

# The Community Environmental Monitoring Program: Including the Public in Offsite Monitoring

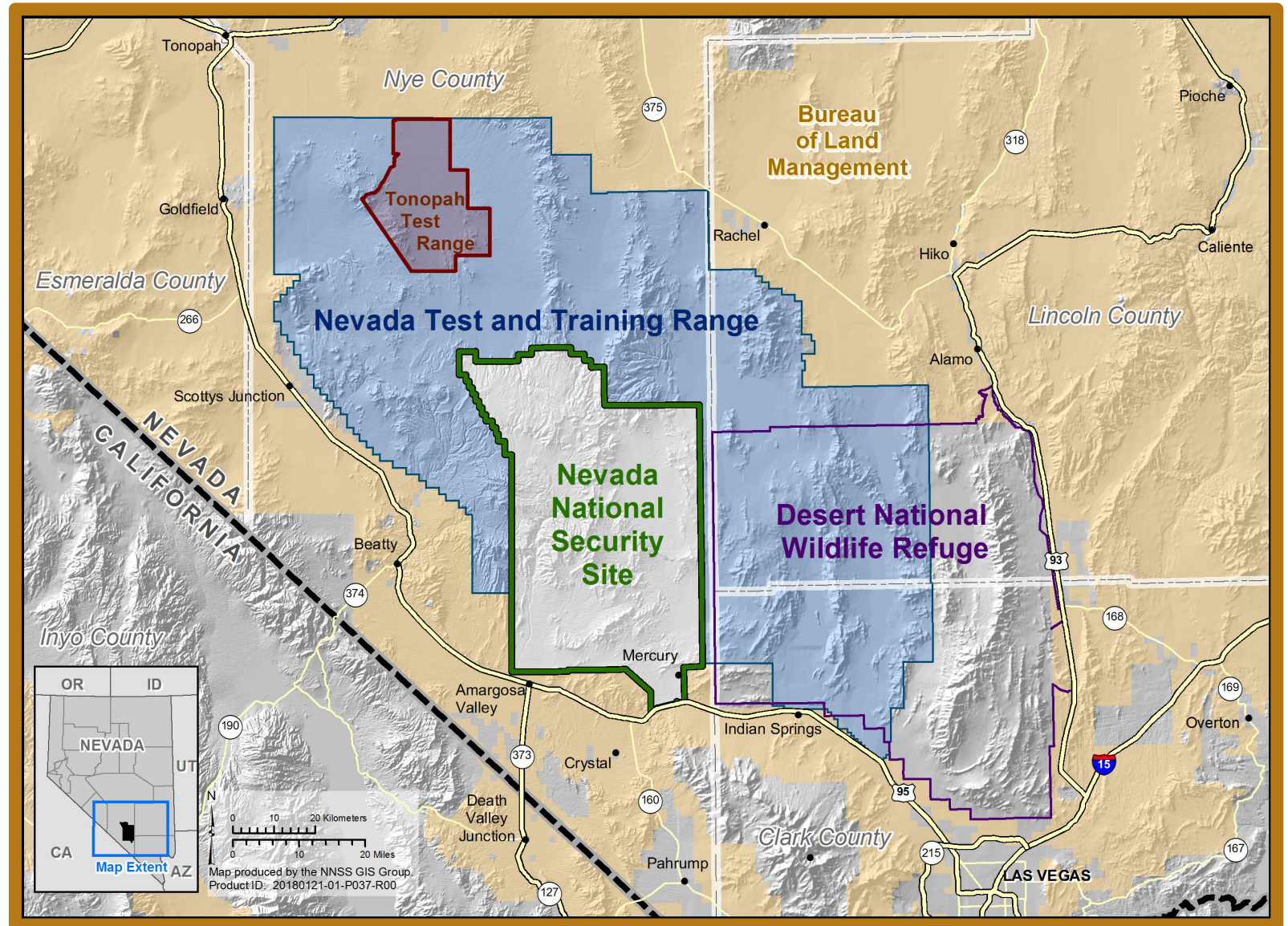
By Beverly Parker, CEMP Manager

May 21, 2025

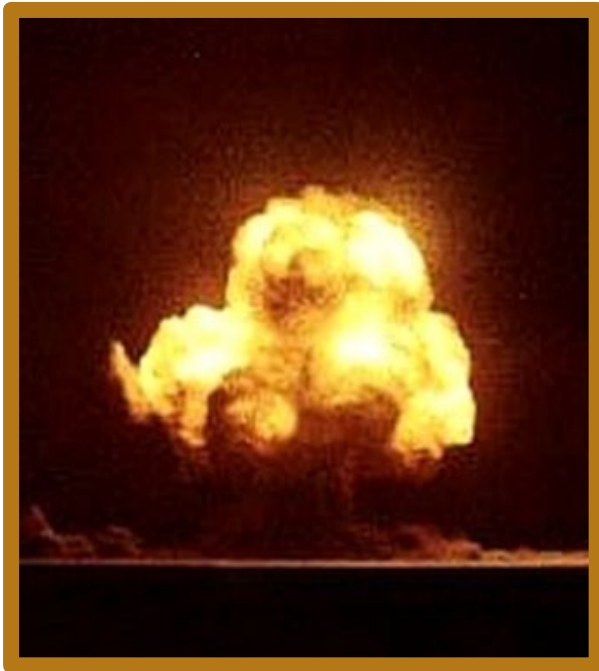




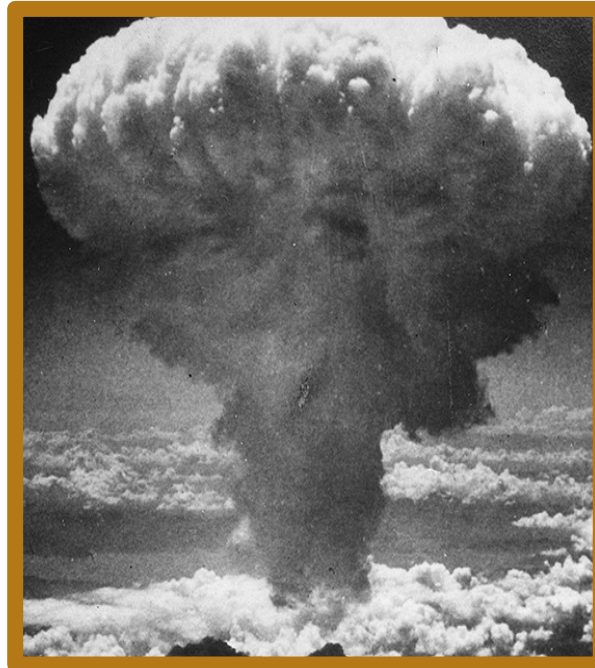
# DOE NNSA/NFO Technical Research, Engineering, and Development Services contract



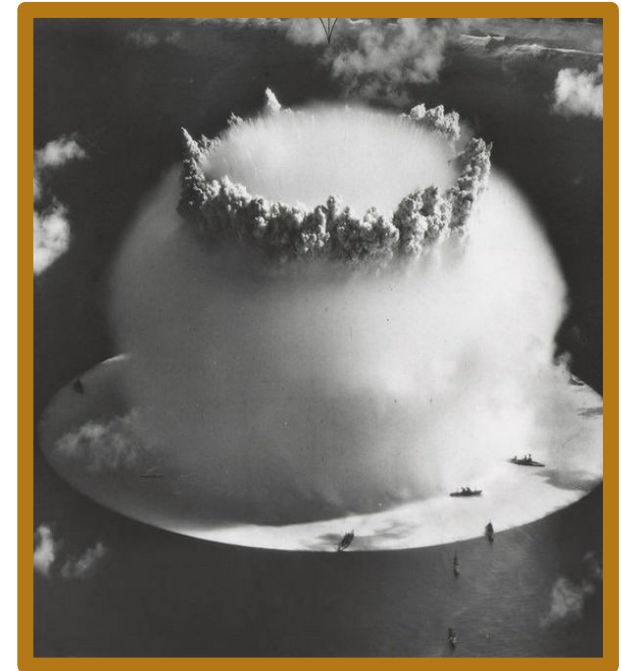
# A Brief History of U.S. Nuclear Testing



**July 1945**  
Trinity test



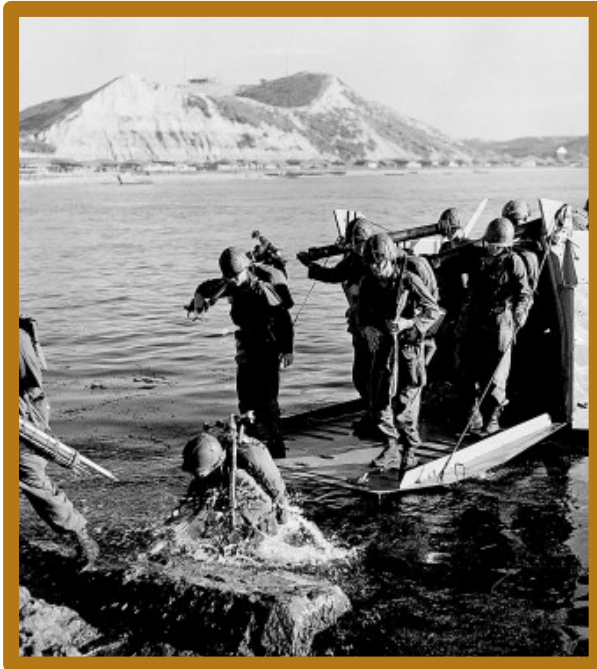
**August 1945**  
Hiroshima and  
Nagasaki



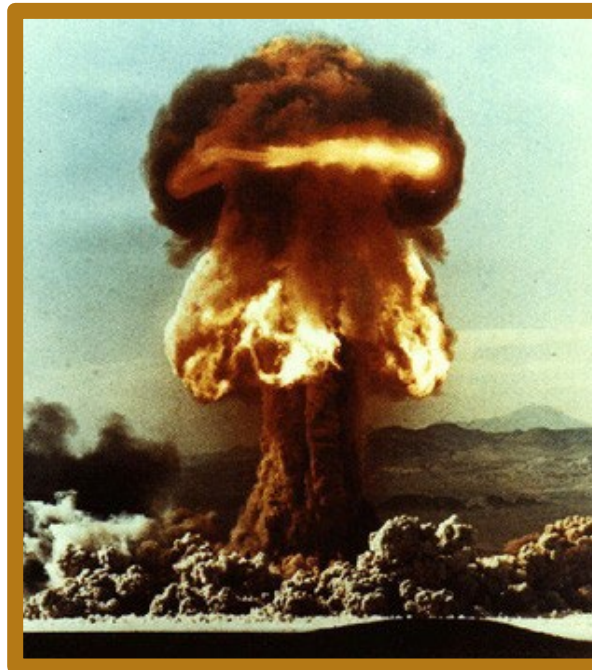
**1946-1962**  
Pacific Proving Grounds  
5 underwater tests  
101 atmospheric tests



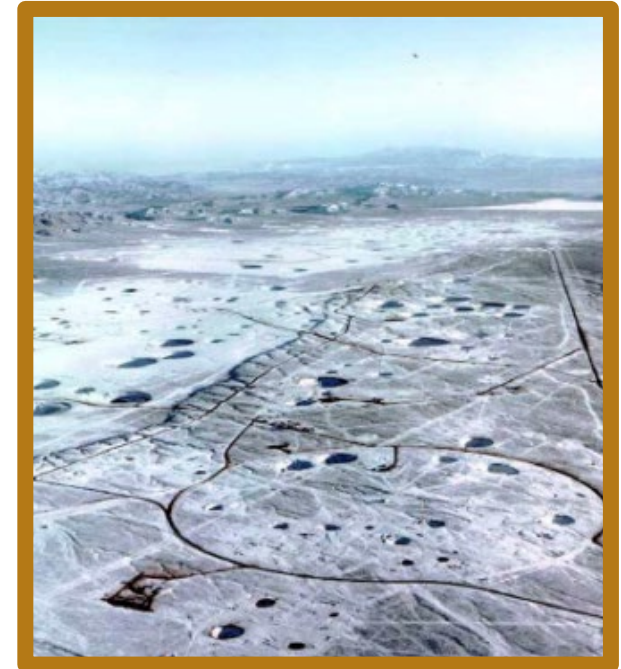
# A Brief History of U.S. Nuclear Testing



**1950**  
Korean War

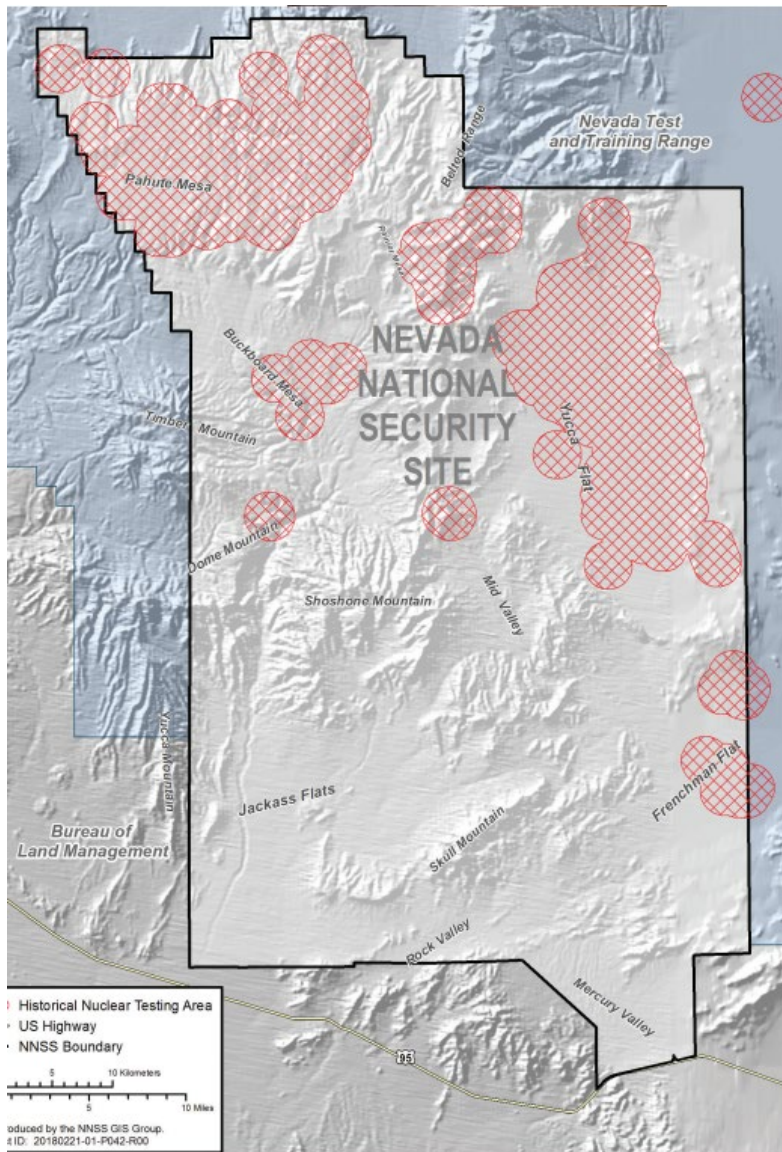


**1951-1962**  
Atmospheric tests  
on the NNSS

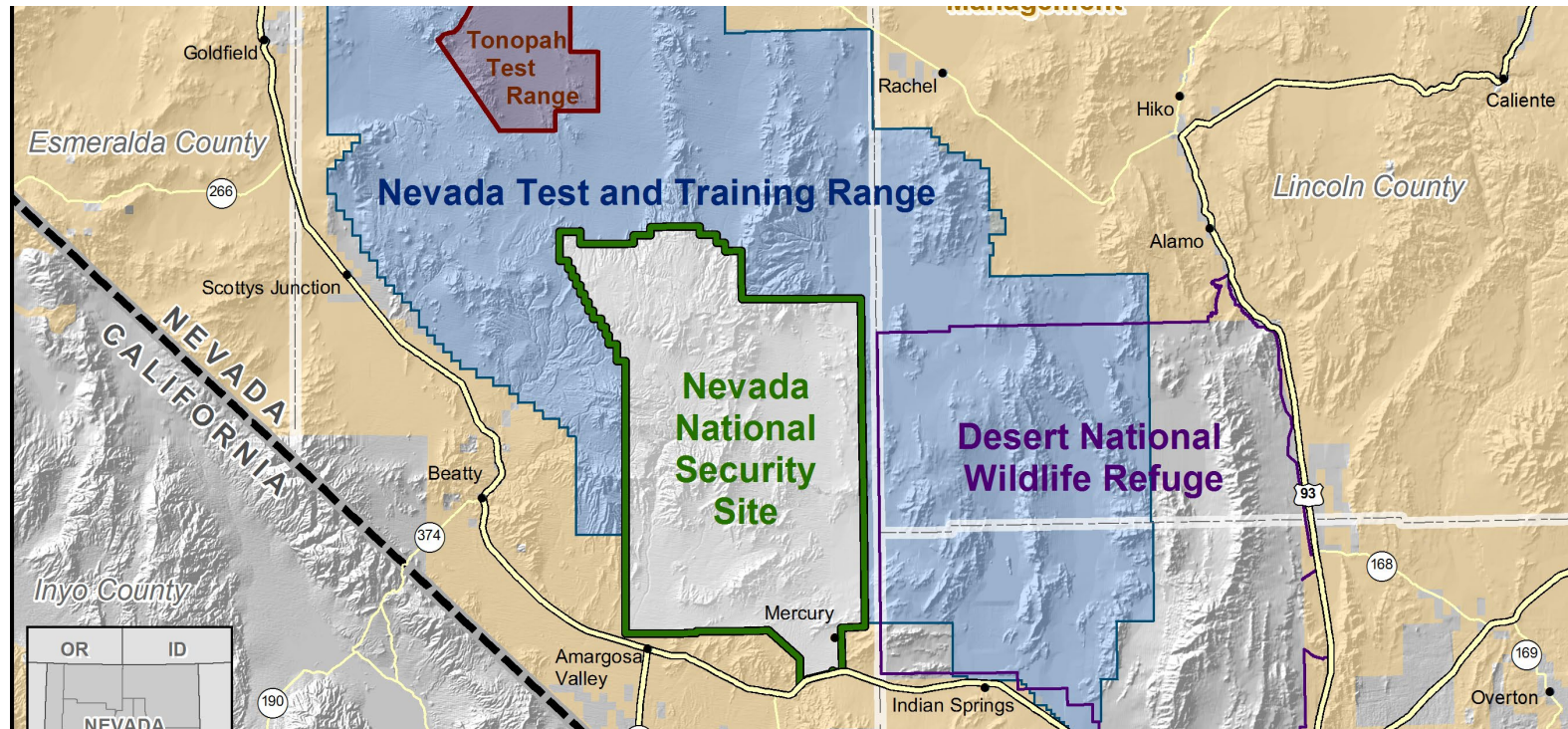


**1951-1992**  
Underground  
nuclear tests





Historical Nuclear Testing Areas on and adjacent to the NNSS

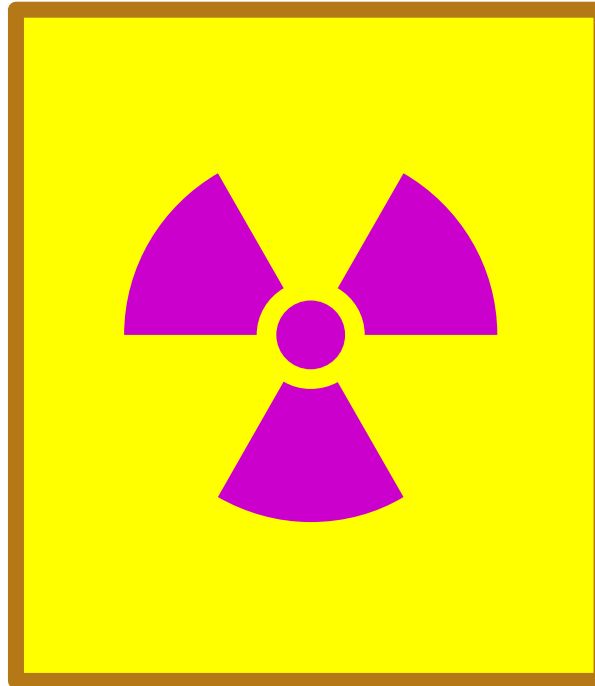


# Historical Nuclear Testing Areas on the NNSS

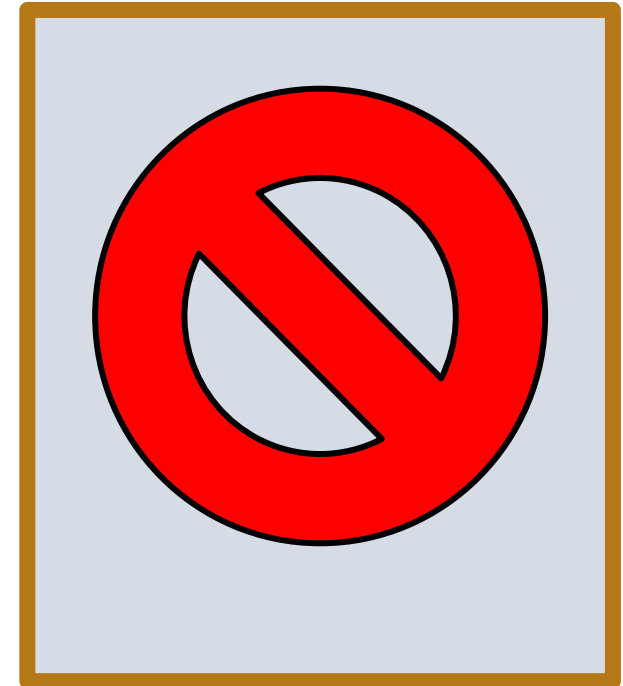
# Public Perception



**1950s**  
Patriotic spirit



**Late 1950s**  
Awareness



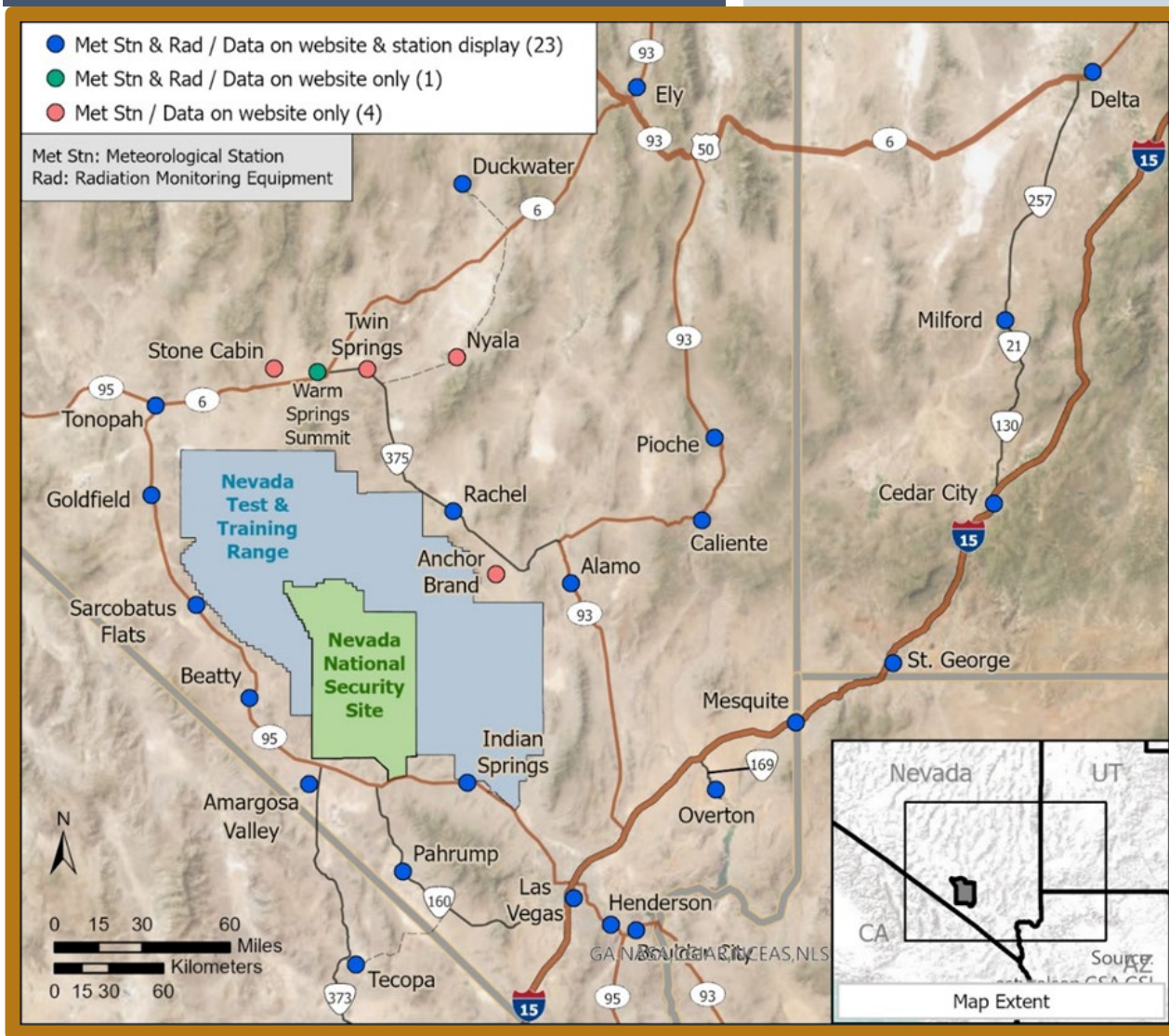
**1963**  
Limited Test Ban Treaty



# Origin of the Community Environmental Monitoring Program (CEMP)







## 2000 - Present

- DRI administers the CEMP
- 28 stations
- Added meteorological instrumentation

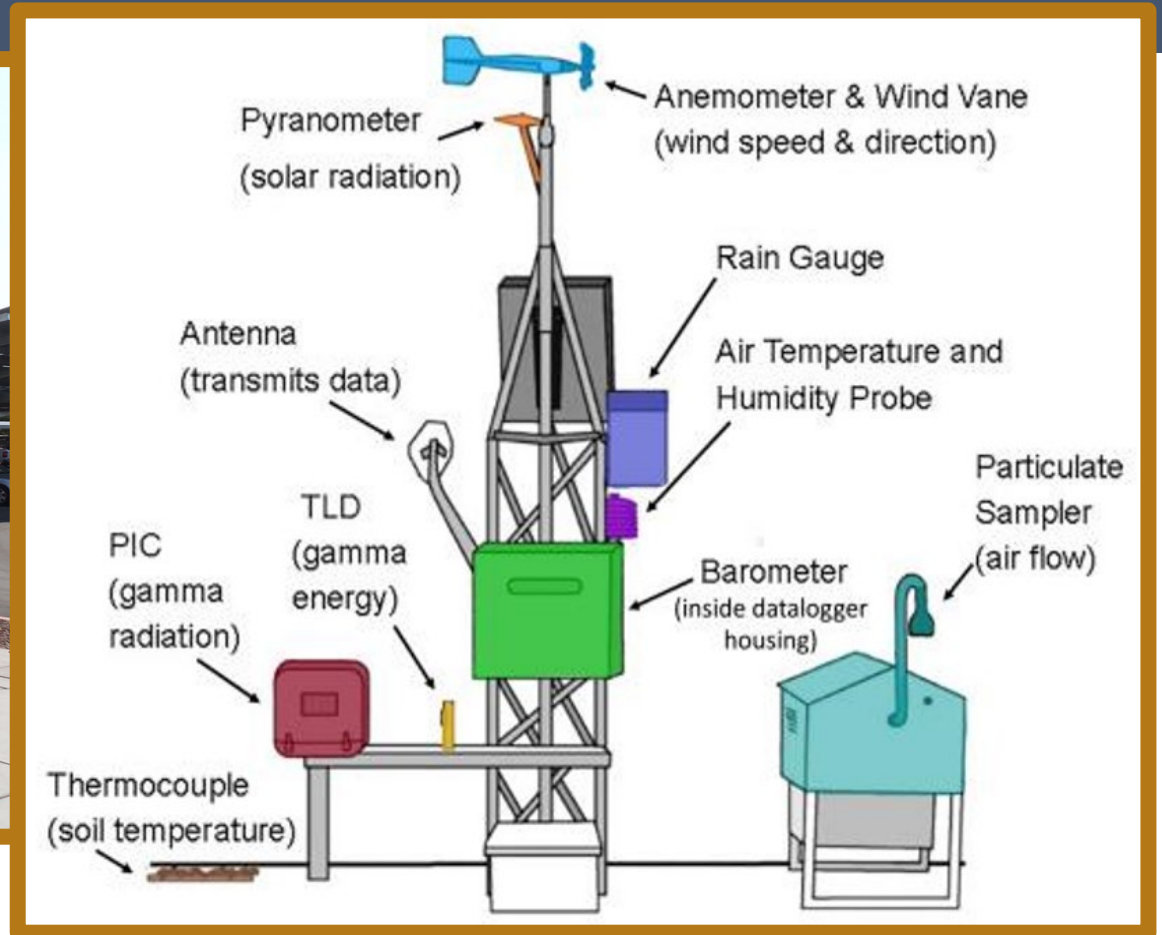




# CEMP Instrumentation



CEMP station in Las Vegas, Nevada







How does  
the CEMP  
collect the  
data?



Who are  
Community  
Environmental  
Monitors?

High School Students

City Employees Professors

Grandparents Ranch Workers

Parents & Friends

Real Estate Agents

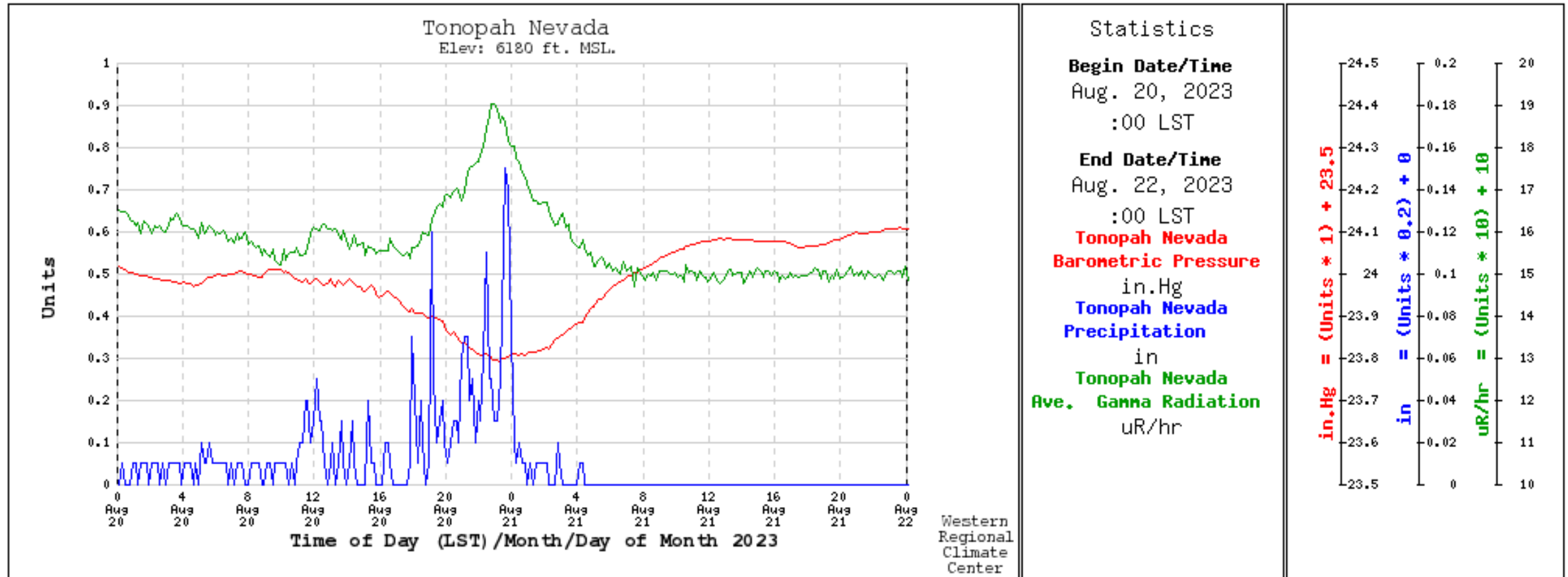
County Employees

Teachers

Business Owners



# Public Access to Data and Results

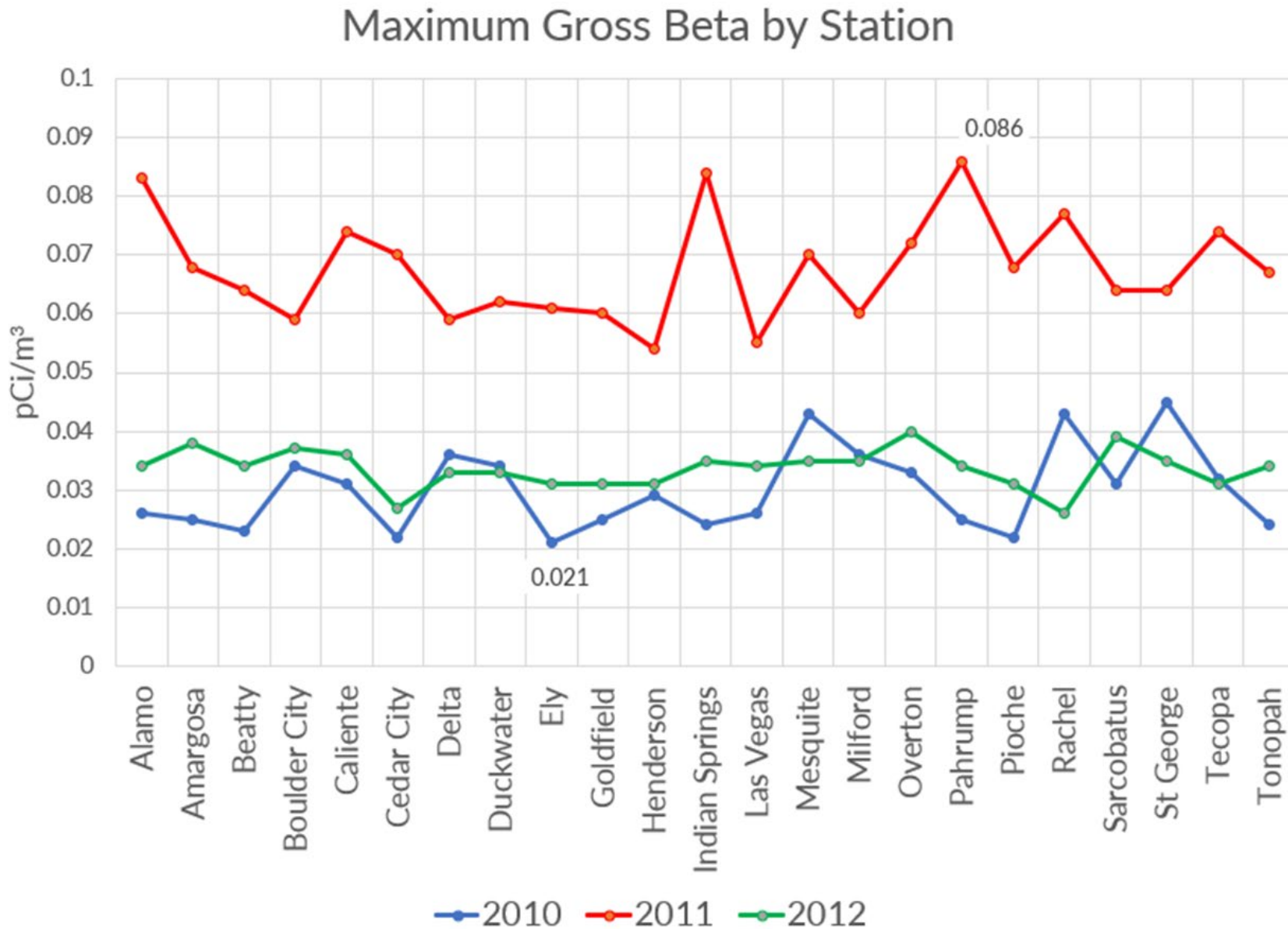




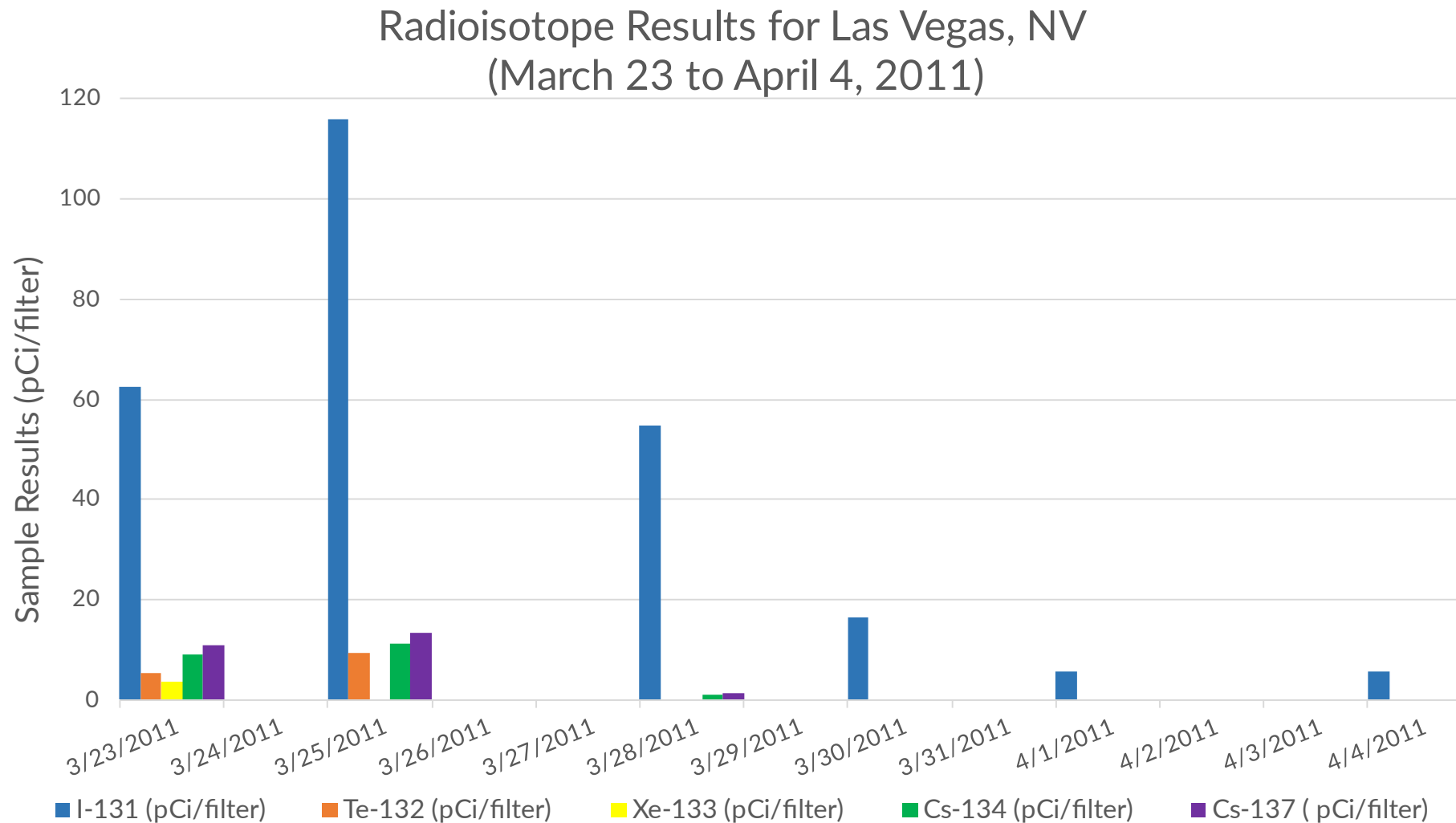




# CEMP Data Reflect the Fukushima Accident



# CEMP Data Reflect the Fukushima Accident





# Comments from CEMs

## Sense of Safety

## Increased Confidence and Credibility

### Perception

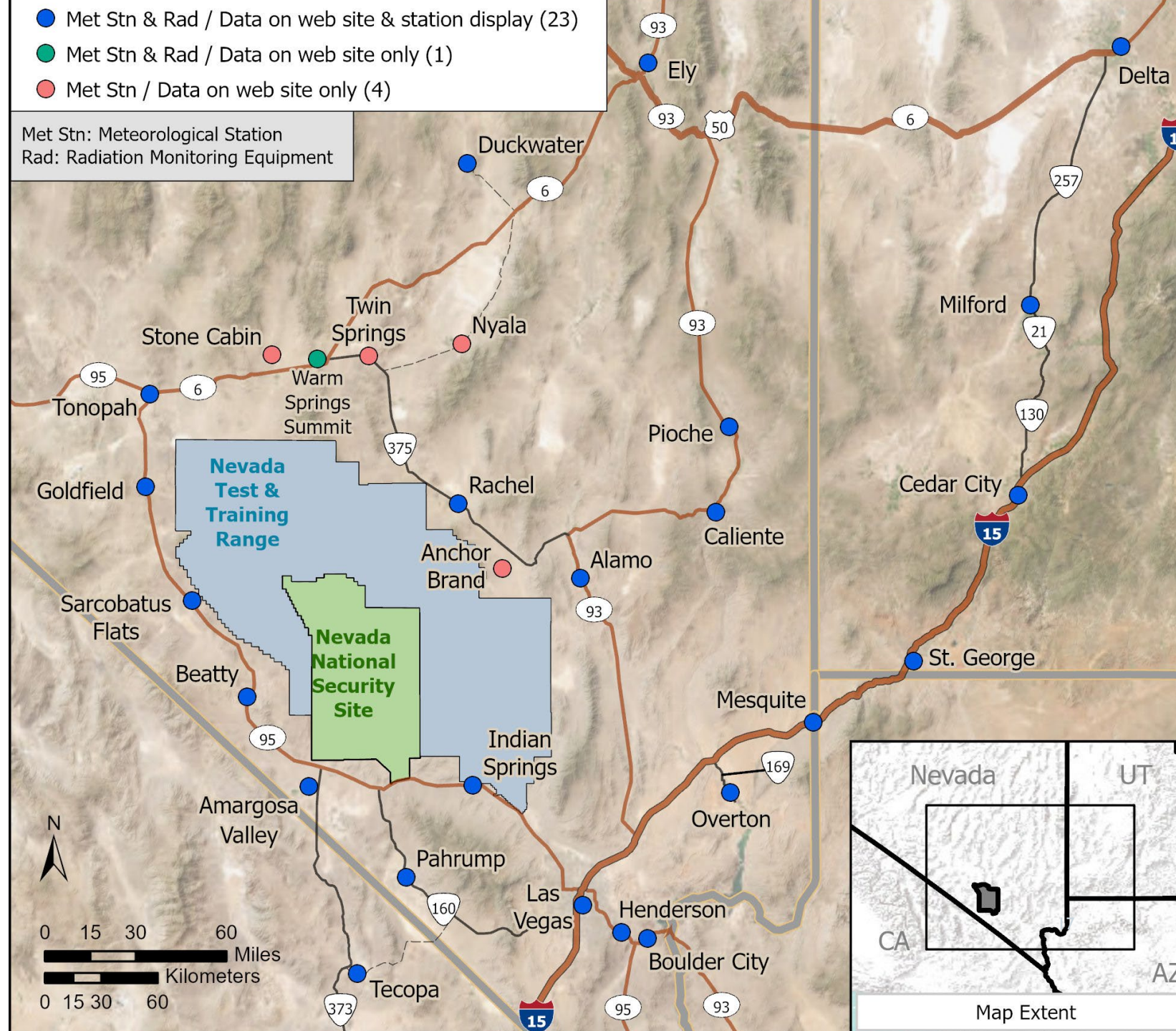
"I think [the CEMP station] satisfies curiosity of what's going on out there ... [and it provides] ... a sense of safety, security that they know it is testing constantly, continuously, that it registers and picks up things that may change in the environment."

[Neighbors tell me], "...if you leave town, then I need to leave town, too"... "in many cases, I think that there is a lack of worry because there is a station [in the community] and they know the people who are monitoring it, so they don't worry about [activities on the NNSS]."

# CEMP GROUNDWATER MONITORING

2001 - 2013

- 28 Locations surrounding and downwind of the NNSS

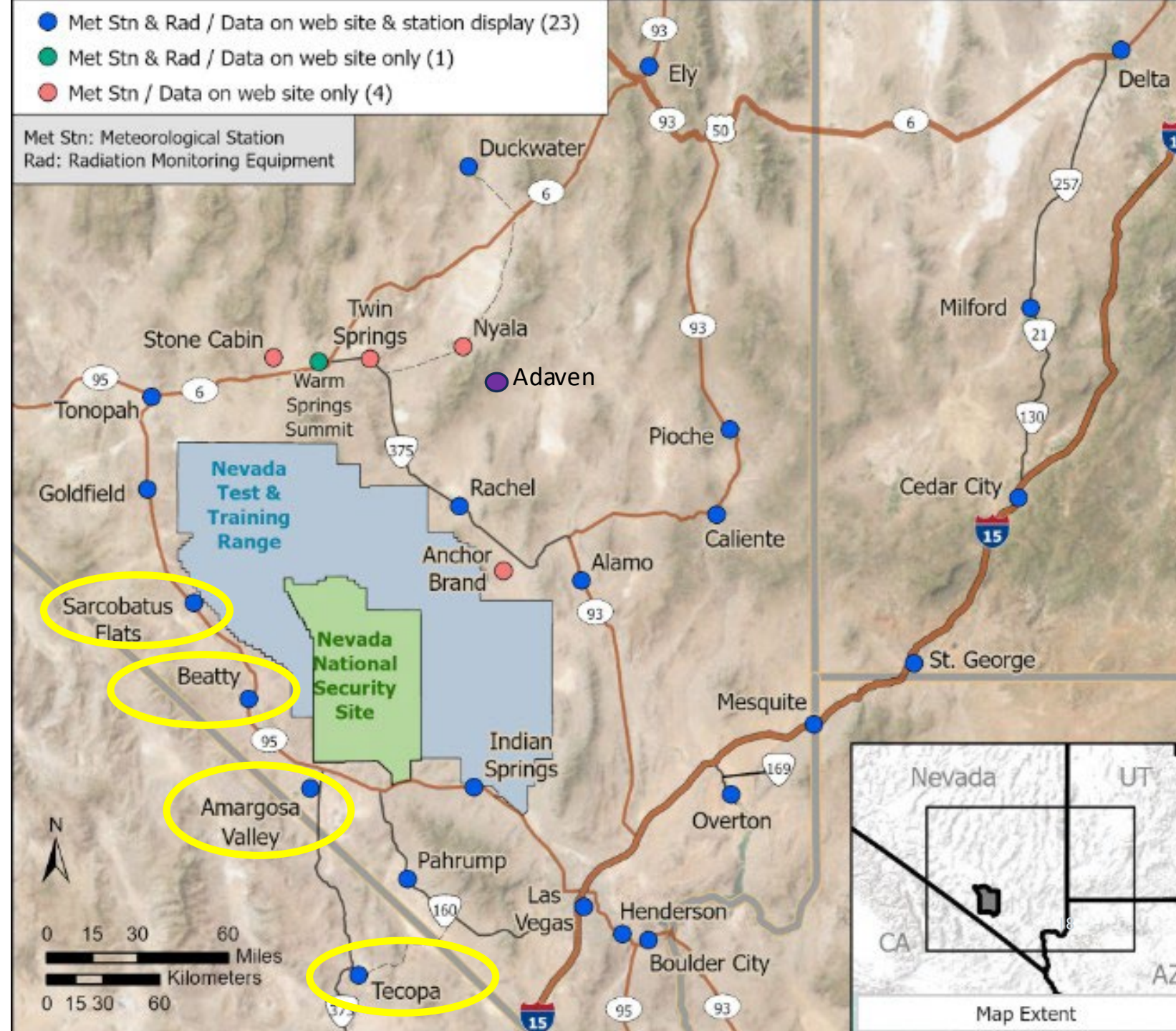




# CEMP GROUNDWATER MONITORING

2014 - Present

- Nye County Monitoring Program
- CEMP monitors 4 locations



# Increased Communication

Members of the CEMP were notified of the October 2023 subsurface chemical explosion prior to execution of the experiment. CEMs expressed appreciation for the information, and they reported that they did not receive concerns from their communities.

# Outreach Activities





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5,295 Annual Contacts

124 CEMs Trained

Public Access to Data

Improved Transparency

Community Understanding

Dissemination of Results

Programmatic Savings

Increased Credibility

# Contact Information

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CEMP Story Map



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