LOMITA CITY COUNCIL
WATER SUBCOMMITTEE MEETING

Lomita Water System Update

November 3, 2016

Meeting Overview

- Actions taken since August 2016
- Hazen & Sawyer Amendment No. 2
  - Sampling Plan
  - GAC Filtration Bench Test
- TTHM (August Citation) Update
- Other Items
  - MWD Water Quality
  - CyberCity 3D
  - Communications with Residents
- Next Steps…

Actions Taken Since August 2016

- SCADA Upgrades Project – ongoing at CWPF, Appian Way, Corp Yard, Harbor Hills, WB-7, WB-8 – major work occurring at CWPF during August/September 2016

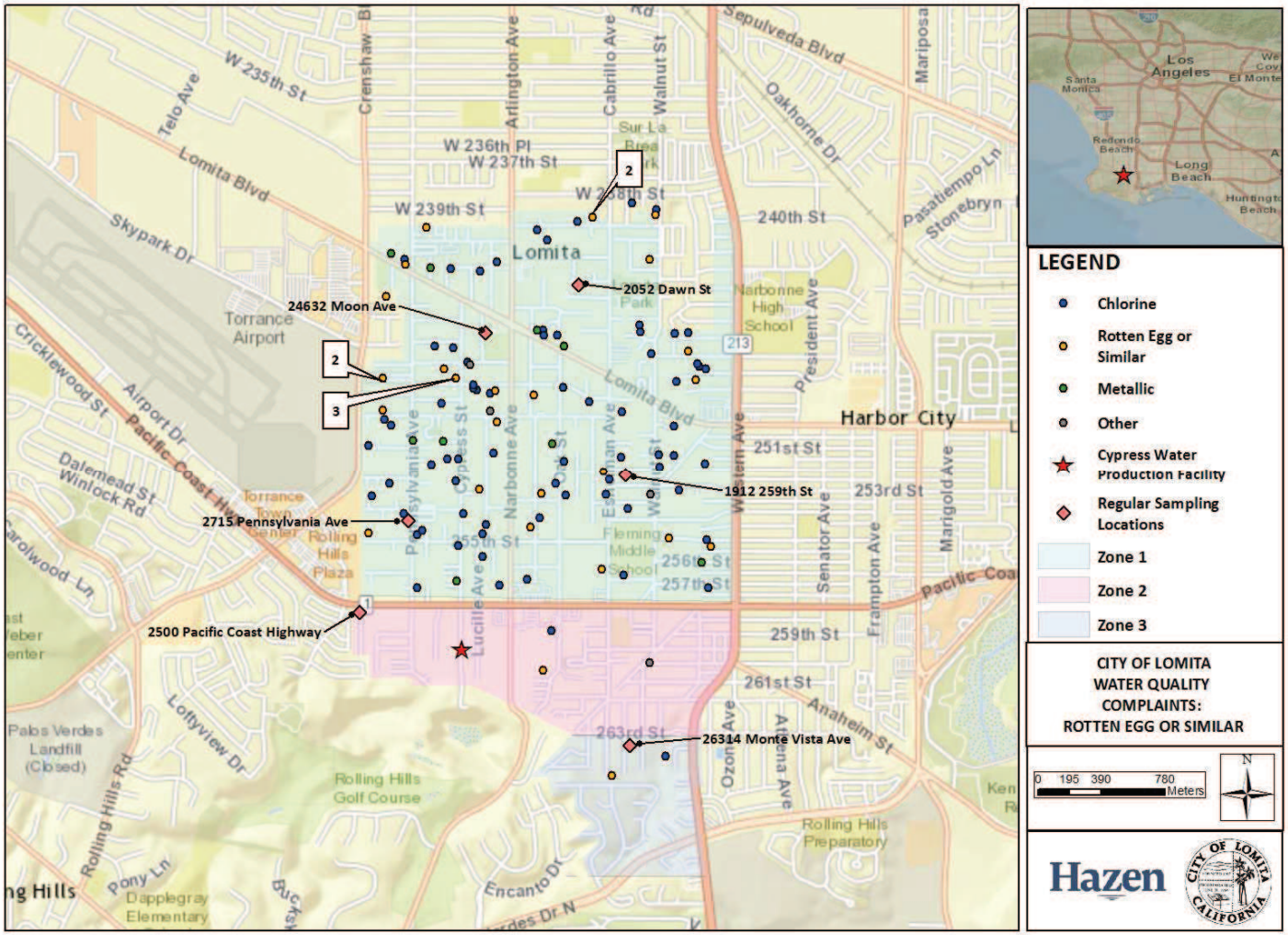
- Chlorine demand management and analyzers – serviced in October during continued CWPF maintenance/shutdown

- Hazen and Sawyer Contract Amendment No. 2:
  - Review last three years of water quality data
  - Begin localized sampling and testing throughout the distribution system – Sampling Plan
  - Begin bench testing of Granular Activated Carbon (GAC) filtration to remove sulfides to address odor/taste concerns
  - Increased sampling frequency and targeted flushing

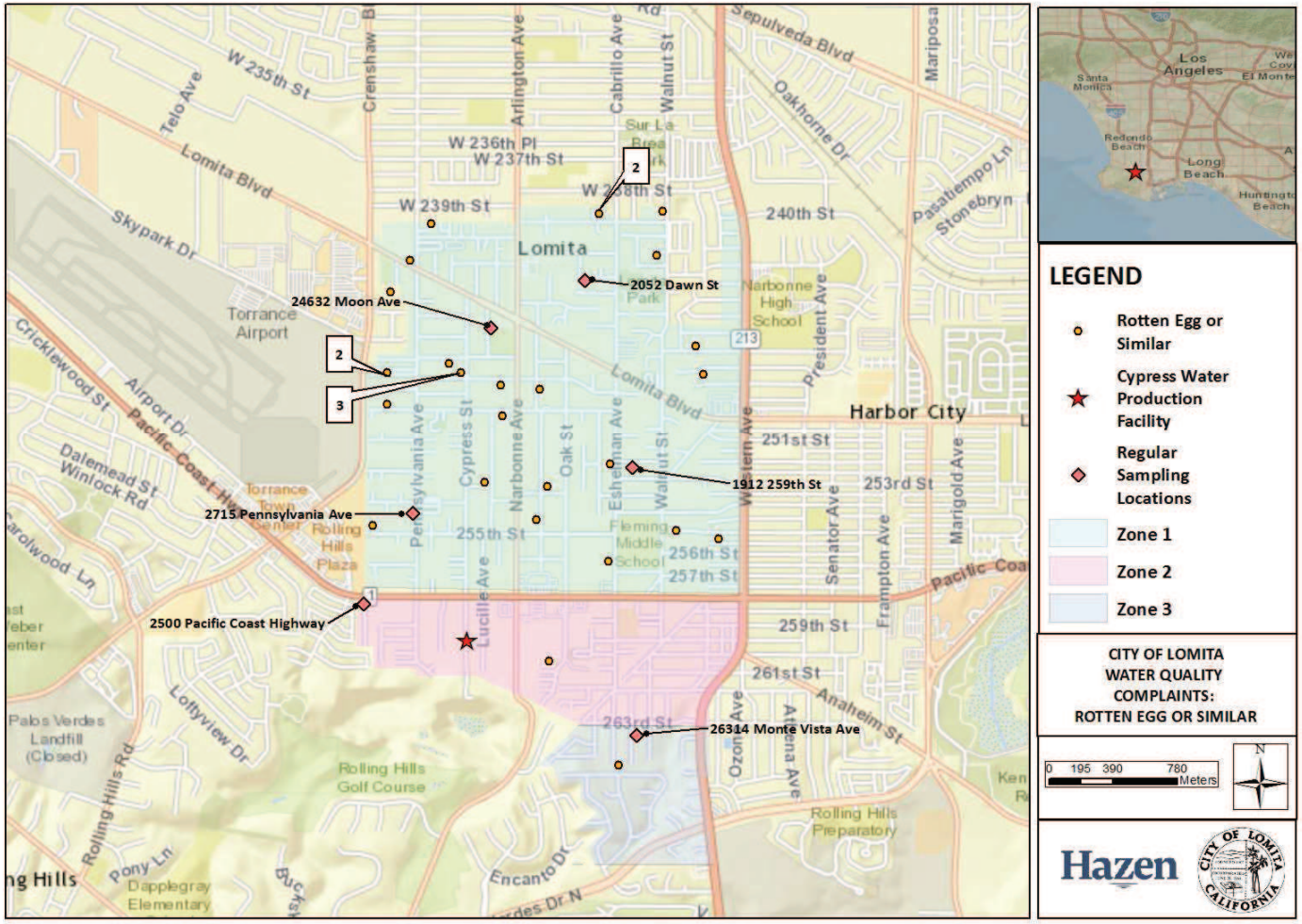
Sampling Plan – Distribution System

- Citywide at strategic locations to measure existing conditions and develop recommendations
- Due to work at CWPF, added an additional baseline condition of 100% WBMWD surface water
- Included 4 sample sites at private residences – both within and outside the home
- Follow-up sampling at those same 4 sample sites to occur later this year
- Sampling plan completion date TBD

Sampling Plan – Distribution System



Sampling Plan – Distribution System



GAC Pilot – Bench Testing

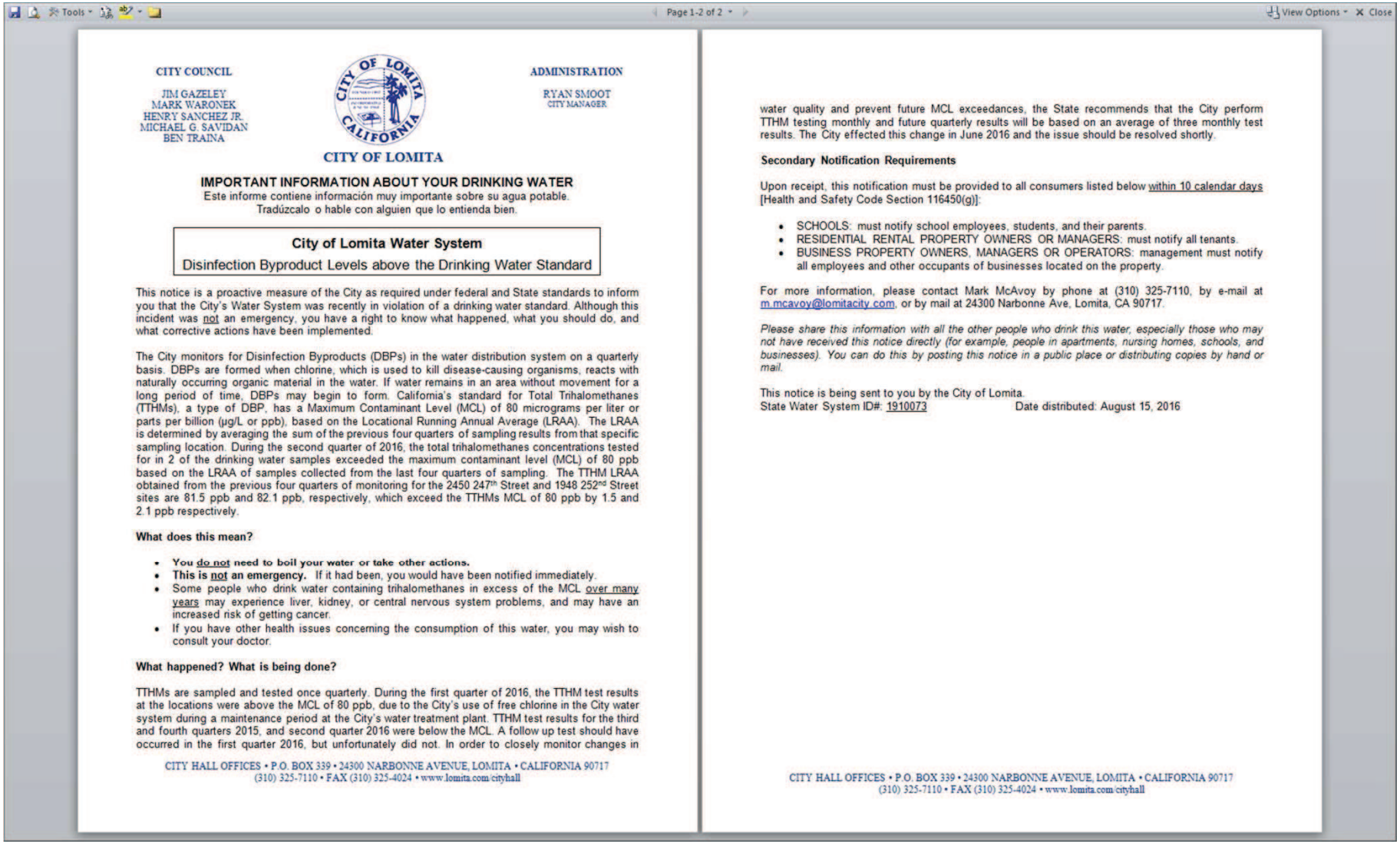
- Groundwater aquifer has organics that can cause odor issues, such as “rotten-egg” or “sulfur” smell
- Bench testing of aeration showed that aeration alone was not sufficient to control odor
- Granular Activated Carbon (GAC) is effective at filtering out organics and improving odor; next step is to bench test different GAC filter media

GAC Pilot – Bench Testing

- Hazen GAC Powerpoint

GAC Pilot – Bench Testing

August 2016 Citation Update



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CITY OF LOMITA

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.

City of Lomita Water System
Disinfection Byproduct Levels above the Drinking Water Standard

This notice is a proactive measure of the City as required under federal and State standards to inform you that the City's Water System was recently in violation of a drinking water standard. Although this incident was not an emergency, you have a right to know what happened, what you should do, and what corrective actions have been implemented.

The City monitors for Disinfection Byproducts (DBPs) in the water distribution system on a quarterly basis. DBPs are formed when chlorine, which is used to kill disease-causing organisms, reacts with naturally occurring organic material in the water. If water remains in an area without movement for a long period of time, DBPs may begin to form. California's standard for Total Trihalomethanes (TTHMs), a type of DBP, has a Maximum Contaminant Level (MCL) of 80 micrograms per liter or parts per billion (µg/L or ppb), based on the Locational Running Annual Average (LRAA). The LRAA is determined by averaging the sum of the previous four quarters of sampling results from that specific sampling location. During the second quarter of 2016, the total trihalomethanes concentrations tested for in 2 of the drinking water samples exceeded the maximum contaminant level (MCL) of 80 ppb based on the LRAA of samples collected from the last four quarters of sampling. The TTHM LRAA obtained from the previous four quarters of monitoring for the 2450 247th Street and 1948 252nd Street sites are 81.5 ppb and 82.1 ppb, respectively, which exceed the TTHMs MCL of 80 ppb by 1.5 and 2.1 ppb respectively.

What does this mean?

- **You do not need to boil your water or take other actions.**
- **This is not an emergency.** If it had been, you would have been notified immediately.
- Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.
- If you have other health issues concerning the consumption of this water, you may wish to consult your doctor.

What happened? What is being done?

TTHMs are sampled and tested once quarterly. During the first quarter of 2016, the TTHM test results at the locations were above the MCL of 80 ppb, due to the City's use of free chlorine in the City water system during a maintenance period at the City's water treatment plant. TTHM test results for the third and fourth quarters 2015, and second quarter 2016 were below the MCL. A follow up test should have occurred in the first quarter 2016, but unfortunately did not. In order to closely monitor changes in

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water quality and prevent future MCL exceedances, the State recommends that the City perform TTHM testing monthly and future quarterly results will be based on an average of three monthly test results. The City effected this change in June 2016 and the issue should be resolved shortly.

Secondary Notification Requirements

Upon receipt, this notification must be provided to all consumers listed below within 10 calendar days [Health and Safety Code Section 116450(g)]:

- SCHOOLS: must notify school employees, students, and their parents.
- RESIDENTIAL RENTAL PROPERTY OWNERS OR MANAGERS: must notify all tenants.
- BUSINESS PROPERTY OWNERS, MANAGERS OR OPERATORS: management must notify all employees and other occupants of businesses located on the property.

For more information, please contact Mark McAvoy by phone at (310) 325-7110, by e-mail at m.mcavoy@lomitacity.com, or by mail at 24300 Narbonne Ave, Lomita, CA 90717.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by the City of Lomita.
State Water System ID#: 1910073 Date distributed: August 15, 2016

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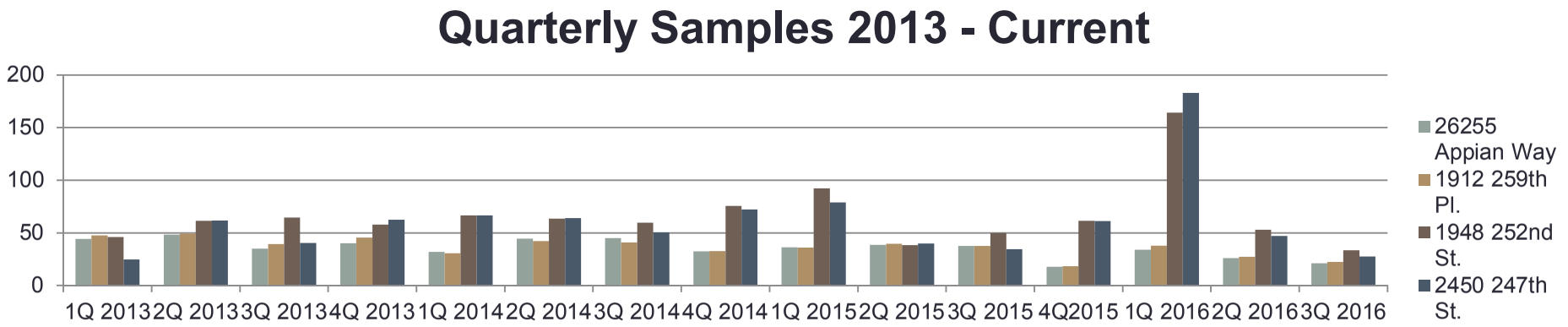
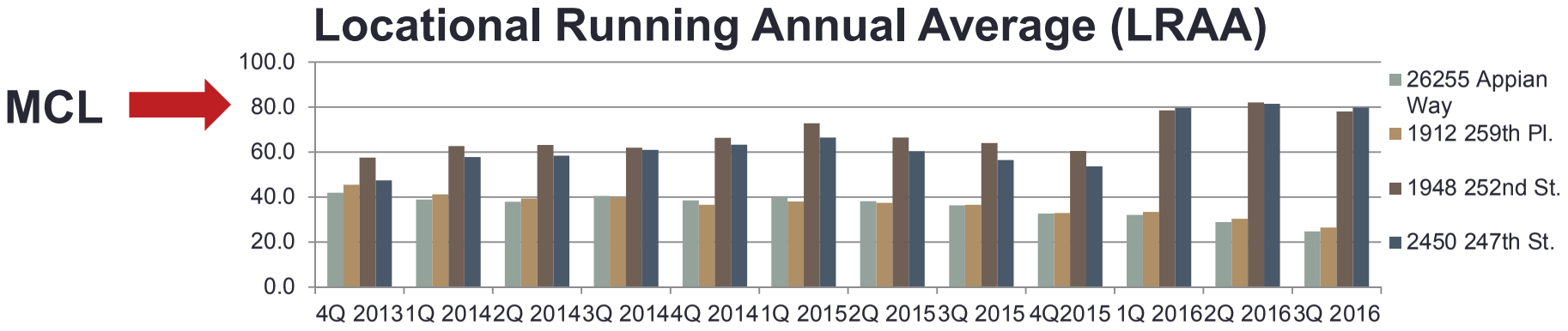
August 2016 Citation Update

- **The February 2016 TTHM spike was a one-time occurrence due to maintenance work at CWPF**
- **You did not and still do not need to take any actions**
- **Precautions in place to prevent future non-representative test results**
- **Third quarter 2016 – back to below the MCL**

August 2016 Citation Update





***Note: CWPF online in 1Q 2013, so first LRAA as of 4Q 2013

MWD Water Quality

- Water sample testing in Zone 2 and Zone 3 show a decrease in water quality over the last month (lower chloramine residual)

- MWD investigating potential causes
  - Not a health concern
  - City operational changes to address short-term decrease in MWD water quality – flushing in Zone 2 & 3, operational changes at CWPF to make up differences

- Expected to be short-term

- MWD supplying 100% Colorado Aqueduct water for at least the remainder of 2016 and early 2017

Water System Modeling - CyberCity

- 3D Model of City infrastructure – buildings and infrastructure, including water system

- Unique software that models the water system components (among many other things):
  - Pressure, Flow, Metering Data, Historical Data
  - Identify problem areas and narrow focus for potential improvements
  - Cost-effectiveness of pipeline segments, smart tools to help with management of the water distribution system

- Will be utilized to build a better system model that is less static and more dynamic, with real-time data, user-friendly for staff
  - Ongoing updates of the Water Master Plan
  - CIP Planning & Budgeting

Water System Modeling - CyberCity

Water System Modeling - CyberCity

Communication with Residents

- Phone calls, emails, etc. – continue to contact the City!

- www.lomitawater.com
  - Water Quality Reports – uploaded once accepted by the State
  - Frequently Asked Questions (FAQ) – please use! And let me know what you would like added

- Important Phone Numbers:
  - (310) 597-6428 Emergencies (Water Leaks)
  - (310) 597-6427 Non-water Emergencies
  - (310) 325-7110 General – ask for Virginia for general questions, Ulises for questions about water quality reports
  - (310) 325-7114 Billing Questions

Next Steps…

- Hazen and Sawyer Contract Amendment No. 2:
  - Complete review of water quality data
  - Complete sampling and testing for sampling plan by end of the year
  - Continue bench testing of GAC filtration and develop cost and potential project scope for Council consideration

- Continue additional sampling/testing/monitoring, including follow-up testing at the 4 private residences

- Continue targeted flushing (including Zone 2 and 3)

- Next subcommittee meeting early 2017

Questions and Discussion