sup>th</sup>, 2012  
8:00am-6:00pm

**Where:** Loyola Marymount University

**Keynote Speaker:** Dr. Joy Zedler

**Registration:** \$20, Closes February 29<sup>th</sup>,  
go to [www.ballonarestoration.org](http://www.ballonarestoration.org)



Keynote:

**Dr. Joy Zedler**

"Restoring urban wetlands:  
Novel approaches for a  
novel future"

We are incredibly lucky to have Dr. Zedler, one of the world's premier wetland scientists, as our keynote speaker for this year's Symposium! Currently a Professor of Botany and Aldo Leopold Chair in Restoration Ecology at the University of Wisconsin, her research focuses on restoration ecology, wetland ecology, reestablishment of rare plants, adaptive management and interactions of native and exotic species.

We welcome her back to her home turf here in Southern California!

### Save the Date:

Thursday, April 26<sup>th</sup>, 2012, 5:00-8:00 PM  
Friends of Ballona Wetlands will proudly honor  
**Enrique C. Zaldivar**, Director of L.A. Sanitation



The 51st Floor of the Paul Hastings Tower  
City National Plaza  
515 South Flower Street  
Los Angeles, CA 90071

For Sponsorships & tickets please contact:  
Email: [info@ballonafriends.org](mailto:info@ballonafriends.org)  
Phone: 310-306-5994  
Web: [www.bwwc2012.org](http://www.bwwc2012.org)

*Pick up organic veggies and learn about our  
programs: now in one convenient package!!*



Also, check us out on April 1st at the Mar Vista Farms' Market!

We will be at the  
Playa Vista Farmers'  
Market on the 2nd Saturday of every month.

## GET INVOLVED...

### Internship and Volunteer Opportunities:

Assist with Scientific Monitoring  
and improve watershed health with the SMBC

The Santa Monica Bay Restoration Commission and its partners has many programs and projects happening at any one time so there is always something great to participate in!

Interested in becoming a intern or volunteer?

Email Elena Tuttle at:

[etuttle@santamonicabay.org](mailto:etuttle@santamonicabay.org)



### Report the Wildlife You Observe!

Help inform the monitoring program and submit a report about what plants and animals you

observe when visiting the Ballona Wetlands. Please download the Plant and Wildlife Observation Form ([www.ballonarestoration.org](http://www.ballonarestoration.org), under the Get Involved tab) for more information and then submit it electronically to Karina Johnston at [kjohnston@santamonicabay.org](mailto:kjohnston@santamonicabay.org) or mail it to: Karina Johnston, 1 LMU Drive, Pereira Annex MS:8160, Los Angeles, CA 90045.

## Share Your Photos of the Ballona Wetlands

We're always in search of fantastic photographs of the wetlands and its plants and animals to be used on the Ballona Wetlands Restoration



Project's website and in our materials. If you have photos, we'd love to see them! To view past photo winners, visit the "Get Involved" link at our homepage

[www.ballonarestoration.org](http://www.ballonarestoration.org). To learn how you can help inform and inspire the public through the beauty of your photos contact Karina Johnston ([kjohnston@santamonicabay.org](mailto:kjohnston@santamonicabay.org))

## Help Educate the Public about the Ballona Wetlands



Interested in learning more about the Ballona Wetlands and helping to inform the public about

this valuable ecosystem? Contact the California Department of Fish and Game's Volunteer Program for how to get involved (<http://www.dfg.ca.gov/volunteer/>).

Also, visit the Ballona Wetlands Restoration Project's partner page at <http://www.ballonarestoration.org/> for a list of additional organizations and agencies working on related issues.

## Request for Proposals

The California State Coastal Conservancy is requesting proposals for consultant services for two separate contracts related to the proposed enhancement of the Ballona Wetlands Ecological Reserve in Los Angeles County. Services are needed to complete engineering and geotechnical evaluations, hydrology, technical studies, design and related services to support completion of a project level EIR/EIS and preparation and processing of a Section 408 permit through the Army Corp of Engineers. One contract will be for Civil and Geotechnical Engineering and a second contract will be for Hydrology and Engineering Design Analysis. Go to: [www.ballonarestoration.org](http://www.ballonarestoration.org)

## Ballona Creek Watershed Task Force Update

On Tuesday, January 17, 2012, the Ballona Creek Watershed Task Force held its regular bi-monthly meeting to discuss current programs, projects and activities throughout the Ballona Creek Watershed and Wetlands. During the meeting Josh Svensson (LA County Flood Control District) gave a presentation on the Oxford Lagoon Restoration.

The next meeting will be held on Tuesday, March 20, 2012 at its new time from 10:00 am-Noon in the Dan Patacchia Room, Culver City Hall. If you have questions regarding the task force or wish to be added to the email list for future meetings and agendas, please contact Diana Hurlbert ([dhurlbert@santamonicabay.org](mailto:dhurlbert@santamonicabay.org)).

## Governing Board Meetings

All Governing Board meetings are held on the 3rd Thursday of even-numbered months (starting with February) at 9:30 a.m. at the Del Rey Yacht Club in Marina del Rey.

Dates for 2012: February 16, April 19, June 21, August 16, October 18, December 20

If you would like information about the meetings, agendas, staff reports, or other related items, we encourage you to first visit our website at [www.smbrc.ca.gov](http://www.smbrc.ca.gov).

Otherwise, please contact Scott Valor at [svalor@santamonicabay.org](mailto:svalor@santamonicabay.org) for information.

## Controlled Levee Breach to Launch the Opening of 630 Acres to the Bay

This past fall the California Department of Fish and Game (DFG) marked a major milestone in the decades-long effort to restore wetlands in the San Francisco Bay. In September DFG's contractor conducted a controlled levee breach



of the first of eight breaches in the Eden Landing Ecological Reserve, allowing Bay waters, fish and other wildlife back in to 630 acres of former wetlands along the shore of Hayward and Union City.



"We have lost the overwhelming majority of our wetlands here in California. It is our responsibility to protect and restore the areas we do have," said California Secretary for Natural Resources John Laird. "This project is a great example of what can be accomplished with cooperation and long-term vision. The restoration of these wetlands will provide much needed habitat for birds, fish and other wildlife, while moving California toward a healthier ecosystem."

The breach of this levee, along with seven that will follow will open earthen berms built by salt-making companies and flood-control projects in the 19th and 20th centuries. As excavators take the last bite out of a berm along Pond E8A, inundating it, they will be laying the groundwork for the reestablishment of tidal salt marshes that were eliminated by the construction of the levees.

Bay waters and adjacent creek inflows introduced through the work are expected to bring fish, crabs, harbor seals and other marine life as well as multitudes of



"This marsh restoration project doubles the area of the Reserve now open to the tides," said John Krause, the DFG Wildlife Biologist who manages the Reserve. "It's a very different landscape from what it was five years ago."

native and migratory birds back into previously diked ponds. The water will also bring sediments that will settle into the pond and provide a bed for the regrowth of pickleweed, marshgumplant, saltgrass and other native tidal marsh plants that provide habitat for the endangered California clapper rail and salt marsh harvest mouse. The opening of Ponds E8A, E9 and E8X – three former salt evaporation ponds in Eden Landing – marks the first South Bay Salt Pond Restoration Project construction completed on state-owned lands.



Restoration efforts on the 630 acres were partly funded by American Recovery and Reinvestment Act (ARRA) grants through the National Oceanic and Atmospheric Administration (NOAA). The Eden Landing construction project created 40 jobs in addition to making a significant step toward wetlands restoration in the Bay.



With the completion of this work, the South Bay Salt Pond Restoration Project will have restored nearly 3,000 acres of salt ponds to tidal action in the South Bay. The project is the largest tidal wetland restoration effort on the West Coast. Its goal is to restore at least 7,500 acres to tidal marsh habitat, while also enhancing pond habitat, expanding Bay access and recreation, and improving flood protection.

...cont.

"This marsh restoration project doubles the area of the Reserve now open to the tides," said John Krause, the DFG Wildlife Biologist who manages the Reserve. "It's a very different landscape from what it was five years ago." The work at the three ponds was conducted through a collaborative partnership between by DFG, NOAA, the State Coastal Conservancy, the U.S. Fish and Wildlife Service (FWS), the Alameda County Flood Control and Water Conservation District, and other local partners.

NOAA has provided a total of \$7.4 million in ARRA funds to the South Bay Salt Pond Project to create jobs and restore habitats in and around the Bay. The funds helped not only the 630-acre Eden Landing restoration, which received \$3.2 million in grants, but a total of 2,360 acres of project restoration work, as well as contributing to the battle against invasive *Spartina*, a non-native cordgrass that degrades marsh and mudflat habitat.

For more information contact:

John Krause, DFG Wildlife Biologist (415) 454-8050  
 Kyle Orr, DFG Communications, (916) 322-8958



### **About the South Bay Salt Pond Restoration Project**

The South Bay Salt Pond Restoration Project is the largest tidal wetland restoration project on the West Coast. When complete, the restoration will convert thousands of former commercial salt ponds to a mix of tidal marsh, mudflat, managed pond and other wetland habitats. The project will also provide flood management and opportunities for wildlife-oriented public access and recreation. The 15,100 acre property was purchased from Cargill in March, 2003 using state and federal funds as well as private funds from the Hewlett, Packard, Moore and Goldman Foundations. The California Wildlife Conservation Board contributed \$72 million of the \$100 million purchase price from Proposition 40 and Proposition 50 bond funds. These lands are managed by DFG as part of the Eden Landing Ecological Reserve and FWS as part of the Don Edwards San Francisco Bay National Wildlife Refuge. Shortly after the property was purchased, DFG, FWS and the State Coastal Conservancy launched a five-year public process to design a restoration plan for the property. The final plan was adopted in 2008 and the first phase of restoration began in 2009. For detailed information about the project, please visit [www.southbayrestoration.org](http://www.southbayrestoration.org).

### **Designing a Healthy, Accessible Ballona Wetlands in Los Angeles; Coastal Conservancy Board Gives Go-Ahead for Analyses and Design of Wetlands Plan**

Los Angeles, CA – On January 19, 2012 the Board of the California Coastal Conservancy authorized staff to disburse up to \$6,490,000 for the completion of technical studies and design work, among other things, for the restoration of the Ballona Wetlands Ecological Reserve in west Los Angeles County.

The Coastal Conservancy has been working in partnership with the California Department of Fish and Game (DFG), the State Lands Commission (SLC), and the Santa Monica Bay Restoration Commission (SMBRC) to plan the restoration of the Ballona Wetlands.

Ballona Wetlands is a 600-acre preserve south of Marina del Rey – the last major coastal open space in the County and an important habitat for migratory birds and other wildlife – but it is off limits to the public and plagued by dumping of trash and vandalism. The Coastal Conservancy project will design cleaned-up habitats and new public trails and facilities. Hydrologic and geotechnical studies, traffic surveys and other data, an environmental impact analysis and permit applications are also . . . cont.



cont. . . included. Some project funds will go to the Santa Monica Bay Restoration Foundation to collect data, help with agency and public review, and support environmental analyses for the wetlands work.

Ballona Wetlands was once a vast coastal wetland complex that stretched across more than 2,000 acres from Playa del Rey to Venice. Now that most wetlands in the area have been destroyed, the 600 acres remaining at Ballona are the greatest opportunity for coastal wetland restoration in Los Angeles County. The ecological reserve is protected from development and provides valuable open space in the heart of congested Los Angeles County. When restored and opened to the public, visitors will experience a healthy, natural coastal wetland and school children will have a beautiful outdoor classroom to learn about and appreciate the importance of our natural world. The proposed project creates a resilient and dynamic natural ecosystem by reconnecting the wetlands to Ballona Creek and the ocean. The project involves removing the levees on the banks of Ballona Creek to restore the coastal marsh between the existing Marina del Rey and the Westchester Bluffs, west of Lincoln Boulevard. Due to the significant construction costs, infrastructure constraints, and the need for ongoing adaptive management, the restoration project will be implemented over several years.



Contact:

Shelley Luce (310) 946 - 8093, [sluce@santamonibay.org](mailto:sluce@santamonibay.org)

Diana Hurlbert, (310) 216 - 9899 [dhurlbert@santamonibay.org](mailto:dhurlbert@santamonibay.org)

## WHAT IS THE BALLONA WETLANDS RESTORATION PROJECT?



Stretching from Playa del Rey to Venice, the Ballona Wetlands once occupied a 2,000-acre expanse of critical coastal habitat. Currently covering an area of 600 acres, the Ballona Wetlands

Ecological Reserve is the largest and most promising opportunity for coastal wetland restoration in Los Angeles County.

The Ballona Wetlands Restoration Project is a long-term, science-based plan to return the Ballona Wetlands into a thriving ecological reserve. By healing this highly degraded site, the restoration project will create a diverse, resilient and dynamic ecosystem while providing a unique opportunity for the community to reconnect with southern California's natural heritage.



### Stay Connected!



Fanatical about Facebook?

Tickled with Twitter?

Join the Ballona Wetlands Restoration Project on Facebook, Twitter, YouTube and Flickr to stay informed and up-to-date on the exciting phases of the Ballona Wetlands Restoration Project.



bay restoration commission  
STEWARDS OF SANTA MONICA BAY