



Satellite Recycled Water Projects Update

Planning Committee
March 9, 2021

Agenda

1



Background and Benefits

2



Current Status of Potential Satellite Projects

3



Project Considerations

4



Next Steps

2019 Master Plan Update



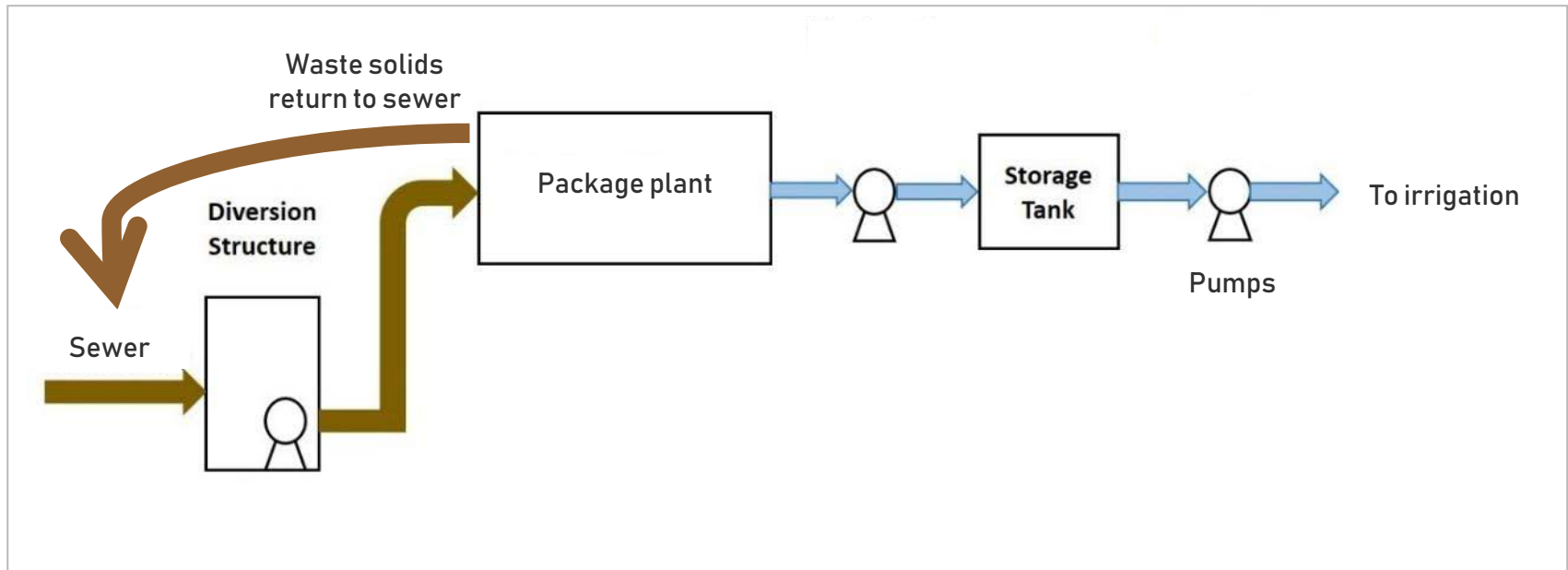
East Bay Municipal Utility District Updated Recycled Water **MASTER PLAN**



Key Takeaways

- 1 Plan identified potential for satellite projects
- 2 Plan did not recommend District funding of satellite projects
- 3 Recommended District to support customer development of projects

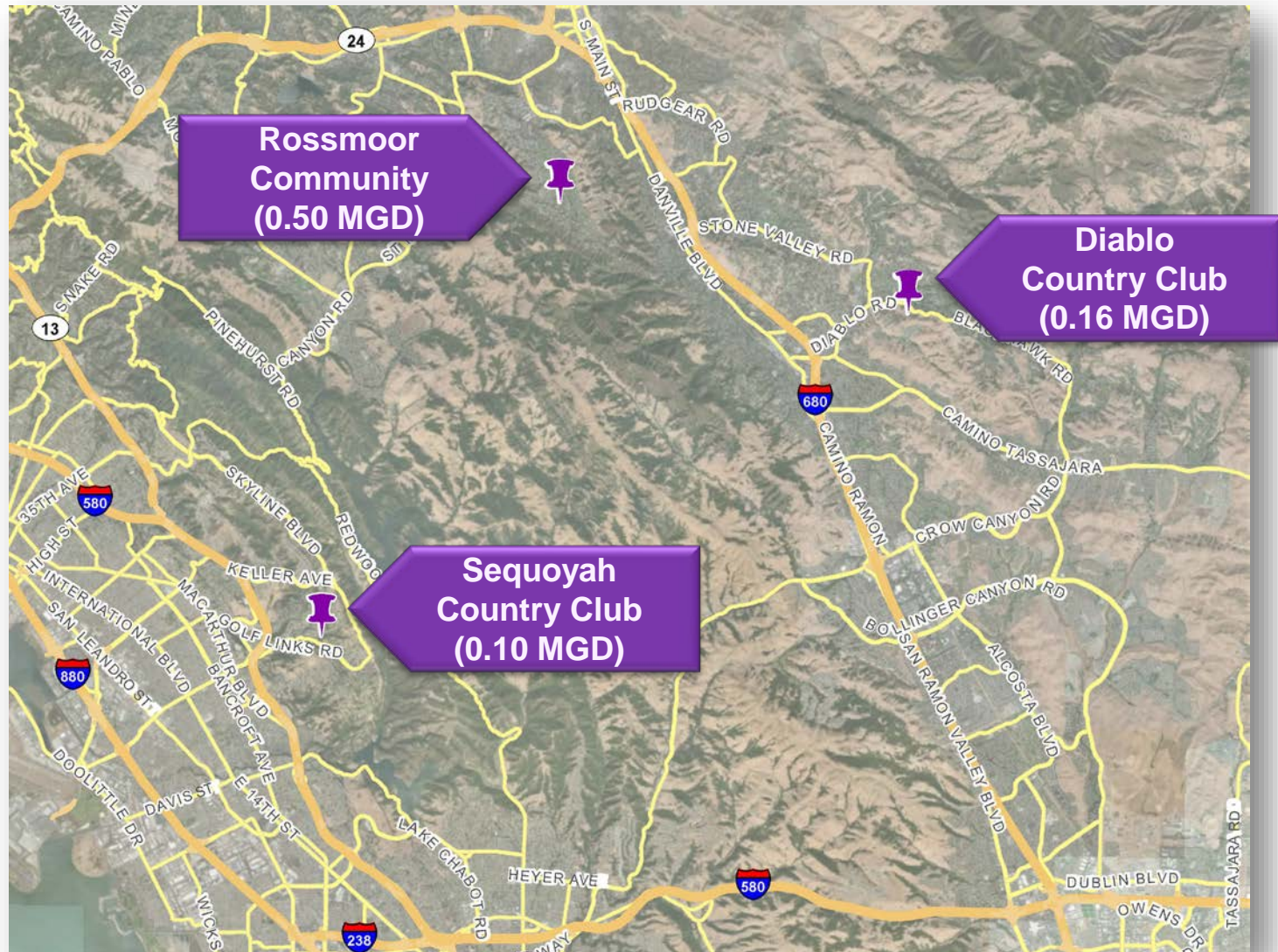
Background & Benefits



Key Takeaways

- 1 Satellite projects pursued and self-financed by customers
- 2 Decentralized option to provide recycled water for irrigation
- 3 Support the District's long-term water recycling goal

Locations of Potential Projects



Diablo Country Club



Project Partners

- 1 Diablo CC
- 2 Central San
- 3 EBMUD

2012

First MOU

2015

Second MOU

2021

DCC Board
approval

2022

CEQA, project
agreements

2023

Final design,
construction

Sequoyah Country Club



Photo courtesy of Katie Hall, Membership Director, Sequoyah Country Club

Project Partners

- 1 Sequoyah CC
- 2 City of Oakland
- 3 EBMUD

2017

Feasibility Study
completed

2020

SCC selects
DBOF team

2021

Execute
MOU

2022

CEQA, project
agreements

2024

Final design,
construction

Rossmoor Community



Photo courtesy of Jeff Matheson, City Director in Community Service and Recreation & General Manager

Project Partners

- 1 Rossmoor/GRF
- 2 Central San
- 3 City of Walnut Creek
- 4 EBMUD

2018

GRF selects
consultant

2020

Feasibility
Study by GRF

2021

Execute
MOU

2022

CEQA, project
agreements

2025

Final design,
construction

Project Considerations



District Role

- Support collaborative investigation
- Implementation agreements for permitting, inspection, and backup service

Permitting

- CEQA lead by local municipality
- Exploring recycled water permitting structures

Fees

- No volumetric rate due to customer financing
- Establish fee to cover District costs for design review, testing, and inspections

Next Steps



Planning

- Continued coordination
- Memorandum of Understanding

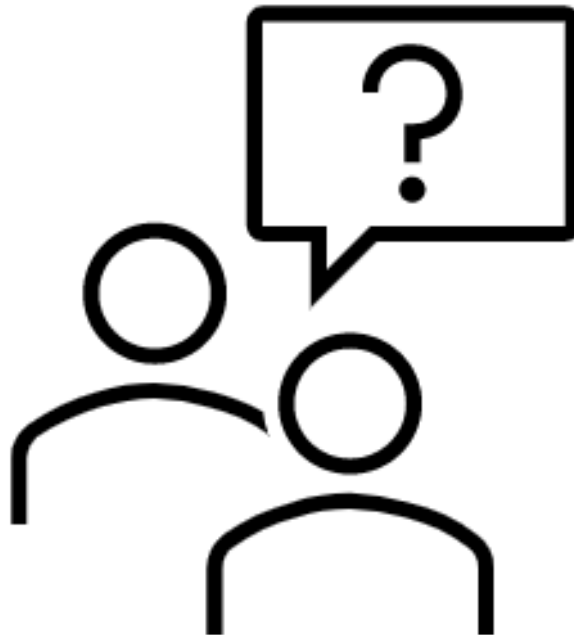
Design/ Const.

- Project design review
- Additional agreements

Operation

- Cross-connection requirements
- Periodic inspections

Questions





Private Sewer Lateral Program Update

Planning Committee

March 9, 2021

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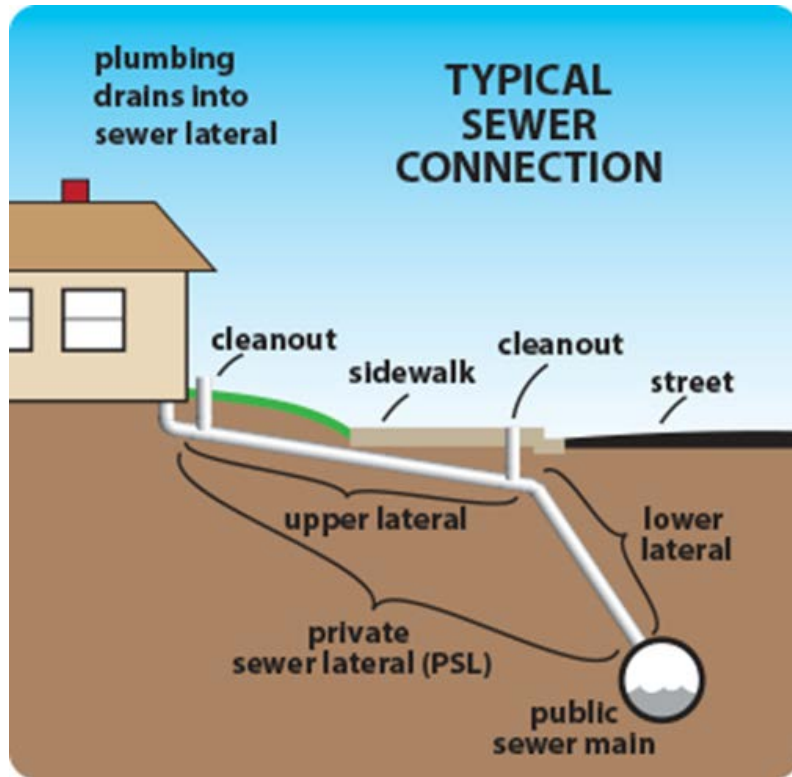
1 Background

2 Compliance

3 Enforcement

4 Planning for July 2021

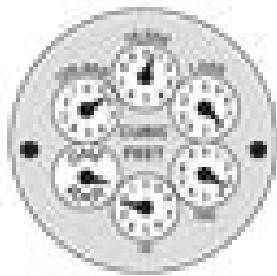
Background



KEY TAKEAWAY

- 1 The Regional Private Sewer Lateral (PSL) Program requires property owners to rehabilitate privately owned sewer connections to reduce infiltration and inflow.

Regional PSL Program



BY THE NUMBERS

6 Satellite Agencies
(Excludes Berkeley)

1,600

Miles of PSLs

626 Miles Certified
Since 2011

40,711

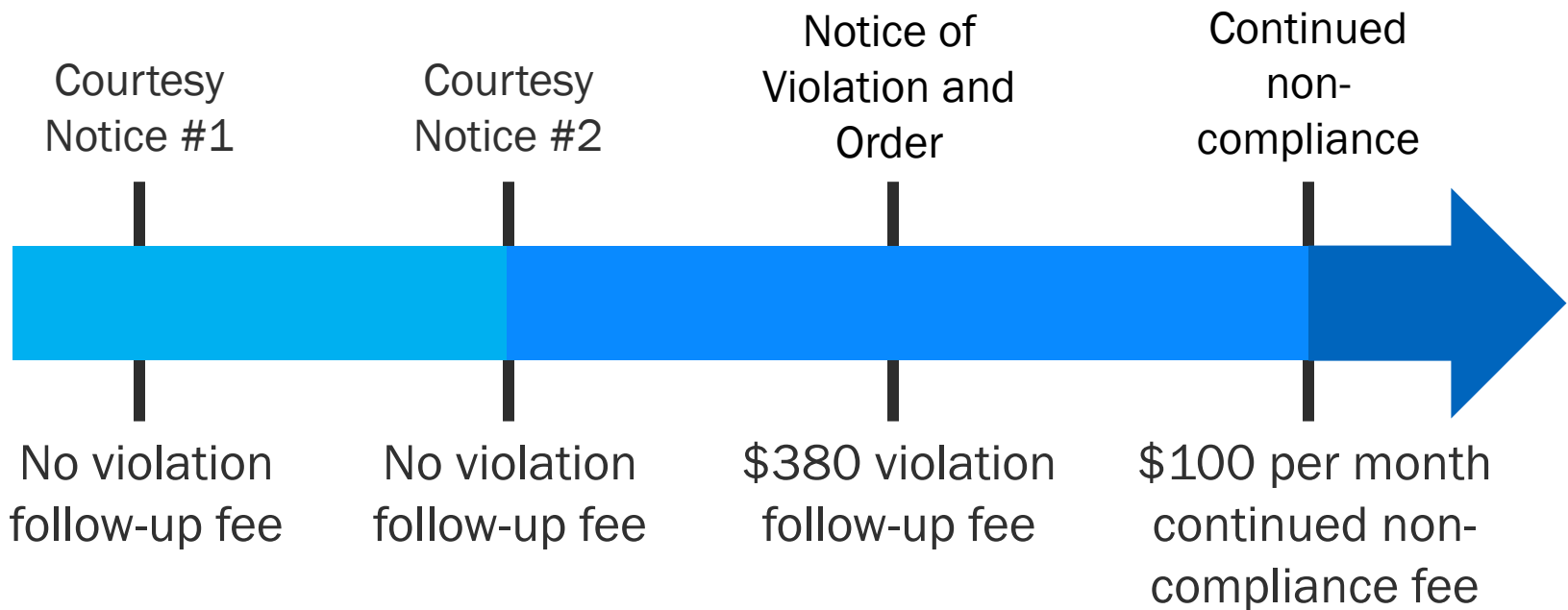
Certificates Issued
Since 2011

31% Parcels Within
Program Area

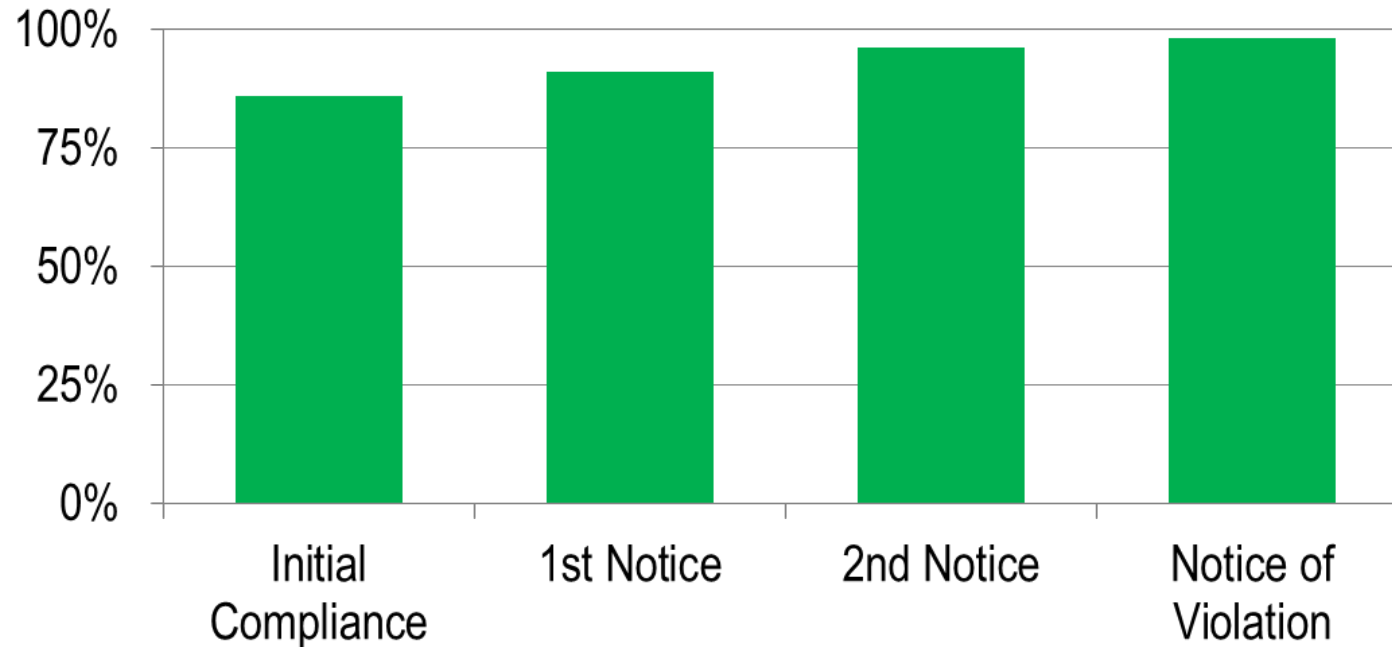
KEY TAKEAWAY

- 1** To maximize the number of PSLs certified, staff has increased focus on enforcement of properties that remain noncompliant.

Enforcement



Enforcement Overall Effectiveness



KEY TAKEAWAY

- 1 Compliance rates increase following a series of notices; however, a small number of properties remain out of compliance.

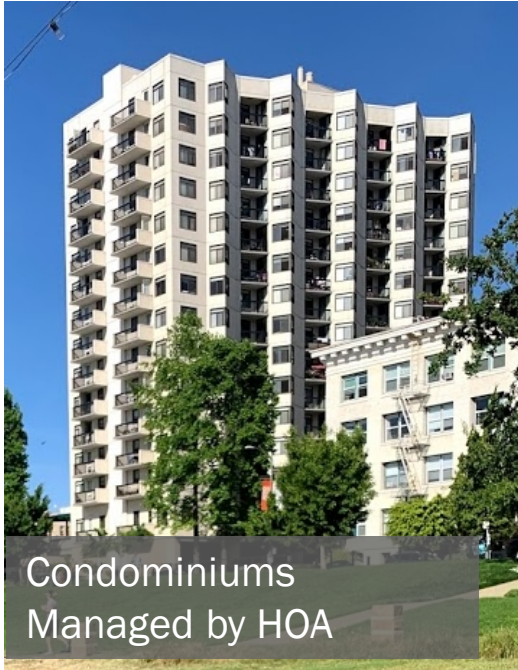
Enforcement Addressing Noncompliance



KEY TAKEAWAY

- 1 The number of properties out of compliance for many years has halved following additional notices and the violation follow-up fee.

Planning for July 2021 Homeowners' Association (HOA)



KEY TAKEAWAY

- 1 HOAs must certify all portions of the private sewer laterals under their responsibility by July 12, 2021.

Planning for July 2021

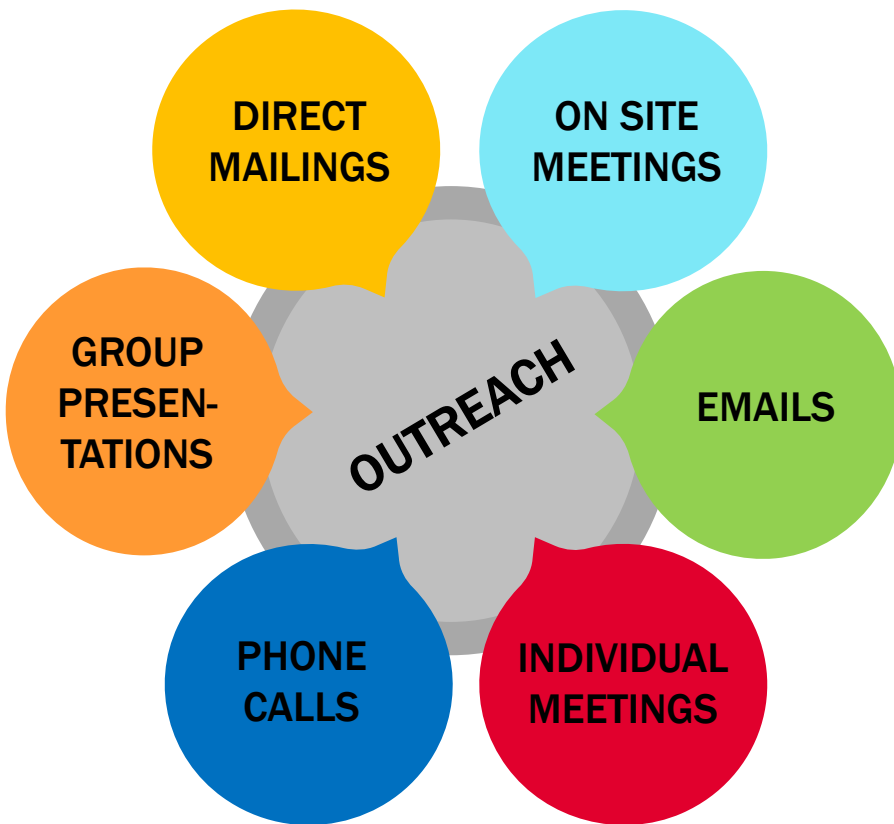
Parcel Groups with >1,000 Feet



KEY TAKEAWAY

- 1 Parcels with greater than 1,000 feet of private sewer laterals must submit a detailed **work plan** by July 12, 2021.

Planning for July 2021



BY THE NUMBERS

3 Staff responding to phone calls and emails

600 Custom mailers in 2019

10 Group presentations

>3,000 Letters sent 2014-2019 notifying of deadlines

Next Steps



Work with property owners and HOAs to achieve maximum compliance rates



Continue outreach regarding the July 12, 2021 deadline



Continue to monitor compliance rates and consider additional measures



Present cost recovery fee updates to the Board for consideration in May 2021

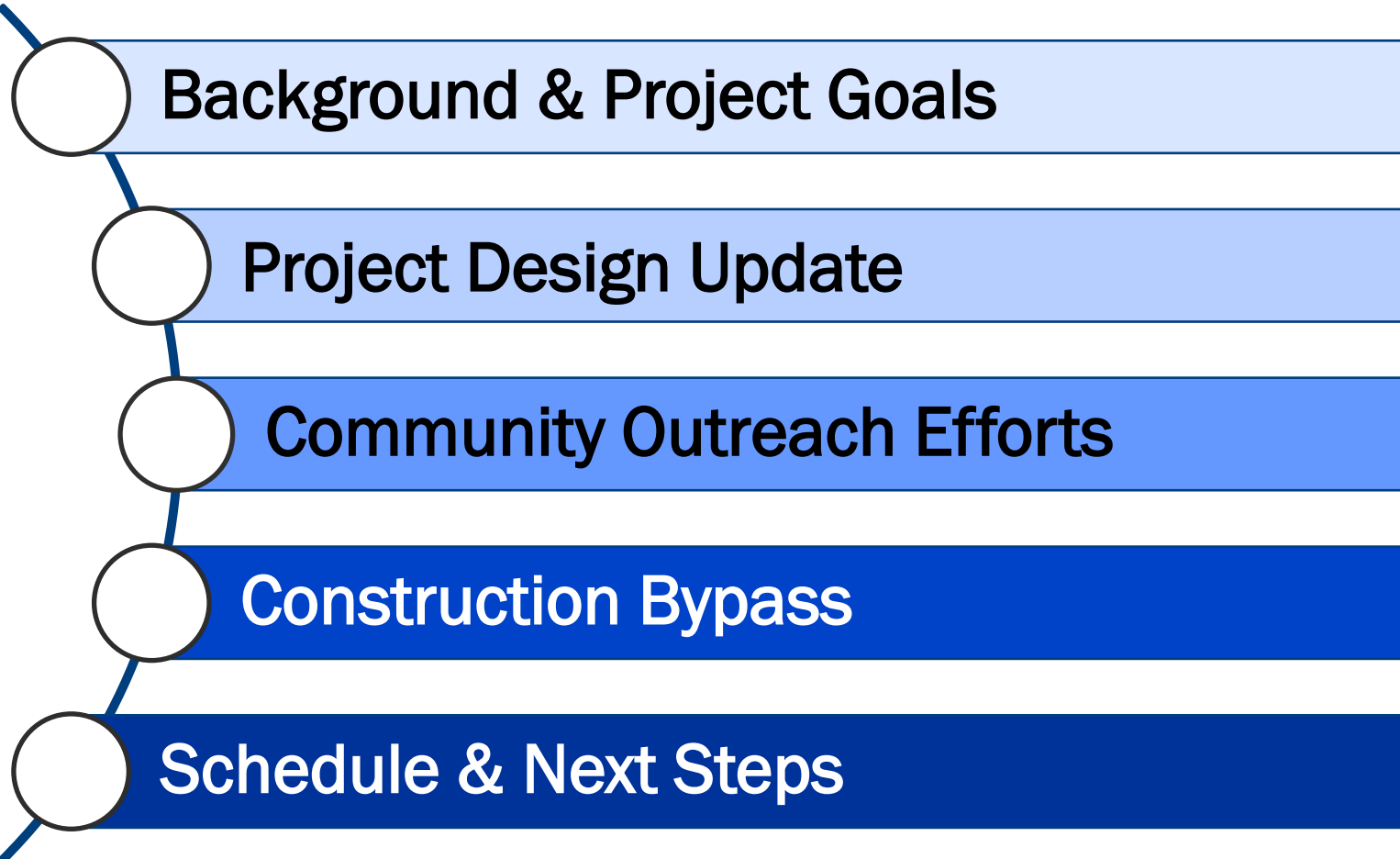


Wastewater Pump Station M Update

Planning Committee

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Pump Station M



Main Wastewater
Treatment Plant

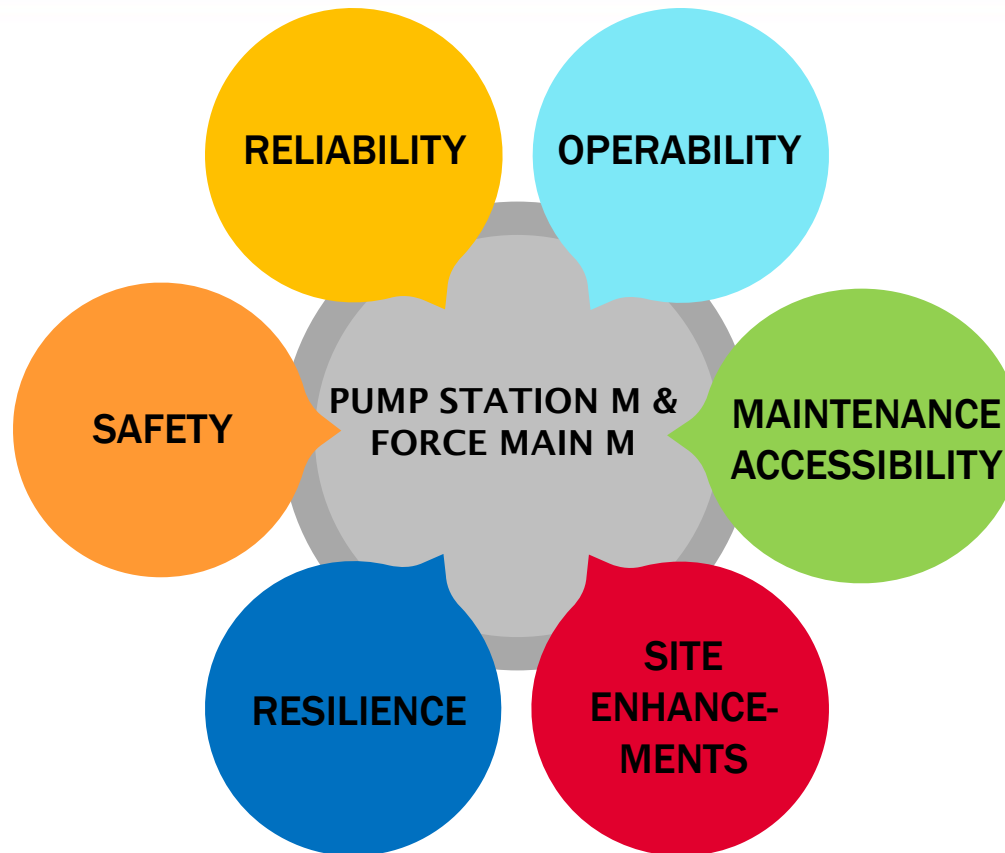
BY THE NUMBERS

1977	Original Construction
1986	District Assumes Ownership from Alameda
4	Wastewater Pumps
1.1	Million Gallons per Day Dry Weather Flow
6.8	Million Gallons per Day Wet Weather Flow

Pump Station M



Project Goals



KEY TAKEAWAY

- 1 Rehabilitation of Pump Station M and Force Main M has multiple benefits.

Project Progress Update

Deteriorated Concrete Lining



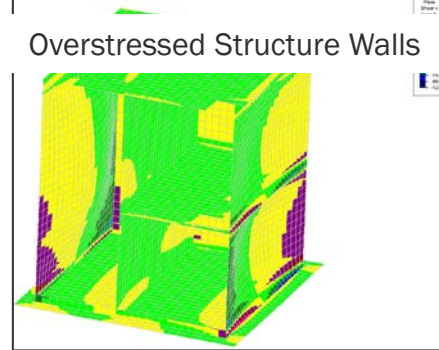
Concrete Support Corrosion



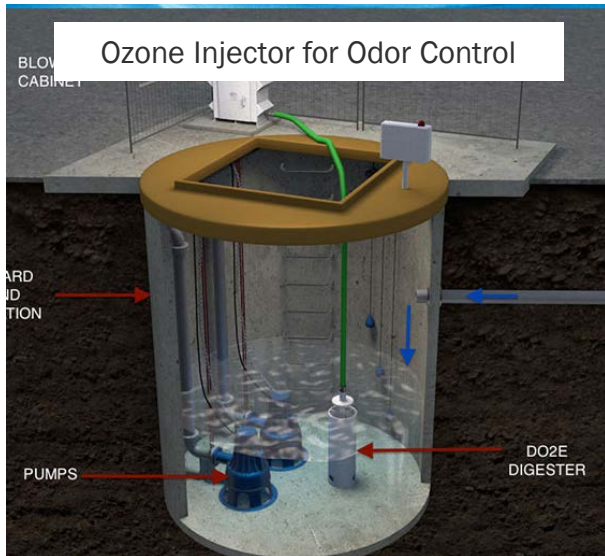
Concrete Cover Over Rebar



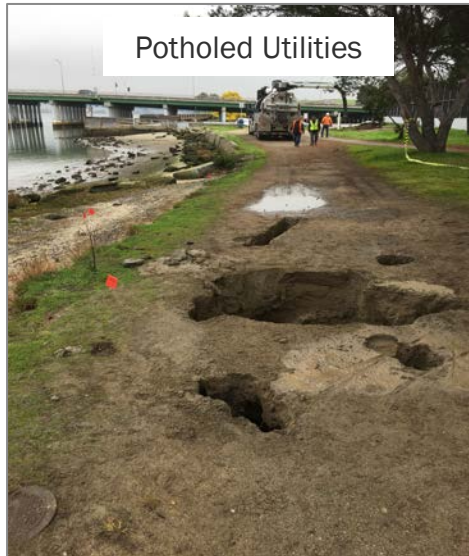
Overstressed Structure Walls



Ozone Injector for Odor Control



Potholed Utilities



Geotechnical Work



Pump Station M Improvements



Building Exterior – Colors per Homeowners' Association Architectural Standards



EXTERIOR MATERIALS & COLORS

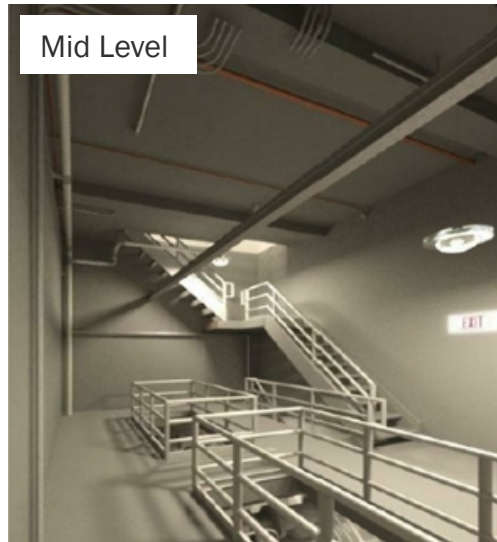
- A COMPOSITION ASPHALT SHINGLE ROOF**
GAF Timberline HD, Mission Brown
- B FIBER CEMENT SIDING**
Benjamin Moore Carter Gray, CW-80
- C TRIM**
Benjamin Moore Natural Wicker, OC-1
- D DOOR**
Benjamin Moore Narragansett Green, HC-157



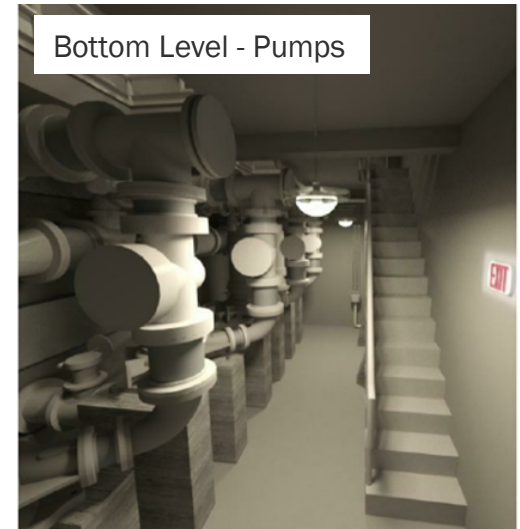
Grade Level –
Equipment Control Room



Mid Level



Bottom Level - Pumps



Force Main M Work



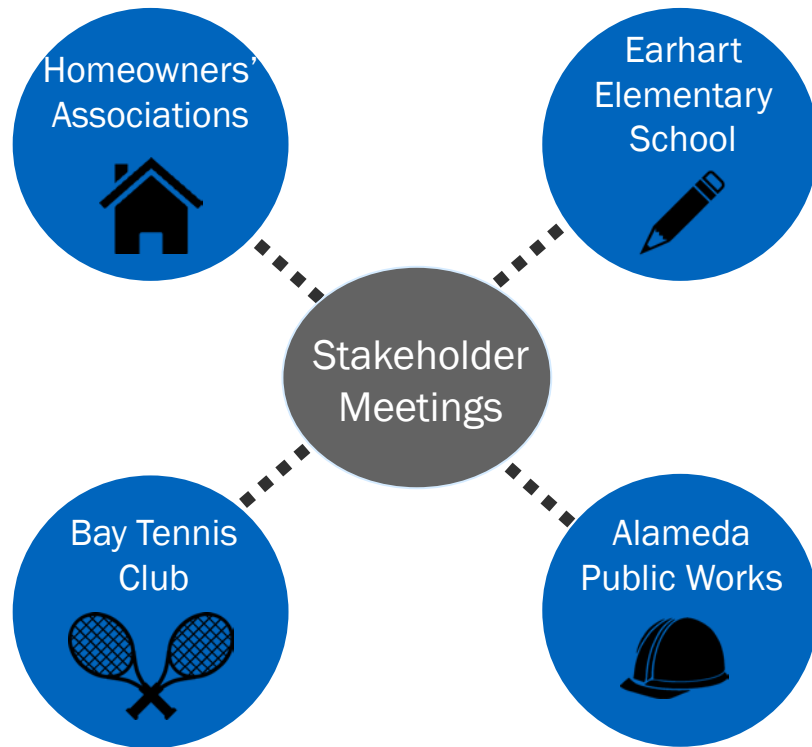
High-voltage electrical transmission conduit and communications cabling near Force Main M



KEY TAKEAWAY

- 1 Utility investigation needed; work on 2.5-mile length of Force Main M is deferred to Phase 2 in 2023.

Community Outreach



The screenshot shows the EBMUD website page for "Pump Station M Rehabilitation". The page has a blue header with the EBMUD logo and navigation links: Home, Customers, Water, Wastewater, Recreation, About us. There are also links for CONTACT US, JOBS, BUSINESS CENTER, SITE MAP, and STORE. A search bar is present. The main heading is "Pump Station M Rehabilitation".

Project Details

EBMUD will be upgrading an underground wastewater pump station and a pipe beneath the San Leandro Channel that service Bay Farm Island in Alameda. The pump station is over 40 years old, and much of the equipment is nearing the end of its useful life. This work will protect public health and the environment, and will ensure smooth sewer operations for decades to come.

Construction at the pump station will take place within and around EBMUD's property at the intersection of Robert Davy Jr. Drive and Packet Landing Road. During construction, an AC Transit bus stop on Robert Davy Jr. Drive will be closed and some parking on adjacent roads will be temporarily blocked. EBMUD will install a new crosswalk at the beginning of construction to facilitate uninterrupted pedestrian access around the construction site.

Exploratory work will also take place along the San Leandro Channel shoreline (see "Pipeline access point" on the map).

Workplan and schedule

Construction at the pump station will begin September 2021 and continue until fall 2022. Work along the San Leandro Channel shoreline may necessitate a temporary detour of the shoreline path and will last approximately one month between June and October 2022. Schedule is subject to change.

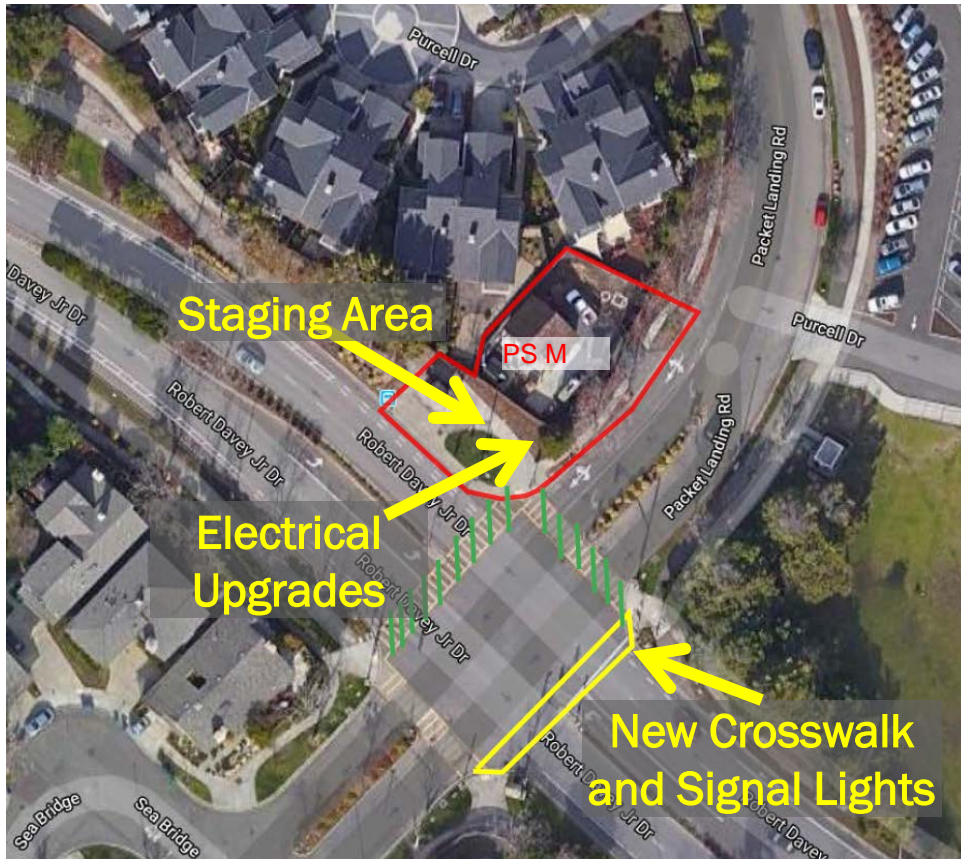
Contact Information

Ben Glickstein, Community Affairs Representative
Email: ben.glickstein@ebmud.com
Phone: 510-287-1631

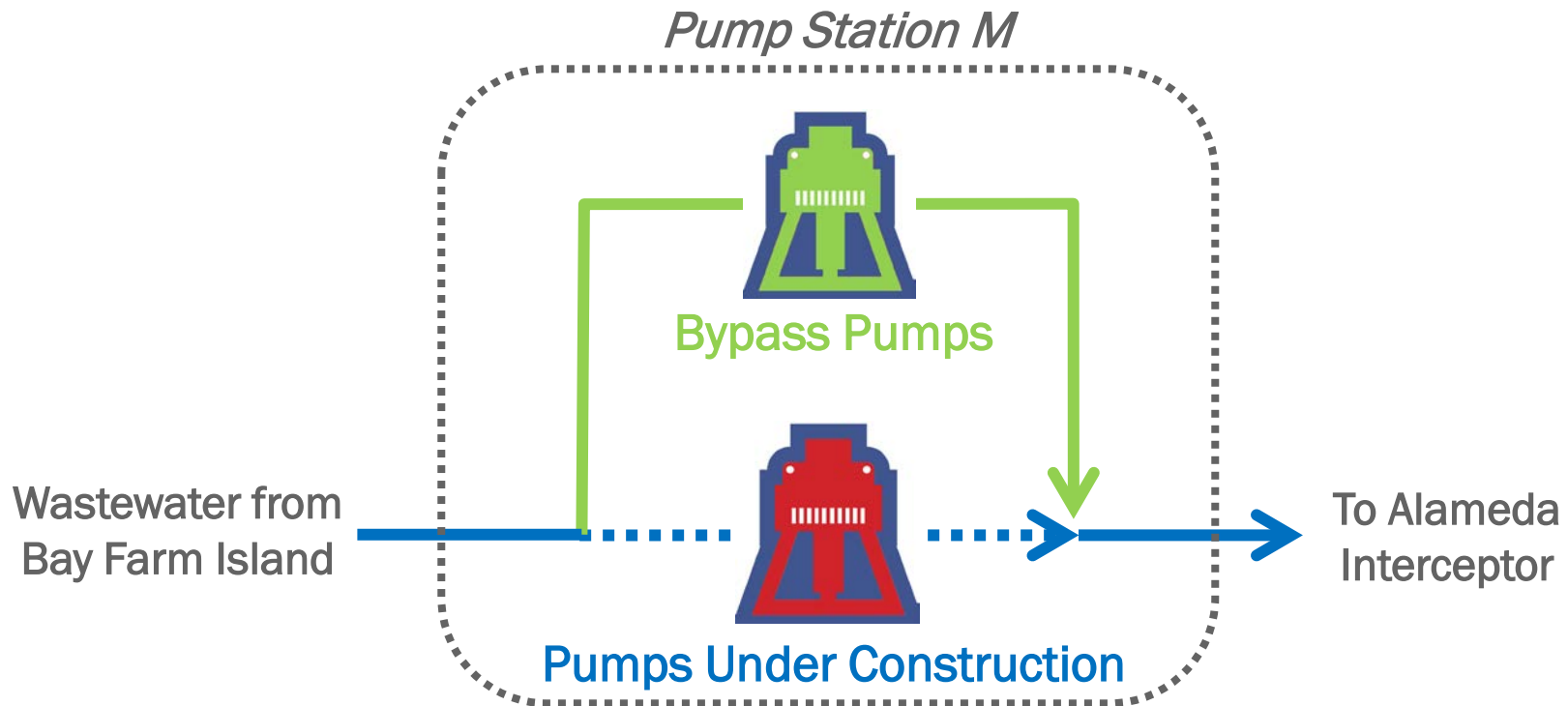
A map showing the project location in Alameda. It highlights the area around the intersection of Robert Davy Jr. Drive and Packet Landing Road. Key features include the "Pipeline access point" marked with a blue dot, the "Earhart Elementary School" marked with a blue dot, and the "San Leandro Channel" marked with a blue line. The map also shows surrounding streets like Robert Davy Jr. Dr., Packet Landing Rd., and Alameda Ave.

Home Customers Water Wastewater Recreation About us
Jobs Business Investors Media
375 11th Street Oakland, CA 94607
1-866-403-2683

Permitting



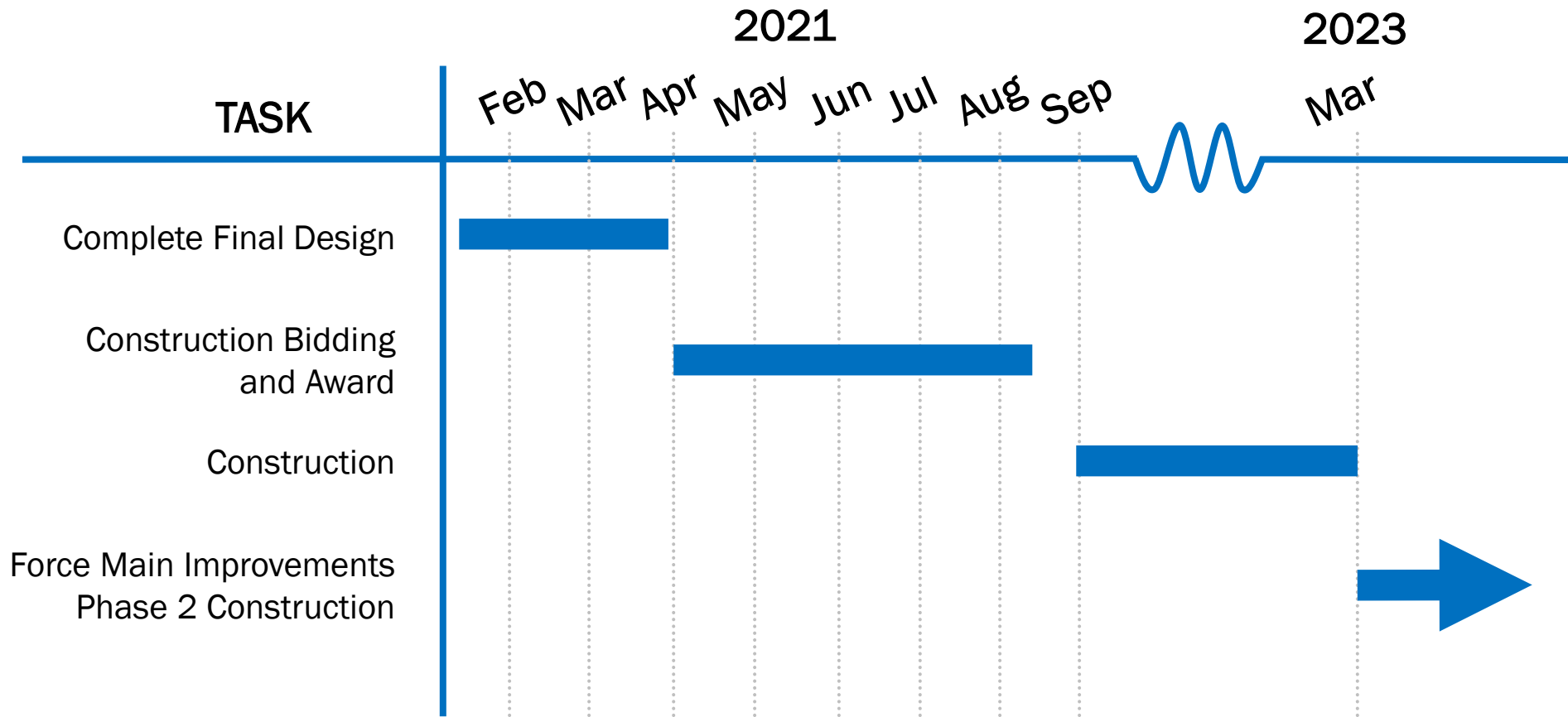
Pump Station Bypass



KEY TAKEAWAY

- 1 Construction requires taking the pumps offline, so temporary bypass pumping is necessary.

Project Schedule



An aerial photograph of the San Francisco area. In the background, the San Francisco skyline is visible across the water, with the Golden Gate Bridge spanning the bay. In the foreground, a large industrial facility, the Wastewater Pump Station M and Force Main M, is situated next to a multi-lane highway. The facility includes several large circular tanks and rectangular basins. A semi-transparent grey box with the text "Thank you! Questions?" is overlaid on the center of the image.

Thank you!
Questions?

Water Quality Program Annual Update

Planning Committee

March 9, 2021

2020 Water Quality Report



EAST BAY
MUNICIPAL
UTILITY
DISTRICT

2020
**ANNUAL WATER
QUALITY REPORT**
for January through December

EBMUD is pleased to report that in 2020 your drinking water quality met or surpassed every state and federal requirement that safeguards public health.

View your water quality report at
www.ebmud.com/wqr

Would you like us to mail you a report?
Call 510-986-7555 or email customerservice@ebmud.com.

The report will be available this summer in Spanish and Chinese.

Water Quality Update

- Met all state and federal drinking water regulations
- Met 97% of internal water quality goals
 - Significantly more stringent than regulatory requirements
 - 120 of 124 goals were met
 - Unmet goals associated with disinfection byproducts and chlorine residuals

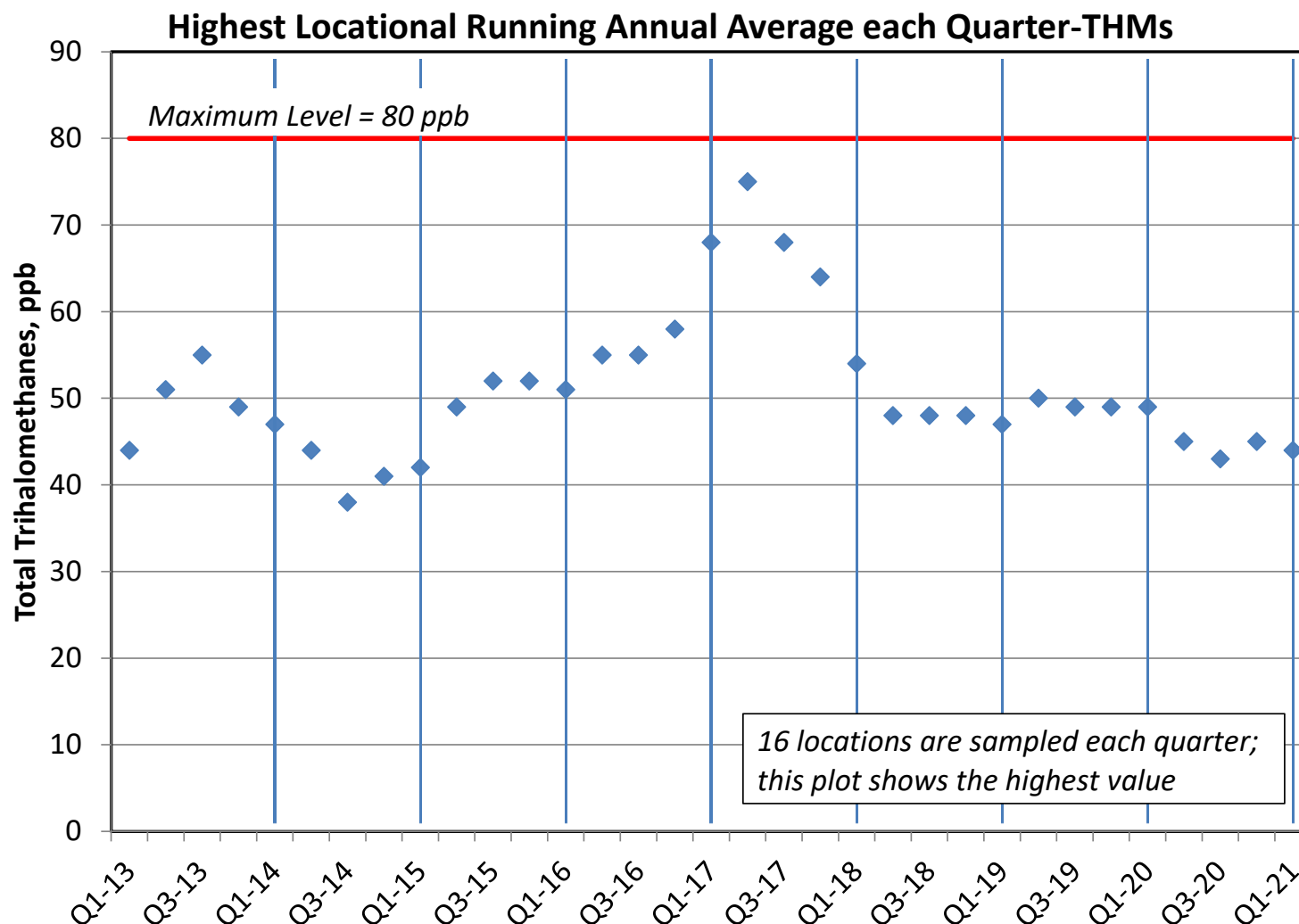


Disinfection Byproducts

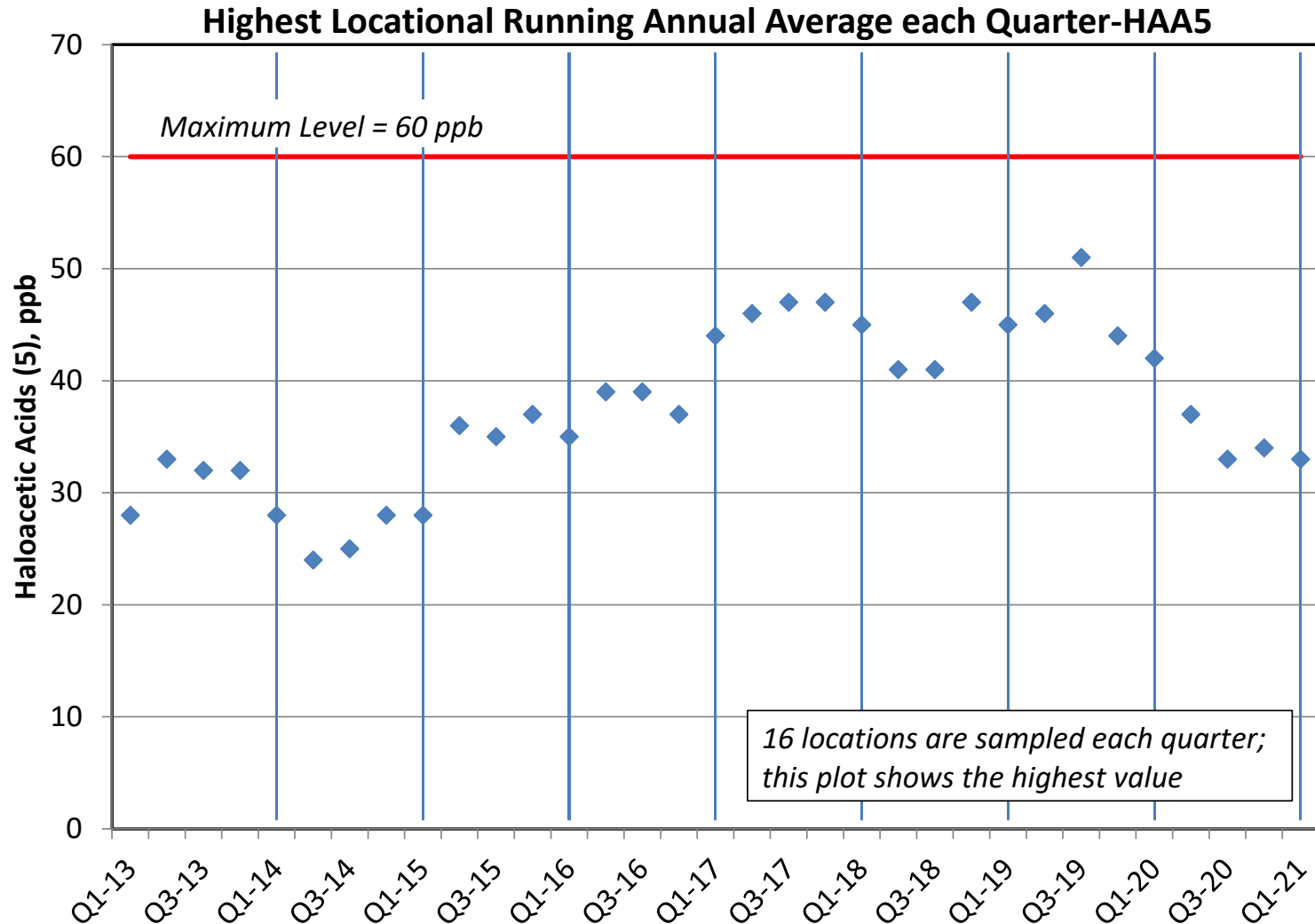


- Trihalomethanes (THMs)
 - Byproduct of chlorination process
 - 26 of 64 individual locations exceeded goal
- Haloacetic Acids (HAA5)
 - Byproduct of chlorination process
 - 19 of 64 individual locations exceeded goal
- N-nitroso-dimethylamine (NDMA)
 - Byproduct of chloramination process
 - 4 of 20 individual locations exceeded goal

Trihalomethanes



Five Haloacetic Acids (HAA5)



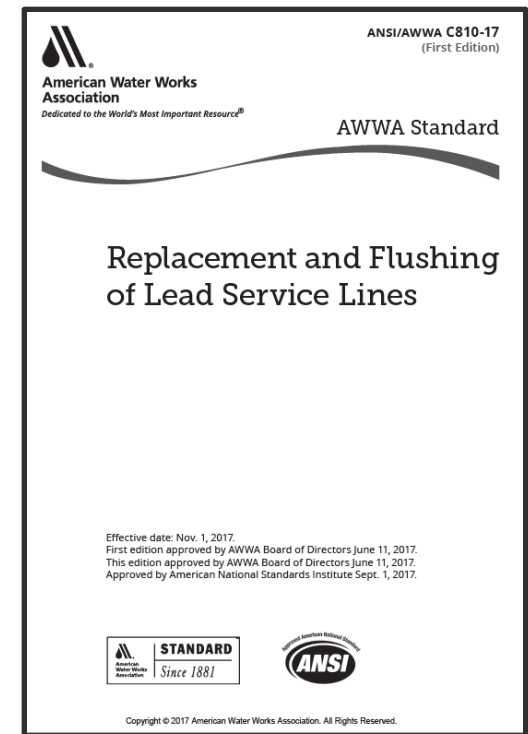
Distribution System Goals



- Goals for distribution system water quality
 - At least 95% of samples from pipes and reservoirs >0.5 mg/L chlorine residual each month
 - Less than 0.5% coliform-positive samples each month
- Chlorine residual goal not met for reservoirs, likely due to longer storage from fire season



- Reconciling federal and state regulations continues to be challenging
- More than 1,700 customers have requested sampling vouchers
- School sampling complete
- Continue refining service line inventory, replace remaining lead components
- Occasionally discover lead materials, work with customers to reduce exposure while removing these materials



Per- and poly-fluoroalkyl substances (PFAS)

- Notification Levels (NL) for 2 compounds (PFOA and PFOS)
- If found above NL, information must be reported to governing agency and State Board
- State Board and USEPA are developing enforceable standards
- Monitoring is voluntary for the District at this time
 - Quarterly sampling in 2020 from all plants
 - All results were below NLs; some low-level detects
 - Additional sampling to be done in 2021



Regulatory changes



- Fifth Unregulated Contaminant Monitoring Rule (UCMR5) to include nearly 30 PFAS compounds
- New enforceable standards for PFOA and PFOS
- Revisions to federal Lead and Copper Rule
 - Overlap/inconsistent with state requirements

2021 Texas water issues



- Severe cold weather
 - Extensive power outages
 - Very high demand, widespread depressurization
- 12 million people impacted
 - 1,500 water systems
- Communication with customers was challenging
 - Boil water notices, maps, social media, local and national news media



Questions?



Regulatory Compliance Semi-Annual Report

Planning Committee

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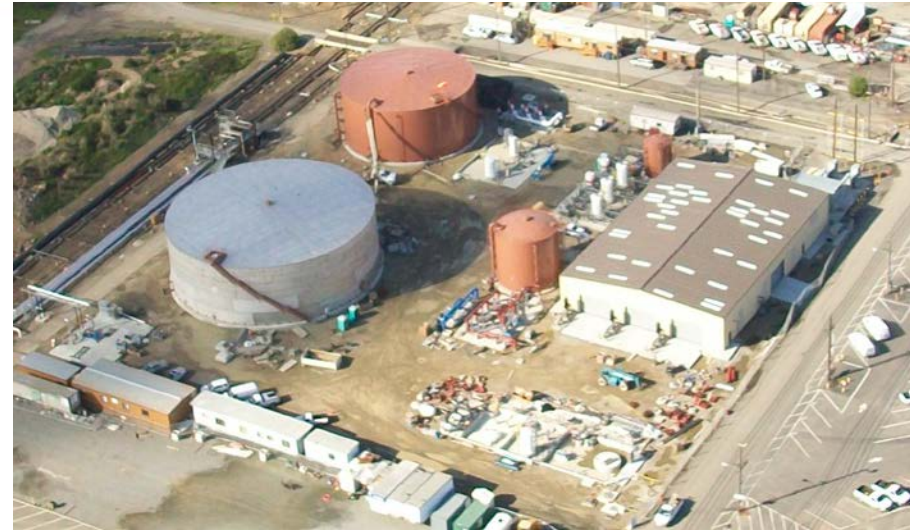
- Environmental Compliance
- Enhanced Compliance Actions
- Integrated Pest Management
- Workplace Health and Safety
- Cal/OSHA Serious Injuries

Environmental Compliance

Richmond Advanced Recycled Expansion



- Six Notices of Violation (NOVs) issued by West County Wastewater District (WCWD) for pH permit exceedances.



- New mixing system will increase neutralization of various waste streams. Planned to be operational in late 2021.
- No further NOVs will be issued by WCWD provided District maintains agreed-to compliance schedule.

Environmental Compliance

Pump Station M Sanitary Sewer Overflow



- Approximately 97,000 gallons of untreated wastewater overflowed to estuary due to an electrical system failure.
- Staff collected daily water samples to quantify water quality impacts.
- Signage posted at site and information emailed to public.
- District conducted street sweeping and landscape repairs on impacted streets and properties.

Environmental Compliance

BAAQMD Settlement – Adeline Fuel Facility



- Bay Area Air Quality Management District inspection discovered non-compliant fuel dispensing hose and issued an NOV
- Hoses were replaced within a week
- A fine of \$1,500 was paid to settle the NOV



Environmental Compliance

Central Reservoir Underdrain Discharge



- *Friends of Sausal Creek* inquired about a discharge into the creek
- Low volume discharge from the underdrain system containing residual chlorine
- Discharge was sampled to obtain chlorine levels, no residual found downstream
- De-chlorination system was set up to remove chlorine
- Water Board satisfied with our response; no action taken

Environmental Compliance

DCBM Exceedance at Orinda WTP



- Filter backwash from Orinda WTP exceeded limit for Dichlorobromomethane (DCBM)
- Single sample taken during unusually high flow from Briones Reservoir to accommodate construction
- Briones water contains higher precursors for DCBM formation (bromide) compared to Pardee
- DCBM is produced when water is chlorinated
- No enforcement action is expected from San Francisco Regional Water Quality Control Board

Enhanced Compliance Action

Leak Detection



- Settlement agreement for three water main breaks in 2015 and 2016
- Installed ~ 1,988 acoustic loggers
- 140 leaks detected and repaired
- Final report issued September 30, 2020



Enhanced Compliance Action

Chlorine Analyzer



- Settlement agreement for chlorine limit exceedance at Orinda WTP in 2017
- Installed 15 chlorine analyzers at distribution reservoirs
- Final report issued September 30, 2020



Integrated Pest Management



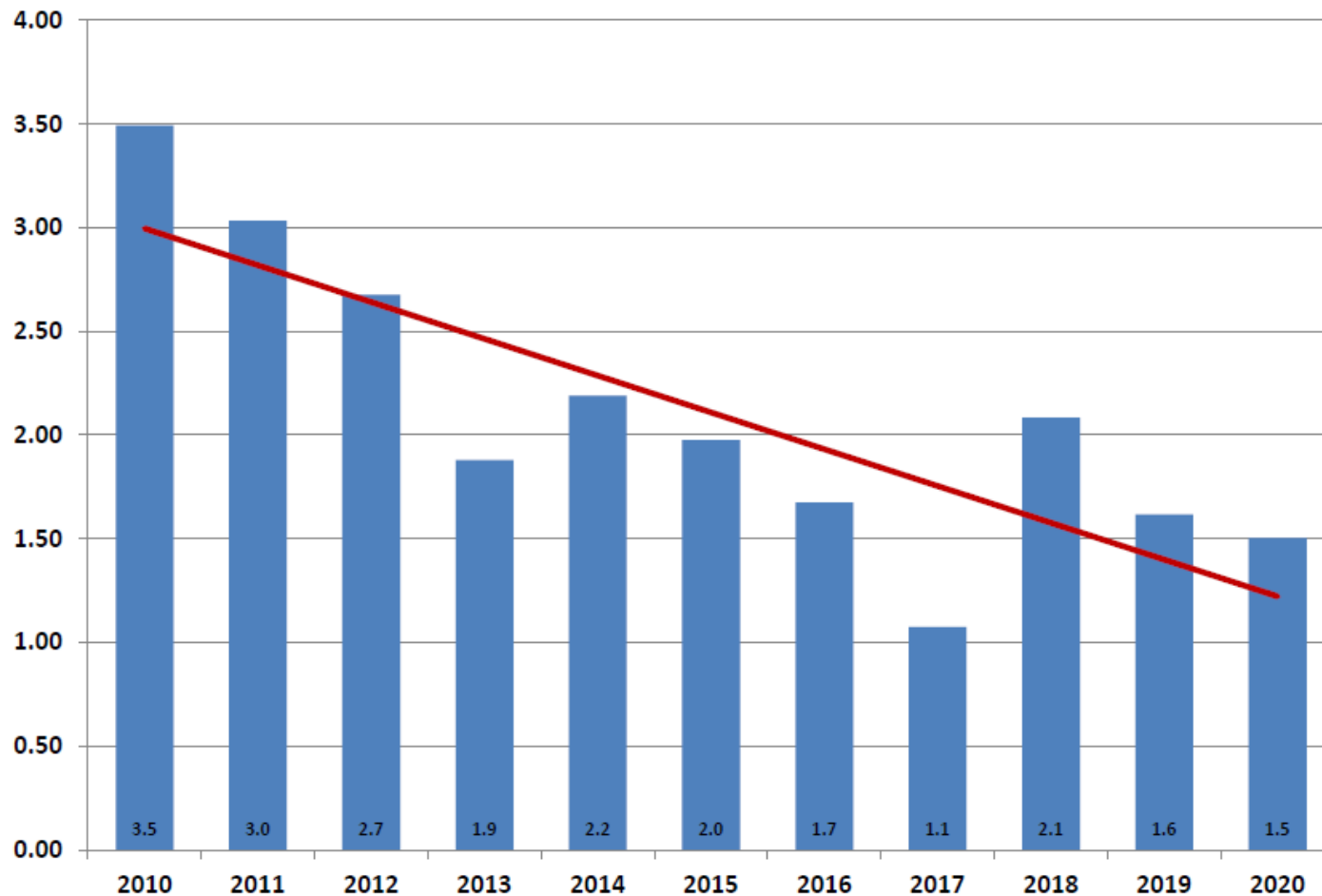
- Hosted public meeting (virtually) on December 11 to share proposed updates to the IPM guidelines
- Comments were collected during and after the meeting
- Meeting with interested stakeholders on March 12 to respond to comments
- Final draft of the IPM Guidelines to be presented to the Sustainability/Energy Committee April 27

Workplace Health and Safety



Lost Time Injury Rate Goal: ≤ 3.0 Actual: 1.3

District Lost Time Injury Rate



Workplace Health and Safety

Lost Time Hours



- 35,282 hours in 2010
- 18,090 hours in 2020
- 50% Reduction
 - 17,192 hours
 - Equivalent to 10 employees
- There were 5 work-related cases of COVID-19 in 2020

Cal/OSHA Serious Injury



- On October 13, an employee suffered a partial finger amputation while operating a lift gate on a truck
- Employee reached into truck to clear debris and caught finger in a pinch point
- No follow-up investigation by Cal/OSHA
- Employee has returned to work

Cal/OSHA Serious Injury



- On November 4, an employee fell into a trench after exiting a portable toilet
- Cal/OSHA opened an investigation on November 13
- Closing conference held on February 4 resulting in a Notice of No Violation
- Employee is recovering and returned to modified duty on February 9

Questions

