

From: [Diane Livia](#)
To: [Major, Erica \(BOS\)](#)
Subject: Public Comment AGenda item #8 BOS hearing Land Use and Transportation
Date: Monday, October 17, 2022 2:12:02 PM

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<!--[if !supportLists]-->• <!--[endif]--> The red-tide algal bloom that spread across SF Bay this summer was unheard of in size and duration

<!--[if !supportLists]-->• <!--[endif]--> It caused a massive fish kill -- and we haven't begun to understand what it meant to the substantial number of people who rely on the fish they catch and eat from the Bay.

<!--[if !supportLists]-->• <!--[endif]--> We all know this bloom was caused by the waste water discharged to the Bay by cities surrounding the Bay -- a problem that has been well-known for 40 years.

AND

<!--[if !supportLists]-->• <!--[endif]--> San Francisco is major contributor to this problem (Factoid: San Francisco PUC is responsible for ~20% of pollution)

YET

<!--[if !supportLists]-->• <!--[endif]--> The City has no plan to modernize its wastewater treatment to reduce its contribution to that pollution.

<!--[if !supportLists]-->• <!--[endif]--> In addition, the health of the Bay is suffering from San Francisco's excessive water diversions from the Tuolumne River. Those excessive diversions are destroying fish populations in the Tuolumne, and in the Bay.

<!--[if !supportLists]-->• <!--[endif]-->AND your PUC remains truculent in considering reducing those diversions.

BUT

<!--[if !supportLists]-->• <!--[endif]--> There are multi-benefit solutions to the City's nutrient management problems.

<!--[if !supportLists]-->○ <!--[endif]--> The most obvious being,

recycling the City's wastewater,

<!--[if !supportLists]-->•<!--[endif]--> But the City has no plans to substantially increase water recycling and lags well behind cities in southern California and even other cities in the Bay.

<!--[if !supportLists]-->•<!--[endif]--> I urge you to invest heavily in water recycling and other multi-benefit approaches to managing the Bay's nutrients before harmful algal blooms become the new normal.

Diane Livia
6445 Colby St.
Oakland, CA 94618
510-290-5295

From: [Eric Brooks](#)
To: [Aaron Peskin](#); [Angulo, Sunny \(BOS\)](#); [PeskinStaff \(BOS\)](#); [Preston, Dean \(BOS\)](#); [Smeallie, Kyle \(BOS\)](#); [Kilgore, Preston \(BOS\)](#); [PrestonStaff \(BOS\)](#); [Melgar, Myrna \(BOS\)](#); [Heiken, Emma \(BOS\)](#); [Carrillo, Lila \(BOS\)](#); [Low, Jen \(BOS\)](#); [MelgarStaff \(BOS\)](#); [Major, Erica \(BOS\)](#); [Calvillo, Angela \(BOS\)](#)
Cc: [eileen.white@ebmud.com](#); [lfono@bacwa.org](#); [Thomas.Mumley@waterboards.ca.gov](#); [larry.goldzband@bcdc.ca.gov](#); [Chastain, Amy \(PUC\)](#); [Ordikhani, Masood \(PUC\)](#); [Scarpulla, John \(PUC\)](#); [Spitz, Jeremy \(PUC\)](#); [Maxwell, Sophie \(PUC\)](#); [DHerrera@sfwater.org](#); [warnerc@sfei.org](#); [commission@sfwater.org](#); [najami@sfwater.org](#)
Subject: IMPORTANT: On Algae Blooms Hearing - Nature Is Giving Humanity Our Final Extinction Crisis Warning
Date: Tuesday, October 18, 2022 8:53:12 PM

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Hi all,

Please record this as public comment on your October 17, 2022 hearing and presentations, on SF Bay Nitrogen/Phosphorus Loading & Algae Blooms, at the San Francisco Land Use & Transportation Committee.

To see how deeply serious are the potential wider implications of the recent unprecedented algae bloom die off in the San Francisco Bay, please read and share the following two-page article. It lays out the alarming similarity between the Permian Extinction 250 million years ago, and the current extinction being caused by humans. It highlights building evidence, that the climate and extinction crisis is worse, and is happening faster, than previously believed.

Making the connection with the recent unprecedented algae-bloom triggered mass die-off of life in Oakland's Lake Merritt and the San Francisco Bay, the details below show a dire warning of possible Permian Extinction conditions and their implications, in our own lifetimes.

IMPORTANT: Even though this is scary stuff, it gives us leverage, because we can share this reality with others to show them that time is *up* and humans need to act *now* to turn this crisis around. So please share this warning widely.

View on substack at:

<https://ericbrooks.substack.com/p/nature-is-giving-humanity-our-final>

Nature Is Giving Humanity Our Final Extinction Crisis Warning

The joint climate and extinction crisis is now taking a dangerous turn for the worse, a turn which is giving us the most dire warning in our entire 300,000 year human history. It is an alarm, telling us we are facing our own near term extinction if we do not rapidly and dramatically reduce greenhouse gas emissions, reverse deforestation, and curb farm and sewage runoff.

Current Human Caused Crisis Dangerously Similar To Ancient Extinction Event

For over three decades as a full time environmental organizer, I have educated myself on, and fought to reverse, the joint climate and extinction crisis. Part of my education has been to learn about ancient mass extinctions which can be compared to the one humans are causing now.

The most similar and important of these was the Permian Extinction, 250 million years ago. During that extinction, large volcanic eruptions in Siberia increased carbon dioxide in the atmosphere causing streams, rivers, ponds, lakes, and the oceans to heat up, and to change in acidity. Various factors triggered by the eruptions (including deforestation) increased nutrient content in these water bodies (as humans are currently increasing it with both agricultural and urban sewage waste run-off, and most importantly, through deforestation).

During the late Permian these conditions combined to trigger massive 'blooms' of oxygen depleting algae and microbes which suffocated and killed nearly all water based life. Almost all life in the oceans died. Increased CO₂, methane, and toxic emissions, along with a collapse of the global food web, all arising from this ocean die-off, then provoked a similar die-off on land. By the end of the Permian collapse, 95% of life on Earth was killed and around 75% of all species went extinct. See:

- ***Wiki on the Permian Extinction***
https://en.wikipedia.org/wiki/Permian%E2%80%93Triassic_extinction_event
- ***"Lethal microbial blooms delayed freshwater ecosystem recovery following the end-Permian extinction"*** <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8448769>

The Current 6th Great Extinction

Human caused global warming, along with deforestation, land degradation, and other triggers of unnaturally high nutrient content in our water bodies, are now creating the same conditions as those during the Permian Extinction. We are currently seeing a Sixth Great Extinction because of these impacts. But this extinction is shockingly happening 10 to 100 times faster than the Permian Extinction. Animal and plant species are now going extinct 1,000 times faster than the Earth's normal extinction rate.

The two leading causes of this crisis are 1) animal agriculture - which is eating up 85% of the world's productive land, and is rapidly destroying forests, to produce only about 25% of our food value, while causing massive nutrient runoff into our water bodies, and 2) the burning of fossil fuels. See:

- ***The Anthropocene Extinction"***
<https://storymaps.arcgis.com/stories/73ab69fedac54685ae837562e3389d13>

- **WorldWatch Institute "Livestock and Climate Change"**
<https://awellfedworld.org/world-watch-magazine>

A New Age Of Alarming, Deadly Algae Blooms Is Happening Now

Over the past two decades we have been seeing an alarming increase in deadly algae blooms in ponds and lakes (and more recently in streams and rivers). Some of these blooms have even killed pets and people swimming through impacted waters (a problem previously almost never heard of). Algae bloom events have become so bad and widespread, that some states now test water bodies to determine if it is safe for animals and people to swim in, and drink from them. See:

- **"How groups monitor toxic algae in the absence of state testing"**
<https://www.iowapublicradio.org/environment/2022-09-09/testing-the-waters-how-groups-monitor-toxic-algae-in-the-absence-of-state-testing>

In my climate and extinction crisis work, as I have noticed more and more reports of deadly algae blooms in ponds and lakes, I have had in the back of my mind that these events might be a warning that the Earth's oceans may be next, and soon. My concerns have now been confirmed by a recent far more alarming die-off event.

The Final Warning - Major San Francisco Bay & Lake Merritt Die-Off

In late August 2022, Oakland California's very large Lake Merritt (part salt water because it is connected to the greater San Francisco Bay) suffered a near complete die-off, of all its life. The algae bloom which caused this die off was not limited to Lake Merritt, but also ominously spread into the far larger San Francisco Bay itself. It was the largest algae bloom in the San Francisco Bay's history. ***See the details in the two videos at the end of this article.***

The Oceans Are Next

The reason this die off is far more alarming is clear. Previous algae bloom die-offs which have been this extreme, have primarily been seen in smaller ponds and lakes. But this new die-off has entered a bay of the Pacific Ocean, and could signal that conditions are now building in the world's oceans that could trigger a mass die-off in all oceans worldwide, in our lifetimes.

While we cannot be absolutely certain that this is what is taking place, the signs are now strong enough, and the consequences serious enough, that the only safe course of action is for all of us to take immediate measures to make certain a collapse of the world's oceans does not hit us in this century.

Take Action In Your Local Community & In What You Eat

The Climate and Extinction Crisis is no longer merely a crisis. It is dangerously nearing an end

stage that we *must* immediately reverse.

We can no longer wait for state, federal, or international government action. In the next decade we must take local action now to 1) build 100% local renewable energy, and universal mass transit in *every* community, 2) dramatically reduce nutrient runoff into our water bodies, bays and oceans, and 3) do everything we can to reverse deforestation.

And each of us as individuals must call on ourselves to shift as much as we can, as quickly as we can, to far more plant based diets, because that shift will do more to help achieve these changes, than any other personal choice we can make.

--

Videos On Lake Merritt & San Francisco Bay Die-Off

What A Mass Die-Off Looks Like: Algae Bloom in Oakland's Lake Merritt (5 min)

<https://www.youtube.com/watch?v=i4lhLrT6JWA>

(video taken by Mitch Jeserich)

Mitch Jeserich & Damon Tighe detailing Lake Merritt & SF Bay Die-Off (22 min)

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Eric Brooks
Campaign Coordinator, Our City SF
415-756-8844

From: [Peskin, Aaron \(BOS\)](#)
To: [Eric Brooks](#)
Cc: [Major, Erica \(BOS\)](#)
Subject: Re: IMPORTANT: On Algae Blooms Hearing - Nature Is Giving Humanity Our Final Extinction Crisis Warning
Date: Wednesday, October 19, 2022 6:57:31 AM

Looping in the committee clerk so she can include it in the file for item no. 7 on this last Monday's Land Use agenda.
Aaron

From: Eric Brooks <brookse32@sonic.net>
Sent: Tuesday, October 18, 2022 10:49:57 PM
To: Peskin, Aaron (BOS) <aaron.peskin@sfgov.org>
Subject: IMPORTANT: On Algae Blooms Hearing - Nature Is Giving Humanity Our Final Extinction Crisis Warning

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Eric Brooks
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