



OAKLAND UNIFIED  
SCHOOL DISTRICT  
*Community Schools, Thriving Students*

# Report on Subsurface Contamination in OUSD *Facilities Committee* - November 18, 2021 -



[www.ousd.org](http://www.ousd.org)



@OUSDnews

# Ask of the Committee

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- Receive presentation regarding subsurface contamination in OUSD
  - Provide general overview of subsurface contamination
  - Share what OUSD has done at McClymonds and the Acorn Woodland/EnCompass campus
  - Discuss potential districtwide risk to students and staff from subsurface contamination
    - But NOT cause unnecessary confusion or fear
- Raise awareness of forthcoming RFP to conduct risk analysis, testing, and/or mitigation recommendations

# Subsurface Contamination

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- We are talking about indoor air intrusion from Volatile Organic Compounds (VOCs)
  - Human-made chemicals used in manufacturing and industrial practices
  - Examples: benzene, formaldehyde, tetrachloroethylene (PCE), Trichloroethylene (TCE)
  - Suspected long-term effects of VOCs: organ damage, cancer
    - Exception: Possible birth defects from short-term exposure to TCE

# We're NOT talking about...

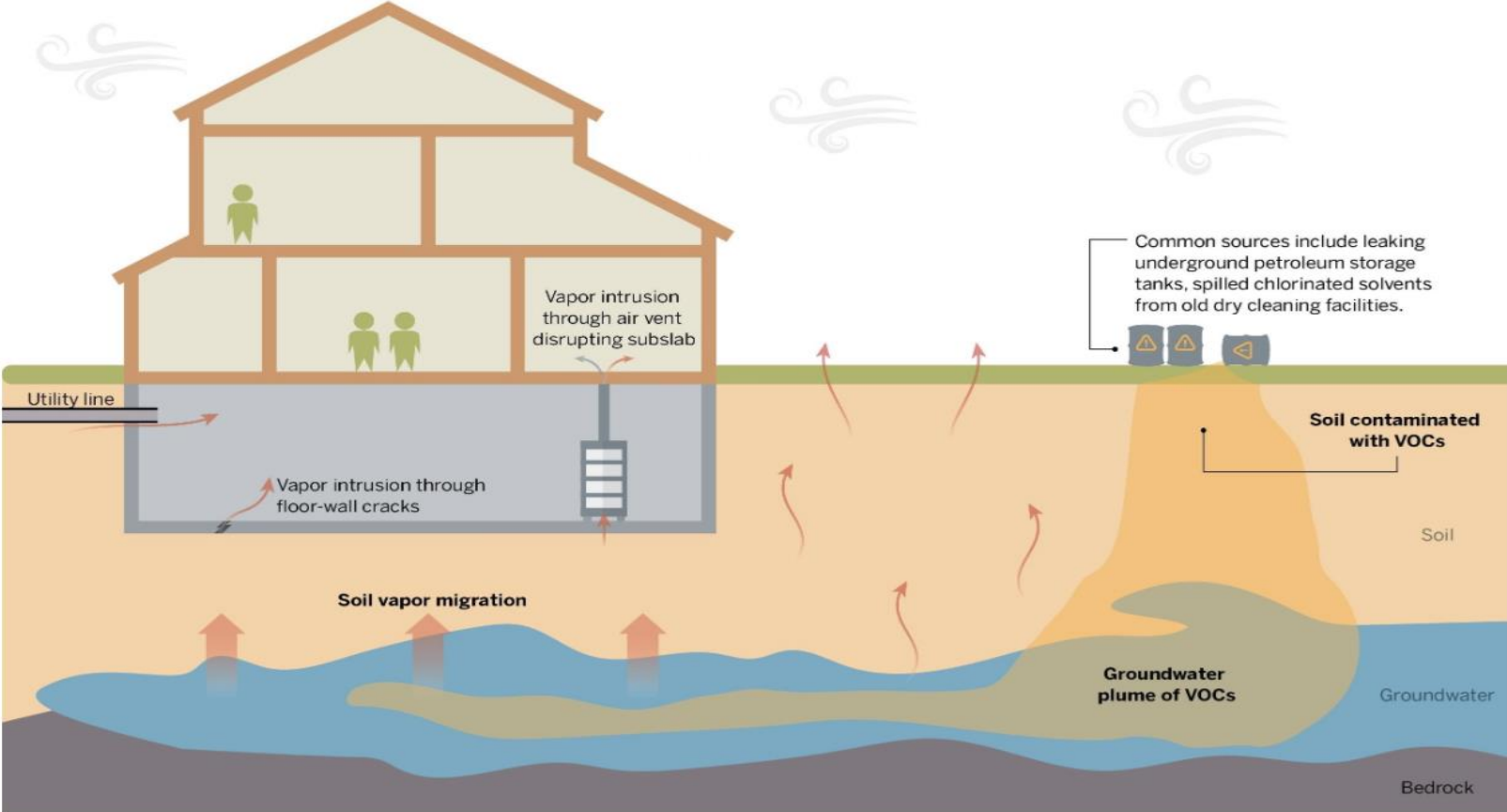
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~~Contaminated Drinking Water~~

~~Heavy Metals~~

~~Air Pollution~~

# Subsurface Contamination → Indoor Air



# Testing

## Groundwater



## Soil Vapor



## Indoor Air



*\* Indoor air testing is paired with outdoor testing to determine original of indoor air concentrations*

# Risk Mitigation

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- VOCs are everywhere
  - Can come from external sources: subsurface, outdoor air
  - Can come from internal sources: off-gassing of furniture, use of chemicals inside for cleaning, printers
- So the important questions are...

**1) In what concentrations are VOCs present in indoor air in OUSD schools?**

**2) At what concentrations are VOCs dangerous to students and staff?**

# Screening Levels

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- Threshold set at one in a million risk of adverse health impact from long-term exposure:
  - Odds of being hit by lightning in the U.S. in any given year: 1 in 700,000
- Below screening levels
  - Generally no further action required
- Above screening levels
  - Further investigation/action is warranted



# Screening Levels

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- Commercial – **Not modified for staff on campus**
  - 8 hours/day, 250 days/year
  - 25 years
  - Adult
- Residential – **Doesn't apply to students**
  - 24 hours/day, 350 days/year
  - 25 years
  - Child

# PK-5 School Screening Levels

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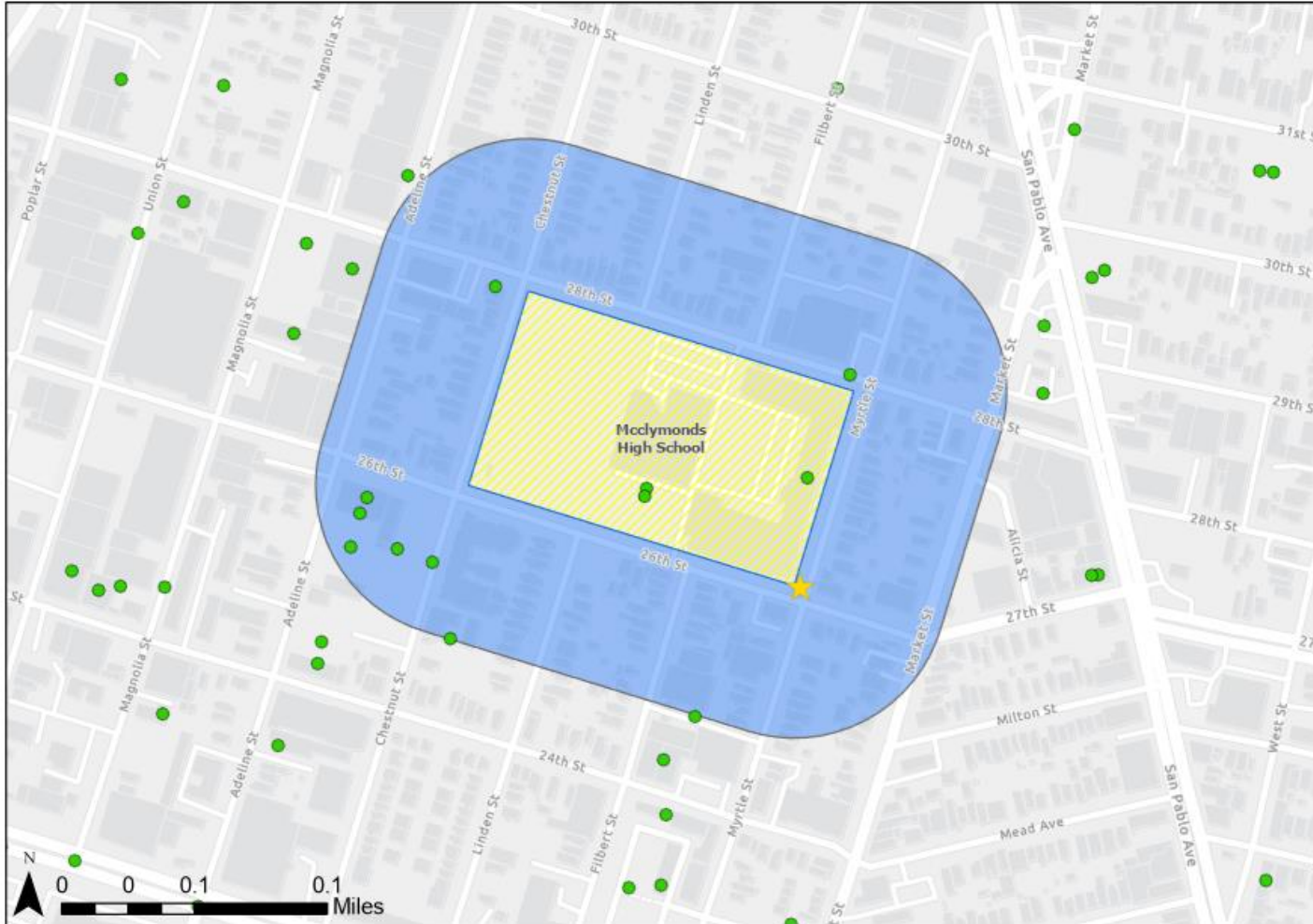
- Staff
  - 10 hours/day, 250 days/year
  - 30 years
  - Adult
- Students
  - 9-10 hours/day, 210 (elem)/240 (CDC)
  - 9 years
  - Child
- Working to develop specific screening levels for secondary

# McClymonds

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- Former fuel oil tank was removed in 1997
- In order to “close” site, groundwater was tested
- TCE detected (offsite source; NOT from oil tank)
- Closed school out of abundance of caution & risk from TCE
- Indoor air testing commenced immediately and subsequent indoor air testing on quarterly basis
- **Indoor air continues to be safe for students and staff!**

<https://www.ousd.org/mcclymondstce>



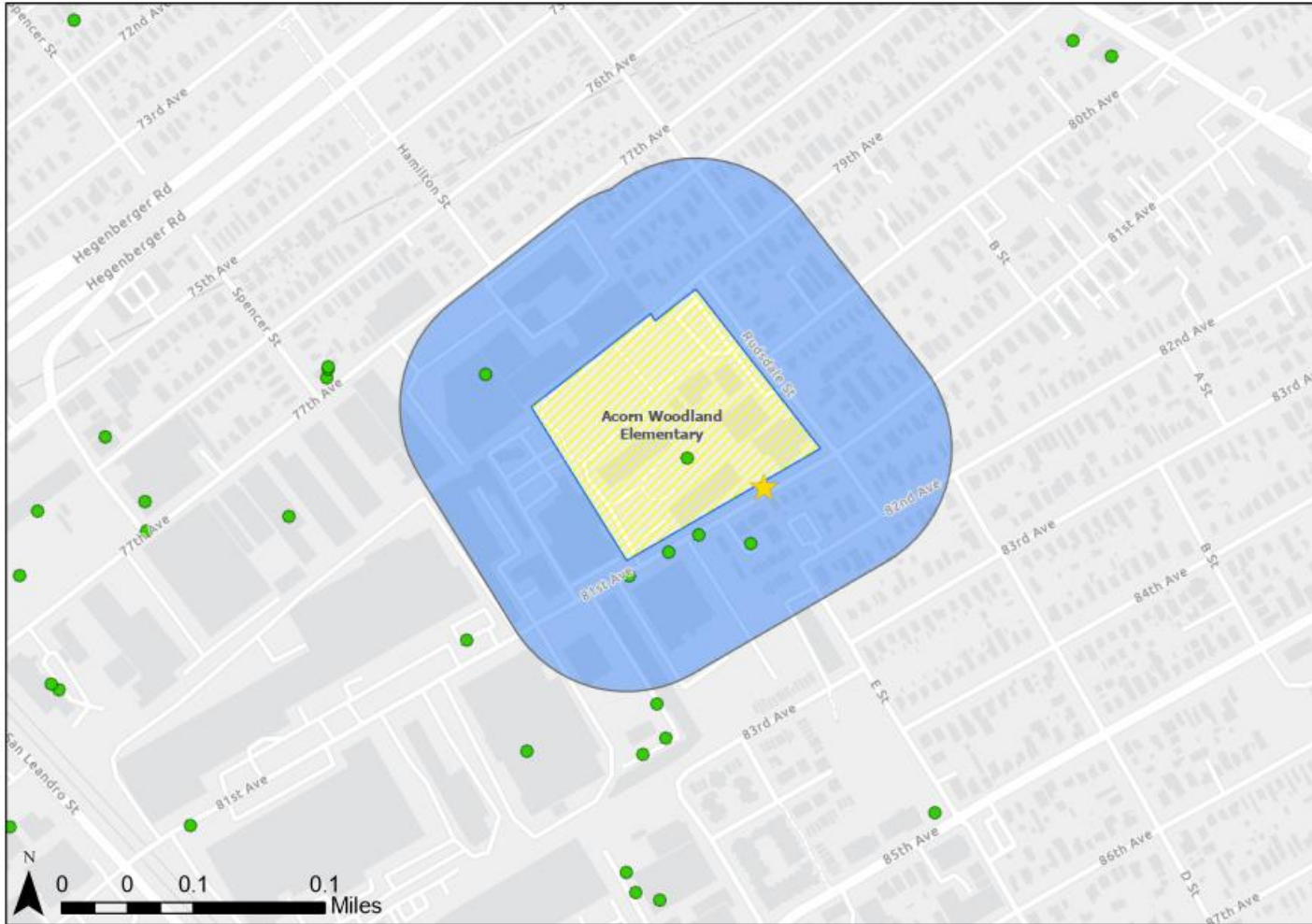
**Highlight  
McClymonds  
High School**

# Acorn Woodland/EnCompass

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- After McClymonds, Alameda County Dept of Environmental Health staff began to examine known VOC release sites near OUSD school campuses
- Acorn Woodland/EnCompass Campus was identified
- Indoor air testing commenced immediately
- Will test again in different season
- **Indoor air continues to be safe for students and staff!**

<https://www.ousd.org/Page/20059>



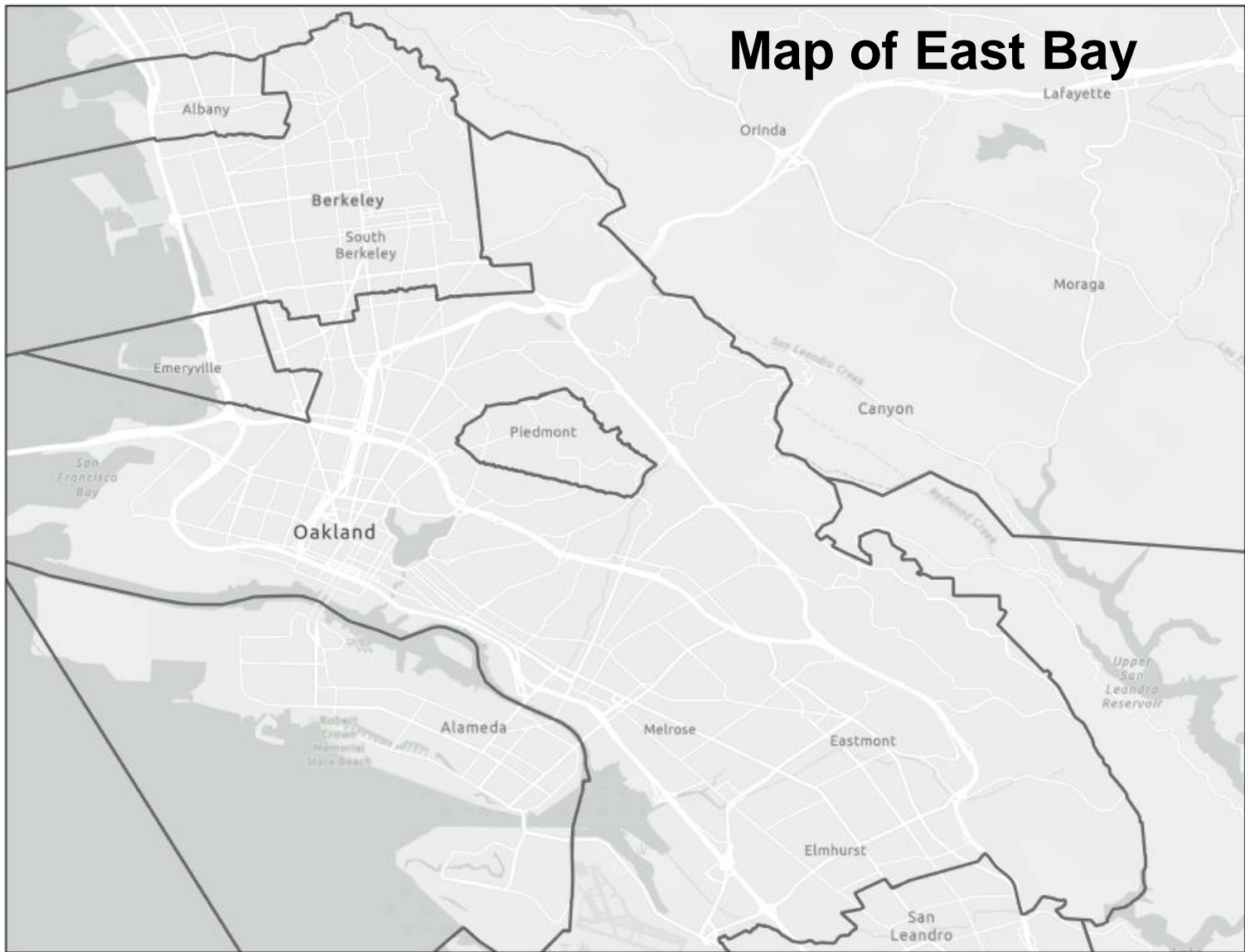
**Highlight  
Acorn  
Woodland/  
EnCompass  
Campus**

# District Wide Problem

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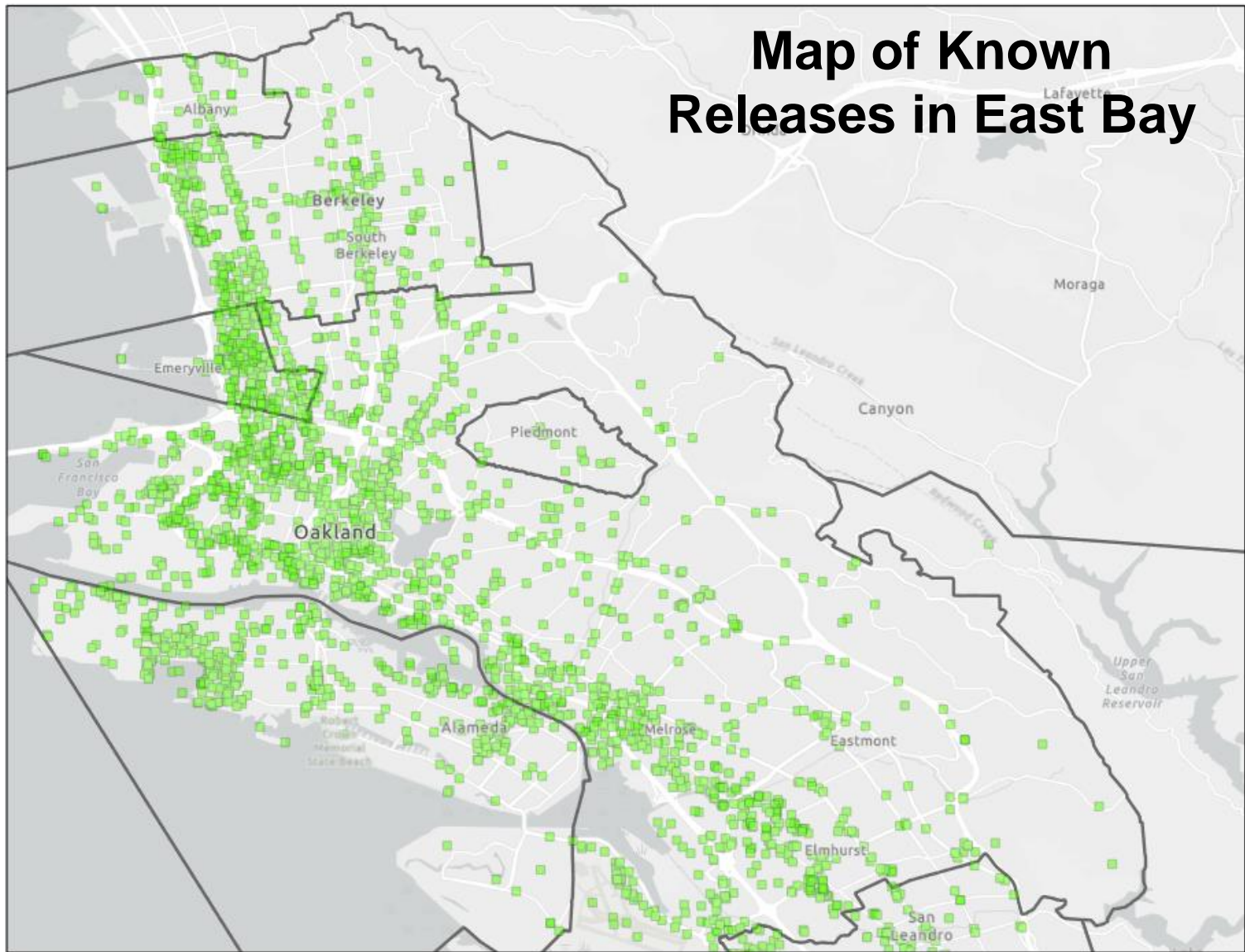
- There are maps of known VOC releases
- They illustrate historic and present environmental racism and injustice
- Remember...
  - Not every release is a problem
  - Potential risk to particular site depends on
    - Location of known VOC releases
    - What VOCs were released
    - Likelihood of vapor intrusion

# Map of East Bay

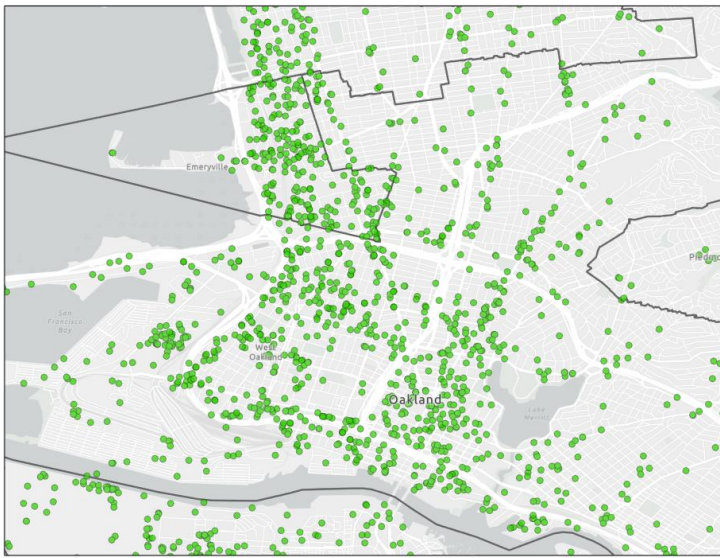




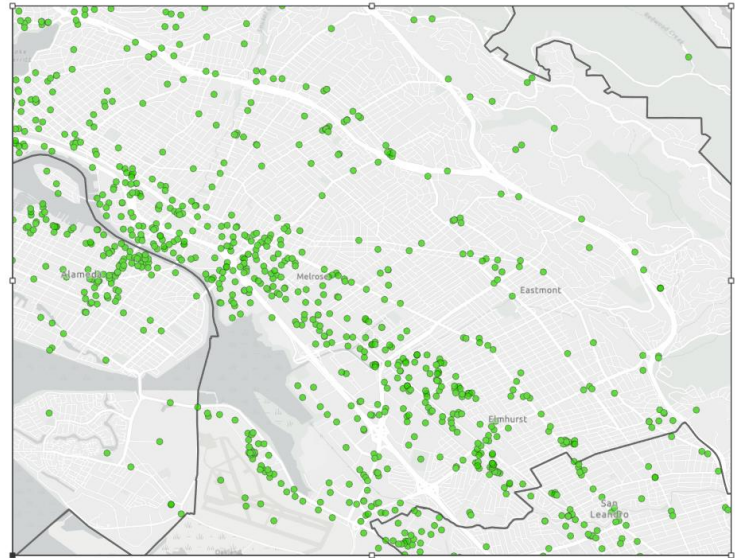
# Map of Known Releases in East Bay



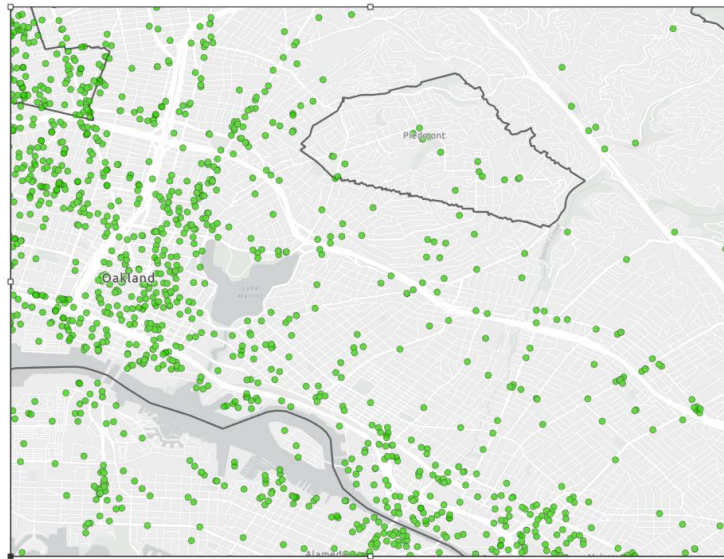
# Map of Known Releases in Oakland



West Oakland



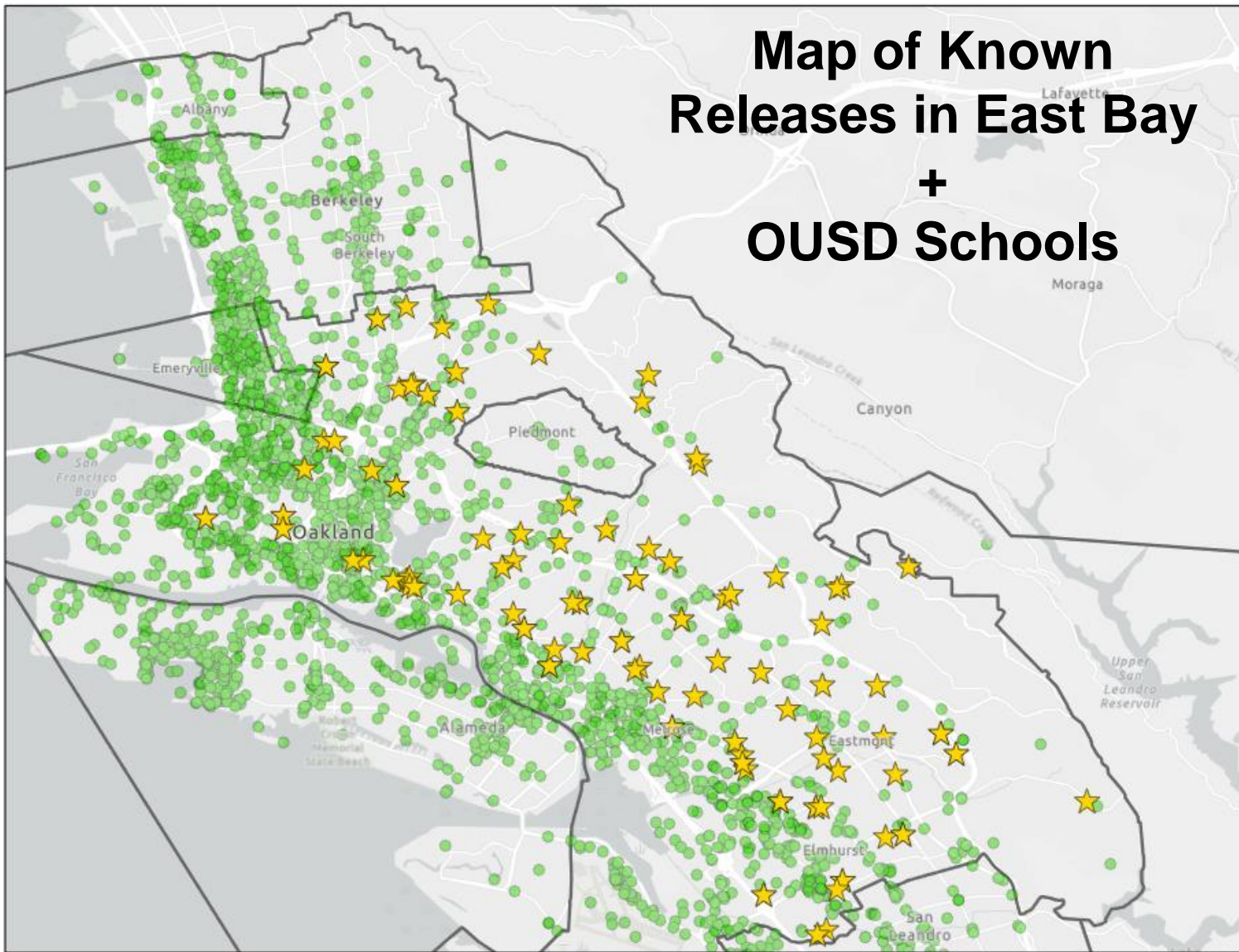
Deep East Oakland



Downtown Oakland/  
Fruitvale



# Map of Known Releases in East Bay + OUSD Schools



# Next Steps

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- Request for Proposal (RFP)
  - Find one or more companies to analysis risk to all school sites
  - Conduct testing (if necessary)
  - Recommend mitigation strategies (if necessary)
- Use data to advocate for state funding/solution

*Note: Maps of known releases within 500 of each OUSD school are available as attachments to this item.*



# Quality Schools in Every Neighborhood!



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