EAST BAY MUNICIPAL UTILITY DISTRICT

EBMUD Lead in Drinking Water Plans

Planning Committee
January 10, 2017

Outline

- Background
- Fruitvale
- Customer Lead Tap Sampling Program
- Lead Service Line Replacement Program
- School Lead Tap Sampling Program
- Summary

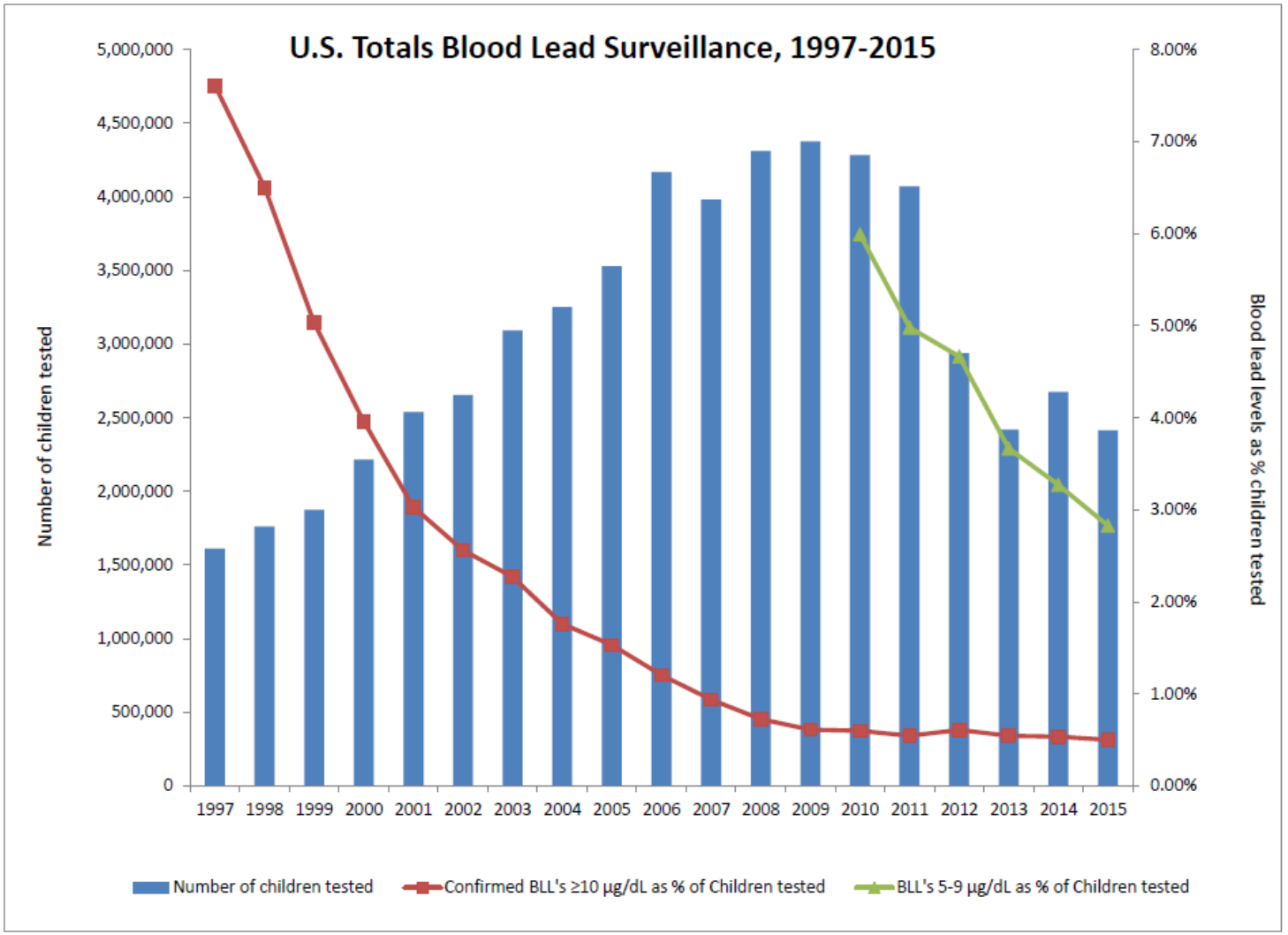
Background

- District's Lead Activities
  - 1980's began removal of lead service lines
  - Legislation to remove lead from plumbing materials
  - Corrosion control study
  - Compliance with Lead and Copper Rule (LCR) since 1992

Fruitvale

- Reuters (Pell and Schneyer)
  - December 19, 2016
  - Children's Blood Lead Levels
  - Soil, Paint, and Water (Flint, MI)
- SFGate (Dowd)
  - December 28, 2016
  - Fruitvale

Blood Lead Surveillance



Customer Contacts

- Responded to 19 customer calls
  - Offered to test water for lead at no cost
- 12 customers requested lead tap sampling
- Began distribution of sample kits on January 4, 2017
- Results due back in two weeks

Media Outreach 12/29/17

- Coordination with Alameda County Public Health, City of Oakland
- Media Advisory
- Media Interviews

EAST BAY MUNICIPAL UTILITY DISTRICT

NEWS

375 11th Street • Oakland, CA 94607 • 510-287-0138 • After Hours 1-866-403-2683

Contact: Jenesse Miller 510-287-0138

December 29, 2016

MEDIA ADVISORY

Elevated lead levels in Fruitvale neighborhood children

Alameda County Healthy Home Department suggests source of lead is paint and soil; not tap water.

WHAT: A recent Reuter's media story is reporting elevated levels of lead in children in Oakland's Fruitvale neighborhood. As a provider of water and wastewater services that support the East Bay's public health, EBMUD shares our communities' concern about lead's impact on public health. Alameda County's Healthy Homes Department, the county's Lead Poisoning Prevention Program, has found that the most common sources of lead in area homes is paint and soil, not water.

EBMUD provides high quality tap water to 1.4 million people in the East Bay. Extensive testing shows that our water meets or surpasses all federal and state drinking water requirements, including the U.S. Environmental Protection Agency's Lead and Copper Rule. In addition, the District has an active corrosion control program in place since the 1930s to prevent

EAST BAY EXPRESS

OAKLAND, BERKELEY, AND EAST BAY NEWS, EVENTS, RESTAURANTS, MUSIC, & ARTS

THURSDAY, DECEMBER 29, 2016

Oakland's Toxic Lead Contamination Isn't in the Water. It's in the Buildings and Dirt, and It's Bad.

By Darwin BondGraham

Email | Tweet | Share 4.8K | Print | 72 points

According to a recently published **Reuters report**, Oakland's Fruitvale neighborhood is one of 3,000 U.S. communities with lead contamination worse than Flint, Michigan. But whereas Flint has been the subject of international media scrutiny, lead pollution in places like Fruitvale remains mostly unexamined.

That is, until Reuters' review of public lead contamination data prompted

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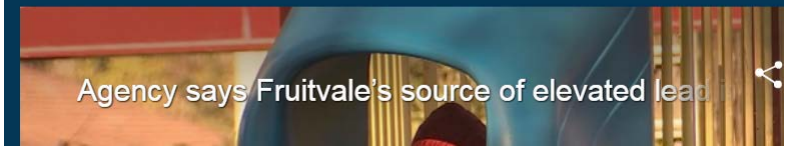
Agency says Fruitvale's source of elevated lead isn't water



Customer Lead Tap Sampling

- Developing a pilot customer tap sampling program
- Voucher system
  - Independent
  - Unknown impact to District sources
  - Contract laboratory

Customer Lead Tap Sampling

- RFP released in December 2016
  - Evaluating proposal
- Board consideration January 24, 2017
- Program start February 2017

Lead Service Line Replacement

- **Began removing lead services in 1980's**
- **SB 1398 (Public Water Systems: lead user service lines; Sept 2016)**
  - Initiated records review
- **Electronic record system**
  - Data entry
  - Completion by 2018
- **Replaced 11 to date**
  - Post replacement lead: 0.32 to 470 μg/L; 2 of 11 >15 μg/L
  - Most recent sample 470 μg/L reduced to 9.6 μg/L
  - Bottled water or filter offered to customer post replacement

School Lead Tap Sampling

- SWRCB DDW Permit Amendment
  - All Community Water Systems serving K-12, public, private, or charter schools
  - 60 day response
  - 90 day to completion
- Must develop and execute sampling plan for each school upon request
- Conduct repeat sampling if necessary

School Lead Tap Sampling

- Report results to DDW and school
- 640 accounts related to K-12 schools
- Estimated program costs $3 million
- District lacks resources to implement
  - Evaluating adding staff or contracting out to comply with requirements

Next Steps

- Select contractor for customer tap sampling program
- Continue with lead service line replacement program
- Wait for release of permit amendment before initiating a lead drinking water sampling program for K-12 schools

EAST BAY MUNICIPAL UTILITY DISTRICT

West County Wastewater District Recycled Water Supply Agreement

Planning Committee

January 10, 2017

Agenda

- Background
- Proposed Terms for New Water Supply Agreement
- Financial Analysis
- Next Steps

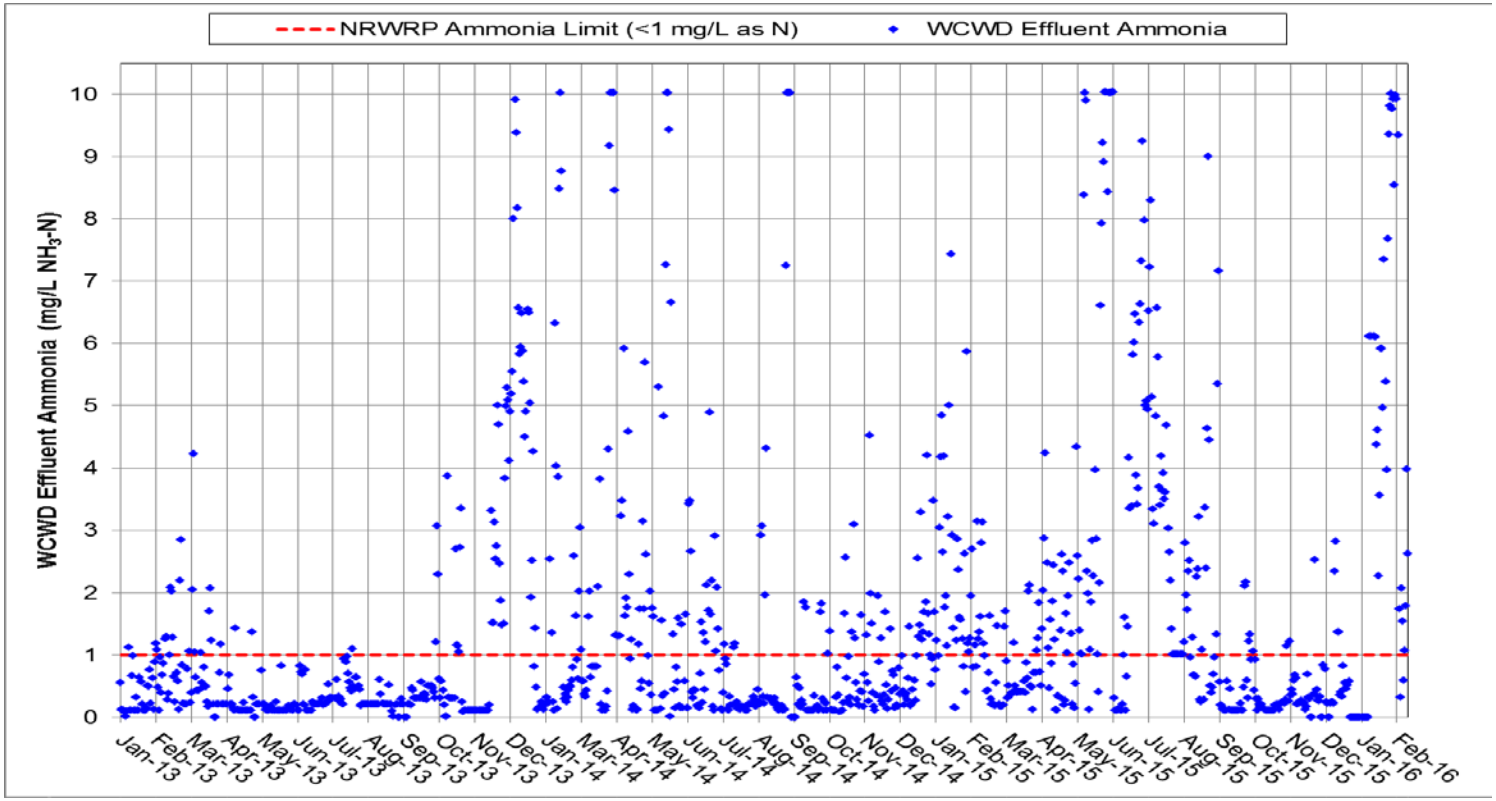
Water Recycling Facilities Serving Chevron Refinery

North Richmond Water Reclamation Plant

- Product water has been used in Chevron cooling towers since 1995
- Chevron cooling towers have sensitivity to ammonia
  - NRWRP not designed to remove ammonia
  - WCWD WPCP not currently designed to consistently control ammonia

WCWD Treatment Performance

- Existing WCWD/EBMUD agreement requires ammonia concentration < 1.0 mg/L



EBMUD Operational Challenges

- Increase chlorine dosing to oxidize ammonia
  - Ammonia coming in is variable and not predictable
  - Limited effectiveness, unreliable, costly
- Blend recycled water product with potable water to meet Chevron requirements (avoid plant shutdown)—**wasting potable water**
- Chevron has ongoing concern with highly variable water quality

WCWD's Recycled Water Reliability Upgrade Project Operational 2017

- Facility being upgraded to meet likely future nutrient requirements (i.e., ammonia limits)
  - Also provides near-term opportunity for reliable water supply for NRWRP and Chevron needs
- In addition to capital investment, the operational costs will be higher to achieve lower ammonia limits

WCWD/EBMUD Agreement

- New water supply agreement for WCWD and EBMUD under development
- Concepts discussed at March 24, 2016 meeting with WCWD and EBMUD Board representatives
- Number of follow-up staff meetings held to draft proposed new terms

Proposed Concepts for New Agreement

- EBMUD pays operating costs (chemical and energy) to achieve lower ammonia concentration
  - These costs will decrease when WCWD has discharge permit that includes ammonia limits
- Payment based on actual quality of effluent delivered
  - Key new term in agreement

Draft Payment Terms

Monthly avg. effluent ammonia (mg/L)	Percent of monthly operating cost reimbursement to be paid by EBMUD to WCWD (%)	Approx. monthly operating cost reimbursement to be paid by EBMUD to WCWD ($/mo)
≤2	100%	**$15,000**
>2 & ≤3	60%	**$9,000**
>3	0%	$0

- Additional incentive if monthly average ammonia ≤1 mg/L (~$2,000/mo)

Financial Assessment

- Current Agreement
  - EBMUD pays ~$12k to $16k/month to WCWD for operational enhancements
  - Additional chemical costs when ammonia concentration > 1 mg/L (varies based on ammonia concentration; e.g. ~$4k if 2 mg/L, $8k if 3 mg/L, etc.)
- Proposed Agreement
  - EBMUD pays ~$17k/month if ammonia < 1 mg/L
  - Amount is prorated if ammonia > 1 mg/L

Summary

- WCWD upgrades provide greater capability for consistent, reliable water quality
- EBMUD pays increased operating costs for WCWD to achieve reduced ammonia concentrations
  - Payment tied to actual quality of water delivered
- Consideration for adjusting basis of payment based on changed conditions
- Monetary incentives for WCWD to meet and exceed water quality goals

Next Steps

- February: Meeting with representatives from WCWD and EBMUD Boards to review draft terms
- Early Spring: Final agreement presented to both Boards for approval
- Early Summer: Agreement takes effect upon completion of upgrades at WCWD