Environmental Protection Network

(202) 656-6229
environmentalprotectionnetwork.org
info@environmentalprotectionnetwork.org

A Summary of EPN's All-Hands Call:
MANURE – A Connector of Water & Air Pollution, Health, and Equity
Friday, October 15, 2021

Jason Hill* presented research from his lab showing that the five major fine particulate matter (PM2.5) emitter categories—industrial and commercial, transportation, food and agriculture, electricity, and residential—all disproportionately affect people of color. Confined animal feeding operations (CAFOs) are optimized for production but not for reduced environmental impacts. Focusing on the air-quality impacts of agriculture, more recent work from his lab found that roughly 18,000 premature deaths per year are attributable to food production-related pollution, mostly coming from livestock waste, tillage, and fertilizer. Human dietary shifts to less animal-based foods could reduce the number of premature deaths.

The slidedeck from Jason's presentation can be found **here**.

Craig Cox* presented on the growing threats of industrial livestock operations. CAFOs have negative impacts on the health, drinking water, air quality, and quality of life of the communities they are adjacent to. Regulatory failures have made it challenging to assess the extent of growth and concentration of these operations and the impact they have on their environment. In many states, CAFOs are regulated by the number of livestock rather than the volume of waste produced, and in many cases, manure is unpermitted. Since the siting of CAFOs is not regulated, it has been difficult to assess the dramatic increase in livestock operations. However, imagery and modeling technology has made it possible to investigate this sector of agriculture. Analysis shows that the livestock operations are concentrated in communities of color, perpetuating endemic environmental injustices, and in locations that are at greater risk to the impacts of climate change. One example Craig shared was in North Carolina, where there is a large growth in poultry operations in areas already overwhelmed by swine facilities. Poultry operations are allowed to operate without permits, so there is no clear picture of what is happening. In addition, there is no assessment of cumulative impacts, since each operation is permitted as if they were the only operation. Simulations show where manure is moving on the CAFO field, showing the phosphorus overload landscape is subjected to, far worse than nitrogen and a long-lasting environmental threat.

The slidedeck from Craig's presentation can be found **here**.

Sherri White Williamson* presented a community perspective of the impacts of CAFOs in North Carolina. The state has four of the top 20 pig counties in the nation, all within a 40 mile radius of each other. Poultry is also a growing industry in the region. Hog waste pits contaminate ground water in areas with high dependency on well water. CAFOs create disproportionate negative impacts on people of color and the poor, causing high disease rates and prohibiting environmental and economical improvements on these affected populations. There is no

requirement at the state level for regular analysis or monitoring of air, water, or soils, so there is no data on cumulative impacts. In addition to swine CAFOs, pollution comes from poultry production, poultry litter, and wood pellet factories, all adding to the air-, water-, and soil-quality impacts. Most communities neighboring CAFOs rely on well water, not public water; current water testing shows high levels of arsenic and nitrates, most likely due to poultry litter and swine operations, respectively. Federal dollars go to fast-developing communities and not to CAFOs-adjacent communities. Recent state legislative acts, including funding cuts at the Department of Environmental Quality and a bill allowing lagoons on existing farms to accommodate digesters, indicate protection of industry over neighboring communities.

The slidedeck from Sherri's presentation can be found **here**.

***Bios**

Dr. Jason Hill is a Professor in the Department of Bioproducts and Biosystems Engineering at the University of Minnesota and a Resident Fellow of the University's Institute on the Environment. His research focuses on the consequences of food, energy, agriculture, and natural resource use from a life-cycle perspective. He also serves on NAS Methods for Life-cycle Analyses of Low-Carbon Transportation Fuels and the U.S. Global Change Research Program (USGCRP) with a focus on mitigation. Jason formerly served on EPA's Science Advisory Board's Biogenic Carbon Advisory Panel.

Craig Cox is a Senior Vice President at the Environmental Working Group (EWG). As one of the country's preeminent authorities on the environmental impacts of modern agriculture, Craig uses the power of EWG's public interest research and advocacy to protect the environment and public health, often in disadvantaged communities. He previously worked at USDA's Natural Resources Conservation Service and the Soil and Water Conservation Society.

Sherri White-Williamson is a new EPN member and is the Environmental Justice Policy Director of the North Carolina Conservation Network where she leads the organization's efforts to connect impacted community-led campaigns and organizations with decision-makers. She is also affiliated with the Duke University Nicholas School of Environment and is the founder of the new Environmental Justice Community Action Network. She worked in EPA's Indoor Air program, the Office of Environmental Justice, and briefly in the Children's Health Office.