Welcome! The webinar will begin shortly.

- This webinar is the first in a two-part webinar series on the TRACER Collaboration to better understand community exposures to air emissions and noise from unconventional oil and gas development
- Please visit our website for updates about future sessions and to learn more: **https://www.heienergy.org/research/air-quality-and-noise**

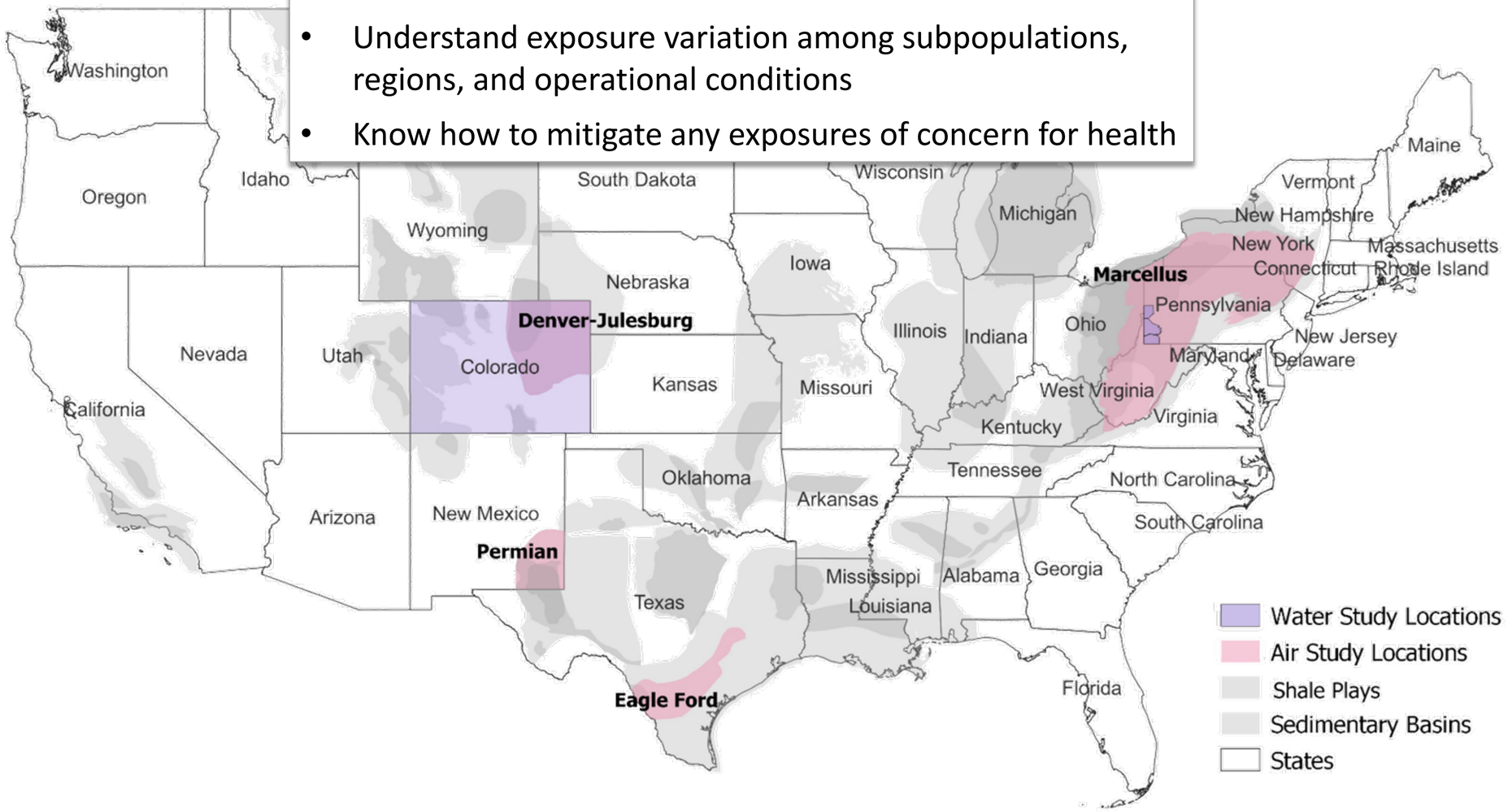
Logistics

- All attendees are muted with no audio for the duration of the webinar.
- You can turn on closed captioning for the event at the bottom of your screen to the *right* of the Q&A button.
- Submit questions via the Q&A function.
- This webinar will be recorded and posted on our website.
- If you experience any logistical difficulties, please send a message to the hosts through the Q&A.

HEI Energy Initial Program of Exposure Research

Overall Study Objectives

- Understand exposure variation among subpopulations, regions, and operational conditions
- Know how to mitigate any exposures of concern for health



HEI Energy-Funded Research about Population Exposures to Oil and Gas Development

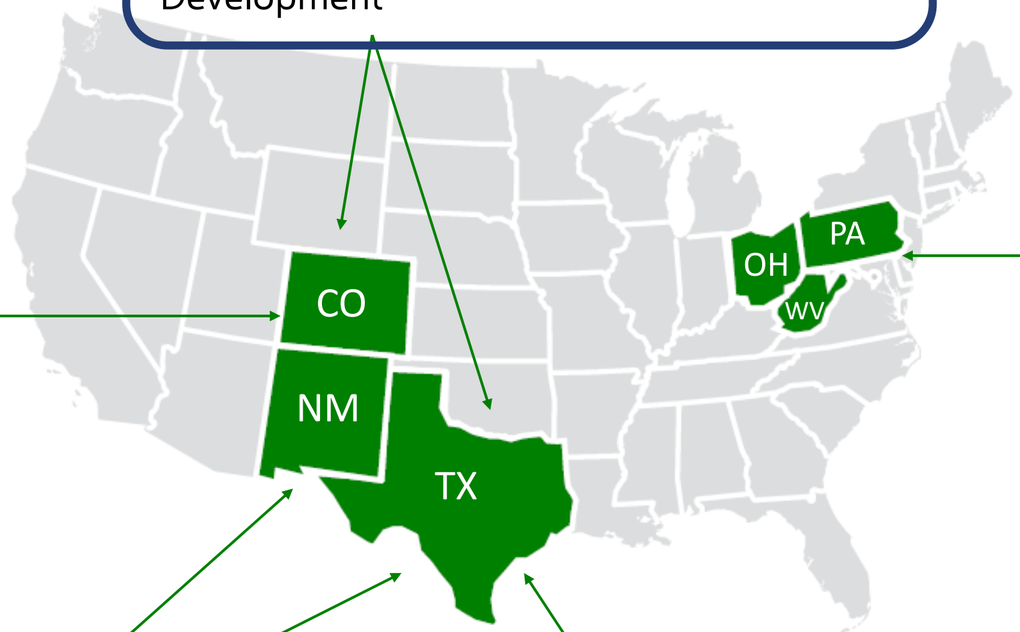
Schade
Air Quality Trends in Texas and Colorado Associated with Unconventional Oil and Gas Development

Saiers
A Groundwater Modeling Framework for Elucidating Community Exposures Across the Marcellus Region to Contamination Associated with Oil and Gas Development

Ryan
Assessing the Effects Unconventional Oil and Gas Development on Community Water Sources

Baek
Long-term criteria and toxic pollutants trends and community exposures over the Marcellus Shale in the U.S.

Gernand
Trends in Marcellus-Utica Shale Regional Air Quality due to Unconventional Oil and Gas Development (TriMAQs)



Collett
Measuring and Modelling Air Pollution and Noise Exposure Near Unconventional Oil and Gas Development in Colorado

Baka
Using Geoscientific Analysis and Community Engagement to Analyze Exposures to Potential Groundwater Contamination

Franklin
Assessing Source Contributions to Air Quality and Noise in Unconventional Oil Shale Plays

Hildebrandt Ruiz
Predictive, Source-Oriented Modeling and Measurements to Evaluate Community Exposures to Air Pollutants and Noise from Unconventional Oil and Gas Development

The TRACER Collaboration

Genesis of the collaboration

- HEI's Energy Research Committee reviewed the literature on potential population exposures to oil and gas development and requested applications for research that provides tools and measurements for better quantifying exposures.
- The Committee chose three applications and concluded that a collaboration among them was the best way forward to meet overall research needs.

TRACER Model a central focus

- Can be adapted for use anywhere in the U.S. to track changes in emissions and exposure over time.

Air quality and noise monitoring over the life cycle of oil and gas wells to understand potential exposures at different distances from well sites and to evaluate the TRACER model.

Air Quality and Noise

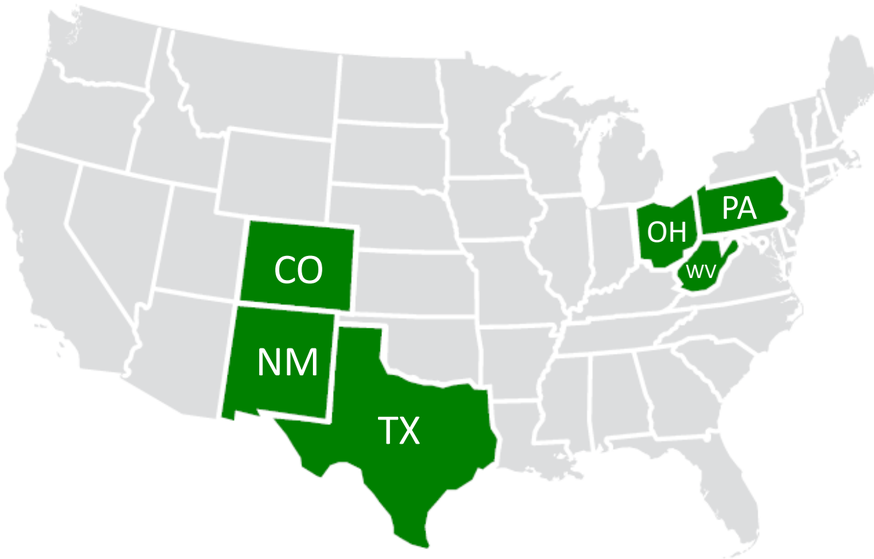
Tracking Community Exposures and Releases (TRACER) Collaboration

Jeffrey Collett
Colorado State

Lea Hildebrandt Ruiz
Univ of TX-Austin

Meredith Franklin
Univ of Toronto

Study Duration: 2022 -2024



What's Next?

- HEI will make the webinar recording available on our website in the coming weeks: **https://HEIenergy.org/events**
- In case you missed it, the recording for Part 1 of the series is **live on our website Community Open Houses** in March and April 2025
- HEI **2025 Annual Conference** in Austin May 4-6, 2025
  - A full session dedicated to the TRACER collaboration and a poster session with all HEI Energy-funded research
- Final reports for each of these studies coming in 2025
- In the meantime, stay up to date!
  - HEI Energy: **https://www.heienergy.org/research**

Thank you!

For more information:

- Hildebrandt Ruiz: https://sites.utexas.edu/hr-group/
- Franklin: https://meredithfranklin.github.io/
- Collett: https://collett.atmos.colostate.edu/research-projects/

We will send a follow-up email with the webinar recording and other materials including a quick feedback survey.