

The Lake Merritt Institute

A COMMUNITY BASED, NON-PROFIT CORPORATION

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ISSUE I

RAIN AND RUNOFF TAKE THEIR TOLL: The frequent, continuing and sometimes heavy rains of December have taken their toll on Lake Merritt. Following are some of the reasons your Lake does not look as good as it does in the summer.

- Runoff from the seven square mile watershed has brought large loads of street trash into the Lake via storm drains. As of December 23rd, we had removed 129 bags of the nasty stuff.
- Bright green duckweed from the golf course quarry pond near Pleasant Valley and Broadway has flowed down Glen Echo creek and now mixes with the trash near Grand and Harrison. This make trash removal there much more difficult.
- The county flood control district closes the gates during incoming tides when there is a 50% chance of rain in the forecast, cutting off the normal, daily influx of salty bay water. This is necessary for flood control. Water is allowed out of the Lake during outgoing tides, but only to the lighter, fresh water top layer drains out.
- All this fresh rain water sits atop the unmixed salty, bottom water, creating a stratified lake (kind of like a layer cake). This means that the bottom layer loses oxygen and it becomes a virtual dead zone until the tidal gates are re-opened when the rains let up for a while. Be glad you don't have to live down there.
- Items like plastic bags and leaves clog fountain intake screens, shutting them down. But, a new motor is being delivered, lights have been fixed, 250 feet of underwater cable have been purchased and several new underwater connectors have arrived so there is hope.

Duckweed from the golf course pond

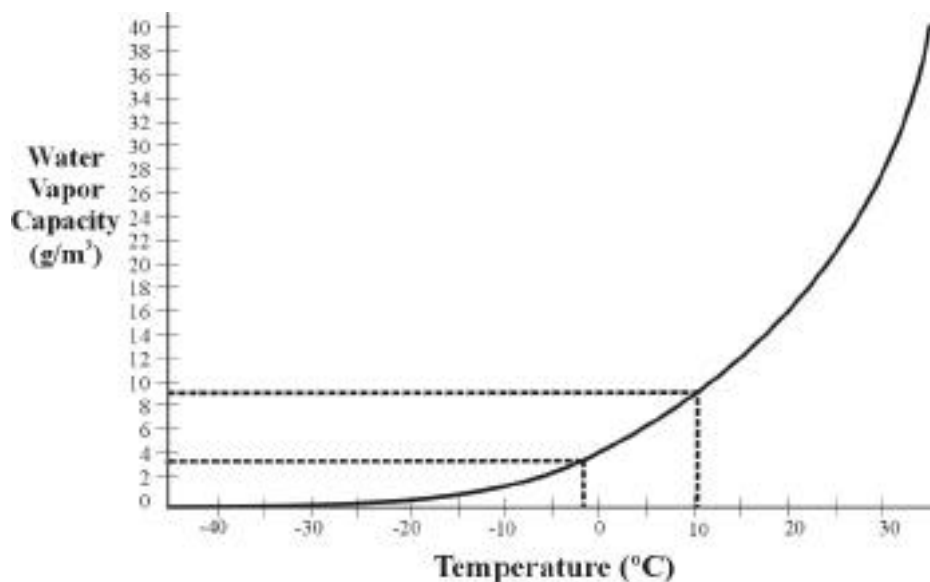
- Pressure from the storm flows has broken the 250 foot long barrier at the Embarcadero. It was patched and temporarily reattached, but broke again. Inspection revealed rips in the fabric and a new one has been ordered by the City. Until it arrives, the barrier will have to remain detached in the middle.



CLIMATE CORNER:

Oakland to obtain plug in hybrids: According to a reliable source, our green city is will soon receive three plug in hybrid, Prius automobiles. One will be used by Jean Quan, our new, green mayor on a test basis to help Toyota gather data on it's performance. With smaller lithium ion batteries the vehicle can travel 13 miles (at speeds up to 60 mph) in the all electric mode (using no gasoline at all). Then, you charge it for just 3 hours at a standard 110 volt outlet (or 1.5 hours at a 220 outlet) and off you go again. So for those short hops around town, a few of our city officials won't be using any gasoline at all. In the standard hybrid (gasoline/electric) mode the car is currently un-rated by EPA but is expected to easily achieve 50+ mph. The cost per mile driving with electricity is about a third that of driving with gasoline because electric motors are more efficient, thus saving taxpayer dollars. In addition, fewer greenhouse gases will be emitted, an additional savings to ALL of us. So if you see one of these new City wheels driving around, give it a thumbs up.

If it is warming, why is there more snow? With blizzards in the mid-west, blizzards in the south and blizzards in New England, it sure doesn't seem like the world is warming. What is going on? The answer is the same as the answer to "why is more rain falling?" In short, the atmosphere is warming (there is no doubt about that unless you don't believe in thermometers, satellites, melting ice caps etc.) and warmer air holds more moisture (that's a law of physics – and, sorry, you can't change it). So, instead of being 25° it may be 28°, three degrees warmer and with more moisture, so it snows more. The additional moisture in the air creates more precipitation whether it is below freezing or not. And just because it is warming doesn't mean it won't get to be 28°. That temperature can deliver more snow, even in a warming world.



Graph of water vapor capacity at saturation (100% relative humidity) versus temperature. Note the 60% drop in capacity as temperature cools from 10°C to -2°C.

BIRD COLUMN: Wheeling and Dealing on Lake Merritt

The December 4th-Wednesday Golden Gate Audubon walk mostly dodged the raindrops, but it was seriously cloudy till the end of the morning, when a gleam of sun illuminated the lake. Instantly, the huge raft of scaup (black and white ducks with gray backs) and friends down near El Embarcadero dropped its floating meatloaf act and started swimming in ranks and echelons - heads high, gliding back and forth for all the world like cavalry on maneuver. Amazing. The sight tore the group away from the Nuttall's Woodpecker that was posturing on one of the leafless trees, giving us clear views of his white belly and ladder-striped back.

Also in response to the sun, the oaks along Bellevue filled with little birds - Bushtits like flying mice, a few Ruby-crowned Kinglets (if it's little and olive-drab and moves too fast to see anything but a white eye ring, it's probably a kinglet), some Chestnut-backed Chickadees (mostly upside down, with a black and white head and a bright brown back), and a female Townsend's Warbler (largely yellow, with a brownish burglar's mask instead of the bright black of the male).



Well over 1,000 ducks are now wintering at our tidal lagoon

By that point, we'd already been up through Lakeside Park to Children's Fairyland (a couple of blue-and-beige Scrub Jays, lotsa Robins and red-trimmed House Finches, and some Crows and the ever-present Canada Geese) and back down through the fenced garden (Yellow-rumped Warblers - otherwise known as butter-butts for obvious reasons - more Townsend's Warblers, some dust-brown California Towhees on the ground, and a

Bewick's Wren showing off its white eyebrows beside one of the sheds). Which was doing pretty well, given that a light but dense rainfall was turning the air to Jello all through the garden.

Up near the islands, the Ring-necked Duck (black head and back, gray wings with a white shoulder bar, bright white ring around the . . . bill) and a Common Goldeneye (also black and white, with a white full moon on each cheek) were floating close enough together for a single scope view. We also saw Pied-billed and Eared Grebes (tiny and respectively stocky and graceful), as well as Clark's and Western Grebes (bigish birds with long black and white necks; the difference between them matters only to another grebe, and perhaps not even then, given the number of birds with traits that look like a mix of the two), plus lots of grumbling black American Coots bobbing their white beaks back and forth. The floats bisecting the lake were mainly lined with young Double-crested Cormorants - still bronze-brown instead of grown-up black - but four Great Blue Herons towered among them, and Great and Snowy Egrets were common along the shores.

All in all - rain included - it was another great day at Lake Merritt, where every day is a great day. . . .

UPDATE - LOS ANGELES AREA TRASH REGULATIONS: Los Angeles, like most cities in the East Bay, is under regulatory orders to reduce trash in the Los Angeles river to zero. For a detailed summary of procedures being used and progress being made there, go to lacitysan.org/wpd/siteorg/program/TMDLs/tmdl_lariver_trash.htm.

RECENT SCENES FROM THE LAKE:



Frosty visited Lake Merritt this Christmas



Your Christmas display at the Chalet/Gondola dock

This edition of "Tidings" was published entirely with private funding donated to the Lake Merritt Institute. To contribute to the Institute, use our website or send a check to 568 Bellevue Avenue, Oakland, CA 94610.