

THE TIDINGS



LAKE MERRITT INSTITUTE

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A community based, non-profit corporation, established 1995; IRS Code 501(c)(3); EIN 94-3214160

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

Lake Merritt Contributes to City Nature Challenge Win!

Citizen scientists and naturalists of all kinds mingled with the joggers and casual strollers at Lake Merritt on Saturday April 28th to take part in the **San Francisco Bay Area 2018 City Nature Challenge**. Sponsored by the California Academy of Sciences, the challenge pitted cities and regions around the world against each other to find the most living species in their areas and post photos of them online at iNaturalist.org.



The **2018 Lake Merritt BioBlitz** was part of the **SF City Nature Challenge** and was hosted by the **Oakland Museum of California (OMCA)** and the **California Center for Natural History (CCNH)**. A “BioBlitz” is an all-out group effort to find and photograph living species from plants to animals to fungi and plankton.

The **City Nature Challenge** was dreamed up in 2016 by Citizen Science teams at The Natural History Museum of Los Angeles County and California Academy of Sciences in San Francisco as a fun way to capitalize on their home cities’ friendly rivalry and to learn more about urban biodiversity. (L.A. won.) In 2017 the City Nature Challenge went [national](#) and in 2018 the competition is now international!

Well, the intrepid citizen scientists of Lake Merritt were not denied! The San Francisco Bay Area teams beat out sixty-two other city and regional teams! At Lake Merritt, 1,181 observations were made of 279 species by sixty-two citizen scientists! Thank you to those citizen scientists, and especially to OMCA Natural History Curator Sarah Seiter and naturalist Damon Tighe of CCNH for organizing the event. **Cool finds:**



Sea Nettle Jellyfish
Damon Tighe, iNaturalist



Terrestrial Flatworm
Carly Mitchell, iNaturalist

LMI’s Little Helpers →
Fifteen scale worms were among the invertebrate species found during the BioBlitz. They help clean the lake by eating organic detritus. Unfortunately, nothing eats the overabundant plastic trash we humans put in the lake! ☹



Fifteen Scale Worm
Robin Agarwal,

Read more about the City Nature Challenge at [iNaturalist.org](#). See color photos of the LM BioBlitz in the email edition of The Tidings at [lakemerritt.org](#) under LMI, and on our website [lakemerrittinstitute.org](#).

LMI IN MAY: 2,740 lbs. of trash were removed from the lake in March totaling 11,160 pounds total so far in 2018! LMI Director James Robinson and LMI Staff hosted 242 volunteers, made 2 educational presentations. (3.07” rain recorded to date by LMI rain gauge)

EARTH DAY - EVERY DAY at L.M.I.!

The **Lake Merritt Institute** hosted another successful Earth Day clean-up around the lake in partnership with **Oakland Office of Public Works**, focusing as always on trash in the water. LMI's Executive Director James Robinson and his staff report that LMI's event drew in 55 volunteers. In all they donated 220 hours of community service and collected 29 bags of trash.

At right, James explains safety and logistics while he gently educates the volunteers about the importance of their service to the wildlife refuge. Thank you James and staff for your service every day.



YOU can help clean the lake every week by joining one of L.M.I.'s Tuesday and Saturday scheduled clean-ups. Meet at the LMI Office upstairs at 568 Bellevue at 10:30 a.m. on Tuesday and 10 a.m. on Saturday. You can arrange a service event for your organization, school or business by calling LMI at 510-238-2290.

LOVE YOUR LAKE!.....

ROTARY NATURE CENTER UPDATE: June 2nd MEETING at GARDEN CENTER

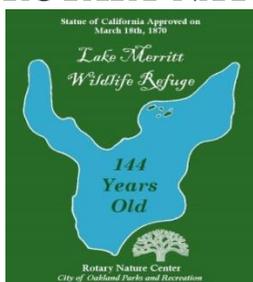
Karis Griffin of Oakland Parks, Recreation and Youth Development (OPR&YD) has announced that the deep cleaning of the Rotary Nature Center building at 600 Bellevue Ave. is nearly complete. The City looks forward to re-opening the center in mid-summer of 2018. Following a successful four-hour workshop April 7th (34 citizens from __ organizations attended), OPR&YD will host a third public meeting on June 2nd from 10:30 a.m. to 12:30 p.m. to review proposals for programming they have received. The public and proposers will have a role in evaluating the proposals. Save the date!

L.M.I. looks forward to the re-opening of our sister institution and thanks our own Director, James, for his leadership as part of OPR&YD's RNC Core Team (including also CJ Hirshfield of Children's Fairyland, LM Advocates' Jennie Gerard and Karis Griffin of OPR&YD).



On Earth Day, the Nature Center grounds were weeded and a pollinator plant was planted by volunteers hosted by the Community For Lake Merritt Adopt-a-Spot. In the photo at right, Justin Lee of Councilmember Lynette McElhaney's Office and students from Oakland Tech, College Prep and Laney College show off their work: a cleared outdoor classroom and the Dutchman's pipe plant (a pollinator food plant) to be planted in it. **Thank you for a great job!**

The COMMUNITY FOR LAKE MERRITT Receives \$100,000 Donation for the ROTARY NATURE CENTER



Wonderful news! The **Community For Lake Merritt (CFLM)**, a local nonprofit, announced Sunday that they have received a donation of \$100,000 for exhibits at the **Rotary Nature Center**. Congratulations to The Community for Lake Merritt and deep gratitude to the anonymous donor, a passionate naturalist and member of CFLM.

We hope that this generous gift will transform the future of the Rotary Nature Center.

Bright Sparks at Lake Merritt

By Hilary Powers – Golden Gate Audubon Society



Cedar Waxwings. Photo - J. Kirkmire

A few participants in the April 4th-Wednesday Golden Gate Audubon walk – not including me, alas – got to see one of the finest sights springtime has to offer: a pair of Eared Grebes in full copper and steel and gold breeding plumage rise up and run side by side across the water. By the time others whirled to look, the two were swimming sedately. Still a treat, every move and turn perfectly matched, but with no sign that surface speed was any part of their lives.

It was a quiet day – at 32 species, tied for the lowest count in several Aprils – but well filled with brilliant moments: the fledgling Double-crested Cormorant spreading its new wings on the edge of an island, the would-be papa cormorant circling the islands to build the height needed to deliver a heavy branch to a nest for the second wave of breeding, the lone Horned Grebe in a group of Eared Grebes. Across the street behind the bird paddock, Cedar Waxwings filled a tall snag over the garden. (I'd have missed them entirely as it never occurred to me to search in that direction, but that's one of the big advantages of birding in a group: the more eyes on watch – within reason – the more birds everyone gets to see.) A pair of Western Bluebirds shared the Necklace of Lights with brown Northern Rough-winged Swallows, while a crowd of English Sparrows sorted through the lawn below them. You'd think English Sparrows would be too common to mention, but lately they've been rare at the lake: this was their first appearance this year. We saw them only three times last year and four the year before; they haven't shown up in April since 2015.

Human encounters had charms of their own. We got a scope focused on an active Black Phoebe nest, and a young mother lifted her daughter from a stroller so she could look too. The child beamed happily and told us of seeing wild Keas in New Zealand: a good start to a life with birds.

Later, a six-foot-tall woman stopped us to demand, “Can you answer a bird question? I keep seeing Kookaburras in the trees, but I thought Kookaburras live in Australia?!” “You're seeing kingfishers – and you're right, Kookaburras are kingfishers that live in Australia. But there are lots of different kinds: all Kookaburras are kingfishers, but not all kingfishers are Kookaburras; these ones are Belted Kingfishers, smaller and a different color, but a lot alike.” “That answers my question!” She grinned and strolled on, a goddess in white shorts and loose top.

And thus another trip along the lake – far enough to see the few scaup remaining in front of the fountain at El Embarcadero, with one big Western Grebe among them – then back across Bellevue and around the Garden Center and through the garden, moving from overcast to bright sunlight and enjoying every moment of yet another good day at Lake Merritt.

AUDUBON BIRDWALKS AT THE LAKE:

Join bird expert Hilary Powers any fourth Wednesday of the month for a free “Birdwalk” 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.***

THANK YOU TO OUR VOLUNTEERS! Volunteer groups in April included Orinda Academy, Alameda County I.T. Department, Merritt College environmental students, St. Paul's Episcopal Middle School 6th grade, U-Clean-It self-organized teams, and LMI A-TEAM regulars. We appreciate your efforts and community spirit. Great Job! See color photos online at lakemerritt.org under LMI, and at our website: lakemerrittinstitute.org



Kingfisher- Wikipedia



Kookaburra - Wikipedia

Ray* of Hope – Oakland Students Petition School Board to Make Climate Change Literacy A Graduation Requirement

...in honor of late Tidings Editor. Ray* Perman

Oakland Technical High School's Environmental Science students and Oakland teachers from the Environmental Justice Caucus spoke to the OUSD school board, carrying signs that read "No Planet B" and urging the Board to make climate change literacy a graduation requirement.



The students want all OUSD graduates to know the fundamentals of climate literacy, including (1) causes of climate change; (2) its potential for harm; (3) what is required to avoid climate destabilization; (4) actions needed to ensure a livable future; and (5) the key people and institutions involved in implementing those actions.



OEA's Environmental Justice Caucus
OUSD teachers

Oakland Tech Environmental Science
Students advocate at School Board

It is wonderful that the next generation is climate aware and taking action. You can support them by signing their online petition. Search [Oakland Climate Change Petition](#).

EVENTS at the LAKE:

**For up -to -date information on all Community Events at Lake Merritt go to:
lakemerritt.org!**

**May 12th, 11a.m. to 2 p.m. at the Junior Art and Science Center
558 Bellevue Dr. in Lakeside Park**

A Bird's Tale

Book signing by children's author and LMI Director,
James Robinson

Don't miss!



EDITOR: Katie Noonan-“The Tidings” is published by the Lake Merritt Institute (LMI) entirely with private funding donated to LMI, and not with funds from the City of Oakland. To contribute to LMI, use PayPal at the LMI website (lakemerrittinstitute.org) or send a check to: Lake Merritt Institute, 568 Bellevue Ave., Oakland, CA 94610-5026. LMI is a California State non-profit corporation; IRS Code 501(c)(3): EIN 94-3214160

CLIMATE CORNER - Are You Getting the Best Bang for Your Buck?

A Guest editorial by Dr. Richard Bailey

So maybe you have solar panels, perhaps an electric car, or ride a bike instead. Possibly you recycle, are vegan, keep the thermostat set right, have fewer (or, gasp, no) children. Your personal carbon footprint is low; it feels good, and it is. But how much are you helping? It does not take much analysis to realize that your actions are great for you, but they do not slow climate disruption in any way that can be measured on a global scale, or if they can, it is not enough insure the future for our children.

While the solutions to this conundrum are local (adjustment to sea level, better health care, fire prevention etc.) the problem can only be solved at a global level, and that is a policy problem. So how do you influence policy? I recently realized that I have spent a lot of money on reducing my carbon emissions, but doing the things that will change policy are much cheaper, or even free. They are however, harder in some ways. For many of us, it is harder to talk about climate disruption and the need for a price on carbon than it is to buy double pane windows. It seems harder to write your congressman, go to a meeting and speak out, or become active in a climate group than to get solar panels. But supporting a policy change that puts a price on carbon is what gives you the most bang for your buck, the most influence for your effort.

Why is this true? Because boiled down, the climate disruption problem is that “as long as fossil fuels are cheap, people will use them.” Although individuals can reduce their own use, others can, and are, offsetting this reduction. This is an economic issue. Putting a pricing signal on carbon leverages almost any other action that you, and everyone else, can do. When a price on carbon makes fossil fuels more expensive, less will be used. When renewable energy (whose cost will not be increased by a price on carbon) becomes cheaper, it will overtake fossil fuels as the dominant way we power our society. A policy change to put a price on carbon can be much more effective (and less costly to you in the long run) than buying an electric car, solar panels, or a more efficient refrigerator. You should do these things, but to get the most bang for your buck, support a policy change that puts a price on carbon.

If you still need reasons why a price on carbon is needed, read on.

WHY CLIMATE SCIENTISTS ARE WORRIED, AND YOU SHOULD BE

Bloomberg news recently reported that most of India, China, Africa, Mexico, Spain, the Middle East, and parts of South America will become net importers of food, and that “food supply shocks and surging prices have the power to displace people and destabilize governments, as riots in more than 70 countries during a crop crisis in 2007—2008 showed.”

Prof. Kevin Anderson recently mentioned in the Guardian that “a 4°C future [relative to pre-industrial levels] is incompatible with an organized global community, is likely to be beyond ‘adaptation’, is devastating to the majority of ecosystems, and has a high probability of not being stable”. He [says](#): “If you have got a population of nine billion by 2050 and you hit 4°C, 5°C or 6°C, you might have half a billion people surviving”. Asked at a 2011 conference in Melbourne about the difference between a 2°C world and a 4°C world, Prof. Hans Joachim Schellnhuber replied in two words: “Human civilization”.

Yet this is the world we are now entering. The Paris climate agreement voluntary emission reduction commitments, if implemented, would result in the planet warming by 3°C, with a 50% chance of exceeding that amount.

THE ECONOMIC CASE FOR A CARBON TAX

If you are still unconvinced, settle in for a long read of what professional economists are saying. Now, get out there and support policies to implement a price on carbon. Hint; Congress may soon be considering this (watch for further details).

THANK YOU TO OUR VOLUNTEERS! Volunteer groups in April included Orinda Academy, Alameda County I.T. Department, Merritt College environmental students, St. Paul's Episcopal Middle School 6th grade, U-Clean-It self-organized teams, and LMI A-TEAM regulars. We appreciate your efforts and community spirit. Great Job!



Orinda Academy



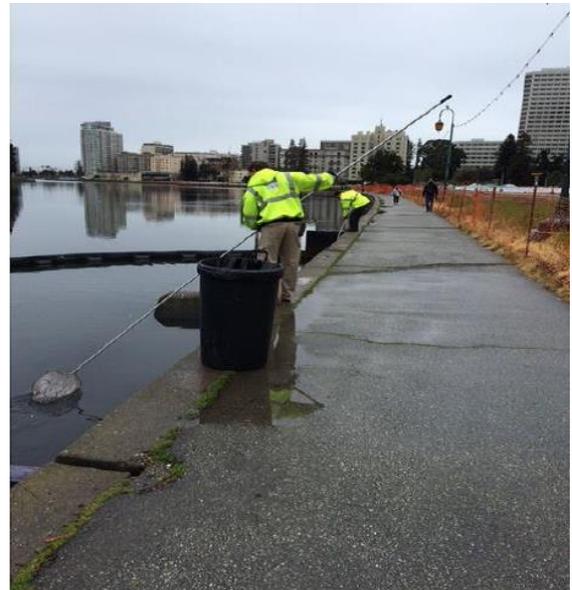
Earth Day Photos- May 21st 2018

Lake Merritt Institute Volunteers





U-Clean-It Box



Around the Lake:



The Weed Warriors at the Tidal Marsh Restoration Area

Mayor Libby Schaaf Cheers on Volunteers and Thanks Them For Their Service



Oakland Museum's Green Team Restores banks of the Channel.



Rotary Nature Center - Before and After Earth Day clean-up

OPR&YD AND THE COMMUNITY RNC – APRIL 7th GATHERING AT STUDIO ONE:

Thank you to OPR&YD, Nicholas Williams, Alan Briskin and Karis Griffin and the RNC Core group, for providing the opportunity for community engagement in the process of re-opening the RNC. Thirty-four people attended the meeting representing twenty different organizations.

At the meeting, individuals and organizations had a chance to meet one another and talk about their dreams and skills they can offer to help the nature center. Facilitator Alan Briskin, Karis Griffin, and the Core group explained the vision and process for submitting proposals for programming at the re-opened Rotary Nature Center. The pictures below by Eddie Dunbar capture the energy and dedication of the participants to revitalizing the RNC as an interpretive center for the wildlife refuge.



RNC Core team members Jennie Gerard, CJ Hirshfield, and Alan Briskin



Lisa Hire, Supervisor Karis Griffin and Justin Lee from Councilmember McElhaney's Office



Jim Covell of Monterey Bay Aquarium, Mike Connor, marine biologist



Terry Smith and Alicia Goode of Community for Lake Merritt and Pollinator Posse



Patty Donald, Shorebird Nature Center (ret)



Bob and Katie Noonan (The Tidings editor)



Attendees



Facilitator Alan Briskin

More About The City Nature Challenge and 2018 Lake Merritt BioBlitz

The Oakland Museum of California and California Center for Natural History joined forces to host the event, and got ground support from Oakland Park Maintenance as well as support at stations around the lake by The Lake Merritt Institute, Community for Lake Merritt, Outdoor Afro, the San Francisco Microscopical Society and the Gardens at Lake Merritt. Organizations that participated include De La Salle High School of Concord, the UC Berkeley course in Insects and Human Society and the Insect Identification and Management course (Landscape Horticulture 10) at Merritt College.. Thanks to everyone who helped to make this an awesome event!

More about the organisms:



Sea Nettles are a common Jellyfish in San Francisco Bay, but they are rarely seen in Lake Merritt.



The fifteen scale worm has been common in Lake Merritt at least since the 1960's. A good parent, it carries its young under its scales. It has two color forms, black and brown.



Merritt College Insect Identification Class with Instructor, Eddie Dunbar.

The land flatworm *at left*, *Diversibipalium multilineatum*, was found in the Gardens and photographed by Carly Mitchell, a member of the Merritt class. Land planarians have been reported as alien species in soils around the world and some are considered invasive. This species appears to have come from Japan. It is speculated that they are spread through horticulture trade. Soil moisture is a factor in successful invasion. They eat a variety of soil invertebrates including isopods and worms . *Zootaxa* 4067 (5): 577-580



Diversibipalium multilineatum



Peter Werner, SF Microscopical Soc.



Clay Anderson, Golden Gate Audubon



Katie Noonan shows student how to use iNaturalist App



The dock fouling station: Katie Noonan, Patty Donald and Kevin Jordan



Adrian Cotter with visitors to the dock fouling station.



Passersby (LEFT) "Whoa! It's brackish!"
25 parts per thousand salt.



Alicia Goode of CFLM and OMCA



Eddie Dunbar with De La Salle high school students and Scotty from OMCA



Elizabeth Doherty of WhollyH2O and Lo Scheiner of CCNH



BioBlitz Central - The Wrap at OMCA

REFERENCES in the May Newsletter articles:

2018 City Nature Challenge -Lake Merritt BioBlitz

<https://www.inaturalist.org/>

<https://www.inaturalist.org/projects/lake-merritt-bioblitz-april-2018-city-nature-challenge?tab=stats>

<http://citynaturechallenge.org/leaderboard/>

<https://calnature.org/>

Rotary Nature Center

OPYRD requests an RSVP to parksandrec@oaklandnet.com if you plan to attend. More info at:

<https://communityforlakemerritt.org/>

Online Petition to Re-Open the Rotary Nature Center is still collecting signatures.

<https://www.thepetitionsite.com/374/189/581/reopen-the-rotary-nature-center/>

Climate Corner

<https://www.bloomberg.com/graphics/2018-climate-crops/>

<https://kevinanderson.info/blog/biogs-photos/>

<https://www.worldscientific.com/toc/cce/09/01>

Ray of Hope

<https://www.sierraclub.org/san-francisco-bay/blog/2018/02/climate-literacy-resolutions-gain-momentum-bay-area-school-districts>

<https://www.thepetitionsite.com/206/542/421/make-oakland-students-climate-change-literate/>

Supported by the Sierra Club and Oakland Tech Students:

Sierra Club, San Francisco Bay Chapter, Climate Literacy Committee

School District Climate Literacy Resolution

DRAFT Version 6.14.17

Whereas, leading scientific bodies in the United States, including the American Association for the Advancement of Science, Federation of American Scientists, National Science Foundation, National Academy of Sciences, and the California Academy of Sciences, and throughout the world, including the Intergovernmental Panel on Climate Change, Royal Society, Russian Academy of Sciences, Chinese Academy of Sciences, Indian National Science Academy, and German Academy of Sciences, have established that the Earth's climate is changing and that the largest contribution to that change is humankind's release into the atmosphere of heat-trapping gases; and

Whereas, while the Earth's climate has changed many times in the past, in part due to increases in heat-trapping gases, the magnitude and rate at which it is currently changing appears to be unprecedented during the past 66 million years, consequently pushing human civilization out of the relatively stable climate in which it developed over the last 12,000 years; and

Whereas, in light of the overwhelming international consensus, the nations of the Earth met in Paris in 2015 to agree to intensify their fight against climate change and its effects and that agreement entered into force in 2016; and

Whereas, the state of California is highly vulnerable to the effects of climate change, being impacted by the overall global increase in temperature as reflected in the rise of the average temperature in the state by about 1.7°F since 1895, and resulting in an environment in which wildfires become more intense, flooding from sea level rise is more frequent, reliable water supplies are at greater risk, ecosystems are irreversibly damaged, and the health and well-being of the public is imperiled; and

Whereas, many Californians, especially low income residents, live along port and transportation corridors, or near fossil fuel extraction and refining facilities, industrial sites, and agriculturally intensive regions that emit heat-trapping gases and particulates which, in addition to contributing to climate change, damage their health; and

Whereas, some 89% of the California public sees climate change as a serious threat to the economy with California on the forefront in addressing the issue through legislation and regulation, such as the Global Warming Solutions Act of 2006 (AB 32) and updated in SB 32 (2016); and

Whereas, the City of Oakland has completed an inventory of heat-trapping gas emissions and is developing a strategy for reducing the emissions of its largest sources;

Whereas, the fate of current and future climate change initiatives is multigenerational, yet the state of California has recognized that "... K-12 students in California do not currently have consistent access to adequately funded, high-quality learning experiences, in and out of the classroom, that build environmental literacy"; and

Whereas, civic organizations have gone on record calling for students to be educated on the impact of climate change, including the California Parent Teacher Association (PTA), the National Education Association, and Sierra Club California, referring its state and local affiliates to the climate change resolution passed by the Portland, OR Board of Education in 2016; and

Whereas, the State of California has taken steps to improve student understanding of climate change, which include formulating the State's Environmental Principles and Concepts (EP&C's) to guide development of the California Education and the Environment Initiative (EEI) curriculum and all future instructional materials, embedding these principles into the new frameworks for both the Next Generation Science Standards and the history-social science curriculum, and convening an Environmental Literacy Steering Committee in 2016 to work on implementing the state's *A Blueprint for Environmental Literacy: Educating Every Student In, About, and For the Environment*; and

Whereas, implementation of state standards rests with the local education agency (LEA), and that among its responsibilities is assuring that the instructional materials it selects for grades nine through twelve adhere to state-adopted standards; and

Whereas, educators, as historically a force for reason, progressive change and social justice can, and must, play a powerful role in calling for swift action to address climate disruption and in teaching tangible solutions that ensure we are strengthening, not weakening our communities and creating a path to an equitable, just transition to a more sustainable economy; and

Whereas, it is essential that all high school students in their classrooms and communities not only explore and understand the causes and urgent consequences of climate disruption but also explore and understand the many, varied and evolving opportunities and strategies to adapt to current and now unavoidable consequences of heat-trapping gas pollution, and to mitigate heat-trapping gas emissions so as to avoid consequences that are still preventable; and

Whereas, in the context of California's growing commitment to STEAM (science, technology, engineering, art and math) education, the climate situation should also be recognized as an unparalleled opportunity and civic mandate to equip and prepare students to participate in and contribute to the multiple, burgeoning disciplines and occupations involved in both studying and responding to climate disruption, including energy efficient and zero carbon building practices, local renewable energy generation from [East Bay Community

Energy/Clean Power SF/Marin Clean Energy/Peninsula Clean Energy] (a Community Choice Aggregation program), zero carbon modes of transportation, zero waste and waste reduction, carbon sequestration and carbon farming, and additional ways to responsibly recover heat-trapping gases from the atmosphere;]

Whereas, in addition to the benefits of a STEAM approach to climate literacy, using the Environment as an Integrated Context (EIC) approach as a teaching strategy across all disciplines to connect students' local and natural surroundings as a context for learning has been proven to elicit better academic performance, increased student engagement and enthusiasm for learning; and

Whereas, the overall health of a community is inherently related to the quality of its environment, thus environmental issues are integrally related to social justice issues; and

Whereas, the Oakland Unified School District does not currently have an articulated strategy to assist district educators to develop or implement comprehensive curriculum on climate disruption; and

Whereas, because climate change represents a mortal threat to all of human society, and it is critical that we equip all students with the knowledge and skills they will need to understand and respond effectively to the climate situation in order to shape a sustainable future for generations to come.

Be It Therefore Resolved, that the Oakland Unified School District Board of Education ensure that all high school students graduate climate literate beginning with the graduating class of 2021.

Be It Further Resolved, that the Board direct the Superintendent to work with OUSD students, teachers, and community members to develop a comprehensive climate literacy program that includes new curriculum and materials. This would entail a mandatory 2 week long unit in both the freshman history and biology class to ensure climate change literacy. In the biology class the scientific impacts and causes of climate change would be explored. Students would also learn steps they can take to mitigate climate change in their communities and beyond. In the history class history of the social and economic impacts of climate change would be covered, as well as how one may deal with these impacts in their own lives.

Be It Further Resolved, that an Implementation Plan be created, the goal of which is to detail progressive development of a program which provides each cohort of students with additional opportunities to become climate literate, with particular attention to the four year experience of the graduating class of 2021.



Ducklings! Photo by James Robinson