



Data Summary

EPA Region 5, U.S. EPA

January 11, 2017



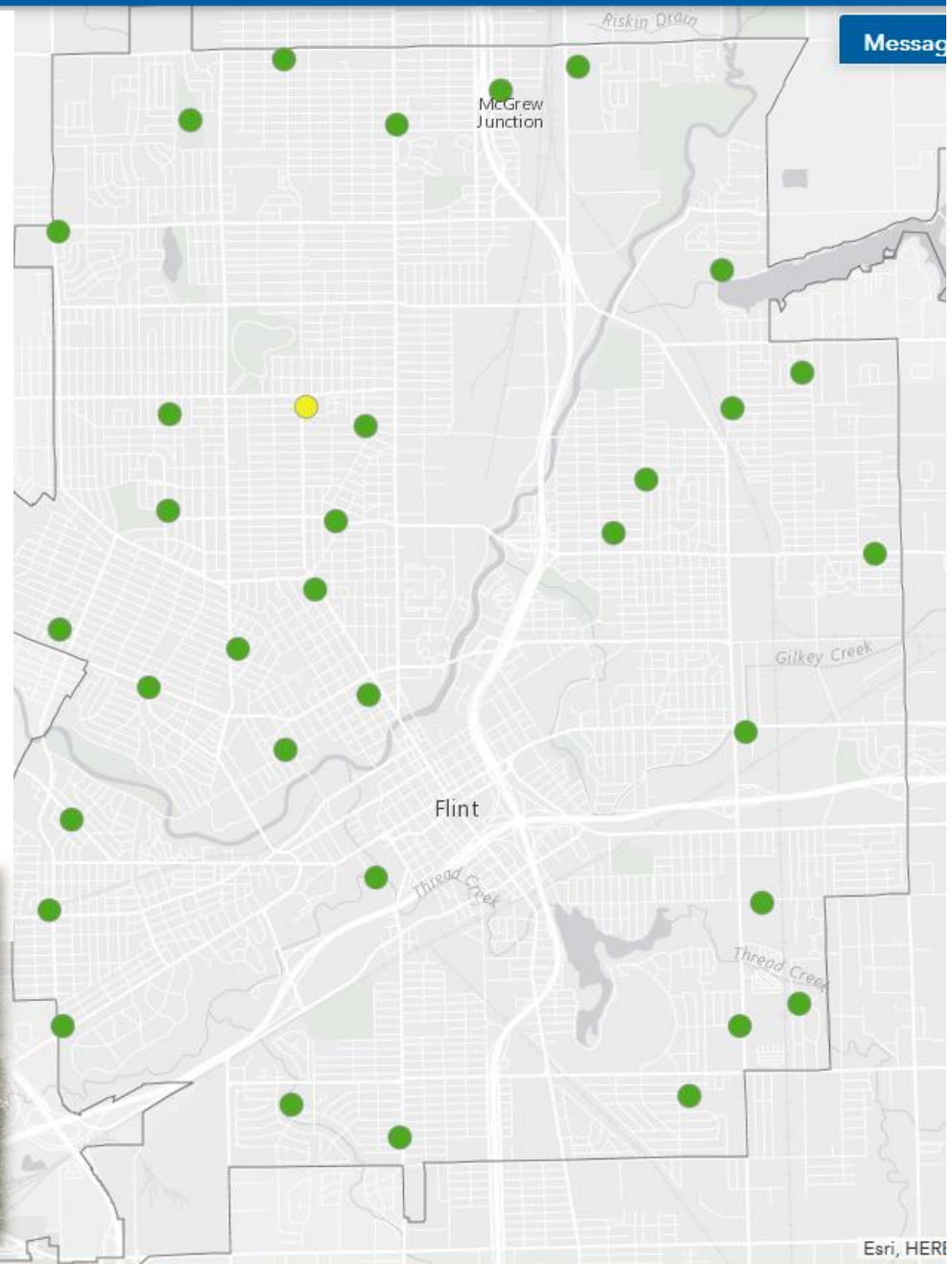
Overall Water Quality Is Improved

- Significant decrease in lead levels overall
- Significant improvement in ability to maintain adequate disinfection throughout the system
- Disinfection byproducts well below MCLs
- No more discolored water



Combined EPA/ Flint Recurring Chlorine Monitoring

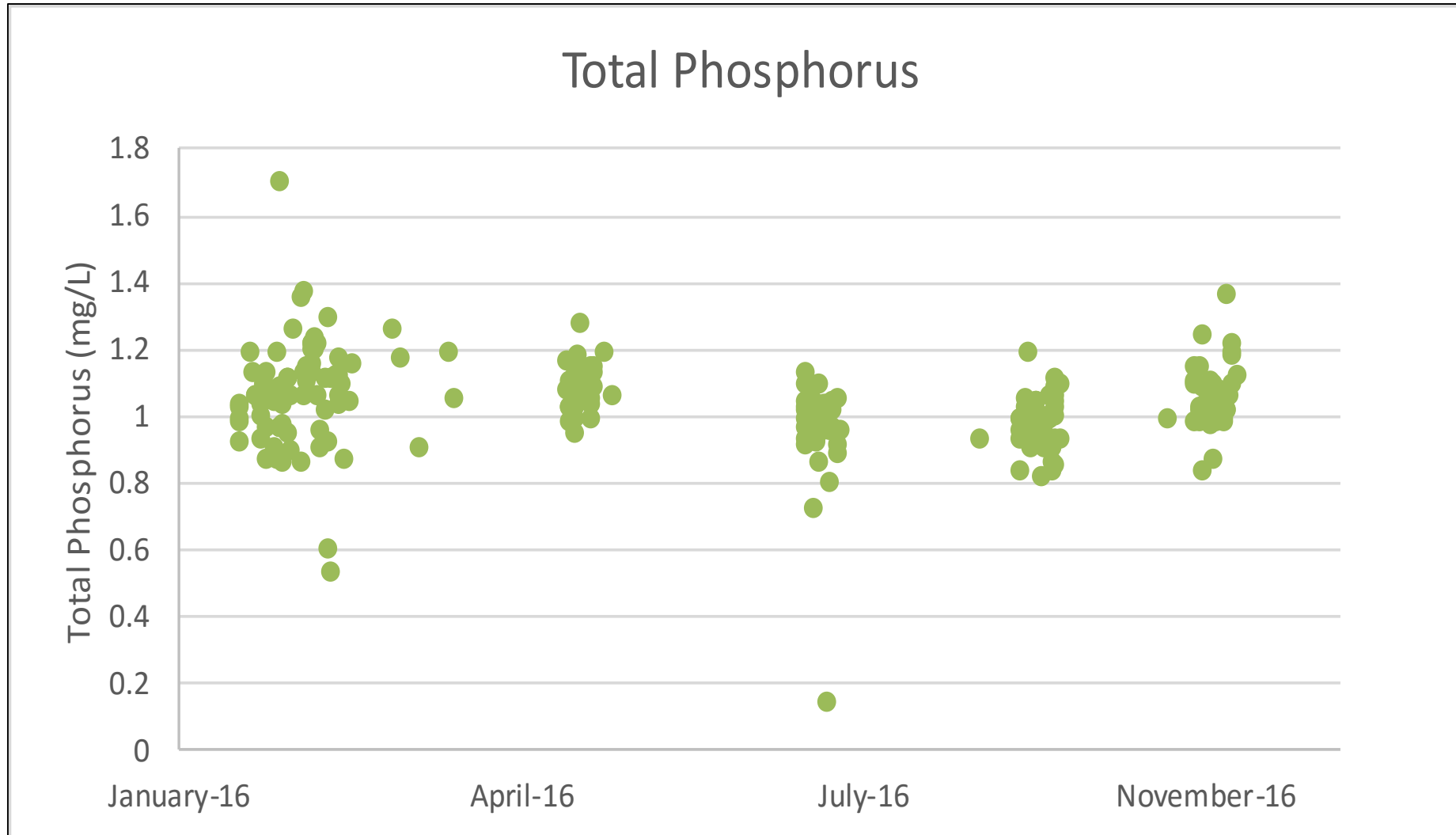
- EPA added 24 Cl_2 monitoring sites
- **Mostly churches, schools, childcares in close proximity to neighborhoods.**
- Combined with the 10 Utility sites, total = 34 Cl_2 monitoring locations weekly
- **Concentrations mapped on EPA website, updated biweekly**
- Working with Utility to implement best practices
- **Including flushing program for localized low residual areas**





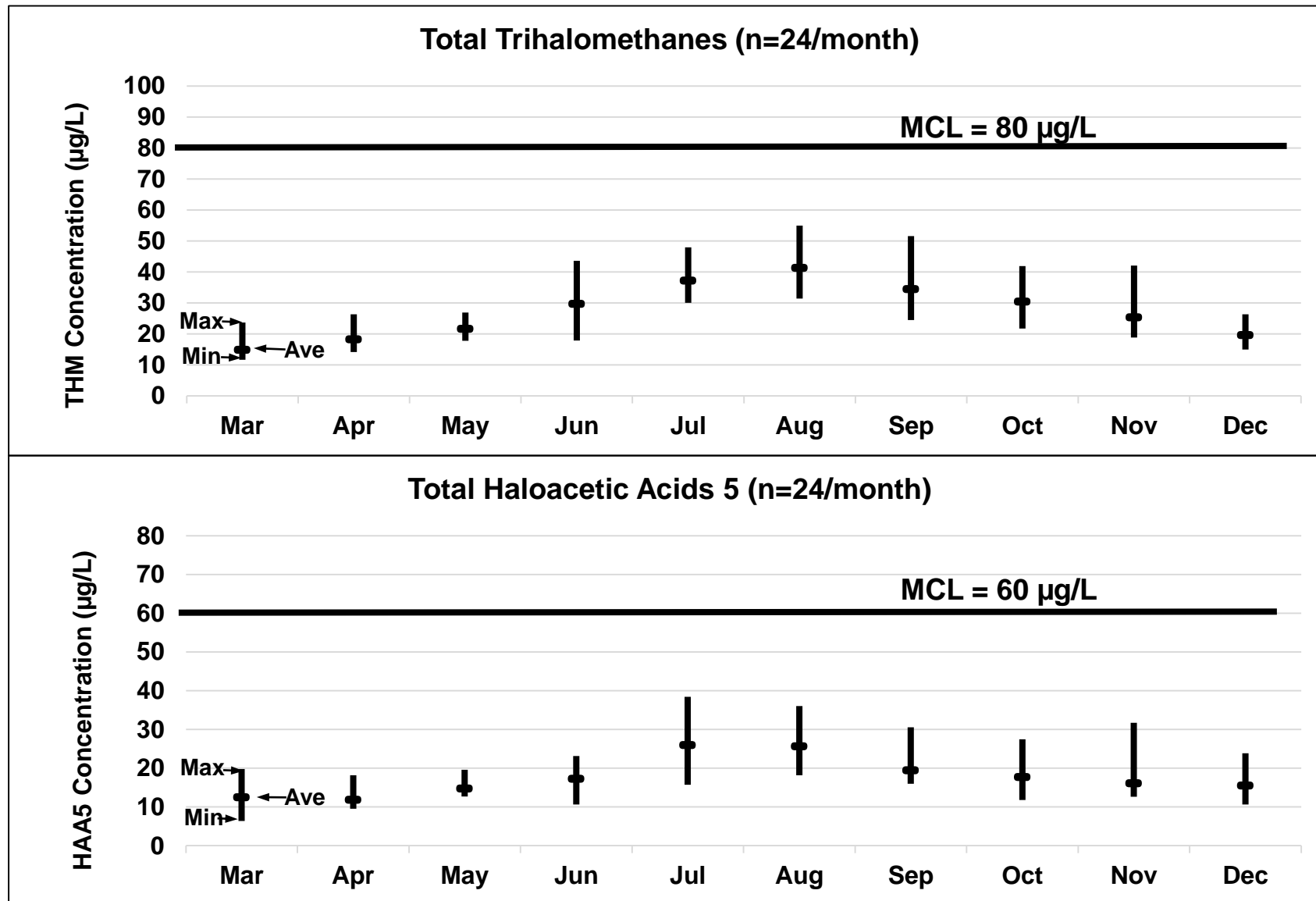
Phosphorus

1 mg/L Phosphorus = approx. 3 mg/L Phosphate





Regulated Disinfection Byproducts

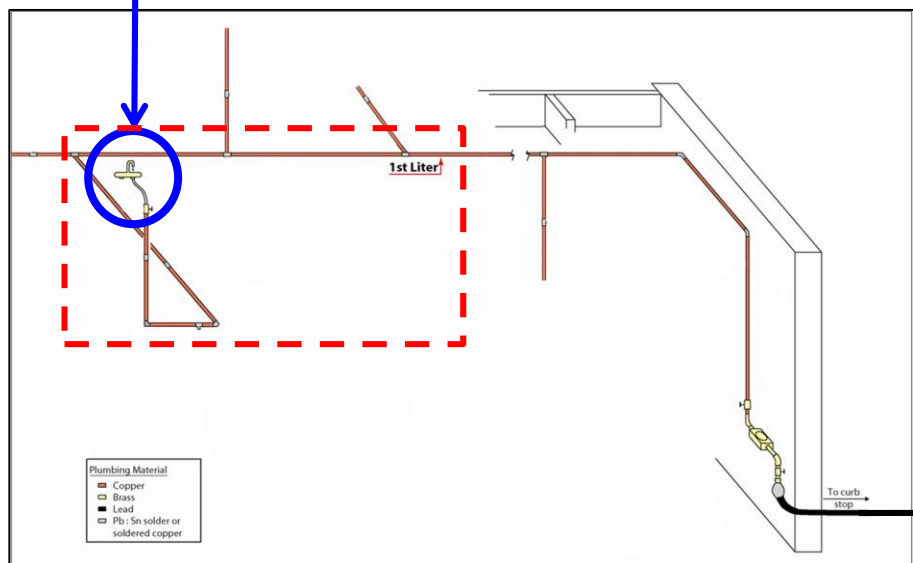




What is 'Sequential Sampling'?

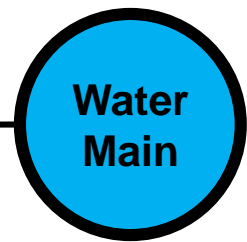
A set of samples, collected one right after another that captures all of the water in the plumbing from the kitchen tap to the water main

Kitchen tap



For comparison, the red dashed box indicates what is captured by one 1-liter sample

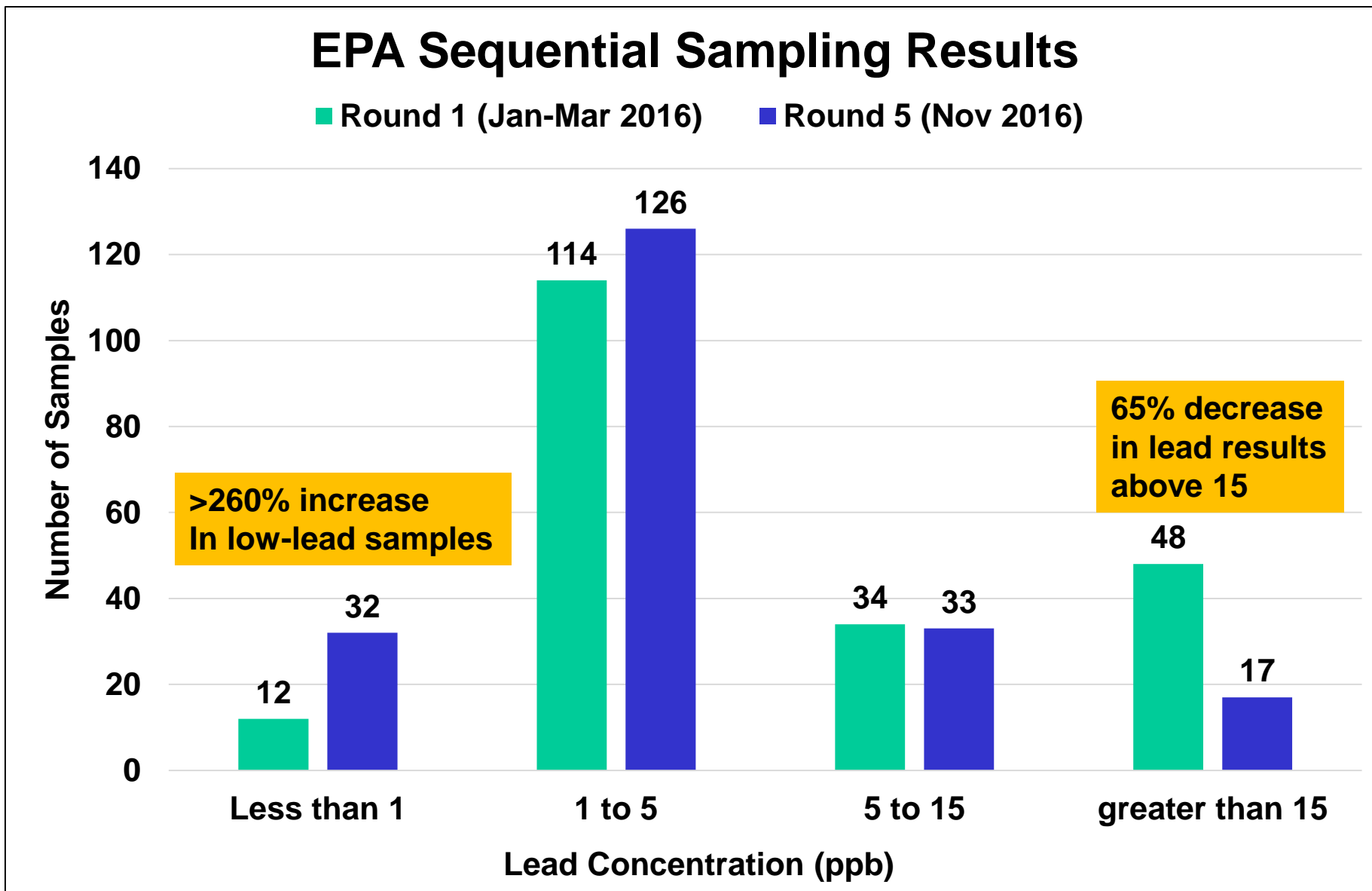
Service Line



Residence



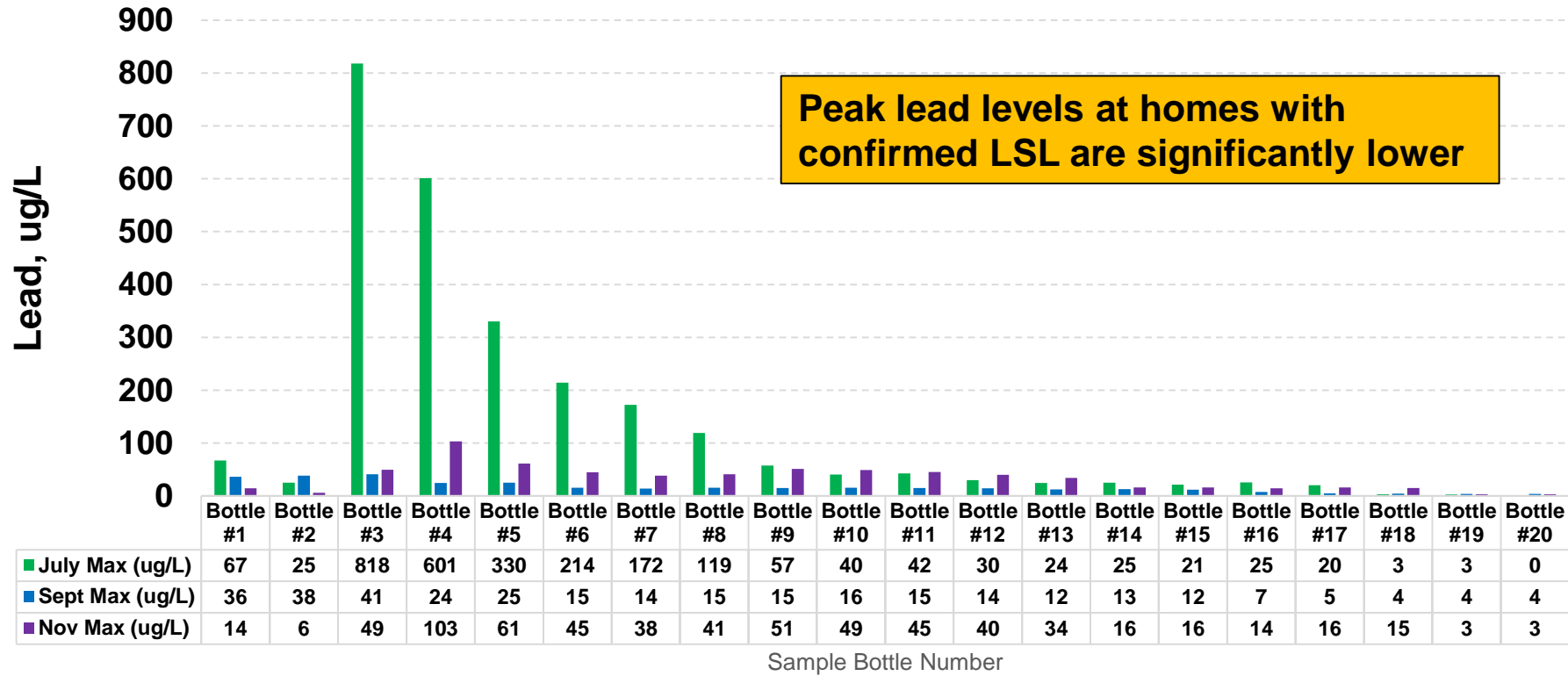
Lower Lead in Nov vs Jan-Mar 2016





LSL Sites (July-Nov 2016)

Maximum Lead Levels - Confirmed LSL Sites Only



Bottle Number	Bottle #1	Bottle #2	Bottle #3	Bottle #4	Bottle #5	Bottle #6	Bottle #7	Bottle #8	Bottle #9	Bottle #10	Bottle #11	Bottle #12	Bottle #13	Bottle #14	Bottle #15	Bottle #16	Bottle #17	Bottle #18	Bottle #19	Bottle #20
July Count	12	12	12	12	11	12	12	11	11	11	11	11	11	10	8	8	6	3	1	0
Sept Count	16	15	15	15	15	15	16	16	16	16	15	16	15	15	14	14	13	6	2	1
Nov Count	12	11	12	12	12	12	12	12	12	12	12	11	12	11	10	11	10	7	1	1



Remaining Challenges

- Distribution system needs to be optimized
 - Oversized infrastructure
 - Low water use areas
- Removing all the lead pipes takes time
- Lead pipes and associated galvanized iron pipe, where present, are a continued source of lead