# Testing Drinking Water for Lead at Tribal Schools and Child Care Facilities

**Regional Tribal Operators Committee Meeting**
**Camp Verde, Arizona , July 29, 2022**

**Update Report by Diella Packman**
**School Lead Reduction Project Manager**
**& Audrey Tso**
**School Lead Reduction Project Coordinator**

Funding by Environmental Protection Agency

# Lead Exposure


## Sources of Lead Exposure

EPA OFFICE OF GROUND WATER AND DRINKING WATER

Sources of lead exposure include the lead industry, lead-based paint (e.g., paint chips or dust), lead in water, lead in the air, lead in soil, and lead in consumer products and food.


Lead-based paint


In the air


In the soil


Lead Industry


In consumer products


In water

Lead is a metal that occurs naturally in the earth's crust. The softness, malleability, low melting point, resistance to corrosion (making it ideal for water pipes), low cost and easy workability has made lead a very useful metal.

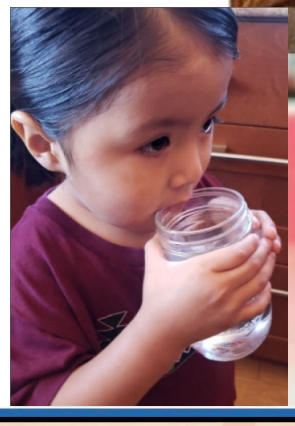



# Health Effects of Lead

## Health Effects of Lead

EPA
OFFICE OF GROUND WATER AND DRINKING WATER

- There is no safe level of lead.
- Young children are especially susceptible to lead exposure.
- Pregnant and nursing staff should also be aware of the harmful risks of lead exposure to nursing infants and the developing fetuses of pregnant women.
- Even low blood levels of lead in children have been associated with:
  - Reduced IQ and attention span
  - Learning disabilities
  - Poor classroom performance
  - Hyperactivity
  - Behavioral problems
  - Impaired growth and hearing loss



# Federal Lead Regulations

## How Lead in Drinking Water is Regulated

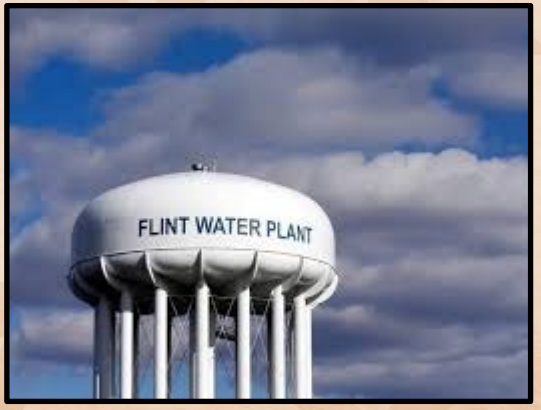
**The Lead Ban (1986):** A requirement that only "lead-free" materials used in new plumbing and in plumbing repairs.

**The Lead Contamination Control Act (LCCA) (1988):** The LCCA aimed at the identification and reduction of lead in drinking water at schools and child care facilities, including the recall of drinking water coolers with lead lined tanks.

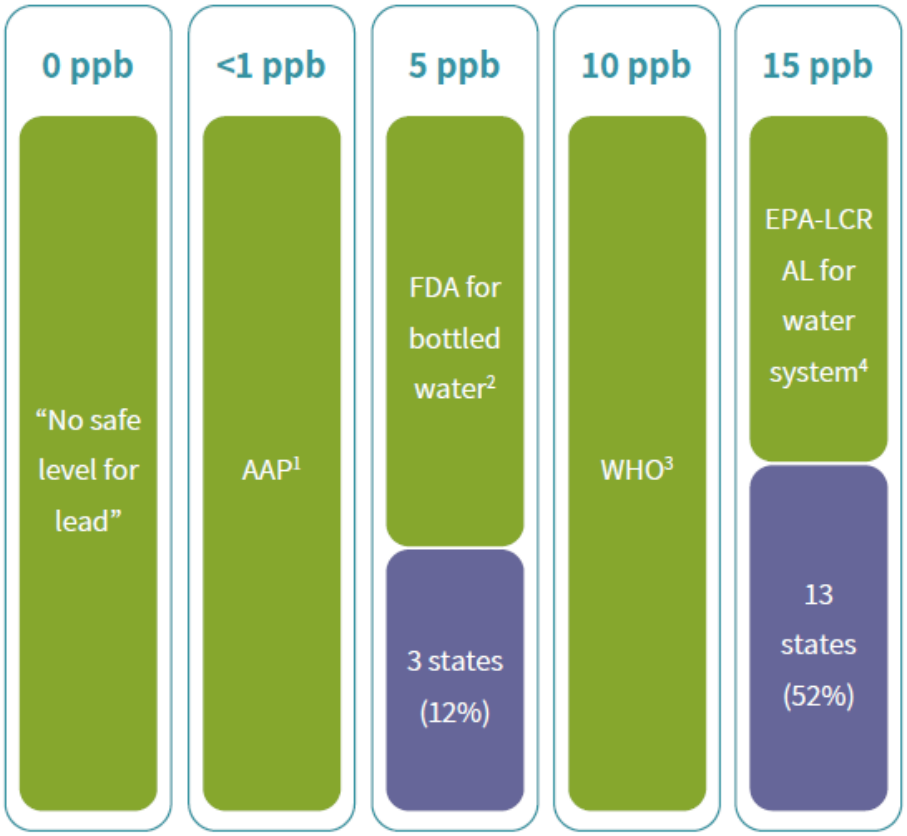
**The Lead and Copper Rule (1991):** A regulation by EPA to control the amount of lead and copper in water supplied by public water systems.

**The Reduction Of Lead In Drinking Water Act (2011):** This act further reduces lead and redefines "lead-free" under the Safe Drinking Water Act (SDWA).

**REVISED Lead & Copper Rule**



## Figure 3: Variation in allowable or recommended maximum concentration levels of lead in drinking water




***Action Levels for Public Water Systems, as enforced by primacy agencies in ITCA Project Area:***

Navajo Nation- 15 ppb

EPA- 15 ppb

Arizona- 15 ppb

California- 15 ppb

New Mexico- 15 ppb

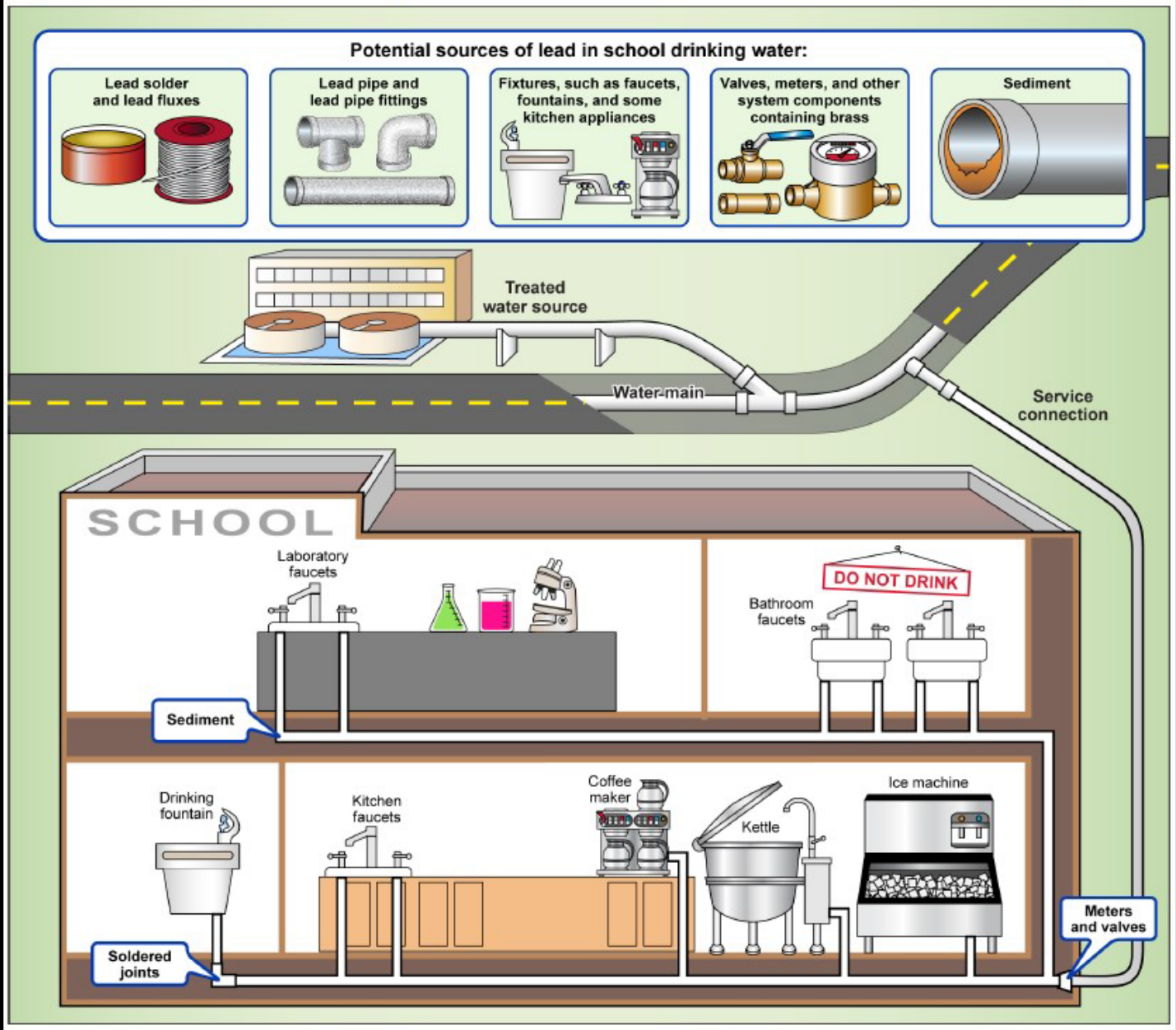
Nevada- 15 ppb

[1]American Academy of Pediatrics (AAP) COUNCIL ON ENVIRONMENTAL HEALTH. Prevention of Childhood Lead Toxicity. Pediatrics. 2016;138(1):e20161493. AAP available at http://pediatrics.aappublications.org/content/pediatrics/138/1/e20161493.full.pdf

[2]Food and Drug Administration (FDA) 21 CFR § 165.110. Subpart B- Requirements for Specific Standardized Beverages (CFR 2016)

Cradock AL, Hecht CA, Poole MK, Vollmer LY, Flax CN, Barrett JL. State Approaches to testing school drinking water for lead in the United States. Boston, MA: Prevention Research Center on Nutrition and Physical Activity at the Harvard T.H. Chan School of Public Health, 2019.

Figure 1: Water Is Treated Before Reaching a School but Can Interact with Fixtures That Contain Lead in the Building

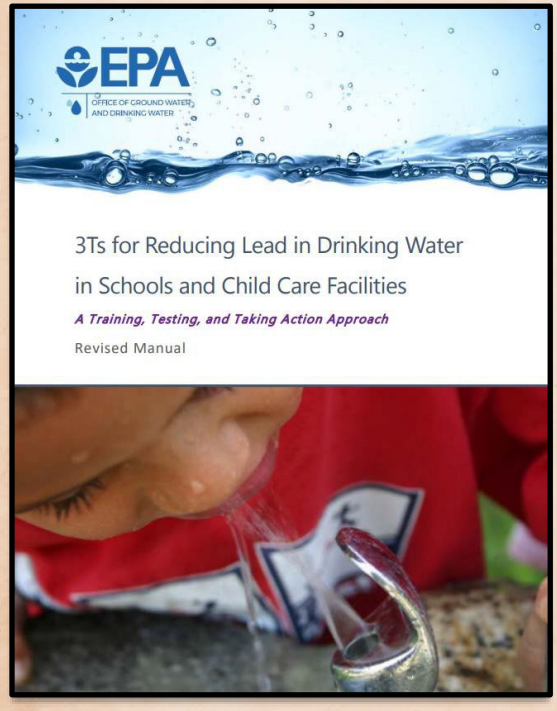



Source: GAO analysis of Environmental Protection Agency guidance. | GAO-18-382

Note: According to EPA, sediment containing lead may collect in low-lying sections of pipe resulting from minute particles of pipe or other deposits that accumulate over time.

# The 3Ts

## *Revised* 3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities




- ***Training*** school and child care officials to raise awareness of the 3Ts program and summarize the potential causes and health effects of lead in drinking water.
- ***Testing*** drinking water in schools and child care facilities to identify potential lead problems.
- ***Taking action*** to reduce lead in drinking water.

New 3Ts Manual

3Ts 7-Module Toolkit

- **Module 1** Communicating the 3Ts
- **Module 2** Learning About Lead in Drinking Water
- **Module 3** Planning Your 3Ts Program
- **Module 4** Developing a Sampling Plan
- **Module 5** Conducting Sampling & Interpreting Results
- **Module 6** Remediation & Establishing Routine Practices
- **Module 7** Recordkeeping

# Grants for Lead Testing in Schools & Child Care Centers

## Lead Testing in School And Child Care Program Drinking Water Grant Program – 2016 WIIN Act §2107 amended SDWA §1464(d)

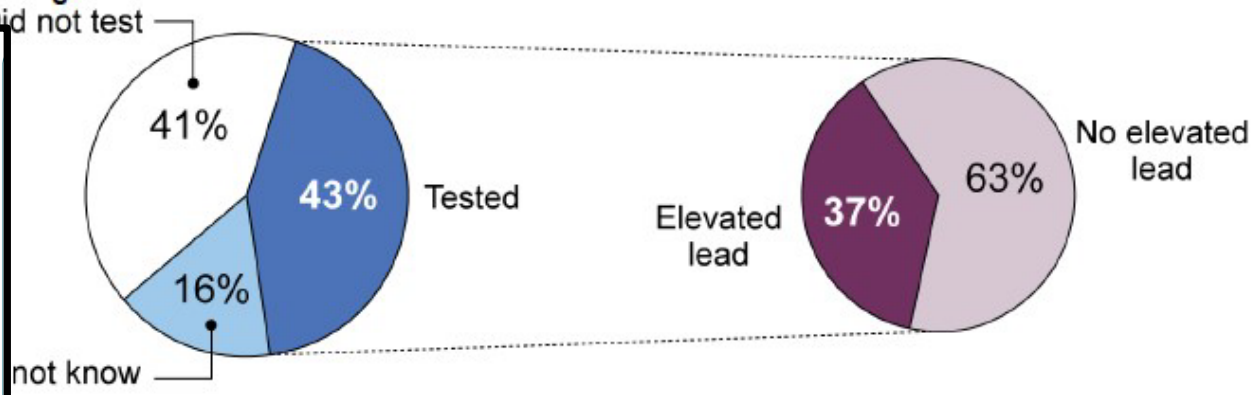
- **All 50 states and DC, Puerto Rico, US Virgin Islands, and American Soma are participating**
  - **Approximately $69.7 million in funding** → Grants to states, 3rd round in 2021
  - **The tribal allotment - $4.3 million** → 1st grants in late 2021

- **The goals of this program include:**
  - **Reducing children exposure to lead in drinking water**
  - **Utilize the 3Ts model or model no less stringent to establish best practices**
  - **Enhance community, parent, and teacher cooperation and trust**
  - **Develop strategies to provide funding for schools unable to pay for remediation**

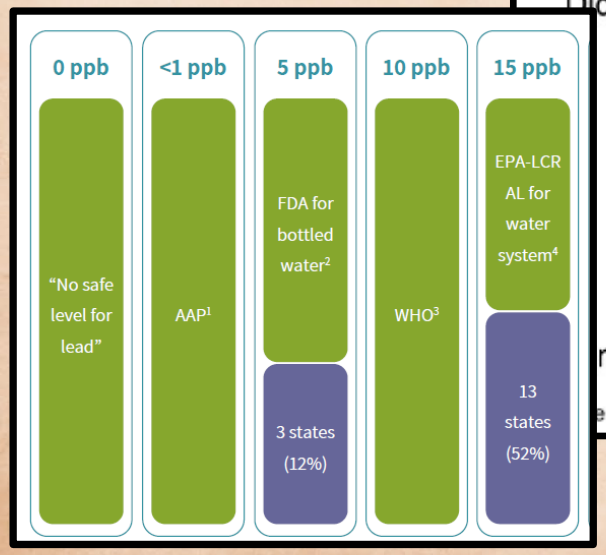
## What GAO Found

An estimated 43 percent of school districts, serving 35 million students, tested for lead in school drinking water in 2016 or 2017, according to GAO's nationwide survey of school districts. An estimated 41 percent of school districts, serving 12 million students, had not tested for lead. GAO's survey showed that, among school districts that did test, an estimated 37 percent found elevated lead (lead at levels above their selected threshold for taking remedial action.) (See figure.) All school districts that found elevated lead in drinking water reported taking steps to reduce or eliminate exposure to lead, including replacing water fountains, installing filters or new fixtures, or providing bottled water.

**Estimated Percentage of Public School Districts Reporting Lead Testing and Results for Drinking Water**




e: GAO survey of public school districts. | GAO-18-382

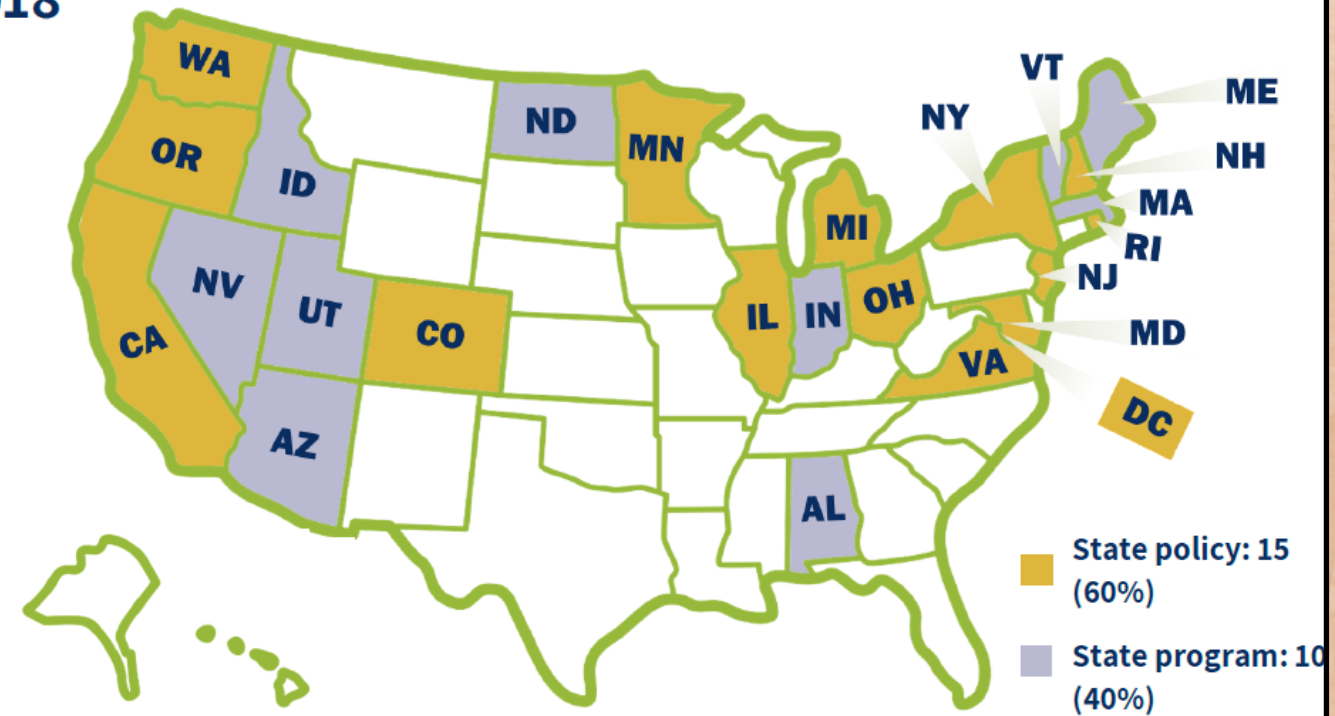


# States with School Drinking Water Lead Testing Programs

## Figure 1: States with school drinking water lead testing programs as of February 2018

**Program**: an effort initiated by a state agency or department pursuant to an existing directive or grant of authority

**Policy**: a mechanism to establish a program via state statute, executive order, or funding appropriation

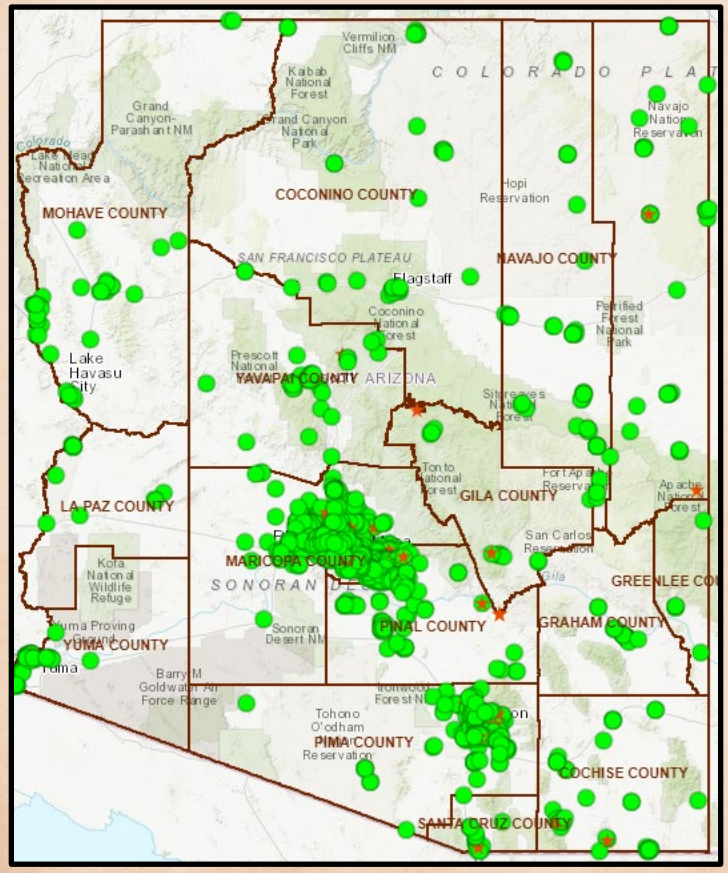



**Report** | Early Adopters: State Approaches to Testing School Drinking Water for Lead in the United States • January 2019

## Water Quality in My Community

- **Surface Water** | View Map > | Learn More >
  - Fish Consumption Advisories | Learn More >
  - Remediation Sites | Learn More >
- **Groundwater and Water Reuse** | View Map >
- **Drinking Water** | View Map > | View Public Notice Listing >
  - Drinking Water Fixture Testing in Public Schools | View Results >

ADEQ Arizona Department of Environmental Quality

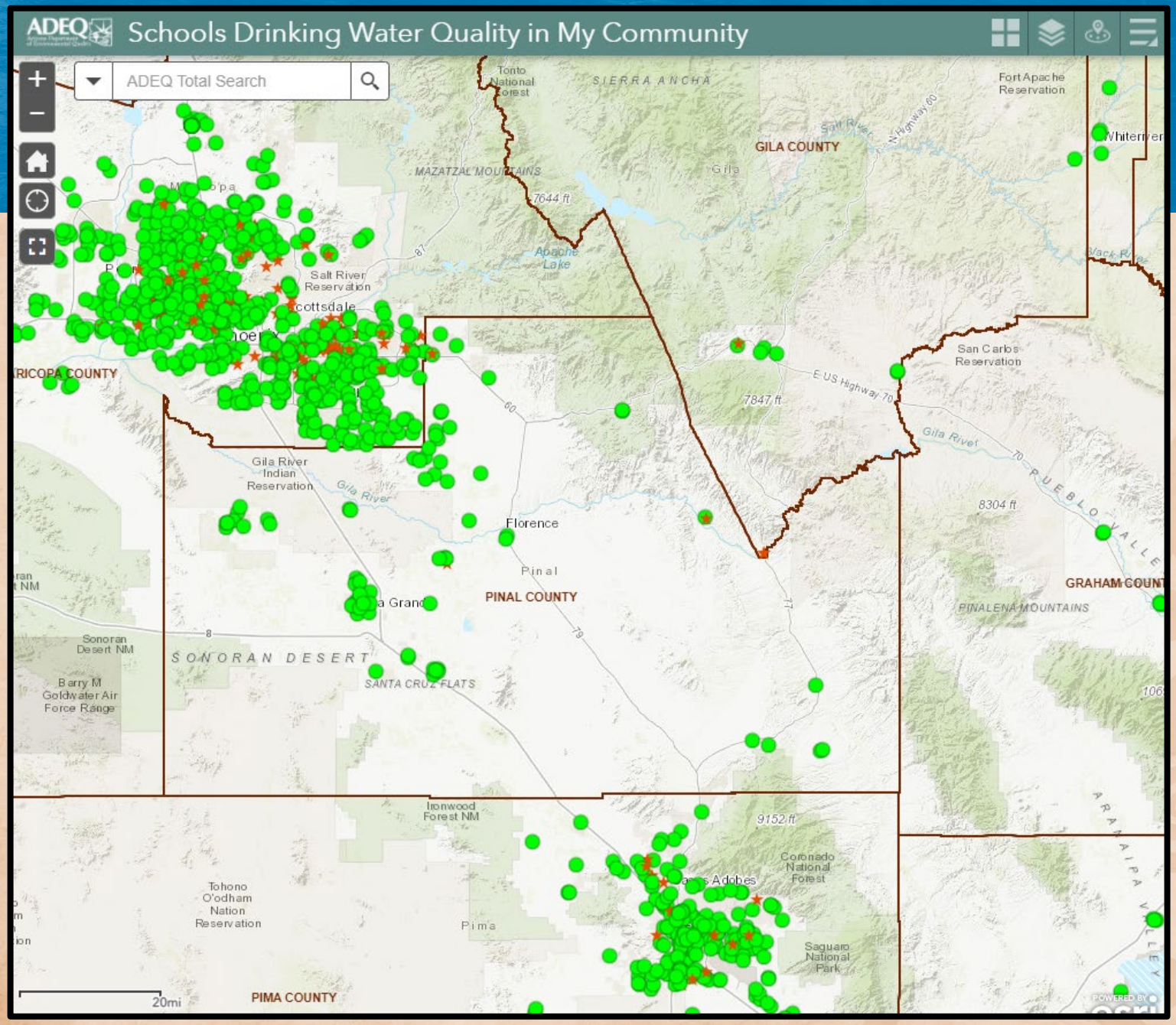


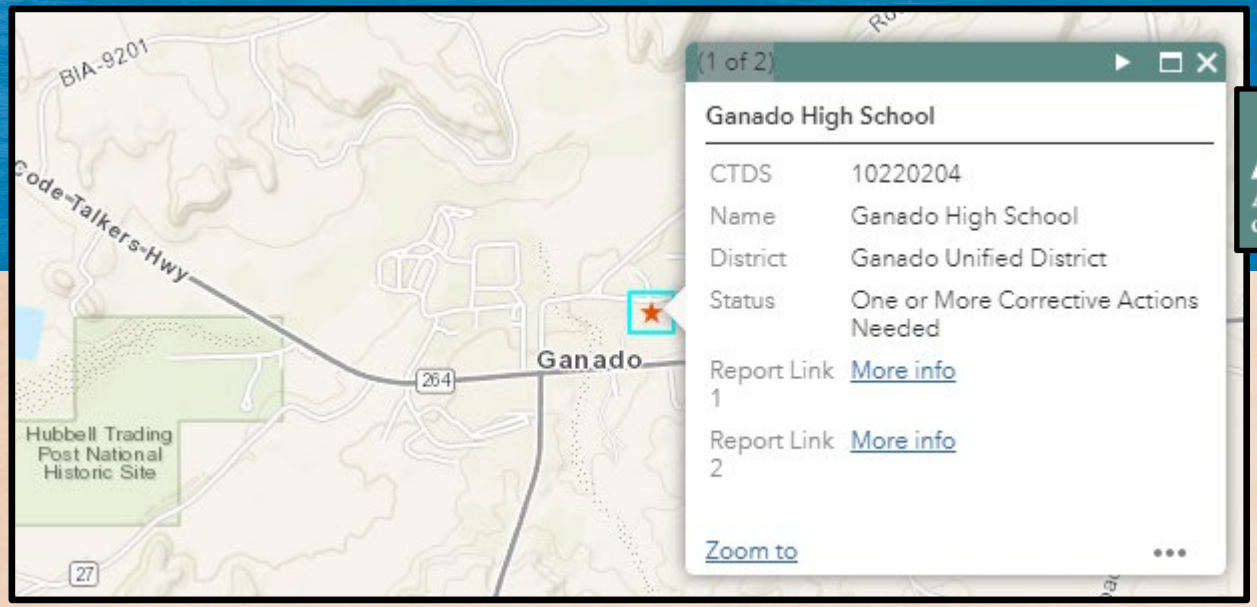

## S - Z | School District Listing

Revised on: December 11, 2017 - 11:13am

### S-Z

Sacaton Elementary District | View Schools >
Saddle Mountain Unified District | View Schoo
Safford Unified District | View Schools >
Sahuarita Unified District | View Schools >
Salome Consolidated Elementary District | Vie
San Carlos Unified District | View Schools >
San Fernando Elementary District | View Scho
San Simon Unified District | View Schools >


ADEQ
Schools Drinking Water Quality in My Community
ADEQ Total Search
Tonto National Forest
SIERRA ANCHA
Fort Apache Reservation
GILA COUNTY
MAZATZAL MOUNTAINS
7644 ft
Apache Lake
Salt River Reservation
Scottsdale
MARICOPA COUNTY
San Carlos Reservation
7847 ft
E US Highway 70
Gila River
Gila River Indian Reservation
Florence
Pinal
PINAL COUNTY
8304 ft
GRAHAM COUNTY
PINALENA MOUNTAINS
Sonoran Desert NM
SONORAN DESERT
SANTA CRUZ FLATS
Barry M Goldwater Air Force Range
Ironwood Forest NM
9152 ft
Coronado National Forest
Tohono O'odham Nation Reservation
Pima
Saguaro National Park
20mi
PIMA COUNTY




ADEQ Arizona Department of Environmental Quality

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| Ganado High School Aquatic Confi... | Adobe Acrobat Document | 63 KB | No |
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| Ganado High School Confirmation... | Microsoft Excel 97-2003 ... | 8 KB | No |
| Ganado High School Confirmation... | Adobe Acrobat Document | 64 KB | No |
| Ganado High School_IN_ack | Adobe Acrobat Document | 68 KB | No |
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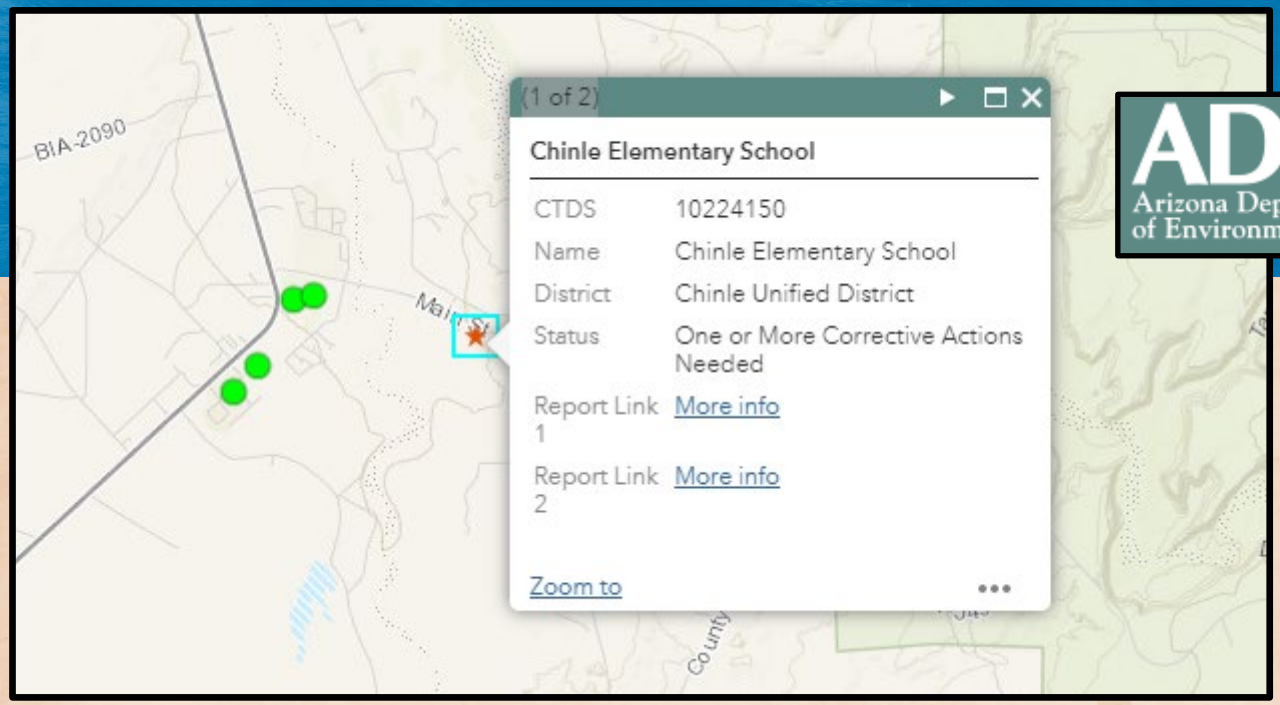


ADEQ Arizona Department of Environmental Quality

Downloads › 10224150

Search 10224150

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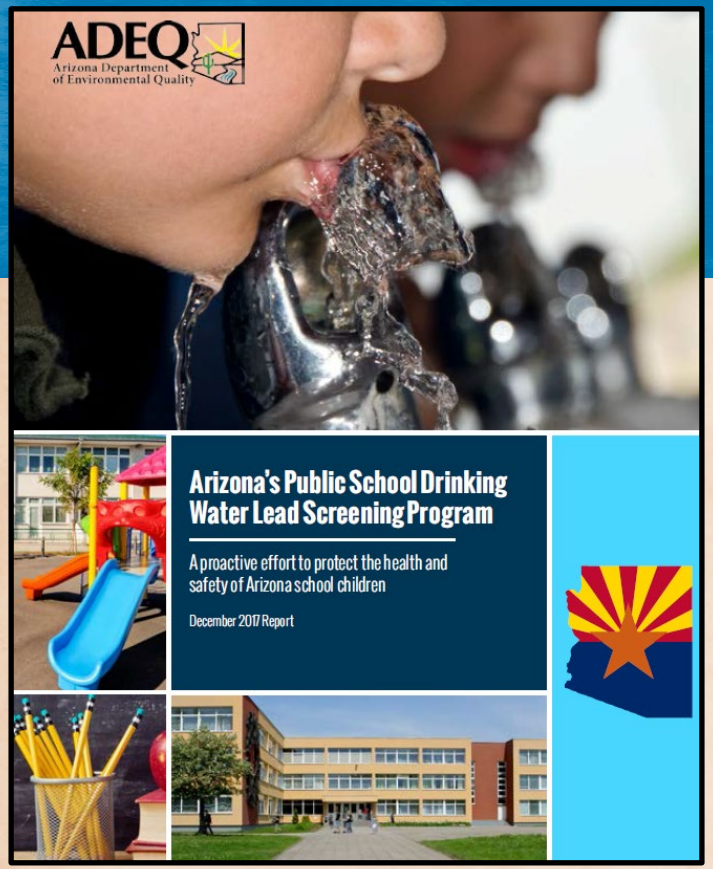
| Chinle Elementary School Confirmation Lab Results_7-6-2017 | Adobe Acrobat Document | 2,152 KB | No |
| Chinle Elementary School Confirmation Lab Results_7-6-2017 | Microsoft Excel 97-2003 ... | 9 KB | No |
| Chinle Elementary School_IN_ack | Adobe Acrobat Document | 64 KB | No |
| Chinle Elementary School_IN_Lab Results_6-15-2017 (1) | Microsoft Excel 97-2003 ... | 7 KB | No |
| Chinle Elementary School_IN_Lab Results_6-15-2017 (2) | Adobe Acrobat Document | 2,926 KB | No |




## Overview

**16,125** samples from **14,782** fixtures in **11,585** buildings in **1,427** schools

**180** school districts with the help of **14** analytical labs and **6** city partners

## Sampling

ADEQ and its partners collected 16,125 samples from 14,782 fixtures at all public school district schools, taking immediate corrective actions and retesting fixtures in buildings that tested higher than the screening level.

## Results


96% of all fixtures screened were found to be protective and required no action.

Arizona has been proactive in testing school and childcare facilities for lead in drinking water. In 2016, the Arizona Department of Environmental Quality tested 1,427 schools, and in 2017, ADHS tested 1,055 licensed childcare facilities for lead in drinking water. This work has been integrated with ADHS's larger Childhood Lead Poisoning Prevention Program, which includes funding from the U.S. Centers for Disease Control and others.

**For Immediate Release**: May 12, 2020
**Media Contact**: Denise Adamic, 415-972-3061, adamic.denise@epa.gov

# U.S. EPA Awards Arizona $621,991 in Funding to Test for Lead in School Drinking Water

ARIZONA DEPARTMENT OF HEALTH SERVICES

*Health and Wellness for All Arizonans*

HOME | AUDIENCES | TOPICS | DIVISIONS | A-Z INDEX

# Child Care Facility Drinking Water Screening Program

ADHS Home / Public Health Licensing Services / Child Care Facilities Licensing / Child Care Facility Drinking Wat

- Home
- **Locations Sampled**
- Parents
- Child Care Providers
- FAQs
- Contact Us

## Locations Sampled

We are actively testing samples from licensed childcare facilities throughout our state. Facilities that have been tested and the results of these tests will be added below. For info on all licensed facilities in our state and the results of inspections at those facilities, visit AZCareCheck.

Show 10 entries Search: Search in data

| Child Care Facility Name | Child Care Facility ID | Address | City | State | Zip Code | Sample Collection Date* | Results above screening level (15 ppb) (Yes/No) |
|---|---|---|---|---|---|---|---|
| 5TH PLACE COMMUNITY CHILDCARE | CDC14548 | 306 WEST 5TH PLACE | MESA | AZ | 85201 | 9/27/2017 | No |
| A B C PRESCHOOL | CDC11150 | 6311 SOUTH RURAL ROAD | TEMPE | AZ | 85283 | 1/25/2018 | No |
| A DREAM COME TRUE PRESCHOOL | CDC12527 | 6163 SOUTH MIDVALE PARK | TUCSON | AZ | 85746 | 8/1/2018 | No |

# Examples of Challenges

Tampa Bay Times

## The Hillsborough School District found lead in its water. It didn't tell parents for a year.

By **COREY G. JOHNSON**, **MARLENE SOKOL** and **ELI MURRAY**

Photos by **BRONTÉ WITTPENN** | *Times staff*

Aug. 9, 2018

TAINTED TAPS: LEAD PUTS CALIFORNIA STUDENTS AT RISK

EDSOURCE SPECIAL REPORT

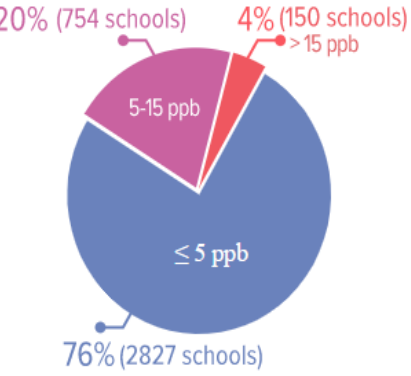
## Gaps in California law requiring schools to test for lead could leave children at risk

**New law prompts widespread testing for lead but limited action**

BY **NICO SAVIDGE** AND **DANIEL J. WILLIS**
SEPTEMBER 24, 2018

About a third of the state's 10,600 schools* have tested their water for lead over the past two years. Data below show how many schools tested at each level, based on their highest lead test result.

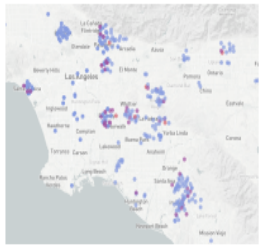
Percentage of schools at each lead level




Lead Level Measurement
(Unit: Parts per billion)

| | |
|---|---|
| more than 15 ppb | Lead levels above 15 ppb, the federal limit, require schools to replace faucets and notify parents. |
| 5-15 ppb | Test results between 5 ppb and 15 ppb do not require action but pediatricians and other health advocates say they pose a health risk especially to children. |
| at or under 5 ppb | This group includes test results of 5 ppb or less. Health advocates say lead levels under 1 ppb are considered safe. |

## Tainted Taps: Lead Puts California Students at Risk



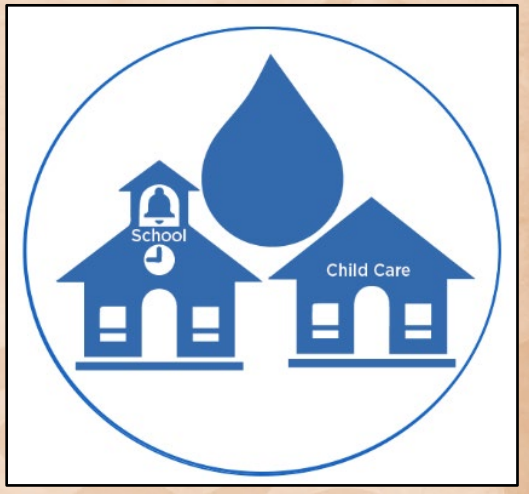
Interactive Map: Lead levels found in California schools' drinking water

Search lead test results in California school water

# EPA Tribal Grant Program Started in 2021

Grantees will develop or expand existing programs to provide technical assistance to eligible Tribal Education Agencies (TEAs) to test for lead contamination in drinking water.

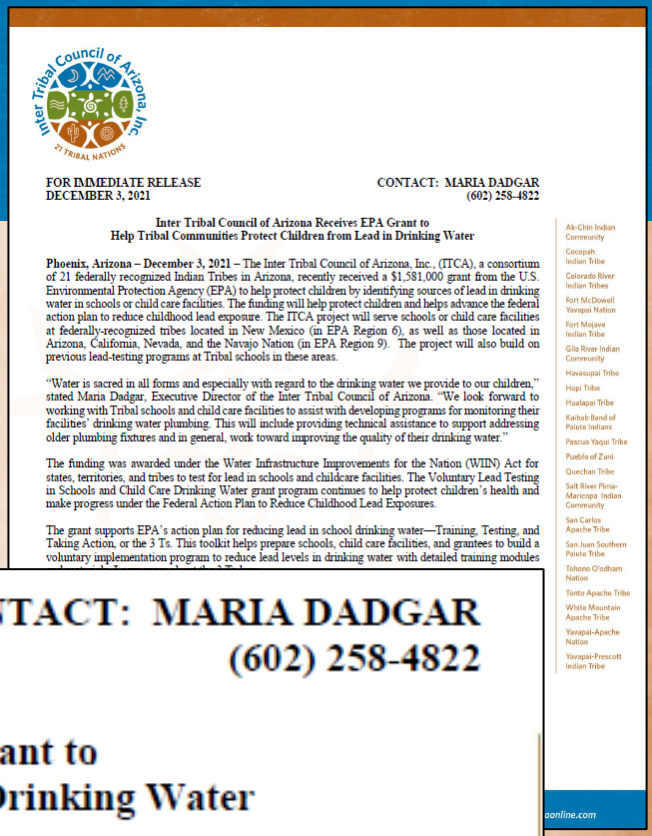
- Public schools on tribal land
- Head Start Centers
- Other schools on tribal land
- Child Care facilities on tribal land




2-year project implementation

- Outreach to support TEAs to assess lead levels
- Provide technical assistance to TEAs to support 3Ts program implementation
- Support sampling procedures
- Provide resources to communicate results to enhance community, parent, teacher trust

# The ITCA Lead Testing Project



FOR IMMEDIATE RELEASE
DECEMBER 3, 2021

CONTACT: MARIA DADGAR
(602) 258-4822

**Inter Tribal Council of Arizona Receives EPA Grant to Help Tribal Communities Protect Children from Lead in Drinking Water**

**Phoenix, Arizona – December 3, 2021** – The Inter Tribal Council of Arizona, Inc., (ITCA), a consortium of 21 federally recognized Indian Tribes in Arizona, recently received a $1,581,000 grant from the U.S. Environmental Protection Agency (EPA) to help protect children by identifying sources of lead in drinking water in schools or child care facilities. The funding will help protect children and helps advance the federal action plan to reduce childhood lead exposure. The ITCA project will serve schools or child care facilities at federally-recognized tribes located in New Mexico (in EPA Region 6), as well as those located in Arizona, California, Nevada, and the Navajo Nation (in EPA Region 9). The project will also build on previous lead-testing programs at Tribal schools in these areas.

"Water is sacred in all forms and especially with regard to the drinking water we provide to our children," stated Maria Dadgar, Executive Director of the Inter Tribal Council of Arizona. "We look forward to working with Tribal schools and child care facilities to assist with developing programs for monitoring their facilities' drinking water plumbing. This will include providing technical assistance to support addressing older plumbing fixtures and in general, work toward improving the quality of their drinking water."

The funding was awarded under the Water Infrastructure Improvements for the Nation (WIIN) Act for states, territories, and tribes to test for lead in schools and childcare facilities. The Voluntary Lead Testing in Schools and Child Care Drinking Water grant program continues to help protect children's health and make progress under the Federal Action Plan to Reduce Childhood Lead Exposures.

The grant supports EPA's action plan for reducing lead in school drinking water—Training, Testing, and Taking Action, or the 3 Ts. This toolkit helps prepare schools, child care facilities, and grantees to build a voluntary implementation program to reduce lead levels in drinking water with detailed training modules

Ak-Chin Indian Community
Cocopah Indian Tribe
Colorado River Indian Tribes
Fort McDowell Yavapai Nation
Fort Mojave Indian Tribe
Gila River Indian Community
Havasupai Tribe
Hopi Tribe
Hualapai Tribe
Kaibab Band of Paiute Indians
Pascua Yaqui Tribe
Pueblo of Zuni
Quechan Tribe
Salt River Pima-Maricopa Indian Community
San Carlos Apache Tribe
San Juan Southern Paiute Tribe
Tohono O'odham Nation
Tonto Apache Tribe
White Mountain Apache Tribe
Yavapai-Apache Nation
Yavapai-Prescott Indian Tribe

**FOR IMMEDIATE RELEASE**
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# Allocation of the Tribal Consortia Grants

| 2107 \|Lead Testing in School and Child Care Program Drinking Water Tribal Grant Program Allocation | | | | |
|---|---|---|---|---|
| **Consortia** | **Facility Count** | **Allocation %** | **Allocation $** | **Final Rounded** |
| Inter-Tribal Council of Arizona | 320 | 36.74% | $1,581,263 | $1,581,000 |
| United South and Eastern Tribes | 220 | 25.26% | $1,087,118 | $1,087,000 |
| Rocky Mountain Tribal Leaders Council | 109 | 12.51% | $538,618 | $539,000 |
| Great Lakes Inter-Tribal Council | 100 | 11.48% | $494,145 | $494,000 |
| Northwest Portland Area Indian Health Board | 90 | 10.33% | $444,730 | $445,000 |
| Inter-Tribal Council of Michigan | 32 | 3.67% | $158,126 | $158,000 |
| **TOTAL** | **871** | **100.00%** | **$4,304,000** | **$4,304,000** |
| **Exact Funding** | **$ 4,304,000.00** | | | |

# The ITCA Lead Testing Project

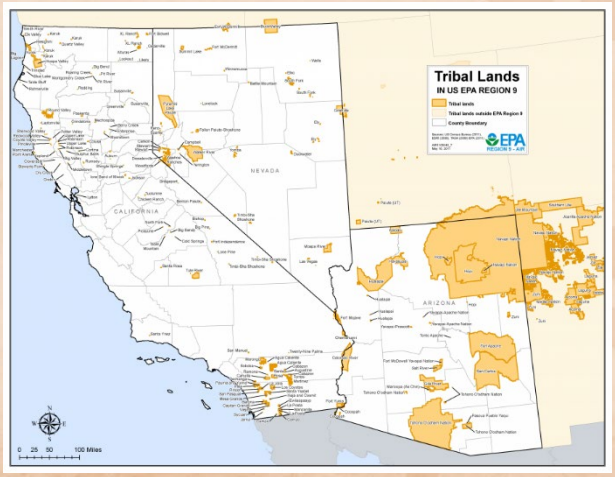
Work plan scalability of Scope of Work is proportional to funding allocations.

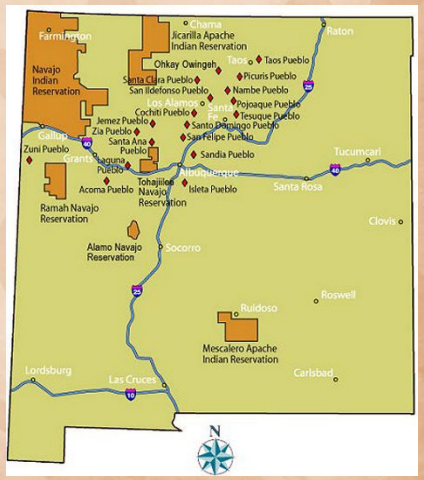
The overall service area that ITCA proposes includes all Indian reservations located in:

(1)EPA Region 9: Navajo Nation, and Tribes located in Arizona, California, and Nevada; and

(2)Tribes located in New Mexico

Service area includes a total of 188 federally-recognized tribes



# Late Breaking Update

2021 Infrastructure Investment and Jobs Act

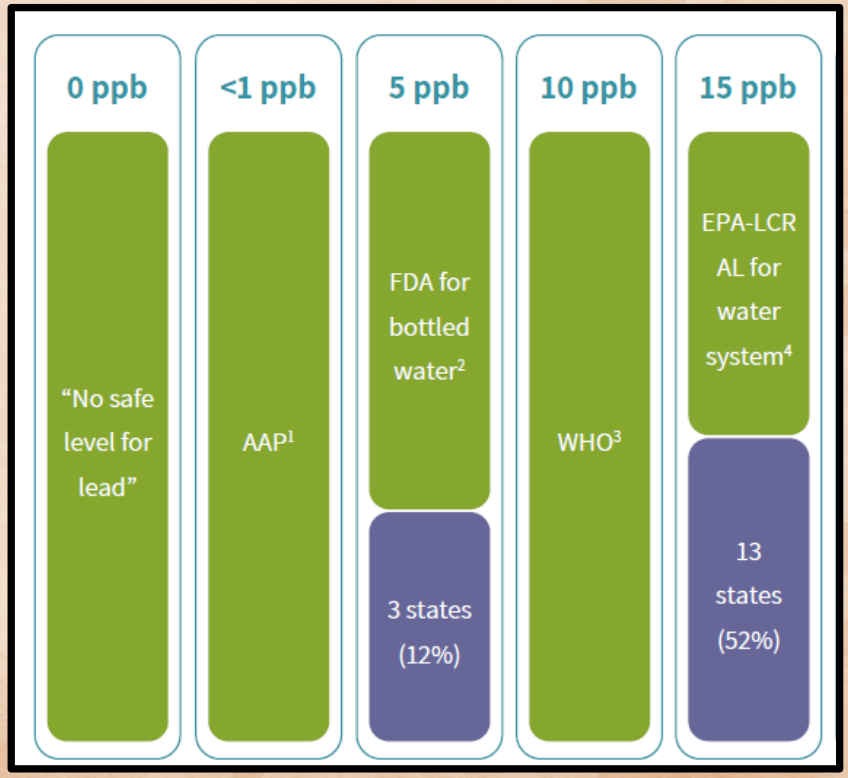
- Amended the WIIN Act §2107 grants → Can now pay for remediation
- Authorized more rounds of grants




# How to Participate in the ITCA Tribal Project

Process for participation

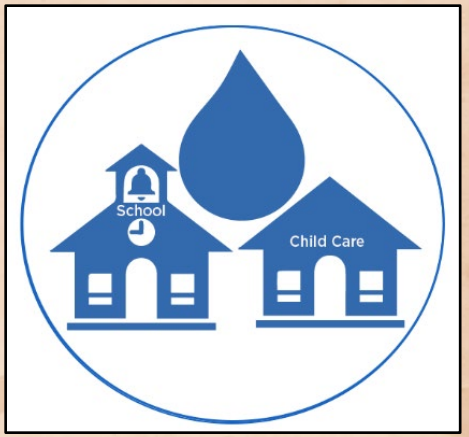
1. Contact ITCA,
2. Statement of Commitment and concurrence from governing body,
3. Select action level: <1 ppb, 5 ppb, 10 ppb, 15 ppb (unlike with states, Tribes will have a choice),
4. Select public notification preferences (unlike with states, Tribes will have a choice—Data sovereignty)
5. Priority level of testing



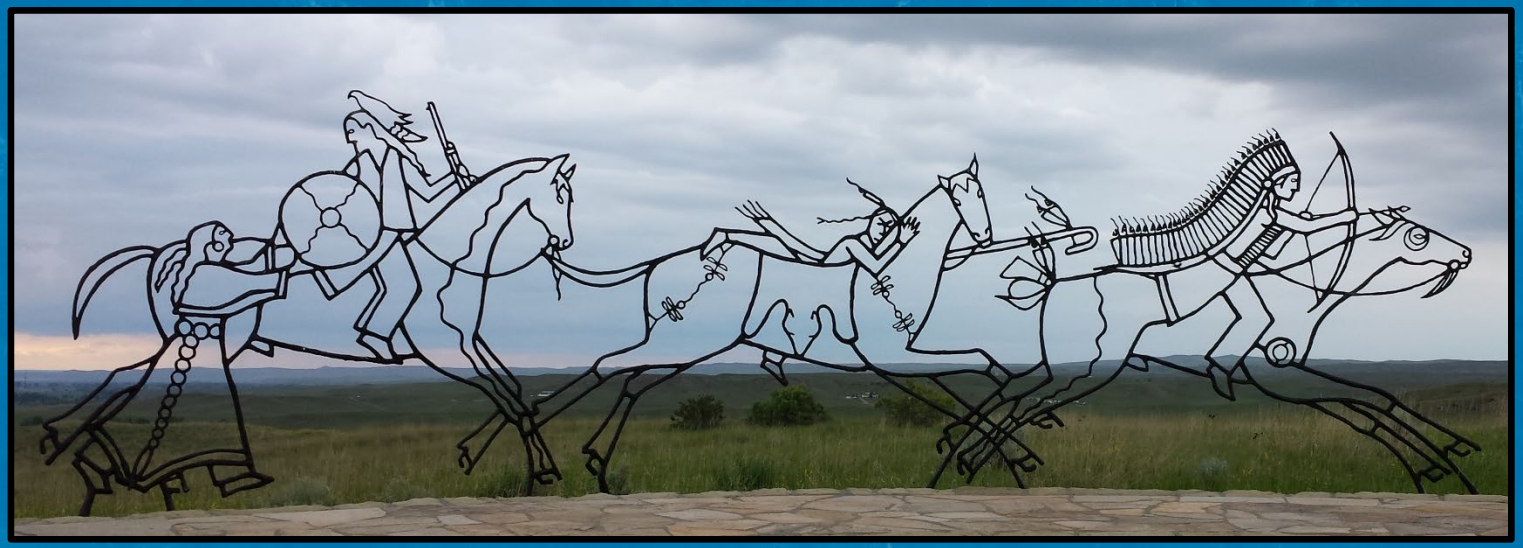
# Work in Progress—Starting the Project

Work in Progress

- Hiring staff
  - Diella Packman & Audrey Tso
    - 3 more positions
- Developing Work Plan
- Messaging/social marketing campaign
  to Tribal Leaders, TEAs, Tribal Utilities
  - Website pages and materials under development
  - Create Database
  - Messaging in Tribal Operator training courses
- List of TEAs & Prioritization
- Selecting laboratories and consultants
- Contacting State and Tribal Agencies



# QUESTIONS??



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