On Sunday 3/13/2022 I learned for the first time of Ohio HB 175 To amend sections 3745.114 and 6111.01 and to enact section 6111.011 of the Revised Code to deregulate certain ephemeral water features under various water pollution control laws.

I wish to make it known to members of the Ohio Senate Agriculture and Natural Resources Committee I am opposed to this bill, and in general, any weakening of water pollution control laws, including EPA oversight.

Ephemeral water features are the tip of the hydrological iceberg, and amphibians born and nurtured there that morph from egg to living, breathing creatures are the aquatic version of the proverbial "canary in a coal mine" - recall that amphibians breath through their skin.

Current younger generations may take clean water and air for granted - after all, they've never experienced anything otherwise. Current configuration of the Clean Water Act (CWA) dates to 1972, when Richard Nixon was president. If you know history, perhaps you'll recall an oil slick on the Cuyahoga River near a Republic Steel mill catching fire in 1969, causing some \$100,000 damage to two nearby rail bridges, and not the first time this river saw fire.

Fast forward to Harmful Algal Blooms of the last decade (Lake Erie, Grand Lake St. Marys to name but two), and it ought to be apparent to all that every centimeter of waterway and wetland headlands is of utmost importance. Anthropogenic climate change will only increase these pressures by orders of magnitude.

Passage of HB 175 represents to me retrograde thinking, that we can ignore the health of our waterways, and the beginning of an environmental "death by 1000 cuts" - a slippery slope of reversal of decades of improvement from CWA. And for what purpose, whose benefit? Developers and "development"? To appease a political base? Future generations will rightfully ask "what were they thinking?"

Not to put too fine a point on it, but as I peruse the biography of the bill's sponsor Representative Brett Hillyer (degrees in accounting, and a JD), I see no evidence of expertise in the science of hydrology.

The preservation and health of these ecosystems is inextricably entwined with our own - we ignore this basic reality at great peril. I'll close with some random excerpts copied-and-pasted from websites and academic papers backed by science and the scientific literature, emphasis mine:

"Ephemeral streams and non-adjacent wetlands are critical resources that play a major role in managing floodwaters, filtering contaminants, and providing habitat for our state's flora and fauna."

"The scientific literature unequivocally demonstrates that streams, individually or cumulatively, exert a strong influence on the integrity of downstream waters. All tributary streams, including perennial, intermittent, and ephemeral streams, are physically, chemically, and biologically connected to downstream rivers via channels and associated alluvial deposits where water and other materials are concentrated, mixed, transformed, and transported."

"Despite their seasonal or temporary appearance on the landscape, seasonal and rain-dependent streams are critical to the health of river systems, are hydrologically and biologically connected to the downstream waters, and provide many of the same functions and values as rivers and larger streams."

"Amphibians are among the most susceptible taxa to extended drought conditions because of their reliance on aquatic habitats. Species that breed in shallow, ephemeral waters and species that rely on the presence of surface water for all life stages are particularly vulnerable."

"Many anthropogenic activities (e.g., flow alteration, habitat degradation, water pollution) combined with the spread of invasive species, emerging diseases, and climate change threaten the local habitats and biological diversity of wildlife in Intermittent rivers and ephemeral streams (IRES)."

"The basic physiology of all amphibians makes these organisms dependent on sources of freshwater during part or all of their life cycles. Specifically, these species have permeable skin that must be kept moist to enable gas exchange, and that can lead to the rapid loss of body water and resulting physiological stress in dry environments. Also, most amphibians require standing or flowing water for the development of eggs and aquatic larvae."

Respectfully submitted by Mark T Gilmore, resident of Ohio's Butler County.