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JOINT HOUSE AND SENATE
AGRICULTURE COMMITTEE
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PROPONENT TESTIMONY
S.B. 1

Good afternoon Chairman Hackett and Chairman Hill, Vice Chairs' Hoagland and Koehler, Ranking Members O'Brien and Patterson, and members of the Joint House and Senate Agriculture Committee. I am John Stark, Freshwater Conservation Director for The Nature Conservancy in Ohio. We appreciate this opportunity to testify on the effectiveness and implementation of SB 1 as passed by the 131st General Assembly in 2015.

The Nature Conservancy is a non-partisan, science-based organization that seeks to conserve the lands and waters on which all life depends. We work collaboratively with businesses, farmers, sportsmen groups, government and local communities to develop pragmatic, market-based solutions to conservation challenges, including water quality. More than 65,000 Ohioans are Nature Conservancy supporters.

SB 1 has been a key vehicle to begin reducing nutrient loading in the Western Lake Erie Basin (WLEB). Additional implementation is needed to continue to meet the 40% phosphorus reduction for the WLEB. The Nature Conservancy supports a mix of regulatory and voluntary efforts to finding solutions for this problem.

Nutrient Management

The Nature Conservancy continues to partner with the agricultural community to promote food security and improve water quality. The Conservancy helped the agribusiness community develop and launch the 4R Nutrient Stewardship Certification Program, a voluntary initiative that encourages nutrient service providers to apply best management practices for fertilizer application. The 4R's of the Nutrient Certification Program refers to using the Right Source of Nutrients at the Right Rate and Right Time in the Right Place. SB1 supports a the 4R component of placing nutrients at the right time.

The Conservancy continues to support provisions to properly apply commercial fertilizer and manure in the WLEB. SB 1 limits application of fertilizers and manure when the ground is snow covered or significant rainfall is forecast. These provisions, in concert with the voluntary, statewide 4R Nutrient

Stewardship Certification program, help strengthen our collective efforts to improve Lake Erie's water quality. These provisions are supported by edge of field research and downstream water quality monitoring that indicates higher Phosphorus loss occurs during winter time and heavy rainfall events. Funding through the Western Lake Erie Basin Regional Conservation Partnership Program also supported additional implementation of SB1 by focusing funding on manure storage.

Other nutrient management practices that are strongly supported by scientific research include the need for expanded soil testing, subsurface placement of nutrients that does not increase tillage intensity or lead to increased sedimentation to watersheds, development of nutrient management plans and subsequent implementation of the recommendations in these plans. Although SB 1 did not address soil testing or nutrient management plans we recommend that these be mandatory in the future. Additional guidance and training could be provided that would allow more flexibility in developing nutrient management plans. As an example, allowing Ag retailers with crop advisors certified in the 4R Nutrient Stewardship to help develop these plans together with farmers will likely result in plans that are better understood and have a greater degree of implementation. Having crop advisors provide this service also could reduce the burden on agency technical staff. Proper soil testing and nutrient management plans will provide better data and guidance to entire agriculture community.

Scientific research in the WLEB indicates that nutrient loss is reduced at the edge of field when nutrients are placed in contact with the soil at the time of application. The Nature Conservancy supports subsurface placement. We also recognize that incorporation, while appropriate for certain farm systems and under certain conditions, may increase tillage intensity and erosion. An important distinction between methods is that subsurface placement techniques use specialized equipment that place the fertilizer using injection, banding or strip tilling to ensure that tillage and sediment runoff is not increased, and fertilizer remains in contact with the soil. To support full implementation of subsurface placement, where appropriate, there is a need for additional equipment and research to ensure wise implementation of this practice and to avoid unintended environmental consequences.

As additional practices are implemented to reduce nutrient loading, it is important that ongoing efforts continue to study nutrient loading in Ohio watersheds. The recently released Ohio EPA Mass Balance Study was a good first step as it indicates the relative contribution of different sources of nutrients. However, it is also important to expand monitoring efforts to multiple points within heavy contributing watersheds as this is critical for earlier determination of nutrient changes. Better monitoring will also result in greater return on investment of nutrient reduction funding and point to potential locations for treatment wetlands or similar natural solutions to remove legacy nutrients in our stream systems.

Natural Infrastructure

SB1 provided support of conservation measures in the WLEB and for funding assistance for soil testing, winter cover, animal waste abatement, and both edge of field and tributary monitoring. While we support the implementation of the 4R's and promote the importance of soil health through use of practices like cover crops, it is critical to ensure funding supports permanent structures and practices that have a multi-year benefit for nutrient management.

Improving water quality throughout the state and particularly in Lake Erie is a high priority for The Nature Conservancy. In addition to working with agricultural businesses and farmers our efforts include

collaborating with public and private partners in leading over a dozen federally funded Great Lakes Restoration Initiative projects since 2010. These efforts and other projects in the WLEB have helped to restore over 1,000 acres of wetlands, remove over 10,000 acres of invasive plants, improve over 1,600 acres of bird and fish habitat and connectivity and water flow. These nature-based approaches are important contributors to restoring Lake Erie water quality, but additional at-scale actions are needed to help reduce the amount of nutrients from the Lake's tributaries and streams into the Lake. Nature plays a vital role in helping to solve WLEB nutrient loading. The Nature Conservancy in Ohio has established a goal to restore 1% of marginal agricultural acres in WLEB into nature-based water quality and flood-handling solutions including wetlands, floodplains, and riparian corridors. Based on recent analyses, in-field practices alone will not achieve the needed nutrient reductions. Edge of field and downstream capture of nutrients through the restoration of nature based solutions is critical to achieving the 40% phosphorus reduction target

Although SB1 and 4R Nutrient Certification programs promote more effective nutrient management, there is currently little focus on adequately managing the water as it flows off the fields or through the tiles after major rain events and down our streams. Science has shown that in years with little rain, the resulting harmful algae blooms are much smaller as nutrients stay in the field and are not transported downstream. As we cannot manage the amount or intensity of rainfall, an integral part of the proposed solutions must include working with drainage engineers/managers to better manage the water runoff. As part of this idea, The Nature Conservancy is exploring alternative fee structures and credits for landowners using conservation practices that benefit water quality in ditch assessments in Michigan.

Additional funding resources are needed to mobilize targeted restoration of natural infrastructure including wetlands, and floodplains to better capture, store, and treat water through drainage network. Many of these natural hydrological structures have been severely modified and no longer provide ecosystem services, such as water storage and nutrient uptake. When restored or modified to capture, treat and store water these drainage networks and natural features are particularly effective at capturing nutrients that reach waterways. Directing current resources and providing additional resources from the Healthy Lake Erie fund, proposed Clean Lake 2020, or a new statewide water quality funding vehicle such as the Ohio Clean Water Fund being developed by the Ohio Farm Bureau Federation, The Nature Conservancy and other Ag interests, NGOs, and water users could target and expand support of additional nature based solutions throughout the WLEB.

Dredge Material

SB1 prohibited the open-lake disposal of dredged material by 2020. It also encouraged the exploration of economic and environmentally feasible beneficial and alternate uses of the materials, such as soil amendments, beach nourishment and habitat restoration projects. These initiatives benefit nature and people by providing expanded recreational, fishing, birding, and hunting areas. The Conservancy supports this policy if the sediments do not contain extremely high levels of nutrients or toxic substances. Utilizing clean sediment in this manner is another mechanism to restore nearshore, aquatic, or submerged habitat areas. To date there has been support for the Toledo Dredge Innovation Center and Cuyahoga bedload interceptor as well as engineering and design plans development for restoration projects in Toledo, Oregon and Sandusky. Additional work needs to be complete to ensure regulations

about where and when the dredge materials can be used are protective of human health in where and how these materials are used.

Conclusion

SB1 made significant strides to address the water quality and quantity issues facing Ohio's freshwater resources, but current research and monitoring show that much more work must be completed. Continued focus on research and nutrient management is needed to help producers make better decisions about applying nutrients and managing runoff from agricultural fields.

We suggest next steps to enhancing SB 1 are to: 1) improve nutrient management through the 4R Nutrient Stewardship Certification, 2) promote the use of nature based solutions to be a component of nutrient management and alternative uses of dredge material, 3) exploration of additional efforts and partners to better manage the water as it runs off the farm fields into our ditches and streams, and 4) require soil testing and effective nutrient management plans in the Western Lake Erie Basin. We also believe that the legislature and state agencies should use the latest research to support any future efforts and consider the full range of partners, including agribusinesses, agencies, farmers, county drainage engineers/manager, and NGOs.

Thank you for the opportunity to provide feedback on SB1. I would be glad to answer questions from the Committee.

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