

Sampling for Lead in Drinking Water at Tribal Schools in EPA Region 9

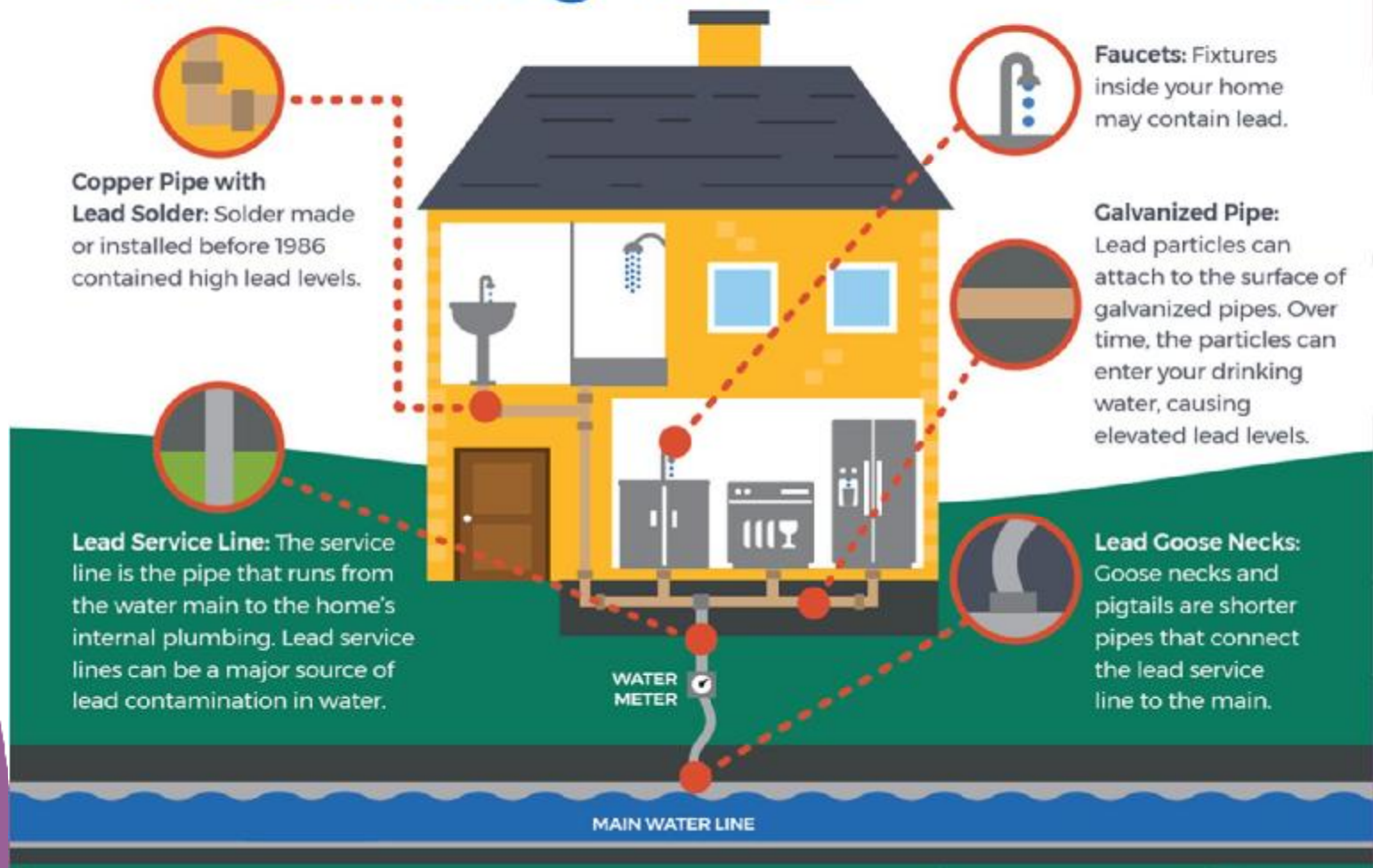
Presentation Overview

- u Lead in Drinking Water Basics
- u Region 9 Project
- u Potential WIIN Act Funding
- u Next Steps



Lead in Drinking Water

Sources of **LEAD** in Drinking Water



Regulatory Authority for Controlling Lead in Drinking Water

- u **The Lead Ban (1986):** Only “lead-free” (8%) materials to be used in new plumbing and in plumbing repairs
- u **The Lead Contamination Control Act (LCCA) (1988):** Identification and reduction of lead in drinking water at schools and child care facilities. Implementation and enforcement at state’s discretion.

There is NO federal law requiring schools or child care centers to test drinking water for lead

- u **The Lead and Copper Rule (1991):** A regulation by EPA to minimize the corrosivity and amount of lead and copper in water supplied by public water systems.
- u **The reduction of Lead in Drinking Water Act (2011):** Revised definition of lead free by lowering the maximum lead content of the wetted surfaces of plumbing products from 8% to a weighted average of 0.25%

Health Effects of Lead in Children

- u Young Children and infants absorb more lead than the average adult
- u The health effects of elevated blood lead levels in children include:
 - u Impaired mental development
 - u IQ deficits
 - u Shorter attention spans
 - u Low Birth weight
- u Children below 6 years old are a vulnerable population

There is NO Safe Level of Lead

Project Scope:

Lead in Drinking Water Sampling at Tribal Schools

- u Sampling for Tribal Schools, Day Cares, and Head Start facilities - Tribal facilities where children consume water on a regular basis
- u This project fills a gap where lead in drinking water testing is not typically provided
- u Voluntary - NOT an EPA compliance project



Project SCOPE

- u Schools, Head Starts and Day Cares on R9 Tribal Lands: ~ 388

Out of the ~388 facilities on R9 Tribal Lands:

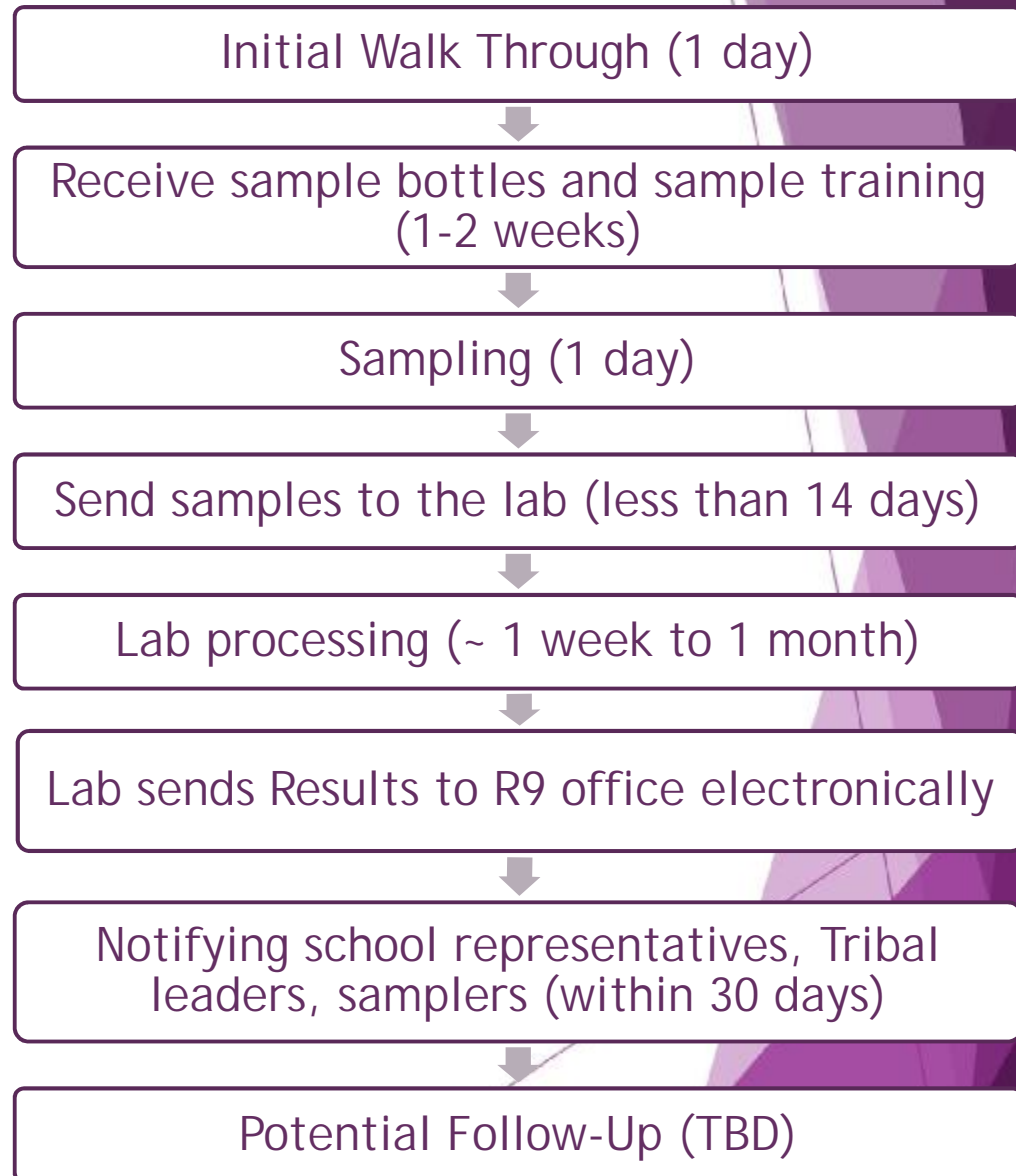
- u Navajo EPA is overseeing the lead in drinking water sampling at the schools on Navajo Nation: 180
- u EPA R9 sampling project open all Tribal schools in R9 but keeping track of the remaining Tribal schools not on Navajo Nation: ~208

Project Overview

1. Outreach
 - u Informing Tribes about project and lead in drinking water
2. Planning/Collaboration
 - u Completing questionnaire
 - u Pre-sampling Walk Through
 - u Coordinating stagnation time prior to sampling
3. Sampling/Re-Sampling
4. Follow Up
 - u Continued Technical Assistance
 - u Additional consultation and education to teachers, parents and community members by the Environmental Children's Health Section (Land)

Sampling schedule

- u Once a school is identified, expresses interest in participating, and fills out a simple questionnaire for us to sample, we will identify a sampler and schedule a tentative date to sample



Project Partners

- u Internal EPA staff
 - u Tribal Drinking Water DI Team - lead on the project, coordinating with schools, Tribes, samplers
 - u R9 Richmond Lab - conducting all analysis
 - u Environmental Children's Health Section - providing public education for community members
 - u QA Office
 - u Tribal Section - Tribal Outreach
- u External Partners
 - u Indian Health Services (IHS): Environmental Health Offices
 - u Tribal Utilities: Operators
 - u Tribal leaders: Tribal Chairs, Environmental Directors, Education directors
 - u Schools: Board members, Principals, Maintenance Staff, Teachers, Administrative Staff

Data Collection/Inventory

Prior to sampling, we need to collect information about the school

- u Contact information
 - u Who should be contacted to coordinate sampling
 - u Who should be notified in case of an Action Level exceedance
- u A list of all the taps that students drink water from
 - u Kitchens, drinking fountains, NOT bathrooms, janitor sinks
 - u Should be identified and named by both sampler AND school representative
 - u Information about each tap - is it leaking, a sink or drinking fountain, a water cooler attached? Etc.
- u Year school was built, any plumbing information available

Sample Collection Method

- u “First Draw” Samples
 - u 6-36 hour stagnation time
 - u Faucets next to each other cannot be sampled on the same day
- u Send the sample to lab within 14 days
- u Include Chain of Custody form



General Messages

- u Any exposure of lead is potentially harmful
- u Children under 6 are a vulnerable population
- u This project uses “first flush” samples, taken in the morning prior to use, to represent a worst case scenario that the faucet is exceeding

Current Project Status

Out of ~208 schools inventoried by R9:

- u Schools that have been completed: 86
- u Schools that are in the process of sampling: 16
- u Schools where we still need a contact person and volunteer to proceed with sampling: 69

- u Schools that were sampled by other parties or themselves: 24
- u Schools that declined sampling: 13

Results/Follow up:

Out of 86 Schools with sampling completed:

- u 4 Schools had at least 1 tap that sampled above 15 ppb
 - u Sampled at a Broken Water Fountain
 - u Sampled at a Janitor's Closet
 - u Old building (1920's) - implemented aerator cleaning program but planning to replace all plumbing
 - u Multiple brass fixtures found, installed point-of-use devices
- u 18 Additional Schools had at least 1 tap above 5 ppb
 - u Follow up Sampling Starting

Moving Forward

- u Continue outreach to Tribes, utilities, and schools
 - u Sent letters to 25 Tribes where we think there is at least 1 school that has not sampled and that school may want to volunteer to be sampled
- u Complete sampling by December 31, 2018



WIIN Grant Programs

The Water Infrastructure Improvements for the Nation (WIIN) Act authorized three new drinking water grant programs, appropriated in Fiscal Year 2018.

- u Section 2104 Assistance for Small and Disadvantaged Communities
 - u Assistance to small and disadvantaged communities to meet SDWA compliance.
 - u \$20 million, \$400,000 tribal set-aside
- u Section 2105 Reducing Lead in Drinking Water
 - u Funding for lead reduction projects
 - u \$10 million, \$1 million tribal set-aside
- u Section 2107 Lead Testing in School and Child Care Program Drinking Water
 - u \$20 million, \$1.2 million tribal set-aside

The full text of the WIIN Act is available at:
<https://www.congress.gov/bill/114th-congress/senate-bill/612>

Section 2107: Lead Testing in Schools and Child Care Program Drinking Water

- u Sec 2107 of the WIIN Act directs the EPA to establish a voluntary school and child care program lead testing grant "to assist local educational agencies in voluntary testing for lead contamination in drinking water at schools and child care programs under the jurisdiction of the local educational agencies."
- u Lead testing projects must utilize EPA's 3Ts for Reducing Lead in Drinking Water in Schools guidance or a similar guidance that is not less stringent.
- u Results from testing carried out using grant funds must be made publicly available.

Section 2107: Lead Testing in Schools and Child Care Program Drinking Water - Eligible Projects

u Eligible projects will benefit the following:

1. A person who owns or operates a child care program facility, or
2. A tribal education agency as defined by the National Environmental Education Act.

"A 'tribal education agency' means a school or community college which is controlled by an Indian tribe, band, or nation, including any Alaska Native village, which is recognized as eligible for special programs and services provided by the United States to Indians because of their status as Indians and which is not administered by the Bureau of Indian Affairs."

u Projects to be implemented under the tribal grant program must assist a school or child care facility serving a tribal population.

The end

QUESTIONS?

For additional information regarding the WIIN Grant,
please contact Temple.Leslie@epa.gov

For additional information regarding Region 9's
current Lead in School Drinking Water Sampling
Project, please contact Karly Ho,
at 415-972-3458 or ho.karly@epa.gov