LEAD DATA IN FLINT
JULY 1, 2016 –
DECEMBER 31, 2016

Michigan Department of Environmental Quality
5 Prongs of Testing

- Residential
- Schools
- Food Services
- EBL Investigations
- Sentinel Sites
Additional Efforts

- High Lead Visits
- CORE
Moved to a new 2 Bottle Test in the Fall
- One 250ml and One 750ml
- 477 Total Sets
  - 250 ml Bottles: 25 > 15 PPB (5.2%) Range 18-673 PPB
  - 750 ml Bottles: 14 > 15 PPB (2.9%) Range 16-479 PPB
  - Calc’d Value: 19 > 15 PPB (4.0%) Range 18-389 PPB
- Follows Parallel Pattern in Schools
- Fixtures Appear to be a Significant Contributor
- Only 4 cases where the 750 ml was the cause for the calc’d sample to exceed 15 PPB
Issues in the Schools

- Excessive Stagnation
- Particulate

- Flushing Protocol Implemented
Food Establishments

- Headed up by MDARD
- Inspections to ensure good practices such as Flushing, Filtration and Testing
- Documentation of all Practices
EBL Investigations

- Coordinated by DHHS
- Individuals with an EBL are offered the Evaluation
- Water has been incorporated as an exposure pathway
- Each point of use sampled for a P1 and P2 after minimum 6 hour stagnation
- Kitchen 10 Sequential 1 Liter Samples
- Correlation has not been strong so far
Sentinel Sites

- Approximately 600 + Homes
- Initial Study was 5 Rounds of Testing
- Frequency of every 2 weeks
- Sites coming in and out for various reasons
Extended Sentinel Sites

- Subset of Sentinel Program
- Approximately 175 Sites
- Includes all Tier 1 sites
- Also includes the most sites with Copper and Galvanized Service Lines that had elevated lead results
- Six Rounds conducted so far
Tier 1 Sites in ESP

Percent of Tier 1 Sentinel Samples at or Below 15 PPB

- FEB Sentinel 1: 73.8%
- MARCH Sentinel 2: 84.0%
- MARCH Sentinel 3: 87.5%
- APRIL Sentinel 4: 88.9%
- APRIL Sentinel 5: 88.9%
- MAY ESP 1: 93.3%
- JUNE ESP 2: 91.0%
- JULY ESP 3: 93.1%
- AUGUST ESP 4: 94.8%
- SEPTEMBER ESP 5: 95.3%
- November ESP 6: 96.4%

- Blue line: Sentinel Samples
- Red line: Lead Action Level
4 Rounds of Sentinel Data
One Liter Samples from Residential Program from known Tier 1 Sites
Coordination with LSL Replacement Program
Coordination with Hydrovacing Efforts
Documentation of Excluded Data
- Non Tier 1 Sentinel
- Non Tier 1 Residential
- Post LSL Replacement Data
LCR Data Results

- 368 Total Tier 1 Data Points
- 24 Samples > 15 PPB Lead or 6.5%
- 81 Samples = Not Detected (<1 PPB) or 22.0%
- 275 Samples < or = to 5PPB or 74.7%
- 321 Samples < or = to 10 PPB or 87.2%
90th Percentile Values

- Lead = 12 PPB (Down from 20 PPB)
- Buffer of 13 Samples

- Copper = 120 PPB (Down from 170 PPB)
- Only 6 Samples > 1300 PPB
CORE Program

- Community Outreach and Resident Education
- Flint Residents Helping Flint Residents
- Door to Door Canvassing of the Entire City
- Curriculum
  - Filter Installation, Use and Maintenance
  - Aerator Cleaning
  - Importance of Water Use and Flow
  - Where to Obtain Resources
  - NEW Health and Nutrition
CORE Efforts to Date

- Pilot in August
- Original Goal of 36 Program Educators
- New Goal 160 Program Educators
- > 34,000 Door Knocks
- > 9,600 Conversations
Questions?