



**San Francisco Public Utilities Commission  
 Citizens' Advisory Committee  
 Wastewater Subcommittee**

**MEETING MINUTES**

**Tuesday, November 8, 2022  
 5:30 p.m. – 7:00 p.m.**

**PARTICIPATE VIA ZOOM VIRTUAL CONFERENCE SOFTWARE**

**Meeting URL**

<https://sfwater.zoom.us/j/87960282783pwd=SFhkdm02b1ZTMEZ5M0toVGItOVNKQT09>

**Phone Dial-in**

669.219.2599

Find your local number: <https://sfwater.zoom.us/u/kolNZGz3v>

**Meeting ID / Passcode**

879 6028 2783 / 502038

This meeting is being held by Teleconference Pursuant to the Governor's Executive Order N-29-20 and the Sixteenth Supplement to Mayoral Proclamation Declaring the Existence of a Local Emergency Dated February 25,2020

During the Coronavirus Disease (COVID-19) emergency, the San Francisco Public Utilities Citizens' Advisory Committee's (SFPUC CAC) regular meeting room, 525 Golden Gate Ave., 3rd Floor Tuolumne Conference Room, is closed. CAC Members and SFPUC staff will convene CAC meetings remotely by teleconference. Members of the public are encouraged to submit their public comment on agenda items in advance of the teleconference meeting by emailing comments to [cac@sfwater.org](mailto:cac@sfwater.org). Comments submitted no later than 12 PM Tuesday the day of the meeting will be read into the record by SFPUC CAC Staffing Team members during the teleconference meeting and will be treated as a substitute to providing public comment during the meeting. Persons who submit written public comment in advance on an agenda item or items will not be permitted to also provide public comment on the same agenda item(s) during the meeting.

**Mission:** The Wastewater Subcommittee shall review sewage and stormwater collection, treatment, and disposal system replacement, recycling, and other relevant plans, programs, and policies ([Admin. Code Article XV, Sections 5.140 - 5.142](#)).

**Members**

**Amy Nagengast, Chair (D8)** Maika Pinkston (M-Enviro. Org) Michelle Pierce (B-Douglas Jacuzzi (D4) Moisés García (D9) Enviro. Justice)

**D = District Supervisor appointed, M = Mayoral appointed, B = Board President appointed**

**Staff Liaisons:** Mayara Ruski Augusto Sa, Lexus Moncrease and Jotti Aulakh  
 Staff Email for Public Comment: [cac@sfwater.org](mailto:cac@sfwater.org)

**OUR MISSION:** To provide our customers with high-quality, efficient and reliable water, power and sewer services in a manner that values environmental and community interests and sustains the resources entrusted to our care.

**London N. Breed**  
 Mayor

**Newsha Ajami**  
 President

**Sophie Maxwell**  
 Vice President

**Tim Paulson**  
 Commissioner

**Tony Rivera**  
 Commissioner

**Kate Stacy**  
 Commissioner

**Dennis J. Herrera**  
 General Manager



## ORDER OF BUSINESS

### 1. Call to order and roll call at 5:42 pm

Members present at roll call: (3) Nagengast, Jacuzzi, and Pinkston

Members Absent: (2) García and Pierce

Staff presenters: Amy Chastain, Caitlyn Mottell, and Jennie Pang

Members of the Public: None

### 2. Approve [September 13, 2022](#), Minutes

Motion was made (Jacuzzi) and seconded (Pinkston) to approve the September 13, 2022 Minutes.

AYES: (3) Nagengast, Jacuzzi, and Pinkston

NOES: (0)

ABSENT: (2) García and Pierce

Public Comment: None

### 3. Report from the Chair

- Welcome members, staff, and the public
- Encouraged members to visit the Southeast Community Center
- The watershed resolution will be postponed until February 2023

Public Comment: None

### 4. Public Comment: Members of the public may address the Committee on matters that are within the Committee's jurisdiction and are not on today's agenda (*2 minutes per speaker*)

Public Comment: None

### 5. Presentation and Discussion: [SFPUC Algae Bloom Response](#), Amy Chastain, Regulatory Manager, Wastewater Enterprise; Jennie Pang, Regulatory Specialist, Wastewater Enterprise

#### *Presentation*

- SF Bay Summer 2022 Algal Bloom
- Agenda
- What are algal blooms?
- Summer 2022 Algal Bloom – About
- Summer 2022 Algal Bloom – What caused it?
- Ongoing Research in SF Bay
- Ongoing Nutrient Regulation in SF Bay: Nutrients Watershed Permit
- Contribution from SFPUC
- How Do Wastewater Treatment Plants Remove Nitrogen?

- Simplified Wastewater Treatment Process
- Sidestream Treatment
- Fullstream Treatment
- What Is SFPUC Doing?
- New Treasure Island Water Resource Recovery Facility
- Southeast Treatment Plant
- Southeast Plant: Planning for Future Nitrogen Removal
- Technology Evaluations

#### *Discussion*

- **Member Jacuzzi** asked what long-term studies there were on the effect of nitrogen on the overall clarity of the bay waters.

**Staff Chastain** responded that the turbidity of the bay varies greatly from location to location, but they have seen a statistically significant decrease in turbidity according to the data. She commented that the theory behind it is that it was due to all the findings from the placer mining washing through the delta and decreasing over time. Staff Chastain noted that over multiple decades, there has still been temporal annual variability, and the sediment loads have decreased with an increase in the clarity of the bay. The turbidity across China Beach in Marin, Aquatic Park, and the Berkeley Marina is different on any given day.

- **Member Jacuzzi** commented that the changing color of the water from blue to green seems to be more of an algae situation rather than turbidity as turbidity usually causes the water to be brownish with more sediments. He then asked if that played into the research of the algae bloom. Jacuzzi also noted how Staff Pang mentioned that the nitrogen content contributed to but did not trigger the algae bloom and asked to elaborate on what the cause could have been if it was not the nitrogen.

**Staff Pang** responded that if there was less nitrogen in the water then the bloom probably would not have lasted as long, it may not have been as large in terms of area, and it may not have been as severe regarding the effects of removing oxygen from the water and decreasing dissolved oxygen.

- **Member Jacuzzi** commented that it is hard to say what the trigger is with factors such as nitrogen and heat, but the natural balance is what they are hoping for.
- **Chair Nagengast** commented that the presentation included a line graph that showed the SFPUC's contribution to the bay and average conditions and asked what the number was during the bloom. She also asked whether nitrogen levels were measured in the bay.

**Staff Pang** responded that the nitrogen levels are measured and vary from location to location.

- **Chair Nagengast** commented that the nitrogen loads are 50,000 kilograms of nitrogen per day during the dry season and asked what the range or average was for the algae bloom during that period.

**Staff Pang** responded that she does not have it memorized and noted that it changed over time. She added that the scientists at the San Francisco Estuary Institute went out everyday to measure the nitrogen, dissolved oxygen levels, and many other chemical compounds and concentrations throughout the bay at various locations. Staff Pang commented that the scientists did plot the nitrogen and oxygen levels to show that algae were consuming all the nitrogen. She noted that they knew the bloom died off after consuming all the nitrogen because the concentrations were dropping.

- **Chair Nagengast** commented that it was helpful for her to compare things to average conditions and would like to know the magnitude of the difference in comparison to a normal day.

**Staff Pang** responded that the concentration of nitrogen was not different from a normal day, which is why the slide mentioned that there were many sunny days in late July, the water was less turbid, and the winds were calmer because these could have been contributing factors to trigger the event. She added that they did not decide to add additional nutrient loads in late July and throughout August, and none of the wastewater treatment plants were operated differently during that time. Staff Pang commented that the nitrogen kept on getting discharged through the wastewater treatment plants at the same rate as before, but something happened to cause the bloom to start, which the SFPUC is unaware of.

- **Chair Nagengast** asked whether the SFPUC contributes a certain percentage every year into research on nitrogen.

**Staff Pang** responded affirmatively and asked whether Chair Nagengast was asking for a specific number.

- **Chair Nagengast** asked how much funds the SFPUC contributed, where the funding went, and what the intended outcomes were.

**Staff Pang** responded that the image on the slide titled “Ongoing Nutrient Regulation in SF Bay: Nutrients Watershed Permit” pertains to a science program that the SFPUC has been funding to develop a biogeochemical model that looks at a dozen parameters including chlorophyll A, turbidity, nitrogen, nitrates, nitrites, and phosphate.

**Staff Chastain** responded that the funding provided by the SFPUC and other treatment agencies goes to a nonprofit organization called the San Francisco Estuary Institute (SFEI), who have a regional monitoring program that is a national model of how to do collaborative and not combative science. She added that the funding going to SFEI is helping to implement a science plan with specific tasks that is managed by the Nutrient Management Steering Committee, which is the group that prioritizes which studies to fund. Staff Chastain commented that they are trying to figure out what regulations should be in place to make sure that the San Francisco Bay is protected. She noted that this was one of the many issues that the SFEI leads through the regional monitoring program and is very complex and has consumed a significant number of resources.

- **Staff Pang** provided links to the SFEI's program website: <https://www.sfei.org/rmp/nutrients> and <https://sfbaynutrients.sfei.org/>, which would help inform Wastewater CAC members on what type of research the SFPUC has been funding.
- **Member Jacuzzi** asked for a follow up report, especially if scientists came to a consensus as to what the trigger of the algae bloom might be. He noted that the wind and the warmth of the ocean and the bay go hand in hand.

**Chair Nagengast** asked when the analytics would be complete enough to share results.

**Staff Chastain** responded that there was a great deal of data and many studies being generated on an ongoing basis, and they will most likely not come out with a cause for the algae bloom because the science is too complex. She added that they will start to tease out the relative proportionate contributions to the different factors, and there will be publications and presentations that the SFPUC could share with the Wastewater CAC. Staff Chastain noted that the SFEI website will also continue to be updated and their public facing regional monitoring program meeting would be a good source for information.

- **Member Jacuzzi** commented that it was important to learn what to watch out for.

**Staff Chastain** responded that this event has been significant for the entire community and noted that they did not think such conditions were possible in the bay. Staff Chastain commented that the entire municipal wastewater community, the regional water board, and scientists are taking this seriously and they might have some significant outcomes in the next year or two.

- **Chair Nagengast** asked what the best way is to get updates.

**Staff Chastain** responded that the SFEI website, the Regional Water Board, or BACWA (Bay Area Clean Water Agencies) are good options.

- **Staff Pang** asked if it would be ideal for the SFPUC to return in 6 months to present possible updates to the Wastewater CAC members or would a reference to the websites be more helpful.

**Chair Nagengast** responded that she would prefer an update in 6 months and noted this issue could go to the Full CAC to discuss the algae bloom and the SFEI's relationship with the SFPUC. She noted that it could be confusing because the SFEI consults for the SFPUC.

- **Staff Chastain** commented that it had to do with the green infrastructure monitoring work that the SFEI has been doing for the SFPUC and would love to talk about the relationship between the SFEI and the SFPUC. She added that the SFEI does a great job of understanding the applied management questions and designing studies to address them without going any further.

**Staff Pang** commented that if the Full CAC was interested in learning more about the SFEI's research, then the SFPUC would do a joint presentation with the SFEI.

**Chair Nagengast** responded that the broader pitch to present to the Full CAC is to understand what the SFEI does and how science infused into the wastewater enterprise as well as the other enterprises to communicate the intersection of application and science. She also noted how the algae bloom event could be used as a catalyst for communication, conservation management, and research.

- **Staff Pang** commented that they would return to present if there are new updates and would check in at the 6-month point.

**Chair Nagengast** responded that they should bring the facts forward and present on the data for the algae bloom and bring forward some of the potential players.

Public Comment: None

## 6. Staff report

- The Full CAC Chair will present the Annual Report to the Commission on December 13, 2022
- The CAC survey will be open until November 11, 2022

Public Comment: None

## 7. Future Agenda Items and Resolutions

- Air Quality: Future Odor Control Systems for Headworks and Biosolids Project – *January 2023*
- Upper Islais Creed Watershed Approach Update – *tentatively 2023*
- Wastewater Enterprise Competency Based Training System Update – *tentatively 2023*
- Algae Bloom/SFEI Update – *tentatively April/May 2023* (possibly for the Full CAC)
- Tour of the Oceanside Treatment Plant (and other treatment plants/pump stations)– *tentatively 2023*
- Green infrastructure grants
- Level of Service Goals Update and Annual Report
- Regulation and Legislation for PFAS, Microplastics, and BPA
- Westside Water Resources Presentation
- Floodwater Grant Program
- Treasure Island and Wastewater
- Southeast Treatment Plant Update
- Watershed Stewardship Grants
- Next Generation Green Infrastructure
- Racial Equity Plan – Funding to Support the Plan
- Job Creation at the Plant – City Works and Apprenticeship Program
- Wastewater CAC staff
- Asset Management Integration – policy and capital projects
- Green Infrastructure Program and Resolution Update
- Wastewater Communications Update
- Stormwater Management Ordinance and Southeast Treatment Plant
- Upcoming Construction

- Workforce Programs and Qualifications
- Treasure Island Field Trip
- Environmental Justice Analysis briefing
- Environmental Justice in Capital Projects

Adopted Resolutions for Follow Up

- Resolution in Support of SFPUC Class A Biosolids Local Distribution Program [adopted August 21, 2018](#)
- Resolution in Support of Cityworks Interns Recommendations [adopted on November 21, 2017](#)
- Resolution in Support of Equitable Green Infrastructure Implementation throughout the Southeast Sector of San Francisco and throughout the City [adopted on June 20, 2017](#)
- Resolution Urging SFPUC Commission to Initiate Planning and Environmental Review for Building a New Community Center at Third and Evans and to Direct Staff to Develop an Interim Greenhouse Environmental and Workforce Development Program [adopted on October 18, 2016](#)
- Resolution Supporting the SFPUC to Conduct Robust Community Engagement to Determine the Community's Preference for Remodeling Southeast Community Facility at 1800 Oakdale or Building a New Community Center at 1550 Evans [adopted on January 19, 2016](#)

Public Comment: None

8. **Announcements/Comments** Visit [www.sfpuc.org/cac](http://www.sfpuc.org/cac) for final confirmation of the next meeting date.

Public Comment: None

9. **Adjournment**

Motion was made (Nagengast) and seconded (Jacuzzi) to adjourn the meeting.

Meeting was adjourned at 6:52 pm.