

THE LAKE MERRITT INSTITUTE

A Center For Urban Runoff And Watershed Research

510/238-2290 or lmi@netwiz.net

www.lakemerrittinstitute.org

February, 2006

VOLUNTEER LETTER

HUGE, DEAD FISH: Volunteers pulled two really big bat rays and a 24 inch halibut out of Lake Merritt last month. These leviathans apparently grow too big to pass the flood control barriers and become trapped in the Lake. Then, when big rainstorms hit, the water becomes stratified into a fresh layer on the surface and a salty layer on the bottom. Because the outlet is higher than the bottom, the bottom layer can't flow out. As it stagnates, oxygen levels drop so low that most living things cannot survive. It gets worse when county flood control officials have to close the gates to prevent the high tide from entering, and the bottom layer is deprived of flushing action. An oxygen level of 1.8 parts per million (ppm) was measured at the Lake bottom in December. Anything below 3 ppm is typically fatal to such bottom dwelling fish like those that we removed.



stratification / low oxygen problem was presented to the City in April, 2004 by one of the world's leading experts on such problems. Dr. Alex Horne, engineering professor emeritus from UC Berkeley provided a free analysis of the problem and recommended an aeration mixing system. One bubbler per acre (140) would be placed on the bottom to create vertical water currents and mix the layers. Since there is adequate oxygen at the surface (due to plankton, photosynthesis and all that – you remember, right?) mixing would increase bottom oxygen levels to the “required” standard, or above. A pilot bubbler was installed in April last year, and has been working fine ever since. Hopefully, the City will approve a Lake-wide system and Lake Merritt's monster fish will be able to survive in the future.

FREE EDUCATIONAL PRESENTATIONS: New volunteers often receive a presentation before starting work so that they know where the trash is coming from, and what they can do about it. Lately, our presentations have become multi-media events, including a 6 foot, green, hip-hopping frog on the computer (Rap meets Urban Runoff), VHS videos and a power point show about the Lake. In January, we showed these to 8 groups, including St. Paul's School, the Street Academy, the East Bay Conservation Corps, Hands On Volunteers, high school participants in the marine science Otter Bowl and the Oakland Youth Empowerment School school.

BAY TECH CHARTER SCHOOL CLEANS UP: Its Friday, 3:30 pm. They would probably rather be playing video games or hanging out with their friends, but the After School Club from the Bay Area Technology School on Telegraph Avenue is out cleaning the Lake: Picking up trash from litterbugs. Under the supervision of Scott Roosevelt they get gloves, nets and trash bags from our “U-Clean-It” box at 1520 Lakeside Drive. Then they hit the beach, or the area north of the boathouse where too many homeless leave their bottles, cardboard and who knows what else. This school knows that community service builds character, and teaches students to respect public property, their property. A hearty thanks to this group. You are setting a good example for others and bringing pride to your school, and this community.

SUMMARY: 3.37 inches of rain; 7,200 pounds of trash; 211 people; 189 bags of trash. Thanks guys.

This Volunteer Letter was published entirely with private funding donated to the Lake Merritt Institute.
To contribute to the Institute, contact us at 510-238-2290 or 568 Bellevue Avenue, Oakland, CA 94610.