

# The Lake Merritt Institute

A COMMUNITY BASED, NON-PROFIT CORPORATION

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**VOLUME XX**

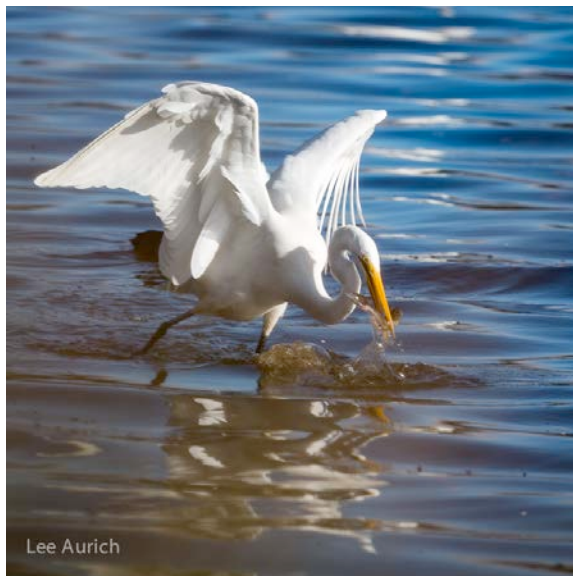
**"TIDINGS" – JANUARY, 2015**

**ISSUE I**

“Tidings” is an editorial newsletter. Opinions expressed are not necessarily those of the City of Oakland.

**LOW OXYGEN LEVELS DEMAND ACTION:** On December 9<sup>th</sup> oxygen levels at the bottom of Lake Merritt near the Merritt Boulevard channel were measured at 3 parts per million (ppm). At the 18th Street cove, the reading was 2 ppm and at the center of the lake, it was 3 ppm. Given the recent rains, it is likely that these readings, which are lower than the regulatory limit of 5 which is needed for a healthy aquatic environment, were related to stratification, the separation of top and bottom layers that is enhanced when county tide gates are closed to incoming tides to prevent flooding.

*Egrets depend on fish which depend on adequate oxygen conditions. Photo by Lee Aurich.*



But what were the tide levels before, during, and after these readings? And how long were the gates closed? We don't know, because the gate closure data is not routinely shared with the city.

In these days of electronic control and inter-communication, we are able to better predict tidal levels, and to quickly predict rainfall / runoff amounts on a daily, even hourly, basis. Given that Lake Merritt has been federally listed as impaired for low oxygen for 15+ years (longer than the period required for establishment of a total maximum daily load (TMDL) regulatory limit) and that these detrimentally low oxygen conditions are continuing (**and will continue**) whenever the tide gates are closed during heavy rainstorms, it strongly behooves the city and county to devise and implement methodology to balance flood control with water quality concerns so that stratification and low oxygen levels are minimized to the ultimate extent possible.

These methods should include:

- Remote control of the tide gates (reportedly now in a proposed county budget)
- Computer modeling that will specify how the tide gates can be used to minimize low oxygen levels while still providing flood control (reportedly requested by the county)
- Web cameras at the flood control station and lake (funded by the National Security Agency?)
- Access to 24/7 recorded, digital tide level data by both the city and county, along with software to analyze such data and create summary reports (see Dec. 2013 *Tidings* - but note that no funding has been found).
- Peer review of the computer modeling and written protocol for tide gate operation approved by:
  1. The City of Oakland and a qualified hydrology consultant
  2. Alameda County Flood Control & Water Conservation District

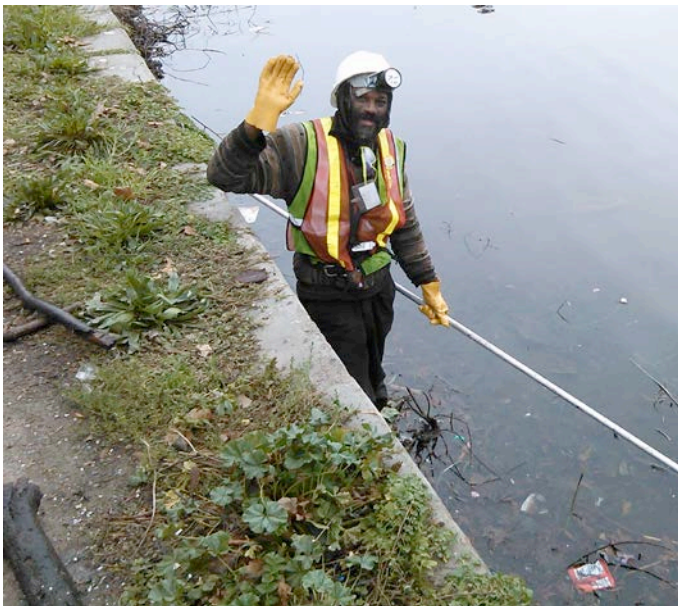
3. SF Bay Regional Water Quality Control Board

4. US Environmental Protection Agency.

- 24/7 access to rain gauge data and stream flows in the watershed (Glen Echo, Pleasant Valley, and Trestle Glen Creeks).

Such a system is technologically possible, available now on the shelf, and not overly expensive. It would allow county engineers to fine tune flood control and minimize low oxygen events in the Lake from which bottom dwelling life would need months to recover. The Institute is encourage that some of these long overdue steps in such a system are proposed. It is now up to the city and county to be sure that each of these points are addressed.

**RAIN, RUNOFF AND RESPONSE:** We knew it was out there; trash in the watershed, waiting for the rain. And rain it did. As of December 22, a total of 9.41 inches plopped into the Institute rain gauge. Here is what the watershed threw at us, and how one volunteer responded.



*Chester worked for 7 hours one day.*



*Fast food trash dominated the trash scene.*

**CLIMATE CORNER:** Imagine opening an anonymous envelope in your mail one day and seeing white powder inside, or having your life and your family threatened because you have done your job too well. Imagine getting sued by people you never met who want access to all of your emails. These are the types of injustices suffered by just two prominent climate scientists in recent years at the hands of not only radicals, but also the United States government. A quick look at an old website from 2010

<http://www.theguardian.com/environment/2010/mar/01/inhofe-climate-mccarthyite>

reveals that Senator Inhofe of Oklahoma called for a criminal investigation of 17 scientists for supposed violations of several laws and regulations. Fortunately, such accusations were dismissed by at least nine investigations and recently in Virginia where the State Supreme Court has ordered the nonprofit Energy & Environment Legal Institute to pay damages to former University of Virginia professor Michael Mann and the school following the institute's failed legal bid to obtain Mann's emails regarding climate change research. Dr. Mann revealed details of the fiasco in his book *[The Hockey Stick and the Climate Wars: Dispatches from the Front Lines](#)*. Sadly, the brouhaha will not end there, as climate deniers have promised to continue their harassment in many other states.

The witch hunt back fired in other ways as well. When science historian Naomi Oreskes received notice that

she was being sued, he husband declared that they were picking a fight with the wrong scientist. She began to wonder who were these people, why are they suing me, what else have they done? Her research led to a book: *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (see a review in the *Tidings* edition of August, 2010).

*Climate Science Legal Defense Fund Executive Director Lauren Kurtz and Dr. Michael Mann, whose research led to the hockey stick graph.*



So prevalent has been the attacks on climate scientists that an organization has been formed to defend them. At a recent fund raising dinner in San Francisco, The Climate Science Legal Defense Fund introduced their first executive director, Lauren Kurtz, who will expand the battle against those who would subject climate scientists to ridicule based on frivolous charges. Imagine what would happen if the tables were turned, and climate deniers had to justify their outlandish claims, or make financial reparations for the global damage that is being endured as national policy dithers while the Earth slips into every more severe weather patterns.



*Holiday Lights at the Lake:*

*A snowman, a lighthouse, a tree, a duck, a polar bear, and R2D2 wish you a Merry Christmas.*

*Take time to walk the dock at the Lake Chalet and say hello.*

*Thanks to Carl and Jesse for their artistry.*

### **BIRD COLUMN:** Fighting Gulls at Lake Merritt

Early birders assembling for the Christmas Eve edition of the 4th-Wednesday Golden Gate Audubon walk saw two of the big white-headed gulls - one Western (black wingtips) and the other Glaucous-winged (gray and white wingtips) engaging in what looked like a serious fight in the water in front of the nature center - no blood, but solid beak grips at the wing-to-shoulder joint and much flapping effort to push each other underwater. You don't notice how big those gulls' beaks are until they get them gnashed in all the way through the gape, which runs well back behind the eyes. Flap! Splash! Plop! Oh - there's one broken away... nope, here it comes back, chomp! Flap! Splash! You tired yet? Yeah, this is gettin' old.... So off they swam, side by side, one of them twirling a leaf in its beak.

What was that all about? Who knows? It wasn't anything anyone watching had ever seen before. The birds were of what humans regard as different species, but the big white-headed gulls don't seem to care about that - so perhaps it was a couple getting acquainted.



And beyond that, it was still quite a morning. We saw the Western Bluebird flock again, apparently thoroughly settled at the lake - a new species there, first glimpsed in 2013, then seen raising a family this past spring. The almost-resident Red-tailed Hawk (a beautiful dark-morph bird) was sitting in one of the cormorant nests on the island, looking for all the world like a hook-billed mama hen - and not bothering the cormorants at all, as they're all out of the nest (and either sitting on the floats or fishing in the lake.) Two female Hood Mergansers were swimming between the islands, their red-brown crests almost glowing in the gray light, along with the usual round of scaup and goldeneyes and coots and Canvasbacks and Ruddy Ducks and large and small grebes - 44 species all told.

But no Tufted Duck; he hasn't been seen at all this year - even on the Christmas Bird Count, for the first time in what someone said was 20 years, and at least half a dozen to my certain knowledge.



*Photo by Lee Aurich*

Even without him, though, and with the wind rising sharply toward the end of the morning, it was another good day at Lake Merritt, where when you come right down to it, every day you don't fall in is a good day....

## **RECENT SCENES FROM THE LAKE**



*What is the relationship between rainbows and Lake Merritt?*

*Photo by Lee Aurich*

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