Thank you Chairwoman Spanberger and thank you to all the members of the Conservation and Forestry subcommittee for being here today.

I appreciate the opportunity to be with you and to share some of the things we are doing in Virginia to help with conservation and water quality issues across the commonwealth.

My name is Steve Patterson, and I currently serve as the Senior Vice President of Marketing, Communications and Government Affairs at Southern States Cooperative, a 97-year-old farmer owned cooperative based in Richmond, Virginia and reside in the 7th Congressional District.

I am a 37-year veteran of Southern States, a graduate of the University of Kentucky in Agronomy, which is "the study of the science and economics of growing food and fiber," and earned an MBA from Virginia Commonwealth University.

Earlier in my career, I served as a regional agronomist for Southern States and during that tenure, I had the opportunity to earn the qualifications of Certified Crop Advisor and Professional Agronomist via the American Society of Agronomy, along with becoming a Nutrient Management Specialist in the states of Maryland and Virginia.

I share that information because I want you to know that I, and Southern States, understand, *and care* about the nature of nutrients and the effect they have both on growing crops and on the water quality of our streams, rivers, bays and estuaries.

I also had the opportunity to be part of the launch of precision agriculture technology on the east coast, which allows for much more precise applications of nutrients in farmers' fields based on an intense soil testing methodology and variable rate equipment technology. This allows for prescriptive rates of nutrients to be applied in different parts of the same field, based on intensive soil testing, whereas before this technology was available, nutrients would not be properly applied to the crop or good for the farmer's economics.

Today we have over 1 million acres under some form of precision ag technology, a number of Certified Crops Advisors and agronomy specialists that work with farmers every day on soil testing, nutrient management plans, and improving crop yields while also mitigating nutrient leaching, volatilization or transport via erosion in the water system and eventually into the Chesapeake Bay. As leaders, we are working with new product technology that shows promise of delivering slow release nitrogen to crops while at the same time reducing leaching of nitrogen by approximately 50%, a potential game-changing event. Better yet this product originates from waste materials and reduces the amount of material going into landfills, creating a more "circular economy."

I am proud to say we are partnering with the Virginia Department of Conservation to work together to reduce leaching and runoff of nitrogen, phosphorus and sediment, and spread the message of the importance of soil testing, nutrient management plans, no-till practices, utilization of grass buffer strips and cover crops, and the "4Rs" of nutrient management (the right source, right rate, right time and right place.) Virginia's goal of achieving 85% of the acreage in the Chesapeake Bay watershed to have a Nutrient Management Plan by 2025 is definitely doable – but only if private and public organizations work together toward that common goal. We need continued cooperation from our partners at the Natural Resource Conservation Service (NRCS), DCR, the Soil and Water Conservation Districts and industry to achieve that goal. Continued and increased funding for our conservation programs from both the State and Federal governments is needed to reach the goals. This is especially true in a time of pandemic and a prolonged downturn in the farm economy, in which producers have limited resources.

Nutrient management planning is the kind of practice Southern States embraces – it aligns with our company's goal to recommend products and services that are agronomically sound, environmentally responsible and cost effective for our growers. They are site specific and based on factors such as soil and manure samples, timing and rate of application. We, along with NRCS, Soil and Water Districts as well as our land grant universities, provide crucial technical assistance to our farmers to implement these practices, but there is still a shortage of qualified planners that will need to be addressed moving forward. We need more trained professionals in the field providing these services to our farmers.

It is very important as we move forward that agriculture has a seat at the table discussing climate change, that decisions are based on sound science, and that decisions protect the economic livelihood of our farmers.

We are proud to work with organizations such as the Ag Retailer's Association, National Council of Farmer Cooperatives, Farm Bureau, and the Virginia Agribusiness Council on these issues, as we all are much stronger working together versus a fragmented approach across various industries and organizations.

- American agriculture is a modern-day success story. America's farmers produce the world's safest, most abundant food supply for consumers at prices far lower than the world average. Farmer cooperatives are an important part of the success of America's food supply chain.

- Farmer cooperatives like Southern States have been at the forefront of proactive work to improve the environment in the communities they serve. Our goal is to support science-based, achievable, and affordable environmental policies and initiatives. From pest management to nutrient management, from the development of cutting-edge technologies to implementation of area-wide conservation practices, farmer cooperatives have the expertise and the credibility to serve as the best source for information regarding production practices.

This is a reason we have been around for almost 100 years – our farmer owners trust us to help them with the complexities of crop and livestock production and the necessity of improving water quality in our respective states while producing profitable and sustainable yields.

Thank you for the opportunity to present this to you today and please advise how we can help going forward.

Steve Patterson

Senior Vice President

Marketing, Communications and Government Relations

Southern States Cooperative