

# VOLUNTEERS = LOW COST = EDUCATION & OUTREACH



## LAKE MERRITT

- A Unique, Urban, Tidal Lagoon
- Seven Square Mile Watershed
- 62 Storm Drain Inlets
- Viewed by 10,000+ People Daily
- Urban Runoff on Display



## Glen Echo Watershed Impervious Surface

0 – 20 %

21 – 40 %

41 – 60 %

61 – 85 %



## Urban Runoff in a storm drain



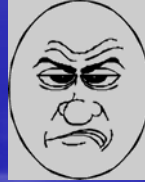
## Urban Runoff in the Lake



Trash in the water



= Public Concern



= Support & Volunteers



Channel support into a  
non-profit

## Average Monthly Donations

(not including fountain donations)

2002 – 2009

January	\$1,846	July	\$568
February	471	Aug.	543
March	737	Sept.	689
April	805	Oct.	562
May	635	Nov.	652
June	436	Dec.	1,557

Average Annual = \$9,502

## THE LAKE MERRITT INSTITUTE

- A non-profit, 501-C-3 Corporation
- 100+ Volunteers
- 120 Dues Paying Members
- Clean the Lake 4-5 x / week
- 7 Board members; 3 employees; 2 sub-contractors,
- Awards, media recognition
- Most funding from the City of Oakland

## VOLUNTEERS

- Over 100 volunteers help keep the Lake clean every month.
- Volunteers come every Tuesday at 10:30 am and every Saturday at 10 am.
- You can also use the four “U-Clean-It” stations to clean the Lake. 1-3-1-4.

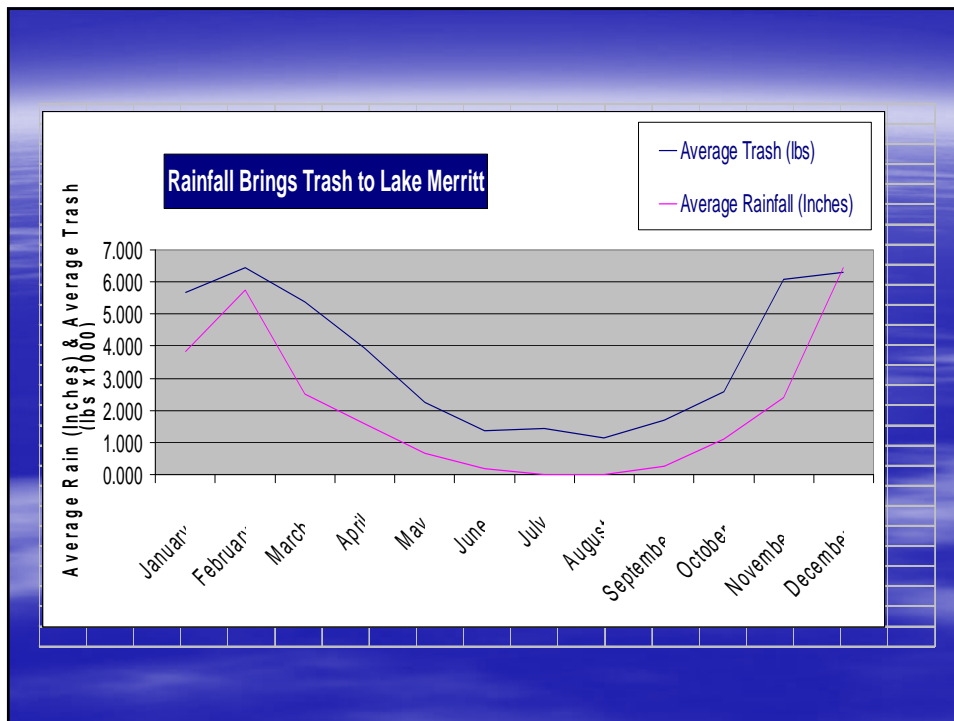


**Volunteers** – the origin of this power point show

## Lbs. of trash removed from the Lake by Volunteers & Staff

	Monthly Averages 1998-2008	Average rainfall (inches) 1981-1990
January	5,895	4.31
February	5,893	3.67
March	5,160	4.46
April	3,809	1.42
May	2,376	0.47
June	1,729	0.11
July	1,248	0.01
August	1,398	0.06
September	1,525	0.58
October	3,031	1.56
November	4,573	3.96
December	5,629	3.17

**RAIN CARRIES TRASH INTO PUBLIC WATERS VIA STORM DRAINS.**

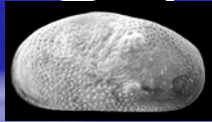
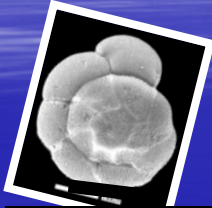


# Volunteer Labor for Special Projects Earth Day; Coastal Clean-Up Day



April 2004

Micro faunal  
Distribution



Is a Pattern  
Emerging?

Volunteer research by  
University Staff



Studies done by  
Dr. Ken Finger at  
UC Berkeley

**Education – for long term cost savings**

**DID YOU USE  
WATER TODAY?**  
(where did it go?)

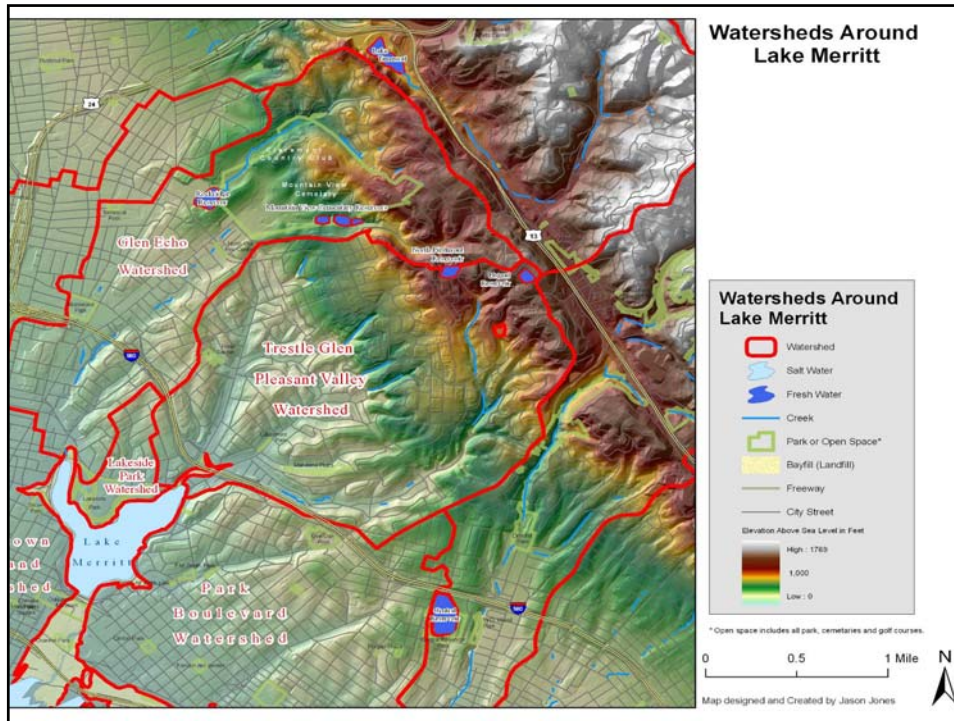
**WHERE DOES  
THE RAIN GO?**

# THE HORRIBLE PORTAL

CONVERTS LITTER TO WATER POLLUTION



**LIKE A CANNON AIMED AT LAKE MERRITT, STORM DRAINS BRING URBAN RUNOFF FROM THE STREETS TO OUR WILDLIFE REFUGE.**



# GLEN ECHO

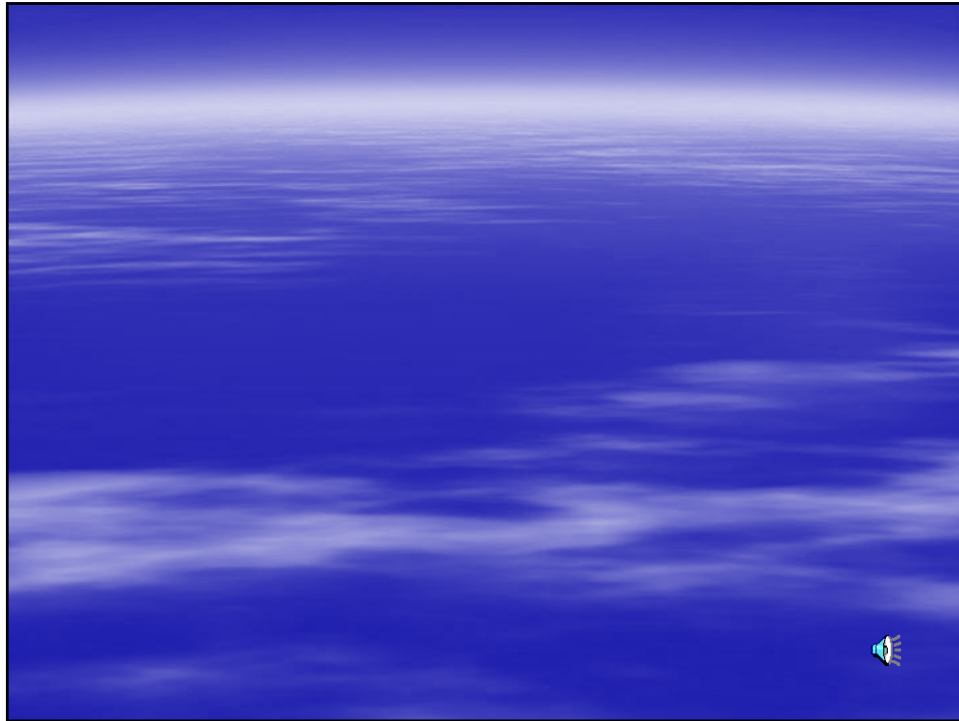
## A Watershed

Based on "Crucifix In A Death Hand"  
by Charles Bukowski;

recorded by Tom Russell;

words by Dick Bailey;

guitar by Andrew Hardin.



## KEY MESSAGES

- **STORM DRAINS FLOW TO PUBLIC WATERS**
- **STORM DRAIN FLOWS ARE NOT TREATED**



## A "You-Clean-It" Station (locked, but available to anyone)



## St. Paul's 6<sup>th</sup> Grade Cleans Up every Thursday.





The Institute sponsors clean ups five days a week during the rainy season.



**Advertise your program  
on your truck!**



**The Key to Successful Volunteer Programs:  
Make it fun**



**THE OAK-NESS MONSTER !**

## OTHER COST EFFICIENCIES

- Storm Drain Filters
- Storm Drain Nets
- Philanthropist Donations
- Political Action
- Legal Strategies
- Regulatory Strategies

### **A Storm Drain Filter**

### **Cost Efficient Trash Removal**



## Storm Drain Filters

- Cost \$40,000 - \$800,000 or more.
- They can remove 100% of the floating objects, and 80% of oil and grease. Once captured, trash can't escape.
- Use no energy.
- Clean ~ 4-6 times a year with vacuum trucks.
- Only 4 of 62 drains are filtered right now.

### Storm drain nets with removable net bags

Less maintenance than daily trash pick up





## **POLITICAL ACTION**

- **Institute funding was aided by friends with political connections.**
- **Institute funding was rescued by a policy decision from a higher political office.**

## LEGAL STRATEGIES

- In 1998, CA refused to put Lake Merritt in the 303d list (impaired water bodies).
- The Institute persuaded the Environmental Protection Agency to override the state and list the Lake because of trash and low oxygen.
- But the Regional Water Quality Control Board set the TMDL deadline for 2019 (21 years after listing). So, we still have lots of trash in the Lake.
- Lawsuits in Los Angeles resulted in a TMDL for trash in the LA river set at ZERO after 10 years of 10% reductions.

Under Court Order, The Los Angeles River Must Have Zero Trash in 10 Years



**Regulatory Strategies:  
Oakland banned Styrofoam  
take out containers.**



But,  
Lake Merritt's biggest problem is  
not cost efficiency, urban runoff  
or lack of oxygen;

**IT IS IGNORANCE!!!**

**YOU CAN HELP !**

**By Joining the Lake Merritt Institute**

Mail form at [www.lakemerrittinstitute.org](http://www.lakemerrittinstitute.org)

or contact us at:

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**The End**