Written Testimony From: Ernie Shea, Solutions from the Land

Re: House Bill 542 – Emergency Management – Chief Resilience Officer – Appointment and Duties

Position: Favorable with Amendment 843529/1

To: Members of the Maryland House of Delegates Health and Government Operations Committee

I wish to express support of House Bill 542 with Amendment 843529/1. This amendment will authorize the Maryland Department of Agriculture, Department of the Environment and the Harry R. Hughes Center for Agro-Ecology to develop a feasibility plan to conduct an assessment of Maryland agriculture's vulnerability to climate change. The feasibility plan will include the:

- current state of knowledge, data, and expertise available;
- current and projected climate change threats to Maryland agriculture;
- stakeholders impacted by climate change; key individuals and entities; and
- stakeholders that should participate in the development of a plan and what their respective roles should be

This amendment, in essence, serves as a crucial first step on the road toward beginning a climate change vulnerability assessment for agriculture, which is a useful planning tool to increase the agriculture sector's adaptation to climate change.

The climate around the world is changing and the rate of change is accelerating. Agriculture in the Mid-Atlantic region is particularly vulnerable to these changes. Changes in temperature, precipitation patterns, and sea-level rise individually are significant. Collectively, their impacts will be enormous. For example, in Maryland, these changes can lead to, among others, changes in pest, disease and weed pressure; disruptions in planting and harvesting dates; decreases in quantity and quality of food produced; loss of arable land due to saltwater intrusion; and increased risk of premature bloom of fruit crops.

A climate vulnerability assessment of Maryland agriculture is sorely needed to prepare for, adapt to and protect this valuable industry (and associated jobs) in the state. This state-level assessment can enable a more focused examination of Maryland agriculture's unique assets as well as the challenges the state's farmers and foresters will meet in a changing climate. The tool can improve the decision-making process of planners in generating policies or programs that may increase the resilience of agricultural systems during the occurrence of hazardous events.

California has demonstrated how this can be done. The state published its Fourth Climate Change Assessment in 2018 (the first came out in 2006); state officials say the document translates climate science into useful information for action, presents findings in the context of existing knowledge, and includes both strategies to adapt to climate impacts and key research gaps needed to spur additional progress on safeguarding the state from climate change. The agricultural assessment provides information to build the sector's resilience to climate impacts, including temperature, wildfire, water and sea-level rise.

While I submit this written testimony representing myself and Solutions from the Land, I do want to disclose that I currently sit on the Board of Directors for the Harry R. Hughes Center for Agro-Ecology, which is named in this amendment.