HUGE TURNOUT for MARTIN LUTHER KING JR. DAY CLEAN-UP

A record number of Oaklanders came out to clean the lake with Lake Merritt Institute Director James Robinson, the A-Team volunteers, and LMI staff on Martin Luther King Jr. Day of Service on January 21st. James reported, “We collected over 60 bags of trash with over 100 volunteers and for extra credit we removed 9 Christmas trees that had been thrown into the lake. It does the heart good when the cavalry arrives!”

You can make a difference every day by joining the Lake Merritt Institute, making a donation, or volunteering to clean the lake at our website lakemerrittinstitute.org.

LOVE YOUR LAKE!…….

MLK Day volunteers listen to orientation and safety talk.

GRAND RE-OPENING of the ROTARY NATURE CENTER

Built in 1953, The Rotary Nature Center resides on the grounds of the first State and National wildlife refuge in the U.S. (declared in 1869). It has been closed for deep cleaning and renovation for two years. We are excited that it will again open its doors to the public "to bring nature and people together."

A Grand Reopening will be held on Saturday February 16th - 1-3:30 p.m. at 600 Bellevue Ave Oakland CA 94610. Parking is available nearby, there is a park entrance fee of $5.

Activities will include: Welcome by Oakland Parks, Recreation and Youth Development staff, remarks by James Covel, son of Oakland and the Nation's first Municipal Naturalist, Paul Covel, and a tour of the renovated building. Interactive nature activities will be provided by the Center's nature partners.

LMI in January: 4160 lbs. of trash were removed from the lake in January. LMI begins its 25th year serving the City, the people and the wildlife of Oakland. 4.5 inches rain was recorded by LMI rain gauge. LMI Director James Robinson and Staff hosted 332 volunteers, made 3 educational presentations and attended 3 meetings.
Whadda Day at Lake Merritt - by Hilary Powers – Golden Gate Audubon Society

Thirty-two guests encountered fifty-two avian species – the most for the month since 2015 – on the January 4th-Wednesday Golden Gate Audubon walk. Startling appearances: a Greater White-Fronted Goose for the second time since records start in 2009 (notable for being colored a bit like a domestic Graylag but streamlined in proper wild-geese fashion like a Canada Goose), the third Northern Pintail (a racing-striped male this time) ever, a dozen or more Common Mergansers in breeding plumage, and a pair of Barrow’s Goldeneyes — the crescent-moon-marked male being the first seen on any of these walks this season. We also had three separate sightings of Brown creepers scuttling up trunks and along branches overhead, far enough apart to indicate three different individuals; never had more than one before, and few enough of those.

A juvenile Great Blue Heron perched on the rocks by the pipe outside the nature center, close enough to talk about the signs that indicated the age of the bird. Also, for the first time this season, the water between the nature center – which is reopening, in case you hadn’t heard – and the near island carried enough scaup of both species to make it possible to talk about their differences, which do matter to birders, even if not so much as to the Greater and Lesser Scaup themselves.

The lake seemed to have more birds overall than in recent months – not black with birds as it should be, but goodly numbers of Greater and Lesser Scaup, assorted grebes (including half a dozen or so Western Grebes instead of one or two), Bufflehead, Common Goldeneyes, still-not-ruddy Ruddy Ducks, and Canvasbacks. The big bare tree on the island was still empty (except for the young red-shouldered Hawk that perched in a nest for a while before raising a kerfuffle of dodging prey species on the next island over), but the floats were lined with adult though still smooth-headed Double-crested Cormorants apparently waiting for the territory-grab starting gun. It was low tide, and the shallows were crowded with Snowy Egrets, all busily snapping up delicious things too small to see from the walkway. Will they come back and nest this year? Always the same question, hoping not to get the same answer.

Hank-the-rescue-pelican was on his own, waddling in the paddock and later swimming across the lake all alone, despite the breeding bump starting to grow on his beak. Poor guy gets a lot of visitors from summer through early winter, but no one ever stays with him through the breeding season. They’re colony nesters, and he can’t compete with the call of the cousins.

Tree bird sightings started in the oaks along Bellevue beside the lake – before we crossed into the main part of the park we had Chestnut-backed Chickadees and Oak Titmice and a cloud of Bushtits, plus both Yellow-rumped and Townsend’s Warblers, the first of the Brown Creepers, and some gorgeous Western Bluebirds (the first since last October). Also some Dark-eyed Juncos – probably always here but not always seen – and some White-crowned Sparrows, a Golden-crowned Sparrow, and a Song Sparrow. That covered everything likely to appear in the oaks outside Children’s Fairyland and it was well after 11:30 already, so we headed straight along the other end of the Bellevue U and into the garden.

There our usual viewing-and-resting platform was full of two-foot-tall humans and their keepers, so we walked along the fence past the composting area, looping under the monkey-puzzle tree and across to the bee hotel, enjoying repeat looks at the tree birds (including hummingbirds and Ruby-crowned Kinglets) and generally reveling in the fairest day offered by 2019 and a lot of the latter part of 2018 as well: sparkling sunny, still, and not-cold. All in all, a peak morning in the unbroken string of excellent mornings we’ve come to expect at Lake Merritt...
**CLIMATE CORNER: HOW TO ADJUST THE EARTH’S THERMOSTAT**

A Guest Editorial by Dr. Richard Bailey

Carbon dioxide is the earth’s thermostat. Although comprising only 0.04% of the air we breathe, this greenhouse gas absorbs part of infra-red light from the sun, and re-emits it as heat, thus controlling the planet’s temperature. You may think that something uncommon as 0.04% would be so limited that it cannot impact the whole planet, but remember, it is 0.04% of the entire atmosphere. If you think something has to be large to be effective, consider viruses and bacteria.

Spread everywhere on earth within weeks of emission, this compound is both necessary for life on earth and (because we are addicted to burning fossil fuels which emit it) the bane of our future. It is so effective at heating the earth that, without it, our planet would be a snowball, so thankfully there has always been some carbon dioxide in the air. Before the industrial revolution after which we began burning large amounts of coal, levels were about 280 parts per million (ppm) and the climate was conducive to the expansion of civilization. By the time I was born in 1944, concentrations in the air had risen to 310 ppm. The level varies seasonally about 4 or 5 ppm, and today is hovering around 410 ppm, a concentration not known since the Pliocene epoch, some 3 million years ago.

How does this increase compare to earlier periods in earth’s history? During times in geological history when the earth was warming, carbon dioxide levels increased about 1 ppm per hundred years. Today, the concentration is increasing at 2 ppm per year; 200 times as fast (1). That should scare you.

The Big Question:
But the big question is: How long will this greenhouse gas remain in the atmosphere?

"Three-quarters of that CO₂ will still be here in 500 years. It takes a decade to experience the full warming effects of CO₂ emissions. Even if we stopped all greenhouse gas emissions, it would take another 25,000 years for most of what is currently in the atmosphere to be absorbed into the oceans."

“There is no removing the heat we have introduced into the oceans, nor the 40bn tons of CO₂ we pump into the atmosphere every single year. There may be no changing what is happening, and far worse things are coming. How, then, shall we meet this?” (2)

It Will Be OK:
It is not only our narcissistic president that fails to believe that climate change is a crisis. Many among us continue to believe technology will save us; a silver bullet will be found, and massive amounts of carbon will be removed from the air. But if this is the case, why did U.S. emissions rise 3.4% in 2018? More importantly, who will be responsible for removing carbon from the air? Who will pay the trillion dollars per year (the cost to remove about 1 ppm) to do so?

The Solution:
If we levy an annually rising fee on carbon emissions at the source (the mine, well, and port of entry, not at the cash register) and return 100% of that money to every household in equal shares, the economy will be stimulated in a just manner (families would soon begin receiving a few hundred dollars a month); carbon emissions would decline faster than under cap and trade or regulatory schemes (because fossil fuels would be at economic disadvantage compared to renewable energy); and carbon levels in the atmosphere could begin to stabilize, instead of continuing to rise. This solution (4) is bi-partisan, and revenue neutral (no money would be used for government programs).
If This is Crazy, why do the Following Support It?

**The Irish Agree:** “Public appetite for any tax increase is rare; in this case it will need to be a “carbon tax that works for citizens”, that protects the less well-off, if it is to secure acceptance. The short-term politically expedient reaction might be to not go there. But carbon tax applied in the right way is the most effective means of shifting people to a de-carbonised world quickly.” (3)

**Oman Agrees:** First, to make carbon taxes popular, their economic benefits must be visible to all citizens. A large share of any further increase in gasoline or diesel taxes, or of the revenues derived from economy-wide carbon prices, could be used to fund a “carbon dividend.” If paid equally to all citizens, this would offset the regressive effects that new taxes alone might in some cases produce. (5)

**Canada Agrees:** Beginning in 2019, Canada’s federal policy will put a rising fee on carbon emissions and return the revenue directly to Canadians. The federal policy is a backstop to cover the four provinces that have not initiated their own carbon-pricing policies. Nearly half of Canadians live in these provinces. (6)

More than 40 economists signed the following statement, including the top economic advisers to Presidents Gerald Ford, Ronald Reagan, George H.W. Bush, Bill Clinton, George W. Bush, and Barack Obama.

“A carbon tax offers the most cost-effective lever to reduce carbon emissions at the scale and speed that is necessary,” the economists said in a joint statement shared with the *Washington Examiner*. “By correcting a well-known market failure, a carbon tax will send a powerful price signal that harnesses the invisible hand of the marketplace to steer economic actors towards a low-carbon future.”

I could go on listing other support, but you get the picture. The world knows how to politically and economically begin slowing climate change, and gradually reverse our rapidly rising carbon thermostat. Now we just need to do it. Your part: Support the Energy Innovation and Carbon Dividend Act (H.R. 7173 and S. 3791). So, get out your pen, computer, or phone, and get busy.

**THANK YOU TO OUR JANUARY VOLUNTEERS!**

Volunteer groups in January included Nissan Oakland employees, Youth Employment Partnership, Wal-Mart E-commerce companies, MLK Day volunteers, UC Berkeley Circle K, Redwood Day Elementary, Lime scooter company employees, Our U-Clean-It self-organized teams, and the LMI A-TEAM regulars. We appreciate your efforts and community spirit. Great Job!

↔ Christmas tree dumping!

Dumping of heavy objects in Lake Merritt, including mattresses and other furniture items, has continued in force in January. However, the number of E-Scooters has gone down, according to one A-Team volunteer. Removing heavy items takes time and resources that are needed to remove other kinds of trash and maintain our aeration fountains. See discussion of cooperation underway to manage this dumping problem at Lake Merritt Advocates on [lakemerritt.org](http://lakemerritt.org).
Ray* of Hope – New LMI Bulletin Board Installed at Glen Echo
… in honor of late Tidings Editor. Ray* Perman

The last project Ray Perman worked on with LMI has come to fruition, a bulletin board at Glen Echo. Ray was a great member of LMI who helped in every way possible to make the lake a better place. We miss you, Ray. Thank you for all your lasting contributions.

As Ray would say “Onward”.

Rain Forecast– Another 2017?

Atmospheric rivers, air currents laden with moisture from the tropics, are headed to the Bay Area again this month. In fact, Oakland received 4.5 inches of rainfall in January 2019 compared to 4.22” inches in January 2017. 2016 was the year the lake experienced a dramatic bat ray die-off, later attributed to a ciliate protozoan infection rather than water that was too fresh (National Geographic news 2017).

In 2016, the lake’s normally brackish water became almost fresh. That hasn’t occurred so far this year. Lake Merritt remains brackish with salinity of approximately 17 parts per thousand at the surface at the 26 parts per thousand at the bottom. For comparison, the salinity of sea water is 35 parts per thousand.

Hypodermic Syringe Problem Update

The number of used hypodermic syringes found in storm drain outfalls emptying into the lake has declined after the first flush of October. It is still a cause of concern for public health. LMI’s Director James Robinson has been working closely with the City of Oakland Public Works Department, retired LMI Director Richard Bailey and LMI Board member Richard James and Alameda County Stormwater Department to locate the sources of needles and find resources for funding storm drain filters that would keep them out of Lake Merritt.
JANUARY PHOTOS of VOLUNTEERS! Volunteer groups in January included Nissan Oakland employees, Youth Employment Partnership, Wal-Mart E-commerce companies, MLK Day volunteers, UC Berkeley Circle K, Redwood Day Elementary, Lime scooter company employees, Our U-Clean-It self-organized teams, and the LMI A-TEAM regulars. We appreciate your efforts and community spirit.
Trash collected at the Glen Echo petrobarrier by the A-Team. Hypodermic syringes found at Outfall #56

It took a boat launch and two hours of labor for James and his staff to remove this couch from dock area. Dumping costs money and precious time needed for LMI to protect Lake Merritt’s aquatic ecosystem for people and wildlife.
E.P.A. Wet Season 2019 Citizen Monitoring for Bacteria begins.

A-Team Member Miriam Velasco collects a water sample at Bandstand Beach. The E.P.A. Lab in Richmond analyzes the samples for coliform bacteria and *E. coli*.

Contamination warnings have been placed along Glen Echo Creek near the lake inlet.

Martin Luther King Jr. Day Volunteers - Thank You to All!