
**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA**

**IN THE MATTER OF THE APPLICATION
OF NAVIGATOR HEARTLAND
GREENWAY, LLC FOR A PERMIT UNDER
THE SOUTH DAKOTA ENERGY
CONVERSION AND TRANSMISSION
FACILITIES ACT TO CONSTRUCT THE
HEARTLAND GREENWAY PIPELINE IN
SOUTH DAKOTA**

HP22-002

**CAROLYN RAFFENSPERGER
INITIAL PRE-FILED TESTIMONY
IN SUPPORT OF LANDOWNER
INTERVENORS**

Q: Please state your name and purpose for providing testimony in these proceedings.

A: My name is Carolyn Raffensperger. The purpose of my testimony is to provide the PUC information helpful when considering the threat of serious injury to the environment, to the social condition, and substantial impairment to the health, safety or welfare of current and expected inhabitants should the PUC approve this Application.

Q: What experience, education, training, or background qualify you to provide opinions and your concerns as you have herein?

A: Please see a summary of my education and experience in **Attachment No. 1**.

Q: Does Attachment No. 2 to this testimony describe your opinions and concerns that you want the PUC to be aware of relative to the proposed CO2 pipeline in question?

A: Yes, that is a true and accurate copy of an Op-Ed I co-authored on this subject. I stand by my positions and opinions discussed therein and am competent to testify about them as necessary. I urge the PUC to carefully consider this testimony during the Hearing in this matter and in your deliberations. I further reserve the right to amend or modify these opinions upon presentation of any additional information that may justify such a change.

/s/ Carolyn Raffensperger

Carolyn Raffensperger



SCIENCE
& ENVIRONMENTAL
HEALTH
NETWORK



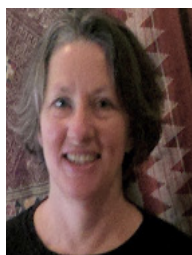
Attachment 1

(/)

HOME (/)
ABOUT
OUR WORK
PROJECTS
EVENTS (/NEW-EVENTS)
THE NETWORKER
BLOG (/SEHN)
DONATE (/DONATE-PAGE)

Carolyn Raffensperger, Staff Page

Staff



**Carolyn
Raffensperger
Executive Director**

CAROLYN RAFFENSPERGER, M.A., J.D.
EXECUTIVE DIRECTOR

Carolyn is executive director of the Science and Environmental Health Network. She has an M.A. in Archaeology and a J.D.

While working as an archaeologist in the desert Southwest of the U.S., she was enchanted by the beauty of the landscape and horrified at the environmental threats posed by dams, mining and toxic waste disposal. She left archaeology to work for the Sierra Club in Illinois. The desire to protect the rivers, prairie and desert led her to law school. Her graduate school training in archaeology and her law school education provide the tools Carolyn needs to serve her clients—the future generations of all species.

Carolyn co-convoked the 1998 Wingspread Conference on the Precautionary Principle and the 2012, 2014 and 2016 Women's Congresses for Future Generations.

Carolyn is co-editor of *Precautionary Tools for Reshaping Environmental Policy* published by M.I.T. Press (2006) and *Protecting Public Health and the Environment: Implementing the Precautionary Principle*, published by Island Press (1999).



[Home \(/home-3\)](#) | [About \(/about-1\)](#) | [News \(/sehn\)](#) |

moreinfo@sehn.org
P.O Box 50733 Eugene, OR 97405

The Science and Environmental Health Network is a registered
501(c)(3).
EIN: 45-0452872

© Copyright 2018 SEHN. Creative Commons Attribution 3.0 United
States License.

Do you feel called to stand for Future
Generations? Do you believe the
health of our bodies is intimately tied
to the health of our communities,
ecosystems, and our political
systems? Join with SEHN and
become part of our community
working for lasting, systemic change.
Your gift is vital to continuing this
work, and we are so grateful for
your support.

DONATE
**([HTTPS://WWW.SEHN.ORG/DON](https://www.sehn.org/don)
PAGE)**

Powered by Squarespace ([http://www.squarespace.com?
channel=word_of_mouth&subchannel=customer&source=footer&campaign=4fd1028ee4b02be53c65dfb3](http://www.squarespace.com?channel=word_of_mouth&subchannel=customer&source=footer&campaign=4fd1028ee4b02be53c65dfb3))

Los Angeles Times

Op-Ed: California wants more ethanol and carbon capture. That would lock in pollution for decades

16

Carolyn Raffensperger and Sheri Deal-Tyne

August 5, 2022 · 4 min read



Using more fertilizer to raise more corn to produce more ethanol is not a solution. (Carolyn Kaster / Associated Press)

As California prepares to update its low carbon fuel standard — a policy aiming to reduce emissions from transportation fuels — Indigenous groups and environmentalists across the Midwest are fighting one of its key provisions. The policy would [incentivize](#) ethanol production through technology that stores carbon underground not just in California, but anywhere in the U.S.

Here in Iowa, where much of the nation's corn is raised and corn-based ethanol is produced, we are facing a [corporate stampede](#) to build thousands of miles of dangerous pipelines crisscrossing six Midwest states. This includes the development of underground toxic waste disposal sites to store carbon under Midwest lands.

California's incentives wouldn't deliver carbon reductions as promised. Instead, supplementing gasoline with ethanol

TRENDING

'Fast X' director Louis Leterrier reveals how he lured Dwayne Johnson and Gal Gadot back to...

Yahoo Movies · 10 min read



Divine inspiration: How Melissa McCarthy channeled legendary drag queen from NC-17 'Pink...

Yahoo Movies · 3 min read



The It List: Michelle Yeoh and Ke Huy Quan reunite in 'American Born Chinese,' PBS doc revisits...

Yahoo Entertainment... · 9 min read



Foo Fighters name new drummer, Paul Simon reveals hearing loss and more celebrity news you...

Yahoo Celebrity · 2 min read



And the winner of 'American Idol' Season 21 is...

Yahoo Music · 5 min read



Ethanol producers [say the substance generates](#) less carbon than gasoline, but a study this year found that ethanol is [24% more carbon-intensive](#) than traditional fuel. The enormous rise in nitrogen fertilizer to raise corn for ethanol has increased emissions of nitrous oxide, a potent greenhouse gas that is [289 times as powerful](#) as CO₂. Adding carbon capture to ethanol production will only compound these problems. Fertilizers used in corn production, including for ethanol, also cause vast water pollution extending from drinking water in Iowa to the [Dead Zone](#) in the Gulf of Mexico.

Building ethanol infrastructure locks in ethanol and gasoline for decades, reducing incentives for investors or policymakers to shift towards more sustainable transportation. In Iowa, [politicians](#) are [fighting every policy and law](#) that might move the nation toward electric vehicles or public transportation. California's low carbon fuel policy is making their obstruction of cleaner transportation that much easier.

Carbon capture technology is aggravating climate change in other ways as well. Drilling companies pump captured CO₂ underground to help extract more oil, ultimately leading to more pollution. As the Los Angeles Times [reported](#) last month, "Eleven of 12 large-scale carbon storage facilities in the United States use captured carbon dioxide for oil production."

Such technology will require [thousands of miles](#) of CO₂ pipelines across six states. Three pipeline projects are in the proposal stages in the Midwest. Sections of the proposed pipeline paths run adjacent to the existing Dakota Access pipeline, which prompted the huge Indigenous resistance at Standing Rock, N.D.

Farmers are familiar with the damage of pipeline construction because of Dakota Access. Farmers have contended with soil compaction, drainage issues and a 60 to

are [working with government authorities](#) to seize the land using eminent domain. Iowans' opposition to the pipelines is [fierce](#) and includes county government officials, farmers, Indigenous organizers, [scientists](#) and environmental activists.

CO2 pipelines also pose serious public health hazards. [Rupture](#) of a highly pressurized liquid CO2 pipeline results in an explosive release of a CO2 cloud that hugs the ground and displaces oxygen — potentially killing everything in its path and crippling internal combustion engines. This would mean that emergency responders using fossil-fuel vehicles couldn't get to pipeline rupture victims. Mass casualties could overwhelm rural emergency health systems.

In 2020, a [CO2 pipeline in Satartia, Miss., ruptured](#), sending 49 people to the hospital and leaving many with long-term health impacts including fatigue and lung problems. More than 250 people required evacuation. First responders needed self-contained breathing apparatuses to conduct their rescues. Residents' cars ceased to run, and victims were found dazed or unconscious.

The highly pressurized state of liquid CO2 in pipelines, along with its corrosive nature when in contact with water, increases the risk of leaks, fractures and ruptures. In response to the Satartia CO2 pipeline rupture, the Pipeline and Hazardous Materials Safety Administration issued a [report](#) in May warning about the potential for damage to pipelines caused by earth movement and climate change, such as increased rainfall and higher temperatures. In Iowa, the pipelines are slated to be buried in farmland, where heavy farm machinery will drive over them, further increasing risks of ruptures.

Ethanol produced from corn and using carbon capture is not a climate solution. It causes a new set of problems. California's new fuel standard should not be enabling it.