

# A preliminary analysis of the impacts of hydraulic fracturing on lives and livelihoods in the Rocky Mountain West.

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## Abstract

Hydraulic fracturing is amongst the most controversial issues in today's political discourse due to its far-reaching implications for the region and country's economy, food systems, and national security. Given this context, it is apt that the State of The Rockies Project aims to understand many of the nuances surrounding this hot button issue.

The goal of this project was to lay the groundwork for further study into the connection between hydraulic fracturing and several interconnected research areas, including: the impact of hydraulic fracturing on local food systems and overall food production; the impact that hydraulic fracturing and its ancillary practices of well discovery have on Native American communities, people of color and other minorities; the negative effects of hydraulic fracturing on human health; an analysis of how social movements mobilize against hydraulic fracturing.

After conducting this overarching research, it was determined that the literature of social movements was a key focus area. The remainder of the project was spent studying the state of "anti-fracking" social movements and in determining what factors impacted mobilization of pro and anti fracking coalitions.

Overall, the nature of this entire project, and in turn, The State of The Rockies Project, is inherently interdisciplinary. This project is built upon research from various fields such as: economics, sociology, anthropology, and environmental science. The final goal of this research is to assist the next cohort of State of The Rockies fellows in finding answers to many of the unanswered questions left by these preliminary findings.

## Precedent

Why is hydraulic fracturing worth researching?

- Hydraulic fracturing has made the United States energy independent, which has immense implications for the economy and national security.
- Of the 119 compounds found in fracking fluid with sufficient data, 44 percent of the water pollutants and 60 percent of air pollutants were either confirmed or possible carcinogens.
- Between 2010 and 2019, there have been 6,298 pipeline accidents causing 140 deaths.



Graphic 1: Representational Image of Rocky Mountain West

## Key Research Areas

- Hydraulic Fracturing and Government
- Social Mobilization Against Fracking
- Health Impacts of Hydraulic Fracturing
- Hydraulic Fracturing and Food Production

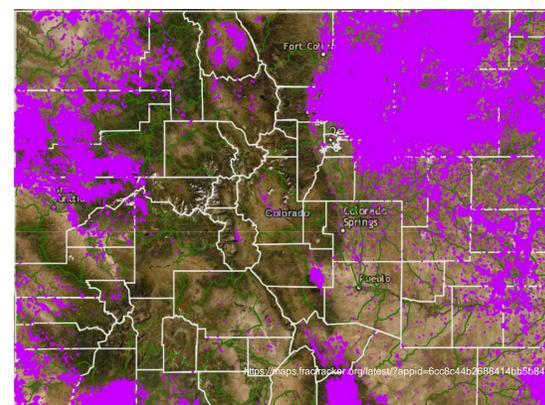


Graphic 2: Overlap of food production per county and natural gas basins

## Key Findings

- There are 2 spills per day on average in Colorado, 15% of these spills lead to water contamination.
- The current setback from schools and other buildings is 500ft. There is a huge debate on this issue which will determine Gov. Polis' legacy.
- We are seeing the outdoor industry mobilize against fracking, something unseen in the business world as companies stay out of each others' way.
- This is the first time in history where proposals including bans on hydraulic fracturing are being brought to the forefront of national and state politics.

**38,827...** The number of active oil and gas wells in Colorado

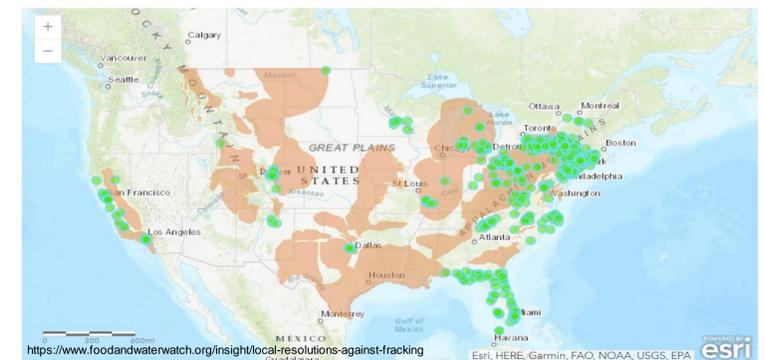


Graphic 3: Overlay of active natural gas wells in Colorado

## Social Mobilization Against "Fracking"

Safe Water Drinking Act, The Resource Conservation and Recovery Act, The Emergency Planning and Community Right-to-Know Act, The Clean Water Act, The Clean Air Act, and The Comprehensive Environmental Response, Compensation, and Liability Act.

Above is the list of regulations and acts that the oil and gas industry is exempt from.



Graphic 4: Overlay of natural gas basins and local governments that have instituted bans/restrictions on hydraulic fracturing.

Given the far-reaching impacts of hydraulic fracturing, we are seeing broad coalitions built in support and against it. These coalitions consist of a broad range of members including national nonprofit organizations, farmers, ranchers, health advocates, and industry executives – all vying for an audience and influence over local government.

### Findings:

- Social Movements have more leverage at a local level.
- Anti-fracking sentiments are highest during/after key events (Keystone explosion)
- Anti-fracking coalitions have successfully used media in the past to change public perception, such as mobilization after the release of "Gaslands."

## About State of The Rockies

Colorado College's State of the Rockies project encourages students to explore critical environmental and social challenges of the Rocky Mountain West. Through faculty led research and out-of-classroom experiences, students gain an appreciation of the region's physical characteristics and the impact of human land use activities while employing an inter-disciplinary approach to finding balance between human activity and our environment.

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