

# THE TIDINGS



**LAKE MERRITT INSTITUTE**

568 Bellevue Ave., Oakland, CA 94610-5026; (510) 238-2290; lmi@netwiz.net; www.lakemerrittinstitute.org  
A community based, non-profit corporation, established 1995; IRS Code 501(c)(3); EIN 94-3214160

**VOLUME XXII**

**October 2017**

**ISSUE X**

“The Tidings” is an editorial newsletter. Posted opinions are not necessarily those of the City of Oakland.

## **Living Both Upstream and Downstream:** How would an A’s Stadium affect the Lake?

Oakland residents and visitors enjoy Lake Merritt in many ways. For some that depends on it being a quiet place of natural beauty where they can escape the noise and commotion of human affairs and connect to nature -- maybe even see a harbor seal or a river otter from that sustaining world. The Golden Gate Audubon Society recently voiced many points of concern about the proposed siting of a new A’s Stadium on the Lake Merritt Channel.<sup>1</sup> Here we second their concerns and add a few more!



The Lake Merritt Channel

**Tidal flow:** The Lake Merritt Channel is hydrologically part of Lake Merritt, the historic San Antonio Slough. So whatever degrades the Lake Merritt Channel or the Bay also degrades the Lake ecosystem. Water flows into the lake and out through the channel every 12 hours in a semidiurnal tidal rhythm, allowing a substantial amount of the lake’s water to be exchanged with the Bay. The wildlife of the lake is attuned to this rhythm and responds to it over its yearly cycle.<sup>2</sup> The channel is a lifeline for food, oxygen and transportation for the living things in the lake. As the water rises and falls along its banks, trash and other pollutants can be swept into the lake water.

**Construction:** Tide gate closures and run-off during construction could be anticipated. A City study links tide gate closures to deteriorating water quality, specifically dissolved oxygen<sup>3</sup>. Long-term construction and operation of a new stadium will increase the City’s carbon footprint and contribution to global climate change.

**Trash and Chemical run-off:** The current Coliseum complex is a 4-star trash hotspot to the Channel’s 1-star.<sup>4</sup> How much of that trash would follow the stadium if it moved to the Laney site? More concrete and more human traffic will fast-track entry of trash and chemical pollutants into Lake Merritt. If all of it cannot be captured and treated, the run-off pollutants might weaken and damage wildlife, such as birds, bat rays and sharks.<sup>5</sup>

**LMI in SEPTEMBER:** 1,200 pounds of trash were removed from the lake totaling 18,860 pounds this year-to-date.

**James and LMI Staff hosted 129 volunteers and made three educational presentations (0.00” rain).**

\* Call our office at 510-238-2290 to schedule a lake clean-up event or presentation for your group.

**Seismic Risk and Sea-level Rise:** Plan for the next 50 years (the lifespan of the existing Coliseum stadium)! The next “Big One” (earthquake) might disturb sediments and disrupt drainage systems under a stadium built on landfill and sediment, releasing toxics into the channel, lake and Bay. Released chemicals can concentrate in the food chain (biomagnification) and persist for years. And Oakland is projected to experience 36 - 66 inches of sea level rise by the year 2100 which will increase flooding.<sup>6</sup> Because the city cannot move, communities like the LM channel salt marsh and other natural wetlands lining the Bay will be flooded and compressed giving wildlife nowhere to go.<sup>6-8</sup>

**Loss of Wetland Ecosystem Services:** Ecosystem services are natural processes that benefit humans without imposing a dollar cost. Examples are renewal of clean air, clean water, fish and wildlife, and the diversity of life (wild food and pharmaceuticals). Wetlands provide exceptional but often unrecognized services. They give us 1) nurseries for fish and shellfish, 2) physical buffers against flooding and storm surge, 3) carbon storage reservoirs that keep planet-warming carbon out of the atmosphere, and 4) biological breakdown of chemical pollution. The Bay Estuary has lost an estimated 90% of its original wetlands.<sup>9</sup>

**A Wildlife Sanctuary:** Lake Merritt provides a critical rest and refueling stop for migratory birds that we don't see most of the year. Their habitat is dwindling worldwide because of agriculture, urbanization and pollution. Noise, fireworks, bright lights and the physical obstacle of a stadium do not belong in this sensitive environment. Migratory and resident species depend on a healthy lake ecosystem for food, shelter in storms, and safe passage through the channel to forage in the wider bay.

Lake Merritt was declared the nation's first wildlife refuge in 1860.<sup>1</sup> Let's **LOVE OUR LAKE**, and continue to protect it.

## Smithsonian Scientists Return to the Lake



Dr. Andrew Chang and colleagues from SERC

Dr. Andrew Chang of the Smithsonian Environmental Research Center (SERC) in Tiburon visited the lake in September to complete an experiment they began last May. They retrieved a dozen or more 8” squares of tile they had placed in the water at the dock and near the bird islands to see what was growing on them. During these past months, the tiles provided space to live -- which is in short supply for lake invertebrates – to tubeworms, sea squirts and brushy bryozoans (moss animals) among other things. Dr. Chang and his colleagues will be able to tell which species established themselves and survived this year after the very very wet winter. Their experiment repeats a similar one they conducted in 2016. Stay tuned for updates.



Oakland native Dr. James Carlton (also a member of SERC) just published a report in the eminent journal *Science* showing that organisms from Japan have crossed the Pacific Ocean largely on pieces of non-biodegradable man-made materials such as plastics that were torn from the Japanese coast during the catastrophic Tsunami of 2011.<sup>10</sup> Dr. Carlton and fellow authors noted that storms intensified by climate change will make this phenomenon more common in the future and may intensify species invasions.<sup>6</sup>



Photos: Dr. Chang and Dr. Carlton examine a settling plate. September 2016 (r): a tile covered with sea squirts. Sept. 2017 (l) - K. Noonan

**The Tidings looks much better in color than in black and white hard copy! Also, links and footnotes often fit only in the digital version. Email us at [lmi@netwiz.net](mailto:lmi@netwiz.net) if you would prefer a digital newsletter.**

# Best of Septembers at Lake Merritt

The September 4th-Wednesday Golden Gate Audubon walk was treated to not one but four species of birds rarely or never seen at the lake (and not in September when they did appear). We started with the second-ever Northern Pintail, this one an adult male with the full racing stripe down his neck. Then we encountered a Black-throated Gray Warbler (like a Townsend's, burglar mask and all, but white instead of yellow), not seen since January 2014, a Brown Creeper, seen in January and February this year and before that not since November 2013, and two Greater White-fronted Geese, an adult and a juvenile, not recorded at the lake in the memory of anyone on the trip.



Northern Pintail; J.M. Garg, Wikipedia

Besides the pintail, the lake islands offered all five of the usual heron-type birds – Great Blue Heron, Great Egret, Snowy Egret, Black-crowned Night-Heron, and Green Heron – plus both White and Brown Pelicans, the last of the year's crop of Double-crested Cormorants (all out of their nests), and our more-or-less resident Belted Kingfisher, who flew back and forth rattling and chattering. A young Cooper's Hawk terrorized the pigeons and baby Black-crowned Night-Herons, launching them into explosive flight (but not catching anyone as far as we could tell).



Black-throated Gray Warbler; Walter Siegmund, Wikipedia



Brown Pelican in flight; Lee Aurich

The trees in Lakeside Park and the garden offered up Townsend's and Yellow-rumped Warblers and an elegant female Nuttall's Woodpecker as well as the more usual Chestnut-backed Chickadees and Oak Titmice, and Dark-eyed Juncos pecked around the tree trunks. Anna's Hummingbirds buzzed and chased one another overhead among the Monarch and Tiger Swallowtail butterflies.

September usually feels more like part of the quiet summer than the exciting winter, but this was an exception! Thirty-nine species all told – the most for the month in many years even though none of the winter ducks have splashed down; wait for October on the first of those – on the pleasantly hot morning of yet another good good day at Lake Merritt.

**SALUTE OUR SEPTEMBER VOLUNTEERS!** All of the Creek-to-Bay Day volunteers, Pandora (music streaming service), Park Day Middle school. U-Clean-It self-organized teams, and of course LMI A-TEAM regulars. We appreciate their efforts and community spirit immensely! Thanks to LMI Photographer Kevin Jones. Photos of the groups are below in the email edition, which is linked online at [lakemerritt.org](http://lakemerritt.org).

## CLIMATE CORNER– LET’S GET RADICAL, A Guest Editorial by Dr. Richard Bailey

They’re talking about building a baseball stadium along the channel that carries the life giving tides to Lake Merritt: A grand edifice to sport, entertainment, and wealth alongside a river of water that provides a home for Golden Eye ducks, algae, and homeless people. Imagine the contrast: Tens of thousands of people swigging beer and cheering to hit one over the fence, into a parking lot filled with thousands of cars, each contributing its own bit of exhaust gases, tire and brake lining dust, and expensive parking fees right next to a quiet, thin, green ribbon of nature where egrets hunt fish, and tidal currents swirl from insidious sea level rise.



The Lake Merritt Channel at 10th St. (under construction)

The first thing patrons of the new stadium might see if they were to visit today would be the homeless camps, complete with the squalor of human waste, tents, and gaunt faces of those who often do not have enough to eat. Before they bought their own overpriced cups of beer and hot dogs wrapped in paper, they might see these things along the banks of the channel that is the lifeline to the first wildlife refuge in North America. If you are one of the brave volunteers that have cleaned this place on Earth Day or Creek to Bay Day, you know what I mean. This is not a contrast that the City of Oakland wants to display.

*Millions of dollars have been spent on restoring the Lake Merritt tidal channel. Now it is time to leverage financing of a new stadium to protect the environment and provide social justice while simultaneously building a great baseball home for Oakland.*

I am not anti-baseball, anti-stadium, nor anti-wealth. But I am pro-water quality, pro-Lake Merritt, and pro-Oakland. How then, can these competing landscapes be joined in a civil manner that respects both of their philosophies? To do so means doing things more than a bit different from the ways of the past. Imagine for a minute the following potential requirements that the City could demand of the stadium.

- A stadium parking lot that drained into a filter that removed hydrocarbons, trash, and all the other evils of urban runoff. Such devices are not new technology, and have been around for years. If you are going to add urban runoff to a wildlife refuge channel, filter it.
- A stadium designed to shield wildlife in the channel from lights and noise, and with solar panels.
- A parking lot that served as an RV homeless encampment on days when not in use for baseball or special events. On game days, the motorhomes would leave for several hours, returning when the game was over. This would be a better use of space than having several acres of very expensive real estate sit unused for most of the time.
- A stadium, monitored by attendants, designed with homeless access to toilets, clean water, and perhaps even showers. Hey, it is better than having them take a dump in the channel, which is happening as I write this. If you are going to build a bathroom, make it useful most of the time.
- Stadium storage lockers so that homeless can have a secure place for their meager belongings while searching for a job.
- Daily trash collection, not just after baseball games, supervised by stadium employees.
- A small surcharge on tickets and concession sales to implement these suggestions.

Professional sports are billion dollar businesses. As good stewards of the environment, this should be part of their business plan. Oakland, and Lake Merritt deserve no less.


Note: The use of existing athletic stadiums for homeless help is being considered in San Diego.

### **HAPPENINGS AROUND THE LAKE:**

**Oct. 11<sup>th</sup> Pop-Up Aquarium** – California Center for Natural History with Damon Tighe 12:30-1:30 p.m.  
<https://calnature.org/events/2017/10/11/pop-up-aquarium-lake-merritt>

**October 19-21 - Autumn Lights** – A festive three-night community event benefiting the Gardens in Lakeside Park. <http://autumnlightsfestival.herokuapp.com/>

**EDITOR: Katie Noonan**–“The Tidings” is published by the Lake Merritt Institute (LMI) entirely with private funding donated to LMI, and not with funds from the City of Oakland. To contribute to LMI, use PayPal at the LMI website (lakemerrittinstitute.org) or send a check to: Lake Merritt Institute, 568 Bellevue Ave., Oakland, CA 94610-5026. LMI is a California State non-profit corporation; IRS Code 501(c)(3): EIN 94-3214160

Comments and contributed articles are welcome. Please feel free to contact me directly: “[ktnoon@gmail.com](mailto:ktnoon@gmail.com)” 

### **SALUTE OUR SEPTEMBER VOLUNTEERS!**

LMI thanks All of the Creek-to-Bay Day volunteers, Pandora (music streaming service), Park Day Middle school. U-Clean-It self-organized teams, and of course LMI A-TEAM regulars. We appreciate their efforts and community spirit immensely!

### **VOLUNTEER GROUPS:**



**Park Day Middle School**



**Pandora (music streaming service)**

**LMI hosted another successful Creek to Bay Day event.** This event shows how much people really love our lake. With the incredible amount of volunteers that showed up we were able to clean the entire perimeter of the lake and channel area that connects Lake Merritt to the Bay. Special thanks to the A-Team volunteers that helped out: David, Myra, Tom and Miriam. Volunteers are the life's blood of LMI without them we could not clean nearly as much of the lake as we do. Thank you to all the volunteers who came out to clean our lake. –from James Robinson, Executive Director of LMI



**39 VOLUNTEERS FOR THE LAKE MERRITT INSTITUTE!!**  
23 BAGS OF TRASH PICKED UP BY LMI and  
MORE BAGS WE COLLECTED WERE PICKED UP BY THE CITY.  
**BIG THANK YOU TO KEVIN JONES FOR BEAUTIFUL PHOTOS OF ENTHUSIASTIC  
VOLUNTEERS!**



## REFERENCES

### Living Upstream and Downstream

<sup>1</sup> Cindy Margulis, <http://www.eastbaytimes.com/2017/09/20/opinion-oakland-as-picked-the-wrong-site-for-a-new-stadium/> See also  
“Lights out for birds” <https://goldengateaudubon.org/conservation/make-the-city-safe-for-wildlife/artificial-turf-and-lighting/>

<sup>2</sup> A year in the life of Lake Merritt.  
[http://www.lakemerrittinstitute.org/papers/A\\_Year\\_In\\_The\\_Life.pdf](http://www.lakemerrittinstitute.org/papers/A_Year_In_The_Life.pdf)

<sup>3</sup> 2014-2015 Lake Merritt Water Quality Monitoring Report made public by the City Public Works Department in July 2016. The study conducted by AMEC Foster Wheeler focused specifically on conditions affecting DO (dissolved oxygen) in the lake -- a critical factor, the lack of which landed Lake Merritt on the State Water Quality Board (303d list) in 2006 as an “impaired water body”.

<sup>4</sup> City of Oakland, Informational Report on Stormwater Trash Load Reduction 4/13/17  
Attachment B – Oakland Trash Generation Map (EOA, Inc. Jan. 30<sup>th</sup> 2014)

<sup>5</sup> [http://lakemerrittinstitute.org/newsletters/2017\\_03\\_Newsletter.pdf](http://lakemerrittinstitute.org/newsletters/2017_03_Newsletter.pdf)  
[https://www.lakemerrittinstitute.org/newsletters/05\\_17\\_tidings.pdf](https://www.lakemerrittinstitute.org/newsletters/05_17_tidings.pdf)  
<https://baynature.org/article/sharks-dying-san-francisco-bay/>

### Flooding, earthquakes and sea level rise

<sup>6</sup> - oak058455.pdf - City of Oakland Hazard Mitigation Plan 2016-2021, pp 51-101, Fig 7.1 revises 100 year flood plane to include Laney site; Figs 9 and 9.1 put Laney site in area of inundation with 48” SLR projected to be reached by 2050; Figs on pp 160-161 show Laney site within liquefaction zone likely to experience violent shaking and heavy damage in a major earthquake. p. 32 outlines resilience measures including hardening and moving inland.

<sup>7</sup> <http://data.pointblue.org/apps/ocof/cms/index.php?page=flood-map>  
This tool allows you to vary amount of sea-level rise, storm event annual to 100 year, etc. Given predicted 33-66” SLR in 21<sup>st</sup> century, the new Laney site would experience serious flooding issues.

<sup>8</sup> <http://www.fivecreeks.org/info/GlobalWarming.shtml>

<sup>9</sup> An Introduction to the San Francisco Bay Estuary (2000), Andrew Cohen with drawings by Jack Laws, Save The Bay • San Francisco Estuary Project • San Francisco Estuary Institute Third Edition, December 2000

### Smithsonian Scientists

<sup>10</sup> Carlton et al. Science 357, 1402-1406 (2017) 29 September 2017  
<http://www.mercurynews.com/2017/09/28/tsunami-sent-japanese-sea-creatures-to-u-s-beaches-on-plastics/>

More about Dr. James T. Carlton

<https://baynature.org/biodiversity/enigmatica/>

[http://www.lakemerrittinstitute.org/newsletters/2016\\_10\\_Newsletter.pdf](http://www.lakemerrittinstitute.org/newsletters/2016_10_Newsletter.pdf)

[http://www.lakemerrittinstitute.org/newsletters/2016\\_09\\_Newsletter.pdf](http://www.lakemerrittinstitute.org/newsletters/2016_09_Newsletter.pdf)