

The Lake Merritt Institute

And CENTER FOR URBAN RUNOFF AND WATERSHED RESEARCH

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LAKE MERRITT IS A "CRITICAL COASTAL AREA:" The state Coastal Commission has recently declared our lagoon as "Critical Coastal Area Number 87." In a two page posting to its website, the commission cited urban runoff from storm drains as the source of trash, and "source unknown" for organic enrichment (which causes low oxygen). Actually the sources of enrichment are not totally unknown. Leaves from the 4,650 acre watershed, mixed with doggie (and other animal) doo doo, combined with duckweed from the Claremont Country Club pond and decomposable litter (ciggie butts, paper, food waste) make up the bulk of watershed sources. To that add what grows and dies in the Lake, which includes plankton, widgeon grass (but not much this year) and several kinds of algae. Put it all together and you have quite a problem, but not one which cannot be solved (see "Aeration Update" in our July, 2005 *Tidings* for a solution to the oxygen problem).

The listing includes "Major Efforts to Implement Non-Point Source Management Measures" and "Regulatory/Planning Jurisdictions" with contact names and numbers. Check it out.

FREE BOAT RENTALS AT LMBC OPEN HOUSE: Join us at the Lake Merritt Boating Center open house on July 15th from 11am to 2 pm. In addition to free boat rentals and lessons, there will be contests, prizes, refreshments, water safety demonstrations & games. You may also register for swimming lessons and summer boating camps. The center is at 568 Bellevue Avenue (the first, big, blue building on the right in Lakeside Park).



ENDANGERED LEAST TERNS FORAGING AT LAKE: As in past years, several of California's most endangered birds, the least tern, were seen foraging at the Lake in June. *Sterna antillarum* is easily distinguished from other terns by its small size (only 9 inches long). Our spring visitors are most likely from the colony at the former Alameda Naval Air Station, where they are known to nest near runways. With high concentrations of fish, Lake Merritt provides a valuable feeding area for these birds, especially when young are in the nest.

This photo was taken on May 26, 2006 near the Bandstand Beach.

COUNTY HELP NEEDED TO DE-LIST THE LAKE: As all good members of the Institute are aware, our tidal lagoon is formally listed as an "impaired body of water." Its uses, which include boating, fish spawning & wildlife habitat, are impaired by too much trash, and too little oxygen. Lake Merritt was placed on the list by the US Environmental Protection Agency in 1998, and the clock is ticking toward the day of reckoning when it must be de-listed (the trash and oxygen problems solved) or subject to regulatory action (creation of a Total Maximum Daily Load).

A major effort sponsored by the City of Oakland to improve the trash and oxygen problems is the increased tidal flushing associated with measure DD projects. This work (see related article below) will remove bottlenecks at 12th, 10th and 7th streets, allowing more water to enter and leave the Lake. However, when Alameda County Flood Control folks close the tide gates, these improvements will make little to no improvements in our oxygen situation because tidal inflow will be cut off. It is reasonable then, to conclude that county help will be needed in managing tide gate closures as part of efforts to de-list the Lake. Such was the recent conclusion of a regional water board staff member, and we concur. Negotiations between the city, county (and Water Board?) will take place as part of the 7th Street bypass project.

ADOPT-A-HIGHWAY – CLEAN A LAKE: Another way to keep public waters clean is to keep highways clean. You can do just that at <http://adopt-a-highway.dot.ca.gov/> Permits are issued for 5 years and include free help from Caltrans. You can remove litter, destroy graffiti, control vegetation and plant trees, shrubs or wildflowers. Signs will be placed in recognition of your group, choose a location, discuss it with Caltrans and submit an application.



SPILL POLLUTES GLEN ECHO ARM OF LAKE: Paint, plaster or cement dominated the water near Grand & Harrison streets for several days early this summer. The murky material hung just below the surface like a cloud, prompting numerous complaints. As usual, the source remains unknown, although speculation would lead directly across the street where a new cathedral is under construction. Workers in high rise buildings above the site – please report any spills you may see, take photographs and record dates and times! Then call the city storm drain inspector at 238-6544. The Lake you save may be your own.

GIS PROJECT STATUS: Whatever you will or dream you can, begin it: Boldness has genius, power and magic in it. With that advice from Goethe, we have begun to develop a geographical information system (GIS) for the Glen Echo Creek watershed. Why Glen Echo? Because it has the longest stretches of open creek in the Lake watershed; because it has two (or more) neighborhood groups that are passionate about the creek; because parts of it are readily accessible for sampling.

When finished (and linked to a hydrological model) what will the GIS tell us?

- We will be better able to predict flood flows and levels, especially if we obtain funding for a 24/7 stream flow monitor.
- We will be able to determine the percent of area that is impervious (which creates faster, badder runoff and increases pollution).
- We will be better able to explain the watershed concept to its residents.
- We will be able to pinpoint (with GPS coordinates) all the storm drain inlets, underground storm drains and outlets.
- We will be better able to provide the best locations for devices to filter urban runoff and reduce storm flows.

Intern Giorgio Bianchi has begun the work, and is collecting data from available sources. However, he will soon leave us for New Mexico, and we are looking for a GIS experienced intern to continue the project. If you know of anyone who is interested, please ask them to contact us.

TWO “LINEAR, GROSS SOLID REMOVAL DEVICES” TO BE INSTALLED: Urban runoff from 21.6 acres of the 12th Street project will be filtered by two linear filters as shown below.



Water will escape from 0.25 inch openings, but smaller trash will remain inside until removed by vacuum truck or other equipment. Recommended by Rajappan & Mayer (contractor for the 12th Street project) these will be the first filters of this kind to be installed in the Lake Merritt watershed. Because it requires little head (force of water) this filter is suitable for flat areas. Also recommended is another (our fifth) continuous deflection separation filter to catch runoff from 4.6 acres of the project. They are a welcome addition to efforts to control trash in the Lake.

DD PROGRESS - As of June 6, 2006 (partial listing):

- 12th Street – Design drawings are 100% complete; the final EIR for wetlands and channel widening is being prepared; construction bids are scheduled for June; work is scheduled to begin in late summer, 2006 and take two years to complete.
- Children’s Fairyland – Repair of site drainage system (manure washed directly into Lake Merritt): Utility bids came in higher than expected. Options are being considered.
- Renovate and restore Lakeside Park Sailboat House – Design consultant selection process is suspended and is expected to resume in 2007 when Series B funds become available. Series A funds were reallocated to the Municipal Boathouse and path projects.
- Widen and improve pedestrian and bicycle paths around Lake Merritt – Construction is scheduled to begin in late 2006 and take one year to complete.
- El Embarcadero reconfiguration – Construction is scheduled to begin in late 2006 and take one year to complete.



CARP INVADE LAKE MERRITT: They probably came down from Reservoir No. 1, Reservoir No. 2 or Tyson Lake, all of which drain into Indian Gulch Creek, and thence into storm drains and from there to Lake Merritt. However they got here, there they were, 8+ really large common carp swimming in the shallows behind the barrier at El Embarcadero. This has happened before (see Fall / Winter *Tidings* from 1995).

Concern has been expressed that they cannot

survive in our salt water lagoon. Although these fish are known to survive in salinities as high as 14 – 17 parts per thousand (sea water is 35 ppt) much of Lake Merritt reaches salinities from 20 – 30 ppt by late summer. Since salinity readings behind the barrier are much lower, the fish may continue to survive there. We shall see.

MONTHLY BIRD REPORT – By Correspondent Hilary Powers:

Summer Solstice at the Lake.

Well, the avian biomass - that's pounds of birds - at Lake Merritt is about the same as ever, but a lot of it is tied up in gooseflesh. Most of these Canada Geese are summer visitors; they don't raise their kids here and they're not here for the food, just taking advantage of the Shed Your Feathers Free program. Every summer, they lose all their flight feathers and are stuck on the ground or in the water for a couple of months, and the word is well and truly out that a goose can molt and re-fledge in comfort and safety here. Probably every third Canada Goose in Northern California takes advantage of the sanctuary. (Geese do this. I was up in Churchill, Manitoba, last summer, just short of the Arctic Circle, and the tundra was full of Canada Geese that had flown up from the American Midwest - thousands of miles - just on molt migration.)

The monthly Golden Gate Audubon lake walk picked up only 23 other species, but the trip was full of interest. The last of the egrets - both Great and Snowy - have babies about to fledge (meaning start to fly rather than grow more feathers this time), and some of the Double-Crested (though not at the moment) Cormorants are still on station. We even saw one flying in with nesting material, perhaps responding to a "Honey, what have you done for me lately?" mood at home. Meanwhile, some of the departed birds are starting to come back; we saw Pied-Billed Grebes and American Coots near the islands. And the Mallard drakes are mostly in their brief eclipse period, heads as brown as their hens' and identifiable mainly by bill and foot color.

Across the street in the park, this year's young Coopers Hawks have graduated to "brancher" status, hopping about the tree near their nest. And we also saw fledglings chasing Black Phoebes and a couple of different kinds of swallows: able to fly pretty well, but still foraging from mama and daddy rather than catching their own.

And so the year turns. Busy or quiet, every day is a good day for birds at Lake Merritt.

CASUAL LABOR EMPLOYMENT OPPORTUNITY – Jack-of-all-trades needed: The Institute is currently seeking someone who can perform the following tasks, working as needed for about several hours per week: Operate small boat & motor; use a brush and power washer on board the boat to clean fountains; disassemble, ship & reassemble fountains; install& remove fountains on Lake Merritt (including creating waterproof electrical splices, attaching anchors, adjusting floats, etc.); painting; general carpentry (including repair and replacement of “U-Clean-It” boxes and bulletin boards); lake clean up (including trash removal & supervision of volunteers); operation of the Institute truck (CDL required); other duties as assigned. Use of own tools preferable. Some Saturday work required. Salary dependent on qualifications. Training will be provided in August and September. Contact Dr. Bailey for details.

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To contribute to the Lake Merritt Institute, contact us at 510-238-2290 or 568 Bellevue Avenue, Oakland, CA 94610.*

