



Matt Fisher, Vice President
Proponent Testimony on House Bill 33
Senate Finance Committee
May 18, 2023

Chairman Dolan, Vice Chairman Cirino, Ranking Member Sykes, and Members of the Senate Finance Committee. I appreciate the opportunity to provide proponent testimony on House Bill 33, and specifically, the pilot program for legacy/old phosphorus fields included in the House Passed Version. I am Matt Fisher and I serve as Vice President of the Lake Erie Foundation.

The objective of the proposed pilot program is to direct a relatively small portion of ODA's H2Ohio resources to fields that contribute a substantial amount of phosphorus runoff that can be reduced at the edge-of-field. This project would also directly measure the impact of these practices on water quality improvements; specifically, their ability to reduce dissolved phosphorus. We respect and applaud the farmers and landowners that have signed up for H2Ohio agriculture management practices in the last two years. Implementing the initiatives in this proposed pilot program - which will include wetlands, buffer strips, and edge-of-field phosphorus absorption technology - will augment H2Ohio by focusing management on fields where larger reductions will be realized to accelerate gains in water quality.

There are three key points we would like to make in support of this amendment:

1. The focus of this pilot program is to place resources on fields where STP (soil test phosphorus) is greater than 100 ppm. These fields are sometimes called "legacy fields". Currently, most H2Ohio practices are focused on how fertilizer and/or manure are applied within a given cropping season, often called contemporary application. The practices in this amendment do not involve application of fertilizer, but will reduce the movement of "old phosphorus" from legacy fields to streams and Lake Erie. These legacy fields are considered, within this pilot program, to be fields that have STP over 100 ppm. There is currently a study led by Dr. Jay Martin from Ohio State University that is showing promising phosphorus reduction results from fields with high STP (approximately 45% of dissolved phosphorus leaving tile water). This proposed pilot program will expand on Dr. Martin's study, which also identifies how to work with the agricultural community (retailers, crop advisors, and farmers), to locate and direct management to fields that have high levels of "old phosphorus" to reduce runoff and improve water quality. Similar to Dr. Martin's project, field information and locations as well as farmer identities will be confidential, and not be shared. Also like Dr. Martin's project, the management deployed through this program will not impact farming operations or crop yields.

2. Research continues to show that there is no 'silver bullet' for decreasing phosphorus run-off into rivers that flow into Lake Erie. However, this initiative focuses on a significant source of phosphorus that is not addressed in current H2Ohio practices. Published research data highlights that ~10-25% of fields in the Western Lake Erie Basin have elevated STP (>100 ppm) and that these elevated fields typically, although not always, result in higher dissolved phosphorus runoff.

Further, published studies have shown that 70% to over 83% of this dissolved phosphorus from agricultural fields is “old phosphorus”; again, phosphorus NOT applied in a cropping season. Results from Dr. Martin’s research describing how soil texture can be used with soil phosphorus levels to identify fields likely to discharge large amounts of phosphorus will be used by this program to identify fields for management.

Legacy fields leach significantly higher levels of dissolved phosphorus, which drives the formation of annual harmful algal blooms. It is also clear that each field is different. To that point, this pilot study is focused on fields with high phosphorus. We are discussing implementation with an agriculture consulting firm in Bowling Green, and they will work with academics, agriculture retailers, farmers, engineering firms, and/or the Ohio Department of Agriculture to implement and monitor these practices.

3. These legacy fields are not intentionally being studied or managed under the H2Ohio initiative in the same manner that this pilot program will encompass. Of course, there are likely some high phosphorus fields that are enrolled in H2Ohio, but H2Ohio practices focus on the application of fertilizer and manure, instead of managing high levels of old phosphorus already in fields. If we are successful in addressing these high phosphorus fields, we will have further guidance to extend throughout Ohio to accelerate gains in water quality.

To demonstrate the impacts of ‘old phosphorus’ I want to recall 2019 where NW Ohio had significant rainfall in both the fall of 2018 and spring of 2019. This wet fall and spring resulted in a 54% reduction in commercial fertilizer sales and an 85% reduction in the application of manure. Basically, weather conditions required farmers to reduce their application of phosphorus. However, despite these 2019 reductions in application, there was still phosphorus runoff into the Maumee. This runoff, despite less nutrient application, has been attributed to the leaching of old phosphorus. It is estimated that up to 70% of the dissolved phosphorus loads in 2019 was from “old phosphorus”.

Chairman Dolan and Members of the Committee, I appreciate this opportunity and I will take questions that are within my capability or direct to Dr. Martin who is also available for questions.

Brief Recap & Location in Most Recent Version of Budget

- Utilize H2Ohio dollars as effectively as possible that can show objective results.
 - \$4 Million total = (\$2 million in each year of biennium) in House Passed Version of House Bill 33.
- Creates a pilot program to manage water run-off from legacy phosphorus fields. Focus on practices to manage the flow of water rather than on-field practices.
- AGRC5 in Comp Doc on page 35. Fund 6H20 appropriation item 700670 in line 155020 on page 5044 of Sub. HB 33.