



NEVADA DIVISION OF  
**ENVIRONMENTAL  
PROTECTION**



Nevada Department of  
**CONSERVATION &  
NATURAL RESOURCES**

# Nevada Division of Environmental Protection

**Pittman Indoor Air Sampling  
Virtual Community Information Meeting**

December 9, 2021 – 3 to 5 PM

**Presented by:**

*JD Dotchin, Bureau Chief  
Bureau of Industrial Site Cleanup*

# PARTNERS AND STAKEHOLDERS

- Nevada Division of Environmental Protection (NDEP)
- United States Environmental Protection Agency Region 9 (US EPA)
- Nevada Department of Conservation & Natural Resources (DCNR)
- City of Henderson (Elected Officials and Technical Staff)
- Southern Nevada Health District (SNHD)
- Clark County Department of Environment and Sustainability (DEQ)
- Nevada Environmental Response Trust (NERT)
- Pittman Residents



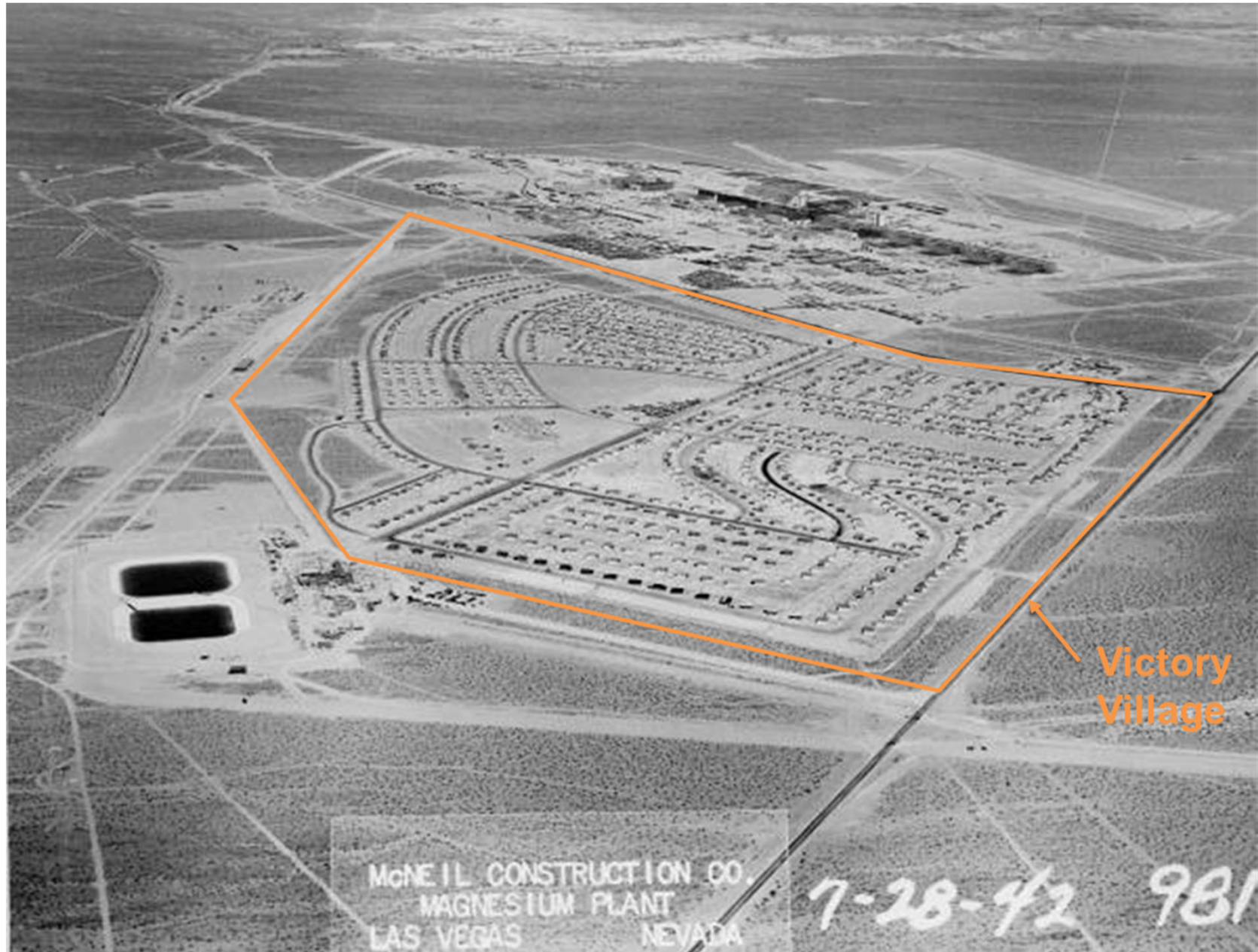
# BLACK MOUNTAIN INDUSTRIAL COMPLEX (BMI) – HENDERSON, NV

## PITTMAN RESIDENTIAL COMMUNITY

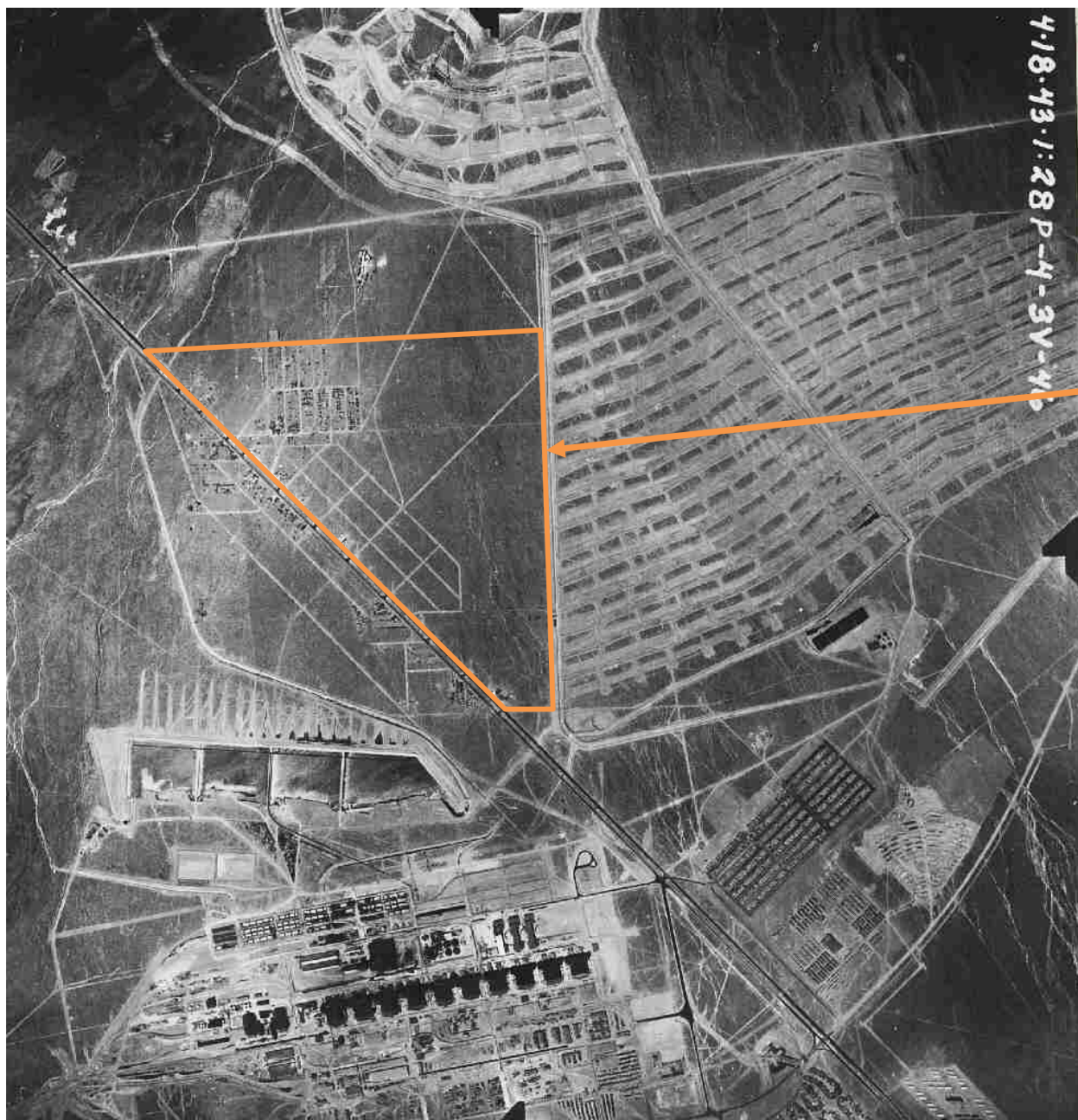




# VICTORY VILLAGE 1942



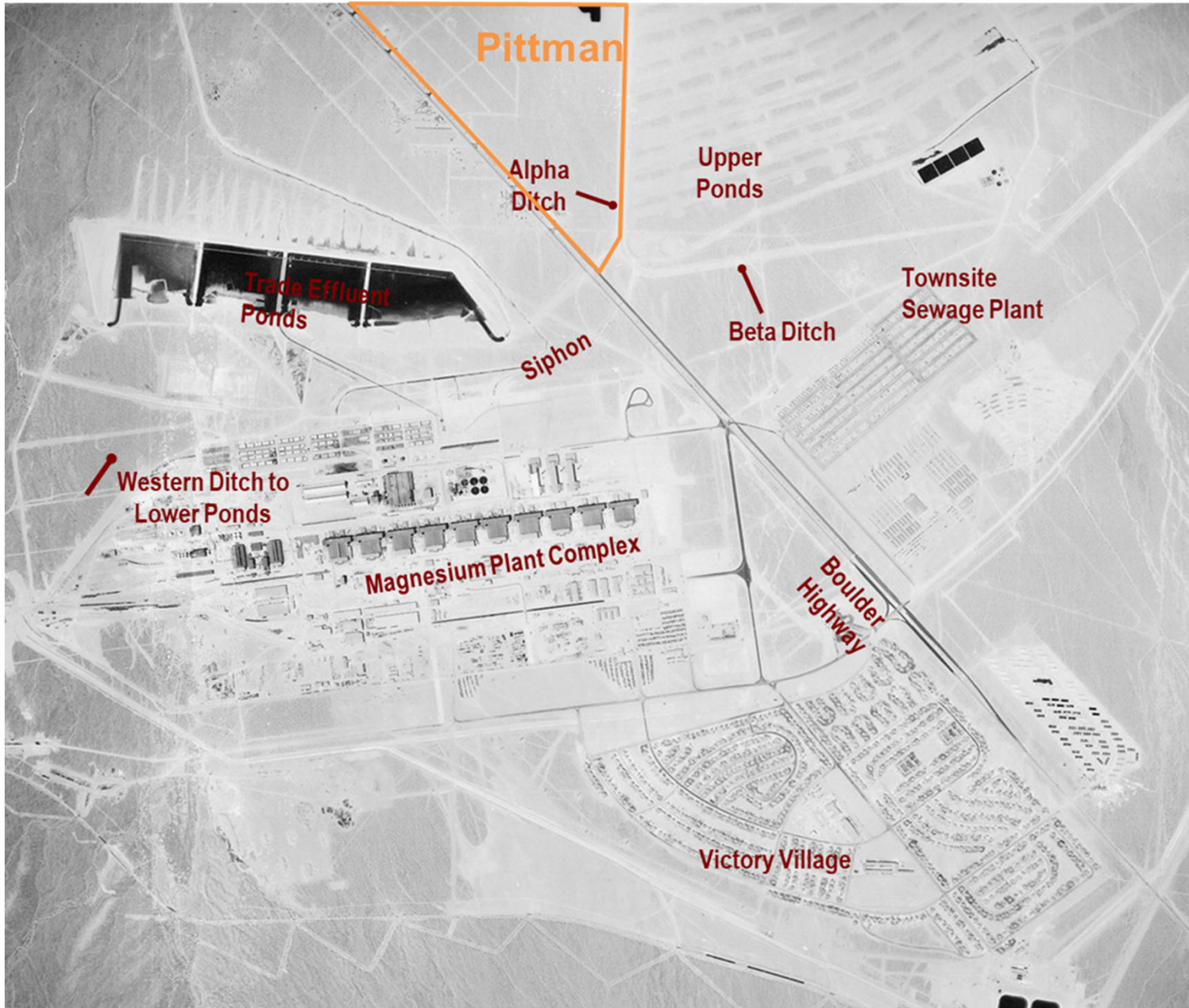
# PITTMAN 1943



Pittman

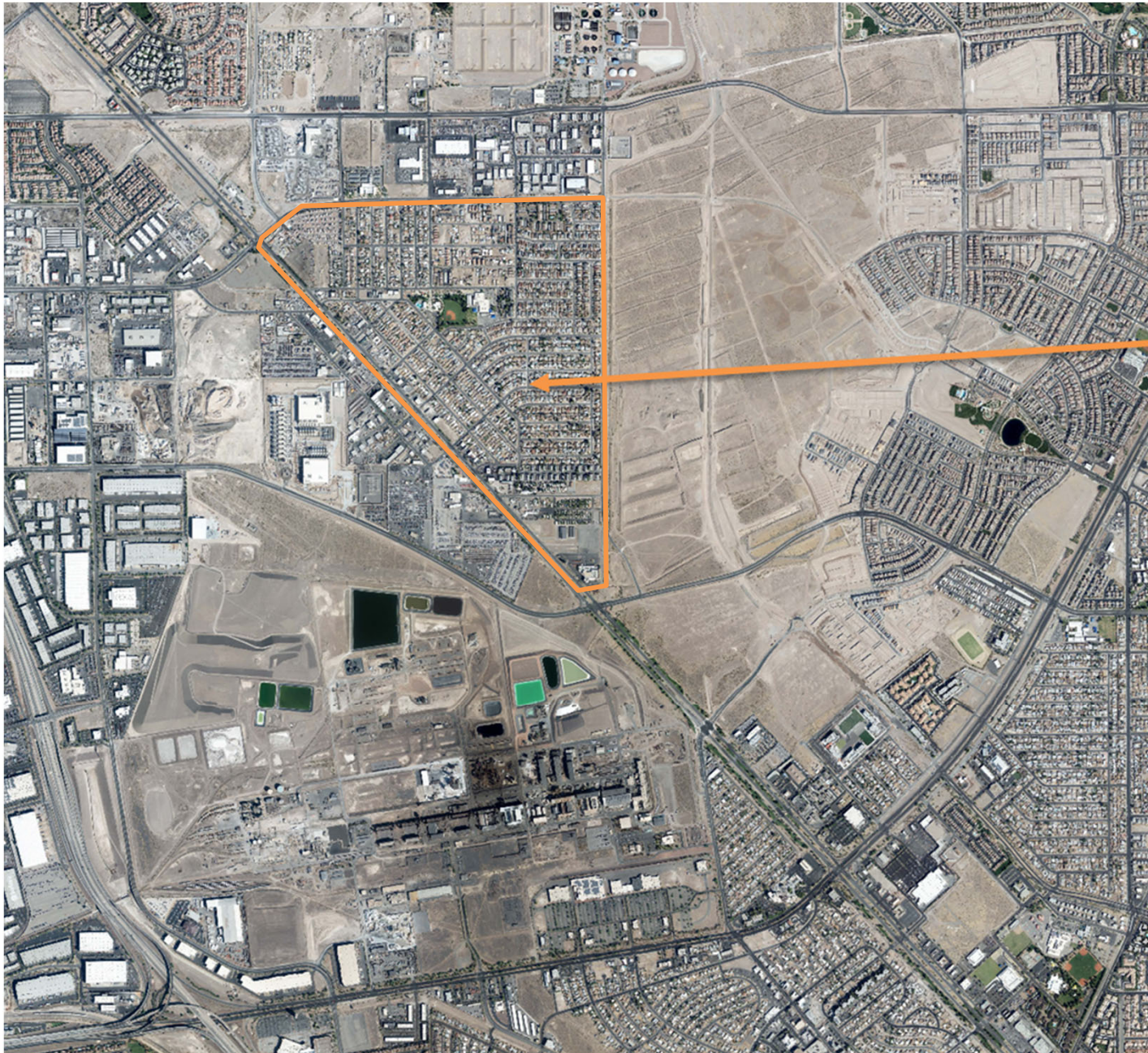


# PITTMAN EARLY 1940's





# PITTMAN 2020



Pittman

# MAJOR MILESTONES

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- 1941 BMI Property Deeded (Magnesium Manufacture)
- 1942 BMI Construction Begins
- 1970 Initial Environmental Sampling Conducted
- 1972 Clean Water Act 1972
- 1986 Initial Consent Order for Characterization
- 2008 Initial Soil Gas Sampling in Pittman Neighborhood
- 2014 Last Groundwater Treatment System Started at BMI
- 2017 Soil Gas Sampling Pittman Neighborhood
- 2019 Additional Soil Gas Sampling Pittman Neighborhood

**NOW: Conducting Human Health Assessments**



# CHLOROFORM SOIL GAS SAMPLING RESULTS

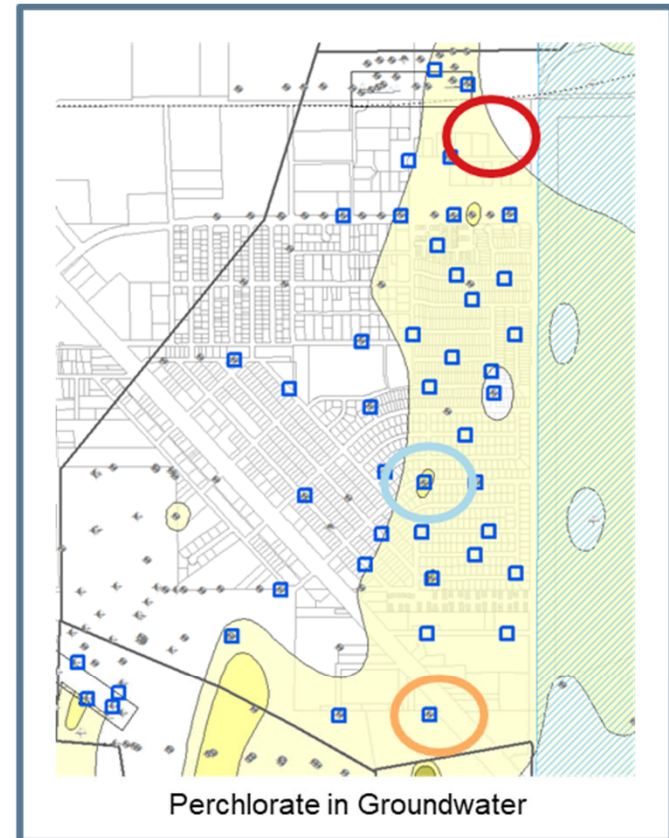
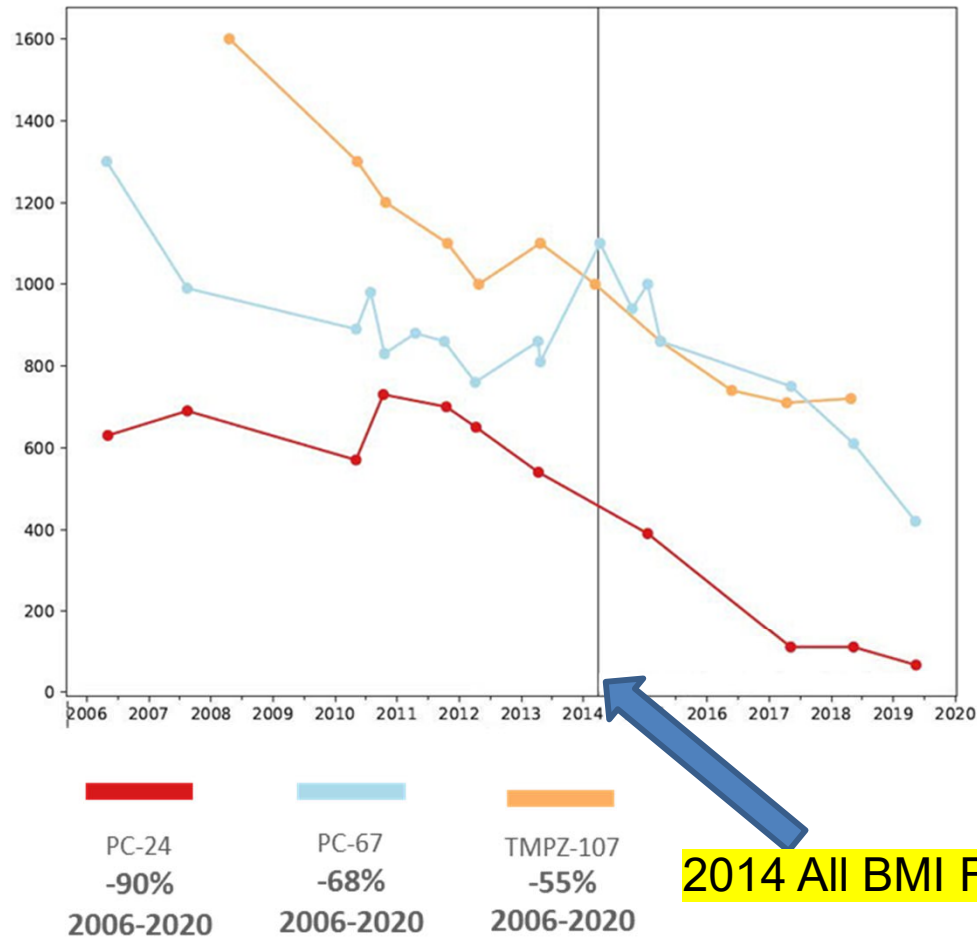
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Fortunately, based on hundreds of samples collected over three (3) events, spanning 14 years, the tests found NO health concerns for chloroform in the surrounding communities, and the likelihood of elevated chloroform levels in nearby homes remains low.

Additionally, chloroform concentrations have been decreasing throughout the area due to groundwater treatment and natural processes.

# CHLOROFORM IN GROUNDWATER SAMPLING RESULTS

## 2006 – 2020



2014 All BMI Facilities have groundwater treatment systems

Groundwater concentrations have been decreasing due to groundwater treatment systems and natural attenuation.



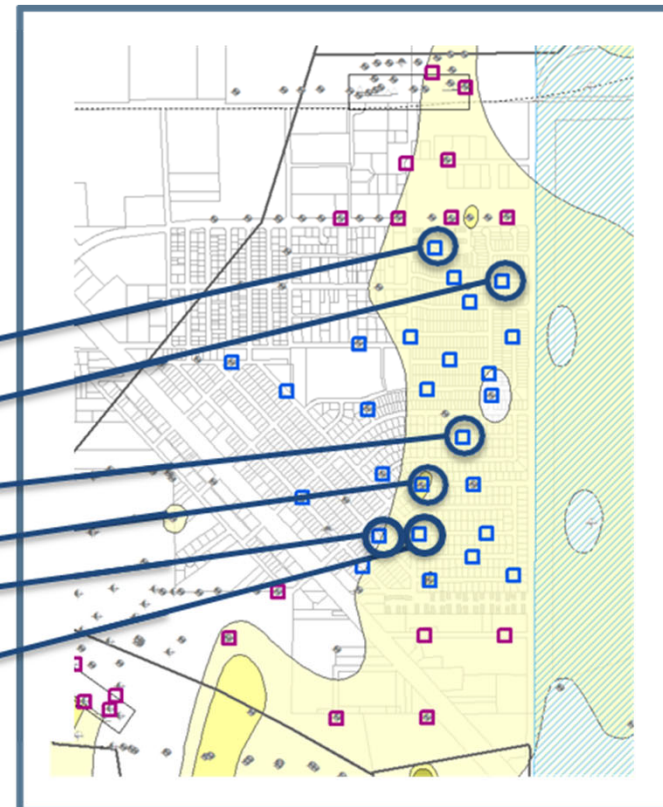
# CHLOROFORM SOIL GAS SAMPLING RESULTS

## NOVEMBER 2019 SAMPLE LOCATIONS ABOVE 4 mg/m<sup>3</sup>

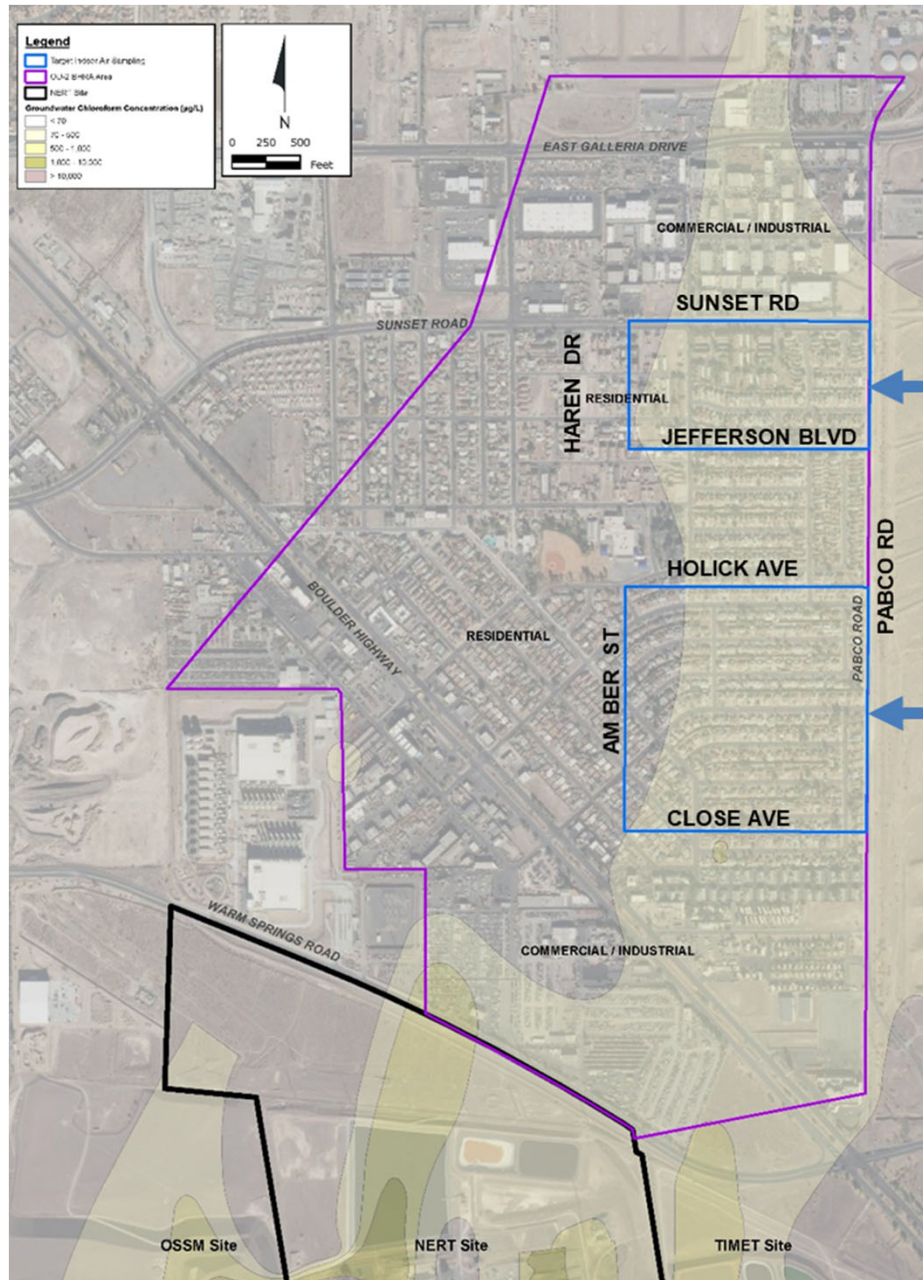
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Locations Above 4 mg/m<sup>3</sup> (or close to) @ 15 ft Below Ground (Residential)

Location	Chloroform Soil Gas Result (mg/m <sup>3</sup> )
RISG-57	4.1
RISG-59	4.6
RISG-68	5.1
RISG-1	9.4
RISG-70	6.8
RISG-71	3.9



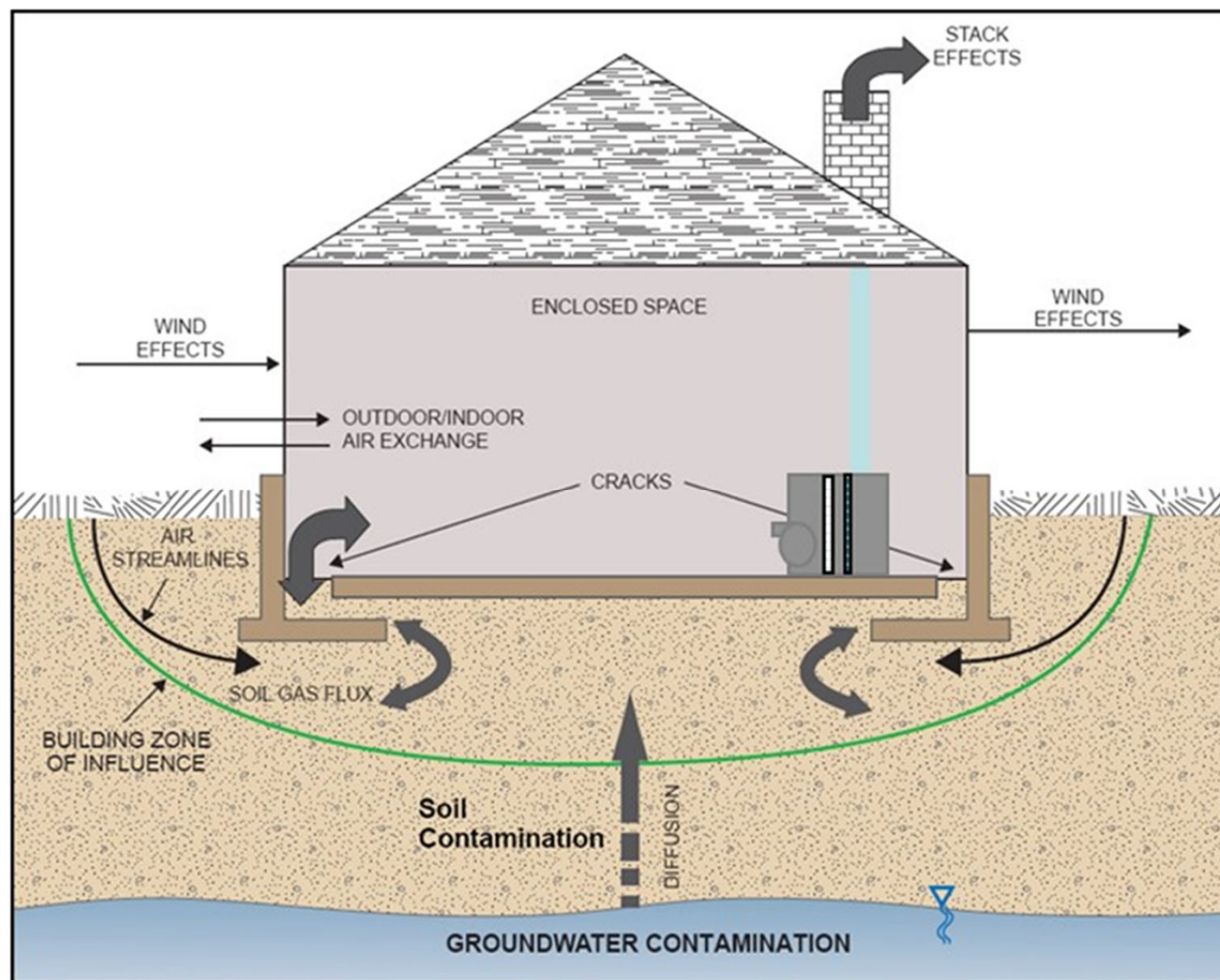
# TARGET INDOOR AIR SAMPLING AREAS



- NERT will collect three samples from each blue Sampling Area
- NERT will collect three samples from the west side of Pittman for comparison
  - Confirm the computer modeling
  - Use real world data
  - Out of an abundance of caution for residents
  - Complete the Health Assessment



# CONCEPTUAL SITE MODEL: VAPOR INTRUSION



## Other Sources of Chloroform

- City Water Supply
- Household Chemicals
- Painting supplies
- Hobby supplies
  
- Trace levels of Chloroform can be found in most homes

Vapor intrusion is the movement of chemical vapors from contaminated soil and groundwater into a structure.

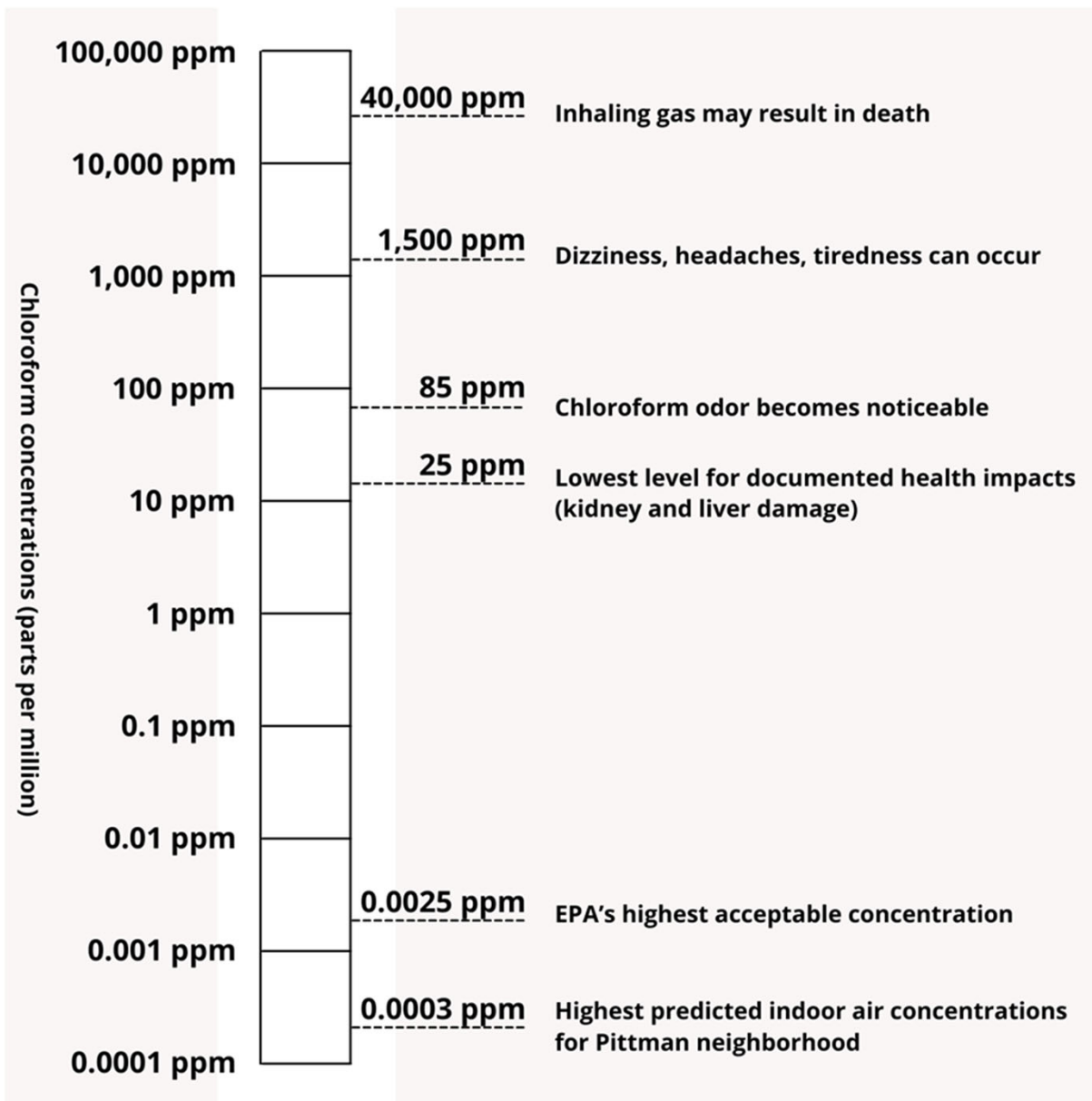
# SAMPLING THE HOME



- 24-hour Sample Taken
- Sampler the Size of a Basketball
- Contractor and NDEP Present in Home
- Placed 3-5 feet off the Ground
- Sample Sent to NDEP Certified Laboratory
- Additional Sampling will be done outside and on Right of Way



# CHLOROFORM AIR CONCENTRATION REFERENCE



- Model calculated indoor air concentration of 0.0003ppm is 10,000 times lower than lowest level for health impacts (25ppm)
- One ppm is equal to 1 minute in 2 years or
- 10 bricks in the Empire State Bldg.

# NEXT STEPS

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- NERT representatives will contact residents
  - Within Target Indoor Air Sampling Areas
  - Homes will need to be empty to allow for sampling
  - NERT will compensate residents to relocate for a few days
- Field Sampling from January through March
  - Conducted by an NDEP approved contractor
  - Field work overseen by NDEP
- Results to be shared with the Pittman Community
  - NDEP Website - <https://ndep.nv.gov/environmental-cleanup/black-mountain-industrial-bmi-complex/nevada-environmental-response-trust-nert/chloroform-testing-pittman>
  - Mailer to Pittman Community



# Questions



## Contact:

JD Dotchin, Bureau Chief

NDEP/BISC

702-668-3900

[jdotchin@ndep.nv.gov](mailto:jdotchin@ndep.nv.gov)

[ndep.nv.gov](http://ndep.nv.gov)

More information on our website

[bit.ly/3pAIJSG](http://bit.ly/3pAIJSG)

## Press Inquiries:

Samantha Thompson, PIO

DCNR

(775)-684-2709

[sthompson@dcnr.nv.gov](mailto:sthompson@dcnr.nv.gov)

[ndep.nv.gov](http://ndep.nv.gov)