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Statement by
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Mr. Chairman, Ranking Member, and distinguished members of the Subcommittee, thank you for the opportunity to appear before you today to talk about agriculture, conservation, and the shared effort to restore the health of the Chesapeake Bay. The ongoing support of this Subcommittee for voluntary private lands conservation is an enormous part of the conservation work that is making a difference for the Chesapeake Bay ecosystem and the region's farms and private forests.

Agricultural Land – Key to a Healthy Bay

The Chesapeake Bay is North America's largest, most biologically diverse estuary. Its watershed covers 64,000 square miles across 6 States and is home to more than 17 million people. Nearly a quarter of the watershed's area is in agriculture, whose 84,000 farms' sales approach nearly \$10 billion annually. Since 2009, federal agricultural conservation investments approaching \$1 billion have been helping the agricultural community on its way toward meeting key conservation goals for cleaner water and a healthier ecosystem. Our own science has documented

the benefits being delivered by farmers' active conservation systems, while independent modeled and monitoring results show positive trends for water quality, habitat and key aquatic species.

With technical and financial help from USDA's Natural Resources Conservation Service (NRCS) and farm bill programs, farmers in the watershed are installing conservation systems that avoid, control and trap potential nutrient and sediment losses from farm fields. In addition to helping improve water quality, these conservation systems help boost soil health and air quality, enhance wildlife habitat and strengthen the economic bottom lines for farms.

While agriculture and forest lands remain the predominant land uses in the Bay watershed, both farming and Chesapeake Bay water quality are under continuing pressure from development. Between 1992 and 2012, developed area in the watershed increased by nearly 40 percent (or about 1.6 million acres). Among the consequences of losing agricultural areas are declines in access to local, fresh foods; reduction in the capture of carbon in soils and plants; and increased runoff from roads, roofs, and parking lots. For example, a one-acre parking lot produces about 16 times the volume of runoff that comes from a one-acre meadow. While there is no single-sector or short-term solution for the complex water quality issues in the watershed, maintaining agriculture is essential to protecting and restoring the Chesapeake Bay.

NRCS Investment in the Bay Watershed

In 2009, Executive Order 13508 directed agencies to focus resources and identify innovative solutions for improving water quality in the bay. NRCS collaborated with federal, state and local partners to target conservation investments and accelerate results. According to USDA's

Conservation Effects Assessment Project (CEAP), focusing conservation efforts in priority watersheds and on vulnerable soils can accelerate per-acre reductions by 70 percent for sediment, 30 percent for nitrogen, and 40 percent for phosphorus, as compared to no targeting.

Approximately 500 small priority watersheds were identified, and USDA established a goal of helping to install conservation systems on 4 million farmland acres in these watersheds by 2025.

Since 2009, NRCS has worked with thousands of farmers and forest landowners to implement “Avoid-Control-Trap” conservation systems on over 3.6 million acres in the watershed.

Critically, about 50 percent of this work has been focused on those priority watersheds and soils, generating greater water quality returns for the Bay and achieving about 41 percent of the 2025 goal within just the initial six years.

Through these partnerships with farmers and landowners, since 2009 NRCS has invested over \$890 million in federal conservation funding in the Bay watershed. In turn, this federal investment is leveraged by an estimated \$400 million in financial and management resources of the watershed’s farmers and forest landowners, as well as state and local governments and private conservation organizations who are helping to implement key actions in each of the Bay states’ Watershed Implementation Plans.

NRCS and partners are also building the next generation of conservation science and innovation through Conservation Innovation Grants. Between 2009 and 2016, NRCS has invested nearly \$16 million in 35 projects to test new approaches and technologies, and deepen the bench of partners and tools to drive continued progress in the Chesapeake Bay watershed. These partners

match or exceed the federal investment, adding over \$16 million of their own resources to developing and disseminating conservation tools, technologies and approaches to accelerate progress.

The Regional Conservation Partnership Program (RCPP) provides the newest platform for partners to collaborate and work cooperatively with producers on Bay-wide solutions. The Chesapeake Bay Watershed is one of eight critical conservation areas for RCPP funding, allowing partners in the region to access all RCPP funding pools. In the two signups since the program started, 14 projects have been selected within the Bay Watershed, which will help to improve water quality and wildlife habitat in the Bay region, while also enhancing farms and forest resiliency and productivity. Currently, over \$42 million in Federal resources are leveraging nearly \$60 million in non-federal investments over the next 4 years.

A Healthier Bay

The signs of a healthier Bay are evident across the watershed, from cleaner water to grasses on the sea floor and more abundant fish and wildlife. A number of agencies and non-government organizations are studying the rebound of the Chesapeake Bay ecosystem made possible by a variety of sectors, including agriculture.

Voluntary conservation is working to reduce the loss of sediment and nutrients from farm fields in the Chesapeake Bay region, according to USDA's Conservation Effects Assessment Project (CEAP):

- Reducing Sediment Loss – farmers are combining cover crops and field buffers to control erosion and reduce sediment leaving their land. As a result, between 2006 and 2011, average edge-of-field sediment loss decreased by an estimated 15.1 million tons per year.
- Managing Nutrients – farmers are using practices such as residue and tillage management, nutrient management and waste storage facilities to minimize the risk of nutrients and sediment reaching the Bay while maintaining productive farming operations. NRCS estimates, from 2006 to 2011, that improved nutrient management has reduced the total loss of nitrogen by 26 percent and phosphorus by 45 percent.

Across the basin, cover crops and other conservation efforts have reduced runoff of nutrients and sediment. The Chesapeake Bay Program reports that between 2009 and 2015, nitrogen loads going to the Bay declined by 8 percent, phosphorus loads by 20 percent, and sediment loads by 7 percent. Agriculture was the leading contributor to phosphorus and sediment reductions during this period — providing over 50 percent of the phosphorous and over 75 percent of the sediment reductions.

Some U.S. Geological Survey (USGS) water quality monitoring stations are showing water quality improvements in the streams and rivers that flow into the Bay and in the watershed. The USGS has reported that over the last 10 years, nitrogen levels have improved at 54 percent of the monitoring sites and phosphorus at 68 percent of the sites. According to data released by the Maryland Department of Natural Resources in July 2016, the dissolved oxygen levels in Maryland's portion of the Chesapeake Bay were at their second best since 1985.

Cleaner water drives ecosystem recovery. Underwater grasses, which provide critical food and shelter to wildlife, are recovering. The Bay Barometer, reported that between 2013 and 2015, those grasses have grown from nearly 60,000 acres to more than 91,000 acres – the largest amount of grass ecosystems in the past three decades, exceeding the 2017 restoration target two years early.

The Maryland Department of Natural Resources reports that blue crab, an indicator of the Bay's health, has seen population spikes. Adult females are up 92 percent in 2016 compared with last year, building on population climbs over the past few years. The overall crab population is the fourth highest level in two decades, and builds on last year's 38 percent boost in abundance.

Conclusion

There is more work ahead, but one thing is clear – losing farms and forests is not in the best interest of the Chesapeake Bay ecosystem, the region's economy, or the quality of life for our local communities. Maintaining successful, sustainable working agricultural lands is essential for protecting and restoring the Chesapeake Bay.

NRCS and its conservation partners have worked with farmers in the Bay region for more than 80 years and are committed to continuing the voluntary conservation efforts that are improving water quality in the watershed while supporting a strong, bay-wide agricultural economic sector.

I thank you for the opportunity to be here today, and I will be happy to answer any questions you may have.