

THE TIDINGS



LAKE MERRITT INSTITUTE

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"The Tidings" is an editorial newsletter. Posted opinions are not necessarily those of the City of Oakland

AFTER DEVASTATION, LIFE RETURNS TO LAKE MERRITT!

Nudibranchs come to Oaktown!

Ten species of sea slugs (Nudibranchs) were observed on the Lake Merritt Boating Center Dock this month! Species not shown to scale. Images by Robin Agarwal, iNaturalist.

Hear about how our lake became a "nudibranch boomtown" in January's Lakeside Chat:

Free, online 7-8 pm on January 6th

Eventbrite registration: <https://nudibranchs-in-lake-merritt-RobinAgarwal.eventbrite.com>



Nudibranch species listed at end of newsletter. Photos by Robin Agarwal on iNaturalist.

WATER QUALITY MONITORING STATUS: The interrelated causes of the fish kill (temperature, oxygen, plankton levels, nutrients, weather, and climate change) are still being debated, and will continue to be debated, because comprehensive water quality data was inadequate for complete evaluation.

We hope to remedy this situation with a Christmas wish list for Lake Merritt (Santa, are you out there?), specifically continuous water quality monitoring that is reported via the internet, and an aeration bubbler. The technology, expertise, personnel and pending partial funding for such a project exist.

The City of Oakland is meeting with contractors to develop a pilot monitoring project, and hopes for full monitoring in 2023-24. In addition, LMI is working with collaborators to quickly employ data collection, water quality analysis by experts, and equipment that can improve the health of our urban estuary. Stay tuned.

SEASON OF GIVING - LOVE OUR LAKE! Make a tax-exempt donation today! Pick up a membership application at our Tuesday or Saturday morning table at the Lake Merritt Boating Center and soon at the Farmer's Market. Or, download an application at lakemerrittinstitute.org or use the PayPal/credit card donation button.

Happy Holidays from the Lake Merritt Institute!

LMI in SEPTEMBER AND OCTOBER: 6,420 gallons of trash removed from the lake by staff and volunteers in September. [Total trash collected so far in 2022 was 61,305 gallons.](#) Several used syringes removed. LMI Director James Robinson hosted 217 volunteers, gave 4 presentations. 0.00 inches of rain recorded by LMI rain gauge in July and August.

New Fountain Donated by CIEA Goes In! Thank You!



The Lake Merritt Institute expresses our deepest gratitude to the [California Indian Environmental Alliance](https://www.lakemerrittinstitute.org/ciea) (CIEA) for purchasing an aeration fountain for our Clean Lake Program during the fish die-off crisis. At right, LMI Executive Director James Robinson deploys the new fountain.



THANK YOU TO OUR JULY through SEPTEMBER

VOLUNTEERS! We appreciate your efforts and community spirit. Great Job! Volunteer groups: Achieve, Park Day School, Yoga Group and the LMI A-TEAM regulars. YOU can support the Lake Merritt Institute's important work. To find out how, go to <https://lakemerrittinstitute.org/>.

Ecological Devastation (cont'd): For a presentation about the algal bloom, its causes and how we might respond in the short term and long term see **Damon Tighe's September 9th Lakeside Chat #23 "SF Bay Harmful Algal Bloom"** at: <https://youtu.be/-COM00KIWo4>

For follow-up story, see **James Ervin's' November 4th Lakeside Chat #24, "Fish in SF Bay and in Lake Merritt,"** recording on YouTube (link below). Both are courtesy of Rotary Nature Center Friends.

If you are doing iNaturalist, help us observe living species at Lake Merritt after the harmful algal bloom. JOIN HERE: <https://www.inaturalist.org/projects/harmful-algal-bloom-at-lake-merritt-are-there-any-survivors>

Community Water Quality Report – Documenting the Return!

See article in Oaklandside and Hilary Powers' article page 3 of this issue.

<https://oaklandside.org/2022/10/25/after-fish-die-off-life-returns-to-lake-merritt/>

Water quality was measured from the Lake Merritt Boating Center dock by Rotary Nature Center Friends' student volunteers from the ACHIEVE program in Oakland.

Depth 1.95meters; Water Clarity 10 cm

Temperature: 18.5 degrees Celsius at the top (73.4 degrees Fahrenheit)/18.5 degrees Celsius at the bottom (72.5 deg Fahrenheit) WARM

Salinity 33 parts per thousand (ppt) top/34 ppt bottom) HIGH, may be affected by recent doc washing

pH: 8/7.5 NORMAL

Dissolved Oxygen 6 parts per million (ppm) at the top/6 ppm at the bottom. (Meets EPA standard).



Recovering Prosperity at Lake Merritt – by Hilary Powers – Golden Gate Audubon

The best news greeting the September Golden Gate Audubon 4th-Wednesday bird walk was how normal things seemed. The lake didn't stink. No dead fish floated gill to gill and head to tail. The water was only sort of green. A few Snowy Egrets prospected the shallows with some apparent success. In fact, except for the elusive Green Herons, all the regular heron-type birds (fish-eaters all) showed up for the walk, along with both Brown Pelicans and American White Pelicans, as well as a few Double-crested Cormorants. Some American Coots paddled about (for the first time in months) along with a trio of Pied-billed Grebes, and even a Belted Kingfisher perched alertly in one of the bare island trees.

So why does this matter? Reminds me of my father chortling about an early automobile ad that promised "Four Wheels and Brakes!" (which doesn't quite catch the magic of a car with brakes on all four wheels); here, the magic is that just four weeks had passed since an algal bloom followed by an oxygen crash produced the biggest fish-kill in living memory. Since then, workers have put in 10-hour days scraping thousands of dead fish – more than a thousand *pounds* of dead fish – off the shores and out of the water, and Katie Noonan (visiting from the Rotary Nature Center Friends) could assure us that oxygen levels were back to normal and the lake is on the mend. The little fish are coming back, and though it will take years for the sturgeon and bass and bat ray populations to regrow from the few survivors, we can take joy in the resilience of the natural world.



Away from the water, the fall migration was well and truly under way. The trees and lawns were jumping with small birds on their way south. We had a couple of warblers, a Willow Flycatcher (second sighting on the walk, the first being in September 2020), and a female Western Tanager (greeted with a whispered "that's a *taanager*" that sounded like a prayer), along with the year-round chickadees, titmice, and Bushtits. A Hermit Thrush made its first-ever September appearance, and we picked up the first-of-season White-crowned Sparrows.

All told, we counted 41 species – one more than last year, which had tied a several-year record for the month – and the wonders kept coming. A young Cooper's Hawk circled overhead, wings and tail spread wide, with the sunlight filtering through making them look like flying lace. A lovely sight, but not the one that sticks most in my mind: that spot was taken by a Mourning Dove (a common enough Bay Area resident, though rarely seen here at the lake and never before on a September trip) that zipped past at shoulder height and plunged into a bush in apparent terror, pursued by... a hummingbird.

"Now, *there's* something you don't see every day!" sez I. But truly, every day at Lake Merritt, you're bound to see something you don't see every day, 'cuz that's just life at the lake, where every day has treasures of its own to offer.

Photo by K. Noonan, Oct 1, 2022

AUDUBON BIRDWALKS AT THE LAKE: Join bird expert Hilary Powers any fourth Wednesday of the month for a free "Bird walk" at the lake. Muster at the geodesic bird cage near the Nature Center at 9:30 a.m. for what are always fascinating introductions to lake birdlife.

Bird Migration Season at Lake Merritt - The white boom barrier has gone up blocking off the Embarcadero end of the lake for the birds. Migratory bird season at the lake runs from October 1st to April 30th with protected areas for birds in the Trestle Glen arm.

The Rotary Nature Center looked wonderful with fresh water ponds brimming and waterfowl splashing around! A great way to welcome the migratory birds of the Pacific Flyway that are already arriving after a difficult year of fires and climate change. Thank you to our OPR&YD and OPW staff.



COMING UP on December 2nd Lakeside Chat #25: “Winter Birds at Lake Merritt” with Golden Gate Audubon Volunteer and 4th Wednesday bird walk leader Hilary Powers.

August’s harmful algal bloom decimated fish in Lake Merritt but not in the South Bay! Jim Ervin explored why & implications for the future.

YouTube recording available:

Lakeside Chat #24: “Fish in the Bay and in Lake Merritt” with Jim Ervin of UC Davis Trawls. Rotary Nature Center Friends now proudly presents the recorded program on YouTube:

https://youtu.be/Jrs_cMqhBe4 Enjoy!



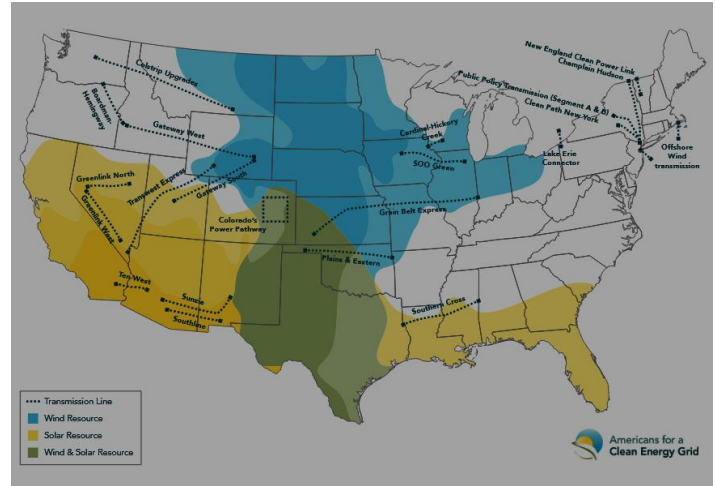
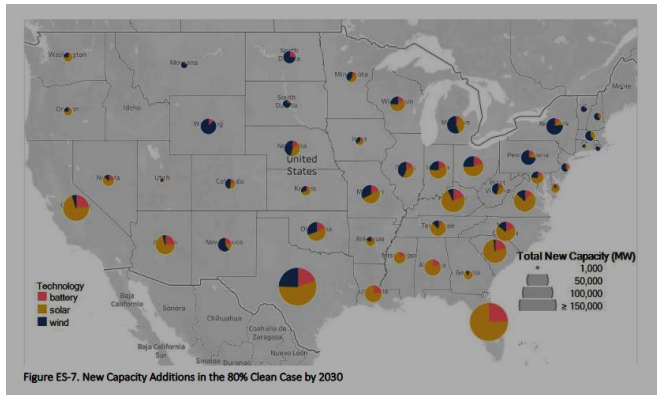
THE IRA NEEDS HELP

A guest editorial by Dr. Richard Bailey

The recently passed Inflation Reduction Act (IRA) could put the U.S. “within reach of its Paris Agreement commitment by 2030” using targeted tax credits, loans, and government backed infrastructure financing (1). This estimate is based on four studies (computer models) which indicate possible massive increases in renewable energy. Can this be achieved? Read on and decide.

IRA targets for the tax credits are admirable, and appropriate. They include financial help for retired coal mines and for retired coal generating plants to switch to renewable energy projects. They include tax credits for projects in areas where fossil unemployment is high. There are targets (levels above which financial help is available) for using iron, steel, etc. from domestic sources. There are targets designed to increase the use of prevailing wages, and minimum labor hours. All of these are badly needed if the clean energy revolution is to be economically just.

The IRA makes tax credits accessible to nonprofits, and to tax-exempt utilities, and makes them refundable, thus opening the door to municipal utilities, rural electric cooperatives, tribal utilities, public universities, pension funds, and federal power administrations like the Tennessee Valley Authority. For private developers, regulated monopoly utilities, and for-profit utilities, the tax credits are transferable. There is a tax credit for nuclear power, and even one for carbon capture and storage (which has not been shown to be economically viable or competitive with clean energy). For existing fossil fuel structures, assistance is provided to upgrade (because they can't all close at once) or to retire.



Overall, the IRA is a bold strategy. But the challenges are greater. Shown here are proposed new capacity generation and battery additions by 2030 (3) and transmission grid projects ready to go and needed now (but not necessarily enough to completely power electric transportation etc.). (2) **If enough money is not available, not all will be built.** What is needed to reach make these goals a reality?

According to the Energy Innovation Policy & Technology LLC report (1):

“The IRA is a promising but incomplete piece of climate legislation. No matter what happens from here, the legislation will transform the electricity system – how quickly and ubiquitously depends in large part on subsequent state action” (emphasis added).

Yet here at home in California (and elsewhere) our PUC is trying to reduce benefits from the rooftop solar industry, and the naysayers are screaming – you will never have enough electricity to power all those cars.

So how about an even bolder plan to dovetail with the IRA and up the ante for states to step up? How about:

- Using 1.9% of the U.S. budget per year over a ten-year period, or a \$25 carbon fee assessed on fossil fuel companies (which would cost you only about 25 cents per gallon at the pump), which would
- provide equal \$26 billion grants (spread out over ten years) to each state to implement the IRA in a coordinated and controlled manner which would
- Nearly double the amount of available electricity available to merge with existing sources and dramatically lower utility bills.

Would This Bridge the Red State / Blue State Divide: Equal grants to Idaho and New York would be inequitable (there would be more money for an Idahoan than for a New Yorker). But, if such funding benefited blue states more, it would obviously never pass Congress. The solution (just as each state has an equal number of Senators) is equal state grants for electricity, because electricity is transferable. For example, Sun Cable will soon build a 2,600 mile cable for the Australia-Asia PowerLink project. Transferable electricity from NJ can be sent to FL during a heat wave. More power in NV can be carried by to OH during a deep freeze. By providing equal state grants, the entire American Grid can be improved, for benefit of all Americans. Not only would

your electric bill be lower, air quality would improve, and climate pollution would decrease, which is a rare triple play.

Roadblocks include Republicans that do not want to spend government money, herding the thousands of utilities and power producers into a corral of useful data, mandating reluctant states to use renewable energy, and a big price tag. It would take an emergency to overcome these obstacles. But wait, we are in a climate emergency, it just has not been politically declared. So, until climate disasters become bad enough to change politics, expect higher electric bills, a traffic jam of renewable energy, and worse climate.

If Congress won't do it, maybe you can. Investigate the tax credits, and use them to install renewable energy, batteries, and more efficient appliances. You can be the solution to climate pollution.

- (1) Energy Innovation Policy & Technology LLC. <https://energyinnovation.org/wp-content/uploads/2022/10/Implementing-the-Inflation-Reduction-Act-A-Roadmap-For-State-Policy.pdf>
- (2) <https://cleanenergygrid.org/wp-content/uploads/2019/04/Transmission-Projects-Ready-to-Go-Final.pdf>
- (3) <https://energyinnovation.org/wp-content/uploads/2021/04/2030-Report-FINAL.pdf>

NUDIBRANCHS IN PHOTO, PAGE 1:

Nudibranch species: Clockwise from upper left the species are the Enteromorpha-eating sapsucker, Flat Okenia – Sakuraeolis sp., White-crusted Aeolid, New species in the Fionoidea, Lake Merritt Cuthona, Brown-streaked Sapsucker, Morrow Bay Aeolid, Misaki Aeolid, and more followed!

Please direct questions and comments to The Tidings Editor, Katie Noonan, at ktnoon@aol.com.

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