

Water Quality Update

OUSD Board of Education, August 2025

Presentation By:
Preston Thomas, OUSD Chief of Systems & Services



**OAKLAND UNIFIED
SCHOOL DISTRICT**

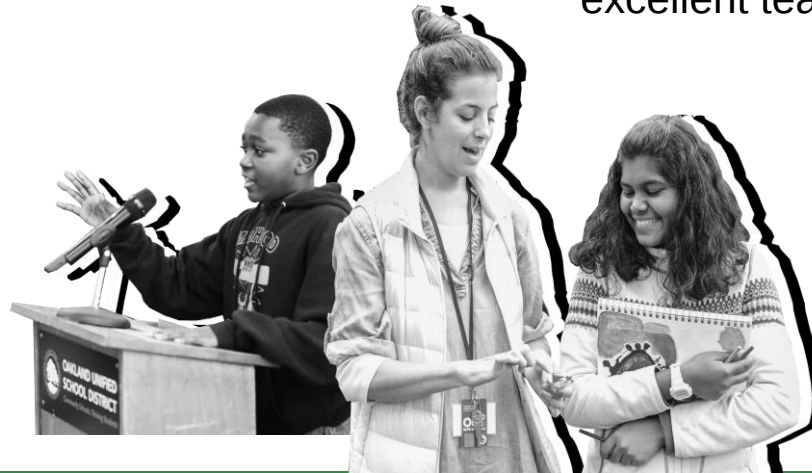
Community Schools, Thriving Students

Our Vision

All OUSD students will find joy in their academic experience while graduating with the skills to ensure they are caring, competent, fully-informed, critical thinkers who are prepared for college, career, and community success.

Our Mission

Oakland Unified School District (OUSD) will build a Full Service Community District focused on high academic achievement while serving the whole child, eliminating inequity, and providing each child with excellent teachers, every day.



Agenda

- Water Quality Overview
- Key Milestones
- Our Strategies
- Looking Ahead



Water Quality and Lead Issues are not Unique to OUSD

SCHOOL & DISTRICT MANAGEMENT

Many Schools Have Lead in Their Drinking Water. What the Feds Are Doing

EDUCATION EQUITY

OUSD lead crisis: Internal records reveal panic and confusion among school leaders

Trump's Plan to Make America Healthy Again? Continued Exposure to Lead in Water.

No one knows how many lead pipes funnel tainted water into schools and daycares, but the GOP is derailing remediation.

By Eleanor J. Bader, TRUTHOUT
February 18, 2025

Elevated lead levels found in 13 more sinks at DODEA elementary school in Germany

By MATTHEW M. BURKE
STARS AND STRIPES • May 15, 2025

Milwaukee's Lead Crisis: Flaky Paint, Closed Schools and a C.D.C. in Retreat

Some children were exposed to lead and investigators found flaking paint inside aging schools. Two federal experts, expected to help guide the response, have lost their jobs.

Dangerous Levels of Lead Contamination Found At Three MPS Schools

District says it has remediated situation, but its buildings have been source of lead poisoning.

By Jeramey Jannene and Sophie Bolich - Feb 6th, 2025 01:36 pm



Major Policy and Legislative Milestones

Prior to 1986-Lead Solder was used in the construction of OUSD schools and buildings.

1986 – Federal Lead Ban (Safe Drinking Water Act Amendment)

- The federal government banned the use of lead pipes and solder in public water systems and plumbing in new construction.
“Lead-free” was defined as no more than **8% lead**.

1991 – Lead and Copper Rule (EPA)

- Required water systems to monitor drinking water for lead and copper levels and take action if lead concentrations exceeded 15 parts per billion (ppb).
- Triggered corrosion control treatment if levels were too high.

2010 – California AB 1953 / SB 1334: Lead-Free Plumbing Law

- California became the first state in the nation to define “lead-free” as no more than 0.25% lead in wetted surfaces (stricter than federal standard).
- Took effect January 1, 2010.
- Applied to all plumbing fixtures, fittings, and materials used for potable water.

2011 – Reduction of Lead in Drinking Water Act (Federal)

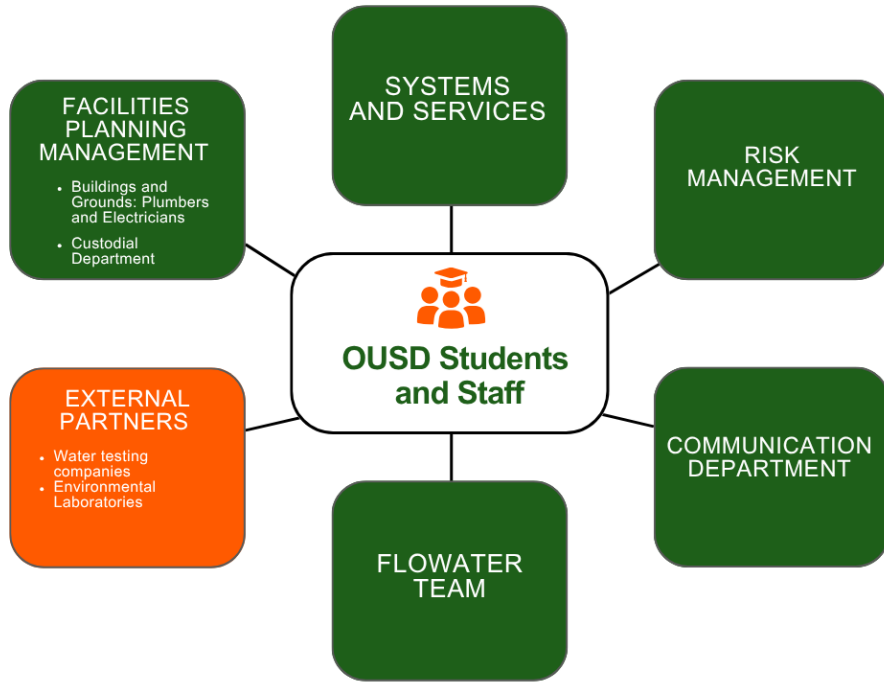
- Aligned federal standards with California’s lead-free standard.
- Nationwide implementation by January 2014.

What is our plan to address all potential water quality issues in 96 programs that are housed in buildings that were constructed before this important threshold?

OUSD has 9 schools/buildings that were built post 2010:

- Claremont - MPR
- Fremont High School - Building 4000 and 5000
- Oakland High Building G
- Highland Building C
- MetWest/La Escuelita
- Montclair Building C
- Madison Upper (9-12)
- Laurel ECE
- Glenview Elementary

Effective Systems = Effective Teams



- ❖ The OUSD Board has dedicated **\$20.5 Million of Measure J and Y**, and one time funding to address this problem.
- ❖ This work brings together teams across OUSD to build healthier, more supportive learning environments at every school.



Providing Safe, Clean Drinking Water across OUSD

Strategy 1
Installation of FloWater
Systems

Strategy 2:
Comprehensive
Diagnostic Testing

Strategy 3
Replace Identified
Fixtures

Strategy 4
Signage and Visible Cues

Strategy 5
Replace Kitchen Plumbing
Systems

Strategy 6
Improve
Communication Systems



Summer 2025 Milestones

FloWater Installations: **60** New FloWater units installed

- Goal of 100 Students:1 filtered drinking station includes Brita, MDF, FloWater, and Elkay units

Comprehensive Testing: **6,781** samples collected

All OUSD sites tested: indoor/outdoor fountains, filtered stations, and kitchen sinks

- 1,949 drinking fountains
- 226 filtered stations
- 236 kitchen sinks

Site Labeling: **2,411** drinking fountains and filtering stations

- Labeled with asset tags for tracking and monitoring system.
- Expanding to all sinks in the 2025-26 year.

Kitchen Renovations

- **13** projects to replace sinks, faucets, pipes, and handwashing stations completed

Transparency & Communication

- Building automated site notifications and publishing of a public dashboard





Strategy 1: Installation of FloWater Systems

WE BELIEVE

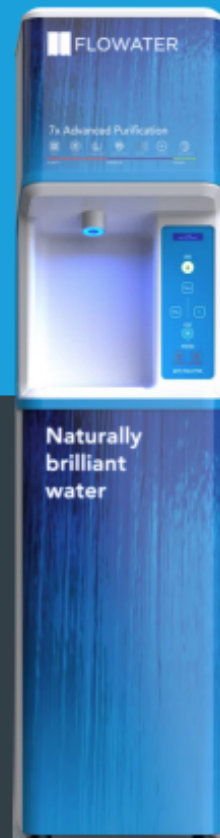
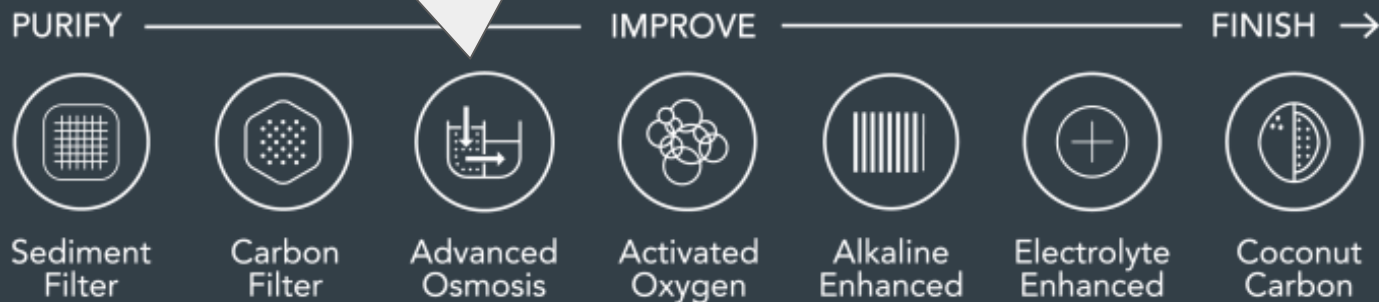
EVERY HUMAN HAS A FUNDAMENTAL
RIGHT TO **DRINKING WATER THEY CAN
TRUST**



THE MOST ADVANCED WATER PURIFICATION TECHNOLOGY

Removes up to 99.9% of contaminants through a 7x Advanced Purification process

Lead is removed from the
Advanced Osmosis System



Filtered Water Station Installation Progress

Why FloWater?

- FloWater adopted as the **district standard** for filtered water stations on March 18, 2025.
- All FloWater units have tested **<1.00 ppb lead**— well below EPA (15 ppb), state, and internal OUSD (5 ppb) action thresholds

District Progress

- **193 FloWater stations** installed since 2024
- **88 new units purchased** to support hydration access
- Updated goal: **1 filtered water station per 100 students** (previously 200:1)

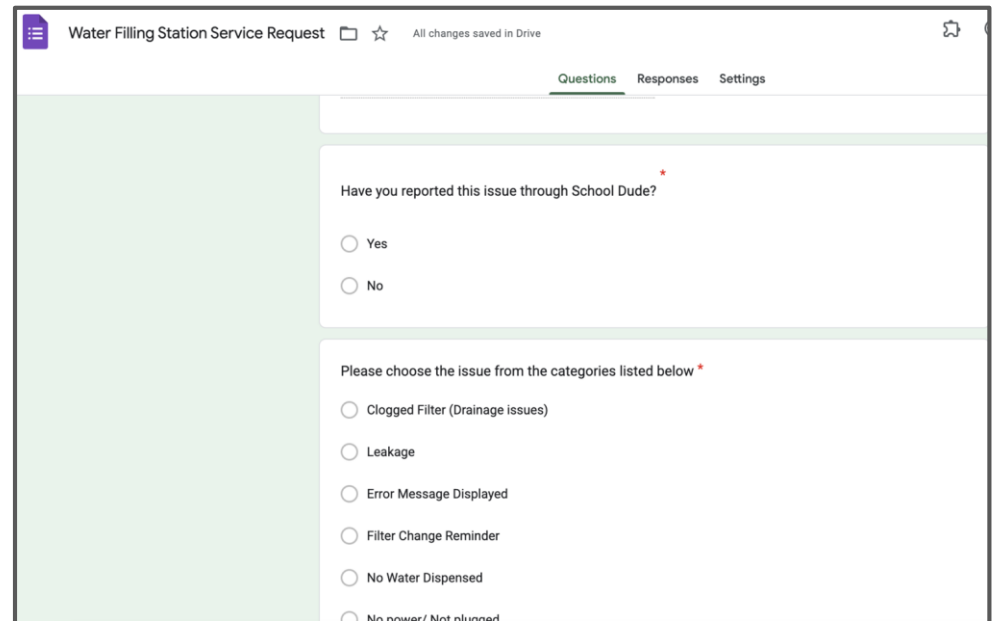
Installation Timeline

- **Phase I: Summer 2025**
 - Site assessments, plumbing, and electrical work completed
 - **60 units** to be installed before the start of the school year



Water Filling Station Service Request

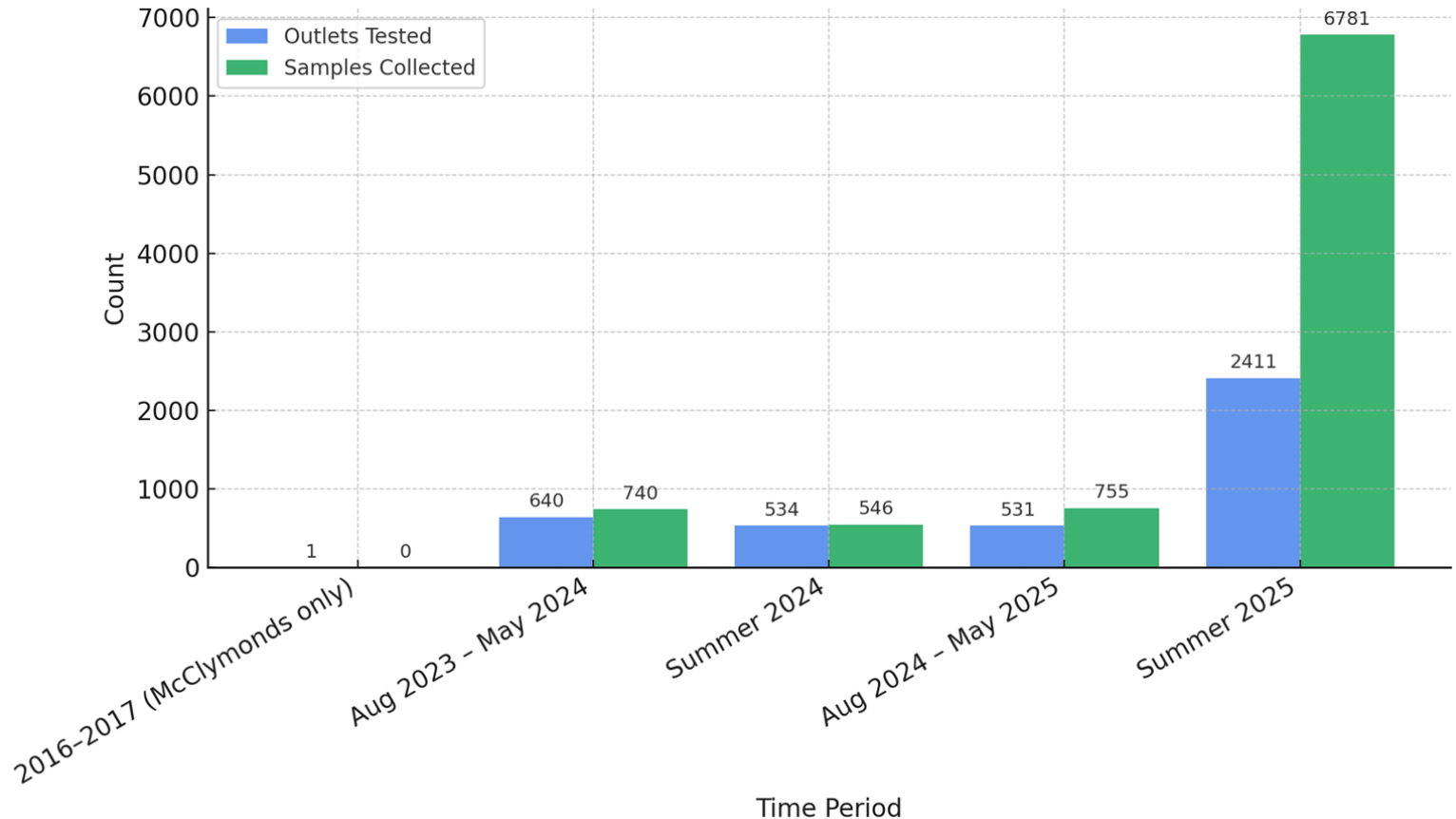
QR codes are placed on every FloWater unit. When an issue is reported using the QR code, the form is sent to internal staff, who then coordinate directly with FloWater to arrange repairs and monitor the progress.

A screenshot of a Google Forms interface titled "Water Filling Station Service Request". The form has three tabs: "Questions", "Responses", and "Settings", with "Questions" being the active tab. The first question is "Have you reported this issue through School Dude?" with radio button options for "Yes" and "No". The second question is "Please choose the issue from the categories listed below" with radio button options for "Clogged Filter (Drainage issues)", "Leakage", "Error Message Displayed", "Filter Change Reminder", "No Water Dispensed", and "No power/Not plugged".



Strategy 2: Comprehensive Diagnostic Testing

Testing Data for Recent Testing Windows



Water Quality Outlet Testing and Sample
Collection

Testing Protocol

Environmental Protection Agency (EPA) Guidelines

- OUSD follows EPA guidelines for school water quality testing
- Developed district-wide protocol to ensure consistency and accuracy

Sequential Testing Protocol (Drinking Fountains and Kitchens)

- Three samples collected per fountain:
 - **125 mL – Bubbler** (tests outlet)
 - **125 mL – Angle Stop** (tests behind fixture)
 - **250 mL – In-Wall Piping** (tests upstream plumbing)
- Allows precise identification of lead source if levels are elevated

Filtered Water Stations

- Single **250 mL sample** collected per unit
- Assesses filter effectiveness and water quality at point of use

Fixture Labeling & Tracking

- Unique nomenclature system created for **every** drinking fountain and filtered station
- Labels are matched to test results for targeted repairs
- Enables clear tracking of what's elevated, where it is, and how to fix it

Module 4: Developing a Sampling Plan
Develop a Code System for Samples

Code each outlet using a system that will allow each unique outlet to be identified by location, type and other relevant characteristics. The text below provides examples for coding by fixture type and sample type. The following is an example template that can be used to designate unique samples in single buildings.

Floor-Room Number-Outlet Type-Sample Number

The following is an example that uses the structure above and the example codes to the right. A first draw sample (P) was taken at a drinking water fountain (DW) on the 3rd floor (003) outside of room 312 (312) and is the 15th outlet counted (015). This sample would be coded as:

003-312-DW-P-015

If multiple buildings are being sampled, include the building number as well.

Building Number-Floor-Room Number-Outlet Type-Sample Number

Thus, if that same drinking water fountain was located in building 1 (01), it would be coded as:

01-003-312-DW-P-015

Important Note: when taking sequential samples, be sure to add a number to the sample to indicate the order the samples were taken in.

- **15S**= First sequential sample
- **25S**= Second sequential sample

For example, the first 125-mL sequential sample taken at that same drinking water fountain, would be coded as:

003-312-DW-15S-015

The coding should be identified on a site map, accompanied by a narrative that describes the observable conditions of each sampling location. It is also important to document any special conditions for the sampling, such as whether it was conducted after a remedy was implemented (e.g., after fixture/plumbing replacement, after POU filter installation), during a flushing evaluation (e.g., XX hours after morning flushing), or after aerator or inlet strainer cleaning so that results can be interpreted in the future.

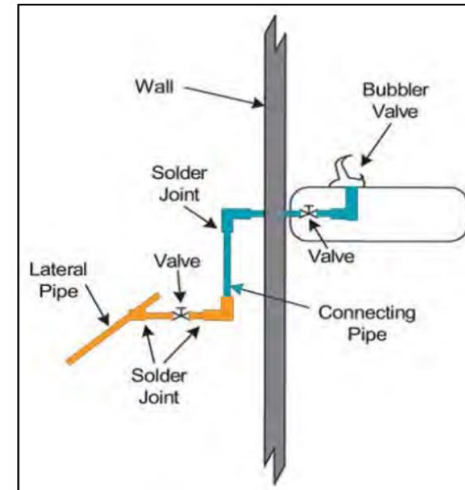
Coding examples can include:

- DW= drinking water fountain
- WC= water cooler (chiller unit)
- CF= classroom faucet
- KF= kitchen faucet
- BF= bathroom faucet
- NS= nurse's office sink
- SC= service connector

As well as the type of sample taken:

- P= primary or first draw sample
- F= follow-up flush sample
- SS= sequential sample

Office of Water (4606M)
EPA 815-F-18-021
October 2018

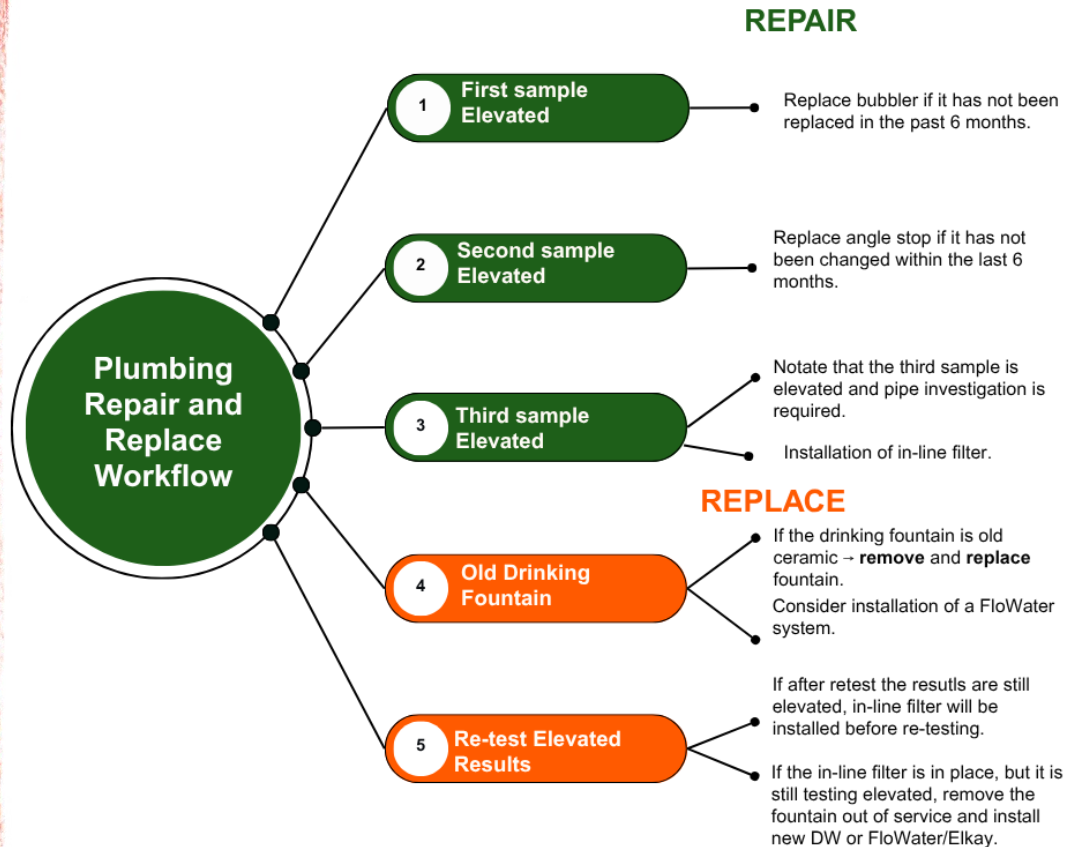


U.S. Environmental Protection Agency. (2021). *3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities: Revised Technical Guidance*. Retrieved from [EPA Guidelines](#), pp. 62



Strategy 3: Replace Identified Fixtures

Replacement and Repair of Fixtures



REPAIR

REPLACE





Strategy 4: Signage and Visible Cues

Improving Water Testing Visibility with Stickers

To help students and staff easily identify water safety at school



Placed on water fixtures that meet OUSD's water quality standards.



Placed on **classroom sinks** to clarify that these fixtures are **not intended for drinking**, helping students and staff make informed choices.



Signage is posted at **out-of-order drinking fountains**. Water to these fixtures is also **shut off** for repairs

Improved Notification for Community



Link to reports
for individual
validation

Punch outs that
signify the date
of the last test
that was below
5 ppb.



Strategy 5: Replace Kitchen Plumbing Systems

Overview and Progress

Goal: Upgrade kitchen plumbing for safe, reliable water in compliance with health standards

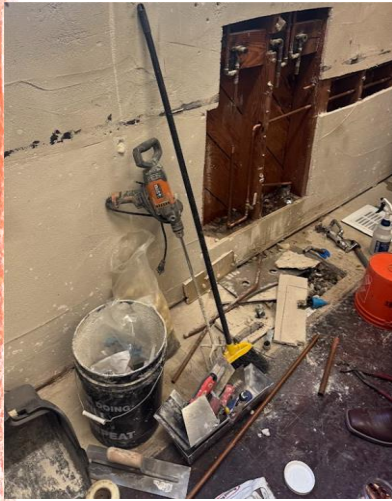
Key Upgrades

- New Fixtures: sinks, faucets, hand-wash stations
- Pipe Replacement: up to 20 ft per site
- Restored Hot/Cold Access
- Better Water Points for Food Safety
- Completed Before Staff/Student Return

Sites With Plumbing Upgrades

- | | |
|-------------------|-------------------|
| ✓ Acorn CDC | ✓ Jefferson CDC |
| ✓ Allendale ES | ✓ Lincoln ES |
| ✓ Bella Vista ES | ✓ Madison Primary |
| ✓ Castlemont HS | ✓ McClymonds HS |
| ✓ Centro Infantil | ✓ Sequoia ES |
| ✓ Edna Brewer MS | ✓ Skyline HS |
| ✓ Hillcrest ES | |

Kitchen Pipe and Fixture Replacement



Hillcrest K-8



Sequoia ES



Allendale ES



McClymonds HS

Strategy 6: Improve Communication Systems



Internal Communicating and Tracking Repairs

Internal Tracking

- Each elevated fixture is logged in our **central tracking spreadsheet**. A **SchoolDude ticket** is created for the specific school site and assigned to OUSD plumbers.
- Once repairs are completed, the ticket is marked closed.
- The water quality team is notified and then schedules **retesting** for the repaired fixture.

Dashboard in Development (Fall 2025)

- A searchable, public-facing dashboard is being built to display fixture-level test results by school.

How Schools Are Notified

- **Principals are notified within 24 hours** of any elevated results.
- Communication is sent via email by **OUSD Risk Management Officer**.
- Schools receive clear information on affected fixtures and next steps.
- We are currently developing an **automated notification system** to streamline this process.



Updated Website

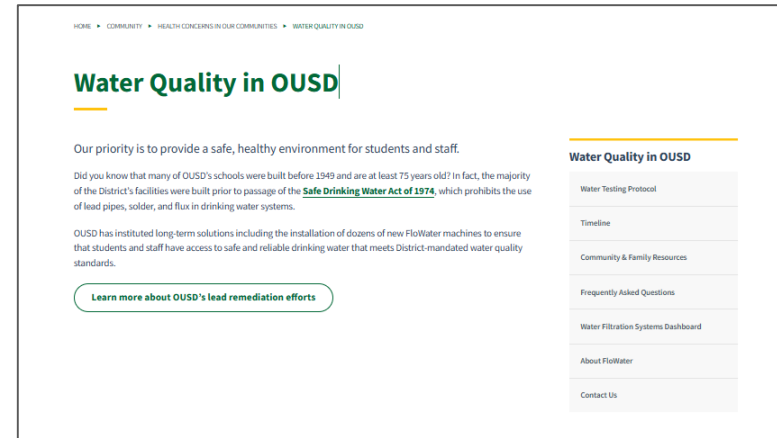
We've established multiple communication channels to ensure students, school staff, families, and the community are informed with the work happening to improve water quality across the District.

ParentSquare: Our main hub to share with parents and caregivers about the work happening across the District.

Website: All water test results from across the District are stored here, along with updates on the work we are doing to ensure access to safe, clean drinking water for our schools. Updates are made daily. www.ousd.org/waterquality

Board Presentations: Consistently updating the Board on our progress.

Contact Us: Contact your school principal or the Risk Management Office at waterquality@ousd.org



Messaging: How We Talk about the Work

A message was shared via Parent Square on Sunday, August 10, 2025 to announce that all schools have FloWater and other water filtration stations for students to use. We clearly communicated that all fixtures that have tested above the District standard have been shut off and will remain out of service until they are repaired or replaced and retested.

FloWater Machines

- FloWater machines are safe; it is a misconception that the water from the machines is contaminated.
- Not a single FloWater machine has ever tested above the District Standard of 5 parts per billion (ppb) for lead. In fact, none has even tested above 1 ppb.

School Culture and Climate

- School leadership and staff will be key in reminding students and families about the safety and effectiveness of the machines.
- We currently have 40,000 water bottles ready to go to school sites, and they will be transported in the coming days for students to use.

Strategy

- Because replacing piping inside our older schools will take years and cost tens of millions of dollars, the best, quickest, and most efficient method of making sure OUSD students are drinking safe and clean water is to install FloWater machines and take faucets and drinking fountains with elevated lead levels (>5 ppb) out of service.

Challenges

Limited Access to Water Connections

- A major barrier to installation has been the **lack of readily accessible water lines** at some sites

Conversion of Existing Fixtures

- Most current installations have replaced existing **drinking fountains** to utilize pre-existing plumbing

Phase 2 Complexity

- Upcoming installations in Phase 2 will require connecting to **in-wall water lines**, which involves
 - Wall modifications
 - More extensive plumbing work
 - Coordination with external vendors





Next Steps

Looking Ahead to SY 2025-2026

Water Testing & Faucet Repairs

Schedule repairs based on test results and number of elevated fixtures per site

Retest after repairs

Final step: relabel fixtures and determine next steps

In-House Sampling

2 certified OUSD staff now trained to collect water samples

Enables quicker response and long-term sustainability

Communications

Address misinformation about FloWater machines

Educate school communities on filter use and repairs

Update website with accurate info and resources

Public Dashboard

Develop searchable tool for viewing water test results by school/fixture

Improves access for families and staff

FloWater Installations – Phase 2

Ongoing installs of FloWater and Elkay stations

Phase 2 includes major plumbing to connect to building pipes

THANK YOU

Any Questions?

Additionally, for more information, please reach out:

Preston Thomas
Chief Systems & Services Officer
preston.thomas@ousd.org

Nilufar Abdul
Assistant Manager
Systems & Services Department
nilufar.abdul@ousd.org

Appendix

Post-2000 Buildings: Updated Plumbing & Verified Safe Drinking Water

Drinking faucets at these sites, inside and outside of classrooms, are equipped with new plumbing and are considered safe drinking water sources. Out of an abundance of caution we have tested these fixtures, but continued testing is not necessary.



Entire Site

- 81st Ave Campus (Acorn Woodland ES and EnCompass Academy ES)
- Cesar Chavez Campus (Think College Now ES and International Community School)
- Glenview ES
- La Escuelita ES
- MetWest HS

Select Buildings

- Allendale ES - Building K
- Brookfield ES - Building C
- Castlemont HS - Guard Shack
- Chabot ES - Building C and D
- Claremont MS - MPR
- Coliseum College Preparatory Academy (6-12) - Building D
- East Oakland Pride ES - Building B
- East Oakland Pride ES - Building B
- Fremont HS - Buildings 4000 and 5000
- Highland ES - Building C and D
- Hillcrest (K-8) - Building C
- Life Academy (6-12) - Building I
- Lincoln ES - Building B
- Madison Park Upper (6-12) - High School Building
- Markham ES - Building B
- Montclair ES - Building C
- Oakland HS - Building G
- Piedmont Ave ES - Building C
- Reach Academy ES - Building E
- Urban Promise Academy MS - Building G

School Year 2024- 25 Milestones

Infrastructure & Access

- **193 FloWater stations installed** across the district

Testing, Repairs & Planning

- Completed initial repairs at **Group 1 & 2 schools**
- Developed **comprehensive testing schedule** and **remediation budget**
- Created centralized tracking system for all fixture test results

Transparency & Communication

- Redesigned website to share testing results and resources
- Launched dashboard for **bottle-filling station status**
- Developed protocol for **Group 3 school testing notifications**

Facility Improvements

- Replaced **kitchen plumbing** at multiple schools with KIT funding
- **Incorporated full pipe replacements into all Major Projects:** McClymonds High, Roosevelt Middle, Garfield Elementary, Coliseum College Prep Academy, and Melrose Elementary schools



Note: For more information on the website, dashboard, and Groups 1 through 3, please visit: <https://www.ousd.org/community/health-concerns-in-our-communities/water-quality-in-ousd>.

In the Classroom Practices

FAQ:

- 1) I really don't trust the water supply, is there anything I can do to reduce exposure for students in the classroom. ***One of the most effective strategies to reduce lead concentration in water is to run cold water from the tap for at least 30-seconds to 2 minutes. This will clear any lead that may have built up. You can then use the water for classroom activities.***
- 2) Can students wash their hands in sink even if there is lead in the water? ***"Yes. Bathing and showering should be safe for you and your children, even if the water contains lead over EPA's action level. Human skin does not absorb lead in water."*** [Basic Information about Lead in Drinking Water](#)
- 3) I am in an older building and my classroom hasn't been tested, can I still use the water? ***You can use the water for projects and washing hands, but you should not use the water for drinking unless it has been tested and has the "Meets District Water Standards" sticker. Direct students to water fountains and Flowater systems that have been tested.***
- 4) I am in a new building do I still have to worry about water quality? ***Any new buildings that have been built after 2000 have new plumbing and meet OUSD water safety standards. If you are in a new building, you can use the sinks and water fountains.***
- 5) We have water bottle fillers but the lines get too long. ***As we continue the work of mitigating the lead issues in our district, we are adding more FloWater water dispensers and we are fixing more fountains and faucets, all of which will provide more sources of water for students and staff.***



Approved by Alameda County Health Homes Department 9/4/2024

EPA Compliance

OUSD follows EPA guidelines for school water quality testing and sample coding. We developed a district-wide protocol to ensure consistency and accuracy of water testing.

Module 4: Developing a Sampling Plan
Develop a Code System for Samples

Code each outlet using a system that will allow each unique outlet to be identified by location, type and other relevant characteristics. The text below provides examples for coding by fixture type and sample type. The following is an example template that can be used to designate unique samples in single-buildings.

Floor-Room Number-Outlet Type-Sample Number

The following is an example that uses the structure above and the example codes to the right. A first draw sample (P) was taken at a drinking water fountain (DW) on the 3rd floor (003) outside of room 312 (312) and is the 15th outlet counted (015). This sample would be coded as:

003-312-DW-P-015

If multiple buildings are being sampled, include the building number as well.

Building Number-Floor-Room Number-Outlet Type-Sample Number

Thus, if that same drinking water fountain was located in building 1 (01), it would be coded as:

01-003-312-DW-P-015

Important Note: when taking sequential samples, be sure to add a number to the sample to indicate the order the samples were taken in.

- 15S= First sequential sample
- 25S= Second sequential sample

For example, the first 125-ml sequential sample taken at that same drinking water fountain, would be coded as:

003-312-DW-15S-015

The coding should be identified on a site map, accompanied by a narrative that describes the observable conditions of each sampling location. It is also important to document any special conditions for the sampling, such as whether it was conducted after a remedy was implemented (e.g., after fixture/plumbing replacement, after ROU filter installation), during a flushing evaluation (e.g., XX hours after morning flushings), or after aerator or inlet strainer cleaning so that results can be interpreted in the future.

Coding examples can include:

- DW= drinking water fountain
- WC = water cooler (chiller unit)
- CF = classroom faucet
- KF = kitchen faucet
- BF = bathroom faucet
- NS = nurse's office sink
- SC = service connector

As well as the type of sample taken:

- P = primary or first draw sample
- F = follow-up flush sample
- SS= sequential sample

Office of Water (4606M)
EPA 815-F-18-021
October 2018

- **Site Code - Building – Floor – Area – Type of station - Location**
 - **Site code:** using 3 digit the Escape codes
 - **Building: name** (i.e. A, B, C, MRB, etc.)
 - **Floor number:** 0, 1,2,3, etc.
 - **Note:** 0 = basement or yard
 - **Area:**
 - IN – inside a 'room' (i.e., inside classroom, inside cafeteria, inside MPR)
 - EX – outside the actual building (i.e., yard)
 - HW – hallway inside the building
 - **Type of station:**
 - **Filtered water stations:**
 - BR = Brita
 - ELK = Elkay
 - FW = FloWater
 - GT = Global Tap
 - HW = Haws
 - MDF = Most dependable fountains filtered water
 - DW = drinking water fountain
 - CF = classroom faucet
 - KF = kitchen faucet
 - BF = bathroom faucet
 - **Location:** closest room, building (i.e. Rm 123, MPR)

321 – Main – 2 – IN – FW – Rm 123

U.S. Environmental Protection Agency. (2021). *3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities: Revised Technical Guidance*. Retrieved from <https://www.epa.gov/system/files/documents/2021-07/epa-3ts-guidance-document-english.pdf>, pp. 62

Tracking Progress on Water Quality

Centralized Spreadsheet for Real-Time Oversight

- Tracks **each individual fixture** with a unique name tag tied to its test results and location
- Allows instant visibility into which units are passing, elevated, shut off, or repaired

Integrated Repair Workflow

- Columns built in for work order tracking, ticket numbers, dates, and completed repairs
- Enables tight coordination with facilities teams and timely resolution of issues

Foundation for Dashboard & Reporting

- Spreadsheet feeds directly into the **district-wide dashboard**
- Supports analysis of trends, repair needs, and overall progress

Planning Tool for Next Steps

- Helps prioritize sites, schedule retesting, and evaluate systemic improvements
- Maintains alignment with project timelines and school year readiness

HOME • COMMUNITY • HEALTH CONCERNS IN OUR COMMUNITIES • WATER QUALITY IN OUSD • WATER FILTRATION SYSTEMS DASHBOARD

Water Filtration Systems Dashboard

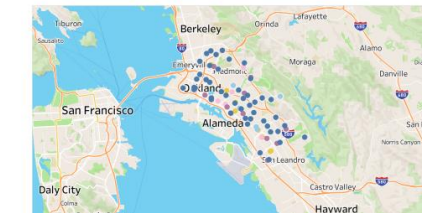
OUSD is dedicated to ensuring that all students and staff have access to clean, lead-free, purified water at each campus in the District. To ensure we are being transparent with the community about our water sources, we are providing access to this dashboard, which shows the quantity of Flowwater Water Purification Systems at each campus. As we continue to increase the number of Water Filtration Systems at our schools, including Flowwater and other systems that we will also test, we will update this dashboard, with the end goal of achieving a 200:1 ratio at each school, of students to Water Filtration Systems. We will also continue to pursue state and federal funding to go above and beyond that base ratio, as funds are available.

Map View Table View

Map - Drinking Water Stations

(Data as of 6/5/2025. Including Brita, Elkey, FlouWater and MDF.)
24-25 Goal: <=200 students per filter
25-26 Goal: <=300 students per filter

School (All) Board District (All) Network (All) # of Students per Filter



Water Filtration Systems Dashboard

Water Testing Protocol

Timeline

Community & Family Resources

Frequently Asked Questions

Water Filtration Systems Dashboard

About Filtration

Contact Us