

#### Trust and Stigma: Analyzing Community Considerations in Emergency Response Keely Maxwell, EPA Office of Research & Development (ORD) Brittany Kiessling, ORISE Fellow hosted by EPA Jenifer Buckley, AAAS Fellow hosted by EPA





### **General Environmental Cleanup Process**



#### Southand States Environmental Protection Agency







Social science research can help understand & address community considerations that arise during cleanups





### How did we get here? Our project's origin

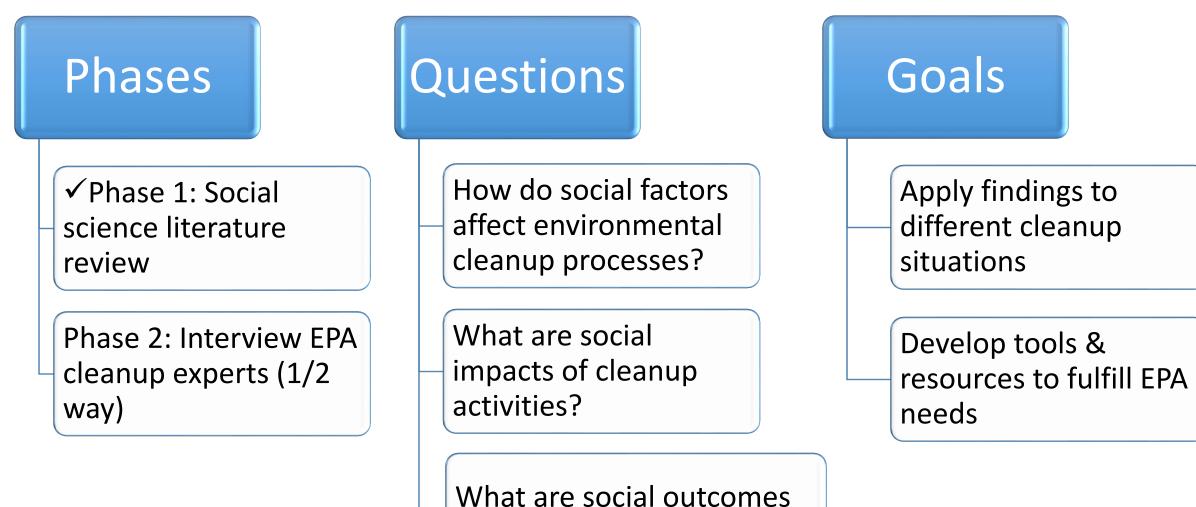
- EPA initiative to expand social science portfolio
- Social science "boot camp" for scientists
- Questions from Homeland Security scientists
  - "Self-help" decontamination
  - "How clean is clean"

Our approach: develop a baseline understanding of the "state of the science" of decontamination social science



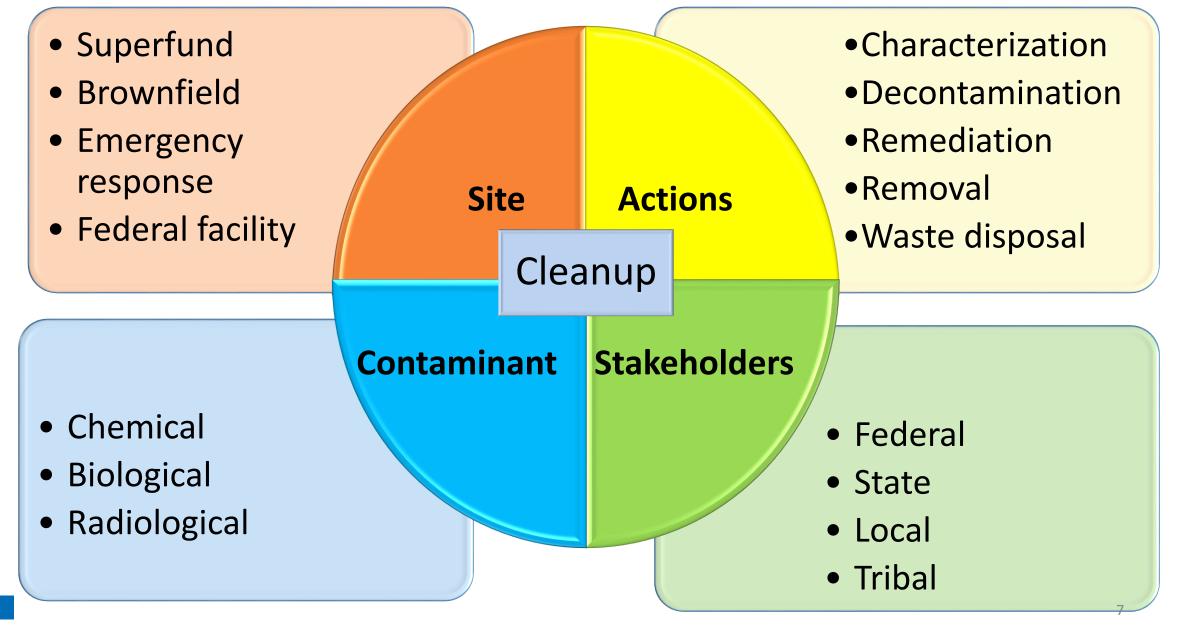


#### Research Plan



of completed cleanups?

#### SEPA United States Environmental Protection Agency What does "environmental cleanup" include?





## Literature Search Parameters

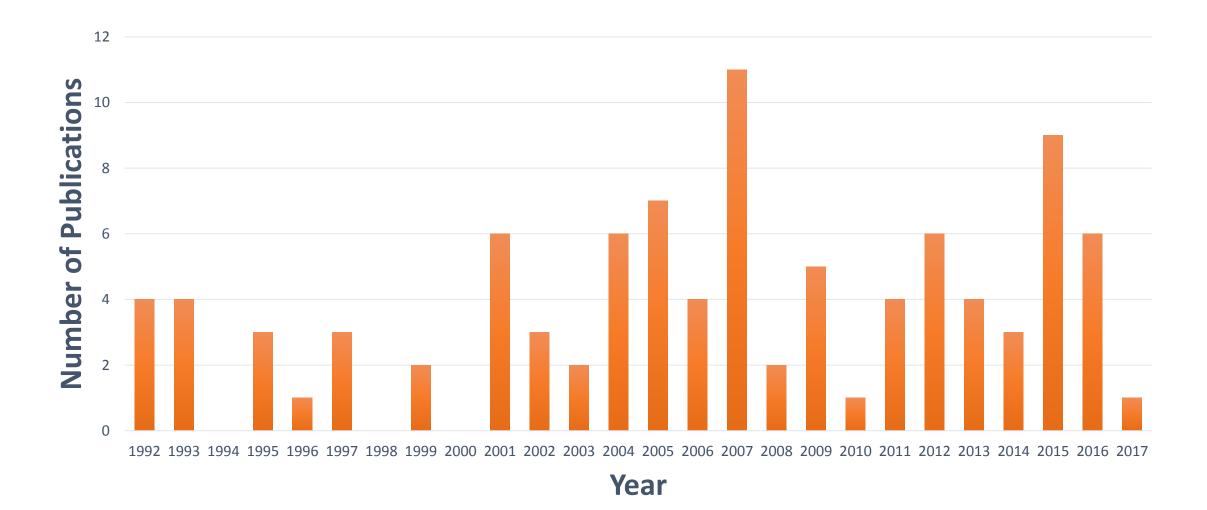
# Searched online databases for books, scientific articles, grey literature that:

- ✓ Use theories and/or methods from social science
- ✓Address social dimensions of environmental cleanup
- ✓ Published in last 25 years
- ✓ Meet quality control criteria
- ✓ Written in English



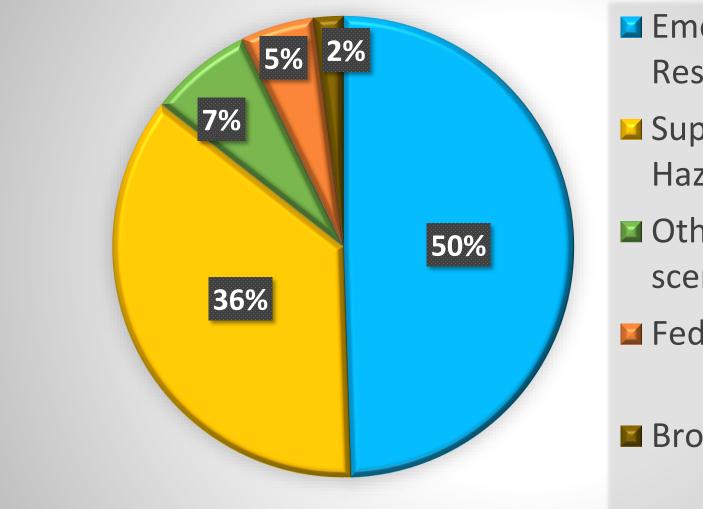


#### Articles by Publication Year (n=97)





#### Cleanup Situations in Articles (n=97)



Emergency Response/Disaster

- Superfund or International Hazardous Waste
- Other (non-specified scenarios)
- Federal Facility

#### Brownfield



# The Big Picture: Social variables **do** affect cleanup processes and outcomes- in all types of cleanup situations





#### **Research Question 1.** *How do social factors affect cleanup processes?*

Trust- central importance!

Role of public engagement in decision-making





#### **Research Question 2:** What are social impacts of cleanup activities?

Stigma of sites & people Cleanup worker health

Local economy





# **Research Question 3:** *What are the social outcomes of completed cleanups?* Housing value increases (generally)



# The Social Science of Trust in Cleanups

#### How is trust lost?

- Poor communication
- Community history
- Little public engagement
- Top-down decisionmaking

#### How is trust gained?

Good communication

Public engagement (multiple strategies)

Meaningful input

**Consensus building** 





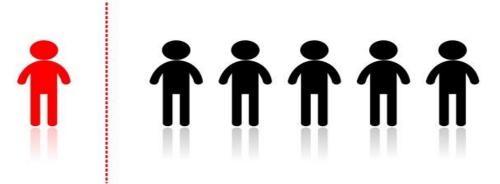
## The Social Science of Stigma in Cleanups

# Stigma may be attached to people or places

- Lowered housing prices
- Abandoned communities
- Social ostracizing
- Fear of the invisible threat

#### How to reduce stigma?

- Communicate facts, dispel myths
- Provide support networks for affected communities and workers
- Speedy cleanups



# <sup>¬</sup>Applying Findings to EPA Cleanup Work

- Learn from successful public engagement & communication techniques to build trust & reduce stigma
- Strategies to support cleanup worker health
- Ways to evaluate the societal benefits of cleanup value



Challenges in applying findings:

- Do they work in different cleanup situations?
- Time & resources required- is it EPA's role?
- Academic speak



### Gaps in the Literature

- Even social science disciplines operate in silos!
- Uneven coverage of cleanup situations:
  - Lots on big disasters, little on brownfields or smaller-scale removals
- Comprehensive model or framework is missing



• How clean is clean?



#### Next Steps and Future Research

- Complete interviews with EPA cleanup experts Volunteers requested!!
- Develop products to aid EPA staff in cleanup work
- Identify social variables critical to emergency response
- Test communication and outreach strategies in different communities









#### Thank You!

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Disclaimer: EPA funded & managed the research described. It has been subjected to the Agency's review & has been approved for publication & distribution. Note that approval does not signify that the contents necessarily reflect the views of the Agency. Mention of trade names, products, or services does not convey official EPA approval, endorsement, or recommendation.

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