



COMMITTEE ON

**SCIENCE, SPACE, AND TECHNOLOGY**

REPUBLICANS Frank Lucas, Ranking Member

## **Opening Statement of Ranking Member Stephanie Bice**

Environment Subcommittee Hearing – From Gray to Green: Advancing the Science of Nature-Based Infrastructure

*March 2, 2022*

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Thank you, Chairwoman Sherrill, and thank you to our entire panel of witnesses for appearing before the subcommittee and sharing their expertise with us this morning.

Infrastructure is an often-mentioned topic that traditionally comes with bipartisan support and agreement. We all understand that America's infrastructure has been slowly deteriorating over the last few decades and requires significant investment in nationwide projects to avoid existing structures from crumbling entirely.

But today's hearing is about a side of infrastructure that might not be as popular or even entirely understood: nature-based or green infrastructure. While most people understand infrastructure as the manmade roads, buildings, and structures we see every day, infrastructure can also include natural systems and nature, like wetlands, green roofs, or bioswales.

While there are varying definitions for this specific area and what is included, for today's hearing, I'm going to refer to it as "green infrastructure" and focus on projects that intentionally align natural and engineering processes by combining traditional infrastructure with nature-based solutions. That alignment is important because while nature and nature-based solutions can be effective, sustainable, and resilient on their own, most communities face persistent hazards like erosion and storm surges that require components of traditional infrastructure to ensure the maximum safety of the community.

So to me, green infrastructure should always be a hybrid approach that combines the best of both worlds: environmental components that are naturally occurring or mimic nature, and long-lasting, effective manmade components. That is the most reasonable way to build or restore high quality, low cost, resilient communities.

I am particularly pleased to welcome Dr. Sherry Hunt as a witness to testify on her extremely valuable work. She's based in Stillwater, Oklahoma, and like me and Ranking Member Lucas, is a proud graduate of Oklahoma State University! Go Pokes! But more importantly, as an agricultural engineer working in the USDA's Agricultural Research

Service, Dr. Hunt's work has led to the development of designs and methodologies being used to rehabilitate thousands of dams across the country.

Her research focuses on aging or weakened dams, many of which are in remote or rural communities, and her designs, methods, and simulations can safely extend the service life of these dams to protect life and property. That is extremely important to communities that might not be high on the priority list for federal assistance. But as we discuss the benefits of natural infrastructure, it's important we keep all options on the table and understand it's not a one-size-fits-all approach.

As Dr. Hunt will tell us today, it's not as easy as just planting trees on the bank of a river or slowing water flow with logs and branches like beavers. Long-term, safe solutions require manmade structures like the "roller compacted concrete" she used for a spillway over the top of dams near areas with increased population growth. I look forward to hearing more from all of our witnesses on how ARS and Dr. Hunt's research can contribute to the broader conversation on green infrastructure. Although it might seem untraditional, we should encourage collaboration and data sharing between research agencies like NOAA and regulatory agencies like the Department of Agriculture.

NOAA is undoubtedly well equipped to research coastal management issues, but that work may not necessarily apply to inland or rural communities like we have in Oklahoma. Therefore, it is my hope that today's hearing can not only identify research gaps, but also ways agencies can come together to address the full range of communities seeking to improve their infrastructure with nature-based solutions.

Again, I want to thank our witnesses for being here today and I look forward to each of your testimony. Thank you, Chairwoman Sherrill, I yield back the balance of my time.